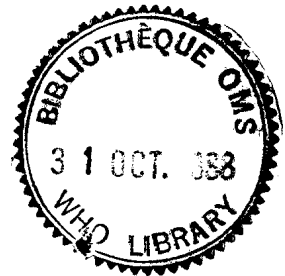


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FERTILITY AWARENESS  
METHODS

Report on a WHO Workshop

Jablonna, Poland  
26-29 August 1986



Note

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## 1. INTRODUCTION

An Intercountry teachers' training workshop on natural methods of family planning in a non-religious context was convened by the Regional Office for Europe of the World Health Organization (WHO) in collaboration with the National Research Institute of Mother and Child (NRIMC), Warsaw, and held in Jablonna from 26 to 29 August 1986. This was the first WHO European Region workshop on natural family planning.

The Workshop was attended by 18 participants from 14 countries. In addition, there were four observers and two lecturers from the host country, four temporary advisers from Europe and the United States and staff from NRIMC, WHO headquarters and the Regional Office. The disciplines of the participants and temporary advisers included primary care medicine, obstetrics and gynecology, paediatrics, reproductive biology, midwifery and nursing, marriage counseling, psychology and sociology. The participants were involved in clinical medicine, research, training, the delivery of health services and administration. The list of participants is given in Annex 7.

The Workshop was opened by Professor Krystyna Bozkowa, Director, NRIMC, and by Dr P.Owe Petersson, Director, Health Promotion, WHO Regional Office for Europe. Professor Bozkowa welcomed the participants and indicated that the Workshop was the result of the Institute's longstanding collaboration and cooperation with WHO in the fields of family health, including family planning. She stated that it was important to reconsider natural methods of family planning in the context of promoting family well-being and the choice of contraceptive methods.

Dr Petersson welcomed the participants on behalf of the WHO Regional Director for Europe, and gave a brief background description of WHO and its activities. He stated that, since its post-war inception, a continuing priority for WHO has been maternal and child health. WHO's orientation has moved in the last 30 years from support of project-oriented activities to policy-oriented work. This culminated at the 1978 WHO Alma Ata Congress on Primary Health Care when it was recognized by member states that health must become the responsibility of all sectors, not just the health sector.

Twelve global indicators of health have been established as targets for attaining WHO's goal of Health for All by the Year 2000. Dr Petersson stated that the countries of the European Region have already reached the global health indicators and, therefore, 38 other targets were worked out as prerequisites for health for the Region. These include the attainment of peace, disease prevention and control, family health, improved quality of life, etc.

Ms Wadad Haddad, Regional Officer for Sexuality and Family Planning also welcomed the participants and acknowledged the excellent collaboration that WHO has had with NRIMC in the field of training in family health and family planning dating back to 1976. She emphasized the importance which WHO attaches to natural family planning (NFP), which is increasingly being accepted throughout the world. NFP is now less often seen only as the last resort for couples who, for religious or other reasons, could not accept the "legitimate" methods of family planning, i.e., the other methods that are promoted by family planning professionals. NFP is seen as legitimate in its own right.

Ms Haddad went on to say that although not yet so frequently promoted, NFP is increasingly accepted as a positive and effective means of controlling fertility, when used correctly, and it is seen as having many positive advantages when voluntarily chosen by a couple. Ms Haddad expressed the view that when there is free and willing choice, by both partners, with positive motivation and without coercion, NFP can be as effective as the so-called reliable methods and may also positively enhance the relationship of the couple.

Effective NFP demands increased awareness of the body and how it works, and this can lead to a greater sense of control over reproductive functioning. People are generally ignorant about the cycle of fertility and reproduction. Fertility knowledge is indeed fertility control. Some couples find NFP useful for planning a pregnancy while other use it for spacing or preventing pregnancy.

Unlike many other methods, NFP is truly a "couple affair requiring male involvement." Without cooperation, NFP will not succeed. It demands the sharing of responsibility and open communication between partners. The periodic abstinence from intercourse, if the intention is to avoid pregnancy, can encourage the couple to experience the many ways there are, other than sexual intercourse, for sharing love, affection and intimacy; and these ways can be both sexual and non-sexual.

Teachers of NFP do not need professional medical training. The most important qualities they need are a belief in the methods as a positive choice, and the ability to teach and support the couple adopting them. The teachers need to be able to communicate easily and openly in order to facilitate good communication in the partnership, and to feel comfortable with the emotional as well as the scientific aspects of family planning. Above all, the teachers need to trust in the ability of the couple to take control and responsibility for their own sexual and reproductive lives. In this respect, Ms Haddad quoted from Thomas Jefferson:

"The ultimate power of society is in the people themselves, and if we think them not enlightened enough to exercise their control with a wholesome discretion, the remedy is not to take it from them but to inform their discretion by education."

Teaching and learning NFP can certainly enhance that "wholesome discretion", that is, the ability to manage one's own affairs healthily and prudently. Indeed, there is a case for fertility awareness being part of every young person's sexual education.

In attempting to redress the balance and validate NFP, one must be careful not to become over-zealous in promoting these methods to the detriment of others. Ms Haddad expressed the opinion that NFP should not be promoted as "natural" and, therefore, by implication better than other methods that are seen as "unnatural" and, therefore, bad.

To suit the variety of individual needs and preferences, the repertoire of the family planning professional must be as extensive as possible and should include all effective methods. NFP will not suit all people. In countries where there are limited resources for teaching and supporting people, NFP may not be practical. In societies and cultures where male sexual instinct is seen as uncontrollable and the goal of sexual activity is seen as male pleasure, natural methods are unlikely to be successful. However, NFP has been shown to work effectively and it is important that we are all prepared to help people who choose to use these methods.

Also included in the Workshop was a discussion of the relationship between the tenets of major world religions and the practice of family planning. The main point being that no major religion is opposed to NFP, while those religions whose principles are not in agreement with contraception represent the strongest allies to the propagation of NFP.

## 2. SCOPE AND PURPOSE

For the most part, the so-called NFP methods, with the exception of breast-feeding, have been the monopoly of religious groups that primarily focus on the values and moral philosophy of its members. Since family planning is a basic human right, all people should have the opportunity to choose from among all available methods, including the natural methods of family planning, the one(s) that most fit their needs and lifestyles, as well as the free choice of institutions providing natural methods of family planning. However, there is a deficiency in the provision of these methods by the mainstream providers of services, such as family planning associations and clinics.

The Workshop was not meant to react in an opportunistic way to the "back to nature" movement, or to denigrate in any way the excellent work that many church-related NFP organizations have performed, but rather to stress the fact that every health professional working in family planning should be knowledgeable about "natural family planning" methods and provide them when requested, or propose them when relevant. At the same time, while it is acknowledged that there is a growing concern on the part of consumers about

the side effects of contraceptive methods, it is not advisable to reinforce this trend which exaggerates the magnitude of the problem. The aim should be that the professionals and services in the family planning field must be able to offer the whole range of available methods with accurate and well-balanced recognition of their advantages and disadvantages, and encouragement of their clients to assume greater responsibility for their own health. This is one reason why training possibilities for NFP should exist outside the religious context.

Concern is also expressed about the way that the concepts of nature and sexuality are dealt with in the current methodology for teaching NFP, and the practicality and acceptability of these methods in relation to differing lifestyles. The Workshop, therefore, was intended to create a greater awareness of the natural methods of family planning as an appropriate health technology which can be used to identify the fertile phase of the menstrual cycle to aid couples in avoiding or achieving pregnancy, and as the basis of education about fertility.

The original intention of WHO was to convene an intercountry teachers' training workshop. However, because of the heterogeneity of the participants, who were nominated by their Ministries of Health, in terms of their knowledge about and experience with NFP, the focus of the workshop was modified. The presentations were oriented more towards information on the state-of-the-art and science of NFP than towards preparing NFP trainers or teachers. Nevertheless, there was time devoted to information and discussion on appropriate curricula and methods for training in natural family planning. Thus, the major intention of the Workshop was to transfer information to the participants so that, upon return to their own countries, they could consider whether NFP should be introduced, or expanded, and how they might go about doing this.

### 3. PARTICIPANTS' EXPECTATIONS

Prior to beginning the technical part of the Workshop the participants were asked to complete a questionnaire developed to ascertain (1) why they had come to the Workshop and (2) what they expected from the Workshop. Briefly, the replies were as follows:

- A. The participants stated that they came to the workshop:
  1. to acquire more knowledge about NFP;
  2. because they were asked by their government to go;
  3. because they wanted to learn more about WHO's attitude toward NFP; and
  3. because they were involved in family planning by profession (doctor, trainer, researcher, and service provider) and wanted to extend the range of contraceptive methods available.

- B. In terms of their expectations the participants anticipated:
1. broadening their knowledge about NFP methods, training, services, effectiveness, psychological aspects and new technology;
  2. obtaining a better understanding of (i) the problems related to providing services and teaching NFP, (ii) the current situation in other countries and (iii) methodological aspects of the techniques;
  3. obtaining information (i) for reporting back to the Ministry of Health, on the benefits and disadvantages of NFP, (ii) to determine if NFP methods can be helpful for infertile couples, (iii) on research needs and (iv) on the applicability of NFP for adolescent sex education programmes; and
  4. determining how to get support (from WHO) to introduce and promote NFP, and to establish policy and training capability.

#### 4. WHAT IS NATURAL FAMILY PLANNING?

Natural family planning is defined by WHO and others as methods for planning or preventing pregnancies by observation of naturally occurring signs and symptoms of the fertile and infertile phases of the menstrual cycle. When NFP is used to avoid or space pregnancy, women and men are advised to abstain from intercourse on potentially fertile days. When used to achieve pregnancy, intercourse during the fertile phase will maximize the probability of pregnancy. NFP methods are also referred to as methods based on periodic abstinence. NFP techniques include the basal body temperature method, the cervical mucus (Billings) method, the sympto-thermal method and the calendar method (Ogino-Knaus). This latter technique is also referred to as the Rhythm method. An important point is that NFP is a technique to determine the fertile period and is not a method of contraception. Rather, abstinence during the fertile period is the method that prevents pregnancy.

The Rhythm method, or calendar method, has its origins in the discoveries of Drs Ogino (Japan) and Knaus (Austria) in the 1920s. They, independently, reached the conclusion that ovulation occurs around the middle of the menstrual cycle, or about two weeks before the next menstruation. Although there are some differences between the methods they proposed, both require keeping records of menstrual cycle lengths and subtracting a certain number, usually 20, from the length of the shortest cycle recently experienced, and 11 from the length of the longest cycle, with the resulting days being the calculated fertile period. Calculation of the fertile period is based on three assumptions: (1) on average, ovulation occurs 14 days (plus or minus 2 days) before the onset of the next menstruation; (2) sperm retain their fertilizing capacity for about 2-3 days [but sometimes up to 7 or 8 days]; and the ovum retains its ability to be fertilized for not more than 24 hours following ovulation.

Almost all NFP providers consider this method outdated. They believe that it should not be taught alone because, unlike the newer NFP methods, it does not reflect physiological changes associated with ovulation and fertility. Because the estimated fertile period in the current cycle is based on the length of previous cycles, any unexpected wide variation in a woman's usual cycle length could result in a miscalculation of the safe period which would greatly increase the chance of an unplanned pregnancy. Furthermore, the method cannot be recommended for use in women with prolonged periods of anovulation such as occurs during the post-partum period, especially with lactation. Very little prospective research has been conducted on the effectiveness of the rhythm method, especially in recent years. From previous studies it appears that the method is about 60-70% effective.

In the early 1900s it was observed that around the time of ovulation, the resting, or basal, temperature of a woman changes from a relatively lower level to a relative higher level. A German parish priest (Wilhelm Hillebrand) was the first person to propose the use of basal body temperature (BBT) as a method of ovulation detection for family planning. The BBT method still remains one of the most quantitative of all available simple methods to detect ovulation. However, the BBT method can not be used to predict the fertile period and is of little use when ovulation occurs very irregularly.

In the 1970s, Drs John and Evelyn Billings, Australian physicians, incorporated knowledge about the effects of estrogen and progesterone on the production of mucus by the cervix into a method for determining the fertile phase of the menstrual cycle. The method, known as the Billings method, the ovulation method or the cervical mucus method, is probably the most popularly promoted NFP method today.

Approaches to identifying the fertile period which use BBT measurement to detect ovulation in combination with changes in cervical mucus, calendar calculations, and/or other parameters, such as mid-cycle pain and bleeding and breast tenderness, to predict ovulation are called the sympto-thermal method. With this multiple-indices approach, if a woman cannot clearly interpret one sign, she can double check her interpretation with another.

The effectiveness of NFP depends greatly upon the woman's diligence in observing and recording the signs and symptoms of the fertile and infertile phases of the menstrual cycle, the motivation of the couple and their joint cooperation in abstaining from sexual intercourse, the couple's family planning intention, the quality of the instruction provided and, to a lesser extent, the regularity of the phenomena monitored to identify the fertile period. The effectiveness of the cervical mucus and sympto-thermal methods is not affected by irregular cycles as is the calendar-rhythm method. With these newer methods, user failures frequently occur because some couples may find the length of abstinence to be unacceptably long and are tempted to take chances during the fertile period. Some well-designed prospective studies of

the temperature, sympto-thermal and Billings methods, including those supported by WHO, have shown these methods to be greater than 95% effective when used correctly. However, because of errors on the part of the users, and some mistakes in teaching, these same studies have shown the methods to be from 60-90% effective in actual practice. A WHO five-country assessment of the Billings method showed that 93% of women motivated to try the method were able to identify the cervical mucus symptom and the fertile period in the first cycle of use regardless of their educational and socio-economic levels and geographical locations.

Uniformity is lacking in the terminology and methodology employed between different programmes providing fertility awareness methods and among the proponents of each of the methods. For example, differences exist in the rules for identifying the beginning and end of the fertile period (e.g., how the temperature shift is identified), in classifying acceptors of the methods and in describing the effectiveness of the methods. Some differences in the rules relate to the degree of contraceptive effectiveness desired; the rules for identifying the fertile period can be more or less conservative (strict or liberal) depending upon the couples' preference for more or less abstinence. In other words, to ensure a greater level of effectiveness, more days of abstinence must be practiced.

Although surveys have shown that the newer and more scientific methods of NFP are more effective than the rhythm method, it is the latter method which is still more widely practiced. It is interesting to note, however, that very little is known about the actual practice of NFP in the European Region of WHO. In fact, considerably more is known about the use, effectiveness and teaching of NFP in the less developed countries of Africa, Asia, and Latin America than in Europe (see Annex 2, item 6).

Numerous reviews have been written about NFP and the reader is referred to the attached List of Working Papers and Background Material (Annex 2) and the Bibliography (Annex 3). For additional information on the details of the cervical mucus (Billings), basal body temperature, and sympto-thermal methods see Annex 4, Modern Fertility Awareness Methods and their Physiological Bases.

During the Workshop considerable discussion evolved around using the term natural family planning to describe these methods. The general use of the term NFP began around 1971 just prior to a research conference on these methods sponsored by the Human Life Foundation and the U.S. National Institute of Child Health and Human Development.

The more descriptive term, "methods based on periodic abstinence", seems to be more generally acceptable to the family planning community at large. In fact, the 1983 IPPF Medical Publication entitled Periodic Abstinence for Family Planning (Annex 2) states:

"The term 'natural family planning' will not be found in this booklet. It is not considered that these methods are entirely natural, as they require abstinence from sexual intercourse for varying times during the menstrual cycle, sometimes for more than half the cycle days."

One argument in defense of the term NFP is that the "natural" in NFP does not refer to sexual behavior, or to the idea that observing ones own mucus discharge or temperature is natural, but rather to the idea that natural physiological signs and symptoms of the fertile phase are being observed. Some proponents of these methods consider the "natural" to mean that nothing artificial, like drugs and devices, are used. Nevertheless, there was a consensus among the participants, with some exceptions, that both the terms "natural family planning" and "periodic abstinence" should not be used. The justification is that:

- (1) there is nothing natural or unnatural about abstinence; the practice of abstinence is culture-bound;
- (2) The word "natural" in NFP implies that other methods are unnatural and, therefore, bad;
- (3) the term "periodic abstinence" or "abstinence" has a negative connotation ("continence" was proposed as an alternative to "abstinence"); and
- (4) breast-feeding is the only true natural method of family planning.

As alternative to these terms, the majority of the participants recommended adopting the name "fertility awareness methods". Synonyms for "awareness", such as "knowledge", "understanding" or "information", could be used when difficulty is encountered in translating the concept of "awareness" into other languages.

The term "fertility awareness methods" has been used by public sector family planning providers the United States for several years. It has a negative connotation among the providers of NFP in a religious context because the term is used by some to condone the use of barrier methods or coitus interruptus during the fertile period. In fact, fertility awareness methods include both "pure" NFP, when abstinence is practiced during the fertile period, and contraception, when barrier methods are used at that time. Fertility awareness, in fact, means self-knowledge of the fertile and infertile days in the menstrual cycle, while NFP is a method that utilizes knowledge of fertility to time sexual intercourse to purposely space, prevent or achieve pregnancy. It was considered by almost all of the Workshop participants that the use of the term fertility awareness method better describes this approach to family planning, and that its use should not present a dilemma when the methods are taught in a non-religious context,

especially in Europe. To be consistent with this recommendation that was adopted by the majority of the participants, the term fertility awareness method will be used in the remainder of this report except when specifically referring to NFP provided in a religious context.

A table of the advantages and disadvantages of fertility awareness methods is presented in Annex 5.

#### 5. SITUATION ANALYSIS: NFP FAMILY PLANNING ASSOCIATIONS

In May 1986 representatives of 20 Family Planning Associations (FPAs) in Europe were asked by one of the lecturers about their own services, and services of other organizations, in NFP. They were questioned on types of service provision as well as training. The FPAs in the following countries responded:

Austria	Germany, Federal	Poland
Belgium	Republic of	Portugal
Bulgaria	Greece	Spain
Cyprus	Hungary	Sweden
Denmark	Ireland	Turkey
France	Netherlands	United Kingdom
German Democratic Republic	Norway	Yugoslavia

The survey of FPA representatives aimed at getting an overview about NFP service and training provision in Europe. It is not necessarily complete and some of the answers reveal rather subjective impressions than hard data. Nevertheless, the results are worth reviewing. [The term NFP will be used in this section of the report because it was employed in the survey instrument used.]

The following questions were asked, with the answers given:

1. Does your FPA offer information and counselling on NFP methods?

Seventeen FPAs answered "yes". Two FPAs (France and Belgium) answered "a little". One FPA (Norway) answered "no" as it has no counselling services (in Norway family planning services are included in the national health service). It should be noted that the presence of information and counselling does not necessarily imply that NFP services are provided and that clients can receive NFP training from the FPA.

2. Does the FPA offer the NFP service: On demand or as a specialized service?

On demand : 17 FPAs (85%)  
 As a specialized service : 2 FPAs (France, Cyprus) (10%)  
 No Service : 1 FPA (Norway) (5%)

The majority of FPAs (85%) offer NFP information on demand. It can be concluded that NFP counselling by the majority of European FPAs is an integral part of the general contraceptive counselling. Again, the reader is cautioned that the term service may only imply information and counselling and not teaching NFP directly to clients.

3. Is the average counsellor in your FPA specially trained in NFP methods?

Nine FPAs (45%) provide special training in NFP methods for their counsellors. These FPAs are in Bulgaria, Cyprus, Federal Republic of Germany, France, Greece, Ireland, Portugal, Spain, and Yugoslavia. Eleven FPAs (55%) do not provide special training on NFP methods.

4. What percentage of your counsellors are trained in NFP?

Six FPAs (Bulgaria, Cyprus, Greece, Ireland, Portugal, and Spain) estimated that 100% of their counsellors are specially trained in NFP. Seven FPAs (35%) indicate that they have no specially trained counsellors. Four FPAs (20%) do not know. Two FPAs (10%) estimate that 50% of their counsellors are specially trained and one FPA (5%) believes 10% are specially trained. These answers are certainly subjective estimations. Still only 30% of the FPAs are convinced that all their counsellors are knowledgeable about NFP methods.

5. Who is providing special training, the FPA itself or other organizations?

In 11 out of 20 European countries (55%), FPAs are engaged in providing special training in NFP methods in contrast to seven countries (35%) where only "other organizations" are responsible for special training.

6. Who else is providing NFP services in your country?

Austria : Catholic Church-related organisations and family doctors  
 Belgium : Catholic Church-related organisations  
 Bulgaria : governmental services  
 Cyprus : minority of gynaecologists  
 Denmark : minority of gynaecologists  
 France : Catholic Church-related organisations  
 German Democratic Republic : none

Germany, Federal Republic of	: Catholic Church-related organisations and women's health centres
Greece	: medical doctors and state centres
Hungary	: Catholic Church-related organisations
Ireland	: 12 organisations of which four exclusively provide NFP and Catholic Church-related
Netherlands	: women's health centres and some family doctors
Norway	: included in public health service
Poland	: Catholic Church-related counselling centres
Portugal	: Catholic Church-related organizations
Spain	: no reply
Sweden	: none
Turkey	: government
United Kingdom	: some National Health Service clinics and Catholic Church-related counselling organisations
Yugoslavia	: no reply

Catholic Church-related NFP services exist in nine European countries surveyed. In general, the FPA and church-related services co-exist but seldom cooperate. In some countries, with strong women and health movements, feminist and ecological groups and institutions are involved in NFP. Other significant providers of NFP are government health services and medical doctors.

This small survey about the extent and type of NFP services in Europe reveals differences and deficiencies in service provision and training of professionals. In Europe, there are mainly two types of NFP services. One is the "monocultural" Catholic Church-related NFP service, whereas the other type is integrated into the FPA, medical or general health service system. Further training for professionals is either provided as a specialized training on NFP only or NFP training is integrated into the general family planning methods' training. This situation also implies that the potential NFP user may have little choice in where NFP services can be obtained since both types of services are seldom available in one country.

## 6. CONCEPTS OF NATURE AND SEXUALITY

Sexuality is an integral part of the personality of everyone: man, woman and child. It is a basic need and aspect of being human that cannot be separated from other aspects of life. Sexuality is not synonymous with sexual intercourse, nor is it the sum total of our erotic lives. These may be part of our sexuality but, equally, they may not. Sexuality is so much more: it is in the energy that motivates us to find love, contact, warmth, and intimacy; it is expressed in the way we feel, move, touch, and are touched; it is about being sensual as well as being sexual. Sexuality influences thoughts, feelings, actions, and interactions and thereby our mental and

physical health. Since health is a fundamental human right, so must sexual health also be a basic human right (1).

A 1975 WHO report (2) defined sexual health as "the integration of the somatic, emotional, intellectual and social aspect of sexual being, in ways that are positively enriching and that enhance personality, communication and love."

The report states that the right to sexual information and the right to pleasure are fundamental to this concept. The report cites three basic elements of sexual health:

- a capacity to enjoy and control sexual and reproductive behaviour in accordance with a social and personal ethic;
- freedom from fear, shame, guilt, false beliefs and other psychological factors inhibiting sexual response and impairing sexual relationships;
- and freedom from organic disorders, diseases and deficiencies that interfere with sexual and reproductive functions.

It became evident during the Workshop that the prevailing ideas about sexuality are of far more importance than the concept of nature that is used in relation to fertility awareness methods. Behind our views of the concept of "natural" in NFP are our ideas, convictions and feelings about sexuality. Because of this, one can try to crystallize from the discussion, and from the available information on fertility awareness methods, a number of divergent concepts of sexuality and to relate them to the concept of nature as it is used as the background for NFP practice.

Three concepts of sexuality, from most conservative to least conservative, should be considered:

1. Sexuality as a human drive that has to be controlled unless it is directly related to procreation.
2. Sexuality as a human drive one cannot deny and one should not suppress in order to stay healthy. Therefore, one has to express one's sexual feelings or to sublimate them.
3. Sexuality as an integral part of one's physiological, psychological and social development and as a crucial factor, regardless of age, in the expression of emotions, personal fulfillment and in the satisfaction with life one experiences individually, or in relation to other persons.

The first and third concepts were the most prevalent ones in the workshop discussions, although one can not neglect the impact of the second concept of sexuality on our own education. The meaning of these two extreme concepts (1 and 3) in relation to NFP can be viewed as follows:

- A. If one has the concept of sexuality as a drive that should be controlled, then NFP assumes:
- There is a married couple.
  - They already built up a family or intend to space the number of children desired.
  - Intercourse is the prevalent and by far the only accepted way of expressing physical sexual feelings.
  - The couple, and in particular the husband, has the right to perform the marital act whether they intend to space or to limit the number of children.
  - In the event that an unplanned pregnancy should occur, the couple would keep the child.
  - The couple will mostly agree with the religious context (philosophy) in which NFP methods are taught.
  - Abstinence from intercourse is in accordance with the conviction that intercourse which excludes the possibility of conception is sinful and, in principle, should be avoided. But as it is hard for a married man to abstain too long, and in order to prevent him from visiting prostitutes, he is allowed to have intercourse sometimes.
- B. If one has the concept of sexuality as an integral part of a person's life and as an expression of emotions and feelings crucial for his or her personal development, then fertility awareness practice assumes:
- There is a person, a woman, that may or may not live with a partner.
  - The woman may or may not have a family; in fact she can be a girl or a woman of any age.
  - The woman's lifestyle can show a wide range, and change over time.
  - The woman may opt for fertility awareness methods for religious reasons, for health reasons, for feminist or for other reasons.
  - If the woman chooses fertility awareness as a contraceptive method, an unintended pregnancy may or may not be terminated prematurely.
  - The fertility awareness teachers are willing to refer women for pregnancy counselling or to an abortion clinic if requested.
  - Fertility awareness methods can increase male involvement but this is not necessarily an advantage of the method per se.
  - Abstinence from intercourse during the fertile period does not necessarily create problems because intercourse is not the only way of expressing physical sexual feelings.
  - The particular woman and man can resort to other contraceptive methods (barrier methods, etc.) during the fertile period, and be supported in their decision to do so.

Within the context of WHO, in general, and in the context of this Workshop on NFP in a non-religious context, one must consider the validity of the latter concept and, thus, the need to structure the provision of the methods in a manner conducive with this concept.

## 7. FERTILITY AWARENESS METHODS AND NEW TRENDS IN LIFESTYLES

The hypothesis put forth by the Workshop faculty was that institutionalized family planning, in general, has not sufficiently considered the changing lifestyles of women and men. As family planning should be for the benefit of women and men, professional family planning providers must consider the particular way of life of their clients and how this impacts on both family planning methods and services.

### A. What is meant by lifestyles?

"Lifestyles are intimately bound up with values, priorities, and practical opportunities or constraints of specific cultural, social and economic situations. A person's particular way of life is shaped by patterns of interpersonal interaction and social learning that interrelate with, and depend upon, the social environment. There are limits to the choices open to individuals, limits imposed by their physical, social and cultural environment, and by their financial means." See Targets for the health for all, WHO Regional Office for Europe (3).

Looking at family planning literature, the lifestyle dimension is touched upon through socio-demographic categories such as age, marital status, number of children, educational level and occupation. Lifestyle issues are not dealt with in a historical sense as they are seldom analyzed as changing phenomenon with changing significance for a particular lifestyle and a particular choice of a contraceptive. For example, unemployment in a consumer-oriented society has different impacts upon one's lifestyles and contraceptive preferences than unemployment in post-war Europe.

In the fertility awareness method literature, the lifestyle dimension appears primarily as "special circumstances" such as adopting these methods:

- after stopping the pill
- during the premenopause
- after child birth/during breast-feeding

In contrast to the general family planning literature, the NFP literature places a much greater emphasis on the individual components (the individual woman or couple), and hardly on structural influences on contraceptive behaviour.

In order to measure realistically the significance of family planning methods for particular lifestyles, one should consider changes in the lifestyles of women and men. By looking at various changes in the lifestyles of European women and men, one can evaluate how recent trends may relate to one of the apparent essential components of NFP, that of the stable, loving and harmoniously communicating couple.

B. Trends in different lifestyles:

1. Living with children within a legalized marital relationship

Since the mid-1960s most European countries have experienced a continued fertility decline. Despite the general birthrate decline, fertility still varies considerably between the different European countries.

There are mainly four country groups among the member states of the Council of Europe (4) to be distinguished in terms of total fertility rate (TFR - average number of children born to a woman during her life time):

a. Peripheral countries (TFR)

- Turkey (5.1)
- Ireland (2.6)
- Cyprus (2.5)
- Iceland (2.1)

b. Countries with a birthrate less than 20% under replacement level (TFR)

- Malta (2.0)
- Portugal (2.0)
- Greece (1.9)
- France (1.8)
- Spain (1.8)
- United Kingdom (1.8)

c. Countries with a birthrate 20-30% under replacement level (TFR)

- Norway (1.7)
- Sweden (1.7)
- Belgium (1.6)
- Austria (1.5)
- Italy (1.5)
- Netherlands (1.5)
- Switzerland (1.5)

d. Countries with a birthrate more than 30% under replacement level (TFR)

- Denmark (1.4)
- Luxemburg (1.4)
- Federal Republic of Germany (1.3)

There are no clear signs of a foreseeable reversal of present demographic trends in these countries. In relation to family planning this means that more and more couples will live with fewer children and the necessity to

regulate fertility will increase. Population scientists estimate that in the near future 15% of the female population in Europe will be childless, 20% will have only one child and only 4% will have four or more children.

## 2. Consensual unions

The member states of the European Council are observing a growing rate of consensual unions. Overall census data are not available yet as consensual unions are not registered. Furthermore, there exist different forms of consensual unions, such as married-to-married, unmarried-to-unmarried and unmarried-to-married. In Denmark and Sweden, 29% of women aged 20-25 years in 1975 lived in consensual unions. Ten per cent of women aged 25-30 years in Denmark, and 17% in Sweden, live in consensual unions. In the Federal Republic of Germany it is estimated that in 1980 between 5 and 10% of women aged 20 to 29 lived in consensual unions.

## 3. Marriage and divorce

People continue to marry although the marriage rate is slightly decreasing. On the other hand, a dramatic rise in the divorce rate has been observed since 1965. In many countries the number of divorces have doubled, tripled or quadrupled since 1965. Annual statistics reveal that more than one-quarter of all marriages end in divorce in almost all Northern, Central and Western European countries. At the same time, a general decrease in the average duration of marriage ending in divorce is observed.

## 4. One-parent families

It is estimated that in most industrial countries each ninth child is living in a one-parent family. In the Federal Republic of Germany the number of one parent families rose from 6% in 1971 to 12.8% in 1980. One-parent families are a result of death, divorce or separation, and children being born out of wedlock. Today, divorce is the main cause of one-parent families. In the one-parent family structure gender specific role division is not so distinct. More and more of it becomes a lifestyle in itself. It is less and less a transitory life phase prior to remarriage. Sixty per cent of the women in one-parent families in the Federal Republic of Germany (5) do not want to remarry (72% of the divorced women) in contrast to 44% of men.

## 5. Other lifestyles that affect family planning include:

- a. Changes in sexual lifestyles and practices. See also Schmidt (6).

The liberalization of sexual behaviour during the past two decades has resulted in significant changes in sexual lifestyles and practices. The majority of European women and men of today have premarital sexual relations. Gender differences in behaviour such as age at first

intercourse, partner changing or out of marriage sexual relations are steadily decreasing. Discussions about AIDS have revealed that oral and anal sex have become an integral part of "normal" heterosexuality. Masturbation has been depathologized and is generally accepted. Though women and men have tried to understand their different sexual needs and desires, sexual violence against women, including rape in marriage and sexual abuse of children, especially of girls, remains a reality.

b. New concepts of motherhood and fatherhood.

Since the late 1960s fathers have become a popular research and discussion topic. The reasons for this are manifold, including the changing perceptions of women's maternal and domestic roles, the increase of single-parent families headed by men, and the spread of unemployment as well as the increase of women at work. It is not clear yet where this new sensitivity towards fatherhood may lead. As fathers still provide little in terms of childcare, it is doubtful whether the "new fatherhood" will contribute to changing sex roles and a changing division of labour between women and men. It may be expressed as an attempt to compete with women and try to displace them in an area in which they have been relatively autonomous.

"New motherhood", as well, has become a discussion and research concern. So far there is little research evidence on distinct changes in motherhood except for the trend towards late motherhood. Especially in Western European countries (e.g. Federal Republic of Germany), the number of women having their first child in their thirties or later is increasing.

c. Healthier living

Over the past 20 years there have been great changes in peoples' attitudes towards health and medical care. In Western and Northern Europe the population is faced with a plurality of social experiments and approaches to work which aim at achieving a healthier living, based on more self-reliance and responsibility and less professional domination.

The increase of health knowledge (e.g., the negative side effects of some modern contraceptives) as well as growing body awareness still have not resulted in healthier family planning practice. For example, the pill is still the first method of choice in most European countries. The use of fertility awareness methods does not play a significant role in family planning practices. Also, already existing home birthing practices and breastfeeding have not increased significantly. The idea of healthier living is still more of an attitudinal than a behavioural process.

In summary, since the mid-1960s European countries have been experiencing a decline in fertility which has below replacement reproduction in most countries. This trend has been accompanied by the rise of alternative ideas to Western ideas about traditional marriage, womanhood and the concept of individual well-being. Disinterest in marriage is growing. Divorce, consensual union, and one-parent families are becoming more frequent. Furthermore, during the past 20 years the dramatic rise of female employment, and the development of modern contraceptives, has opened, for the first time in history, new dimensions of womanhood, emancipation and self-realisation which are radically conflicting with the traditional role of women as the main care, love and health provider in the family.

Sexual liberalization, the women's movement, and the new ecological consciousness have added to the development of a "new sensitivity for personal well-being, status achievement, and possibilities for personal development. In most areas of life, quantitative norms are being replaced by qualitative ones" (7).

All current trends seem to be operating in opposition to the traditional mode of family building. The stable life long couple relationship is diminishing. Many women and men will live a series of changing lifestyles during their lives. As the couple relationship has become a compensatory system of sexual and emotional needs, it will continue to be more and more vulnerable.

European experts on lifestyle, women and fertility issues agree that women's growing active role in the private, labour and public sectors, as well as their emerging self-esteem and striving for autonomy and self-fulfillment, cannot be reversed anymore. Therefore, if family planning should serve women's and men's lifestyles it has to be highly flexible, variable and emancipatory. A monocultural orientation does not seem appropriate for the diversity in lifestyles and accepted patterns of behaviour that exist now. In relation to NFP, it appears that its couple-orientation, as well as its fixation on women's traditional procreational role, will limit the spread of NFP. Unless changes occur in the way fertility awareness methods are provided and taught, they will remain as methods for a minority lifestyle, characterized by a life-long monogamous marital relationship.

If fertility awareness method providers do not consider the irregular, discontinuous and more autonomy-oriented lifestyles of single individuals, the method might not succeed to spread its enormous potential of body awareness in a phase of societal development, where women and men are growing more interested in their physical, psychological and social well-being. Yet, with AIDS spreading also among heterosexuals, the necessity to adapt NFP to changing lifestyles is further complicated. For some people, practising abstinence during the fertile period will not automatically free couples from using the condom during the infertile period.

## 8. SOCIAL ASPECTS OF FERTILITY AWARENESS METHODS

Most NFP programmes began as social or religious movement with distinct value orientations. These programmes have slowly evolved to a situation where NFP is becoming institutionalized. Institutionalized NFP is primarily provided within a religious context. However, as noted previously, fertility awareness methods are also occasionally offered within the Family Planning Association (FPA) context, the government health sector, and within the feminist context.

Thus, today, fertility awareness programmes can serve a wider range of clients, not necessarily too homogeneous and possibly with different value orientations and different lifestyles. However, for these methods to be more widely available, and offered as a contraceptive option, the traditional NFP services will have to change. This is particularly the case if NFP proposes to meet the needs of a diverse heterogeneous clientele.

For the most part, it appears that NFP information and teaching programmes are still geared at a homogeneous group with specific value orientation. The key figure is the woman. The woman is seen as part of a couple and, primarily, as part of a married couple. She is frequently defined in relation to her male partner and not as an independent person. She is also seen in so-called "special situations" such as lactating, post-pill, pre-menopause or wanting to conceive. Her potential is linked to her body and especially to her fertility, a rather suppressed dimension among women using, for example, the pill or the IUD. The women's life seems to take place within the triangle of husband, woman's body and children. This image of female existence might be true and acceptable for a group of women, but is it true for the majority of women in Europe today?

In all European countries women's employment has risen since the 1960s. The most distinct change is the dramatic rise in the employment of married women; it has risen up to 60% in some European countries. As never before, institutionalized family planning in Europe is primarily dealing with women and mothers in paid employment. Therefore, the relationship between the employment and unemployment rates, areas of work of women, the requirements of NFP in terms of regularity, discipline and motivation, and the effects of lifestyles need to be addressed by organizations providing family planning services and counselling. Issues such as the female employment rate in a given country or setting, whether certain vocations (e.g., those requiring shift work) might interfere with the use of specific family planning methods and the influence on the effect that employment has on a woman's contraceptive practice (is greater or lesser effectiveness required?) have to be considered as well.

Though adaptations of NFP programmes to the specific situation of working women and mothers are required, some critical questions are arising. Growing long term unemployment has become reality in several European countries.

Migration is an integral part of the lives of many European women and men. The triple load of work, household chores and childcare applies to most European women. Is it not also necessary to ask in which life circumstances the use of a certain family planning or fertility awareness method might represent an additional social and psychological burden for women rather than a relief?

## 9. PSYCHOLOGICAL ASPECTS OF FERTILITY AWARENESS METHODS

The psychological development of human beings takes place within the context of historical, cultural, social and familial determinants. When one speaks about the psychological aspects of family planning it should be realized that one cannot abstract individuals and individual behaviour from their history, culture, society and family life, or from the role that family planning in general, and fertility awareness methods, in specific, play in relation to a particular history, culture and society. Since the Workshop pertained primarily to the European Region of WHO, this section of the report will focus on Europe, in general, and the Netherlands, in specific.

### A. Historical background of (natural) family planning in the Netherlands

People everywhere have always tried to regulate their fertility. Apart from infanticide, neglect and abortion, other means and methods have been applied to prevent the undesired consequences of intercourse. In the Western European culture, contraceptive measures were originally almost exclusively used outside marriage. During the eighteenth century they became more commonly used within married life. This led to a drastic decrease in fertility rates in the nineteenth century, at first in France and later in the rest of Europe, including the Netherlands. In the Netherlands, however, this decrease was less striking because of the resistance against the growing movement in favour of birth regulation. Doctors were the most fierce opponents of neo-Malthusianism. They used the media to publicize what they saw as a link between contraception and abortion. This meant that any medical doctor advocating contraception was risking his reputation.

In 1930, a Dutch family doctor, called Smulders, living and working in a Roman Catholic community, introduced a method of natural family planning slightly different from the one that had been developed by Ogino and Knaus. He developed and refined his method by making a special individual prescription for every woman. He based his prescription on the length of the menstrual cycle, and by the mucus pattern and other bodily changes. In a time when doctors and priests were very much confronted with the misery and ill-health of mothers and children, and with the poverty of so many people unable to set limits to the number of children they gave birth to, Dr Smulders's method became very popular in some medical and Catholic circles. Serious conflicts within both the medical and Catholic communities ended in the conclusion that morality in marriage remained a religious question while the care of patients and instruction in periodic abstinence was

the task of the doctor. In the mid-1930s this meant the break-through in the negative medical attitude towards fertility control.

It is generally accepted that before the 1960s, contraceptive services in the Netherlands were not an integral part of the health care offered by a general practitioner. Neither was family planning at that time a subject in the medical curriculum. Fertility awareness methods at the national level have been responsible for a dramatic decrease in the Dutch fertility rate. Roman Catholics have been using NFP methods as the only accepted methods of fertility control. It is impossible to assess accurately the demographic effect of these methods because of the growing use, at the same time, of the diaphragm and condom by others than Roman Catholics, and the effect on fertility of coitus interruptus, delayed marriage, intentional celibacy and abstinence practiced in some socio-economic groups.

Since the 1960s, fertility awareness methods have become less popular with the introduction of the so-called modern contraceptives of which the pill is the most prominent example. For the purpose of demonstration the following case of one Workshop participant, brought up in a Catholic family, was presented.

"My grandmother married in 1921 and had 17 children (out of 20 pregnancies). Her birth control method was being pregnant and breast-feeding. My mother married in 1948, had five children (out of seven pregnancies). She used the temperature method. My own generation (five children) can resort to virtually every contraceptive method. At this time my mother has three grandchildren and there probably won't be more. I have one child. From 17 to 5 to 1, dramatic, but as you could possibly imagine, this is not too much regretted by the current generation of women."

In 1976, the Netherlands led the world in the prevalence of use of oral contraceptives. Not less than 41% of all Dutch women between the ages of 15 and 44 used this form of contraception. At the time, 52% of all Dutch women aged 20 to 30 used the pill. Since then, the situation has changes rapidly. Many women and men turned to sterilization. The IUD was also partly responsible for the decrease in pill use. In particular, women aged 30 and older turned away from the pill.

With the development of modern contraceptive methods, in particular the introduction of the pill, and later that of sterilization and IUDs, fertility awareness methods became less popular. The growing secularisation, the changing attitudes toward sex within and outside marriage, the greater openness about sexuality and the association of NFP methods with the doctrines and rules of the Church, with being conservative and not modern, led to an unfavorable attitude towards these methods.

Another strong argument used against these methods was their perceived unreliability. In the early 1970s, the first independent abortion clinics started their services in the Netherlands. Women who turned to these clinics for an abortion, explaining they had been relying on periodic abstinence, were considered by not a minority of the clinic-personnel as having taken risks or having been a bit silly. What sane woman could ever rely on such an obsolete method of fertility control while there were so many 'modern' and 'safe' alternatives? That is what was thought.

Most people no longer considered fertility awareness methods as serious, reliable ways of preventing pregnancy. This was only confirmed when, in 1971, it was decided that the medical insurance funds would refund the costs of the pill, the IUD and the diaphragm. From a psychological point of view this meant that for many people NFP methods fell into oblivion because:

1. One associates them with the prohibitions of the Church. In a time of secularisation many people turned away from the Church and from standards and values so closely related to it such as procreation as the main significance of marriage and NFP as the only accepted method of birth regulation.
2. The development of modern contraceptives went hand in hand with a greater openness to sexuality and sexual practice that was not confined to married life. The idea that sex and intercourse meant pleasure and that it should be enjoyed at any time without major consequences had a negative effect on people's confidence in and commitment to NFP methods.
3. The promotion of the methods was almost absent in comparison with the massive campaigns promoting the pill. One really needed strong arguments to prefer NFP over the pill.
4. Young and modern married couples did not want to live as their parents had done until then, i.e., being thrifty, denying themselves and their children certain pleasures, and being chaste. They wanted to live differently, worry less, have more pleasure and the satisfaction of the here and now. Fertility awareness methods did not fit into this scheme very well.
5. The younger generation never got the chance to get acquainted with the NFP methods because where they had not yet fallen into oblivion, they were practiced in silence.

B. Some psychological concepts in relation to fertility awareness methods

The following relevant psychological concepts are vital to discussing to what degree these methods can contribute to the psychological well being of women and men, their sexuality and their partnership:

1. Self-awareness and body awareness

Within the context of fertility awareness, self-awareness and body-awareness refer to the degree women and men are conscious of, and open to, their feelings and emotions; the way they want to express them; and the functioning of their body and its meaning. What does the literature say about this topic?

Anna Flynn and Melissa Brooks (Annex 2, item 2) put it this way:

"Fertility awareness is not only important in the context of family planning, but also as a general educative process which can help at all stages of life. Teenagers during puberty are undergoing rapid and profound physical, psychological and emotional changes and have difficulty understanding themselves, let alone being understood by others. An awareness of the developmental processes underlying these changes can go some way towards helping them adjust to their jumbled emotions and live in tune with their bodies. It can also increase understanding between partners in a sexual relationship. A woman's moods and emotions often spring from the rapidly changing hormonal levels at different times in the cycle. Men are not subject to the same hormonal fluctuations and so generally sail a less stormy sea. An awareness of their different but complementary fertility and sexuality can greatly enhance the quality of the couple's relationship."

Few women realize that they are able to conceive for only a few days each month. It is the opinion of Dr Billings that "Natural Family Planning Methods highly encourage women to develop self-knowledge and to accept responsibility for themselves".

Bell (8) is in favour of natural family planning from a feminist viewpoint related to awareness of the body: "Since accurate observation and assessment of mucus depend only on interpretation by the woman herself, she can completely de-medicalize the birth control process, keeping it entirely in her own hands and out of control of the medical profession."

A different comment comes from the IPPF which states in its document on natural family planning methods (Annex 2, item 4):

"Some women are unhappy at the idea of feeling their own genital organs. This method is then unlikely to be appropriate for them, unless sensation alone is enough for them to recognize changes in mucus."

On this subject, however, the literature, is almost completely devoid of information on the degree to which women and men are aware of their sexual feelings and of the variety of ways to express, rather than suppress them. This expression may or may not include intercourse. If this awareness is low, feelings suppressed, or their expression is unacceptable, then it is unlikely that NFP will be a satisfactory contraceptive method.

## 2. Perception and attitude

Perception and attitude in the context of fertility awareness refer to the way people perceive their own sexual feelings and those of others (see section on the Concept of Nature and Sexuality) and they refer to the biological and societal roles attributed to men and women.

Bell (8) states this as follows:

"...when natural birth control information is presented along with a restrictive set of values about women's biological functions and roles in society and the family, natural birth control reinforces women's oppression. When this information is presented as a wholesome form of birth control without challenging the oppressive assumptions which shaped the development of these methods, women gain an important birth control option but the Catholic assumptions continue to be perpetuated. When this information is used as a self-help tool, it expands not only the birth control choices available to women but also our abilities to de-medicalize and control our own bodies and our reproductive lives."

## 3. Motivation

The importance of a positive motivation towards NFP is stressed by virtually all authors as a crucial factor in its success and reliability. The main questions are: Are people motivated to avoid pregnancy when resorting to NFP and is the couple clear about their mutual motivation? Ambivalence appears to be the best guarantee for a high unplanned pregnancy rate. The IPPF report (Annex 2, item 4) states:

"Motivation is an important factor in the effectiveness of any form of family planning. Nowhere is it more important than in the practice of periodic abstinence with its daily decision-making process on the part of both partners, and periods of abstinence from sexual intercourse which at times may be prolonged. This is clearly reflected in the difference in effectiveness between those who want no more children, having completed their family size, and those who are only seeking to space births. Use-effectiveness is more than twice as good in those who want no more children than it is in those spacing their family."

It would appear that the strength of the motivation is dependent on experience. Good personal experience gives confidence in the method and encourages continuation. Bad experiences of your own, or of others you know, or the negative associations about NFP will result in lowered confidence and weakened motivation. Nevertheless, it was pointed out that many couples who experience an unplanned pregnancy while using NFP state that they will use the method again after childbirth; these are usually the couples who knowingly "took a chance" during the fertile period and know that the method can work if the rules are followed.

#### 4. Intelligence and learning

Are women intelligent enough to learn and to remember the instructions given to them in order to successfully practice NFP? The learning of it seems not to be difficult, especially when the woman is motivated to use the method. Illiterate women have proven that they can learn it. WHO-supported studies have clearly demonstrated this (Annex 2, item 11). What appears to be crucial is the quality of the teaching women receive and the teacher's attitude, the sex of the teacher, and the user's attitude towards, and experience with, the method.

#### 5. Behaviour

Medina (9) concluded in their comparative evaluation of the Billings method versus the sympto-thermal method research study in Colombia that:

"Natural methods are behavioural methods, and the use-effectiveness rates are probably related directly to the degree of motivation of the couple to observe coital abstinence and to follow the instructions of the method."

A different reference to the behavioural aspect of the method is made by IPPF (Annex 2, item 4):

"Another disadvantage of periodic abstinence (methods) concerns those couples where the man spends a long time away from home (e.g. migrant workers, members of the armed forces). His reappearance may coincide with the fertile phase of the cycle, and abstinence is unlikely to be acceptable to either partner in such a time."

What is vital in the behavioural sense is: Even for the well taught and motivated, are the partners physically able to behave in accordance with what they learned? Any kind of forced sexuality within and outside a given relationship is hostile to the success and continued use of fertility awareness methods.

## 6. Personality

This concept refers to the dependency or independency a particular woman is able to show in her contraceptive choice. Is she able to decide for herself which contraceptive method she will use or is she strongly under the influence of a partner's opinion and consent, parents' consent, moral teachings or public opinion? Is she able to take care of herself and is she strong enough to avoid intercourse during her fertile days even when a sexual partner does not agree with her arguments?

## 7. Conflict and adjustment

These concepts refer to the competence of the people who practice NFP to readjust their contraceptive behaviour in the case of intrapersonal or interpersonal conflicts arising from, or connected with, the method they actually resort to.

## 8. Satisfaction

In order to be effective it is very crucial for a family planning method to be a satisfying one, in an absolute or a relative sense, for the woman and man who chooses it. It should, therefore, fit in with her and her partner's idea about spontaneity and with the context in which they want to make love.

## 9. Fear and frustration

If the method arouses fear of pregnancy on a regular or a continual basis, or dissatisfaction with periodic abstinence, then it will cause frustration and affect sexual pleasure. This might be the case if, in the past, the method has ever failed to prevent a pregnancy in a given woman who used it correctly, generating fear and anxiety for another failure in the future.

## C. Recent interest in fertility awareness methods and factors playing a role in the decision-making process

There is some evidence for a newly developed interest in these methods, although exact figures about the extent of this interest are not available. As far as it can be ascertained, this interest comes from women who are closely related to the feminist health movement, the movement of critical health consumers or to the ecological movement. Many women and men already have a long experience with different "artificial" methods of fertility regulation. They are looking for other methods. The question for them is, "Are there better methods"? The same type of reasoning and questioning occurs in people who choose natural child birth, home delivery of children, breast-feeding and natural food diets.

Who is the woman who is looking for a new contraceptive alternative?

- She can be a woman who took the pill for ten years, had an IUD for another six years, who is not satisfied with either method and does not want a sterilization, but contraceptive measures are necessary.
- She can be a woman who does not find hormonal or mechanical methods of family planning acceptable for religious, medical or other reasons.
- She can be a woman who does not want full-time protection for an incidental act of intercourse.
- She can be a woman with any of the former reasons who wants to get pregnant after a certain interval.

#### 10. FERTILITY AWARENESS TRAINING AND SERVICES

##### A. Training

Since the fertility awareness methods are not dependent upon drugs and devices, but rather upon knowledge about physiology and the phases of the menstrual cycle, they require an educational delivery system. The advocates of these methods stress that their success is largely determined by the quality of the instruction provided. It is this factor that not only prepares women to properly identify the signs and symptoms of fertility and infertility, but that motivates the couple to use the methods properly in accordance with their family planning intentions, e.g., to abstain during the fertile period if pregnancy is not desired.

To deliver fertility awareness methods, training is required primarily at two levels: teachers or instructors must be trained and users must be taught the methods. Thus, training programmes need to be established to train the teachers and for the teachers to instruct users. A third level of training, i.e., the training of trainers is also required especially if the method increases in popularity and large cadres of teachers are needed to meet the demand.

As stated in the Scope and Purpose section, this Workshop did not attempt to train the participants to be teachers of fertility awareness methods. Thus, attention was devoted to a more general discussion of training, and the participants were advised to seek direct assistance from master trainers in these methods should they wish to establish or expand existing fertility awareness programmes in their home countries.

Several of the workshop participant had extensive experience in NFP; they summarized their views about teacher and user training programmes. Briefly, it appears that the best teachers are, or have been, users of NFP, or women who have monitored their own signs and symptoms of fertility. As teachers

gain experience, it appears that the success of the couples they teach improves, e.g., couples taught by new teachers usually have a higher unplanned pregnancy rate than those taught by experienced teachers.

Experience has shown that it usually takes a new learner about three cycles of use to gain an understanding of the method taught and the ability to monitor, record and interpret the fertile and infertile phases correctly. Also, user "autonomy" in terms of identifying fertile and infertile days, timing intercourse to successfully avoid or achieve pregnancy and understanding that there are situations that require additional help in using NFP, usually takes from four to 12 months, or cycles, of practice to achieve.

Many fertility awareness programmes state that involvement of the husband/male partner in training may be essential for the success of NFP. Although intuitively this seems correct, research has not been conducted to demonstrate this requirement. Furthermore, most of the training materials available are directed at female learners, or couple learners, and materials usually do not exist that are especially directed at the male partner.

In terms of the requirements of a training programme for teachers and users, several factors need to be addressed. These include the criteria for selecting candidate teachers (e.g., women committed to seeing the method work and/or to offering fertility awareness as an acceptable alternative to, or along with, other methods); the content of the curriculum used for training teachers and users (e.g., the WHO-produced Family Fertility Education Resource Package, which was provided to every participant of this Workshop as a model for training programmes); and the location of the teaching (e.g. clinic, community-based or within the home, couple-to-couple, women-to-women, group instruction).

The participants with NFP programme experience agreed that the content of an NFP training programme must include both theoretical information (pedagogical) and practical components (practicum and communication skills). The theoretical component usually includes information on the reasons for practicing family planning and a review of the options in terms of methods available; the scientific basis of fertility awareness methods; information on how to monitor/observe, record and interpret the indicators of fertility to avoid or achieve pregnancy; and the psychological and psychosexual aspects of the methods. In addition, trainers and teachers are taught different pedagogical techniques. The practicum usually involves several months of practice teaching.

Another important component of a training programme is a discussion of the trainees' limitations. Fertility awareness teachers will frequently be confronted with the medical, marital and psychological problems of their clients. Teachers must be aware of their limitations and the types of medical and social services agencies locally available for referrals.

It is difficult to estimate how much time it takes a new user to learn the methods being taught. This depends greatly on the philosophy of the programme, the curriculum and approach being used and the speed, educational level and commitment of the user. Some programmes spend from 30 minutes to one hour introducing the method and explaining how to chart, and then follow-up users for about 15 minutes every two weeks for a few cycles and then once a month or as needed for the next 12 months. Other programmes spend considerably more or less time. Almost no research has been conducted on the minimal time needed to train women or couples to use fertility awareness methods, or on the minimal essential information to be learnt to successfully practice these methods.

The participants were provided with a general training paradigm that could be applied to establishing a fertility awareness training programme. The paradigm proposed is actually a programming cycle encompassing the following components:

- Situation analysis (including barriers, socio-demographic background, etc.)
- Identifying programme objectives
- Establishing the curriculum (including the specific methods to be taught)
- Choosing teaching methodologies
- Identifying available and needed resources
- Programme implementation
- Evaluation of students, teachers and overall programme

The important point is that an educational programme must answer the questions for whom? by whom? when? where? how? what? for how long? and how good it is? The teaching-learning interaction consists of knowledge, attitudes and behavior with teaching having the objective of modifying behaviour through increasing knowledge and changing attitudes.

## B. Services

There is considerable controversy over whether or not fertility awareness methods should be provided by single method programmes and/or as part of multi-method or comprehensive family planning programmes. The advocates of NFP believe that it is not feasible to have NFP taught by people who also provide other methods. It is believed that such providers would not spend the time, or have the commitment needed, to maximize the chance of success. It is also thought that they could not properly motivate the couple to practice. However, again, no research has been undertaken to demonstrate the validity of this position. On the other hand, it is believed that fertility awareness methods will never be widely used unless they are offered by comprehensive, mainstream family planning programmes and organizations. Also, in many settings it may never be practical, or cost-effective, to establish specialized delivery systems for non-surgical methods of family planning.

Much of the argument around the need for NFP-only providers may be resolved simply by the rationale and justification for providing fertility awareness methods in a non-religious context.

There is virtually no data available on the cost-effectiveness of providing fertility awareness methods. Formulae for calculating the cost per couple years of protection have not been developed, nor may they be appropriate, for these methods. What is known is that educational delivery systems are labour intensive and, therefore, may not be very cost-effective to establish. However, fertility awareness methods do not require physicians and health professionals as providers and, once learnt and found acceptable, the methods can be practiced at virtually no cost throughout the duration of a woman's reproductive life. Also, the methods can be passed on to other family members, a long-term factor that would be very difficult to address in a research project on cost-effectiveness. Perhaps, at best, data can be collected on the cost of teaching fertility awareness to a woman or couple.

A major consideration when introducing a new programme in general, and a fertility awareness programmes, in specific, relates to the introduction of the programme/method to the community. Particularly germane to fertility awareness method introduction is the position of the medical profession. Given the generally negative attitude of this profession and allied professions related to family planning towards NFP (and confusion with the rhythm method), fertility awareness introduction lectures need to be incorporated into training programmes. Furthermore, consideration needs to be given to introducing these methods into the appropriate curricula of medical students, nurses and midwives, health educators, etc. Particularly important is the need to have experts in the methods, familiar with both service delivery issues and the results of research on the methods, handle the introductory presentations.

One of the major differences between the teaching of NFP in a religious context and the provision of fertility awareness methods in a non-religious context relates to recommended behaviour options during the fertile period. NFP programmes stress the importance of total abstinence from intercourse at this time if it is the couple's intention to avoid pregnancy.

Many NFP programmes recommend demonstrating intimacy in non-genital ways as an alternative to intercourse. Although these programmes recognize that couple's are free to do as they please during the fertile period, NFP teachers try to motivate them to practice periodic abstinence and provide support for those who try to do this. There is no doubt that the likelihood of an unplanned pregnancy occurring in couples who practice abstinence during the fertile period is less than for those who do not. For couples who have chosen fertility awareness methods for religious or moral reasons, and for Catholic church-supported NFP programmes, alternative sexual expressions other than complete genital intercourse or coitus reservatus are considered immoral and,

therefore, counselling couples in other forms of sexual expression is not acceptable. However, research has shown that even couples who adopt fertility awareness methods for religious reasons use withdrawal or barrier methods during the fertile period and/or admit to reaching orgasm at this time. Also, the majority of unplanned pregnancies occurring in NFP users results from chance taking and rule breaking during the fertile period, despite the couple's stated intention to avoid pregnancy. Some interpret this as the couple's subconscious desire to have another child, while others attribute it to risk taking, hoping that they won't get "caught", and the husband's unwillingness to cooperate even though he may not want more children.

The providers of fertility awareness methods in a non-religious context do not have the same constraints as private sector NFP programmes. That is not to say that the non-religious programmes are amoral or devoid of any values. Rather, they should be, and are, as concerned about the total well-being of their clients as any other programme.

For couples who are motivated to prevent pregnancy, abstinence from genital intercourse should be practiced during the fertile period. However, normal sexual practices include oral sex, mutual masturbation and other relations that can not result in pregnancy. In the non-religious context the teaching of fertility awareness should include a discussion of these options.

Another consideration is the use of barrier methods and withdrawal (coitus interruptus) during the fertile period. The definition of NFP precludes the use of any methods other than periodic abstinence at this time. But, periodic abstinence from all genital relations during the fertile period is only one approach to preventing pregnancy. Other approaches include using the following methods in combination with fertility awareness: diaphragm, sponge, condoms, foaming tablets, spermicidal creams and jellies and withdrawal. However, the couples need to be advised that certain methods and practices, e.g., diaphragms, sponge, spermicides and using tampons and vaginal douching, may interfere with the woman's ability to recognize the fertile period when using the cervical mucus method, especially when first learning fertility awareness. It is, however, unlikely that the use of condoms or withdrawal would interfere with the woman's ability to identify the fertile period, especially in experienced fertility awareness method users. Furthermore, none of the barrier methods will interfere with the detection of ovulation when using the basal body temperature (BBT) method.

#### 11. FERTILITY AWARENESS METHOD USE IN SPECIAL CIRCUMSTANCES

Most of the available information about fertility awareness method use and effectiveness has been derived from research studies involving regularly ovulating women aged 18-39. Very little is actually known about how well the cervical mucus (Billings) method or the sympto-thermal method work in post-partum women, in breast-feeding women, in women who have just discontinued use of hormonal contraceptives or IUDs, or in pre-menopausal women. Also, no research has been conducted on how easy or difficult it is

for adolescents, and women in the above-mentioned situations to recognize their signs of fertility. All of these conditions are referred to as "special circumstances," or "different stages in a woman's reproductive life."

As previously stated, the limitation of the calendar rhythm method is that it can only be effective if the woman has very regular cycles. The major advantage of the newer and more scientific fertility awareness methods is that they are based on current observations of physiological changes associated with ovulation and are independent of menstrual cycle length. Thus, women who experience irregular menstrual cycles (oligomenorrhea), or long periods of amenorrhea, should, in fact, make observations that indicate concomitant long periods of infertility. These reproductive stages are referred to as "special circumstances" because special, or modified, rules need to be followed, compared to regularly ovulating women, to ensure better that the methods will be effective for the purpose that they are being used (to space, limit or achieve pregnancy).

Although the advocates of NFP insist that the fertility awareness methods are applicable to all stages in a woman's reproductive life, an advantage not shared by other methods of family planning, very few clinical trials or field studies have been conducted to demonstrate this advantage. Rather, the rules for applying the Billings method and the sympto-thermal method have been modified based on what is known about the reproductive physiology of these women, and practical experience, to maximize the effectiveness of the methods.

The common feature in all women in "special circumstances" is that they are experiencing irregular ovulation and irregular menstrual cycles. Depending on the nature of the "special circumstance", ovulation may be absent for extended periods of time, e.g., in women who are totally breast-feeding on demand, or it may occur intermittently. The reason why the method rules need to be modified is that in almost all categories of "special circumstances" there may be some ovarian activity resulting in fluctuating estrogen production that is not accompanied by ovulation but that results in observable changes in cervical mucus and, perhaps, in bleeding or spotting. Not being certain whether ovulation and fertility is resuming, the woman must apply rules to minimize the chance of an unplanned pregnancy resulting from intercourse during this time. Also, during long periods of anovulation, which is actually a result of an extended preovulatory (follicular) phase, there might be extended periods of unchanging mucus. At first the woman would be advised to abstain at this time, but once a pattern of mucus that stays the same day after day is observed, intercourse can occur with some degree of certainty that pregnancy will not result. However, if the mucus pattern shows any change, or bleeding or spotting is observed, the rules require abstinence during the change and for three days afterward.

In summary, little is known about the actual effectiveness of fertility awareness method applied during "special circumstances." Nevertheless, training materials, and the rules of the methods, must be modified to account for differences in ovarian function, compared to regularly ovulating women,

which is the basis of the "special circumstances." Also, because ovulation is either absent or intermittent at this time, the temperature method is of little value; the Billings method would seem to be more appropriate. The calendar method would be totally useless for these women.

## 12. RESEARCH: PRESENT AND FUTURE PERSPECTIVES

In recent years there appears to be a renewed scientific interest in NFP. It is noteworthy that in June 1974 Population Reports (The Johns Hopkins University, Population Information Program) produced its first issue on "Periodic Abstinence-Birth Control without Contraceptive"; the bibliography included 126 references. In September 1981, Population Reports produced "Periodic Abstinence-How Well Do New Approaches Work". Five hundred and seventy-eight references were cited; 431 were dated between 1975 and 1981. Furthermore, during recent years the governments of several countries have enacted legislation related to family planning that specifically mentions the inclusion of NFP (e.g., Argentina, Brazil, Chile, Ireland, USA and Zambia). Numerous other governments are also providing funds to support work on NFP (e.g., Australia, Canada, France, Kiribati, Mauritius, Papua-New Guinea, Rwanda and the UK). In addition, major national and international agencies and organizations supporting family planning research and services include activities related to NFP (e.g., the United Nations Fund for Population Activities, the World Health Organization, the Canadian International Development Agency and the United States Agency for International Development).

While many family planning providers recognize the importance of fertility awareness methods, there has been a great deal of controversy over the use of these methods despite their advantages in terms of lack of side effects, nonphysician delivery, and educational value. The reluctance of many family planning administrators to include them in their programmes usually stems from three concerns: (1) although the method effectiveness is high, the use-effectiveness is generally lower than desired; (2) belief that these methods would be unacceptable and difficult to learn; and (3) belief that the costs and utilization of service provider time would be higher than for many other methods if fertility awareness was to be incorporated into existing services.

Another concern of almost equal importance is the belief that the more subjective approaches to determining the fertile phase of the cycle are not, or would not be, as effective as biochemical or physical technological methods. Finally, of major concern to those people who are currently providing fertility awareness methods, and who have confidence in the Billings and/or sympto-thermal methods, are the psychosocial or psychosexual aspects of these methods.

Common questions about fertility awareness methods requiring research, some related to the above concerns include:

- How acceptable are the methods?
- Who can use the methods?
- How difficult is it to determine the fertile period?
- What life situations hinder the identification of the fertile period?
- Are the methods safe and effective?
- Are there any problems associated with the outcome of pregnancies in users of the methods?
- Can the methods be used to pre-select the sex of the offspring?
- How long is the required period of abstinence?
- How well can couples comply with the periodic abstinence requirements?
- What are the options for sexual expression during the fertile period?
- What effect does method use have on the marriage relationship?

Many of these concerns and questions have been studied for several years. Good information is available about the use-effectiveness and method effectiveness of the fertility awareness methods. WHO-supported studies have shown that the methods can be very effective in preventing pregnancy if the rules, particularly the requirement for abstinence on fertile days, are followed carefully. WHO studies have also shown that, on average, (a) abstinence has to be observed on about half the days of the cycle if pregnancy is to be avoided, (b) it takes about three cycles of practice to learn the methods, and (c) that illiterate people do as well if not better than very educated people. Despite the claims of some NFP advocates, research has not been able to demonstrate the validity of the Billings method for pre-selecting the sex of the baby.

Some selected service and psychosocial studies that need to be conducted include:

1. The cost-effectiveness of providing fertility awareness methods. Regardless of the family planning method, the comparative cost-effectiveness depends on such variables as client load, methods provided, cost and availability of supplies, personnel costs, training costs, rent, etc. Which variables should be measured and what value should be accorded to them are important issues, especially for fertility awareness methods.
2. The affect of these methods on the marital relationship. This subject is complicated by the absence of standardized measures for assessing attitudinal and behavioural changes resulting from method use. Previously conducted studies have usually lacked control groups of non-NFP users matched for age, duration of marriage, family size, income and other pertinent variables. Unfortunately, for the most part, only users committed to NFP were included in previous studies.

3. What factors affect the adoption of fertility awareness methods?

- Personal and cultural
- Knowledge of range of options
- Access to information and services
- Cost, ease of use and how method is used
- Safety, side-effects and risks
- Efficacy
- Perceptions of attributes and side-effects

Although not well studied, religious motivation to choose fertility awareness methods is apparently not a prerequisite, although Catholics still appear to represent the majority of users of these methods in most countries.

Perhaps the most interesting and currently most popular area of related research is the identification of biochemical signals of the fertile period in saliva or urine, and the development of a simple, reliable, do-it-yourself method which provides an unambiguous signal of impending or just completed ovulation.

Inexpensive, easy-to-use, appropriate technology that permits women to identify the time of ovulation and the fertile period would be useful for many purposes. It would appeal to people who wish to use fertility awareness methods. It would permit limiting the use of barrier methods and coitus interruptus to the days of the menstrual cycle during which sexual intercourse can result in pregnancy. When pregnancy is desired by both normal and sub-fertile couples, such technology can be used to improve the timing of intercourse for conception and for monitoring the administration and effects of infertility therapy. In addition, these methods could be extremely important as aids for women learning or experiencing difficulty with the Billings or sympto-thermal methods; they would give them confidence that they are correctly identifying the fertile phase. Furthermore, such new technology would help breast-feeding women, and women in other "special circumstances" to identify the fertile period. It has been proposed that better methods of predicting and detecting ovulation will enable a more accurate and precise determination of the fertile period and thus reduce the number of days of abstinence required if the couple is trying to avoid pregnancy.

Recently several new products have entered the market place as do-it-yourself methods for measuring luteinizing hormone (LH) in the urine. LH reaches peak values about 8-40 hours prior to ovulation and can be extremely helpful in timing artificial or natural insemination to optimize the likelihood of conception. The measurement of LH, however, can not be used to predict ovulation early enough to be useful as a method of contraception. Furthermore, the over-the-counter LH diagnostic kits are relatively expensive (about US\$40-60).

Research has been conducted on a number of constituents of urine and saliva that could potentially form the basis of a do-it-yourself test for ovulation. It has been recognized that the measurement of compounds in serum or plasma could never form the basis of such tests because of the difficulties associated with obtaining blood samples. Perhaps the most advanced leads are urinary metabolites of estrogen, to predict ovulation, and progesterone, to detect its occurrence. Several investigators and private sector companies are attempting to develop simple kits to measure estrone-glucuronide and pregnenediol-glucuronide in urine. WHO-supported studies have shown these markers to be interesting as the basis of new fertility awareness methods.

Finally, several companies have recently produced automatic, electronic basal body temperature devices. Such devices were developed to simplify temperature taking (they work in 45 seconds to two minutes), and to do away with the need to read a thermometer, and accurately record, plot and interpret temperature charts. Some of the devices use colour signals to indicate fertile and infertile days. None of the devices have been evaluated as contraceptive aids and most are currently being marketed as "fertility indicators" to help couples conceive. These devices cost from US\$100 to \$250. Digital thermometers without microprocessors cost about \$10.

In conclusion, within the next three to five years, several simple biochemical kits should be available to help women to determine accurately the fertile phase of the menstrual cycle. Whether these kits will increase the acceptability and improve the effectiveness of fertility awareness methods remains to be demonstrated. However, since the effectiveness of the current methods is dependent mostly on whether or not the couple abstains on the days identified as "fertile", there is no evidence to indicate that the new, technological methods will be more effective in preventing pregnancy. Nevertheless, it is presumed that if such methods are very easy to use, and more precisely determine the fertile period, they would be more generally acceptable, especially if they reduce the number of days of abstinence required to prevent pregnancy.

### 13. WORKSHOP EVALUATION

On the last day of the Workshop the participants were requested to complete a Workshop Evaluation Questionnaire (see Annex 6). The Questionnaire was divided into three sections: value of workshop, workshop methodology and materials and follow-up. All 18 participants completed the questionnaire and the following summarizes the results:

#### 1. Value of the Workshop

All 18 participants felt that the Workshop met their expectations. All 10 of the participants who came from organizations where fertility awareness methods are not currently offered stated that they would consider introducing these methods. Eleven participants

felt that the amount of material covered under each topic was appropriate while six believed the material to be insufficient and one participant was not sure.

2. Workshop methodology and materials

All 18 participants agreed that they liked the structure of the Workshop and that the background materials provided were helpful. They all also stated that they would use the background materials and Workshop hand-outs in their place of work.

3. Follow-up

All 18 participants stated that they would recommend a similar workshop to their colleagues. They also felt that the administrative arrangements for the Workshop were satisfactory.

As can be seen in Annex 6, there were several open ended questions under each of the above categories. These related to additional training required, comments on the specific topics of the Workshop and how to improve the Workshop; other types of workshops or training in fertility awareness methods which would be helpful, and the type of assistance desired from WHO in this area.

Almost all of the participants suggested that WHO support would be helpful for such things as obtaining materials, providing expert consultants, convening national workshops, training trainers and teachers, translating materials into local languages, training midwives, and providing grants or fellowships to permit programme managers to visit fertility awareness centres of excellence in the European Region.

There were a number of contradictions in the participants' comments on the amount of material covered under each topic. For some topics, e.g., a description of the methods, some participants felt that too much information was provided while others suggested too little was provided. Several participants suggested that more information was required on the place of fertility awareness methods in multi-method programmes, on the psychological aspects of the methods including the affect of the method on the marriage relationship, on how to teach adolescents, and women in special circumstances. Also, some participants expressed the view that some time should have been spent on familiarizing them with the WHO Family Fertility Education Resource Package.

Suggestions for how to improve follow-up workshops included the use of more visual aids especially films and video recorders, scheduling visits to clinics providing fertility awareness methods, more work in small groups and more time for discussion. In addition, it was suggested that all participants should be requested to bring relevant information from their own country and that the participants should be provided with a list of public and private sector associations in the Region working on topics covered in the workshop.

#### 14. RECOMMENDATIONS

##### A. General

1. The term "natural family planning" should be replaced with the term "fertility awareness methods". Synonyms for "awareness", such as "knowledge" or "understanding", can be used when it is difficult to translate the concept of "awareness" into other languages.
2. Fertility awareness methods should be offered as one option together with other methods of family planning.
3. The cervical mucus or cervical palpation methods are more appropriate for women in "special circumstances", e.g. post-partum or premenopausal women, than the basal body temperature method (which is not very useful when ovulation is irregular).
4. Surveys of the prevalence of fertility awareness methods, and of related knowledge, attitudes and practice, are required to obtain information about the use of and demand for such methods in Europe and about why people do not choose these methods.
5. Existing NFP programmes should be encouraged to promote fertility awareness methods on their merits rather than on the negative aspects of other family planning methods.
6. Fertility awareness should also be promoted as a back-up when other contraceptive methods are not available, and as methods for helping infertile couples to achieve pregnancy.
7. The providers of family planning, in general, and of fertility awareness methods, in specific, need to consider the affect of changing lifestyles on the provision of services and the practice of contraception.
8. Fertility awareness information conferences, using experts in these methods, would be useful at the national level in the European Region.
9. A country-by-country catalogue of existing fertility awareness method resource persons and programmes should be prepared for the European Region.

##### B. Teaching and Services

10. The teaching of fertility awareness methods in a non-religious context should address other forms of sexual activity, and the possibility of using barrier methods, on fertile days when the intention is to avoid pregnancy.

11. Fertility awareness instructors need to know about locally available resources for referral purposes, e.g. pre-natal diagnosis and pregnancy counselling services should be available when fertility awareness methods are offered, especially to older women.
12. Information and/or research is required on the cost-effectiveness of providing fertility awareness methods.
13. Literature and teaching curricula on fertility awareness methods, e.g. the WHO Family Fertility Education Resource Package, should be translated into all appropriate languages in the European Region.
14. Existing fertility awareness method programmes would benefit from technical and financial assistance to improve and expand the services provided.
15. The teaching of fertility awareness should be integrated into all appropriate health and education curricula aimed at youth and adults, professionals and non-professionals. It is essential that experts in fertility awareness methods be involved in developing curricula and introducing the methods.
16. Since fertility awareness methods require cooperation between men and women, a special curriculum should be developed for men and especially for those who will not participate in formal instruction sessions. General information materials about fertility awareness should also be focused at men too.
17. Practical information needs to be provided on how to introduce and incorporate fertility awareness methods into comprehensive family planning and maternal and child health services.
18. Guidelines are needed to inform and educate primary health care workers about the newer fertility awareness methods.
19. Each country in the European Region where fertility awareness methods are not readily available would benefit from designating a team from various sectors and family planning programmes to receive training in these methods.

C. Research

20. Biomedical research is required on the development of new and simple objective methods to predict ovulation.
21. Research is required into the applicability and effectiveness of NFP methods in "special circumstances".

22. Research is required to compare the effectiveness of fertility awareness methods in couples who practice periodic abstinence with those who use barrier methods during the fertile period.
23. Social science research is required into topics such as the profile of the successful versus the unsuccessful user and the factors affecting the demand for, and use of, fertility awareness methods.
24. Social science research is required into the effect of fertility awareness method practice on the couple's relationship, especially in comparison with the effects of other contraceptive methods.
25. Research is required into the relationship between effectiveness and the amount of information, instruction and follow-up provided to learners of these methods.
26. Research is required to compare the effectiveness of NFP when taught alone, with fertility awareness methods taught in the context of a multi-method programme.
27. Research is required into the role and effectiveness of fertility awareness as the basis of sex education programmes for adolescents.

Annex 1

PROGRAMME OF THE WORKSHOP

Tuesday, 26 August 1986

- |               |  |
|---------------|--|
| 09.00 - 09.30 | Registration of participants   |
| 09.30 - 12.30 | Opening of the workshop  |
|               | 1. What is natural family planning?<br>by Mr Jeff Spieler                                |
|               | 2. History of natural family planning<br>by Mr Jeff Spieler                              |
|               | 3. Situation analysis<br>by Ms Elke Thoss  |
| 14.00 - 17.00 | 4. Physiological basis of natural family planning<br>by Dr France Donnay                 |
|               | 5. Methods of natural family planning (Part I)<br>by Dr France Donnay and Dr Aldona Sito |

Wednesday, 27 August 1986

- |               |  |
|---------------|--|
| 08.30 - 12.00 | Methods of natural family planning (Part II)<br>by Dr France Donnay and Dr Aldona Sito |
| 13.00 - 16.00 | 6. Natural family planning in special situations<br>by Dr Leila Mehra                  |
|               | 7. Psychological aspects of natural family planning<br>by Ms Lucy Schmitz              |

Thursday, 28 August 1986

- |               |  |
|---------------|--|
| 09.00 - 12.30 | 8. Social aspects of natural family planning<br>by Ms Elke Thoss |
|---------------|--|

Thursday (contd)

9. The concept of nature of sexuality in natural family planning by Ms Lucy Schmitz
10. Religion and natural family planning by Dr B. Chazan
- 14.00 - 17.00 11. Research: present and future perspectives by Mr Jeff Spieler
12. Natural family planning and new trends in lifestyle by Ms Elke Thoss

Friday, 29 August 1986

- 09.00 - 12.30 13. Appropriate methodology for teaching natural family planning (followed by exercises in group) by Dr Aldona Sito and with contribution by Dr France Donnay and Dr Anna Marie Flynn
- 14.00 - 16.00 Plenary discussions
- 16.00 - 17.00 Conclusions and closure

## Annex 2

### BACKGROUND MATERIAL

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### Annex 3

#### REFERENCES<sup>a</sup>

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<sup>a</sup> References mentioned in the text and found in Annex 2 are not repeated here.

Annex 4

MODERN FERTILITY AWARENESS METHODS  
AND THEIR PHYSIOLOGICAL BASES

1. Cervical mucus or Billings (ovulation) method

The cervical mucus or Billings method is based on the women's observation of a sequence of changes in the quality and quantity of cervical mucus. After menstruation and before ovarian follicular development, the woman experiences a sensation of dryness (absence of mucus) at the vulva. As the follicle begins to develop and produce estrogen, the cervical glands are stimulated to secrete mucus and the woman experiences a sticky sensation and/or cloudy or opaque, flaky or thick mucus may be observed on the underclothing or on tissue paper applied to the vulva.

As the time of ovulation approaches and the estrogen concentration increases to its highest level before ovulation, the mucus thins out and produces a wet, slippery, lubricative sensation and/or appears as a clear egg-white-like substance which, when placed between the fingers, stretches so as to hang in strings (Spinbarkeit) without breaking. The last day of the wet, slippery sensation, which is identified retrospectively, is called the "peak" day (highest point of fertility). Following ovulation, the progesterone produced by the corpus luteum, even in the presence of estrogen, inhibits the production of the type observed on the "peak" day. The fertile period is defined to include all days of mucus plus the three days following the "peak" day. By paying careful attention to the mucus women can learn to predict and detect the time of ovulation and the fertile period.

A simplification of the rules of the Billings method developed by Dr Billings states:

If you want to achieve pregnancy:

1. Watch for the days of stretchy, wet, and slippery mucus. These may not occur in every cycle.
2. Have intercourse on the days when the woman is most aware of the feeling of mucus wetness.
3. Abstain for a day after each act of intercourse to enhance the man's fertility.

If you do want to avoid pregnancy:

1. Abstain during menstruation, because bleeding might mask the mucus discharge, particularly in short cycles. [This is a strict interpretation of the method.] For couples who do not find intercourse during menstruation to be unpleasant, some evidence

exists indicating only a very slight likelihood of becoming pregnant from an act of intercourse on the first five days of the cycle, especially while menstruating.

2. Abstain on days when mucus is present and for at least three days afterwards.
3. Abstain on days of intermenstrual bleeding and for at least three days afterwards.
4. While learning the method, abstain on alternate "dry" days prior to the onset of the feeling or observation of mucus [to minimize difficulty in recognizing the onset of mucus secretion because of the presence of seminal fluid].

Teachers of the Billings method stress that digital examination of the vagina and/or cervix is not necessary. They also state that the quantity of mucus produced is less important than the quality of the mucus (sticky, stretchy, thin, watery), that the sensation produced is more important than the physical appearance of the mucus, and that the individual nature of the mucus should be described in the women's own terms whenever possible.

A special, simple stamp and chart system was developed, particularly for illiterate women, for keeping a record of the menstrual cycle and cervical mucus discharge. Literate women can use the same system but are encouraged to write a couple of words describing the mucus each day. Alternatively, a plain lead or coloured pencils can be used to indicate the daily observations with symbols devised by the woman herself or her instructor.

One of the most striking findings of the World Health Organisation's (WHO) prospective five-country (El Salvador, India, Ireland, New Zealand, and the Philippines) study of the ovulation method was that 93% of women, representing a wide range of cultural, educational, and socioeconomic characteristics, were able to recognize and record the cervical mucus symptom during the first cycle following instruction in the method by an experienced teacher. What is particularly interesting was that 48% of the women in El Salvador centre were illiterate, yet they learned the method as quickly as the 11% and 8% of the women from the New Zealand and Ireland centres, respectively, who had university educations.

The failure rate of the cervical mucus method usually ranges from 5 to 40 unplanned pregnancies per 100 woman-years (60-95% effective). In the previously-mentioned WHO study the unplanned pregnancies were classified as being related to the method itself, inadequate teaching, inaccurate application of instructions, conscious departure from the rules (knowingly taking a chance), and uncertain. Using these categories, the failure rates reported for the 725 women who learned the method and entered a 13-cycle effectiveness cycle study were 2.8, 0.4, 3.5, 15.4, and 0.5 pregnancies per 100 woman-years (modified Pearl index), respectively.

## 2. Basal body temperature method (BBT)

BBT is one of the most quantitative of all available and practical techniques which can be used by women to detect ovulation. However, the method has no value in predicting ovulation. Ovulation is detected by identifying a shift in temperature (above 0.2-0.5°C or 0.4-1.0°F) from a relatively lower level during the follicular phase of the menstrual cycle to a relatively higher level after ovulation. Ovulation is presumed to have occurred if a biphasic temperature (a lower phase and a higher phase) is observed. The cycle is presumed to be anovulatory if the pattern is monophasic (no shift is observed).

There are several different ways of identifying a shift in temperature to define the beginning of the postovulatory infertile period, e.g., the use of a "coverline" drawn 0.05°C above the highest of the lower temperatures (excluding the first four days of the cycle and including at least six normal temperatures) and counting three consecutive temperatures above this coverline.

Producing and interpreting BBT charts requires considerable care especially when atypical temperature patterns are observed. Body temperature can be altered by illness or emotional stress, and temperature levels may vary from cycle to cycle in the same woman. Furthermore, BBT may rise in different ways - abruptly, gradually, in a step-like pattern, the rise may be preceded by a sharp drop, and/or less frequently, the rise may resemble a saw-toothed pattern.

To minimize the difficulty in interpreting a temperature pattern, it is recommended that the temperature be charted on an expanded scale chart, i.e., where the distance covered by two days on the horizontal axis is equal to the distance covered by 0.1°C on the vertical axis.

There are four rules that should be followed to assure accurate BBT readings:

1. Temperature must be taken in the morning, after a night's rest, immediately after awakening and before rising, drinking or eating;
2. A certified clinical or expanded scale (fertility) thermometer should be used; the temperature can be measured rectally or vaginally for 3 minutes, or orally for 4-5 minutes;
3. Any deviations from the normal routine (e.g., hours of sleep, fever, change of thermometer) should be noted; and
4. If the mercury stops between two temperatures (graduations), record the lower temperature as the BBT reading.

New electronic digital thermometers can reduce the difficulty of taking BBT and reading the thermometer.

Several studies have been undertaken on the occurrence on monophasic temperature patterns in menstrual cycles presumed to be ovulatory based on hormonal measurements. These studies have postulated that in about 10-20% of ovulatory cycles, biphasic temperature patterns are not observed. However, in a study conducted by Vollman (10) only 7.2% of the 14,852 menstrual cycles observed in 621 women were monophasic. Vollman demonstrated associations between cycle length and age, and the incidence of monophasic patterns. In short menstrual cycles (7-17 days), 57.1% of cycles were monophasic. The rate decreased with increasing menstrual cycle length and dropped to 5.8% in cycles of 24 days. In 25-32 day menstrual cycles, the percentage of monophasic patterns was lowest (1.8-4.8%). In menstrual cycles of 33 days and longer, the proportion of monophasic BBT patterns steadily increased again and finally reached 41.3% in cycles of 60 days or longer. Since the length of menstrual cycles is known to vary with age, Vollman also found that monophasic cycles showed an age-dependent distribution. He concluded that, although monophasic BBT patterns occurred at all ages, they characterize the adolescent and preclimacteric phases of a woman's reproductive life and are found at an average of 2% in reproductively mature, fertile women.

For women who are willing to accept daily taking and recording of BBT, and couples who are willing to abstain regularly for more than half of the menstrual cycle, the BBT method, when used alone, appears to be more effective than other periodic abstinence techniques. Pregnancy rates in early studies ranged from 0.3 to 6.6 per 100 woman-years of use when intercourse was restricted to the postovulatory phase of the cycle. When intercourse is not restricted to the postovulatory phase, pregnancy rates range from 5-35 per 100 woman-years.

The major drawback of the temperature method, when used alone, is that abstinence is necessary for the entire preovulatory phase of the cycle. Furthermore, when ovulation does not occur regularly, as is common around menarche, during lactation, and around menopause, BBT does not rise and abstinence throughout the cycle is required if pregnancy is not desired, even though the woman is most likely not fertile at these times.

### 3. Sympto-thermal method

Fertility awareness methods in which the fertile and infertile phases of the menstrual cycle are identified by a combination of parameters including temperature and symptoms such as changes in cervical mucus, mid-cycle pain and/or bleeding, and breast tenderness are referred to as the sympto-thermal method. Some variations of this method also combine calendar calculations in estimating the onset of the fertile phase.

Different NFP organizations have developed their own instructions and charts for this method. The rules set forth for the sympto-thermal method in the WHO Family Fertility Education Resource Package (Annex 2) state that abstinence should begin either when calendar calculations so indicate (shortest cycle minus 20) or when the cervical mucus symptom is first

observed, whichever comes earlier. The end of the fertile period begins either on the fourth day after peak mucus symptom or on the evening of the third day of consecutive higher temperatures above a coverline, whichever comes later. Some sympto-thermal method organizations teach reliance only on calendar calculations or on mucus observations to identify the beginning of the fertile period, and on the temperature shift only to identify the postovulatory infertile phase. Such approaches are referred to as calendar-thermal or muco-thermal methods, respectively.

The effectiveness of the sympto-thermal method was assessed in a number of clinical trials conducted since the mid-1970s. The failure rate usually ranges from about 5 to 35 pregnancies per 100 woman-years.

Self-observed changes in the position, texture, and dilation of the cervix through digital examination has been proposed by some NFP organizations to be a relatively accurate method for identifying the fertile phase of the menstrual cycle, especially as part of the sympto-thermal method. During the fertile period the cervix is high in the vagina, feels relatively soft when touched and the cervical os is open. During the infertile phases of the cycle the cervix is low, relatively firm and the os is closed.

It has been claimed that the cyclic changes in the cervix appear to occur relatively consistently and they may be especially useful to detect the onset of fertility in "special circumstances" such as in the post-partum period. However, almost no information is available on the per cent of women who are able to discern cervical changes, on the effectiveness of this method when used alone, or on the acceptability of self-palpation of the cervix.

Among supporters of NFP, there is debate as to the advantages or disadvantages of single index (e.g., cervical mucus) or multiple-indices (e.g., sympto-thermal) methods. Some NFP teachers insist that the use of the Billings method is sufficient, stating that combining it with other indicators of ovulation may be less reliable than mucus alone. Another argument put forward by those who advocate the Billings method is that taking and interpreting daily temperature readings, especially in combination with other signs and symptoms, makes the method too complicated for many women.

The promoters of the multiple-indices approach believe that the more indices monitored, the more effective the method. They also believe that the BBT shift is usually a more objective and reliable method for identifying the end of the fertile phase than mucus alone. In addition, when first learning fertility awareness, it is claimed that the monitoring of several signs and symptoms will help the user to gain confidence in her ability to detect the fertile and infertile phase of the menstrual cycle. Results of effectiveness studies indicate that the multiple-indices methods may be somewhat more effective than single-index methods. Finally, while most providers of the Billings method recommend total abstinence during the first cycle of learning, with the sympto-thermal method, intercourse can take place following the temperature shift in the first cycle.

## Annex 5

### ADVANTAGES AND DISADVANTAGES OF FERTILITY AWARENESS METHODS

#### Advantages

- No physical side effects.
- Training increases awareness and knowledge of reproductive function.
- Acceptors can be trained by paraprofessionals and lay volunteers.
- After initial training and follow up, many users are able to practice the method without additional assistance and at almost no expense.
- Responsibility for family planning is shared by both partners, which may lead to increased communication. By requiring collaboration between partners, periodic abstinence may contribute to more cooperative marital relationships in areas other than just family planning.
- May be used to help couples achieve pregnancy.
- Acceptable to people who prefer not to use other methods of family planning.
- Approved by the Catholic Church.
- Not objectionable to any religious group
- May be esthetically more acceptable than other coitus-related methods (condoms, spermicides or diaphragms).
- Availability of periodic abstinence methods may increase the number of initial family planning acceptors.

#### Disadvantages

- To be effective, requires consistent use, strong commitment and cooperation from both partners.
- Relatively long initial instruction.
- Methods require daily monitoring and charting.
- Some women experience fear of unwanted pregnancy.
- Without use of volunteer teachers and instructors, the delivery of methods could be expensive.
- Sexual abstinence may cause problems between partners.
- To avoid pregnancy, intercourse must be confined to a limited number of days based on the method practiced. Length of abstinence depends on cycle length and variability:  
Abstinence requirements:
  - Cervical mucus method:
    - learners 2/3 or all of the days of the first cycle;
    - experienced users: 1/3 to 2/3 of the cycle.
  - BBT (alone): from 1/2 to 2/3 of the days of the cycle.
  - Sympto-thermal: depending on the combination of techniques used, from 1/3 to 1/2 of the days.
  - Calendar (alone): may be as few as 1 to 3 days or as many as 10 to 20 days per cycle.

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Source: Adapted from items 6 and 8 in Annex 2.

Annex 6

WORKSHOP EVALUATION QUESTIONNAIRE

Participant reaction form

The information that you provide by completing this form will help insure that future workshops will be of value to you and your colleagues.

Value of the Workshop

(Check the appropriate response for each question and explain your responses as indicated)

1. Did this Workshop meet your expectations?  Yes  No

Explain:

2. Does your programme currently offer natural family planning?  Yes  
 No

If no, would you now consider introducing it?  Yes  No

If yes

(a) What additional training is required?

(b) What help do you need to adapt the content of the WHO Family Fertility Education Resource Package to your local situation?

3. Would you say that the amount of material covered for each topic was appropriate?

Yes  No  Don't know

If no, which topic(s) should have been presented in more detail?

(1)

(2)

3. (contd)

Comments:

Which topic(s) should have been presented in less detail?

(1)

(2)

Comments:

4. Which topics were missing from the Workshop?

(1)

(2)

Comments:

Workshop methodology and materials

5. Did you like the structure of the Workshop?

Yes     No     Don't know

Comments:

6. Were the materials provided helpful?

Yes     No     Don't know

Comments:

7. Will you use the materials in your place of work?

Yes     No     Don't know

Comments:

Follow-up

8. What suggestions do you have for improving this Workshop?

9. Would you recommend a similar workshop to your colleagues?

Yes     No     Don't know

Comments:

10. What other types of workshops or training in natural family planning would you find helpful?

11. What kind of other help would you like from WHO?

12. Were the administrative arrangements for the Workshop satisfactory?

Yes     No     Don't know

Comments:

Optional

Name:

Institution:

Address:

Annex 7

LIST OF PARTICIPANTS

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Two participants, Dr Anna Cappella and Dr Françoise Pinguet, do not agree with some critical points of the text such as: "referral to prenatal clinics for abortion in case of pregnancy ... or the use of barrier methods in the fertile phase ..." (Dr Cappella)

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<sup>a</sup> Participation expenses not paid by WHO

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- Dr Ewa Malolepsza, <sup>a</sup> Specialist in Public Health, Lodz, Poland
- Dr Maria Szczawinska, <sup>a</sup> Gynaecologist, Cracow, Poland

#### TEMPORARY ADVISERS

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- Ms Lucia Schmitz, Psychologist and social pedagogue for adults, JK Diemen, Netherlands
- Mr Jeff Spieler, Biologist, Research Division, Office of Population, Bureau for Science and Technology, U.S. Agency for International Development, Washington, D.C., USA (Rapporteur)
- Ms Elke Thoss, Sociologist, Executive Director, Pro Familia Bundesverband, Frankfurt am Main, Federal Republic of Germany

#### LOCAL LECTURERS

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<sup>a</sup> Participation expenses not paid by WHO

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