

MODULE

Family Planning

For the Ethiopian Health Center Team



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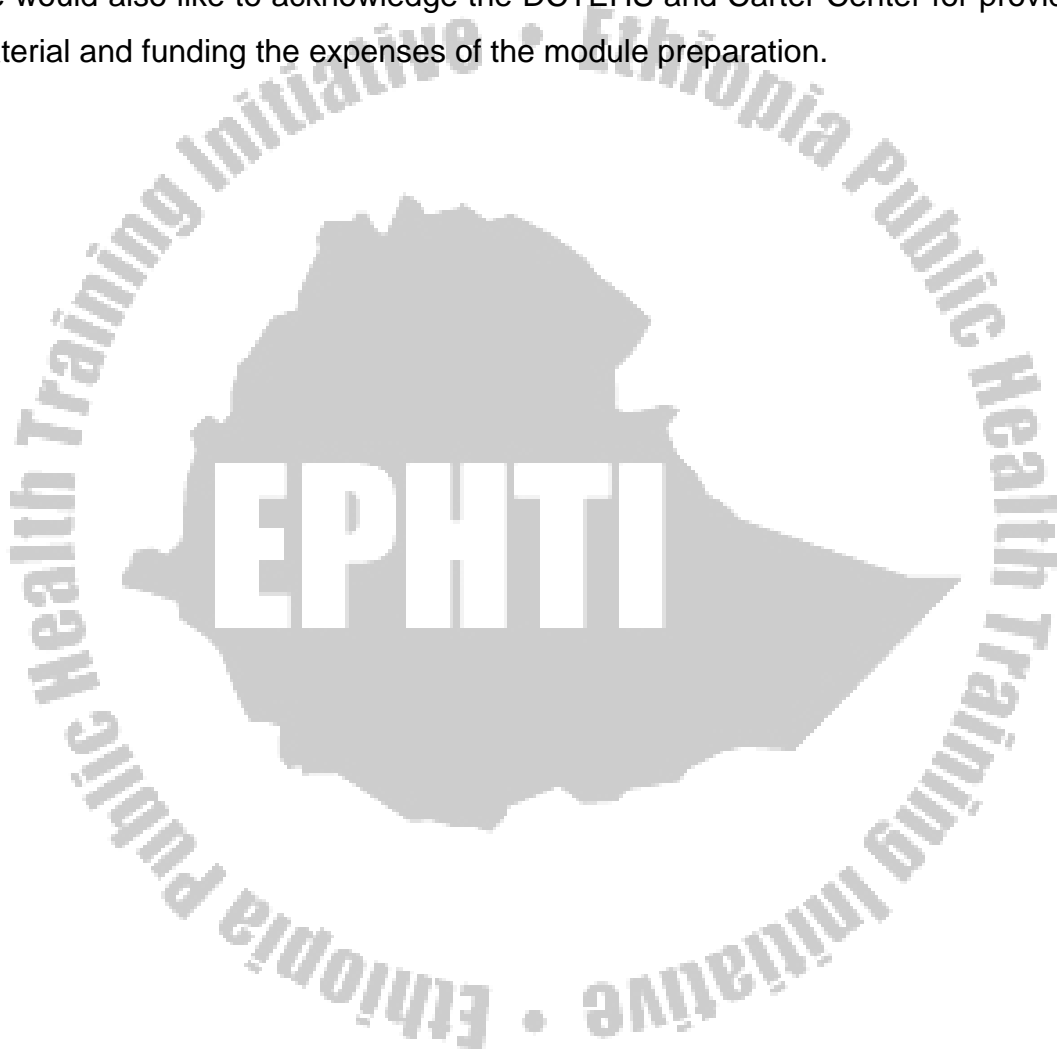
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PREFACE

This module is prepared owing to the shortage of reference materials in the area of family planning and is intended to be used by the health center team. It contains a core module and is supplemented by satellite modules.

The ultimate purpose of this training module is to produce competent health professionals who can effectively give health education, counsel and assess family planning clients and provide the various family planning methods.

Direction for using the module

1. Do the pretest for core module for your category in section 2.1. of the core module.
2. Read the core module thoroughly and then the satellite module of your respective category.
3. Use listed references and suggested reading materials to supplement your knowledge and skill on family planning methods
4. Evaluate yourself by doing post-test in section 2.1. of the core module and compare your score by referring to the key given

UNIT ONE

INTRODUCTION

1.1. Purpose and use of the module

The ultimate purpose of this training module is to produce competent health officers who can effectively assess clients and provide family planning methods.

1.2. Directions for using the module

1. Do the pretest for all categories (1.1.1) and pretest for PHO (1.1.2.1), both found in the core module.
2. Read the core module thoroughly.
3. Read the case study and try to answer questions pertinent to it.
4. Use listed references and suggested reading materials to supplement your knowledge and skill on family planning methods.
5. Evaluate yourself by doing post-test in the core module and compare your score by referring to the key given in section 6.

UNIT TWO

CORE MODULE

2.1. Pre-test

2.1.1. Pre-test for all categories of health center team

Directions: Choose the correct answer(s) (more than one answer may be correct)

1. Family planning:
 - A. Can prevent pregnancies in women past the desirable child-bearing age
 - B. Facilitates love and affection by parents to the children
 - C. Reduces maternal and child mortality
 - D. Contributes to the quality of family life and economic development

2. Which of the following is/are traditional family planning method(s):
 - A. Lactational amenorrhea
 - B. Calendar method
 - C. Rhythm method
 - D. Basal body temperature method
 - E. Abstinence?

3. The common types of combined oral contraceptive pills in Ethiopia:
 - A. Have 21 hormonal pills in each pack
 - B. Are biphasic
 - C. Are monophasic
 - D. Are multiphase
 - E. Have the same amount of progesterone and estrogen.

4. Advantage/s of COCs include:

- A. Trained non medical person can provide them
- B. They are user dependant
- C. They are highly effective when used correctly
- D. They do not protect against STDs
- E. They are convenient and easy to use.

5. Minipills contain:

- A. Only estrogen
- B. Only progesterone
- C. Both estrogen and progesterone equally
- D. More progesterone than estrogen
- E. More estrogen than progesterone.

6. The preferable contraceptive method for breast feeding mother is:

- A. Depo-provera
- B. IUCD
- C. Progesterone only pills
- D. High estrogenic pills
- E. Combined oral contraceptive pills.

7. Delay in return to fertility is the disadvantage of:

- A. COCs
- B. IUCD
- C. Depo provera
- D. Diaphragm
- E. Condom.

8. Norplant can prevent pregnancy at least for _____ years.

- A. 8
- B. 6
- C. 5
- D. 7
- E. 3

9. Intrauterine contraceptive devices are contraindicated for a woman:

- A. Who has a single partner
- B. Who is known or suspected to be pregnant
- C. Who suffers from unexplained vaginal bleeding
- D. Who is breast feeding
- E. Who presents with current septic abortion.

Give a short answer to the following question:

10. What is the process in which clients are helped to reach informed decision about family planning options?

2.1.2. Pre-test for specific categories of the health center team

2.1.2.1. Pre-test for public health officers

I. Choose the correct answer(s) (more than one answer may be correct)

1. What are the objectives of client assessment?
 - A. To help clients arrive at an informed choice of reproductive options.
 - B. To help clients select a contraceptive method with which they are satisfied
 - C. To help clients use the chosen method safely and effectively.
 - D. All of the above.

2. Mechanisms of action of hormonal contraceptives include:
- A. Suppress ovulation
 - B. Thicken cervical mucus, preventing sperm penetration
 - C. Make the endometrium less favorable for implantation
 - D. Induce sterile inflammation of the endometrium making implantation impossible
 - E. Cause tubal blockage making fertilization impossible.
3. Contraceptive and non-contraceptive benefits of injectable contraceptives include:
- A. May decrease menstrual bleeding and may improve iron-deficiency anemia
 - B. Can protect against endometrial and ovarian cancer
 - C. Do not interfere with intercourse
 - D. Do not affect breast-feeding
 - E. All of the above.
4. Absolute contraindications for intrauterine contraceptive devices include:
- A. Known or suspected pregnancy
 - B. Active genital tract infections (vaginitis, cervicitis)
 - C. PID (within the past 3 months) or septic abortion
 - D. History of dysmenorrhea and hypermenorrhea
 - E. Iron deficiency anemia
 - F. Valvular heart disease.
5. Contraceptives which can be used as an emergency contraceptive include:-
- A. Combined oral contraceptives (COCs)
 - B. Progestine only pills (POPs, Mini pill)
 - C. Injectable contraceptives
 - D. Contraceptive implants (Norplant)
 - E. Intra uterine contraceptive device (IUCD)

II. Give short answers to the following questions

6. List the main types of natural family planning

- A. -----
- B. -----
- C. -----
- D. -----

7. What does the acronym GATHER stands for in client counseling?

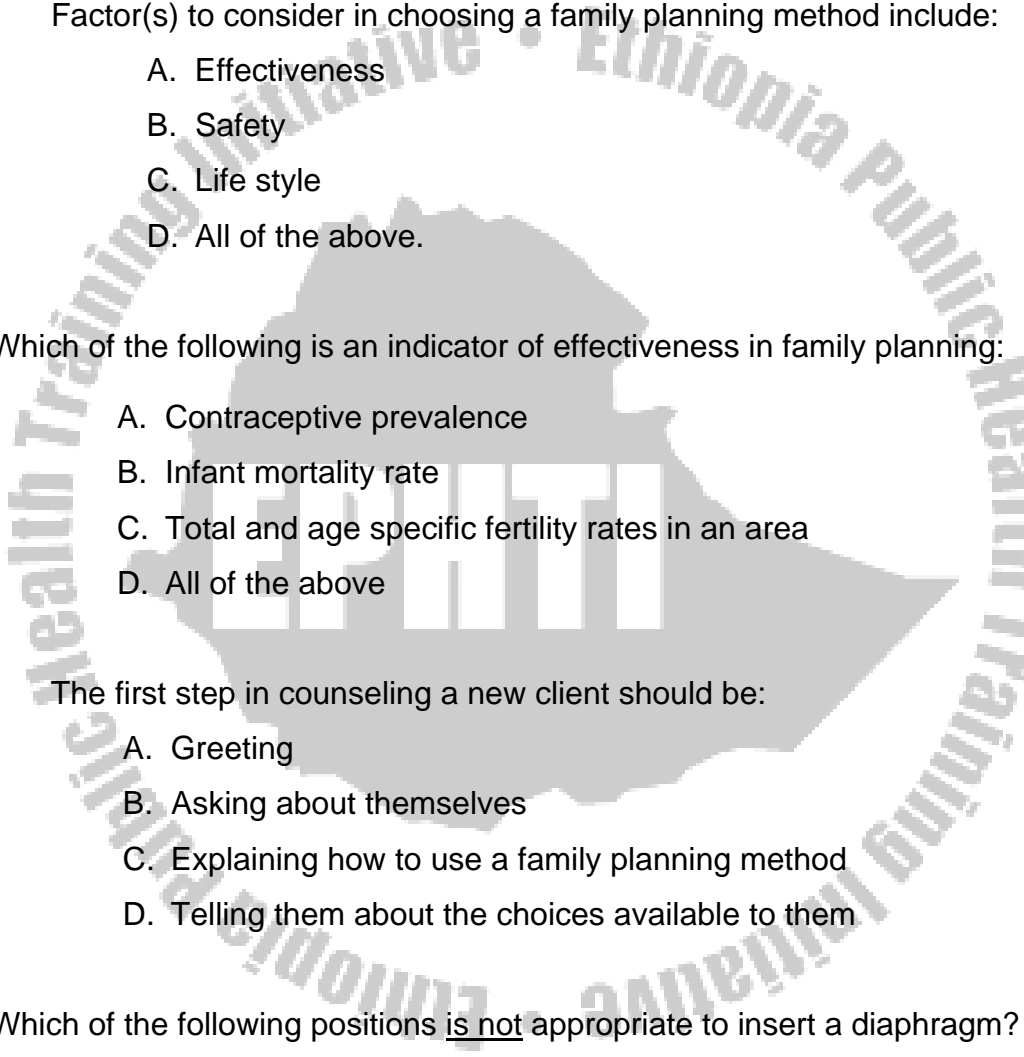
2.1.2. 2. Pre-test for public health nurses

Attempt all the questions

Choose the correct answer (s) (more than one answer may be correct)

1. Family planning:

- A. Is a component of reproductive health
- B. Help couples have the number of children they want when they need them
- C. Is part of a strategy to reduce high maternal and infant and child mortality
- D. All of the above.

- 
2. Which of the following is an incorrect statement about counseling:
- A. Avoid too much information
 - B. The counselor can decide a method for a women
 - C. Disadvantage of a method should be told to the client
 - D. Counseling new client differs from the repeat client
3. Factor(s) to consider in choosing a family planning method include:
- A. Effectiveness
 - B. Safety
 - C. Life style
 - D. All of the above.
4. Which of the following is an indicator of effectiveness in family planning:
- A. Contraceptive prevalence
 - B. Infant mortality rate
 - C. Total and age specific fertility rates in an area
 - D. All of the above
5. The first step in counseling a new client should be:
- A. Greeting
 - B. Asking about themselves
 - C. Explaining how to use a family planning method
 - D. Telling them about the choices available to them
6. Which of the following positions is not appropriate to insert a diaphragm?
- A. Lying down
 - B. Standing upright
 - C. Squatting
 - D. One foot raised

7. A nurse-instructing client about Billings method should tell her:
- A. To avoid sexual intercourse during the menstrual cycle
 - B. The dry days after menstrual period are safe
 - C. To avoid intercourse for the next 3 days after the clear slippery, stretchy mucus
 - D. All
8. Which of the following complications of diaphragm necessitates a client to change a method:
- A. UTI
 - B. Allergic reaction
 - C. Vaginal discharge
 - D. Pain

Case: - W/o Beletu, who had received a depo-provera injection two months ago, comes to your MCH clinic crying and tells you that she has missed her period.

9. The possible nursing diagnosis that can be formulated for W/o Beletu include:
- A. Health seeking behavior
 - B. Knowledge deficit
 - C. Altered sexuality
 - D. Decisional conflict.
10. Which of the following is not the preferred nursing action for W/o Beletu:
- A. Checking for pregnancy
 - B. Reassure her if not pregnant
 - C. Refer her for prenatal counseling
 - D. Advise her to return to the clinic if amenorrhea continues.

2.1.2.3. Pre-test for medical laboratory technicians

Choose the correct answer (s) (more than one answer may be correct)

1. Which of the following laboratory tests are not required for the diagnosis of risk factors that may be enhanced by oral contraceptive?
 - A. Blood glucose test
 - B. Liver enzyme test
 - C. Urine protein test
 - D. Urine glucose test
 - E. None of the above.

2. Blood screening tests for a woman before taking COC include:
 - A. Liver enzyme test
 - B. Blood glucose level
 - C. Lipoprotein determination
 - D. All
 - E. None of the above.

3. Pregnancy (HCG) test is available as:
 - A. Qualitative only
 - B. Quantitative only
 - C. Both qualitative and quantitative
 - D. None of the above.

4. Which of the following hormone determinations can be helpful in early diagnosis of sterility?
 - A. Prolactin
 - B. Androgen
 - C. Corpus leutum
 - D. All of the above

2.1.2.4. Pre-test test for environmental health technicians

Choose the best answer from the given alternatives for the following questions.

1. What is true about communication in family planning?
 - A. It brings changes in knowledge of the means of contraception
 - B. It brings changes in attitudes towards fertility control and use of contraceptives
 - C. It brings changes in norms regarding ideal family size
 - D. All of the above.

2. In family planning, the service provider can do the following EXCEPT:
 - A. Giving information, education and means to do plan a family
 - B. Advocating the use of family planning methods.
 - C. Instructing the clients to use what method he/she should
 - D. Helping clients to make an informed choice /decision.

3. Which is true about family planning?
 - A. Family planning benefits women's health only.
 - B. Family planning benefits children's health only
 - C. Family planning benefits women's health, children's health and the general society
 - D. None of the above.

4. Which method of health education/communication method creates opportunity for discussion?
 - A. Personal method
 - B. Impersonal method
 - C. Innovative method
 - D. Combined method.

5. Which one is/are innovative approach in communication?

- A. Using television
- B. Using film stars, sporting heroes, charismatic leaders and politicians
- C. Using a face-to-face approach
- D. All of the above.



2.2. Learning objectives

After completion of the core module the student is expected to be able to:

1. define family planning
2. understand the important rationale of family planning
3. give health education on family planning
4. counsel clients before providing family planning methods
5. give clients instructions on how to use the FP method safely and effectively
6. perform appropriate client assessment before providing family planning methods
7. discuss advantages and disadvantages of family planning methods
8. list the different types of family planning methods.
9. list most common contraindications and complications of different types of family planning methods.

2.3. Introduction

Family planning is the ability of an individual or couple to decide when to have children how many children they desire in a family and how to space their children. It is a means of promoting the health of women and families. Family planning is part of a strategy to reduce the high maternal, infant and child mortality and morbidity. Family planning is also a critical component of reproductive health programmes.

The rationale for family planning includes:

- Allowing women and men the freedom to control the number, spacing and the time at which they have children, family planning helps women and their families preserve their health and fertility and also contributes to improving the overall quality of their lives.

- Family planning also contributes to improving children's health and ensuring that they have access to adequate food, clothing, housing, and educational opportunities.
- It allows families, especially women, the time to adequately participate in development activities.

Family planning achieves these improvements in health and quality of life very cost effectively compared with investments in most other health and social interventions. Committing human and financial resources to improving family planning services not only improves the health and well being of women and children, but it also supports implementation of the national and international policies.

Thus family planning has been incorporated as an essential integral part of the delivery of health care to communities and the service should be easily accessible affordable and acceptable

2.4. Health Education/Communication

Like other health services, a variety of methods, both formal and informal are used in health education to offer family planning programs. Some are personal, that is, involving a health worker in direct contact with an individual or a group. Others are impersonal, in which the communication does not involve such contact, for example the use of posters, leaflets, and the mass media (newspapers, radio, television, and internet). Each method has its advantages and limitations.

2.4.1. Personal Methods

- Have the advantage that the content can be specifically tailored to match the needs of the individuals present.

- Raise the opportunity for discussion where obscure points can be clarified, objections raised and doubts expressed.

Through such interactive exchange, the health worker can learn more about local beliefs and habits. It provides the opportunity for reviewing alternative approaches to the solution of specific problems and there by the community and the individuals can determine how best to put the new lessons that they have learnt in to practice in their own circumstances.

During talks with family planning clients (individuals, communities etc,) health workers must strive to be effective communicators. They must learn to explain technical information in simple language that is easily understood. They must know the skill of capturing and retaining the attention of their audiences.

2.4.2. Impersonal Methods

However, with the personal approach, each health worker can reach relatively few people. Impersonal methods, especially the use of the mass media have the advantage of reaching large numbers of people who may not have direct contact with health workers.

The message can be repeated over and over again, serving as reminder and reinforcement. In some communities, materials read in the newspapers or heard on the radio carry more authority than information that is obtained from local sources.

Without the opportunity for questions and discussions, however, such messages may be misunderstood; constant repetition may dull their impact; and individuals may have difficulty in relating the messages to their own circumstances. By pre-testing health education materials on a small scale before they are widely distributed one may overcome some of these limitations. Following the findings from the pretest, one can modify the material and there by make the message clearer.

2.4.3. Combined Approach

It is sometimes possible to combine the advantages of both methods. For example, wall charts, radio and television programs and similar impersonal methods could be used as the focus for small group discussions. Alternatively, after a subject has been discussed, gifted members of the community could be encouraged to produce wall charts and other teaching materials for others in the community.

2.4.4. Innovative approaches

Some health workers have experimented with approaches to health education including music and drama as means of projecting health messages. Film star, sporting heroes, charismatic leaders and politicians are used to launch and sustain specific projects.

2.5. Counseling

Counseling is a two way process in which clients are helped to arrive at informed choice of reproductive options and knows how to use them safely, effectively and continuously.

Good counseling focuses on the individual client's needs and situation. Good counselors are willing to listen and respond to the client's questions and concerns. A good counselor:

- understands and respects the client's rights
- earns the clients trust
- understands the benefits and limitations of all contraceptive methods
- understands the cultural and emotional factors that affect a woman's (or a couple's) decision to use a particular contraceptive method
- encourages the client to ask questions

- uses a non judgmental approach which shows the client respect and kindness
- presents information in an unbiased, client-sensitive manner
- actively listen to the client's concerns
- understands the effect of non verbal communication.

In serving clients, it is important to remember that they have:

- the right to decide whether or not to practice family planning,
- the freedom to choose which method to use,
- the right to privacy and confidentiality, and
- the right to refuse any type of examination.

Even though, many contraceptive methods are highly effective, method failure can occur. In the case of method failure, the client should be counseled about the available options and referred for appropriate services.

In discussing contraceptive options with clients, service providers should briefly review all available methods, even if a client knows which method s/he wants. Service providers should be aware of a number of factors about each client that may be important, depending on the method in question. These include:

- the reproductive goals of the woman or couple (spacing or timing births)
- personal factors including the time, travel costs, pain or discomfort likely to be experienced
- accessibility and availability of other products that are necessary to use the method
- the need for protection against GTIs and other STDs (e.g., HBV, HIV/AIDS).

Counseling can be divided into three phases:

- initial counseling at reception (all methods are described and the client is helped to choose the method most appropriate for her/him)

- method-specific counseling prior to and immediately following service provision (the client is given instructions on how to use the method and common side effects are discussed)
- follow-up counseling (during the return visit, use of the method, satisfaction and any problems that may have occurred are discussed).

Ideal counseling processes follow the GATHER approach:

G - greet the clients in an open and respectful manner

A - ask clients about themselves and their needs

T - tell clients about the contraceptives choices

E - explain fully how to use the chosen method

R - return visits and if needed referral arranged.

2.6. Client assessment

Client assessment is a method whereby clients are assessed to determine whether or not a certain method of family planning is suitable for them.

2.6.1. Objectives

The primary objectives of assessing clients prior to providing family planning services are:

- to ascertain that the client is not pregnant
- to assess any conditions which prohibit the use of a particular method, and
- to identify any special problems that require further assessment, treatment or regular follow up.

For most clients, this can be accomplished by asking a few key questions. Unless specific problems are identified, the safe provision of most contraceptive methods, except IUCDs and voluntary sterilization, does not require performing a physical or pelvic examination.

Where resources are limited, requiring medical evaluation and/or laboratory testing e.g., blood sugar and hemoglobin before providing modern contraceptive methods is not justifiable. To enable clients to obtain the contraceptive method of their choice, only those procedures that are essential and mandatory for all clients in all settings should be required.

With the exception of condoms (and diaphragms to a lesser degree), no contraceptive method provides protection against genital tract infections (GTIs) or other STDs (e.g., HBV, HIV/AIDS). All clients should be made aware of the risks of GTI and STD transmission.

2.6.2. How to tell a client is not pregnant

You can be reasonably sure a client is not pregnant if she has no signs or symptoms of pregnancy (e.g., breast tenderness or nausea) and:

- did have intercourse since her last menses
- is within the first 7 days after the start of her menses (days 1-7)
- is within 4 weeks postpartum (for non breastfeeding women)
- is fully breastfeeding, less than 6 months postpartum and has had no menstrual bleeding
- is within the first 7 days post abortion, or
- has been correctly and consistently using a reliable contraceptive method.

When a woman is more than 6 months postpartum you can still be reasonably sure she is not pregnant if she has:

- kept her breastfeeding frequency high (about 6-10 times/day and at least once during the night , no more than 6 hours should pass between any two feeds).
- still had no menstrual bleeding (amenorrheic), and
- no clinical signs or symptoms of pregnancy(See satellite modules for public health officers and nurses).

Pelvic examination is seldom necessary, except to rule out pregnancy of more than 6 weeks, measured from the last menstrual period (LMP).

Pregnancy testing is unnecessary except in cases where:

- it is difficult to confirm pregnancy (i.e., 6 weeks or less from the LMP); or
- the results of the pelvic examination are equivocal (e.g., the client is overweight, making sizing the uterus difficult).

In these situations, a urine pregnancy test may be helpful, if readily available and affordable. If pregnancy testing is not available, counsel the client to use a temporary contraceptive method or abstain from intercourse until her menses occur or pregnancy is confirmed.

Check list for client assessment of each family planning methods – see annex 1

2.7. Family planning methods

2.7.1. Traditional family planning

Before the advent of modern contraceptives and up until the present time traditional methods are used worldwide. The efficacy of these methods can not be guaranteed unless certain other procedures are followed. There are three types of traditional family planning methods:

- Lactational amenorhea method (LAM)
- Abstinence
- Coitus interruptus.

2.7.1.2. Lactational amenorrhea method (LAM)

Lactational amenorrhea is the use of breast-feeding as a contraceptive method. It is based on the physiologic effect of suckling to suppress ovulation. To use breast-feeding effectively as a contraceptive for 6 months after delivery requires that the mother feed the baby nothing but breast milk (exclusive breast feeding).

Advantages

Contraceptive

- Highly effective (1-2 pregnancies per 100 women during first 6 months of use)
- Effective immediately
- Does not interfere with intercourse
- No systemic side effects
- No medical supervision necessary
- No supplies required
- No cost involved

Noncontraceptive

For the Child

- Passive immunization (transfer of protective antibodies)
- Best source of nutrition
- Decreased exposure to contaminants in water, other milk or formulas, or on utensils

For the mother

- Decreased postpartum bleeding
- Accelerates involution
- Increases bonding between mother and child

Disadvantages

- User-dependent (requires following instructions regarding breastfeeding practices)
- May be difficult to practice due to social circumstances
- Highly effective only until menses return or up to 6 months
- Does not protect against STDs (e.g., HBV, HIV/AIDS)

Who can use LAM?

- Women who are fully (or nearly fully) breast feeding, whose babies are less than 6 months old and whose menses have not returned.

Who should not use LAM?

- Women whose menses have returned
- Women who are not fully breast feeding
- Women whose babies are more than 6 months old

Client Instructions

- For LAM to be effective breast feed the baby on demand about 6-10 times/day and at least once during the night .No more than 6 hours should pass between any two feeds .
- Keep supply of lubricated condoms or other form of contraceptive at home
- If any of the following occurs consult your health care provider to start other contraceptive methods
 - If menses returns
 - If you no longer breast-feed fully or
 - if your baby is 6 months old.
- If you or your partner are at risk of STDs including AIDS use condoms.

b. Abstinence

Abstinence is a very effective and acceptable method of birth control. Its major problem is that it is only effective if followed without exception. Also for many

couples, going without sex is not an acceptable decision. While abstinence could be encouraged, the provider must deal non-judgmentally with a client who wishes to or already engages in premarital sex. It is important that the patient knows the dangers of unprotected sex which include HIV/AIDS, unwanted pregnancy, unsafe abortion, pelvic infection and cultural isolation.

c. Coitus Interruptus

Coitus interruptus is the withdrawal of the penis just before ejaculation occurs so that sperm does not go into the vagina. It is not a reliable method because there is often pre-ejaculation leakage of sperm which can often lead to pregnancy. Therefore, this is not a method that can be recommended.

2.7.2. Natural family planning methods (NFP)

Natural family planning methods (NFP) or fertility awareness methods (FAM) are methods which use the body's natural physiological changes and symptoms to identify the fertile and infertile phases of the menstrual cycle.

The effective use of these methods depends on the client's ability to use calendars, write on charts, and read thermometers. Therefore these methods may not be truly available to a population with low resources and a low rate of literacy. However, it is important that health professionals be prepared to offer these methods.

There are 4 main types:

- The rhythm or calendar method
- The basal body temperature (BBT)
- The cervical mucus method (Billings ovulation) and
- The sympto-thermal method (combination of BBT and Billings Method)

Advantages

Contraceptive

- Can be used to avoid or achieve pregnancy
- No method-related health risks
- No systemic side effects
- Inexpensive

Noncontraceptive

- Promotes male involvement in family planning
- Improves knowledge of reproductive system
- Possible closer relationship for couple

Disadvantages

- Moderately effective as a contraceptive (9-20 pregnancies per 100 women during the first year of use)
- Not recommended for women with irregular cycles
- Effectiveness depends on willingness to follow instructions
- Considerable training required to use the most effective types of NFP correctly
- Requires trained provider (non-medical)
- Requires abstinence during fertile phase
- Requires daily record keeping
- Vaginal infections make cervical mucus difficult to interpret
- Basal thermometer needed for some methods
- Does not protect against STDs (e.g., HBV, HIV/AIDS)

a. The Calendar Method

Basis

A woman must keep a monthly record of the days she menstruates. From this, with the help of a qualified natural family planning counselor she can estimate when she is most likely to get pregnant if she has sex.

Method

To calculate the fertile period:

- Monitor the length of at least 6 menstrual cycles while abstaining or using another contraceptive methods.
- Then calculate the fertile days period by the following method
- From the number of days in the longest cycle, subtract 11. This identifies the last fertile day of the cycle.
- From the number of days in the shortest cycle, subtract 18. This identifies the first fertile day of the cycle.

Example: Longest cycle: 30 days minus 11 = 19

 Shortest cycle: 26 days minus 18 = 8

- the fertile period is calculated to be days 8 through 19 of your cycle
- Abstain from sexual intercourse during the fertile days.

N.B- Day 1 is the first day of menstrual flow.

b. The Basal Body Temperature (BBT) Method

Basis

The hormone progesterone which the ovaries secrete after ovulation induces a slight rise in body temperature which is maintained until menstruation. The fertile phase of the menstrual cycle can be determined by taking accurate measurements of the basal body temperature to determine this shift.

Method

- Take body temperature at about the same time each morning (before rising) and record the temperature on the chart provided by the NFP instructor.
- Use the temperature recorded on the chart for the first 10 days of the menstrual cycle to identify the highest of the “normal, low” temperatures (i.e. daily temperatures charted in the typical pattern without any unusual conditions). Disregard any temperatures that are abnormally high due to fever or other disruptions.
- Draw a line 0.05-0.1^oC above the highest of these 10 temperatures. This line is the cover line or temperature line.
- The infertile phase or safe period begins on the evening of the third consecutive day that the temperature stays above the cover line (thermal shift rule).

Notes:

- If any of the temperatures fall on or below the cover line during the 3 day count, this may be a sign that ovulation has not yet taken place. To avoid pregnancy, wait until 3 consecutive temperatures are recorded above the cover line before resuming intercourse.
- After the infertile phase begins, it is not necessary to keep taking your temperature. You may stop until the next menstrual cycle begins and continue to have intercourse until the first day of the next menstrual period.

Insert chart

c. Cervical Mucus (Billings) Method

The cervical mucus method is based on detecting the changes in cervical mucus secretions and in the sensations in the vagina. Before ovulation, the cervical mucus becomes slippery and stretchy. The mucus changes are greatest around the time of ovulation. After ovulation, cervical mucus becomes thick or may

disappear completely. A couple using this method to avoid pregnancy will abstain from intercourse when the mucus indicates that the woman is fertile. They also abstain during menstrual bleeding. These couples should avoid intercourse on alternating days before the appearance of cervical mucus so that the presence of semen in the vagina does not change the natural appearance of the mucus. The woman checks her vaginal discharge every day for consistency. When it is very elastic and thin it indicates that she is about to ovulate. From this she can know when to abstain from sex. The reliability of the mucus method has been demonstrated by a recent WHO one year trial of the method in five countries. Findings indicate a method effectiveness of 97% or better.

Mechanism of action

- Same as other natural family planning methods mentioned in core module
- A simple accurate record is the key to success
- A series of codes is used to complete the record. These codes should be both appropriate to local culture and widely available to NFP users. In some areas, colored stamps or inks are used ;in others, it is more convenient to develop symbols that are written by hand; while in still others ,both methods are combined resulting in hand written symbols that are recorded with colored pens. Examples are given below:
 - Use a symbol * to show bleeding
 - Use the letter D to show dryness
 - Use the letter M with a circle around it or show wet, clear, slippery, fertile mucus
 - Use the letter M to show sticky, white, and cloudy in fertile mucus.

Definitions

Dry days: After menstrual bleeding ends, most women have one to a few days in which no mucus is observed and the vaginal area feels dry. These are called dry days.

Fertile days: When any type of mucus is observed before ovulation, she is considered to be fertile. Whenever mucus is seen, even if the mucus is of a sticky, pasty type, the wet fertile mucus may be present in the cervix and fertile days have started.

Peak day: The last day of slippery and wet mucus is called the peak day; it indicates that ovulation is near or has just taken place.

Client instructions

- As mucus may change during the day, observe it several times throughout the day. Every night before you go to bed, determine your level of fertility and mark the chart with appropriate symbol
- Abstain from sexual intercourse for at least 1 cycle so that you will know the mucus days
- Avoid intercourse during your menstrual period. These days are not safe, in short cycles ovulation can occur during your period.
- During the dry days after your period, it is safe to have intercourse every other night (alternate dry day rule). This will keep you from confusing semen with cervical mucus.
- As soon as any mucus or sensation of wetness appears, avoid intercourse or sexual contact. Mucus days, especially fertile mucus days, are not safe (Early mucus rules).
- Mark the last day of clear, slippery, stretchy mucus with an X. This is the peak day. It is the most fertile time.
- After the peak day, avoid intercourse for the next 3 days and nights. These days are not safe (peak days rule).
- Beginning on the morning of the fourth dry day, it is safe to have intercourse until your menstrual period begins again.

d. Sympto-thermal

Method

This is a combination of checking a woman's temperature everyday and checking her vaginal discharge. This is probably the most accurate of any of the natural family planning methods.

2.7.3. Hormonal contraceptives

Hormonal contraceptives are methods which are systemic in nature and contain either a progestin combined with estrogen or progestin alone. These methods include

1. Oral contraceptives
2. Progestin only injectables
3. Contraceptive implants

2.7.3.1 Oral contraceptives

Oral contraceptives are pills that a woman takes by mouth to prevent pregnancy. They contain two female hormones, estrogen and progestin (combined oral contraceptives (COCs)) or progestin only (progestin-only pills (POPs)).

Combined Oral Contraceptives (COCs)

Combined oral contraceptives are preparations of synthetic estrogen and progesterone which are highly effective in preventing pregnancy.

- Monophasic: All 21 active pills contain the same amount of estrogen and progestin dose combinations
- Biphasic: The 21 active pills contain 2 different estrogen and progestin dose combinations
- Multiphase: The 21 active pills contain 3 different estrogen and progestin dose combinations

- Monophasic: These pills (28 pill cycle) are commonly used and preferred in our country. Examples of available pills include Micrgynon and Lo-femomenol.

COCs are available in packets of

- a) 21 pills, where a pill is taken for 21 days and a break from pill-taking occurs for 7 days before starting a new packet, and
- b) 28 pills, where a hormonal pill is taken every day for 21 days and the break occurs when seven placebo pills are taken as the last pills in each packet.

Mechanism of Action

- Suppress ovulation
- Thicken cervical mucus, preventing sperm penetration
- Make the endometrium less favorable for implantation
- Reduce sperm transport in upper genital tract (fallopian tubes)

Advantages

Contraceptive

- Highly effective when taken correctly and consistently (0.1 pregnancies per 100 women during the first year of use)
- Effective immediately(after 24 hours)
- Pelvic examination not required prior to use
- Do not interfere with intercourse
- Convenient and easy to use
- Client can stop use any time they want to get pregnant
- Can be provided by trained non-medical staff

Noncontraceptive

- Decreased menstrual flow (lighter, shorter periods) and may improve iron deficiency anemia

- Decreased menstrual cramps
- May lead to more regular menstrual cycles
- Protects against ovarian and endometrial cancer
- Decreases benign breast disease and ovarian cysts
- Prevents ectopic pregnancy
- Protects against some causes of PID

Disadvantages

- User-dependent (require continued motivation and daily use)
- Some nausea, dizziness, mild breast tenderness or headaches as well as spotting or light bleeding (usually disappear within 2 or 3 cycles)
- Effectiveness may be lowered when certain drugs like rifampin phenytoin, and barbiturates are also taken
- Forgetfulness increases failure
- Serious side effects (e.g., heart attack, stroke, blood clots in lung or brain, liver tumors), though rare, are possible
- Resupply must be available
- Does not protect against GTIs or other STDs (e.g., HBV, HIV/AIDS)

Contra-indications

- Pregnancy (known or suspected)
- Breast-feeding and fewer than 6-8 weeks postpartum
- Unexplained vaginal bleeding (until evaluated)
- Active liver disease (viral hepatitis)
- Age 35 and smoker
- History of heart disease, stroke or high blood pressure (>180/110)
- History of blood clotting problems or diabetes > 20 years
- Breast cancer
- Migraines and focal neurological symptoms.
- Taking drugs like rifampin ,phenytoin and barbiturates

Common Side Effects and Other Problems

Side Effect/ Problem	Possible cause
Amenorrhea (absence of vaginal bleeding or spotting following completion of pill cycle)	- Pregnancy - Pill Induced
Nausea/Dizziness/ Vomiting	- Pregnancy - Pill induced
Vaginal bleeding/ Spotting	- Pregnancy related complications - Other gynecological conditions - Pill induced

For specific management of the side effects see the satellite module for public health officers and nurses.

Client assessment checklist for COCs see annex 1

Client Instructions

- Take 1 pill each day, preferably at the same time of day.
- Take the first pill on the first to the seventh day (first day is preferred) after the beginning of your menstrual period.
- Some pill packs have 28 pills. Others have 21 pills. When the 28-day pack is empty, you should immediately start taking pills from a new pack. When the 21-day pack is empty, wait 1 week (7 days) and then begin taking pills from a new pack.
- If you vomit within 30 minutes of taking a pill, take another pill or use a backup method if you have sex during the next 7 days.
- If you forget to take a pill, take it as soon as you remember, even if it means taking 2 pills in 1 day.
- If you forget to take 2 or more pills, you should take 2 pills every day until you are back on schedule. Use a backup method (e.g., condoms) or else do not have sex for 7 days.

- If you miss 2 or more menstrual periods, you should come to the clinic to check to see if you are pregnant.

2.7.3.2. Progestin Only Pills (POPs)

As the name indicates the pill only contains progestin, no estrogen. These pills may be used during the breast-feeding period, as they do not reduce milk flow. The low hormone content makes correct intake important. The tablets must be taken at the same time each day without interruption or contraceptive safety will be reduced. As there is no estrogen in the pills there is an increased chance of spotting when used by menstruating women.

Mechanism of action

- Thickens cervical mucus, preventing sperm penetration
- Suppresses ovulation
- Makes the endometrium less favorable for implantation
- Reduces sperm transport in upper genital tract (fallopian tubes)

Advantages

Contraceptive

- Effective when taken at the same time every day (0.5-10 pregnancies per 100 women during the first year of use)
- Immediately effective (<24 hours)
- Pelvic examination not required prior to use
- Does not interfere with intercourse
- Does not affect breast-feeding
- Immediate return of fertility when stopped
- Convenient and easy-to-use
- Can be provided by trained nonmedical staff
- No estrogenic side effect

Noncontraceptive

- May decrease menstrual cramps
- May decrease menstrual bleeding and may improve iron deficiency anemia
- Protects against endometrial cancer
- Decreases benign breast disease
- Protects against some causes of PID

Disadvantages

- Cause changes in menstrual bleeding pattern (irregular bleeding/spotting initially) in most women
- Some weight gain or loss may occur
- User-dependent (require continues motivation and daily use)
- Must be taken at the same time every day
- Forgetfulness increases failure
- Resupply must be available
- Effectiveness may be lowered when certain drugs like rifampin ,phenytoin and barbiturates are also taken
- Do not protect against GTIs or other STDs (e.g., HBV, HIV/AIDS)

Contra-indications

- Pregnancy (known or suspected)
- Known or suspected cancer of the reproductive tract and breast
- Undiagnosed genital tract bleeding
- Taking drugs like rifampin ,phenytoin, and barbiturates

Client Instructions

- Take 1 pill at the same time each day.
- Take the first pill on the first day of your menstrual period. If you start POPs after the first day of your period, but before the seventh day, use a backup method for the next 48 hours.

- Take all the pills in the pack. Start a new pack on the day after you take the last pill.
- If you vomit within 30 minutes of taking a pill, take another pill or use a backup method if you have sex during the next 48 hours.
- If you take a pill more than 3 hours late, take it as soon as you remember. Use a backup method if you have sex during the next 48 hours.
- If you forget to take one or more pills, you should take the next pill when you remember. Use a backup method if you have sex during the next 48 hours.
- If you miss 2 or more menstrual periods, you should come to the clinic to check to see if you are pregnant; do not stop taking the pills unless you know you are pregnant.

2.7.3.3. Injectable contraceptives

Injectable contraceptives are systemic progestin preparations administered by intramuscular injection. The most common type of injectable contraceptive is Depo-Provera/DMPA, which is a progestin-only injectable contraceptive (PICs) given every 3 months. A second PIC is Noristerat, which is given every 2 months.

Mechanism of action

- Thickens cervical mucus, preventing sperm penetration
- Make the endometrium less favorable for implantation
- Reduces sperm transport in upper genital tract (fallopian tubes)
- Suppresses ovulation (release of eggs from ovaries)

Advantages

Contraceptive

- Highly effective (0.3-1 pregnancies per 100 women during the first year of use)
- Rapidly effective (<24 hours)
- Intermediate-term method (2 or 3 months per injection)

- Pelvic examination not required prior to use
- Does not interfere with intercourse
- Does not affect breast-feeding
- No supplies needed by client
- Can be provided by trained non-medical staff
- No estrogenic side effects
- No daily pill taking, long term pregnancy prevention but reversible

Noncontraceptive

- May decrease menstrual cramps
- May decrease menstrual bleeding and may improve iron deficiency anemia
- Protects against endometrial and ovarian cancer
- Decreases benign breast disease
- Decreases ectopic pregnancy
- Protects against some causes of PID
- Helps prevent Uterine fibroids
- May make seizures less frequent in women with epilepsy

Disadvantages

- Changes in menstrual bleeding pattern are likely, including
- Light spotting or bleeding. Most common initially.
- Heavy bleeding can occur initially but is rare
- Amenorrhea after first year of use is normal.
- User-dependent (must return for injection every 2 or 3 months)
- Delay in return of fertility (DMPA only)
- Re-supply must be available
- Excessive vaginal bleeding in rare instances
- Do not protect against GTIs or other STDs (e.g., HBV, HIV/AIDS)
- My cause headaches, breast tenderness, moodiness, nausea, hair loss, less sexual drive or acne in some women

Management of Common Side Effects

- Don't ignore the woman's concerns.
- If the woman is not satisfied after treatment and counseling help her choose another method if she wishes.

Side Effect/Problem	Possible causes
Amenorrhea (absence of vaginal bleeding or spotting)	- Pregnancy - Hormonal side effect
Vaginal bleeding/Spotting	- Pregnancy - other gynecologic causes - Hormonal side effect
Weight gain or loss (change in appetite)	- Hormonal side effect

Client Instructions

- Return to the health clinic for an injection every 3 months (DMPA) or every 2 months (NET-EN)

2.7.3.4. Contraceptive implants

The Norplant implant system consists of a set of 6 small, plastic capsules. Each capsule is about the size of a small matchstick. The capsules are placed under the skin of a woman's upper arm. Norplant capsules contain a progestin (called levonorgestrol), similar to a natural hormone that a woman's body makes. It is released very slowly from all 6 capsules. Thus the capsules supply a steady, very low dose of progestin. Norplant contains no estrogen. A set of Norplant capsules can prevent pregnancy for at least 5 years.

Mechanisms of Action

- Thickens cervical mucus, preventing sperm penetration
- Make the endometrium less favorable for implantation

- Reduces sperm transport in upper genital tract (fallopian tubes)
- Suppress ovulation

Advantages

Contraceptive

- Highly effective (0.2-1 pregnancies per 100 women during the first year of use)
- Rapidly effective (<24 hours)
- Long-term method (up to 5 years protection)
- Pelvic examination not required prior to use
- Does not interfere with intercourse
- Does not affect breast-feeding
- Immediate return of fertility on removal
- Client needs to return to clinic only if there are problems
- No supplies needed by client
- Can be provided by trained non physician (nurse or midwife)
- Contains no estrogen no side effects of estrogen

Noncontraceptive

- May decrease menstrual cramps
- May decrease menstrual bleeding and may improve iron deficiency anemia
- Protects against endometrial cancer
- Decreases benign breast disease
- Decreases ectopic pregnancy
- Protects against some causes of PID

Disadvantages

- Causes changes in menstrual bleeding pattern (irregular bleeding/spotting initially) in most women
- Some weight gain or loss may occur

- Requires trained provider for insertion and removal
- Amenorrhoea
- Women must return to health care provider or clinic for insertion of another set of capsules or removal
- Women cannot stop whenever they want (provider-dependent)
- Effectiveness may be lowered when certain drugs like rifampin ,phenytoin and barbiturates .
- Does not protect against GTIs or other STDs (e.g., HBV, HIV/AIDS)
- Discomfort for several hours to 1 day after insertion for some women, perhaps for several days for a few. Removal is sometimes painful and often more difficult than insertion.

Common Side Effects and Other Problems

- Amenorrhea (absence of vaginal bleeding or spotting)
- Vaginal bleeding/Spotting/ Bleeding between monthly periods
- Capsule coming out
- Infection at insertion site
- Weight gain or loss (change in appetite)

For the management of these common side effects and other problems – see satellite

modules for public health officers and nurses.

For Norplant insertion, removal and postinsertion client instruction – see annex

2.7.4. Barrier methods

Barrier methods are one of the family planning methods used for prevention of pregnancy as well as certain sexually transmitted diseases. As the name implies these methods prevent the ascent of the spermatozoa into the upper female genital tract.

Types of barrier methods:

Condom

There are two types of condoms: male and female condoms.

The male condom is a thin rubber (latex) that is worn over an erect penis during intercourse. It comes in an individually wrapped package lubricated or unlubricated. Lubricated condoms are often coated with a thin layer of lubricant to make them more comfortable and reduce friction during sex.

The female condom has recently become available. It is a strong soft, transparent sheath with two flexible rings at both ends which lines the vagina to create a barrier against sperm and STDs.

Advantages

Contraceptive

- Effective immediately
- Does not affect breastfeeding
- Can be used as backup to other methods
- No method-related health risks
- No systemic side effects
- Widely available (pharmacies and community shops)
- No prescription or medical assessment necessary
- Inexpensive (short-term)
- Enables man to take responsibility for family planning
- Prevents certain STDs

Disadvantages

- Moderately effective (2-12 pregnancies per 100 women during the first year)
- User-dependent (require continued motivation and use with each act of intercourse)
- May reduce sensitivity of penis, making maintenance of erection more difficult
- Disposal of used condoms may be a problem.

- Adequate storage must be available at the client's home
- Supplies must be readily available before intercourse begins
- Re-supply must be available
- Occasional allergy
- Slippage and breakage during sex

Client instruction

- Use a every time you have intercourse
- Do not use teeth, knife, scissors or other sharp utensils to open the package.
- The condom should be unrolled onto the erect penis before the penis enters the vagina, because the pre-ejaculatory semen contains active sperm.
- If the condom does not have an enlarged end (reservoir tip), about 1-2cm should be left at the tip for the ejaculate.
- While holding on to the base (ring) of the condom, withdraw the penis before losing the erection. This prevents the condom from slipping off and spilling semen.
- Each condom should be used only once.
- Dispose of used condoms by placing in a waste container, in the latrine or burying.
- Keep an extra supply of condoms available. Do not store them in a warm place or they will deteriorate and may leak during use.
- Do not use a condom if the package is broken or the condom appears damaged or brittle.
- Do not use mineral oil, cooking oils, baby oil or petroleum jelly as lubricants for a condom. They damage condoms in seconds. If lubrication is required, use saliva or vaginal secretions.

Spermicdals-Foaming Tablets, Jellies, Creams

Spermicides are generally made of two ingredients: a sperm-killing chemical (nonoxynol) which causes the cell membrane to break decreasing the movement

of the sperm and an inert substance which hold the spermicide against the opening of the cervix

Advantages

Contraceptive

- Effective immediately (foams and creams)
- Do not affect breastfeeding
- Can be used as backup to other methods
- No method-related health risks
- No systemic side effects
- Easy-to-use
- Increases wetness (lubrication) during intercourse
- No prescription or medical assessment necessary

Noncontraceptive

- Some protection against STDs (e.g., HBV, HIV/AIDS, chlamydia and gonorrhea)

Disadvantages

- Moderately effective (3-21 pregnancies per 100 women during the first year) of use
- Effectiveness as a contraceptive depends on willingness to follow instructions
- Use-dependent (require continued motivation and use with each act of intercourse)
- Use must wait 10-15 minutes after application before intercourse (vaginal foaming tablets, suppositories)
- Each application is effective for only 1-2 hours
- Supplies must be readily available before intercourse occurs
- Re-supply must be available
- Occasional allergy

Diaphragm

A diaphragm is a dome-shaped latex (rubber) cup with flexible rims. It is designed to cover the cervical os and should be inserted before sexual intercourse thus preventing the upward movement of the sperm into the upper genital tract. It is generally used in conjunction with spermicides.

Advantages

Contraceptive

- Effective immediately
- Does not affect breastfeeding
- Does not interfere with intercourse (may be inserted up to 6 hours before)
- No method-related health risks
- No systemic side effects.

Noncontraceptive

Some protection against GTIs and other STDs (E.G., HBV, HIV/AIDs) especially when used with spermicide.

Disadvantages

- Moderately effective (6-18 pregnancies per 100 women during the first year when used with spermicide)
- Effectiveness as contraceptive depends on willingness to follow instructions
- User-dependent (require continued motivation and use with each act of intercourse)
- Pelvic examination by trained service provider (may be non physician) required for initial fitting and postpartum refitting.
- Associated with urinary tract infections and vaginal erosion or trauma in some users
- Problem of dislodgment
- Must be left in place for 6 hours after intercourse.

- Supplies must be readily available before intercourse begins.
- Re-supply must be available (spermicidal required with each use)

For client instruction see satellite module for Health Officers and Public Health Nurses

2.7.5. Intrauterine contraceptive devices (IUCD)

An intrauterine contraceptive device is a small piece of flexible plastic with or without copper wound around it. The copper increases effectiveness. Modern IUCDs are highly effective, easily inserted and removed. The IUCD is inserted into the uterus through the vagina and cervix by a trained family planning provider and is left in place with the strings hanging down through the cervix into the vagina. The client can check the strings to be sure that the IUCD is in place. It provides continuous protection against pregnancy for a minimum of 10 years for copper bearing and 1 year for progestin releasing ones.

There are two broad types of IUCDs:-

- Copper-releasing: Copper T 380A, (currently distributed in Ethiopia), Nova T and Mutliload 375
- Progestin-releasing: Progestasert® and LevoNova®

Mechanism of action

No Single mechanism of action but the following are postulated:

- Interferes with ability of sperm to pass through uterine cavity
- Interferes with reproductive processes before ovum reaches uterine cavity (Copper-releasing)
- Thickens cervical mucus (progestin releasing)
- Changes endometrial lining (progestin-releasing)

Advantages

Contraceptive

- Highly effective (0.5-1 pregnancies per 100 women during the first year of use for Copper T 380A)
- Effective immediately
- Long-term method (up to 10 years protection with Copper T 380A)
- Does not interfere with intercourse
- Does not affect breast-feeding
- Immediate return to fertility upon removal
- After follow-up visit, client needs to return to clinic only if problems arise
- No supplies needed by client
- Relatively inexpensive

Disadvantages

- Pelvic examination required and screening for GTIs recommended before insertion
- Requires trained provider for insertion and removal
- Needs to be check for strings after menstrual period if cramping, spotting or pain occurs
- Women cannot stop use whenever they want (provider-dependent)
- Increased menstrual bleeding and cramping during the first few months of use (copper-releasing only)
- May be spontaneously expelled
- Occasionally (< 1/1000 cases) perforation of the uterus may occur during insertion
- May increase risk of PID and subsequent infertility in women at risk for GTIs and other STDs

Absolute contraindications

- Known or suspected pregnancy
- Unexplained vaginal bleeding (until evaluated)
- Active genital tract infections (vaginitis, cervicitis)
- PID (within the past 3 months) or septic abortion
- Known pelvic tuberculosis

Relative contraindications

- Nulliparous women
- History of dysmenorrhea and hypermenorrhea (for copper bearing IUCDs)
- Iron deficiency anemia
- Valvular heart disease
- Bleeding disorder
- Impaired immunity (eg. HIV/ AIDS and diabetes mellitus)
- Uterine anomaly and myomas
- Sever cervical stenosis
- Risk for STDs (multiple sexual partners)

Common side effects and possible causes

Side effects/Problems	Possible causes
• Amenorrhea	• Pregnancy
• Cramping	• PID, uterine perforation and ectopic pregnancy
• Irregular or heavy vaginal bleeding	• IUCD related, genital tract tumors and ectopic pregnancy
• Missing string	• Expulsion, retraction of the string, uterine perforation and pregnancy
• Yellowish vaginal discharge	• PID, simple IUCD related
• Syncopal reaction	• IUCD related

N.B: for specific management of these side effects refer the satellite module for HO and nurses.

Time of insertion

1. During menses or the first seven days of the menstrual cycle
2. Immediately after uncomplicated abortions
3. Six weeks post partum whether breast feeding or not
4. Soon after uncomplicated delivery (post placental insertion)
5. Immediately after stopping other reliable family planning methods

For procedure of IUCD insertion and client instruction after insertion refer annex 3

2.7.6. Emergency Contraceptives

Emergency contraception includes those methods used to prevent pregnancy after unprotected intercourse, if pregnancy is not planned or desired. Emergency contraceptives should not be used in place of family planning methods and should be used only in an emergency, for example

- In cases of rape
- A condom has broken
- An IUCD has come out of place
- Pills are lost or forgotten
- Sex took place without contraception and the woman wants to avoid pregnancy.

COCs, POPs, Antiprogestins (mifepristone) and IUCDs (copper-releasing) can be used as emergency contraceptives.

Advantages

- All are very effective (less than 3% of women become pregnant during that cycle).

- IUCDs also provide long-term contraception.

Disadvantages

- COCs are effective only if used within 72 hours of unprotected intercourse
- COCs may cause nausea, vomiting or breast tenderness
- POPs must be used within 48 hours but cause much less nausea and breast tenderness
- Antiprogestins are effective only if used within 72 hours of unprotected intercourse
- Currently are expensive and available only in a few countries
- IUCDs are effective only if inserted within 5 days of unprotected intercourse
- IUCD insertion requires minor procedure performed by a trained service provider and should not be done in women at risk for GTIs or other STDs (e.g., HBV, HIV/AIDS)

Client Instructions and dosage of hormonal methods – see satellite module for public health officers. For all methods, if no menses (vaginal bleeding) within 3 weeks, the client should consult the clinic or service provider to check for possible pregnancy.

2.7.7. Voluntary surgical contraception (VSC)

Voluntary surgical contraception is a permanent contraceptive method for women (tubal occlusion) and men (vasectomy). It is intended to be an irreversible method therefore repeated and thorough counseling is essential to minimize regret in the future.

It is suitable for:

- Clients who have all the children they want and need reliable contraceptive
- Clients who have serious medical problems and can not use other reliable

methods e.g. cardiac disease

Tubal Occlusion

Tubal occlusion is a permanent method of contraception for women. It involves blocking both fallopian tubes (by tying or cutting or applying rings or clips) and preventing the sperm from reaching the ova.

Advantages

Contraceptive

- Highly effective (0.2-4 pregnancies per 100 women during the first year of use)
- Effective immediately
- Permanent
- Does not affect breast-feeding
- Does not interfere with intercourse or sexual function
- Good for client if pregnancy would pose a serious health risk
- Simple surgery, usually done under local anesthesia
- No long-term side effects

Disadvantage

- Not reversible
- Client may regret later
- Small risk of complications (increased if general anesthesia is used)
- Short-term discomfort/pain following procedure
- Requires trained physician
- Does not protect against STDs (e.g., HBV, HIV/AIDS)

Vasectomy

Vasectomy is a permanent method of contraception for men. It involves blocking both vasdeferense preventing passage of sperm to male urethra.

Advantage

Contraceptive

- Highly effective (0.1-0.15 pregnancies per 100 women during the first year of use)
- Permanent
- Does not affect breast-feeding
- Does not interfere with intercourse or sexual function
- Good for couples if pregnancy or tubal occlusion would pose a serious health risk to the woman
- Simple surgery done under local anesthesia
- No long-term side effects

Disadvantage

- Must be considered permanent (not reversible)
- Client may regret later
- Delayed effectiveness (requires up to 3 months or 20 ejaculations)
- Risks and side effects of minor surgery (short-term discomfort/ pain)
- Requires special training
- Does not protect against STDs (e.g., HBV, HIV/AIDS)

UNIT THREE

SATELLITE MODULES

3.1. Satellite Module for Public Health Officers

3.1.1. Pre and post test for the satellite module of health officers

– Refer to section 1.1. of the core module

3.1.2. Learning objectives

In addition to those objectives mentioned in the core module, after completion of the satellite module the health officer student is expected to be able to:

1. Instruct clients how to insert diaphragms.
2. Detect and manage side-effects and complications of different family planning methods.
3. Insert and remove intrauterine devices.
4. Insert and remove norplants.

3.1.3. Counseling

Counseling is a vital part of family planning. It is a two-way process in which clients are helped to arrive at an informed choice of reproductive options and to use them safely, effectively and continuously.

When family planning providers counsel clients, they progress through a series of interconnected and overlapping stages to help clients make decisions. Both the provider and the client actively participate. They exchange information and discuss the client's feelings and attitudes about family planning and about specific contraceptive methods. Throughout the provider adapts the counseling process to each client's needs. Through this interaction the client makes a decision, acts on it and evaluates his or her action.

There are six possible elements to the counseling process. They are easy to remember with the mnemonic, or memory aid, **GATHER**

Greet the client warmly and politely. Providers first introduce themselves and offer the client a seat. They conduct the counseling session where no one else can hear. They tell clients what to expect during the counseling session. Through their facial expressions, gestures, eye contact and posture, they show that they are interested and concerned.

Ask the client about his or her family planning needs. Providers ask the client how they can help. If it is the client's first visit, the provider will also need to take a medical history that includes the client's

- 1) Age
- 2) Intimate partner
- 3) Number of pregnancies
- 4) Number of births
- 5) Number of living children
- 6) Family planning used now and in the past
- 7) Basic medical information, including past and current illnesses and current medications.

During routine follow-up visits providers ask clients if they have any problems with their methods and if they are still using them. Even those who have come chiefly for more supplies may have something that they want to discuss. Providers ask clients if they are having any side-effects. Also, by asking clients to explain exactly how they use their methods, providers can check that they are using them correctly. Providers should also check whether clients know what signs of complications to watch for.

Tell the client about the family planning choices available both through the program and through referral to other providers. With new clients providers should mention all the methods available. Then they can ask the client whether she or he knows about these methods and offer to explain them. For each method that interests the client, providers should explain

- 1) How the method works and how it is used
- 2) Its advantages and benefits, and
- 3) Its disadvantages and possible side effects

Providers can spend less counseling time giving clients this information when they offer group discussions or audio-visual materials about the methods before they talk with clients individually or if clients have seen programs that inform the public about family planning methods through the mass media. Providers will also find that providing information about methods goes more quickly with returning clients. The choices that providers discuss should depend on clients' particular needs.

Help clients choose a method. Many clients will want to choose a family planning method. Some will know what they want, others may not be sure. Providers can ask and answer questions, help clients match their family plans, needs and preferences with a particular method. Depending on what the client already knows about family planning methods, providers can ask clients to consider:

- 1) What their plans and wishes are about having children
- 2) What problems, if any, they think that they might have using a particular method
- 3) How often they have intercourse
- 4) Where they can store pills, condoms, spermicides, or diaphragms
- 5) How they will remember to use the method correctly
- 6) How often they can return to see a health worker, and
- 7) If appropriate, how much they can spend on family planning.

If clients come individually, rather than as couples, the provider also should ask

1. Whether they have discussed family planning with their partner and, if not, how they will do so
2. What preferences and opinions their partners have about family planning
3. What they are doing to protect themselves from HIV/AIDS

Some methods are medically contra-indicated for some clients. When this is the case providers should clearly explain this to the client and help them choose a different method. Also when pregnancy would be particularly dangerous to a woman or her child, providers should recommend that she choose an effective contraceptive. Except in such cases, however, providers should not interfere with the client's free choice of methods. Of course, in order to provide a choice, programs must make supplies of various methods available.

Explain how to use the chosen method correctly. Providers should give instructions clearly, noting any possible side-effects and warning signs. They should ask clients to repeat information to make sure that they understand. It helps clients to give them written instructions to take home. If the method requires a procedure for example, IUD insertion or tubal ligation, providers should explain the procedure and tell clients how, when, and where it will be provided.

Return visits should be planned before clients leave. With copper IUDs clients need to know when they must be replaced. With injectables, clients need to know when to return for their next injections. In places with few clocks and calendars providers can help clients remember when to return by relating their return appointments to some important event in clients' lives for example, a holiday or festival, a season of the year or the fullness of the moon. When possible providers should give clients written reminders of their appointments.

Not every counseling session will consist of all six of these elements while others may involve repeating some elements. In every case counseling should be tailored to the client's needs. Continuing clients, particularly, often have various but specific needs that should be met with a specific response. Clients often talk with providers several times before they decide to have a tubal ligation or vasectomy. Also some clients may decide not to use any methods of family planning.

What influences the quality of counseling? So far research has focused on social and cultural differences between providers and clients, counseling styles, providers' competence and commitment to family planning and the way that family planning services are delivered.

3.1.4. Client assessment

Client assessment - refer to the core module.

Objectives – refer the core module.

How to tell a client is not pregnant – read the core module.

In addition the following signs and symptoms of pregnancy may help in the diagnosis of pregnancy

Symptoms and signs of pregnancy

Symptoms

- Absent menstruation (Amenorrhea) or altered menstruation
- Nausea (with or without vomiting)and change in appetite
- Fatigue (Persistent)
- Breast tenderness(and breast enlargement)
- Increased frequency of urination
- Perception of fetal movements (late symptom, at 16-20 weeks gestation)

Signs

- Uterine softness, roundness and enlargement begins to be noticeable at 6 weeks gestation
- Hegar's sign manifest at about 6 weeks gestation. The isthmus between the cervix and the body of the uterus is soft and compressible on bi-manual examination
- Enlarged uterus is palpable above symphysis pubis after 12 weeks gestation
- Fetal heart tones are detectable with stethoscope at 18-20 weeks gestation

Fetal movements are perceived by examiner at 18-20 weeks gestation

For the diagnosis of pregnancy by laboratory methods - see the satellite module for medical laboratory technicians.

Client assessment checklist for the different contraceptive methods – see annex.

3.1.5. Traditional family planning

There are three types of traditional Family Planning methods

- Lactation amenorrhea method (Breast Feeding) (LAM)
- Abstinence
- Coitus interruptus

Lactational amenorrhea

Lactational amenorrhea is the use of breast-feeding as a contraceptive method. It is based on the physiologic effect of suckling to suppress ovulation. Lactational amenorrhea has contraceptive and non-contraceptive benefits for the mother and the child. Read the core module about these benefits and their limitations.

Abstinence

Abstinence is a very effective and acceptable method of birth control. Its major problem is that it is only effective if followed without exception. Also for many couples, going without sex is not an acceptable decision. While abstinence could be encouraged, the physician must deal non-judgmentally with a patient who wishes to or already engages in premarital sex. It is important that the patient knows the dangers of unprotected sex, which include AIDS, infertility, pelvic infections, unwanted pregnancies and cultural isolation.

Coitus Interruptus

Coitus interruptus is the withdrawal of the penis just before ejaculation occurs so that sperm does not go into the vagina. It is not a reliable method because there is often pre-ejaculation leakage of sperm which can often lead to pregnancy. Therefore this is not a method that can be recommended.

3.1.6. Natural family planning methods (NFP)

Natural Family Planning Methods (NFP) are methods that use the body's natural physiological changes and symptoms of fertile and infertile phase of the menstrual cycle to determine when a couple should engage in or refrain from sexual intercourse either to avoid pregnancy or to achieve it (as in case of infertile couples). There are 4 main types

- The rhythm or calendar method
- The basal body temperature (BBT) method
- The cervical mucus (Billings) method
- The sympto-terminal method (combination of BBT and Billings Method)

For the details of each method refer to the core module.

3.1.7. Barrier methods

Barrier methods are one of the family planning methods used for prevention of pregnancy as well as sexually transmitted disease. There are three types of barrier methods

- Condoms
- Spermicidal (Foaming Tablets, Jellies and Creams)
- A diaphragm.

For details of each methods above refer the core module.

Management of common side-effects and other problems of spermicidals

Side Effect/ Problem	Management
Vaginal irritation	Check for vaginitis and GTIs. If caused by spermicide, switch to another spermicide with a different chemical composition or help client choose another method.
Penile irritation and discomfort	Check for GTIs. If caused by spermicide, switch to another spermicide with a different chemical composition or help client choose another method.
Heat sensation in the vagina is bothersome	Check for allergic or inflammatory reaction. Reassure that warm sensation is normal. If still concerned, switch to another spermicide with a different chemical composition or help client choose another method.
Tablets fail to Melt	Select another type of spermicide with different chemical composition or help client choose another method.

Client instructions for spermicidals

- It is important to use spermicide before each act of intercourse.

- There is a 10-15 minute waiting interval after insertion of vaginal tablets, suppositories or film. There is no waiting interval after inserting aerosols (foams).
- It is important to follow the recommendations of the manufacturer for use and storage of each product (for example: shake aerosols before filling the applicator.).
- Additional spermicide is needed for each repeated intercourse.
- It is important to place the spermicide high in the vagina so the cervix is well covered

Management of common side-effects of a diaphragm

Side Effect	Management
Urinary tract infections (UTIs)	Treat with appropriate antibiotic. If client has frequent UTIs and diaphragm remains her first choice for contraception, advise emptying bladder (voiding) immediately after intercourse. Offer client postcoital prophylactic (single dose) antibiotic. Otherwise, help client to choose another method.
Suspected allergic reaction (diaphragm)	Allergic reactions, although uncommon, can be uncomfortable and possibly dangerous. If symptoms of vaginal irritation, especially after intercourse and no evidence of GTI, help client choose another method.
Suspected allergic reaction (spermicide)	Allergic reactions, although uncommon, can be uncomfortable and possibly dangerous. If symptoms of vaginal irritation, especially after intercourse and no evidence of GTI, provide another spermicide or help client choose another method.
Pain from pressure on bladder/rectum	Assess diaphragm fit. If current device is too large, fit with smaller device. Follow up to be sure problem is solved
Vaginal discharge and odor if left in place for more than 24 hours	Check for GTI or foreign body in vagina (tampon, etc.). If no GTI or foreign body is present, advise client to remove diaphragm as early as is convenient after intercourse, but not less than 6 hours after last act. (Diaphragm should be gently cleaned with mild soap and water after removal. Powder of talc should not be used when storing diaphragm.) If GTI, manage as appropriate.

Client instructions for a diaphragm

- Use the diaphragm every time you have intercourse.

- First, empty your bladder and wash your hands.
- Check the diaphragm for holes by pressing the rubber and holding it up to the light or filling it with water.
- Squeeze a small amount of spermicidal cream or jelly into the cup of the diaphragm. To make insertion easier, a small amount of cream/jelly can be placed on the leading edge of the diaphragm or in the opening to the vagina. Squeeze the rim together.
- The following positions may be used for inserting the diaphragm:
 - One foot raised up on a chair or toilet seat
 - Lying down
 - Squatting
- Spread the lips of the vagina apart.
- Insert the diaphragm and cream/jelly back in the vagina and push the front rim up behind the pubic bone.
- Put your finger in the vagina and feel the cervix (it feels like your nose) through the rubber to make sure it is covered.
- The diaphragm can be placed in the vagina up to 6 hours before having intercourse. If intercourse occurs more than 6 hours afterwards, another application of spermicide must be put in the vagina. Additional cream or jelly is needed for each repeated intercourse.
- Leave the diaphragm in for at least 6 hours after the last time intercourse occurred. Do not leave it in more than 24 hours before removal. (Vaginal douching is not recommended at any time. If done, vaginal douching should be delayed for 6 hours after intercourse).
- Remove diaphragm by hooking finger behind the front rim and pulling it out. If necessary, put your finger between the diaphragm and the pubic bone to break the suction before pulling it out.
- Wash the diaphragm with mild soap and water and dry it thoroughly prior to returning it to the container.

3.1.8. Hormonal contraceptives

Hormonal contraceptives are methods that are systemic in nature and contain either a progestagen combined with estrogen or progestagen alone. These methods include

1. Oral contraceptives: Oral contraceptives contain two female hormones, estrogen and progestin, combined oral contraceptives (COCs) or progestin only (progestin-only pills (POPs)).
Progestin Only Pills (POPs) contains only progestin and no estrogen
2. Progestin only Injectables (PICs): Injectable contraceptives are systemic progestin preparations administered intramuscularly. The two widely available PICs are
Depoprovera which contains 150 mg of medroxy progesterone(DMPA) and is given every 3 months and
Noristerate which contains 200mg of Norethistrate enantate (NET-ET) and is given every 2 months.
3. Contraceptive implants (Norplant): The Norplant implant system consists of a set of 6 small, plastic capsules. The capsules are placed under the skin of a woman's upper arm. Norplant capsules contain a progestin (called levonorgestrol) and releases it into the systemic circulation in small amounts. A set of Norplant capsules can prevent pregnancy for at least 5 years.

Management of common side-effects and other problems of COCs

Side Effect/ Problem	Management
<p>Amenorrhea (absence of vaginal bleeding or spotting following completion of pill cycle)</p>	<p>Clients using 21-day packs may forget to leave a pill-free week for menses. If pills are taken continuously, they may not have any periods. This is not harmful.</p> <p>Check for pregnancy.</p> <p>If not pregnant and client is taking COCs correctly, reassure. Explain that absent menses are most likely due to lack of buildup of uterine lining.</p> <p>If not pregnant, no treatment is required except counseling and reassurance. If she continues low-dose estrogen COCs (30-35µg EE), amenorrhea usually will persist. Advise client to return to clinic if amenorrhea continues to be a concern or switch to a high-dose estrogen (50µg EE) pill if available and non conditions requiring precaution exist.</p> <p>If intrauterine pregnancy is confirmed, counsel client regarding options. If pregnancy will be continued, stop use and assure her that the small dose of estrogen and progesterin in the COCs will have no harmful effect on the fetus.</p>
<p>Nausea/Dizziness/ Vomiting</p>	<p>Check for pregnancy. If pregnant, manage as above. If not, advise taking pill with evening meal or before bedtime. Reassure that symptoms usually decrease after first three cycles of use.</p>
<p>Vaginal bleeding/ Spotting</p>	<p>Check for pregnancy or other gynecological conditions. Advise taking pills at the same time each day. Reassure that spotting/light menstrual bleeding is common during first 3 months of use and then decreases. If it persists, provide higher dose estrogen (50µg EE) pills or help client choose another method.</p>

POPs, side-effects and their management

Side effects	Assessment	Management
Spotting or irregular bleeding	Take history to rule out gynecological problems (tumor, pregnancy, PID, abortion) If no cause is found,	If no gynecological problem, reassure or if there is a problem treat as necessary and continue POPs Inform client that this is expected with POP users and is not harmful .If the client is not comfortable with the method inform her about other methods
Amenorrhea	Ask if client has had regular monthly period and suddenly missed her period Rule out pregnancy If no signs of pregnancy, ask if this happened only this month or before Ask the client if the condition is bothering her	If pregnant and intends to continue the pregnancy, stop POP and refer for antenatal clinic If not pregnant, reassure her Switch to COC or give her another method
Heavy bleeding	Rule out ectopic pregnancy, PID and other gynecological problems If no other causes do Hgb/HCT if low	If problems ruled out treat as necessary and continue POPs for two months or switch to COCs to stop bleeding Give iron supplement

Management of common side-effects and other problems of Norplants

Side Effect/ Problem	Management
Amenorrhea (absence of vaginal bleeding or spotting)	<p>Check for pregnancy.</p> <p>If not pregnant, no treatment is required except reassurance. Explain that blood does not build up inside the uterus or body with amenorrhea. The continued action of small amounts of the progestin (LNG) shrinks the endometrium, leading to decreased menstrual bleeding and, in some women, no bleeding at all. Finally, advise client to return to clinic if amenorrhea continues to be a concern.</p> <p>If intrauterine pregnancy confirmed, counsel client regarding options. Remove implants if pregnancy will be continued and assure her that the small dose of progestin (LNG) will have no harmful effect on the fetus.</p> <p>If ectopic pregnancy suspected, refer at once for complete evaluation.</p> <p>Do not give hormonal treatment (COCs) to induce withdrawal bleeding. It is not necessary and usually is not successful unless 2 or 3 cycles of COCs are given.</p>
Vaginal bleeding/ Spotting/ Bleeding between monthly periods	<p>If no problem found and client not pregnant, counsel client that bleeding/spotting is not serious and usually does not require treatment. Most women can expect the altered bleeding pattern to become more regular after 6 to 12 months.</p> <p>If the client is not satisfied after counseling and reassurance, but wants to continue using implants, two treatment options are recommended:</p> <ul style="list-style-type: none"> • a cycle of COCs (30-35µg EE), or • ibuprofen (up to 800mg 3 times daily for 5 days) or other NSAID.

	<p>Be sure to tell the client to expect bleeding during the week after completing the COCs (21-pill pack) or during the last 7 pills if 28-pill pack.</p> <p>For heavy bleeding give 2 COC pills per day for remainder of cycle (at least 3 to 7 days) followed by 1 cycle of COCs or switch to 50µg of estrogen (EE) or 1.25 mg conjugated estrogen for 14-21 days.</p>
Capsule coming Out	<p>Remove partially expelled capsule(s). Check to determine if remaining capsules are in place.</p> <p>If area of insertion is not infected (no pain, heat and redness), replace capsule(s).</p> <p>If area of insertion is infected:</p> <ul style="list-style-type: none"> • remove remaining capsules and insert a new set in the other arm, or • help the client choose another method.
Infection at insertion site	<p>If infection (not abscess) wash area with soap and water and give appropriate oral antibiotic for 7 days.</p> <p>Do not remove capsules. Ask client to return after 1 week. If no improvement, remove capsules and insert a new set in the other arm or help client choose another method.</p> <p>If abscess forms clean the area with antiseptic incise and drain the pus.</p> <p>Remove the implants and treat the wound. If significant skin infection is involved, give oral antibiotic for 7 days.</p>
Weight gain or loss (change in appetite)	<p>Counsel client that fluctuations of 1-2kg (2-4 lbs) are common with use of implants.</p>

Case Study 1

The client is a 19-year-old mother of two, the younger of which is 9 months old. Her last pregnancy was a difficult one and she does not want another child for several years. She came to the clinic 2 months ago and after initial counseling decided to use oral contraceptives as her family planning method.

She has now returned to the clinic complaining of spotting and nausea since she began taking her first packet of pills. She is very worried that she is losing too much blood from the spotting and she is also losing weight because she isn't eating due to the nausea. She is thinking about switching to another method.

Questions

1. What are the possible causes of her spotting and nausea?
2. What else do you need to know to identify the cause of her spotting and nausea? What questions would you ask her and what examinations would you perform?
3. Finding no other causes, what would you tell her about spotting and nausea and use of COCs?
4. How would you manage this client?
5. If the client decides she would prefer to use another family planning method, which one(s) may be appropriate *for her*? *Why*?

Case Study 2

The client is 22 years old and has one child. She began taking COCs 3 months ago when her baby was 6 months old and she began introducing foods other than breastmilk. She had not yet had a period when she started COCs, but she experienced a menses with the first two packets of pills. In the first couple of

months of taking the COCs she had some difficulty remembering to take a pill every day. Once she missed more than 1 day before she remembered to start taking them again.

She has now returned to the clinic very worried because she has missed a period, her breasts are tender and full, and she fears she may be pregnant.

Questions

1. What are the possible causes of her symptoms?
2. What other information do you need to identify the actual cause? What questions would you ask? What examinations do you need to do?
3. How would you manage this client? What information and counseling does she need if she: is pregnant? is not pregnant?
4. How might this situation have been avoided?

Case Study 3

The client is a 28-year-old mother of three children. The youngest is 4 years old and his birth was very difficult. She does not want to have any more children and her husband agrees. To prevent further pregnancies, she began taking Depo-Provera injections about 1 year ago. It is not yet time for her next injection but she has returned to the clinic because she is worried-she has not had a menstrual period for two months and is afraid that the menstrual blood is building up inside of her.

Questions

1. What are the possible causes of the client's amenorrhea?
2. What additional information do you need to determine the most likely cause? What questions will you ask? What examinations will you perform?

3. You find no cause for the amenorrhea other than the Depo-Provera. How would you manage this client?
4. What will you tell the client about the cause of her amenorrhea and its management?
5. Despite your explanations, the client insists on stopping the Depo-Provera. What other family planning methods might be appropriate for her? Why?

3.1.9. Intrauterine devices (IUD)

An intrauterine contraceptive device (IUCD) is a small piece of flexible plastic with or without copper wound around it. The copper increases effectiveness. The IUCD is inserted into the uterus through the vagina and cervix. When the device is in place, the strings hang down through the cervix into the vagina so that the client can check the strings to be sure the IUD is in place. Types of IUDs are

- Copper-releasing: Copper T 380A, Nova T and Multiload 375
- Progestin-releasing: Progestasert and LevoNova

The IUCD currently distributed in Ethiopia is Copper T 380A.

Management of common side-effects and other problems

Side Effect/Problem	Management
Amenorrhea (absence of vaginal bleeding or spotting)	<p>Check for pregnancy.</p> <p>If not pregnant, do not remove IUD. Provide counseling and reassurance. Refer for investigation to identify the cause of amenorrhea if client remains concerned.</p> <p>If pregnant, counsel about options. Advise removal of IUD if strings visible and pregnancy is less than 13 weeks. If strings not visible or pregnancy is more than 13 weeks, do not remove IUD.</p> <p>If client is pregnant and wishes to continue pregnancy but does not want IUD removed, advise her of increased risk of miscarriage and infection and that pregnancy should be followed closely.</p>
Cramping also (past insertion)	<p>Rule out PID and other causes of cramping. Treat cause if found.</p> <p>If no cause found, give analgesics for mild discomfort. If cramping is severe, remove IUD and help client choose another method.</p>
Irregular or Heavy Vaginal Bleeding	<p>Rule out pelvic infection and ectopic pregnancy. Treat or refer as appropriate.</p> <p>Occurs 3-4 months after insertion:</p> <p>If no pathology and bleeding is prolonged or heavy, counsel and advise on follow-up. Give ibuprofen (800 mg. 3 times daily for 1 week) to decrease bleeding, and give iron tablets (1 tablet daily for 1 to 3 months).</p> <p>IUD may be removed if client has had IUD for longer than 3 months and is markedly anaemic (hemoglobin < 7g/dl), recommend removal and help client choose another method.</p>
Missing Strings	<p>Check for pregnancy. Inquire if IUD expelled. If not pregnant and IUD not expelled, give condoms. Check for strings in the endocervical canal and uterine cavity after next menstrual period.</p> <p>If not found, refer for X-ray or ultrasound.</p> <p>If not pregnant and IUD has fallen out or is not found, insert new IUD or help client choose another method.</p>
Vaginal Discharge/ Suspected PID	<p>Examine for GTI. Remove IUD if gonorrheal or chlammydial infection is confirmed or strongly suspected. If PID, treat and remove IUD.</p>
Syncopal reaction	<p>Use Para cervical block on insertion reaction, Give analgesics.</p>

Other complications of IUCD

- Perforations of the uterus during insertion
- Infection (PID), specially sanlphingitis. Mostly these infections are STD related.
- Ectopic pregnancy.

Client Instructions

- Return for checkup after the first post-insertion menses, 4 to 6 weeks after insertion.
- During the first month after insertion, check the strings several times, particularly after the menstrual period.
- After the first month, only need to check the strings after menses if there is
 - cramping in the lower part of the abdomen,
 - spotting between periods or after intercourse,
 - pain after intercourse (or if the partner experiences discomfort during sex).
- Removal of the Copper T 380A is necessary after 10 years but may be done sooner if wished.
- Return to the clinic if
 - cannot feel the strings,
 - feel the hard part of the IUD,
 - expel the IUD, or
 - miss a period.
- Write the date of insertion on the package and give it to the mother. This is important because it has information concerning the expiry data of the IUCD and the type of IUCD.

3.1.10. Emergency contraceptives

Emergency contraception are those methods used to prevent pregnancy after unprotected intercourse, if pregnancy is not planned or desired. Emergency

contraceptives should not be used in place of family planning methods and should be used only in an emergency for example

- In cases of rape
- A condom has broken
- An IUCD has come out of place
- Pills are lost or forgotten
- Sex took place without contraception and the woman wants to avoid pregnancy.

COCs, POPs, Antiprogestins (mifepristone) and IUCDs (copper-releasing) can be used as emergency contraceptives.

COCs: Take four tablets of a low-dose COC (30-35µg ethinyl estradiol) orally within 72 hours of unprotected intercourse. Take four more tablets in 12 hour (Total = 8 tablets)

or

Take two tablets of a high-dose COC (50µg ethinyl estradiol) orally within 72 hours of unprotected intercourse. Take two more tablets in 12 hours. (Total = 4 tablets).

POPs: Take 1 postinor[®] tablet (750 µg of levonorgestrel each) or 20 Ovrette[®] tablets (75µg norgestrel each) orally within 48 hours of unprotected intercourse. Take 1 or 20 more tablets in 12 hours. (Total = 2 Postinor or 40 Ovrette tablets)

IUDs: Insert within 5 days of unprotected intercourse.

Antiprogestins: Take 600mg. Mifepristone within 72 hours of unprotected intercourse.

For all methods, if there is no menses (vaginal bleeding) within 3 weeks, the client should consult the clinic or service provider to check for possible

pregnancy. For contraceptive and non-contraceptive advantages and disadvantages of the different oral contraceptives – read the core module.

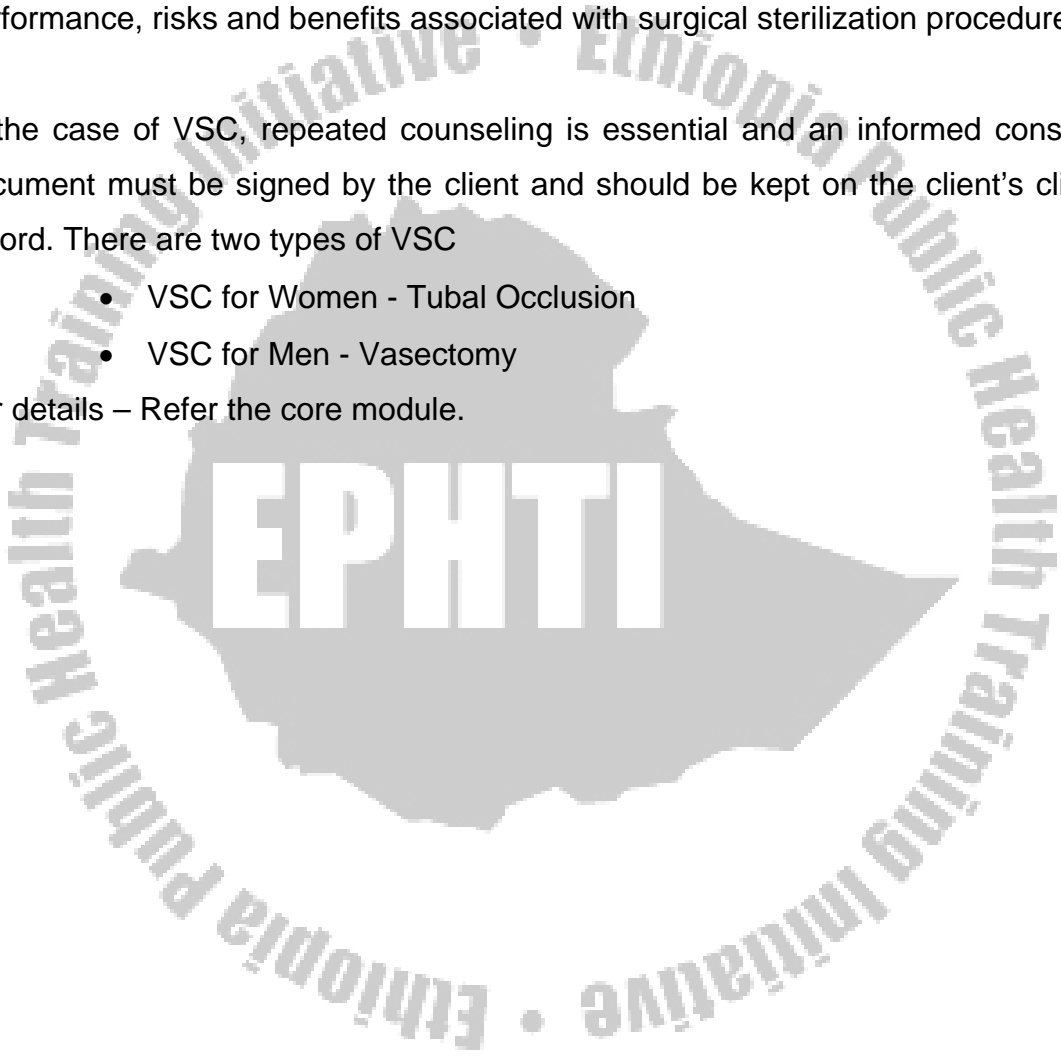
3.1.11. Voluntary surgical contraception (VSC)

Voluntary surgical contraception is a procedure for permanent sterilization of women and men. It should be based on the client's full knowledge of the performance, risks and benefits associated with surgical sterilization procedures.

In the case of VSC, repeated counseling is essential and an informed consent document must be signed by the client and should be kept on the client's clinic record. There are two types of VSC

- VSC for Women - Tubal Occlusion
- VSC for Men - Vasectomy

For details – Refer the core module.



3.2. Satellite Module for Public Health Nurses

3.2.1 Introduction.

Purpose of the module

This training module enables public health nursing students to actively participate in the assessment of clients for family planning, setting nursing diagnosis for those clients, plan for care and provide the methods and evaluate the effectiveness of family planning methods. This module is also believed to be important for instructors for preparation of lecture notes and teaching aids.

Family planning is an important tool for the improvement of the health and well being of mothers and children. It is also the way to balance population growth and socio-economic development.

Directions for use of the satellite module

1. Do the pretest in the core (and satellite) module to check your previous knowledge.
2. Read the core module thoroughly.
3. Go through the satellite module.
4. Do the pretest for all categories (1.1.1) and pretest for PHN (1.1.2.2), both found in the core module.

3.2.2 Learning objectives

After reading the satellite module the student will be able to:

1. Formulate nursing diagnosis related to family planning.
2. State the topics that should be included in counseling.
3. Discuss factors to be considered in choosing a method of contraception.
4. Enumerate principles in counseling.
5. Demonstrate how to insert diaphragm.
6. Administer DMPA using the correct technique.

7. Develop patient centered plan in providing family planning service.
8. Evaluate goals out come criteria established for care.

Family planning includes all the decisions an individual or couple make about if and when to have children, how many children are desired in a family and how they are spaced. It is a means of promoting the health of women and families and part of a strategy to reduce the high maternal, infant and child mortality. Family planning is also a critical component of reproductive health programmes.

A women or a couple's choice of contraceptive methods ,if any, should be made carefully with complete knowledge about the advantages, disadvantages and side-effects of the various options. It is a choice based on personal values, knowledge of the reliability of each method, and how the chosen method will affect sexual enjoyment. A couple will also weigh financial factors, the status of their relationship, prior experiences and future plans.

Nursing responsibilities related to family planning include helping couples who are having difficulty conceiving children to explore infertility programmes, helping couples who wish to space the birth of their children to do so, and helping individuals and couples who do not want to have children to avoid conception.

Understanding how various methods of contraception work and how they compare in terms of benefits and disadvantages is necessary for successful counseling. With information and the ability to discuss specific concerns couples can better clarify their values so that they are better prepared to make the decisions that are right for them.

Nursing process

Assessment

As a result of changing social values and lifestyles, many people are able to talk more easily about family planning today than before. Remember that others are still uncomfortable with this topic and may not voice their interest in the subject independently.

At a health assessment the nurse determines the woman's general knowledge about contraceptive methods, identifies the methods the woman has used previously (if any), identifies contraindications or risk factors for any method, discusses the woman's personal preferences and biases about various methods and discusses her commitment (and her partner's commitment if appropriate) to a chosen method.

Use the checklist in the core module (Annex 1) to assess clients for family planning.

Nursing diagnosis

Nursing diagnosis applicable to family planning includes:

- Health-seeking behaviors regarding contraception options related to desire to prevent pregnancy
- Knowledge deficiency related to lack of information about correct use of chosen method of contraception
- Decisional conflict regarding choice of birth control method related to health concern
- Decisional conflict related to unwanted pregnancy
- Powerlessness related to failure of chosen family planning method
- Altered sexuality related to fear of getting pregnancy

Planning and implementation

When establishing goals for care in this area, be certain that they are realistic for that person. If the person has a history of poor drug compliance, for instance, it may not be realistic for her to plan to take oral contraceptives every day.

Factors to consider in choosing a method of contraception

- Effectiveness of methods in preventing pregnancy
- Safety of the method:
 - Are there inherent risks?
 - Does it offer protection against STI or other conditions?
- Client's age and future childbearing plans
- Any contraindication in client's health condition
- Religious or moral factors influencing choice
- Personal preferences and biases
- Life style:
 - How frequently does client have intercourse?
 - Does the client have multiple partners?
 - Does the client have ready access to medical care in the event of complications?
 - Is cost a factor?
- Partner's support and willingness to cooperate
- Personal motivation to use method

Once the method is chosen the nurse can help the woman learn to use it effectively. The nurse also reviews any possible side-effects and warning signs related the method chosen and counsels the woman about what action to take if she suspects pregnancy or other adverse effects.

Counseling

Counseling is crucial. Through counseling nurses help clients make and carry out their own choices about family planning. Good counseling makes clients more satisfied, helps the client use a method longer and more successfully.

Principles in counseling

1. Treat each client well

Be polite, show respect for every client and create a feeling of trust

2. Interact

Listen, learn and respond to the client

Involve the client actively

Each client is a different person

A nurse can help best by understanding that persons needs, concerns and situation

3. Tailor information to the client

Learn what information each client needs and give the information accurately in language that the client understands.

Also help the client understand how information applies to his or her own personal situation and daily life.

4. Avoid too much information

Clients need information to make informed choices but no client can use all information about every family planning method. Too much information makes it hard to remember really important information.

Give factual unbiased information about the various methods.

Repeat the most important instructions.

5. Provide the method that the client wants

The nurse helps clients make their own informed choices, and the provider respects those choices; even if a client decides against using family planning or puts off a decision. Most new clients already have a family planning method in mind. Good counseling about method choice starts with that method. Then, in the course of counseling, the provider checks

whether the client has conditions that might make use of the method not medically appropriate as well as whether the client understands the method and how it is used. Counseling also addresses advantages and disadvantages, health benefits, risks and side-effects. The nurse also may help the client think about other similar methods and compare them. If there is no medical reason against it, clients should have the methods that they want so that they use them longer and more effectively.

6. Help the client understand and remember

Show sample family planning materials, encourage the client to handle them and show how they are used .

Topics

Most counseling about choice of methods covers 6 topics

1. Effectiveness

How well a family planning method prevents pregnancy?

For some clients, effectiveness is the most important reason for choosing a method

2. Advantages and disadvantages

3. Side effects and complications

4. How to use

5. STD prevention

The nurse should help clients understand and measure their risk of getting

STDs and explain the ABCs of safe behavior: Abstinence, Being mutually faithful, Condom use.

6. When to return

Some methods require return visits for more supplies.

The nurse always welcomes the client back anytime for any reason - for example if she or he wants information, advice or another method, or wants to stop using an IUD or norplant implants.

Steps in counseling

New clients: This is a six step process. These steps can be remembered with the word **GATHER**

Good counseling is flexible, however, it changes to meet the special needs of the client and situation. Not every new client needs all 6 steps. Some steps can be carried out in group presentations or group discussion and others usually need one-on-one discussion.

The **GATHER** steps

G. Greet clients in an open, respectful manner

Give them your full attention

Talk in a private place if possible

Assure the client of confidentiality

A. Ask clients about themselves

Help clients talk about their family planning and reproductive health experiences, their intentions, concerns, wishes and current health and family

life

Ask if the client has a particular family planning method in mind

Pay attention to what clients express with their words and their gestures and expressions

T. Tell clients about choices

Depending on the client's needs tell the client what reproductive health choices she or he might make including the choice among family planning methods or to use no method at all. Focus on methods that most interest the client but also briefly mention other available reliable methods.

H. Help clients make an informed choice

Help the client think about what course of action best suits his or her situation and plans

Consider medical eligibility criteria for the family planning method or methods that interest the client's sex partner and that they will support the clients decisions.

.E. Explain fully how to use the chosen method

Give him or her the supplies, explain how the supplies are used or how the procedure will be performed

Give condoms to any one at risk of sexually transmitted diseases (STDs) and encourage him or her to use condoms along with any other family planning method.

R. Return visits should be welcomed

Discuss and agree when the client will return for a follow up or more supplies, if needed.

Counseling for continuing clients

Counseling continuing clients usually focuses on talking with clients about their experience and needs. Tests and examinations generally are not needed unless special situation calls for them. Usually counseling the continuing client involves finding out what the client wants and then responding;

- If the client has problems, resolve them.
- If client is having any side-effects, find out how severe they are. Reassure the client with minor side-effects that they are not dangerous and suggest what they can do to relieve them. If the side-effect is severe refer the client for further management.
- If the client has questions, answer them
- If the client needs more supplies, provide them generously
- Make sure that the client is using her or his method correctly and offer help if not

- If a client wants to try another method, tell her/him about other methods and help them to choose. If the client wants to have a child, help her/him to discontinue the current method. Refer her to have her method removed if necessary. Tell the client where to go for pre-natal care when she becomes pregnant.

Family planning methods

1. Traditional methods

- Lactational ammenorrhea
- Abstinence
- Coitus interruptus

2. Natural family planning methods

- The rhythm or calendar method
- Basal body temperature (BBT) method
- Cervical mucus, Ovulation, (Billing's) method
- Symphothermal (combination of BBT and Billing's) method

3. Barrier methods

- Condoms
- Spermicidals
- Diaphragm

4. Hormonal contraceptives

- Combined oral contraceptives (COCs)
- Progestine only pills (POPs, Mini pill)
- Injectable contraceptives
- Contraceptive implants (Norplant)

5. Intra uterine contraceptive device (IUCD)

6. Emergency contraceptive

7. Voluntary surgical contraception (VSC)

- Tubal Occlusion
- Vasectomy

For the basis, mechanism of action, advantages, disadvantages, contraindications if any and client instructions of the above-mentioned contraceptive methods refer the core module.

Management, Common Side Effects and Other Problems of COCs

Side Effect/Problem	Management
Amenorrhea (absence of vaginal bleeding or spotting following completion of pill cycle)	<p>Clients using 21-day packs may forget to leave a pill-free week for menses. If pills are taken continuously, they may not have any periods. This is not harmful.</p> <p>Check for pregnancy.</p> <p>If not pregnant and client is taking COCs correctly, reassure. Explain that absent menses are most likely due to lack of buildup of uterine lining.</p> <p>If not pregnant, no treatment is required except counseling and reassurance. If she continues low-dose estrogen COCs (30-35µg EE), amenorrhea usually will persist. Advise client to return to clinic if amenorrhea continues to be a concern or switch to a high-dose estrogen (50µg EE) pill if available and non conditions requiring precaution exist.</p> <p>If intrauterine pregnancy is confirmed, counsel client regarding options. If pregnancy will be continued, stop use and assure her that the small dose of estrogen and progestin in the COCs will have no harmful effect on the fetus.</p>
Nausea/Dizziness/Vomiting	<p>Check for pregnancy. If pregnant, manage as above. If not, advise taking pill with evening meal or before bedtime. Reassure that symptoms usually decrease after first three cycles of use.</p>
Vaginal bleeding/Spotting	<p>Check for pregnancy or other gynecological conditions. Advise taking pills at the same time each day. Reassure that spotting/light menstrual bleeding is common during first 3 months of use and then decreases. If it persists, provide higher dose estrogen (50µg EE) pills or help client choose another method.</p>

POPs, side-effects, and their management

Side effects	Assessment	Management
Spotting or irregular bleeding	<p>Take history to rule out gynecological problems (tumor, pregnancy, PID, abortion)</p> <p>If no cause is found,</p>	<p>If no gynecological problem, reassure or if there is a problem treat as necessary and continue POPs</p> <p>Inform client that this is expected with POP users and is not harmful .If the client is not comfortable with the method inform her about other methods</p>
Amenorrhea	<p>Ask if client has had regular monthly period and suddenly missed her period</p> <p>Rule out pregnancy</p> <p>If no signs of pregnancy, ask if this happened only this month or before</p> <p>Ask the client if the condition is bothering her</p>	<p>If pregnant and intends to continue the pregnancy, stop POP and refer for ante-natal clinic</p> <p>If not pregnant, reassure her</p> <p>Switch to COC or give her another method</p>
Heavy bleeding	<p>Rule out ectopic pregnancy, PID and other gynecological problems</p> <p>If no other causes do Hgb/HCT if low</p>	<p>If problems ruled out treat as necessary and continue POPs for two months or switch to COCs to stop bleeding</p> <p>Give iron supplement</p>

Common side-effects of DMPA and their management

Side Effect/ Problem	Management
<p>Amenorrhea (absence of vaginal bleeding or spotting)</p>	<p>Check for pregnancy.</p> <p>If not pregnant, no treatment is required except reassurance. Explain that blood does not build up inside the uterus or body with amenorrhea. The continued action of small amounts of the progestin shrinks the endometrium, leading to decreased menstrual bleeding and, in some women, no bleeding at all. Finally, advise client to return to clinic if amenorrhea continues to be a concern.</p> <p>If intrauterine pregnancy confirmed, counsel client regarding options. Stop the PIC if pregnancy will be continued and assure her that the small dose of progestin will have no harmful effect on the fetus.</p> <p>If ectopic pregnancy suspected, refer at once for complete evaluation.</p> <p>Do not give hormonal treatment (COCs) to induce withdrawal bleeding. It is not necessary and usually is not successful unless 2 or 3 cycles of COCs are given.</p>
<p>Vaginal bleeding/ Spotting</p>	<p>If no problem is found and client not pregnant, counsel client that bleeding/spotting is not serious and usually does not require treatment. Most women can expect the altered bleeding pattern to become more regular after 6 to 12 months.</p> <p>If the client is not satisfied after counseling and reassurance, but wants to continue using the PIC, two treatment options are recommended:</p> <ul style="list-style-type: none"> • a cycle of COCs (30-35µg EE), or • ibuprofen (up to 800mg 3 times daily for 5 days) or other NSAID.

	<p>Be sure to tell the client to expect bleeding during the week after completing the COCs (21-pill pack) or during the last 7 pills if 28-pill pack.</p> <p>For heavy bleeding give 2 COC pills per day for remainder of cycle (at least 3 to 7 days) followed by 1 cycle of COCs or switch to 50µg of estrogen (EE) or 1.25 mg conjugated estrogen for 14-21 days.</p>
Weight gain or loss (change in appetite)	<p>Counsel client that fluctuations of 1-2 kg. Are common with use of PICs.</p> <p>Review diet if weight change is more than ± 2kg. If weight gain (or loss) is unacceptable, even after counseling, stop use and help client choose another method.</p>

Client Instructions

- Return to the health clinic for an injection every 3 months (DMPA)
- Tell client not to massage the injection site

How to give DMPA

1. Wash hands and wear gloves
2. Clean injection site, upper arm (deltoid muscle) or in buttock (upper outer quadrant) soap, water and wipe with antiseptic if available. Use a circular motion from the injection site outward. Note that upper arm is the preferable site.
3. Shake vial gently, wipe top of vial and stopper with antiseptic and fill syringe with proper dose.
4. Give 150mg DMPA.
5. Do not massage the injection site.
6. Always use a sterile syringe and needle for each client.

7. If more than two weeks late for next injection, use condoms or spermicidals or avoid sex until the next injection or give the next injection if you can be reasonably sure the client is not pregnant and advise a back up method for 7 days.

If there is a possibility of pregnancy, provide condoms for 14 days and then re-evaluate and if not pregnant give the injection.

8. Describe the symptoms of more serious problems

Extremely heavy bleeding

Severe headache that becomes worse after brining DMPA

Unusually yellow eyes and or skin

Intrauterine devices (IUD)

An intrauterine contraceptive device (IUCD) is a small piece of flexible plastic with or without copper wound around it. The copper increases effectiveness The IUCD is inserted into the uterus through the vagina and cervix. When the device is in place, the strings hang down through the cervix into the vagina so that the client can check the strings to be sure the IUD is in place. Types of IUDs are:

- Copper-releasing: Copper T 380A, Nova T and Mutliload 375
- Progestin-releasing: Progestasert and LevoNova

The IUCD currently distributed in Ethiopia is Copper T 380A.

Management of common side-effects and other problems

Side Effect/Problem	Management
Amenorrhea (absence of vaginal bleeding or spotting)	<p>Check for pregnancy.</p> <p>If not pregnant, do not remove IUD. Provide counseling and reassurance. Refer for investigation to identify the cause of amenorrhea if client remains concerned.</p> <p>If pregnant, counsel about options. Advise removal of IUD if strings visible and pregnancy is less than 13 weeks. If strings not visible or pregnancy is more than 13 weeks, do not remove IUD.</p> <p>If client is pregnant and wishes to continue pregnancy but does not want IUD removed, advise her of increased risk of miscarriage and infection and that pregnancy should be followed closely.</p>
Cramping also (past insertion)	<p>Rule out PID and other causes of cramping. Treat cause if found. If no cause found, give analgesics for mild discomfort. If cramping is severe, remove IUD and help client choose another method.</p>
Irregular or Heavy Vaginal Bleeding	<p>Rule out pelvic infection and ectopic pregnancy. Treat or refer as appropriate.</p> <p>- Occur 3-4 months after insertion.</p> <p>If no pathology and bleeding is prolonged or heavy, counsel and advise on follow-up. Give ibuprofen (800 mg. 3 times daily for 1 week) to decrease bleeding, and give iron tablets (1 tablet daily for 1 to 3 months).</p> <p>IUD may be removed if client has had IUD for longer than 3 months and is markedly anemic (hemoglobin < 7g/dl), recommend removal and help client choose another method.</p>
Missing Strings	<p>Check for pregnancy. Inquire if IUD expelled. If not pregnant and IUD not expelled, give condoms. Check for strings in the endocervical canal and uterine cavity after next menstrual period. If not found, refer for X-ray or ultrasound.</p> <p>If not pregnant and IUD has fallen out or is not found, insert new IUD or help client choose another method.</p>
Vaginal Discharge/ Suspected PID	<p>Examine for GTI. Remove IUD if gonorrheal or chlamydial infection is confirmed or strongly suspected. If PID, treat and remove IUD.</p>
Syncopal reaction	<p>Use Para cervical block on insertion reaction, Give analgesics.</p>

Other complications of IUCD

- Perforations of the uterus during insertion
- Infection (PID), specially salpingitis. Mostly these infections are STD related.
- Ectopic pregnancy.

Client Instructions

- Return for checkup after the first post-insertion menses, 4 to 6 weeks after insertion.
- During the first month after insertion, check the strings several times, particularly after your menstrual period.
- After the first month, you only need to check the strings after menses if you have:
 - cramping in the lower part of the abdomen,
 - spotting between periods or after intercourse, of
 - pain after intercourse (or if your partner experiences discomfort during sex).
- Removal of the Copper T 380A is necessary after 10 years but may be done sooner if you wish.
- Return to the clinic if you:
 - cannot feel the strings,
 - feel the hard part of the IUD,
 - expel the IUD, or
 - miss a period.
- Return immediately clinic if you have
- Write the date of insertion on the package and give it to the mother. This is important because it has information concerning the expiry data of the IUCD and the type of IUCD.

Emergency Contraceptives

Emergency contraception should be used after unprotected intercourse, if pregnancy is not planned or desired.

Types

COCs, POPs, Antiprogestins (mifepristone) and IUDs (copper-releasing).

Benefits

- All are very effective (less than 3% of women become pregnant during that cycle).
- IUDs also provide long-term contraception.

Limitations

- COCs are effective only if used within 72 hours of unprotected intercourse.
- COCs may cause nausea, vomiting or breast tenderness.
- POPs must be used within 48 hours but cause much less nausea and breast tenderness.
- Antiprogestins are effective only if used within 72 hours of unprotected intercourse; currently are expensive and available only in a few countries.
- IUDs are effective only if inserted within 5 days of unprotected intercourse.
- IUD insertion requires minor procedure performed by a trained service provider and should not be done in women at risk for GTIs or other STDs (e.g., HBV, HIV/AIDS).

Client Instructions

COCs: Take four tablets of a low-dose COC (30-35µg ethiny 1 estradiol) orally within 72 hours of unprotected intercourse. Take four more tablets in 12 hours (Total = 8 tablets).

or

Take two tablets of a high-dose COC (50µg ethinyl estradiol) orally within 72 hours of unprotected intercourse. Take two more tablets in 12 hours (Total = 4 tablets).

POPs Take 1 postinor® tablet (750 µg of levonorgestrel each) or 20 Ovrette® tablets (75µg norgestrel each) orally within 48 hours of unprotected intercourse.

Take 1 or 20 more tablets in 12 hours (Total = 2 Postinor or 40 Ovrette tablets).

IUDs: Insert within 5 days of unprotected intercourse.

Antiprogestins: Take 600mg. Mifepristone within 72 hours of unprotected intercourse.

For all methods, if there is no menses (vaginal bleeding) within 3 weeks, the client should consult the clinic or service provider to check for possible pregnancy.

Management of common side-effects and other problems of spermicides

Side Effect/ Problem	Management
Vaginal irritation	Check for vaginitis and GTIs. If caused by spermicide, switch to another spermicide with a different chemical composition or help client choose another method.
Penile irritation and discomfort	Check for GTIs. If caused by spermicide, switch to another spermicide with a different chemical composition or help client choose another method.
Heat sensation in the vagina is bothersome	Check for allergic or inflammatory reaction. Reassure that warm sensation is normal. If still concerned, switch to another spermicide with a different chemical composition or help client choose another method.
Tablets fail to Melt	Select another type of spermicide with different chemical composition or help client choose another method.

Client instructions of spermicidals

- It is important to use spermicide before each act of intercourse.
- There is a 10-15 minute waiting interval after insertion of vaginal tablets, suppositories or film. There is no waiting interval after inserting aerosols (foams).
- It is important to follow the recommendations of the manufacturer for use and storage of each product (for example: shake aerosols before filling the applicator).
- Additional spermicide is needed for each repeated intercourse.
- It is important to place the spermicide high in the vagina so the cervix is well covered

Diaphragm

Management of common side-effects

Side Effect	Management
Urinary tract infections (UTIs)	Treat with appropriate antibiotic. If client has frequent UTIs and diaphragm remains her first choice for contraception, advise emptying bladder (voiding) immediately after intercourse. Offer client post-coital prophylactic (single dose) antibiotic. Otherwise, help client to choose another method.
Suspected allergic reaction (diaphragm)	Allergic reactions, although uncommon, can be uncomfortable and possibly dangerous. If symptoms of vaginal irritation, especially after intercourse and no evidence of GTI, help client choose another method.
Suspected allergic reaction (spermicide)	Allergic reactions, although uncommon, can be uncomfortable and possibly dangerous. If symptoms of vaginal irritation, especially after intercourse and no evidence of GTI, provide another spermicide or help client choose another method.
Pain from pressure on bladder/rectum	Assess diaphragm fit. If current device is too large, fit with smaller device. Follow up to be sure problem is solved
Vaginal discharge and odor if left in place for more than 24 hours	Check for GTI or foreign body in vagina (tampon, etc.). If no GTI or foreign body is present, advise client to remove diaphragm as early as is convenient after intercourse, but not less than 6 hours after last act. (Diaphragm should be gently cleaned with mild soap and water after removal. Powder of talc should not be used when storing diaphragm.) If GTI, manage as appropriate.

Client Instructions

- Use the diaphragm every time you have intercourse.
- First, empty your bladder and wash your hands.
- Check the diaphragm for holes by pressing the rubber and holding it up to the light or filling it with water.
- Squeeze a small amount of spermicidal cream or jelly into the cup of the diaphragm. (To make insertion easier, a small amount of cream/jelly can be placed on the leading edge of the diaphragm or in the opening to the vagina.) Squeeze the rim together.
- The following positions may be used for inserting the diaphragm:
 - Lying down
 - Squatting
 - One foot raised up on a chair or toilet seat
- Spread the lips of the vagina apart.
- Insert the diaphragm and cream/jelly back in the vagina and push the front rim up behind the pubic bone.
- Put your finger in the vagina and feel the cervix (it feels like your nose) through the rubber to make sure it is covered.
- The diaphragm can be placed in the vagina up to 6 hours before having intercourse. If intercourse occurs more than 6 hours afterwards, another application of spermicide must be put in the vagina. Additional cream or jelly is needed for each repeated intercourse.
- Leave the diaphragm in for at least 6 hours after the last time intercourse occurs. Do not leave it in more than 24 hours before removal. Vaginal douching is not recommended at any time.
- Remove diaphragm by hooking finger behind the front rim and pulling it out. If necessary, put your finger between the diaphragm and the pubic bone to break the suction before pulling it out.
- Wash the diaphragm with mild soap and water and dry it thoroughly prior to returning it to container.

Symptoms and signs of pregnancy

Symptoms

- Absence of menstruation (amenorrhea) or altered menstruation
- Nausea (with or without vomiting) and change in appetite
- Fatigue (persistent)
- Breast tenderness and enlargement
- Increased frequency of micturation
- Perception of fetal movement (at 16-20weeks of gestation)

Signs

- Uterine softness, roundness and enlargement begins to be noticeable at six weeks gestation
- Hegar's sign become manifested at about 6weeks gestation. The isthmus between the cervix and the body of uterus is soft and compress on bimanual pelvic examination
- Enlarged uterus is palpable above symphysis pubis after 12 weeks gestation
- Fetal heart tone are detectable with a stethoscope at 18-20 weeks gestation
- Fetal movement are perceived by examiner at 18-20 weeks gestation

Evaluation

Evaluation is important in family planning because anything that causes a woman or couple to discontinue or misuse a particular method will leave them without the protection needed.

Example of outcome criteria includes:

- Client uses chosen method of family planning without pregnancy for the next year
- By next year couple state that they are no longer afraid of pregnancy because of better information on birth control
- Couple voices satisfaction with the specific family planning method at follow- up visit

3.3. Satellite Module for Medical Laboratory Technician Students

3.3. 1. Introduction

Purpose of the Module

This satellite module is prepared for medical laboratory technology students to equip them with the basic concept of family planning and to make them aware of their role in family planning. This module also helps the instructors in the field to have an understanding of the basic concepts of the area.

3.3.2. Directions for using this module

1. Do the pretest for all categories (1.1.1) and for MLT (1.1.2.3), both found in the core module
2. Read the module thoroughly
3. Do the post test questions and evaluate yourself by comparing the pretest result with that of the post test.

3.3.3. Learning objective

At the end of the activities in this module the student s will be able to:

1. Identify the types of tests performed for a woman before taking specific contraceptives
2. Define some disorders associated with family planning
3. Discuss the methods of sample collection
4. Describe the principles of tests mentioned in this module.

3.3.4. Introduction and background information

Please refer to the core module

3.3.5. Role of medical laboratory technician in family planning

Role in combined oral contraceptive (COC)

It is the responsibility of every doctor or paramedic (e.g. laboratory technician) involved in the distribution of COC to know about risk factors which may be enhanced by COC use, for example hypertension, diabetes, hyperlipidemia, obesity, hepatitis, benign liver tumor, etc.

Checking the patient before prescribing a COC usually involves history taking, physical examination and laboratory examination. The two clinical specimens taken for the diagnosis of some of the above mentioned disease conditions are blood and urine.

Urine

Urine reagent strip test (for protein and glucose)

General procedure:

1. Test fresh well mixed uncentrifuged urine at room temperature.
2. Completely immerse all chemical areas of the reagent strip briefly, i.e. not over one second.
3. Remove excess urine from the reagent strip. Draw the strip along the lip or rim of the urine container as it is removed, then touch the edge of the strip to absorbent paper or gauze.
4. Avoid possible mixing of chemicals from adjacent areas; hold the strip horizontally while noting the results.
5. Read each chemical reaction of the time as stated by the manufacturer.

6. Use adequate light. Hold the strip up to the color black on the chart supplied by the manufacturer, and match carefully for each chemical test. Be sure the strip is oriented to the colour chart.
7. Record the results in constituent units as established for your laboratory.

Blood

Laboratory surveillance should be used when indicated. Routine biochemical measurements fail to yield sufficient information to warrant the expense. Assessing the cholesterol-lipoprotein profile and carbohydrate metabolism should follow the same guidelines applied to all patients, users and non-users of contraception. The following is a useful guide as to who should be monitored with blood screening tests for glucose, lipids, and lipoproteins:

- Young women, at least once.
- Women 35 years or older
- Women with a strong family history of heart disease, DM, or hypertension.
- Women with gestational DM
- Women with xanthomatosis
- Obese women
- Diabetic women

Pregnancy testing

A health care provider usually can tell if a woman is not pregnant by asking questions. If her answers cannot rule out pregnancy, she should have a laboratory pregnancy test. Small amounts of human chorionic gonadotropin hormone (hCG) are continually produced by the pituitary gland. During pregnancy levels rise dramatically due to placental production. HCG is detectable in the blood serum of approximately 5% of pregnant women by 8 days after conception, and in virtually all the rest by 11 days.

Urine human chorionic gonadotropin.

The most common method of evaluating hCG in urine is hemagglutination inhibition. This laboratory procedure, based on an antigen-antibody reaction, can provide both qualitative and quantitative information. The qualitative urine test is easier and less expensive than the serum hCG (beta-subunit assay) so it is used more frequently to detect pregnancy. However the serum hCG test allows the earliest possible determination of pregnancy, as early as 7 days after conception.

To verify pregnancy (qualitative analysis) collect a first voided morning specimen. If this is not possible, collect a random specimen.

For quantitative analysis of hCG, collect a 24-hour specimen or keep it on ice during the collection period.

There are several ELISA tests available as a result of monoclonal antibody technology, for example. Abbott test pack hCG combo. By using commercial ELISA test kits, test pack plus hCG combo, hCG in serum and urine can be measured.

Procedure

1. Remove the reaction disc from the protective pouch and place on a flat, dry surface.
2. Using the transfer pipette supplied with the kit, dispense three drop of specimen into the sample well on the reaction disc. For urine the first morning urine specimen usually contains the highest concentration of hCG and therefore is the specimen of choice, however any urine specimen may be tested.
3. The test results should be read immediately after the appearance of a red colour in the end of assay window. Test results are observed in the result window. Positive results can be observed in as little as 3 minutes, but the

appearance of the red color in the end of the assay window is required for maximum sensitivity or to confirm negative results.

4. Interpret the results as follows

- A positive (+) sign indicates that the specimen contains elevated levels of hCG
- A negative (-) sign indicates the absence of detectable hCG. This test will detect serum and urine hCG concentration of 25 μ u/ml or greater.

Occasionally specimens containing less than 25 μ u/ml may also give a positive result.

5. If neither a positive (+) or negative (-) sign appears in the result window, or if no colors appear in the end of assay window, the specimen should be re-tested.

Infertility and Sterility testing

- Infertility is defined as the pathological inability to carry out normal pregnancy. Common causes of infertility are genetics disorders or malformations of the female reproductive organs. In countries with the high STDs and PID affecting in and obstructing the fallopian tubes, these may be the major cause of infertility. Microscopy and serological tests can confirm most of the STDs.
- Sterility is defined as the inability to conceive. Some of the causes of female sterility are
 - Endometriosis
 - Ovarian problems
 - Hormonal problems

Early determination of hormones prolactin, androgen, corpus luteum helps detect the problem as early as possible.

3.4. Satellite Module for Environmental Health Students

3.4.1. Purpose

This satellite module is specifically prepared for environmental health students to equip them with the basic knowledge of family planning so as to make them aware of their professional/categorical role in family planning, which will be complimentary to their team-based role as explained in the core module.

The module will also help as a brief reference for students on their future career and for instructors as a source of materials for classroom lectures and field work briefings.

3.4.2. Directions for use

1. Do pretest for all categories (1.1.1) and for environmental health students (1.1.2.4), both found in the core module.
2. Read the satellite module thoroughly.
3. After going through the satellite module and consulting the indicated references, as needed, do the post test questions.
4. Compare your post test results with that of pretest results.

3.4.3. Learning Objectives

Upon the completion of the satellite module the environmental health students/technicians will be able to:

1. Recognize the importance of health education/communication in family planning;
2. Explain the benefits of family planning services to individuals, couples, and the community at large.
3. Identify the appropriate methods of delivering health education/communication about family planning

4. Involve community in health education programs on family planning
5. Implement health education activities.

3.4.4. Introduction

Family planning services have been playing a key role in the health and survival of women and children as well as the entire society for many decades. Its significance also lies in creating conducive conditions for the coming generation by reducing the negative impacts of health, demographics, economic and social status.

Current indicators of the benefits of family planning are reflected in the reduction of maternal mortality rate (MMR), infant mortality rate (IMR), fertility rate, complication of unwanted pregnancies and unsafe abortions, STDs and in the increase of child survival, promotion of safe motherhood and the release of the women work force to be involved in production and services spheres. All these gains are, in one way or the other, associated with the implementation of the service.

Unlike most other areas of public health where community-wide applications of new technologies have brought great change in human life, in family planning, individual/couple decision-making practice overwhelmingly determines the pace of progress. Though technological advances are important, individuals still decide whether to use family planning methods, which technology to use efficiently and for how long. This indicates that dealing with human behavior is the main focus of family planning services.

As widening the horizon of family planning services as well as their effective utilization greatly depends on a major shift in both individual and social behavior, the crucial role of communication increases greatly. In short communication/health education at all levels; personal, family, community,

nationwide and internationally, plays a determining role in initiating, motivating and enabling people to make informed decision voluntarily and responsibly.

Keeping the general knowledge obtained from the core module on family planning and the above preliminary background information in mind, the environmental health student should go through this satellite module sequentially.

3.4.5. Communication and family planning

Communication is the key process underling changes

- In knowledge of the means of contraception
- In attitudes towards fertility control and use of contraceptives
- In norms regarding ideal family size
- In the openness of local cultures to new ideas and aspirations and new health behavior.

Communication can occur both spontaneously, within and between social groups of a society, and deliberately, by means of the planned interventions of governmental and non governmental organizations and commercial enterprises.

This planned communication/Information education and communication can:

- Initiate change
- Accelerate changes already under way
- Reinforce change that has ready occurred.

Communication can spread knowledge, values and social norms. Such knowledge includes the idea of fertility control itself as well as knowledge about specific methods of contraception and how they are used. For example communication can convey the advantages and disadvantages of smaller families or beneficial and harmful consequences of contraceptives. Generally communication/health education may focus on the benefits of family planning to various groups of society.

3.4.6. Benefits of family planning

The decision of when or even whether to have children is a basic human right. The international conference on Population and Development, held in Cairo, Egypt, in September 1994, clearly endorsed this right. Everyone has the right to the enjoyment of the highest attainable standards of physical and mental health. States should take all appropriate measures to ensure, on a basis of equality of men and women, universal access to health care services, including those related to reproductive health, which includes family planning and sexual health.

All couples and individuals have the basic right to decide freely and responsibly the number and spacing of their children and have **the Information, Education and Means to do so**. With this right come both benefits and risks. Family planning programs provide services that:

- Help people achieve the number of children they desire
- Reduce the risk of sexually transmitted infections (STI)
- Improve the health of women and children.

Family planning also helps improve the future by allowing parents to better plan their lives. Poverty and lack of education limit the opportunities for individuals and families. Through family planning, however, individuals can obtain greater prosperity and security for the family because they can have a better chance at receiving an education and better fulfill the many roles for which they are ultimately capable: mother, wife, wage earner and community member. In turn, a man can better expand his roles as father, husband, family caregiver, and advocate of his family members' potentials.

Family planning benefits for women's health

Simply providing contraception to women who desire it could reduce maternal deaths by as much as one-third. Family planning also protects women by preventing the risk factors that contribute to maternal morbidity and mortality.

Family planning benefits for children's health

Family planning programs along with diarrhea treatment programs, mass immunizations, health services, and nutrition programs, help contribute to children's well-being. Family planning contributes indirectly to children's health development, and nutrition programs, help contribute to children's well-being. Family planning contributes indirectly to children's health, development and survival by reducing the risk of maternal mortality and morbidity. The death of a mother is traumatic; losing a mother has an immense impact on the emotional well-being of the family members. It may also affect the physical health of her survivors since many women earn a living and most are involved in the hygiene and health care of children.

Family planning contributes directly to the survival, health and development of children in three ways:

- Encouraging women to space births at least 2 years apart
- Planning births during the mother's optimal age – not too old or too young
- Preventing further pregnancies in a mother who has had numerous pregnancies already.

Family planning benefits for women and their societies

Family planning reduces the health risks of women and gives them more control over their reproductive lives. With better health and greater control over their lives, women can take advantage of education, employment, and civic opportunities. In delivering family planning services, providers have a unique opportunity to enhance the lives for women:

- Help women learn to make informed choices
- Support women's choices
 - listen to and encourage women,
 - give information,
 - engage them in discussion
 - recognize their needs and desires

answer questions.

- Encourage women to recognize their strength through IEC
- Improve women's skills in communicating with their husbands and with people outside their families.

The provider can help establish avenues for communication during joint discussions with wives and husbands. The couple's improved communication will increase the adoption of contraception as well as the continuation and more successful use of the couple's chosen method. Ideally, communication about family planning will also open opportunities for discussion about other issues in the couple's lives, for example creating new images and models of competent women and caring men.

3.4.7. Community participation in family planning

For the family health services like family planning, more than any other components of the health services, the intimate involvement of the community is essential in making the best decisions. The resources of the community should be fully utilized, for example, training and using voluntary health workers, and health education through women's associations. The problems related to family planning are more human than technical. In community-based programs like family planning, health workers should:

- Be able to provide the kind of advice that permits people to make intelligent, well informed decisions
- Help people understand the political and religious influence - local and international that lead to misinformation and abuse with regard to family planning
- Be taught and permitted to make appropriate birth control methods available to those who want them.

UNIT FOUR

GLOSSARY AND ABBREVIATION

GLOSSARY

Amenorrhea – Absence of menstrual periods (monthly vaginal bleeding).

Backup method- A family planning method such as condoms used temporarily for extra protection against pregnancy when needed for example, when starting a new method, when supplies run out, and when a pill user misses several pills in a row.

Conception – Union of an ovum, or egg cell, with a sperm – Also known as fertilization.

Nulipara – A woman who has never gave birth to a viable fetus.

Fibroid – A benign growth often found in or on the uterus. Fibroids are not harmful unless they cause pain or grow large enough to causes an obstruction.

Menses- Monthly flow of bloody fluid from the uterus through the vagina in aduel women between puberty and menopause.

Postpartum – The first 6 weeks after child birth.

Spotting – Light vaginal bleeding at any time other than during a woman's menstrual period .

ABBREVIATIONS

AIDS	- Acquired Immuno Deficiency Virus
BBT	- Basal body temperature
COC	- Combined oral contraceptives
D & C	- Dilatation and Cartage
DMPA	- Depo Medroxyprogestrone acetare
E & C	- Evacuation & Curettage
FP	- Family Planning
GTI	- Genital Tract Infections
HBV	- Hepatitis B Virus
HCG	see page 9
HIV	- Human Immuo Deficiency Virus
IUCD	- Intrauterine contraceptive device
LNG	- Levonorgestrol
MCH	see page 8
MVA	- Manual vacuum aspiration
NET- EN	- Nor ethestrone enantate
NFP	- Natural Family Planning
NSAID	- Non Steroidal antinflammatory drugs
PIC	- Progesterone only injectable contraceptive
PID	- Pelvic inflammatory disease
POP	- Progesterone only pills
STD	- Sexually transmitted disease
VSC	- Voluntary surgical contraception

UNIT FIVE

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UNIT SIX

ANNEXES

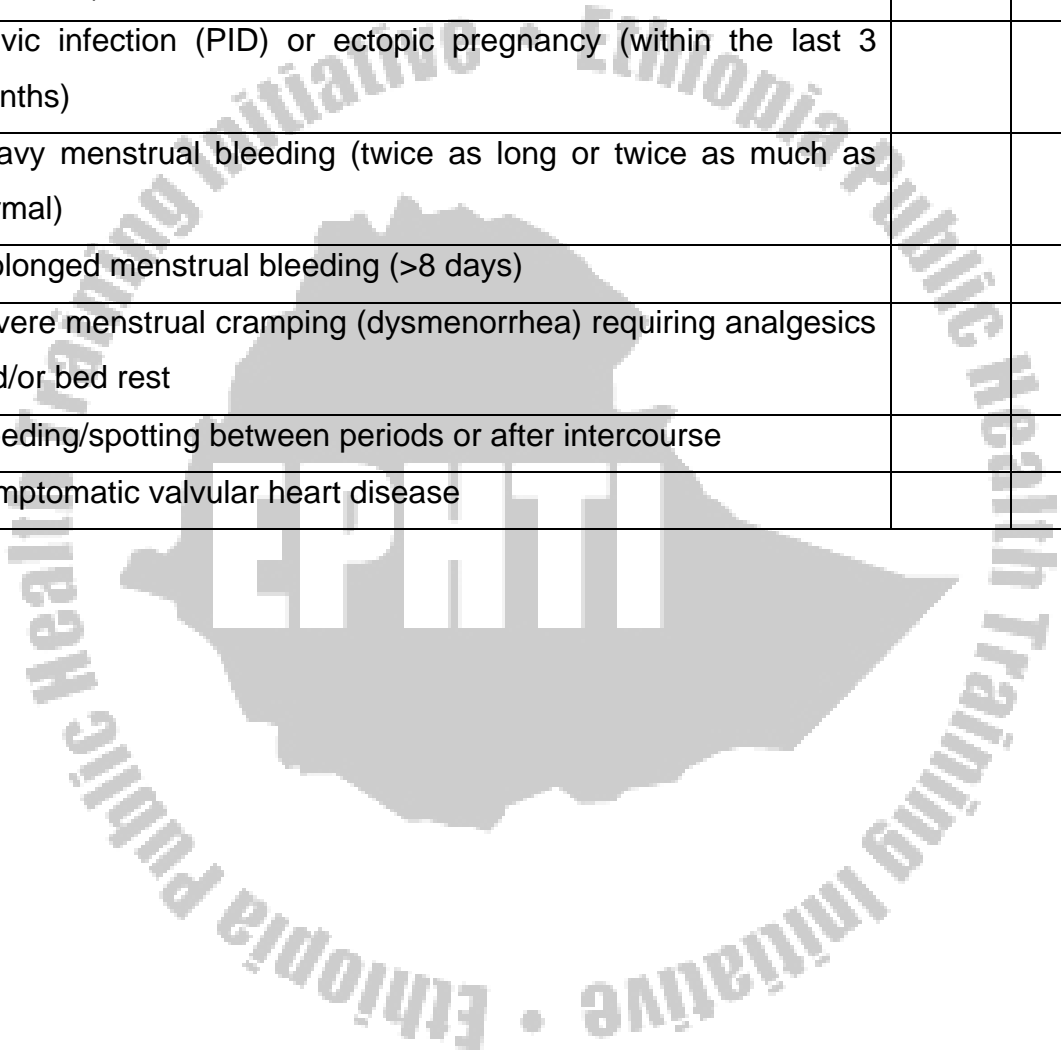
Annex 1.

Client assessment checklist for reversible methods

For either checklist if the client answers “NO” to all questions, and pregnancy is not suspected, the client may go directly for method-specific counseling, pelvic examination (required for IUDs only) and provision of the contraceptive. If the client answers “YES” however, she will need further counseling and possible evaluation before making a final decision.

Hormonal Methods checklist (Pills, injectables and implants)	Yes	No
Breastfeeding baby less than 6 weeks old		
Bleeding/spotting between periods or after intercourse		
Jaundice (abnormal yellow skin or eyes)		
Smoker over age 35		
Diabetes		
Severe headaches or blurred vision		
Severe pain in calves, thighs or chest, or swollen legs (edema)		
High blood pressure (history of)		
Heart attack, stroke or heart disease (history of)		
Breast cancer or suspicious (firm, non tender or fixed) lump in the breast		
Taking drugs for epilepsy (phenytoin and barbiturates) or tuberculosis (rifampin)		

IUD Checklist	Yes	No
Client (or partner) has other sex partners		
Sexually transmitted genital GTI or other STD (e.g., HBV, HIV/AIDS) within the last 3 months		
Pelvic infection (PID) or ectopic pregnancy (within the last 3 months)		
Heavy menstrual bleeding (twice as long or twice as much as normal)		
Prolonged menstrual bleeding (>8 days)		
Severe menstrual cramping (dysmenorrhea) requiring analgesics and/or bed rest		
Bleeding/spotting between periods or after intercourse		
Symptomatic valvular heart disease		



Annex 2.

Task analysis for different categories of health center teams

Learning domains	Learning objectives	Categories				Learning activities
		Ho	PHN	MLT	EH	
Knowledge	Define FP	✓	✓	✓	✓	Definition of FP
	List d/t types of FP methods	✓	✓	✓	✓	Mention d/t methods of FP
	Enumerate the advantage and disadvantages of d/t FP methods	✓	✓	-	✓	List advantages and disadvantages of FP
	Acquire techniques of Norplant insertion	✓	✓	-	-	Demonstrate Norplant insertion
	Describe lab tests r/t FP	-	-	✓	-	Mention lab tests r/t FP
	Discuss specimen collection methods for lab tests FP	-	-	✓	-	Collect specimens for f/P
	Describe the principles of lab tests	-	-	✓	-	Mention principles of lab tests
	Explain the importance of communication in FP	-	-	-	✓	Discuss the importance of communication in FP
	Describe Health education methods in FP	✓	✓	✓	✓	List Methods of Health education
Attitude	Develop positive thinking towards the concept FP					Show positive thinking behaviors towards the concept of FP

	Develop positive thinking towards the use of FP	✓	✓	✓	✓	Show positive thinking towards the concept of FP
	Respect client right of choosing FP methods	✓	✓	✓	✓	Display positive thinking towards client right to choose FP methods
	Share the concern of FP clients problems r/t FP utilization	✓	✓	✓	✓	Show concerned with clients problems r/t FP program
	Believe in the importance of health education in prompting FP services	✓	✓	✓	✓	Show his/her believe the importance of HG in promoting FP senile
Practice	Provide health education on FP	✓	✓	✓	✓	Demonstrate HE r/t FP
	Give different methods/types of FP	✓	✓	–	–	Provide d/t types of FP methods to respective clients
	Acquire techniques of IUCD insertion	✓	✓	–	–	Demonstrate the insertion of UCD

Annex 3.

Insertion technique and removal for IUCD

Insertion

- Explain the procedure and reassure the client .
 - Use infection prevention procedures throughout, including the “ non touch method “
 - Slow and gentle movements are very important.
 - Clean the genital area using antiseptics (water based iodine solution or chlorexidine4-5% are preferred.)
- N.B.: Savlon is a less effective antiseptic
- Introduce the speculum gently and clean the cervix; hold the cervix with tenaculum and gently retract
 - Sound the uterine cavity. The normal measurement for IUCD insertion most of the time is 7 cm . do not insert IUCD in a uterus less than 6 cm or more than 10 cm,
 - Load the IUCD inside the package by using a “non touch” method wherever possible and adjust the length to the sound length.
 - Insert the IUCD.
 - Remove tenaculum. Cut the excess thread leaving about 5 cm and clean the vagina

Removal

- Remove the IUCD when the client makes a firm request or there is a medical indication
- Introduce the speculum.
- Clean the genital tract and cervix using water-based antiseptics (see above on insertion)
- Grasp the strings with sponge forceps and apply gentle and steady traction. If the strings are not visible gently explore the cervix and use an IUCD retriever (or uterine sound) to bring down the strings
- If the threads cannot be retrieved, refer to a physician for further management.

Annex 4

Insertion technique and removal for Norplant

Step by step instructions

The woman should be lying comfortably on an examining table with her arm resting on an adjoining table that has been covered with a sterile cloth . She should flex her arm so that the clinician can make sure the capsules are not close to the elbow.

Wash the area where the implants are to be inserted with soap and water. Then swab the area four times with an antiseptic solution using sponge held in sponge stick.

Open the sterile equipment tray; put on sterile gloves; and arrange supplies and instruments so that they are accessible . Use sterile gauze to remove talc from the gloves. Wipe off tips of thumb and first two fingers so implants can then be handled. To avoid infection, gloves must be free of talc tot prevent transfer of tale to the implants.

Have an assistant open the sterile package by pulling apart the sheets of the pouch. Allow the 6 capsules to fall on a sterile cloth. Count the capsules to make sure none has stuck to the package.

Place the sterilized surgical drapes under and over the arm. The cloth used to cover the arm should have a sufficiently large opening to expose the area where the implants will be inserted.

Use a syringe with a long thin needle, 4-4.5 cm. After determining the absence of known allergies to the anesthetic agent or related drugs, fill the syringe with 3-5ml of local anesthetic, enough to insert the 6 capsules.

Insert the needle under the skin and release a very small amount of anesthetic. Then without removing the needle from under the skin, turn the needle and anesthetize 6 areas about 4-4.5 cm long, to mimic the fanlike position of the implants. Less than 1 cc is sufficient in each of the areas where the implants will be placed. By using the anesthetic needle make 6 clear channels just beneath the skin. Then ease the entry of the capsules..

Apply the anesthetic just beneath the skin so as to raise the dermis up from: the underlying tissue. NOTE: To prevent local anesthetic toxicity dose of 10 cc of 1% of local anesthetic should not be exceeded..

As you begin the actual insertion process, keep in mind this general advice about handling the trocar:

The point of the trocar should be inserted through the skin at a shallow angle; tilt the trocar upward toward the surface of the skin; never force the trocar; if resistance is met, try another angle.

Also refresh you memory about the purpose of the two marks on the trocar. When the trocar is used, it should be held so that the number 10 faces upward. There are two marks on the trocar; the mark (1) close to the hub indicates how far the trocar should be introduced before loading each implant. The mark (2) close to the tip indicates how much of the trocar should be left under the skin following the insertion of each implant.

There are 10 steps to follow in inserting the capsules:

1. Make a small, shallow incision about 2 mm long, either with the scalpel or the trocar, just penetrating the dermis. Do not make a deep incision.
2. Pick up the trocar. With the number 10 on the hub facing upward so that the bevel is up, insert the point of the trocar through the incision at a shallow angle. Starting at either the right or the left end of the imagined fan like pattern, move the trocar forward, stopping as soon as the point is completely beneath the skin (2-3mm past the end of the bevel).
3. To keep the implants on a superficial plane, tilt the trocar upward toward the surface of the skin. Advance the trocar slowly and smoothly toward mark (1) near the hub. The trocar should be shallow enough so that it can be readily followed with a finger. It should visibly raise the skin at all times. Passage of the trocar will be smooth if it is in a proper shallow plane.
4. When mark (1) is just at the incision (about 4-4--.5 cm into the incision), the trocar is in position to accept an implant.
5. Load the first implant into the trocar, either using the thumb and forefinger or tweezers. Push the implant down to the top of the hub if the implants are picked up by hand, be sure the sterile gloves are free of powder or other particles.
6. Push the implant gently with the plunger toward the tip of the trocar until you feel resistance – but never force the plunger.
7. Hold the plunger firmly in place with one hand. Slide the barrel of the trocar back out of the incision until the lower mark just clears the incision and the barrel touches the handle of the plunger. It is important to keep the plunger steady and not to push the implant into the tissue. The implant should now be lying beneath the skin, free of the trocar **IMPORTANT:** feel the implant with a finger to make sure it is free of the point of the trocar . It must be free of the trocar to avoid being cut as the trocar is moved to insert the other implants.
8. To place the next implant, do not completely remove the trocar, swivel the trocar about 15 degrees, establishing a fanlike placement pattern. Hold

the last implant you inserted with one finger. Put another finger next to the first and use it as a guide, while you advance the trocar to the mark near the hub. This will ensure a suitable distance between implants and will keep the trocar from puncturing any of the already inserted implants. When mark (1) is reached, load the second implant into the trocar and proceed as before.

9. As you proceed, make sure that the ends of the implants nearest you are not less than 5mm from the incision. This distance will prevent expulsion. Also be sure that the distance between the ends of each of the implants closest to incision (small end of the fanlike pattern is not more than the width of one implant).
10. As you insert the six capsules one by one, keep the tip of the trocar within the incision. Withdraw the trocar after the last implant is in place. Press down on the incision with a gauzed finger for a minute or so to minimize bruising and to stop bleeding. Palpate capsules to make sure all six have been inserted. Clean the area around the incision with an antiseptic. Bring the edges of the incision together and use butterfly bandage or ordinary band-aids (use two, criss-cross fashion) to close and cover the incision. Sutures are not necessary. Cover the insertion area with a dry compress and wrap enough gauze around the arm to ensure hemostasis.

Annex 5

Key for pre- and post-test questions

I. For the core module

1. A, B, C, D
2. A, E
3. A, C, E
4. A, C, E
5. B
6. A, B, C
7. C
8. C
9. B, C, E
10. Counseling

II. For specific categories

For Public Health Officers

Part one

1. A,D
2. A,B,C
3. C,D
4. A,B,C
5. A,B,E

Part two

- 6 Rhythm or Calendar method
Basal body temperature method
Cervical mucus (billing method)
Symptothermal method

7. G-Great the client(in an open and respectful manner)
 - A-Ask the client about themselves and their needs
 - T- Tell the client about the available methods
 - H- Help the client to reach a decision in choosing the methods
 - E – Explain fully how to use the chosen methods
 - R- Return visits should be planned before the client leave

Pre-test for Public Health Nurses

11. D
12. B
13. D
14. D
15. A
16. B
17. D
18. B
19. B
20. C

Pre-test for Medical Laboratory Students

1. E
2. D
3. C
4. B
5. E

Pre-test for Environmental Health Students

1. D
2. C
3. C
4. A
5. B