

CHAPTER IV:

Understanding Contraceptives

Expected Outcomes

Participants will become aware of the range of contraceptives, their respective benefits and method of use.

Participants will develop some material that will be useful in generating awareness among youth on the use of contraceptives.

Use Me

Objectives To learn about contraceptives – methods, utility and availability.

To design material for the promotion of contraceptive use among youth.

Materials Brochures, pamphlets and other materials used for the promotion of contraceptives by the public health department, flip charts, old colorful magazines, newspapers, glue, scissors, crayons, markers, stapler.

Time 1 hour 30 minutes.

Process Invite the participants to face the facilitator during his/her presentation on contraceptive methods. The peer educator can prepare this presentation by making transparencies for an over-head projector or by making charts using the material given at the end of this exercise.

After the presentation, clarify participants' doubts or questions. Ask the participants to divide into groups of six.

Explain that they may choose any one of the methods just shown (in the presentation) for their group work. They can make use of the brochures, pamphlets and other materials to prepare a IEC (Information, Education and Communication) brochure for youth.

Allow 30 minutes to do this exercise.

Ask the groups to present their materials. Encourage discussion and observations after each presentation.

After the presentations, use the following questions for discussion:

- *What are your thoughts on the exercise just completed?*
- *What do you think about the IEC materials used by the public health department? Why?*
- *Do you think any of the contraceptives methods we have discussed are useful protection against STIs and HIV? Why/Why not?*
- *How will your materials be used to raise awareness on contraception, STIs and HIV/AIDS among your peers?*

Notes for the Facilitator

This exercise generates awareness about contraceptive methods. It also shows participants how to create materials they can use to dissemination information to their peers. The participants become informed about IEC materials and discuss why they may, or may not, be effective in communicating with the youth. In your presentation of contraceptive methods, introduce the gender dimension and issues of accessibility and control.

HELPLINE for the peer educator

Contraceptive Methods – A chart

During the session on contraceptives, this chart can be used by the peer educator as a hand out

Type of contraceptive method	How it works	Effectiveness	Benefits	Instructions for use	Benefits other than contraception
Birth Control Pill: contains synthetic oestrogen	Alters natural ovulation cycle	Theoretically 99-100 per cent, but women have conceived on the “pill”	Low cost, easily available and control by the woman	Taken daily after the menstrual cycle begins	None
Birth Control Injection: given in the first days of menstruation and then every 2-3 months		Not known		Given by the doctor	None
Withdrawal: removal of penis from the vagina before ejaculation	Prevents the semen from going into the vagina	Theoretically, 85 per cent but in reality about 70 per cent	No cost and under the control of the man and woman involved	Dependent on the man	None
Intrauterine Device (IUD): small plastic device that fits inside the uterus. Can be used for 3-5 years	Inserted inside the uterus by a doctor	Theoretically 95-98 per cent	Long-lasting and relatively inexpensive	Inserted by the doctor in the first few days of menstruation. Should be examined every few months	None

Male Condom: Rolled over rubber sheath that fits over the penis	80 – 85 per cent	Low cost, easily accessible and reduces risk of STDs/STIs	Do not use with oil-based lubricants, such as, creams and lotions	Can be effective in prevention of STIs and HIV/AIDS
Implantable Hormone Device: continuous release of hormone	Continuous release of hormones	Not known	Continuous birth control for 5 years	Implant of the capsule in the upper arm. Done by the doctor
Calendar method: woman predicts the day of ovulation by keeping a calendar of the length of each menstrual cycle	Allows the woman to keep track of “safe” days for sex	Theoretically 85 per cent but in reality about 60 percent	No cost and under the control of the woman	Woman must keep track with the help of a calendar
Sterilization: vasectomy for males and tubal ligation for females	Passageway for the sperm or the egg is surgically tied	Theoretically 100 per cent but, exceptions have been to known to take place	Highly effective, permanent and one time expense	Doctor performs an operation

* Some of the methods are intrusive in nature and have side effects that may be harmful. The users must examine its pros and cons before making a choice.

Information on Birth Control

Youth must receive information about birth control in their teenage years because during this period they undergo tremendous physical and psychological changes. Youth should be made aware of the fact that there are two types of birth control - permanent and temporary.

1 Permanent Birth Control Methods

- Male sterilization
- Female sterilization

- Temporary Birth Control Methods
- Birth control pill
- Injections
- Implants (under the skin)
- Intrauterine Device (IUD)
- Condoms
- Calendar/Rhythm Method
- Early Withdrawal

Permanent Birth Control

Permanent birth control means male or female sterilization. It is a permanent way of preventing pregnancy. Male and female sterilization does not take a lot of time. You do not have to stay overnight in the hospital. Once the operation is completed, you may go home. After sterilization, your body will be strong, and you will be able to work as usual. Your sexual competence remains intact and you will still experience sexual pleasure. Sterilization will not make you bloated or give you a headache. You can find sterilization services at hospitals or at health promotion centres.

Vasectomy

Before leaving the body, sperm produced in the testes move through a series of small tubules, including the vas deferens. A vasectomy is a surgical procedure during which the vas deferens are resected.

How it works: Vasectomy is a procedure that blocks the passage of sperm through the vas deferens. Small incisions, on either side of the scrotum, allow a surgeon to isolate each vas and to resect it.

Instructions for effective use: A male should have a physical examination and complete a health history before the surgery. Because he may not be sterile immediately after the surgery, other methods of birth control should be used for the next 20 ejaculations. Strenuous exercise should be avoided for a week after the procedure.

Effectiveness: Vasectomy is an extremely effective method of birth control.

Benefits: Vasectomy is a simple procedure that is effective, safe, and inexpensive.

Side effects: At the site of the incision, some pain may be experienced. It should only last for a short time after the surgery

Tubal Ligation

Tubal ligation is a method of female surgical sterilization.

How it works: The purpose of tubal ligation is to prevent a sperm and ovum from uniting. Because fertilization takes place in a fallopian tube, tubal ligation is designed to block the tubes, so that a mature ovum cannot move through a tube to the uterus.

Instructions for effective use: A woman should be fully informed before deciding on a surgical procedure. A general physical examination, including a Pap smear and pelvic examination, are essential. After the procedure, the patient will be advised to rest for 24 to 48 hours and will be fit to resume her normal activities in a few days. Heavy lifting, strenuous exercise, and penile-vaginal intercourse should be avoided for a week.

Effectiveness: Tubal ligation is theoretically 100 per cent effective. The procedure is immediately effective, although for absolute effectiveness, a backup contraceptive method should be used until the first menstrual cycle begins. Female sterilization has a failure rate of 0.2 per cent. If the tubes rejoin or there is a surgical error, failure may occur

Benefits: Sterilization is highly effective, permanent, and involves a one-time expense.

Side effects: Some pain may be experienced for a short time after the surgery. About 2 per cent of females may experience minor complications including bleeding, fever, abdominal pain or infection.

Temporary Birth Control

The Pill

The combination pill contains chemicals called synthetic oestrogen and progestin, and together, they suppress the natural menstrual cycle in order to prevent ovulation.

How it works: In the normal unaltered menstrual cycle, oestrogen levels are low during and after the menstrual flow. Low oestrogen levels trigger the pituitary gland to secrete FSH (Follicle Stimulating Hormone). Under the influence of FSH, a single follicle matures in an ovary and ruptures, releasing the ovum into the terminal end of a fallopian tube. The pill alters this natural cycle. A female begins taking the pills on the first Sunday after menstruation begins. The pills raise the level of oestrogen so that little, if any, FSH is secreted, a follicle does not mature, and no ovum is released from an ovary. Ovulation does not occur. The progestin in the pill makes the cervical mucus very thick and the sperm have difficulty passing through the cervix into the uterus. The lining of the uterus is also altered, making it unsuitable for the implantation of a fertilized ovum.

Instructions for effective use: It is important for a female to follow her physician's recommendations concerning the pill. Most physicians recommend starting the pill on the first Sunday after the menstrual period begins. The pill should be taken at the same time each day, usually in the evening at bedtime.

Effectiveness: When the combination pills are taken according to instructions, they are 99 to 100 per cent effective against pregnancy, and no backup form of contraception is required. The actual effectiveness, after factoring in misuse, is 97 to 98 per cent. When taking antibiotics, it is recommended that the female use a back-up barrier method to maintain effectiveness.

Benefits: In addition to being highly effective, the pill may have additional medical benefits, including the following: predictable 28-day menstrual cycle; reduced menstrual flow, therefore less blood loss and less risk of anaemia; fewer menstrual cramps; reduced incidence of ovarian cysts; prevention of tubal or ectopic pregnancies; decrease in fibrocystic changes in breasts and reduced incidence of iron-deficiency anaemia.

Side effects: Side effects may include the following: nausea, mild weight gain, fluid retention, mild headache, spotting or bleeding between periods, decreased menstrual flow, vaginitis, recurring yeast infections, depression, mood changes, fatigue and decreased sex drive.

Injectable Progestin

Injectable progestin is a shot of synthetic progesterone that is given intramuscularly every three months to inhibit ovulation, thicken the cervical mucus to reduce sperm penetration, and thin the endometrial lining to interfere with implantation. The contraceptive used is medroxyprogesterone acetate or Depo-Provera.

How it works: When given intramuscularly in a dose of 150 mg every 3 months, Depo-Provera I, eliminates the mid-cycle rise of luteinizing hormone that inhibits ovulation. The injection reduces sperm penetration by thickening the cervical mucus and interferes with implantation by thinning of the endometrial lining

Instructions for effective use: This method of birth control is simple to use. It simply requires a female to have a thorough medical examination and an injection of Depo-Provera.

Effectiveness: Depo-Provera is better than 99 per cent effective in preventing pregnancy.

Benefits: Depo -Provera can be used in situations in which oestrogen is contraindicated. It has a minimal effect on blood pressure and lactation.

Side effects: The most common side effects are irregular menstrual bleeding and amenorrhea one year after beginning injections. Other side effects may include nervousness, headaches, nausea, and weight gain.

Implantable Hormone System

The implantable hormone system is a hormone (progestin only) system that is implanted under the skin in the upper arm.

How it works: The implantable hormone system consists of six capsules, each containing progestin. The capsules are implanted under the skin of the upper arm during the first seven days of the menstrual cycle. Small amounts of progestin are released into the body and a constant level of progestin is maintained in the blood. This level interferes with the ovulation process and causes the cervical mucus to thicken, thus stopping sperm penetration. The level of hormone also changes the lining of the uterus to prevent implantation of a fertilized ovum.

Instructions for effective use: A physician should implant the capsules. They may be left in place for up to five years or removed at any time.

Effectiveness: The effectiveness of the implantable hormone system is 97 to 99 per cent against pregnancy. Body weight seems to affect the level of progestin in the blood.

Benefits: The implantable hormone system offers a continuous method of birth control lasting up to five years. The lack of oestrogen and the small dosage of progestin can minimize the side effects that sometimes occur with the combination pill.

Side effects: Many of the side effects are the same as listed for the combination pills. Irregular vaginal bleeding remains one of the most prominent side effects. Infection may occur at the site of the implants, but it is rare.

Diaphragm

The diaphragm is a dome-shaped circular cup that fits snugly over the cervix and provides a mechanical barrier to keep sperm from entering the uterus.

How it works: When inserted properly into the vagina, the diaphragm fits snugly over the cervix and provides a mechanical barrier to keep sperm from entering the uterus, thus preventing the fertilization of an ovum. The diaphragm should always be used with a spermicidal cream or jelly, which provides a mechanical chemical barrier. The spermicidal is placed inside the dome of the diaphragm prior to insertion. The diaphragm keeps the spermicide in place where it is in direct contact with the cervix.

Instructions for effective use: The diaphragm should always be fitted by a physician or another trained health care provider. The most effective diaphragm is one with the largest rim that is still comfortable.

Effectiveness: The diaphragm can be 97 to 98 per cent effective against pregnancy, when used as instructed. The effectiveness of the diaphragm is dependent on the users being committed to its proper use. In actual use, the diaphragm may be only 75-80 per cent effective because of user failure.

Benefits: In addition to contraceptive benefits, the diaphragm with spermicidal cream, or jelly containing nonoxynol-9, is believed to afford some protection against STDs and HIV. However, it cannot be relied upon for this purpose.

Side effects: Most side effects involve the individual user's sensitivity to the diaphragm and/or the spermicide. If the diaphragm is too large, there may be cramping and pain. A large diaphragm may put pressure on the bladder and result in recurring urinary tract infections. If it is too small, the diaphragm may be difficult to remove.

Cervical cap

The cervical cap is a cup-shaped rubber or plastic device that fit snugly over the cervix. It should be used with a spermicide containing nonoxynol-9.

How it works: The cervical cap uses suction to fit firmly around the cervix to provide a mechanical barrier that prevents sperm from penetrating the uterus. Additional protection is afforded with the use of spermicide.

Instructions for effective use: The cap is manufactured in multiple sizes and must be carefully fitted by a health care provider who is trained in the use of the product. The cervical cap should be inserted before intercourse and should be left in place for at least six to eight hours after intercourse. The cervical cap can remain in place for up to 48 hours before removal.

Effectiveness: For effective use, a female should be familiar with her anatomy and willing to learn the proper technique for application and removal. When used

properly, the cervical cap is 97 to 98 per cent effective. However, in actuality, the effectiveness of the cervical cap is approximately 75 to 80 per cent effective.

Benefits: The cervical cap is usually effective for 48 hours, but, in certain cases, it may be a few hours more or less.

Side effects: Although rare, the cervical cap may cause irritation or ulceration of the cervix. If this happens, use of the cervical cap should be discontinued.

Intrauterine device

The intrauterine device (IUD) is a small plastic-silastic design that fits inside the uterus and prevents pregnancy.

How it works: The IUD immobilizes sperm, speeds the movement of the ovum through the Fallopian tube, and impairs implantation. Some IUDs use small amounts of copper that are toxic to sperm.

Instructions for effective use: An IUD should be inserted by a physician during the first few days of menstruation. At this time, the cervix dilates more easily and there is no chance of a pregnancy occurring. When the IUD is in place, neither partner can feel the device. A small string is left protruding for a short distance from the cervix. The female can use the position of this string to check for correct positioning of the IUD. This check should be made after each menstrual period.

Effectiveness: Theoretically, the IUD is 95 to 98 per cent effective against pregnancy. Actual effectiveness depends on IUD characteristics, such as size, shape and presence of copper or progesterone, and user characteristics, such as, age and number of children. The first-year failure rate is approximately 3 per cent. The lowest expected pregnancy rate after the first year is approximately 2 per cent.

Benefits: The progestin-releasing IUD decreases menstrual blood loss and reduce menstrual cramps.

Side effects: Some females who use an IUD, experience increased menstrual cramps or increased spotting and menstrual bleeding. These effects are most noticeable for the first three months after insertion and may be controlled with medications, such as, Ibuprofen. However, it is advised that medication should only be taken on the medical advice of a qualified physician. Severe pain, or bleeding, may be a warning that the IUD has been partially or completely expelled. In this case, a physician should be contracted.

Spermicidal foam

A spermicide is a chemical that kills sperm. The most widely used spermicides contain nonoxynol-9.

How it works: The foam (cream or gel) is inserted into the vagina near the cervix. During intercourse, the spermicide is spread around, blocking the cervix and forming both a mechanical and chemical barrier to sperm.

Instructions for effective use: The contraceptive benefits depend on the user following directions carefully. There must be sufficient foam, and it must be used

correctly to function as a spermicide. To be effective, it must be inserted at least three to four inches into the vagina. During sexual intercourse, the foam must be in contact with the cervix. Foam can be used alone. However, it is most effectively used in combination with the condom or diaphragm.

Benefits: Spermicidal preparations that contain nonoxynol-9 can also destroy STDs and HIV, however the prevention of infection is not guaranteed. Spermicides are simple to use.

Side effects: Side effects are few. One or both partners may be allergic to the spermicide and experience irritation in the vagina or penis. Some females experience a burning reaction.

Male Condom

The male condom is a thin sheath of latex that is placed over the erect penis to collect semen during ejaculation.

How it works: The condom collects semen during ejaculation, thus preventing semen from entering the vagina during sexual intercourse. The condom also helps prevent the exchange of body fluids.

Instructions for effective use: For the condom to be effective, the user must carefully follow the instructions of use. Even pre-ejaculatory fluid contains some sperm and may also contain HIV and STIs. Before placing the condom on the erect penis, the tip of the condom should be pinched closed in order to leave an empty space. This space provides room to collect the ejaculated semen. No air should be in the tip of the condom because this can cause the condom to break or rupture. While continuing to pinch the tip of the condom, the condom should be unrolled toward the base of the erect penis. The penis should be withdrawn from the vagina while it is still erect. For added effectiveness, the penis can be removed prior to ejaculation. The condom should not be removed from the penis until the penis is withdrawn. When withdrawing the man should hold the rim of the condom at the base of the penis and carefully remove the penis and the condom.

Effectiveness: When used properly, the condom is theoretically 97 per cent effective against pregnancy. Actual user-effectiveness may drop to 80-85 per cent.

Benefits: The condom has more than contraceptive benefits. Because it provides a mechanical barrier that keeps male and female secretions separate, the condom helps prevent the spread of STIs and HIV. However, users must be warned that the condom is not 100 per cent effective in preventing the spread of HIV and STIs. Consistent use of condoms helps decrease the rate of infection of HIV but does not entirely eliminate the risk.

Side effects: Some males complain that the use of the condom reduces the sensitivity of the glands of the penis, and, consequently, interferes with sexual satisfaction.

Female condom

The female condom is a lubricated, polyurethane sheath that fits the contours of the vagina, collects semen, and helps prevent the transmission of body fluids between partners during sexual intercourse.

How it works: The female condom fits the contours of the vagina and collects semen. This prevents the sperm from passing through to the cervix into the uterus. The female condom also protects the entire vagina and labia from contact with the male's body fluids.

Instructions for effective use: The inner ring of the female condom fits behind the pubic bone and the outer ring remains outside the body. Both partners must take care that the female condom does not slip inside the vagina and that the penis is inserted in the pouch, not outside it.

Effectiveness: The female condom is more difficult to use than the male condom. Pregnancy may occur due to incorrect use.

Benefits: For females, the female condom is believed to have several advantages over the male condom. It is the female who chooses and uses it. She can insert it before intercourse (an advantage over the male condom, which must be put on the erect penis causing disruption). When correctly used, the part of the condom outside the vagina covers the area around the vagina and the base of the penis during intercourse. This offers better potential protection against genital warts and genital herpes. The pouch is made of polyurethane, which has been shown in laboratory tests to offer better protection against the passage of viruses than latex.

Side effects: Some women find the female condom to be uncomfortable because of the inner ring. Some partners have also indicated that they do not like the sound produced by the female condom during sex.

Calendar Method (Rhythm Method)

This method may be a choice for women whose period arrives regularly each month (i.e., if your period comes on the 27th or 28th day of the month, it will come on the same days each month). Usually, the "safety period" is counted as 7 days before your period and 7 days after your menstruation period. If your period comes on the seventh of the month, the "safety period", when you can have sex is the first to the 13th. However, there is the chance that this method will fail if the days of your period are not counted accurately.

Early Withdrawal

This is another type of birth control because it may prevent pregnancy. This method is never 100 per cent effective because it depends on controlled male ejaculation during intercourse.