CHAPTER - I

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Human development is the ultimate objective of all planning efforts. Planning takes into account the resources, the pathways available for human development and also of the most important one human resources for initiating developmental plans. India, the second most populous country in the world, has a mere (2.5%) of the total global land but is the home of 1/6th of the world’s population. In 1951, the infant republic took stock of the existing human and other resources in the country and initiated the first five year development plan. Despite abundant natural resources, the planners recognized from the census figures of 1951, the potential threat posed by population explosion and the urgent need of steps to be taken to avert it. It was recognized that population stabilisation is an essential pre-requisite for sustainability of the development process, so that the fruits of economic development result in the enhancement of the well being of the people and result in the overall improvement in quality of life.

India became the first country in the world to formulate a National family planning programme in 1952, with the objective of "reducing birth rate to the extent necessary to stabilise the population at a level consistent with requirement of national economy". Thus, the key elements of health care to women and children and provision of contraceptive services have been the focus of India’s health services right from the time of India’s Independence.

1. FAMILY PLANNING

Population pressure is a key factor in environmental degradation; it is to be assumed that a reduction in population would benefit the environment. Fewer births will benefit women, enabling them to be more efficient in enacting their role as environmental managers. Women, through family
planning, can make a significant contribution in the reduction of population growth rate. For women, the availability of family planning methods is a boon as this gives them the right to choose the size of their families. Family planning is one of the most important investments, because it represents the freedom from which other freedoms flow.

The importance of women in determining future population growth rates was included in Amsterdam Declaration which proclaims “We the participants of the International Forum on population in the Twenty First Century, held in Amsterdam, the Netherlands, from 6 to 9 November in 1989, in addressing ourselves to the pressing needs and issues in the field of population, recognize that women are at the centre of the development process and that the improvement of their status and the extent to which they are free to make decisions affecting their lives and that of their families will be crucial in determining future population growth rates”.

1.1 DEFINITION OF FAMILY PLANNING

The expert committee by W.H.O. defined family planning as the “practices that help individuals or couples to attain certain objectives like, to avoid unwanted births, to bring about wanted births, to regulate intervals between pregnancies, to contribute the time at which birth occurs in relation to the ages of the parents and to determine the number of children in the family”.

The report of the special Rapporter by the Economic and Social Council, under resolution 1975, U.N: Seminar on ‘Status of Women and family planning’ says that, “the term family planning is difficult to define precisely, especially because the phrase apparently means very different things to different people depending upon their social or political perspectives”. This problem especially became apparent in seminar discussions on the relationship between the status of women and family
planning and in various responses from Governments to the question, “How would you define family planning as applicable in your country”? For some people the term family planning refers to specific techniques of contraception, where as for others it refers to very broad programme for improving the physical and social well being of all families. Similarly, some viewed ‘family planning’, benigningly as a pure voluntary service directed primarily in assisting people in having the number of children they want and when they want them while others associate it with particular National Programmes to encourage or discourage large families and still others view it as a deliberate and some times suspect policy of wide scale fertility limitation. Unfortunately, lack of consensus on the meaning of family planning hinders open discussion of the issue, especially when family planning programmes are equated with attempts at population control.

At the family level, it means spacing of children at convenient intervals and limiting total number of children in accordance with the socio-economic standards that are accepted and desired by the family.

At the National level, it means limitation of the population of the country to suit its resources as regards to food, work force, available land etc.

At the International level, it means control of the population and its distribution amongst different countries depending on their respective resources. This is commonly accepted to be the total scheme of family planning.

Family planning is an ideal programme for the act of preventing births and avoiding their consequences but by definition abortion could also be considered as a part of family planning, although it often is not. Sometimes, assistance is also provided to achieve intended results, such as solving the infertility problems of couples. But this is usually a minor part of family planning programme and is very rare in less developed countries. So family
planning is essentially synonymous with “birth preventions”, “birth control” and “planned parenthood” and in fact has been used a euphemistic replacement for the later two terms. By family, we usually mean the father, mother and their unmarried children in the nuclear family. Planning usually means designing and decision making aspect of the parents regarding the number of children they wish to have and their behavior in achieving this number.

1.2 FAMILY PLANNING METHODS

Availability of family planning methods does more than enable women and men to limit their family size. It safe guards both individual health and rights and also improves the quality of life of individual women, partners and their children. In India, no matter whatever type of contraceptive is advocated, acceptability by the people becomes difficult because of the poor living conditions. This is over whelmingly felt in the depressed rural areas where privacy, water, electricity, knowledge of reproductive physiology and most important-motivation are virtually absent. Further, the traditional view that children are god given prevents the acceptance of the very idea of family planning not only among rural population and also among considerable urban population. For deemed India’s vast heterogeneous population no single method, however good can be suitable. Theoretically all the scientifically approved contraceptives are available to the people, and the different methods of family planning are given below:

1.2.1 TEMPORARY METHODS

These are the methods which are used to control births temporarily. Users can have children, once they stop using these methods.
a. VAGINAL METHODS

Vaginal methods are contraceptives that a woman places in her vagina shortly before sex. There are several vaginal methods:

- Spermicides, including foaming tablets or suppositories, melting suppositories, like foam, melting film, jelly and cream.
- Diaphragm, a soft rubber cup that covers the cervix and should be used with spermicidal jelly or cream
- Cervical cap, a smaller version of the diaphragm. Not widely available outside North America, Europe, Australia and New Zealand.

Spermicides kill the sperm or make sperm unable to move towards the egg. Diaphragms and cervical caps block sperm from entering the uterus and the fallopian tubes where the sperm meets the egg.

Advantages of vaginal methods

- Safe, women-controlled methods that almost every woman can use.
- Help in prevention of some Sexually Transmitted Diseases (STD) and conditions caused by STDs - Pelvic Inflammatory Disease (PID), infertility, ectopic pregnancy and possibly cervical cancer. They are also thought to offer some protection against HIV/AIDS, but has not been demonstrated yet.
- Offers contraception just when needed.
- Prevents pregnancy efficiently, if used correctly with every act of sexual intercourse (except cervical cap in the case of women who have had children).
- No side effects from hormones.
- No effect on breast milk.
- Can be stopped at any time.
- Easy to use with a little practice.
**Additional advantages of spermicide**

- Can be inserted as early as one hour before sex so as to avoid interrupting sex.
- May increase vaginal lubrication.
- Can be used immediately after childbirth.
- No need to see a health care provider before using.

**Additional advantages of diaphragms or cervical caps used with spermicide**

- Diaphragm can be inserted 6 hours before sex to avoid interrupting sex. Cap can be inserted even earlier since it gives protection up to 48 hours after insertion.

**Disadvantages of all vaginal methods**

- Side effects
  - Spermicide may cause irritation in some women or their partners especially if used several times a day.
  - Spermicide may cause local allergic reaction (rarely) in some women or their partners.
  - Can make urinary tract infections more common. (A woman can avoid this by always urinating after sex).
  - Effectiveness requires having the contraceptive at hand and taking the correct action before each act of sexual intercourse.
  - Requires woman or her partner to put fingers or inserter in to her vagina (should wash hands first).
  - Should interrupt sex if not inserted before hand.
  - Spermicide may be messy.
  - May be hard to conceal from partner.
Additional disadvantages of spermicide

- Melting types should be placed in the vagina at least 10 minutes before the man ejaculates and not more than 1 hour before.
- Some types may melt in hot weather.
- Foaming tablets may cause warm sensation.
- In theory, irritation caused by repeated usage in a day might increase STD/HIV risk.

Additional disadvantages of diaphragm and cervical cap used with spermicide

- Requires fitting by a family planning provider, involves pelvic examination.
- May be difficult to remove. Diaphragm can tear as the women removes it (rare).
- Women may need a different size diaphragm after child birth.
- Cervical cap appears to be less effective for women who have given birth.
- Diaphragm or cap should be washed with mild soap and clean water after each use.
- Diaphragm needs careful storage to avoid developing holes.

IUD (Intra Uterine Device)

- An intra uterine devise (IUD) usually is a small, flexible plastic frame. It often has copper wire or copper sleeves on it. It is inserted in to a woman’s uterus through her vagina.
- Almost all brands of IUDs have one or two strings, or threads, tied to them. The strings hang through the opening of the cervix in to the vagina.
The user can check the presence of IUD by touching the strings. A family planning provider can remove the IUD by pulling gently on the strings with forceps.

- IUDs are also called IUCDs (Intrauterine Contraceptive devices). Specific IUDs are called “the loop”, Lippes Loop (no longer available in most countries, copper T, TCu-380 A, MLCu – 375 (Multiloard), Nova T, Progetasert, and LNG – 20.

IUDs work chiefly by preventing the sperm and egg from meeting. Perhaps the IUD makes it hard for the sperm to move through the woman’s reproductive tract, and it greatly reduces the ability of the sperm to fertilize with an egg. They can also possibly prevent the egg from implanting on walls of the uterus.

**Advantages**

- A single decision leads to effective long-term prevention of pregnancy.
- Long-lasting. The most widely used IUD (Outside China), the TCU-380 A, lasts at least 10 years. Inert IUDs never need replacement.
- Very effective. Little to remember.
- No interference with sex.
- Increased sexual enjoyment because no need to worry about pregnancy.
- No hormonal side effects with copper-bearing or inert IUDs.
- Immediately reversible. When women have their IUDs removed, they can become pregnant as quickly as women who have not used IUDs.
- Copper – bearing and inert IUDs have no effect on the amount of or quality of breast milk.
- Can be inserted immediately after childbirth (except hormone-releasing IUDs) or after induced abortion (if there is no evidence of infection).
• Can be used through menopause (one year or so after the last menstrual period (LMP)).

• No interactions with any medicines.

• Helps prevent ectopic pregnancies (People who use IUDs have less risk of ectopic pregnancy than in women not using any family planning method).

Disadvantages

• Common side effects (not signs of sickness):
  - Menstrual changes (common in the first 3 months but likely to lessen after 3 months):
  - Longer and heavier menstrual periods.
  - Bleeding or spotting between periods.
  - More cramps or pain during periods.
  - Other, uncommon side effects and complications:
    - Severe cramps and pain beyond the first 3 to 5 days after insertion.
    - Heavy menstrual bleeding or bleeding between periods, possibly contributing to anemia. More likely with inert IUDs than with copper or hormone-releasing IUDs.
    - Perforation (piercing) of the wall of the uterus is very rare if the IUD is not properly inserted.

• Does not protect against Sexually Transmitted Diseases (STDs) including HIV/AIDS. Not a good method for women with recent STDs or with multiple sex partners.

• Pelvic Inflammatory Disease (PID) is more likely to follow the STD infection. If a woman uses an IUD, PID can lead to infertility.
• Medical procedure, including pelvic exam, needed to insert IUD. Occasionally, a woman faints during the insertion procedure.

• Some pain and bleeding or spotting may occur immediately after IUD insertion. Usually goes away in a day or two.

• Client cannot stop IUD use on her own. A trained health care provider must remove the IUD for her.

• May come out of the uterus, possibly without the woman’s knowledge (more common when IUD is inserted soon after childbirth).

• Does not protect so well against ectopic pregnancy when compared with protection against normal pregnancy.

• The woman should check the position of the IUD strings from time to time. To do this, she must put her fingers in to her vagina which some women may find inconvenient.

b. CONDOMS

Male condoms

A male condom is a thin sheath made of latex or other materials. Latex condoms protect against pregnancy and sexually transmitted infections (STIs) including HIV infection. Condoms that are made of other materials may not protect against HIV infection and other STIs. When used correctly, they keep sperm and any other disease organisms in the semen out of the vagina. Condoms also stop any disease organisms that are present in the vagina from entering the penis. Condoms are effective if they are used consistently and correctly at every time of sexual intercourse. Condoms are easy to use with little practice. However some men would not like to use them because

1. They feel embarrassed
2. They lessen sexual pleasure
Advantages

- Prevents STDs, including HIV/AIDS, as well as pregnancy, when used correctly with every act of sexual intercourse.

- Helps protect against conditions caused by STDs—Pelvic inflammatory disease, chronic pain and possibly cervical cancer in women, infertility in both men and women.

- Can be used to prevent STD infection during pregnancy.

- Can be used soon after childbirth.

- Safe. No hormonal side effects.

- Helps in prevention of ectopic pregnancies.

- Can be stopped at any time.

- Offers occasional contraception with no daily upkeep.

- Easy to keep on hand and use when indulged in sex unexpectedly.

- Can be used by men of any age.

- Can be used without visiting a health care provider first.

- Usually easy to obtain because sold in many places.

- Enables a man to take responsibility for preventing pregnancy and disease.

- Increased sexual enjoyment because there is no need to worry about unwanted pregnancy or STDs.

- Often helps prevent premature ejaculation (help the man to last longer during intercourse).
Disadvantages

- Latex condoms may cause itching among a few who are allergic to latex. Also, some people may be allergic to the lubricant in some brands of condoms.
- May decrease sensation, making sex less enjoyable for either partner.
- Couple must take time to put the condom on the erect penis before sex.
- Supply must be ready at hand even if the woman or man is not expecting to have sex.
- Small possibility that condom will slip off or break during sex.
- Condoms can weaken if stored too long or in too much heat, sunlight, humidity, and if used with oil-based lubricants- and may break during use.
- Her partner’s cooperation is needed for the woman to protect herself from pregnancy and disease.
- Poor reputation. Many people connect condoms with immoral sex, sex outside marriage, and sex with prostitutes.
- May embarrass some people while purchasing, or in asking the partner to use, putting on, taking off, or while disposing them after use.

Female condoms

A female condom is a thin, loose-fitting covering made of polyurethane plastic that forms a pouch lining the vagina. It has two flexible rings. The inner ring at the closed end of the condom eases insertion into the vagina, covering the cervix and holding the condom in place. The outer ring remains outside the vagina and covers the outer lips of the vagina. The female condom is coated on the inside with a lubricant; additional lubricant for the outside is provided in a small tube. This lubricant is not spermicidal.
Female condoms prevent pregnancy by blocking the passage of sperm to the egg; female condoms are effective if used consistently and correctly every time the women has sexual intercourse. A woman controlled method to protect against STDs including HIV / AIDS and against unwanted pregnancy.

**Advantages**

- Controlled by the woman.
- Designed to prevent both STDs and pregnancy.
- No medical conditions appear to limit the use.
- No apparent side effects; no allergic reactions.

**Disadvantages**

- Expensive in the present times.
- Only somewhat effective as this is not commonly used.
- Usually needs partner's acceptance.
- Supply must be on hand.
- Woman must touch her genitals (while insertion).

**Side effects**

- May cause allergy in women allergic to latex.
- Can result in Severe redness, itching, swelling after condom use.

**c. COMBINED ORAL CONTRACEPTIVES**

Women who use oral contraceptives swallow a pill each day to prevent pregnancy. Combined oral contraceptives contain two hormones similar to the natural hormones in a woman’s body - an estrogen and a progestin. Also called combined pills, COCs (Combined Oral Contraceptives),
OCs (Oral Contraceptives), the pill, and birth control pills. Present-day combined oral contraceptives contain very low doses of hormones. They are often called low-dose combined oral contraceptives. There are two types of pill packets. Some packets have 28 pills. These contain 21 “active” pills, which contain hormones, followed by 7 “reminder” pills of a different color that do not contain hormones. Other packets have only the 21 “active” pills. Combined Oral Contraceptives stop ovulation (release of eggs from ovaries). Also thicken cervical mucus, making it difficult for sperm to pass through.

**Advantages**

- Very effective when used correctly.
- No need to do anything at the time of sexual intercourse.
- Increased sexual enjoyment because no need to worry about pregnancy.
- Monthly periods are regular; lighter monthly bleeding and fewer days of bleeding; milder and fewer menstrual cramps.
- Can be used as long as a woman wants to prevent pregnancy. No rest period needed.
- Can be used at any age from adolescence to menopause.
- Can be used by women who have children and by women who do not.
- User can stop taking pills at any time.
- Fertility returns soon after stopping.
- Can be used as an emergency contraceptive after unprotected sex.
- Can prevent or decrease iron deficiency anemia.
- They also help in preventing,
  - Ectopic pregnancies,
  - Endometrial cancer,
- Ovarian cancer,
- Ovarian cysts,
- Pelvic inflammatory disease,
- Benign breast disease.

Disadvantages

- Common side effect (not signs of sickness):
  - Nausea (most common in first 3 months),
  - Spotting or bleeding between menstrual periods, especially if a woman forgets to take her pills or takes them late (most common in first 3 months),
  - Mild headaches,
  - Breast tenderness,
  - Slight weight gain (some women see weight gain as an advantage),
  - Amenorrhea (some women see amenorrhea as an advantage).

- Not highly effective unless taken everyday. Difficult for some women to remember every day.

- New packet of pills must be at hand every 28 days.

- Not recommended for breastfeeding women because they affect quality and quantity of milk.

- In a few women, may cause mood changes including depression, less interest in sex,

- Very rarely can cause stroke, blood clots in deep veins of the legs, or heart attack. Those at highest risk are women with high blood pressure and women who are aged 35 or older and at the same time smoke more than 15 cigarettes per day.
• Does not protect against Sexually Transmitted Diseases (STDs) including AIDS.

d. INJECTABLES

Injectables are hormones delivered to the woman through an injection in her arm or buttocks. Depo-Provera and Noristerat or progestin-only are injectables. Injectables prevent the ovaries from releasing eggs every month. They also make it difficult for sperm to enter the uterus by thickening cervical mucus. The woman must get an injection every three months for Depo-Provera and every two months for Noristerat. Injectables are one of the most effective methods of contraception.

DMPA INJECTABLE CONTRACEPTIVES

Women who use this method receive injections to prevent pregnancy. The most common type of injectable contraceptive is DMPA. DMPA is given every 3 months. It contains a progestin, similar to the natural hormone that the woman’s body produces. The hormone is released slowly into the bloodstream. Also known as Depot-Medroxy Progesterine Acetate, Depo-Provera®, Depo, and Megason®. There are other injectable contraceptives. NET EN - also called Noristerat®, Norethindrone Enanthate, and Norethisterone Enanthate – is given every 2 months. Much of the information that applies to DMPA also applies to NET EN. Also, monthly injectable contraceptives are available in some countries. Monthly injectables include Cyclofen™, Cycloprovera™, and Mesigyna®. Monthly injectables contain Estrogen and Progestin. Therefore they are different from DMPA and NET EN. DMPA mainly stops ovulation (release of eggs from ovaries). Also thickens cervical mucus, making it difficult for the sperm to pass through.
Advantages

- Very effective
- Private. No one else can tell that a woman is using it.
- Long-term pregnancy prevention but reversible. One injection prevents pregnancy for at least 3 months.
- Does not interfere with sex.
- Increased sexual enjoyment because no need to worry about pregnancy.
- No daily pill-taking.
- Allows some flexibility in return visits. Clients can return as much as 2 to 4 weeks early (although this is not ideal) and 2 weeks and perhaps up to 4 weeks late for next injection.
- Can be used at any age.
- Quantity and quality of breast milk do not seem to be harmed. Can be used by nursing mothers as soon as 6 weeks after child birth.
- No estrogen side effects. Does not increase the risk of estrogen-related complications such as heart attack.
- Helps prevent ectopic pregnancies.
- Helps prevent endometrical cancer.
- Helps prevent uterine fibroids.
- May help prevent Ovarian cancer.
- Special advantages for some women:
  - May help prevent iron-deficiency anemia.
  - May make seizures less frequent in women with epilepsy.
  - Makes sickle cell crises less frequent and less painful.
Disadvantages

- Common side effects (not signs of sickness)
  - Changes in menstrual bleeding are likely, including:
  - Light spotting or bleeding - Most common at first.
  - Heavy bleeding can occur at first - Rare.
  - Amenorrhea - normal, especially after first year of use (some women see amenorrhea as an advantage).
  - May cause weight gain (average of 1-2 Kilo, or 2-4 lbs, each year. (changes in diet can help control or prevent weight gain which some women see as an advantage).
- Delayed return of fertility (until DMPA levels in the body need to drop). About 4 months longer wait for pregnancy when compared to women who have been using combined oral contraceptives, IUDs, condoms or a vaginal methods.
- Requires another injection every 3 months.
- May cause headaches, breast tenderness, moodiness, nausea, hair loss, less sense drive, and / or acne in some women.
- Does not protect against sexually transmitted diseases including HIV / AIDS.

e. NORPLANT IMPLANTS

The Norplant implant system is 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, similar to a natural hormone that a woman’s body produces. It is released very slowly from all 6 capsules. Thus the capsules supply a steady and a very low dose. Norplant implements contain no estrogen. A set of Norplant
capsules can prevent pregnancy for at least 5 years. It may prove to be effective longer. Norplant implants thicken cervical mucus, making it difficult for sperm to pass through and stop ovulation (release of eggs from ovaries) in about half of the menstrual cycles (after first year of use).

Advantages

- Very effective, even in heavier women.
- Long-term pregnancy protection but reversible. A single decision can lead to very effective contraception for up to 5 years.
- No need to do any thing prior sexual intercourse.
- Increased sexual enjoyment because there is no need to worry about unwanted pregnancy.
- No need to remember anything. Requires no daily pill-taking or repeated injections. No repeated clinic visits required.
- Effective within 24 hours after insertion.
- Fertility returns almost immediately after capsules are removed.
- Quantity and quality of breast milk does not seem to be harmed. Can be used by nursing mothers starting 6 weeks after child birth.
- No estrogen side effects.
- Helps preventing iron deficiency anemia.
- Helps in prevention of ectopic pregnancies.
- May help in preventing endometrial cancer.
- Can make sickle cell rises less frequent and less painful.
- Insertion involves only minor pain of anesthesia needle. Not painful if anesthetic is given properly.
Disadvantages

- Common side effects (not signs of sickness)
  - Changes in menstrual bleeding are normal including:
  - Light spotting or bleeding between monthly periods (common)
  - Prolonged bleeding (uncommon, and often decreases after first few months), or
  - Amenorrhea (some women see amenorrhea as an advantage) some women have:
    - Headaches,
    - Enlargement of ovaries or enlargement of ovarian cysts,
    - Dizziness,
    - Breast tenderness and/or discharge,
    - Nervousness,
    - Nausea,
    - Acne or skin rash,
    - Change in appetite,
    - Weight gain (a few women lose weight)
    - Hair loss or more hair growth on the face.

- Most women do not have any of these side effects, and most side effects go away without treatment within the first year.

- Client cannot start or stop use on her own. Capsules must be inserted and removed by a specially trained health care provider.

- Minor surgical procedures required to insert and remove capsules, some women may not want anything inserted in their arms or may be bothered that implants may be seen or felt under the skin.
• Discomfort for several hours to 1 day after insertion in some women, perhaps for several days for a few. Removal is some times painful and often more difficult than insertion.

• In the very rare instances when pregnancy occurs, as many as one in every 6 pregnancies is ectopic.

• Does not protect against sexually transmitted diseases including HIV / AIDS.

f. LAM (LACTATIONAL AMENORRHEA METHOD)

• The Lactational Amenorrhea Method (LAM) is the use of breast-feeding as a temporary family planning method. (“Lactational” means breast-feeding. “Amenorrhea” means not having menstrual bleeding). LAM provides a natural protection against pregnancy and encourages starting another method at the proper time. A woman is naturally protected against pregnancy when:

- Her baby gets at least 85% of his or her feedings as breast milk, and she breast feeds her baby often, both day and night,
- Her menstrual periods have not returned, AND
- Her baby is less than 6 months old.

• If she keeps breast feeding very often, her protection from pregnancy may last longer than 6 months and perhaps as long as 9 to 12 months. LAM makes sure that the baby gets needed nutrients and protection from disease which are both provided by the breast milk. Breast-feeding is the healthiest way to feed most babies during their first 6 months of life. Along with other foods, breast milk can be a major part of the child’s diet for 2 years or more. LAM stops ovulation (release of eggs from ovaries) because breast-feeding changes the rate of release of natural hormones.
Advantages

- Effectively prevents pregnancy for at least 6 months or longer if a woman keeps breast feeding often, day and night.
- LAM Encourages many women to breast feed their children which is a very healthy trend both to the mother and the child.
- No need to take protection at time of sexual intercourse.
- No direct cost involved for family planning or for feeding the baby.
- No supplies or procedures needed to prevent pregnancy.
- No hormonal side effects.
- Counselling for LAM encourages and recommends the starting of a follow-on method at the proper time.
- Breast feeding practices required by LAM have other long term health benefits for the baby and the mother which includes.
  - Providing the healthiest food for the baby.
  - Protecting the baby from life-threatening infections like diarrhea.
  - Will on set naturally after child birth.
  - Helps in protection of the baby from life threatening diseases such as measles and Pneumonia by passing the mother’s immunities to the baby.
  - Helps in developing close relationship between mother and baby.

Disadvantages

- 100% effectiveness after 6 months is not certain.
- Frequent breast-feeding may be inconvenient or difficult for some women especially working mothers.
There is no protection against sexually transmitted diseases (STDs) including HIV/AIDS.

If the mother has HIV (the virus that causes AIDS), there is a small chance of the breast milk passing on HIV to the baby.

g. PATCH

The contraceptive patch is a weekly hormonal contraceptive. A small Square, which contains Estrogen and Progestin, sticks to the skin, enabling the hormones to be absorbed into the body through skin. Marketed under the name Ortho EVRA, the patch was approved for use in the United States by the U.S. Food and Drug Administration (FDA) in November 2001. The patch prevents pregnancy in several ways by:
➢ Stopping the ovaries from releasing eggs.
➢ Thickening the cervical mucus, making it difficult for sperm to enter the uterus.
➢ Changing the lining of the uterus.

h. FERTILITY AWARENESS-BASED METHODS

"Fertility awareness" means that a woman learns how to tell when the fertile time of her menstrual cycle starts and ends. (The fertile time is the time when she has maximum chances to become pregnant)

A woman can use several ways to tell when her fertile time begins and ends;
• Calendar calculation: A woman can count calendar days to identify the start and end of the fertile time. The number of days depends on the length of previous menstrual cycles.
• Cervical secretions: When a woman sees or feels cervical secretions, which can be just a sense of vaginal wetness, can be an indication of her time of Ovulation.
• **Basal body temperature (BBT):** A woman's testing body temperature goes up slightly around the time of ovulation (release of the egg),

• **Feel of the cervix:** As the fertile time begins, the opening of the cervix feels softer, opens slightly, and is moist. When she is not fertile, the opening is firmer and closed. (This is seldom used as the only sign).

  Fertility awareness helps a woman to rightly know when she could become pregnant. The couple thereby can avoid pregnancy by changing their sexual behaviour during the fertile days. They can:

• Abstain from vaginal intercourse-avoiding vaginal sex completely during the fertile time, which is also called periodic abstinence and Natural Family Planning (NFP), technique.

• Use barrier methods – like condoms, diaphragm with and spermicide, or spermicide alone to prevent pregnancy.

**Advantages**

• Once learned, this can be used to avoid pregnancy or can be used to become pregnant, according to the couple's wishes.

• There are no physical side effects.

• There is very little or no cost.

• This can be followed by most couples if they are committed to it.

• This is effective if used correctly and consistently.

• Once learned, this method requires no further help from health care providers.

• Can be learned even from trained volunteers and contact with medical personnel is not necessary.

• Immediately reversible – This method has the advantage of reverting back since there is no time gap to become pregnant.
Periodic abstinence is acceptable to some religious groups that either reject or discourage the use of other family planning methods.

- No effect on breast-feeding or breast milk. No hormonal side effects for the baby and the mother.
- Involves men in family planning.
- Educates people about women's fertility cycles.

**Disadvantages**

- Usually only somewhat effective,
- It usually takes up to 2 or 3 cycles to learn in identifying the fertile time accurately using cervical secretions and BBT methods. It takes even less time to learn the calendar method, although it is best if a woman has records of the last 6 to 12 cycles to identify the fertile time.
- Periodic abstinence, requires long periods without vaginal intercourse somewhere around 8 to 16 days for each menstrual cycle. Abstinence for such long periods may be difficult for some couples.
- This method will not work without the continuing cooperation and commitment of both the woman and her husband.
- Can become unreliable or hard to use if the woman has a fever, has a vaginal infection, is breast feeding, or has any other condition that changes body temperature, secretes cervical mucus, or changes the menstrual cycle length.
- Immediately after childbirth, it may be hard to identify the fertile time until menstrual cycle is regularised.
- Calendar method may not be effective for women with irregular menstrual cycles.
• It may become very difficult to practice if a woman has more than one sex partner.

• Most methods require women or couples to keep careful daily records and pay close attention to body changes.

• These methods do not protect against any Sexually Transmitted Diseases (STDs) including HIV / AIDS.

1.2.2 PERMANENT METHODS
A. FEMALE STERILIZATION

Tubal ligation can be done at any convenient time of the patient. Female Sterilization can be done as an interval procedure, postpartum or at the time of abortion. Postpartum Sterilization is done within the first week when the woman is already hospitalized. Internal Sterilization is done when the woman is not pregnant or any time after six weeks of delivery. It can be combined with Caesarean section or with Medical Termination of Pregnancy (MTP).

• Female sterilization provides permanent contraception for women who do not want any more children.

• It is a safe and simple surgical procedure. It can usually be done with just local anesthesia and light sedation. At least proper basic infection prevention procedures are mandatory.

• The 2 most common approaches are mini-laparotomy and laparoscopy.

• Female sterilization also is known as voluntary surgical contraception (VSC), tubalisation (TL), tying the tubes, minilap, and “the operation”.

• The health care provider makes a small incision in the woman’s abdomen and blocks off or cuts the 2 fallopian tubes. (These tubes normally carry eggs from the ovaries to the uterus). With the tubes blocked, the woman’s egg is protected from the man’s sperm.
Advantages

- Very effective
- Permanent. A single procedure leads to lifelong, safe, and very effective family planning.
- There is nothing to remember, no supplies needed, and no repeated clinical visits required.
- There is no interference with sex. It does not affect a woman's ability to have sex.
- Increased sexual enjoyment because there is absolutely no need to worry about pregnancy.
- Has no effect on breast milk.
- There are no known long-term side effect or health risks.
- Mini-laporotomy can be performed just after a woman gives birth. (It is best if the woman has decided before she goes into labour).
- It helps in protecting the woman against ovarian cancer.

Disadvantages

- The procedure is usually painful at first, but pain starts to recede after a day or two.
- Uncommon complications of surgery:
  - Infection or bleeding at the incision,
  - Internal infection or bleeding,
  - Injury to internal organs
  - Anesthesia risk:
• With local anesthesia alone or with sedation, there is a chance of allergic reaction or overdose.

• With general anesthesia, there is a remote chance of occasional delayed recovery and side effects. Complications are more severe when compared to local anesthesia which also has a risk of overdose.

• Very rarely, it may cause death due to anesthesia overdose or other complications.

• In rare cases when pregnancy occurs, there are more chances of it to be ectopic than in a woman who has not used contraception.

• Requires physical examination and minor surgery by a specially trained health provider.

• Compared with vasectomy, female sterilization is:
  - Slightly more risky
  - Often more expensive, if there is a fee.

• Reversal surgery is difficult, expensive and is not available in most areas. Successful reversal is not guaranteed. Women who may aspire to become pregnant in the future should always choose a different method of family planning.

• There is no protection against Sexually Transmitted Diseases (STDs) including HIV / AIDS.

  Two sterilization procedures have become most common, namely laparoscopy and mini-laparotomy.

a. Laparoscopy

  This is a very common technique of female sterilization through abdominal approach, which is done with a specialized instrument called the "Laparoscope". The abdomen is inflated with gas (carbon dioxide, nitrous oxide or air) and the instrument is introduced into the abdominal cavity to
visualize the tubes. Once the tubes are accessible, the Falope rings (or clips) are applied to occlude the tubes. This operation should be undertaken only in those centres where a specialist Obstetrician-Gynecologist is available. The short operating time, shorter stay in hospital and a small scar are some of the attractive features of this operation.

**Patient Selection**

Laparoscopy is not advisable for postpartum patients for 6 weeks following the delivery. However, it can be done as a concurrent procedure to MTP (Medical Termination of Pregnancy). Haemoglobin percent should not be less than 8. There should be no associated medical disorders such as Heart disease, Respiratory disease, Diabetes and Hypertension. It is recommended that the patient be kept in hospital for a minimum of 48 hours after the operation.

The cases are required to be followed-up by health workers (F) LHVs in their respective areas once between 7-10 days after the operation and once again between 12 and 18 months after the operation.

Laparoscopic Sterilizations have become very popular in India. Nearly 38 percent of all female sterilizations during 2000-01 were through the Laparoscopic method.

**Advantages**

Laparoscopic sterilization is gaining popularity all over the world as it has a number of advantages as given below:

- Sub umbilical scar is small and nearly invisible.
- It can be done under local anesthesia in the out-patient department.
- It is highly reversible, with a success rate of 70% or more.
Disadvantages

- The equipment is expensive and its' maintenance is not that easy.
- Experienced personnel are required to perform this operation.

Complications

Complications are uncommon but when they do occur, they are usually in the hands of in-experienced personnel.

- Abdominal wall tear (emphysema) due to wrong placement of the needle.
- Bleeding from superior epigastric vessel by trocar injury.
- Tearing of the mesosalpinx and bleeding.
- Uterine perforation.
- Wrong application of the ring, e.g. putting the ring on round ligament/ mesosalpinx/utero-ovarian ligment, will cause operation failure.
- Spontaneous recanalization occurs if cauterization is incomplete.
- Hydrosalpinx formation is possible if the tube is occluded at 2 places some distance apart.

b. Minilap Operation

Mini-laparotomy is a modification of abdominal tubectomy. It is a much simpler procedure requiring a smaller abdominal incision of only 2.5 to 3cm conducted under local anesthesia. The minilap/pomery technique is considered a revolutionary procedure for female sterilization. It is also found to be a suitable procedure at the primary health centre level and also in mass campaigns. It has the advantage over other methods with regard to safety, efficiency and ease in dealing with complications. Minilap operation is suitable for postpartum tubal sterilization.
B. MALE STERILIZATION

a. VASECTOMY

Vasectomy provides permanent contraception for men who decide they will not want more children. It is a safe, simple and quick surgical procedure. It can be done in a clinic or office with proper infection-prevention procedures. It is not castration, it does not affect the testes, and it does not affect sexual ability. This procedure is also called male sterilization and male surgical contraception.

Vasectomy consists of dividing the vas deferens and disrupting the passage of Sperms. It is done through a small incision in the scrotum, under local anesthesia. The sterility is not immediate. The sperms are stored in the reproductive tract for up to 3 months. The couple must therefore abstain from intercourse during this period or use other methods of contraception. Approximately, 12 ejaculates clear the semen of all sperms. Two semen analysis reports at least must confirm the absence of sperm before the man can be declared as sterile. No scalpel technique has been recently adopted. One single incision is made with a special forceps for which the skin stitch is not required. Clips can be applied over the vas instead of cutting. Vasectomy is cheaper than tubectomy.

Advantages

- Very effective
- Permanent. A single quick procedure leads to lifelong, safe and very effective family planning.
- Nothing to remember except to use condoms or another effective family planning method for at least the first 20 ejaculations or the first 3 months, whichever comes earlier.
- No interference with sex, does not affect a man's ability to have sex.
Increased sexual enjoyment because no need to worry about pregnancy.

No supplies to get, and no repeated clinical visits required.

No apparent long-term health risks.

It is an outpatient procedure.

Local anesthesia is adequate.

It is a minor surgical procedure and the man can resume his normal routine after the rest of one or two days.

When compared to voluntary female sterilization, vasectomy is:

- Probably slightly more effective,
- Slightly safer,
- Easier to perform,
- If there is a charge, often less expensive,
- Able to be tested for effectiveness at any time,
- If pregnancy occurs in the man's partner, it is less likely to be ectopic than pregnancy in a woman who has been sterilized.

Disadvantages

- Common minor short-term complications of surgery:
  - Usually uncomfortable for 2 or 3 days,
  - Pain in the scrotum, swelling and bruising,
  - Brief feeling of faintness after the procedure,
  - Local pain, skin discoloration, bleeding, haematoma formation,
  - Antibody formation and autoimmune disease,
  - Granuloma formation 0.1 to (3%) cases,
- Decreased libido or impotency are mainly psychological in origin and occur in men who are not motivated.

- **Uncommon complications of surgery:**
  - Bleeding or infection at the incision site or inside the incision,
  - Blood clots in the scrotum.

- Requires minor surgery by a specially trained provider,

- Not immediately effective. At least the first 20 ejaculations after vasectomy may contain sperm. The couple must use another contraceptive method for at least the first 20 ejaculations or the first 3 months – whichever comes early.

- Reversal surgery is difficult, expensive, and not available in most areas of the world. Success cannot be guaranteed. Men who may want to have more children in the future should choose a different method.

- No protection against sexually transmitted diseases (STDs) including HIV/AIDS,

- Haematoma and infection sometimes occur,

- Spontaneous recanalization may occur years after vasectomy,

- Spermatocele formation is not uncommon,

- Auto immunity as a result of formation of anti-spermal antibodies is occasionally reported,

- Does not prevent transmission of HIV/STD infections.

### 1.3 ACHIEVEMENTS IN FAMILY PLANNING IN INDIA

In 1951, the infant Indian republic took stock of the existing situation and initiated the first ever five-year development plan. Living in a country with high population density, the planners recognised in the census figures of 1951, the potential threat posed by population explosion and the need to
take steps to avert it. It was recognized that population stabilization is an essential prerequisite for sustainability of development process so that the benefits of economic development result in overall enhancement of the well being of the people and improvement in their quality of life. India became the first country in the world to formulate a National Family Planning Programme in 1952, with the objective of “reducing birth rate to the extent necessary to stabilize the population at a level consistent with requirement of the national economy”

Thus, the key elements of health care to women and children and provision of contraceptive services have been the focus of India’s health services right from the time of India’s independence. Successive five year plans have been providing the policy framework and funding for planned development of nationwide health care infrastructure and manpower.

The technological advances and improved quality and coverage of health care resulted in a rapid fall in Crude Death Rate (CDR) from 25.1 in 1951 to 9.8 in 1991. In contrast, the reduction in Crude Birth Rate (CBR) has been less steep, declining from 40.8 in 1951 to 29.5 in 1991.

During the eighth plan period the decline in CBR has been steeper than that in the CDR and consequently, the annual population growth rate has been around (1.9%) during 1991-95.

During the eighth plan the Crude Birth Rate (CBR) and Infant Mortality Rate (IMR) declined to 27.4 and 72 against the targets of 26 and 70 respectively. Between 1992 and 1996 the number of sterilization has remained unaltered. There has been an increase in IUD and OC use till 1995-96. Comparison of the performance between 1995-1996 and 1996-97, (after the abolition of method-specific targets) indicate that at the national level there has been a decline in the acceptance of different methods of contraception.
Achieving reduction in the population growth rate has been recognized as one of the priority objectives during the ninth plan period. The current high population growth rate is attributed to:

1). The large size of the population in the reproductive age-group (estimated contribution is around 60%),

2). Higher fertility as a result of not meeting the need for contraception (estimated contribution is about 20%), and

3). High wanted fertility due to the prevailing high IMR (estimated contribution as high as 20%).

While the population growth contributed by the large population of the reproductive age group will continue in the foreseeable future, the other two factors cited above need effective and prompt remedial action to check population growth.

In order to give a new thrust and dynamism and to achieve a more rapid decline in birth, death and the population growth rates the National Development Council (NDC) set up a sub-committee on population and endorsed its recommendations in 1993.

During the ninth 5 year plan period the Dept. of Family Welfare has implemented the following recommendations of the National Development Council's sub committee on population:

i). The centrally defined methods, such as specific targets for family planning were abolished;

ii). Emphasis was shifted to decentralized planning at district level and was based on community needs which were assessed and programmes aimed at fulfillment of these needs were implemented.
iii). Efforts were made to improve the quality and content of services through skill upgradation of all the personnel and building up of a strong referral network.

The Department of Family Welfare set up a consultative committee to suggest appropriate restructuring and revision of norms for infrastructure funded by both the states and the centre and has initiated implementation of the recommendations. The Department has drawn up the National Population Policy (NPP) 2000 which aims at achieving replacement level of fertility by 2010. This recommendation has been approved by the cabinet. As envisaged in the National Population Policy 2000, the National Commission on Population has been constituted.

Census 2001 recorded that the population of the country was 1027 million - 15 million more than the population projected for 2001 by the technical group on population projections. The decadal growth during 1991-2001 was (21.34%) (Decadal growth in 1981-91 was 23.86%). The analysis of growth rates of the states starting from the decade 1951-1961 indicates that it took four decades for Kerala to reach a decadal growth rate of less than 10% from a high growth rate of (26.29%) during 1961-71. TamilNadu also took 40 years to reduce its growth rate from a high of (23.2%) during 1961-71 to (11.2%) during 1991-2001. Andhra Pradesh on the other hand has shown an impressive fall in growth rate by over 10 percentage points within a short span of a decade. The growth rate in Bihar has shown an upward swing during 1991-2001 and the growth rates in Rajasthan, Uttar Pradesh and Madhya Pradesh are now at a level where Kerala and Tamilnadu were 40 years ago.

The Planning commission constituted a steering committee on family welfare with the following terms of reference:
1. To review:
   a. The current demographic projections for the Tenth plan (2002-2007) and beyond and the time by which the country's population is likely to stabilize.
   b. The goals indicated in the National Population Policy (NPP) 2000 and the strategy to achieve them.

2. To undertake an appraisal of implementation of strategies, ongoing family welfare programmes, recommend modifications to ongoing programmes, and suggest future strategies and new initiatives to be taken up during the Tenth Plan in order to achieve the objectives indicated in the National Population Policy 2000.

3. To review the functioning of family welfare infrastructure and manpower in rural and urban areas and suggest measures for rationalizing and restructuring the infrastructure, evaluate strategies for improving efficiency of implementation of the programme and for the delivery of services.

4. To review the present status of involvement of
   a. Organized and unorganized sectors of industry and trade/labour unions in the family welfare programmes and recommend ways and means for increasing their participation in the programmes.
   b. Private, voluntary and Non-Government sector.
   c. Panchayat Raj Institutions (PRI) and people themselves.

5. To assess the current status and future requirements (short, medium and long term) of basic, clinical, applied and operational research in reproductive and child health and family welfare.

6. To review the achievements in terms of goals set in the Ninth Plan and suggest appropriate corrective measures and recommend required outlay to achieve the targets for the Tenth Plan.
1.4. REPRODUCTIVE HEALTH

Reproductive health is a condition in which reproduction is accomplished in a state of complete physical, mental and social well-being and not merely the absence of diseases or disorders of the reproductive process. Reproductive health, therefore, implies that people are able to have a satisfying and safe sex life and that they have the capability to reproduce and the freedom to decide, when and how often to do. Traditional population programmes have been focusing too narrowly on reducing population through the provision of family planning services in India, on achieving demographic targets by increasing contraceptive prevalence and notably female sterilization and have, as a result, been unresponsive to other reproductive health needs. In this process, women’s needs have been generally overlooked by the programme and the consequences of this neglect, in terms of poor reproductive health, are disturbing. Thus, there is an urgent need for the improvement in the quality of reproductive health care. The definition along with the objectives of reproductive health, and its components are presented below.

1.4.1. DEFINITION OF REPRODUCTIVE HEALTH

International conference on Population and Development, Cairo, 1994 defined reproductive health “as a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity, in all matters relating to the reproductive system and to its functions and processes. Reproductive health therefore, implies that people are able to have a satisfying and safe sex life and that they have the capability to reproduce and the freedom to decide if, when and how often to do so.”
Zuray K (1988) defined reproductive health as "the ability of women to live through the reproductive years and beyond with reproductive choice, dignity and successful child bearing, and to be free of gynecological disease and risk".

The World Health Organisation (WHO, 1998) defines reproductive health as "a state of physical, mental and social well-being in all matters relating to the reproductive system at all stages of life". The term reproductive age group refers to the active reproductive years in women starting with menarche around 12-14 years and ending with menopause around 45-49 years. For demographic purposes, reproductive age group is usually defined as 15-49 years or 12-49 years. Reproductive health may at times be, confusedly restricted to problems of women in the reproductive age group. The "R.S. (research studies) at all ages of life" part in the WHO definition is to remind us about the reproductive tract related mortality and morbidity experienced beyond the reproductive age groups like Carcinoma of Cervix, Prolapse of Uterus, etc.

1.4.2. OBJECTIVES OF REPRODUCTIVE HEALTH

The reproductive health aims to provide need based, client centred, demand driven and high quality services to people. The Government of India's Reproductive, Child Health Programme aims to contribute to population stabilization, sustainable development, and meeting the reproductive health needs of women, children and adolescents within the framework of reproductive rights, gender equity and human dignity, thereby making it a composite programme.

In order to create conducive climate so as to achieve these objectives, the Government's efforts are to use its own existing resources and wherever necessary, supplement them with the committed support received from external donors, like the World Bank and the European Commission. The
Government's Reproductive, Child Health Programme aims to achieve the following

1. That the “people have the ability to reproduce and regulate their fertility,
2. Women are able to go through pregnancy and child birth safely,
3. The outcome of pregnancies is successful in terms of maternal and infant survival and well being and
4. Couples are able to have sexual relations free of fear of pregnancy and of contracting STDs”.

The United States Agency for International Development (USAID) adheres to the following objectives (also as principles) of reproductive health.

1. Promoting the rights of couples and individuals to determine freely and responsibly the number and spacing of their children.
2. Improving individual health, with special attention to the reproductive health needs of women and adolescents and the general health needs of Infants and children.
3. Reducing Population growth rates to levels consistent with sustainable development and
4. Making programmes responsible and accountable to the end-users.

1.4.3. COMPONENTS OF REPRODUCTIVE HEALTH

Reproductive health is not just the absence of disease of the reproductive system; it covers a whole range of conditions and processes that include healthy sexual development, reproduction and fertility regulation. Reproductive health is a crucial part of general health, yet majority of the world’s people do not have good reproductive health. Components of reproductive health include meeting the need for family planning ensuring
maternal health and reducing infant mortality, preventing and treating STD's including HIV/AIDS and eliminating traditional practices.

a. Family planning

Health and family planning services in India have not been sensitive to the situation of women in view of the constraints they face in seeking services or even expressing health care needs. The programme is designed centrally and is based on demographic targets. Women at the grass roots are the programme's main clients, but the programme in sensitively ignores them in its priorities, in its service delivery and even in its communication strategies. What is urgently required is a greater client focus, and more specifically a health and family planning programme that is based on what women want, need and is appropriate in culturally sensitive ways for addressing these needs. This means that needs of Indian women such as domiciliary services, sensitive probing of obstetric and gynecological problems, interaction with service providers with a benevolent attitude and above all, a more holistic approach to their health rather than the current single minded stress on family planning.

b. Maternal health

Safe motherhood still remains a distant dream in much of India in general and rural in particular areas. Very few women have access to antenatal care, high risk cases go undetected, anemia is acute during pregnancy, deliveries are conducted largely by untrained attendants in unhygienic conditions and who have low knowledge or no knowledge of health and nutrition and post-natal period care. Proper education should be given to both men and women regarding safe mother hood and maternal health. Proper care should be extended to pregnant women with the help of primary health centers and public health departments.
c. Reducing infant mortality

Infant mortality rate is a crucial indicator of the population's wellbeing. It is an indication of the social and health status of women and children in the country and a proxy for the economic condition of the community in general. It is also a reflection of the availability of health services at the grassroot level. Infant Mortality Rate (IMR) was 139 during the early 1970's, which declined to 79 by the early 1990's. According to the 1991 census the Infant Mortality Rate (IMR) is 63. According to the Sample Registration System (SRM) the IMR of India is 72 combined, 77 for rural areas and 46 for urban areas by 1996. According to 2001 census the IMR is 58. The IMR for Andhra Pradesh was 65 combined, 73 for rural areas and 38 for urban areas by 1996 (Registration General of India, New Delhi, 1998). This was expected to go down further. Decline in infant mortality depends on improvements in the nutritional status of the mother, the quality of health care during delivery as well as post natal care given to the child. Ahuja (1999) rightly stated that the female infant's high mortality rate is a manifestation of the social neglect of female health.

d. Prevention of STD's including HIV/AIDS

Reproductive health includes sexual health, the purpose of which is the enhancement of life and personal relations and not merely counseling and care related to reproduction and sexually transmitted diseases. Poor reproductive health is frequently associated with disease, abuse, exploitation, unwanted pregnancies and death. Reproductive health should address issues such as reproductive tract infections and cancers, Sexually Transmitted Diseases (STD's) and their prevention. Status of girls and women in the society, and how they are treated and mistreated, are very crucial determinants of their reproductive health.
Reproductive health programmes can reduce levels of STD's including HIV/AIDS, by:

i) Providing information and counseling on critical issues such as sexuality, gender roles and power imbalances between women and men,

ii) Mother-to-child transmission of HIV;

iii) Distributing female and male condoms;

iv) Diagnosing and treating STD's;

v) Developing strategies for contact tracing;

vi) Referring people infected with HIV for further services.

e. Elimination of traditional practices such as FGM

The ICPD (International Conference on Population and Development) called for an end to Female Genital Mutilation (FGM), the partial or total removal of external female genitalia, a practice that has severe health and psychological repercussions. All the factors mentioned above are not only related to health and medical problems of reproduction but are also determined by socio-cultural features of a community. False ideas about disease and sickness, pregnancy, child care, status of women, potrified nature of many societies, traditional beliefs etc., certainly have their impact on the health and reproductive spheres of a community or the society and thereby hinder the modern health efforts. Unless cultural aspects are tackled through literacy and awareness programmes, reproductive health of the women and infants cannot be improved. One means to achieve break through is to educate adults through Adult and continuing education.
1.5 INTEGRATION OF POPULATION EDUCATION IN ADULT EDUCATION

India's population is increasing at a very fast rate. From 683 million in 1981, it increased to 846 million in 1991 and 1027 million in 2001. This rate of increase is shocking to many working in the field of population education and family welfare. Under the pressure of increasing population, most of the countries around the world are confronted with shortage of food, inadequate facilities for education and health. Moreover, due to poor economic standards, other social problems like crime, violence, antisocial activities etc are becoming serious by the day. Hence, these circumstances warrant for population and development education.

In 2002, the UN Secretary General Mr. Kofi Annan stated: “The Millennium Development Goals particularly the eradication of poverty and hunger cannot be achieved if questions of population and reproductive health are not squarely addressed. It means concerted efforts have to be made to promote women's rights and greater investment to education and health including reproductive health and family planning”.

Population-related issues have been a matter of serious concern to all those concerned with development and quality of life. It is in recognition of this concern that the need for population education was felt and realised. It is also recognised that in order to achieve the goals set forth by the Nation, mere publicity appeals and large scale media campaign may ultimately prove inadequate in regulating population growth in view of large masses being illiterate. In order to accept, adopt and follow messages relating to small family and better quality of life, educational interventions and their value in achieving the goals are set forth in National Health Policy and Population
Policy. Significance of Population Education and its integration at all levels of education has been accorded a high priority.

In the field of Adult Education too such integration was given a concrete shape in late 1980’s when a project on integration of population Education with financial and technical support of UNFPA, was launched.

CONTINUING EDUCATION PROGRAMME IN CHITTOOR DISTRICT

Chittoor district in Andhra Pradesh is one of the districts which has successfully implemented the total literacy campaign during 1990-91 and out of 6.60 lakhs of illiterates as many as 3.69 lakhs were made literate. In order to retain, strengthen and further the basic literacy skills acquired by the neo-literate, the district administration has started post-literacy centres known as Jana Chaitanya Kendras (JCKs). As many as 10,000 JCKs were started and post-literacy books were provided to the centers. The JCKs were managed by the monitors who happened to be successful volunteers. With a view to cover the dropouts of total literacy campaign and the newly attained age group members (who have crossed 15 years and remained illiterate) the Zilla Saksharatha Samithi has implemented mopping up operation programmes i.e., literacy in hundred day programme from 1996. In the place of JCKs Continuing Education Centres were started during 1997-98 and preraks were appointed to carry out the activities of Continuing Education Centres. As may as 1143 Continuing Education Centres started functioning and the preraks were trained by the District Administration with regard to their roles and functions which include organisation of post-literacy programmes, equivalency programmes, income generation programmes, quality of life improvement programmes individual interest promotion programmes etc, and other functions of Continuing Education Centre. Different committees were constituted to support the Zilla Saksharatha Samithi at the district level.
The Programme benefits neo-literates, school-dropouts, primary school pass outs, pass outs of non-formal education, and all other people who are interested in availing opportunities for life-long learning. Under Continuing Education Programme, Continuing Education centres are established to provide facilities like library, reading rooms, learning centres, training centres, information centres, charcha mandals, culture and sports centres. From 1998 population and development education messages are being disseminated among adult neo-literates and members of continuing education centers as a part of the Continuing Education Programme.

The population Education cells have published and supplied books in population Education, a resource book on population Education. A manual for volunteers, flip books, flip charts, materials, posters, stickers, Audio-visual materials etc.,

The zilla saksharata samithi (ZSS) supplies books that are related to the various aspects of the quality of life. The books related to population education which are supplied by ZSS to the Continuing Education Centres were:

2. Chinna Kutumbam Chinnayyadi (small Family of chinnayya).
3. Chinna Kutumbam (small Family).
4. Peddamanishi Ayinda (puberty).
5. Vivahaniki Sareina Vayasu (Right age to the marriage).
6. Pelli Eppudu Chesukovali? (when should we marry).
7. Kutumba Samkshemam (Family welfare).
10. Adolescent Education.
11. Kutumba Niyantrana (family planning).


15. Pillalu Puttaka pote (Infertility).

16. Rommullo Noppi (Breast pains).

17. Mutramlo Manta, Kadupu Kayalante (To get pregnancy).

18. Nelatappite.

19. Chulalu Teesukovalasina Jagrattalu (precautions to be taken by a pregnant woman).

20. Garbhavatula Aaharam (diet for pregnant women).


22. Garbhini Streelu – Puriti Noppulu (pregnant women labour pains).

23. Kanupayite (at the time of delivery).

24. Talli Paalu (Mother’s milk).

25. Amma Aasa (Mother’s desire).


27. Tallulu Pillalu Jagratha (children’s care).

28. AIDS Babu AIDS.

29. Sukha Vyadhulu (sexual diseases).

30. AIDS.

31. Sukha Rogalu Vaddu (prevent sexual diseases).

32. Muttu Aagipote (Menopause).
The information on small family norm, age at marriage, safe motherhood, responsible parent hood, AIDS, reproductive health, gender equality and women empowerment, population and environment, and child survival were included in the primers and post literacy books for the benefit of neo-literates.

Women's unequal access to resources including health care, are well known in India, in which stark gender disparities are a reality. Women remain at a considerable disadvantage in many areas in the quality of life both within the home and outside it. Inequalities severely constrain the ability of women and adolescent girls to acquire good health. Women's poor reproductive health in India is affected by a variety of socio-cultural and biological factors. The stabilization of population is a function of socio-economic advancement of the society, in general and the liberation of women, in particular. The governments endeavour to bring about a perceptible change in the status of a women from that of a body producing machine, based on the maxim of 'more the merrier' to that of an active contributor to the socio-cultural and economic advancement of the individual, the family and the society to her full potential. Formulation of suitable programmes and policies for the female adolescent's indifferent cultural settings require basic background information and data regarding their fears, misconceptions, concerns, constraints and the like.

Keeping in view the integration of population education messages in the neo-literate materials, and the key role of women in population stabilisation and maintenance of good reproductive health, the present study is focused on the knowledge, attitude and practice of family planning methods and reproductive health among women learners in continuing education centres. Actually, family planning is one of the components of reproductive health, but in the present study the investigator mentioned it separately in order to emphasise the importance and need of family planning in population stabilization.