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Issues and Challenges in Health Care

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UNIT 5 REPRODUCTIVE AND MATERNAL HEALTH CARE

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5.1 INTRODUCTION

The issue of reproductive and maternal health attracted the attention of health policy makers worldwide in order to contain the increased damage and risk to reproductive and maternal health. In the 1960s, United Nations Population Fund (UNFPA's) mandate evolved to raise awareness about population problems and to assist the developing nations to combat the population explosion. Reproductive health gradually attained the central stage in the policy on population and health care related to reproduction process. With changing time it was observed that maternal health was very much associated with reproductive health as many venereal diseases affect reproductive health and maternal health. The status of reproductive and maternal health is an indicator of the status of women in any country that affects the human development in a country. Best reproductive and maternal health ensures not only health of the child but also contributes towards building a qualitative life for the child in a family and society. Therefore this unit will focus on the concept of reproductive health, reproductive process, venereal diseases, dimensions of the maternal health conditions and emerging challenges in India.

After studying this unit you will be able to:

a) explain the reproductive health conditions and its related health policies and programmes,

b) what are venereal diseases and how female genital mutilation, and male genital disease affects reproductive health,

c) describe the significance of mother's health and a child's well-being at different stages,

d) analyse the importance of maternal health, nutrition care and safe abortions.

5.2 REPRODUCTIVE HEALTH: CONCEPT AND PROCESS

The reproductive health is a state of physical, mental and social well-being in all matters relating to the reproductive system in all stages of human life. The ICPD (International Conference on Population and Development) programme defines reproductive health similar to the definition of health given by World Health Organisation,'the state of complete physical, mental and social well-being and not merely the absence of disease or infirmity, but also imparting sound knowledge in all matters relating to the reproductive system and its function and process'. The second half of the definition implies that people are capable to live an accountable, gratifying and a safe sexual life whereby they have, naturally, given capability to engage in reproductive activities, the freedom to decide when and how to live their sexual and reproductive life.

The International Planned Parenthood Federation (IPPF) brought reproductive and maternal health (RMH) in public domain in 1980s. Again ICPD held in 1994 and Fourth World Conference on Women (FWCW) in 1995 provided a global significance. The ICDP explains reproductive health in two ways — first, to attain sustainable development, it is essential to empower women and improve their health status; second, the reproductive rights are inseparable from basic indispensable human rights as partially perceived to be a matter and subject of family planning. Accordingly ICPD programme of action emphasised two issues- (a) to reduce the maternal mortality, and (b) access to reproductive and sexual health services (including family planning).

5.2.1 The Reproductive Process and Function

The reproduction process involves a number of processes that should occur exactly at the correct time. Any small or major disruption to the necessary steps can interfere with fertilisation and/or implantation. Therefore the process is when a male sperm and a female egg provide the information required to produce another human being. The conception occurs when these cells join as the egg is fertilised. The pregnancy starts when the fertilised egg implants in the uterus and embryo grows and becomes surrounded by structures that provide support and nourishment. The eyes, limbs, and organs become visible as the embryo gets developed into a fetus. In this process, the fetus grows inside the uterus and ends with the arrival of labour and birth of the child. The end of pregnancy makes the body normal and gradually it is ready to conceive and produce another human being.

This entire cycle is known as reproductive process. The following diagram shows the process when a woman would usually ovulate an egg from of the two ovaries every month. Egg or ovum then travels from ovary and into the fallopian tube. In fertilisation preparation process, egg moves through the fallopian tube to meet the man's sperm and tries to form an embryo. The female reproductive system mainly has three components which function in order to comply with the reproductive behaviour of the body i.e. Ovaries, Fallopian Tubes, and Uterus. Any dysfunction in these may lead to disorder in reproductive function. Similarly the male reproductive system has important functions to play that produces, maintain and transport reproductive cells to female reproductive organs in order to continue maintaining the human reproduction.

5.2.2 Components of Reproductive Health

a) Promoting safe motherhood: The role of mother is very important in reproductive system from pre-natal, safe delivery and post-natal care stage, including breast feeding. Thus, safe motherhood is most important component for reproductive health.

b) Prevention and management of complications of unsafe abortion: Safe and lawful abortion must follow.

c) Treatment of reproductive tract infections, including sexually transmitted infections both in males and females. Along with treatment, awareness about STDs can play significant role.

d) Information and counseling on human sexuality, responsible parenthood and sexual and reproductive health.

e) Active discouragement of harmful practices, such as female genital mutilation and violence related to sexuality and reproduction.

f) Quality family planning services

g) Functional and accessible referral reproductive health services

h) Prevention and treatment of infertility

After going through the concept of reproductive system, its process, major functions and other important components, now answer the questions in Check Your Progress-1 given below.

Check Your Progress 1

Note: a) Write your answer in about 50 words.

b) Check your answer with possible answers given at the end of the unit

1) What is reproductive health?

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5.3 VENEREAL DISEASES IN REPRODUCTIVE HEALTH

The word venereal is derived from the Latin word *venereus*, relating to sexual intercourse or desire, ultimately derived from Venus, the Roman goddess of love. The sexually transmitted infections (STIs) have been euphemistically referred to as 'blood diseases' and 'social diseases' in the past.

5.3.1 Reproductive Tract Infection (RTI)

Reproductive Tract Infection (RTI) are infections that affect the reproductive tract, which is part of the reproductive system. For females, reproductive tract infections

can affect the upper reproductive tract mainly in fallopian tubes, ovary and uterus and the lower reproductive tract comprises vagina, cervix and vulva. For females, severe menstrual cramping, or dysmenorrhoea, is the most common condition of the reproductive system that occurs with a woman's monthly menstrual period. Severe pain before or during the period may last anywhere from one to seven days and disrupt normal day-to-day routines of females at school, work and everyday work. The best treatment includes medications that block the effects of prostaglandins and include ibuprofen and naproxen. The birth control pill also works well in treating dysmenorrhoea by decreasing the blood flow. Another common disorder of the female reproductive system is a vaginal yeast infection, which is caused by a yeast fungus in the vagina. Any disease contracted and transmitted during or by sexual intercourse, caused by micro-organisms resulting into their survival on the skin or mucus membranes, or being transmitted via semen, vaginal secretions, or blood due to intercourse can result in such an infection. As medically understood, the genital area gives a safe, moist, warm environment especially conducive to the proliferation of bacteria, viruses, and yeast etc. This creates space for the germination of most dangerous diseases to be transmitted like AIDS and Chlamydia. In India, gonorrhea and syphilis are the commonest venereal diseases found due to negligence and lack of awareness. Venereal diseases, typically transmitted by sexual intercourse can be controlled if treated in time with antibiotics.

5.3.2 Common Venereal Diseases in India

These are: Gonorrhea, Syphilis, Mycoplasma Genitalium, Trichomoniasis, Human Papilloma Virus (HPV), Crabs/Pubic Lice, Scabies, Herpes/HSV (Genital herpes), Hepatitis/HBV, Cancroids, Bacterial Vaginosis (BV), Non-gonoccocal Urethritis (NGU), Molluscum Contagiosum, Methicillin-Resistant Staphylococcus Aureus (MRSA), Lymphogranuloma Venereum (LGV), HIV/ AIDS and vaginal yeast infection.

i) **Gonorrhea:** This is a common bacterial disease found in India. Gonorrhea, sexually transmitted infection known as 'the clap', passes from one person to another through unprotected oral, anal, or vaginal sex. The agent causing this disease is called Neisseria Gonorrhea, a gram-negative intracellular diplococcus.

   Symptom and test: Its symptoms in women are manifested in several forms like; discharge from the vagina, pain or burning sensation while urinating, the need to urinate more frequently, heavier periods or spotting, sore throat, pain upon engaging in sexual intercourse, sharp pain in the lower abdomen and fever. Men would feel the need to urinate more than usual, burning or pain during urination may be longer and unusual penile discharge, which may be clear, milky, and yellow or of a greenish colour etc. The recommended test of sample type for detecting N. Gonorrhea urogenital infections in women is a self or clinician-collected vaginal swab.

ii) **Chlamydia**: Chlamydia is a common curable sexually transmitted disease (STD) that infects the cervix of a woman and the penile urethra of a man. You can identify the risk when one feels pain during sexual activity and discharge from vagina or penis. However, it is an asymptomatic infection that is in visible for weeks or even for a few months. Some trained personnel suggest using Latex Condoms to prevent such infections.

iii) **Syphilis**: Syphilis has been popularly known as notorious STDs. It is caused by spirochaete bacterium with subspecies that cause the diseases syphilis, bejel, and yaws and is transmitted only amongst humans. This can lead to serious complications if left untreated. Syphilis is transmitted by direct contact with syphilis sores, which can appear on the external genitals as well as in the vagina or rectum and also in the mouth due to oral or vaginal sex. The sores are usually painless and that makes it difficult to detect and treat early.

iv) **Mycoplasma Genitalium**: It is an infection affecting the cervix, urethra, and rectum. Mycoplasma is spread through sex whether your partner is the same sex as you or a different sex. Most people infected with mycoplasma have no symptoms at all. This disease is starting to emerge as a major cause of cervicitis in women and non-gonococcal urethritis among men. Additionally a long term illness of infertility from pelvic inflammatory disease may occur due to this infection. This disease is less prevalent in India than western countries like USA.

v) **Trichomoniasis**: This disease is a commonly reported among women but is a curable STD and at times this is misunderstood as yeast or bacterial infection due to the common symptoms.

vi) **Human Papilloma Virus (HPV)**: This disease was considered most common infection before HPV vaccine was invented and allowed to be used in June 2006. Few types of HPV led to 'cervical cancer virus' but it was found to be limited among sexually active partners. The recommended period to get vaccine is during 11-12 years old to men and women. It gives protection from four types of strains of the virus.

vii) **HIV/AIDS**: Human Immunodeficiency Virus / Acquired Immune Deficiency Syndrome (HIV/AIDS) is caused by an infection with blood or body fluids which can only be transmitted by an exchange of bodily fluids, including semen, vaginal secretions, breast milk, and blood. Therefore it is associated with sexually transmitted diseases (STDs) and reproductive health.

viii) **Crabs/Pubic Lice**: The 'crabs' are a kind of lice and survive on the hair in the genital area and also on coarse-haired areas of the individual body (armpits, eyebrows). They can be transmitted by infested linen and clothing and it also spreads by sexual contact from one to another but they are not the same as head lice.

ix) **Scabies**: This disease is caused by parasite sarcoptes scabie creating itching and severe rashes. This can be contagious and can be infected by skin to skin, sharing clothing etc. and not always with sexual contact.

x) **Herpes/HSV**: It is viral STD mostly associated with cold sores, and at times with genital sores. This virus cannot be cured but anti-viral drugs are administered to reduce the risk.

xi) **Hepatitis/HBV**: Almost all the hepatitis viruses affect the liver but hepatitis B and C virus can also be sexually transmitted. Further, hepatitis B leads to liver cirrhosis and cancer in the liver.

xii) **Chancroid**: This is a genital ulcer disease caused by bacterium haemophilus ducreyi and this is seen as a major risk factor for HIV in developing countries. The chancroid causes ulcers which are larger and quite painful than those associated with syphilis.

xiii) **Bacterial Vaginosis (BV)**: This is an illness condition when healthy types of bacteria get replaced by different organisms in a woman's vaginal area. This brings burning and itching around vaginal parts including undesirable discharge. Such infections can increase the risk of HIV in a woman, pelvic inflammatory disease and too-early born babies. Antibiotics are best options for the treatment.

xiv) **Non-gonoccocal Urethritis (NGU)**: NGU is mostly defined as any type of urethritis that is not caused by gonorrhea. The common causes are Chlamydia and Mycoplasma Genitalium associated with burning during urination and discharge among men. Incidentally, most NGU cases are asymptomatic.

xv) **Molluscum Contagiosum**: A kind of skin disease that affects young children and adults who have weak immune systems and get infections by direct skin contact and even sexual contact.

xvi) **Lymphogranuloma Venereum (LGV)**: It is an STD mostly affecting men who have sex with men (MSM).It was recently found in western parts of Europe but does not affect every population of the world. This infection can bring increased risk for HIV transmission and acquisition among already infected patients.

5.3.3 Female Genital Mutilation (FGM)

FGM is a widely used term. It is also referred as female genital circumcision (FGC) or female circumcision. The practice of FGM is removing the external genitalia of girls and young women for non-medical reasons. Traditionally this act is carried out by a blade to remove the external clitoral hod and clitoral glans, removal of inner and outer labia and also closing of the vulva. This process is medically known as infibulations that is where a small is kept available for the passage of urine and menstrual fluid and other reproductive functions.

5.3.4 Male Genital Disease (MGD)

The reproductive systems of male have number of sex organs that are located outside the body and within the pelvis. The external genitalia of a male comprise penis, urethra, and the scrotum whereas internal genitalia comprise the testis, epididymis, vas deferens, seminal vesicle, ejaculatory duct, bulbourethral gland, and prostate. The genital disease of a male is a condition affecting the male reproductive system. An example is orchitis or testicular erosion. In common terms the manifestations are blood in the semen (hematospermia), blood in the urine (hematuria), extreme pain, swelling of the testicles with visible nodes on affected areas/sides.

Forms of Male Disease:

- **Phimosis**-Paraphimosis refers to two forms of disorders of the penile skin.
- **Balanoposthitis**is a common penile inflammation.
- **Hemospermia** is a disease when blood arrives in semen.

- **Epididymitis** is a condition when the testis swells and hurts in routine actions.
- **Hypospadias** is another problem when urine does not flow out of the exit organs.
- **Cryptorchidism** refers to the condition when the testis does not descend to its proper position.
- **Varicocele** is the most frequent cause of male infertility.
- **Testicular Torsion** is an emergent as well as dangerous urological condition. When spermatic cord rotates and becomes twisted as this supplies the blood flow to testicles. This results into severe pain and swelling.
- **Hydrocele** is the presence of fluid around the testis.
- **Micropenis** is a condition in which the size of the penis is much smaller than what it is normally at that age.

The status of reproductive health is portrayed with reference to various parameters namely marriage, childbearing, delivery of child, health care during pregnancy and the knowledge about reproductive tract infections, age at marriage etc.

After study of reproductive health, its significance, concept, process and function, check your progress by attempting the following questions.

Check Your Progress 2

Note: a) Write your answer in about 50 words.

b) Check your answer with possible answers given at the end of the unit

1) What are common venereal diseases in India?

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2) Describe Female Genital Mutilation (FGM) as a practice.

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5.4 MATERNAL HEALTH: MEANING AND COMPONENTS

The concept of maternal health refers to health of both 'mother and child' where child survives in the mother's womb for almost nine months with oxygen and other tissue building materials. Maternal health refers to the health of women before and during pregnancy, at childbirth and during the postpartum period. If the mother is healthy she gives birth to healthy baby, while, if she suffers from any disease, she is prone to give birth to a sick baby. Though the baby is separated from the mother's body after birth, it is dependent on the mother for the initial few months. After birth, the baby has to be fed, cleaned, bathed and fondled by the mother and this interaction between the mother and the baby leads to a wonderful emotional bonding. However, if the mother is not well or dies, the baby's growth and development is adversely affected. A person's health at each stage of life affects health at other stages and also can have cumulative effects for the next generation. Women who remain healthy during pregnancy and after birth are more likely to stay healthy later in life and have better birth outcomes, influencing infancy, childhood and adulthood. Therefore, the health and well-being of women matter to every person, society and country and are essential to the achievement of the Sustainable Development Goals (SDGs).

5.4.1 Linkages between Child Bearing and Women's Health

The main health problems affecting the health of the mother and the child in India revolve around the triad of (i) Malnutrition; (ii) Infection and (iii) Consequences of unregulated fertility

Statistics have shown that in almost every country in the world, a high birth rate is associated with a high infant mortality rate and under-five death rate. Pregnancy can mean serious problems for many women and the risk increases with repeated pregnancies. Family planning by intervening in the reproductive cycle of women helps to control the number, interval, and timing of pregnancies and births. This reduces maternal mortality (deaths) and morbidity (illness) and ultimately improves health primarily through (i) Avoidance of unwanted pregnancies (ii) Limiting number of births and proper spacing of children and (iii) Timing the births, particularly the first and the last, in relation to age of mother.

5.4.2 Maternal Mortality

Maternal mortality refers to the mortality during reproductive age-group (15-49 years). This is an important indicator of women's health in reproductive stage. The Maternal Mortality Ratio (MMR) is defined as the proportion of maternal deaths per 1,00,000 live births. The British Medical Bulletin (BMB-2003) defines maternal death / mortality as "the death of a woman while pregnant or within 42 days of termination of pregnancy, irrespective of the duration and site of the pregnancy, from any cause related to or aggravated by the pregnancy or its management but not from accidental or incidental causes". The causes often found due to following causes: a) postpartum bleeding, b) complications from unsafe abortion, c) hypertensive disorders of pregnancy, d) postpartum infections, e) obstructed labour; f) blood clots; g) pre-existing conditions, h) Indirect causes may be malaria, anemia, HIV/AIDS and cardiovascular disease.

Important to steps to reduce MMR

a) Increase access to quality maternal health services.

b) The state-subsidised demand-side financing like the Janani Shishu Suraksha Karyakramto bring complete birth at public health institutions.

c) Increasing the educational level of women.

d) Efforts to facilitate positive engagement between public and private health care providers. Campaigns such as the Pradhan Mantri Surakshit Matritva Abhiyan have been introduced with great impact, allowing women access to antenatal check-ups, obstetric gynecologists and to track high-risk pregnancies – exactly what is needed to make further gains and achieve the SDG targets.

Strategies against MMR in India:

i) To place a high priority on maternal and child health (MCH) services

ii) To give attention to care during labor and delivery, which is the most critical period for complications;

iii) To provide community-based delivery huts which can provide a clean and safe delivery place close to home, and maternity waiting rooms in hospitals for high risk mothers;

iv) To improve the quality of MCH care at the rural community level

v) To improve quality of care at the primary health care level;

vi) To include in the postpartum programme in maternal health

vii) To examine the feasibility of a national blood transfusion service network;

viii) To improve transportation;

ix) To educate young girls on health and sex;

x) To focus obstetrics and gynecology training primarily on practical skills in management of labour and delivery;

xi) To research reproductive behaviour; and

xii) To assure every women of the right to safe motherhood.

Maternal Mortality Ratio (MMR) of India has registered a significant reduction in recording a 22 percent decline since 2013 (Sample Registration System 2018). The Special Bulletin of Maternal Mortality gives declining figures to be higher in the southern states from 93 to 77 and in "other" states from 115 to 93. The survey for the current SRS bulletin covered 62,96,101 pregnant women, of whom 556 died.

In this unit you studied about concept of maternal health, significance of mother's health and influence on child's well-being and factors influencing maternal mortality. Now answer the questions given in Check Your Progress 3.

Check Your Progress 3

Note: a) Write your answer in about 50 words.

b) Check your answer with possible answers given at the end of the unit

1) Explain the causes of maternal deaths.

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2) What are the mechanisms of government to promote Reproductive and Child Health (RCH)?

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5.5 STAGES OF MOTHER AND CHILD HEALTH: ANTE-NATAL CARE, INTRA-NATAL CARE AND POST-NATAL CARE

The maternal health care broadly comprised following three categories of services provided to a mother. These are (i) Ante-Natal Care; (ii) Intra-Natal Care and (iii) Post-natal Care

5.5.1 Ante Natal Care (ANC)

Ante natal care refers to pregnancy-related health care, which is usually provided by a doctor, an ANM, or another health professional. Ideally, ante-natal care should monitor a pregnancy for signs of complications, detect and treat pre-existing and concurrent problems of pregnancy, and provide advice and counseling on preventive care, diet during pregnancy, delivery care, postnatal care, and related issues.

i) Aims of ANC

a) Promotion, protection and maintenance of overall health of women during pregnancy

b) Detection of "high risk" signs and symptoms during pregnancy, requiring immediate and specialised medical attention

c) Ensuring safe delivery for birth of a mature, live and healthy baby

d) Providing health education to the would-be mother for appropriate diet, exercise, child care, nutrition, personal hygiene, and environmental sanitation

e) Sensitising the mother for family planning and safe abortion practices, as required

ii) Importance of Ante-Natal Care for Ensuring Safe Motherhood

Following are the few steps required to be given a) Enabling a woman to choose whether she will continue her pregnancy; b) Detecting problems and deciding

on referral of the pregnant woman to a doctor for treatment of pregnancy-related complications after carrying out a complete pregnancy check-up (by the female health worker or ANM in a rural area) c) Providing access to trained and skilled attendance at birth for safe delivery; d) Providing access to emergency care during pregnancy, child birth or after delivery and e) Providing skilled care to the new born. Thus ANC is very important for sound maternal health. Early registration of pregnancy at PHC before or during (first 12 weeks) of pregnancy can keep up the health of pregnant women for ante-natal visits for check-up.

Various Aspects of Ante-Natal Check-Up (i.e. during pregnancy) to be taken:

i) History taking on various aspects woman's pregnancy and family history.

ii) Complete Physical Examination: General examination: measuring of height, weight, blood pressure (BP) and abdominal examination

iii) Laboratory test

iv) Administration of injection Tetanus Toxoid (TT)

Advice to be given to women during pregnancy

All pregnant women should be informed that complications may occur at any stage during the entire nine-month pregnancy period. Some conditions which pre-dispose them or make them prone to a higher risk of complications during pregnancy or delivery. So they must be kept under health care supervision of ANMs / PHCs.

5.5.2 Intra Natal Care: Care during Delivery

A child's birth is a normal physiological process that begins after nine months from the time of conception but complications may arise. A pregnant woman should be advised to have the delivery in a primary health centre or hospital, even if pregnancy is normal to minimise the risk to life of mother and child. Septicemia may arise from unskilled attendants, and tetanus neonatarum from the use of unsterilised instruments.

i) Objectives of Intra-Natal Care

The objective include provision of safe delivery, delivery of baby with minimum injury to mother and baby, readiness to deal with complications during delivery and provision of essential care as well as emergency care to a newborn baby.

ii) **The Role Extension / Health Educator as a Facilitator for Provision of Good Intra-Natal Care**

a) Ensure availability of transport for referral to hospital in case of emergency e.g. labour pain (during the process of childbirth) for more than 12 hours (i.e. prolonged labour)

b) Identify the location of the hospitals or health centres, institutions near one's village / *mohalla*.

c) Always advise for institutional delivery or if not, Skilled Birth Attendant (SBA) like, ANM, nurse and other health professional.

d) Awareness creation for deliveries in the hands of trained personnel.

e) Ensure complicated pregnancy a birth is referred at appropriate time.

5.5.3 Post Natal Care (Care After Childbirth)

The post-natal period can be defined as the first 6-8 weeks after birth. Post-natal care should be a continuation of the care the woman has received through her pregnancy, labour and birth and take into account the woman's individual needs and preferences. In this period, the changes which have taken place in the organs or system during pregnancy in the woman comes back to normal. They can be guided for treatment or referral if required.

i) Objectives of Post-natal Care

a) Detection of complication early for appropriate management

b) Management of minor ailments during this period

c) Providing health education to the woman and her family on aspects of post-natal care

ii) Role of Extension / Health Educator as a Facilitator of Post Natal Care

Extension Educator may play a crucial role in facilitating the health team for care of a woman after child's birth and a newly born baby. Extension Educator (along with health care providers) may help to provide following relevant information like:

i) Need for regular check-up: At least one check-up within two weeks of delivery is necessary to deal with any complaints, such as excessive vaginal bleeding, fever, severe abdominal pain etc.

ii) Registration of birth/ death should be done.

iii) Repeated pregnancies cause health problems for the woman, such as anemia, cancer of the cervix (lower part of uterus/womb), prolapse of uterus(weakening of muscles of the womb),lot of stress on the woman's physical and mental health. The couple may be informed that abortions can be harmful and can be avoided by using family planning methods (also termed as contraceptives) available in hospitals.

iv) Use of contraceptives: Contraceptives may be temporary or permanent methods. The couples or family may be given adequate information about the different contraceptive methods which may be obtained from the health centres. The couple also needs to be informed that many health hazards could occur to the mother and child resulting from repeated pregnancies, if contraceptives are not used. These could be increased prevalence of low-birth weight babies; severe anemia, bleeding during pregnancy; high maternal and newborn baby deaths (especially after the fourth pregnancy). This contributes to early marriage, teenage pregnancy, poor health of women ultimately leading to: abortions, premature births, risky childbirth and subsequent ill-effects on the family.

v) Help to identify couples' (unmet) needs for contraception**:** The couple's options for deciding number of children needs to be respected. Many couples don't want more children and also want some year's gap between children. They are not using contraceptives for various reasons. One can help them in meeting their contraceptive needs by informing about choice of available contraceptives for which one may refer them

to heath care providers. Planned pregnancies and births can add to the joy of life. Spacing between two children keeps mother and children healthy. Couples can plan with the help of safe days and other contraceptive methods.

vi) Exclusive breastfeeding for the newborn as it not only helps in shrinking of the uterus or the womb to its original size (also known as involution of uterus) but also produces absence of bleeding during menstruation (also termed as lactation amenorrhea).This ultimately serves the woman as a protection against further pregnancy till the woman feeds her newborn baby.

vii) Intake of proper diet: Green leafy vegetables, pulses, jaggery, milk etc. are recommended. Under-nourished women are given supplementary food from Anganwadi Centre.

viii) Intake of Iron and Folic Acid (IFA) tablets, as long as the woman is breast feeding her baby.

In this section, you have studied about various stages of mother and child health ante-natal care (care during pregnancy), intra-natal care (care during delivery) and post-natal care (care after childbirth). Now answer the questions in Check Your Progress 4.

Check Your Progress 4

Note: a) Write your answer in about 50 words.

b) Check your answer with possible answers given at the end of the unit

1) How is ante-natal care important for maternal health?

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2) What are the objectives of intra-natal care?

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5.6 SAFE ABORTION AND CHANGED FERTILITY BEHAVIOUR

Here you will study two important components of maternal health –the practice of abortion for restricting maternal mortality and neonatal mortality; and changes in fertility behaviour due to various factors and emergence of IVF technique.

5.6.1 Safe Abortion

You know that sometimes unwanted pregnancies occur. In such cases, the family or woman may want to abort the pregnancy. For this termination, pregnant women often go to untrained persons, dais etc. The methods employed by them for termination are not safe and hygienic. Hence, there is a great risk to the life of these women. The husband and significant members of the family of such women with unwanted pregnancies need to be educated about the dangers of these illegal, unsafe abortions. Such women should be able to confirm whether they are pregnant and if so, they can seek safe and legal abortion at a government health centre or government approved private hospital.

Unsafe abortions through illegal providers (quacks) are riskier than childbirth. Abortions can also cause infection and sterility (barrenness). In India, abortion is legal and can be obtained on specified grounds. Abortion is available at recognised MTP centres on specified reasons, such as danger to life or risk to physical and mental health of woman, pregnancy, on account of rape and when there is a risk that the child may suffer from deformities and diseases. However, selection of sex of the fetus is illegal and abortion should not be sought for eliminating female fetuses. Abortions have been legalised since 1971 under certain conditions, as given in under the Medical Termination of Pregnancy Act (MTP Act). Such abortions can be carried out up to the fifth month (20 weeks) of pregnancy. Government primary health centres can carry out abortion till eight weeks (2 months), while for an abortion after this period; a woman would have to go to a hospital. Abortions done early in pregnancy are also safer than those carried out later. Hence, the woman should not wait till her pregnancy has advanced.

According to Pre-Natal Diagnostic Techniques (PNDT) Act Detection of sex of fetus during pregnancy is illegal. Termination of pregnancy after identifying the sex of the fetus as female is also illegal. Follow up after abortion is a must, especially after the tablets are given for medical abortion. If the woman has symptoms, like, severe bleeding or foul smelling discharge from uterus, severe pain in abdomen, fever, swelling in the abdomen and severe vomiting, she should be immediately referred to the nearest functional hospital. The counseling of the women will help them to seek safe abortions, which will ultimately help in decreasing deaths among pregnant women. After an induced abortion, a woman can become pregnant again within six weeks. Hence, it is advisable for the woman and her partner to be counselled for appropriate contraception and help them to get the suitable contraceptive if they wish to adopt. It is important to remember that termination of pregnancy below 20 weeks is legal under provision of Medical Termination of Pregnancy (MTP) Act.

Basic Awareness for Safe Abortion

Women need to be given the following information about accessing facilities for safe abortion:

i) Alertness about dangers of unsafe abortion.

ii) Which are the nearby centres and institutions approved by government for performing MTP?

iii) The days when MTP is done in these centres.

iv) Cost involved and expenses if any. ASHA may escort these women to the approved centres, if needed.

v) The woman may be advised that although abortions can be done up to 20 weeks of pregnancy, yet it is safer to get it done before 12 weeks.

vi) The need to use effective contraception after undergoing an abortion, so as to minimise the need for further abortions.

5.6.2 Changed Fertility Behaviour and IVF

With the changes in socio-economic condition, increasing women's participation in workforce, and dependency on modern medicine resulted in change of fertility behaviour too. Socio-economic condition refers the changes in traditional livelihood, occupational shift from agriculture to industry, changes in family structure from joint family to nuclear family, shrinking social capital and increasing psychological disorder directly or indirectly influences human health condition. Actively women's participation in social space particularly education, employment and other sectors enhanced women empowerment and productive role in society while it has also influence late-marriage, late child planning as per their convenience and accordingly changes in lifestyle. Increasing health facility and the control of communicable diseases certainly reduced mortality rate and fertility rate but the increasing trends on non-communicable diseases are an alarming threats (see unit-1 and 3 of block-1). All these factors plays significant role towards the changes in fertility behaviour and pushing for 'In vitro fertilisation' **(**IVF).

In vitro fertilisation is a process of fertilisation where an egg is combined with sperm outside the body, *in vitro*. The process involves monitoring and stimulating a woman's ovulatory process, removing an ovum or ova from the woman's ovaries and letting sperm fertilise them in a liquid in a laboratory. Today Assisted Reproductive Technology (ART) is available in most of the civilised world that makes possible to the infertile spouse to have their own child through medical procedure. This invention provided a historical breakthrough, Nobel Prize (2010) for Physiology or Medicine was awarded to Robert Edwards for developing IVF and embryo transfer (IVF/ET) to treat infertility in women with non-patent oviducts. It was his work that gave chance to a birth of Louise Brown as the first test tube baby in July 1978.

In this section, you have studied about safe abortion and infertility, its complications and the role of educator. Now, answer the questions in Check Your Progress 5.

Check Your Progress 5

Note: a) Write your answer in about 50 words.

b) Check your answer with possible answers given at the end of the unit

1) What is MTP?

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2) What did you understand about the method of In Vitro Fertilisation (IVF)?

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5.7 LET US SUM UP

The development of reproductive health emerged in 1960s with the intervention of United Nations Population Fund (UNFPA) that brought the reproductive health care at centre stage. Alma-Ata conference (1978) also paved the way for holistic understanding of reproductive health. Reproductive health is viewed as the state of physical, mental and social well-being in all matters relating to the reproductive system in all stages of human life. The reproduction system involves a number of processes that must occur exactly at the correct time. Any small or major disruption in this process can interfere with fertilisation and/or implantation. Apart from the functions, the female reproductive system mainly has three components to function in order to comply the reproductive behaviour of the body i.e. Ovaries, Fallopian tubes and Uterus. The reproductive functions are also related to certain venereal diseases found to be present among women and men too.

Too early or late pregnancies are the cause of high maternal and neo-natal morbidity and mortality rates. Ante-natal check-up is necessary at regular intervals for screening, identification and referral of high risk cases. Health education is extremely essential for spreading the message for identification of danger signs during pregnancy and delivery for timely referral and effective management at the health centres. The new IVF techniques that have emerged fulfill the needs of childless couples.

5.8 KEYWORDS

RCH : Reproductive and Child Health

IUD : Intra Uterine Device

FWCM : Fourth World Conference on Women

First Referral Unit (FRU) : CHC upgraded & adequately equipped (as per norms of Indian Public Health Standards / IPHS) under NRHM to deal with emergencies.

MTP : Medical Termination of Pregnancy, a procedure for safe abortion.

ANM : Auxiliary Nurse Midwife, female health worker at sub-centre level.

ASHA : Accredited Social Health Activist, they work as link workers at community level to help ANM and *Anganwadi* worker.

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5.10 CHECK YOUR PROGRESS: POSSIBLE ANSWERS

Check Your Progress-1

1) What is reproductive health?

Ans. Reproductive health is a state of physical, mental and social well-being in all matters relating to the reproductive system in all stages of human life. World Health Organisation, further added that imparting sound knowledge in all matters relating to the reproductive system and its function is essential for reproductive health.

Check Your Progress-2

1) What are the common venereal diseases in India?

Ans. The word 'venereal' is derived from the Latin word *venereus*, and refers to sexually transmitted infections (STIs). The infections develop in the reproductive due to ignorance or unusual sexual practice and are transmitted during or by sexual intercourse, via semen, vaginal secretions, or blood; these are caused by bacteria, viruses, and yeast.

2) Describe the Female Genital Mutilation (FGM) as a practice.

Ans. Female genital mutilation is also referred to as female genital circumcision. Through this practice the removal of the external genitalia of girls and young women is done for non-medical reasons, rather for cultural reasons. Traditionally this act is carried out by a blade, and the process is medically known as infibulations that is where a small opening is kept available for the passage of urine and menstrual fluid and other reproductive functions.

Check Your Progress-3

1) Explain the causes of maternal deaths.

Maternal health refers to the health of women before and during pregnancy, at childbirth and during the postpartum period. The healthy mother always led to healthy baby and healthy society, however, a high MMR and IMR is indicator of poor maternal health. This is caused by the triad of factors – malnutrition, infection and consequences of unregulated fertility.

2) What are the mechanisms of government to promote Reproductive and Child Health (RCH)?

Ans. The state is engaged with several programmes under National Health Mission (NHM) in India to promote reproductive and child health care. Under NHM health education and awareness, preventive and promotive health care programmes are conducted. The promotion of institutional deliveries, safe motherhood programme, immunisation programme and nutritional care is focused to reduce overall maternal mortality and child mortality.

Check Your Progress-4

1) How is ante-natal care important for maternal health?

Ans. Ante-natal care is important for good health of mother and child during pregnancy. Ideally, ante-natal care should monitor a pregnancy for signs of complications, detect and treat pre-existing and concurrent problems of pregnancy, and provide advice and counselling on preventive care, diet during pregnancy by a doctor, an ANM, or another health professional.

1) What are the objectives of intra-natal care?

Ans. The basic objective of intra-natal care is safe delivery, delivery of baby with minimum injury to the mother and baby, readiness to deal with complications during delivery and provision of essential care as well as emergency care to a newborn baby. The state promotes institutional delivery in all cases.

Check Your Progress-5

1) What is MTP?

Answer: Medical Termination of Pregnancy (MTP) before 12 weeks, which takes care of unsafe abortions for maternal health care. For this, only lawful and safe abortion practices are allowed in hospital by trained and skilled staff. Safe abortion services are important to save mother from dangerous consequences of higher health risks and mental disturbances due to unwanted pregnancies.

2) What did you understand about the method of *In Vitro* Fertilisation (IVF)?

Answer: *In vitro* fertilisation is a process of fertilisation where an egg is combined with sperm outside the body, *in vitro*. The process involves monitoring and stimulating a woman's ovulatory process, removing an ovum or ova from the woman's ovaries and letting sperm fertilise them in a liquid in a laboratory.

UNIT 6 CHILD HEALTH CARE

Structure

6.1 Introduction

6.2 Phases of Childhood

6.3 Growth of Child

6.4 Child Health Care Package

6.5 Neonatal Care

6.6 Routine Care of Newborn

6.7 Immunisation

6.8 Childhood Diseases and Their Management

6.9 Nutrition Education for Child Health Care

6.10 Let Us Sum Up

6.11 References and Suggested Readings

6.12 Check Your Progress: Possible Answers

6.1 INTRODUCTION

A child is a human between the stages of birth and puberty, the onset of which marks the beginning of adolescence. The United Nations Convention on the Rights of the Child defines a child as 'a human being below the age of 18 years, unless under the law applicable to the child, majority is attained earlier'. In fact, even in terms of age duration a child is defined differently in different contexts. In India, the child population constitutes nearly 28 percent of the total population in 2015-16. The health status of children shows critical concerns in developing regions. Globally, 6.3 million children under age of 15 years of age die every year. A large proportion of these deaths (5.4 million) occur in the first five years of life, with newborns accounting for around half of the deaths. According to a WHO (World Health Organisation) report (2018), in India more than four-fifths (82%) of those deaths occur during infancy and this figure remained the highest in the world. Most children under the age of five die because of complications during birth, pneumonia, diarrhoea, neo-natal sepsis and malaria.

After studying this unit you should be able to:

a) explain different phases of childhood health and development issues,

b) what are childhood diseases and their management with immunisation schedule,

c) describe the importance of nutritional education, routine care and growth of the child.

6.2 PHASES OF CHILDHOOD

Early child development encompasses physical, socio-emotional, cognitive and motor development between 0-8 years of age. During this period children undergo rapid growth that is highly influenced by their environment. By the age of seven, nearly all of the motor control mechanisms in the brain are present and the child

rapidly develops motor skills. This is, in fact, the most crucial and vulnerable period of life as the foundations of future growth are laid at this stage. The childhood period is also a vital period because of the socialisation process. All children go through stages of social development during different phases of childhood.

It is very important to understand the issues and concerns related to health of children during different phases of childhood. Children are vulnerable to diseases, death and disability owing to their age, sex, place of living, socio-economic condition and a host of other variables. It has been established by various studies that many challenges faced by adults, such as mental health issues, obesity, heart disease, criminality, and poor literacy and numeracy, can be traced back to early childhood. Childhood is divided into the following age periods:

a) Infancy (up to 1 year)

b) Pre-School age (1-4 years)

c) School age (5-14 years)

6.3 GROWTH OF CHILD

According to WHO, child health care services should ensure that "every child, wherever possible, lives and grows up in a family unit, with love and security, in healthy surroundings, receives adequate nourishment, healthy supervision and efficient medical attention and is taught the elements of healthy living". When a baby gains weight, grows in height, begins to roll over, sit up and walk, we say that the child is growing. Optimal child growth occurs only with adequate food, absence of illness, a caring and nurturing social environment, and with full attention to the growing child.

Table 6.1: Normal Weight Gain of Children from Birth to Three Years

Age	Average weight gain per month in grams
Birth to 2 months	800
3 months to 4 months	600
5 months to 6 months	400
7 months to 3 years	200

The child's formation starts from the mother's womb, as it grows many times from a tiny egg to a baby weighing about 3 kg at birth. The baby grows most rapidly during the first year of life. A healthy baby gains about 800 grams from birth to 2 months, and about 400 grams from 3 to 4 months, while from five to six months baby also gains 400 grams and from seven months to three years 200 grams average monthly growth. The faster growth of infant also makes babies vulnerable to inadequate nutrition or illness, which might slow down or stop the growth. When growth slows or stops, we say 'growth falters'. Children grow most rapidly in the first year of life. A growing child is a healthy child. The most accurate and sensitive measure of growth is weight gain. Regular weighing of the child and recording of that weight on a graph or growth chart enables one to see changes in weight; and providing advice to the mother based on this weight change is called 'growth monitoring'.

The growth chart is used in the Integrated Child Development Scheme (ICDS). Each time a child is weighed, the weight is recorded by marking a point on the chart. These points are joined by a line. This line is called a 'growth curve'. If a child is growing and there is regular weight gain, the line will move in an upward direction. Thus, growth becomes visible to the mother and the worker when the weight is plotted on a growth chart. When growth falters, i.e. when weight does not increase as expected, the line on the growth chart does not go upward, but stays flat. When a child loses weight, the line on the growth chart goes in a downward direction. Thus, by monitoring the growth of a child every month, it enables us to see periods of no growth or weight loss even before a child starts looking thin. We can then take early action to ensure that the child grows normally.

The purpose of growth monitoring is to take action on the first signs of inadequate growth / no growth or weight loss in a child to restore health and proper growth. Growth monitoring involves the following five steps.

Step 1: Determining the correct age of a child

Step 2: Accurate weighing of a child

Step 3: Plotting the weight accurately on the growth chart

Step 4: Interpreting the direction of the growth curve and recognising if the child is growing properly.

Step 5: Discussing the child's growth and follow up action with the mother. The various stages of growth monitoring of children can be broadly categorised into three. These are (i) growth monitoring must start right from birth of the child; (ii) growth of children 0-3 years at risk of malnutrition, who have not gained weight for 3 months, must be monitored every month, and; (iii) growth of children of 3-6 years age must be monitored every three months.

Till now, you have read about the basic concept of childhood, phases of childhood, and growth of a child, now attempt the following questions given in Check Your Progress-1.

Check Your Progress 1

Note: a) Write your answer in about 50 words.

b) Check your answer with possible answers given at the end of the unit

1) What are the phases of childhood?

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2) Define growth monitoring. List the steps of growth monitoring.

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6.4 CHILD HEALTH CARE PACKAGE

The various child health care packages offered by the primary health care services at different levels are given in the table below.

Role of various primary health care initiatives in Child Health Care

Sub Health Centre	Primary Health Centre	Community Health Centre
• Promotion of exclusive breast feeding for 6 months. • Full immunisation of all infants and children against vaccine preventable diseases as per guidelines of GOI • Vitamin A prophylaxis to the children as per guidelines.· Prevention and control of childhood diseases like malnutrition, infections, etc,	• Care of routine childhood illness· Essential newborn care· Promotion of exclusive breast feeding for 6 months. • Full immunisation of all infants and children against vaccine preventable diseases as per guidelines of GOI • Vitamin A prophylaxis to the children as per guidelines. • Prevention and control of childhood diseases like malnutrition, infections, etc.	***New born care*** • Facilities and expertise for neo-natal resuscitation· Management of neo-natal hypothermia/ jaundice ***Care of the child:*** • Emergency care of sick children including integrated management of neonatal and childhood illness (IMNCI) • Care of routine childhood illnesses • Essential newborn care· Promotion of exclusive breastfeeding for 6 months. • Full immunisation of all infants and children against vaccine preventable diseases as per guidelines of GOI • Vitamin A prophylaxis to the children as per guidelines. • Prevention and control of childhood diseases like malnutrition, infections, etc.

6.4.1 Three Phases of Child Health Care

Child health care generally is provided for children in the following three phases: (i) infants up to one year (ii) children aged 1-3 years, and (iii) children below 5 years. Let us discuss each of them.

i) **Infants up to 1 year**: The health care services for infants up to 1 year include: (a) registration of new births; (b) counselling for care of newborns and feeding; (c) complete routine immunszation; (d) immunisation for dropout children; (e) weighing; and (f) first dose of Vitamin A along with measles vaccine.

ii) **Children aged 1-3 years**: The health care services for children between 1-3 years includes: (a) a booster dose of DPT/OPV; (b) second to fifth dose of vitamin A; (c) tablet IFA - (small) to children with clinical anaemia; (d) weighing; and, (e) provision of supplementary food for grades of mild malnutrition and referral for cases of severe malnutrition.

iii) **All children below 5 years**: The health care services for children below 5 years includes: (a) tracking and vaccination of children over looked by health and health related workers, (b) case management of those suffering from diarrhoea and acute respiratory infections; (c) counselling to all mothers on home management, and where to go in the event of complications; (d) hands-on training in preparation of ORS; and (e) counselling on nutritional supplements and balanced diets; (f) counselling and management of worm infestations.

6.4.2 Infant Mortality

Infant mortality is the occurrence of deaths between birth and one year of age. It is measured by the infant mortality rate which is defined as the number of deaths of infants during the first year of life, per 1000 live births occurring in a population in a given year. It is a matter of great concern that about 41 per cent of total infant mortality occurs in the first month of life. Later, in the weaning period, 1 out of 4 surviving children do not receive either the quality or the quantity of food needed to replace nutrition provided by mother's milk. According to national family health survey (NFHS-4), the infant mortality rate was 41 deaths per 1000 live births in India. The under-five mortality was 50 deaths per year. Sex-specific under-five mortality was 37 for male and 42 for female.

As per the Indian census (2011), the child sex ratio (0-6years) has shown a decline from 927 females per thousand males in 2001 to 919 per thousand in 2011. The major cause of the decrease in female birth ratio is owing to unequal treatment of girl child at the time of birth and female infanticide. Since then co-ordinated and convergent efforts have been taken to ensure girl child's survival, protection and empowerment. The central government has introduced *beti bachao beti padhao* initiative to stop female infanticide, this is a joint venture of Ministry of Women and Child Development, Ministry of Health and Family Welfare and Ministry of Human Resource Development.

The following factors affect the infant health and mortality rate.

- **Weight of the new born baby**: Babies born under 2.5 kg and over 4 kg are at special risk.
- **Age of mother:** Adolescent mothers (below 19 years) and those who are over 35 years have higher chances of producing low birth weight babies.
- **Birth order:** After the third baby, the risk of infant mortality increases.
- **Malnourished mother:** Infant mortality is three to four times higher among babies born with high birth orders and nutritional deficiency.
- **Birth spacing:** If more than one baby is born at a time then there is a chance that low birth weight babies may be born, contributing to infant mortality.
- **Family size:** Due to lack of care in large families with more children, infants suffer from diarrhoea, malnutrition, and respiratory infections, leading to infant mortality.
- **Quality of mothering:** Mothers from a poor social background are not able to look after their children because of poverty and hence, infants are prone to deaths.
- **Breast-feeding:** The infants who are weaned off early are prone to diarrhoea and subsequently suffer from frequent infections.
- **Early marriage:** Girls who are married off early are not physically mature enough to take the burden of reproduction and, hence, give birth to weak babies who are prone to death.
- **Sex of the baby:** Female infants are neglected and are often prone to sex pre-selection (selected for abortions) by misuse of ultra-sonography and infanticide child killing due to a preference for male children that prevails in our society. This is the result of gender discrimination and low status of women in our society.
- **Environment:** Poor housing conditions result in poor environmental sanitation, leading to ill health and, subsequently, infant deaths.
- **Multiple births:** When the interval between 2 children is short, the repeated births not only affect the mother's health but also result in low weight babies.

6.5 NEONATAL CARE

Neonatal care is an important element of childhood health care services. The new born care refers to care of all new born babies so as to reduce both neonatal and infant mortality. Effective care of newborn children is a crucial challenge that is faced by every health care setting dealing in maternal and child health. Training of doctors and auxiliary nurse midwives (ANMs) in high risk areas is an urgent need. A key component is to equip the staff with appropriate knowledge, attitude, and skills to improve the quality of service delivery. Besides this, Integrated Child Development Services (ICDS) play a significant role in child care programmes worldwide, which functions through the *Anganwadi* workers. As *Anganwadi* centres are widely spread out these are the first contact points for providing health services, nutrition, education and other related services to children below 6 years of age. These also deal with expectant and nursing mothers and other women for child care health requirements. Thus *Anganwadi* centres

and workers are well-equipped with immunisation techniques and other adequate skills for delivering an integrated package of service to children and women at community level.

The four basic requirements of a child immediately after birth are warmth, normal breathing, mothers' milk, and protection from infection. The doctor and paramedical personnel must take care of all these aspects. The death of the newborn can be happen because of birth asphyxia (difficulty in breathing), infection, complications related to premature birth, and defects by birth. The care of the newborn must include prevention of hypothermia (loss of body heat), prevention of infection, and early initiation of breast feeding, and basic newborn resuscitation (emergency care).

i) Cord is cut in 1-3 minutes: the umbilical cord should be tied with the sterile cord tie after cutting with sterile scissors. Care should be taken not to put any antiseptic to prevent umbilical infection.

New Born Care Practices

ii) Suction of mouth & nose (if necessary):

iii) The baby is examined for (a) malformation; (b) breathing pattern: normal newborn's respiratory rate is 30-40 per minute; (c) colour (normal new born is pink). Sometimes a baby may be yellow or blue; and (d) the heart rate should be between to 100-160 beats per minute, indicating abnormality. The baby requires immediate medical attention.

iv) Resuscitation of new born: skilled healthcare; chest compressions, intubations and medications.

v) Monitoring the baby in the first hour:

vi) a) Breathing: grunting; chest in-drawing and fast breathing

b) Warmth: If baby's feet are cold to touch

6.6 ROUTINE CARE OF NEWBORN

Routine care of newborns must include the following aspects.

i) **Provision of warmth**: the new born child should be dried and cleaned immediately after birth and wrapped in a clean cloth. Generally in winters, the baby may be placed under a source of warmth 200 watt bulb / radiant warmer. The delivery room should be airy with adequate light, but without running fans during delivery.

Hypothermia (body temperature < 36 degree Centigrade) may be prevented by: (a) keeping the baby in close body contact with the mother; (b) clothing the baby adequately especially in cold weather; (c) the room where the baby is placed should be kept warm; and (c) the room should be free of draught.

ii) **Keep the baby with the mother and initiate breast feeding:** The baby should be breast fed within half an hour of birth. The advantage of feeding the baby soon after delivery is that it helps uterine involution (the process of shrinking of uterus to its normal position) and decreases the risk of bleeding during the post-natal period. No water, glucose, honey, *ghutti, 'gur'* (jaggery) should be given to the baby.

iii) **Breathing and related observation:** The care of newborn must include the following aspects such as (a) observing breathing and temperature, (b) watching for complications and timely referral, and (c) Initiating breastfeeding, if well.

iv) **Eye care:** Eyes are cleaned with cotton swabs by skilled attendant at birth.

v) **Recording of birth weight:** All newborns are weighed on an infant weighing scale. Those babies weighing less than 2500grams need to be referred for special care. Some of the causes of low birth weight babies related to mothers are: severe anaemia, heavy physical work during pregnancy, smoking, short height of women, close interval during pregnancies, and low age.

vi) **Infection prevention:** In order to prevention of infections to the new born they must be kept the below mentioned risk aspects in mind:

a) administering TT immunisation to mother and clean delivery practices minimise neo-natal tetanus infections

b) an important source of infection is pre-lactal feed and water

c) a non-breast fed baby is several times at higher risk of diarrhoea. So breast-feeding should be promoted as the optimum feeding method

d) persons with skin infection, respiratory infections or diarrhoea must not handle the baby till their infection is under control

e) in case of institutional deliveries, the zero dose of OPV and BCG vaccine should be administered before they are discharged.

vii) Identification of "at risk" infants: risks include (a) weight less than 2.5 kg at birth; (b) twins; (c) birth order 5 and more; (d) artificially fed babies; (f) failure to gain weight during three successive months; and (g) weight below 70 per cent of the expected weight.

Activity:

Visit a health sub-centre in your locality and interact with health workers to know more about child health care.

Till now, you have read about the phases of childhood and the growth of a child, child health care package, neo-natal care and routine care of newborns. Now, attempt the following questions given in Check Your Progress-2.

Check Your Progress 2

Note: a) Write your answer in about 50 words.

b) Check your answer with possible answers given at the end of the unit

1) What is infant mortality? What are the factors influencing infant mortality?

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2) What are the basic needs of all newborns?

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3) What are the main causes of low birth weight babies?

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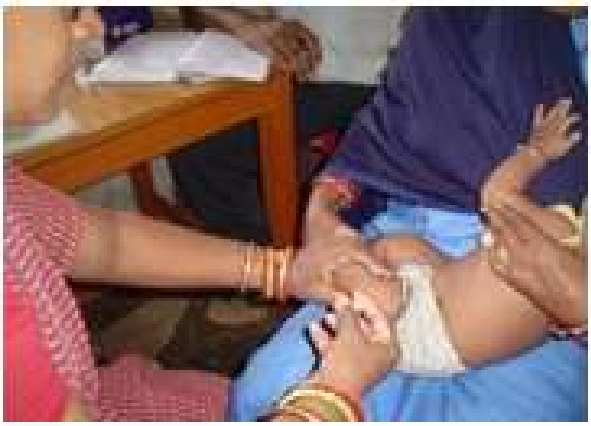
6.7 IMMUNISATION



Immunisation is one of the most well-known and cost-effective methods of preventing diseases. Though most of the vaccine preventable diseases (VPDs) are largely under control, immunisation has to be sustained, not only to prevent VPDs, but to eliminate tetanus, reduce the incidence of measles, and eradicate poliomyelitis. Government of India provides 8 (eight) types of vaccination across the country free of cost against twelve preventable diseases which include Diptheria, Pertussis, Tetanus, Polio, Hepatitis B, Meningitis and Pneumonia caused by Hemophilus Influenza type B.

Government of India launched Mission *Indradhanush* (MI) in December 2014 to focus on pockets of low immunisation coverage and hard-to-reach areas where the proportion of unvaccinated and partially vaccinated children is highest. Four phases of mission *Indradhanush* were conducted covering 528 districts across 35 states/Union Territories. Under the various phases of the mission a total of 3.14 crore children and 80.64 lakhs pregnant women have been vaccinated.

i) **Immunisation Schedule:** The immunisation package broadly comprises following essential aspects. The vaccines must be given at the right age, in the right dose, right interval and the full course must be completed to ensure the best possible protection for the child against these diseases. The schedule that tells us when and how many doses of each vaccine are to be given is called the immunisation schedule.

Table 6.2: National Immunisation Schedule (NIS) for Infants, Children and Pregnant Women

Vaccine Name	When to Give	Doses	Route	Site
For Pregnant Women				
TT-1 or Booster	Early in pregnancy	0.5 ml	Intra-muscular	Upper Arm
TT-2	4 weeks after TT-1	0.5 ml	Intra-muscular	Upper Arm
TT-Booster	If received 2 TT doses in pregnancy within the last 3 years*	0.5 ml	Intra-dermal	Upper Arm
For Infants				
BCG-	At birth or as early as possible till one year of age	0.1 ml (0.05 ml until 1 month of age)	Intra-dermal	Left UpperArm
Hepatitis B Birth dose	At birth or as early as possible within 24 hours	0.5 ml	Intra-muscular	Antero-lateral side of mid-thigh

OPV-0	At birth or early as possible within the first 15 days	2 drops	Oral	Oral
OPV 1,2 & 3	At 6 weeks, 10 weeks & 14 weeks (OPV can be given till 5 years of age)	2 drops	Oral	Oral
Pentavalent 1,2 & 3	At 6 weeks, 10 weeks and 14 weeks 9can be given till one year of age)	0.5 ml	Intra- muscular	Antero-lateral side of mid-thigh
Rotavirus#	At 6 weeks, 10 weeks and 14 weeks 9can be given till one year of age)	5 drops	Oral	Oral
IPV	Two fractionl doses at 6 and 14 weeks of age	0.1 ml	Intra-dermal two fractional dose	Intra-dermal: right upper arm
Measles/ MR 1st Dose $	9 completed months-12 months (can be given till years of age)	0.5 ml	Subcutaneous	Right upperArm
JE-1 **	9 completed months-12 months	0.5	sub-cutaneous	Left upper arm
Vitamin-A	At 9 completed months with measles-rubella	1 ml (1 lakh IU)	Oral	Oral
For Children				
DPT booster-1	16-24 months	0.5 ml	intra-muscular	antero-lateral side of mid-thigh
Measles /MR 2nd dose $	16-24 months	0.5 ml	Sub-cutaneous	Right upper arm
OPV Booster	16-24 months	2 drops	Oral	Oral
JE-2	16/24 months	0.5 ml	Sub-cutaneous	Left upper arm
Vitamin A *** (2nd to 9th dose)	16-18 months, then one dose every 6 months up to age of 5 years.	2 ml (2 lakh IU)	Oral	Oral
DPT Booster-2	5-6 years	0.5 ml	Intra-muscular	Upper arm
TT	10 years & 16 years	0.5 ml	Intra-muscular	Upper Arm

Note: * Give TT-2 or booster dose before 36 weeks of pregnancy. However give these even if more than 36 weeks have passed. Give TT to woman in labour, if she has not previously received TT.

** JE vaccine is introduced in select endemic districts after the campaign.

*** the 2nd to 9th doses of vitamin A can be administered to children 1-5 years old during biannual rounds in collaboration with ICDS.

phases introduction at present in Andhra Pradesh, Haryana, Himachal Pradesh and Orissa from 2016 and expanded in Madhya Pradesh, Assam, Rajasthan and Tripura in Feburary 2017 and planned Tamil Nadu and Uttar Pradesh in 2017.

$ phased introduction, at present in five states namely Karnataka, Tamil Nadu, Goa, Lakshadweep and Puducherry, (as of Feb 2017)

The above mentioned immunisation schedule for pregnant women, infant and children are essential as guided by WHO. If a child is not given the right vaccines in time, it is necessary to get them started whenever possible and complete the primary immunisation before the child reaches its first birthday.

ii) Maintenance of Cold Chain:

a) Vaccines lose potency when exposed to heat, e.g., polio vaccines are sensitive to heat while tetanus vaccine is not. Hence, maintenance of cold chain at recommended temperature for transporting and storing of vaccine is done from manufacture to point of use.

b) order of vaccines losing potency when exposed to heat are as follows:

- Polio
- Measles
- BCG
- DPT
- DT
- Tetanus

c) Cold chain equipment consist of large deep freezers and large ice-lined refrigerators (ILR) (300/240 litres), small deep freezers and small ILR, voltage stabilisers, ice packs, cold boxes. Cold boxes and vaccine carriers are used to carry vaccines from health centres.

Vaccines can be kept in the carrier for 48 hours if:

- the lid is kept tightly closed
- all ice packs and cubes are left inside
- the ice packs have not melted fully
- the carrier is in the shade and away from the heat
- smaller 'day' carriers are also available and are used to carry a few vials for one session
- each can hold 8-10 vials and ice cubes and will keep vaccines cold only for 6-8 hours
- at the immunisation site keep opened vials in a cup of ice or on an ice pack during use

iii) Role of Health and Health Related Personnel

Health and health related personnel in child healthcare should be aware of the points that follow. Personnel (i) should be well-versed with the National

Immunisation Schedule; (ii) should be aware of the number of children less than one year of age in your village; (iii) assist *Anganwadi Worker (*AWW) and ANM in making the arrangements for immunisation in *Anganwadi Center* (AWC); (iv) should advise the mother to bring the immunisation card every time she comes with the child for immunisation; (v) should advise the mothers on use of Auto Disable (AD) syringes for immunisation, which come in pre-sterilised packs with a fixed needle. This helps in prevention of infection; (vi) should ensure correct positioning of the child during immunisation; (vii) counsel the mothers that minor ailments such as fever, cough, cold, etc. are not a contra-indication for immunisation; (viii) should guide the mothers regarding minor side-effects after immunisation such as mild fever, pain, tenderness, swelling at the site of injection, and mild rash after measles immunisation; (ix) baby should be referred to Primary Health Centre/ First Referral Unit (PHC/FRU) if: (a) if, after immunisation baby is crying for more than three hours; (b) high-grade fever; (c) baby is drowsy, convulsing or unconscious; (x) should ensure that all babies are immunised. Help AWW in tracking dropouts, especially orphans and the children of migrants; and (xi) ensure that all children in your village and nearby areas are fully immunised before their first birthday.

6.8 CHILDHOOD DISEASES AND THEIR MANAGEMENT

Two important diseases that mostly affect children are diarrhoea and acute respiratory infection. Their management is important for the affected child's survival.

6.8.1 Diarrhoea and Its Management

Diarrhoea is defined as passage of liquid or watery stools. These watery stools are usually passed more than three times in a day. Passage of even one large watery motion among children can be labelled as diarrhoea. There are three types of diarrhoea(i)Acute watery diarrhoea starts suddenly and may continue for a number of days, but not more than 14 days. Most of the diarrhoea are self-limiting and will last for three to seven days; (ii) Dysentery is diarrhoea with visible blood in stools; and (iii) Persistent diarrhoea begins acutely, but is of unusually long duration, i.e., lasting more than 14 days.

Diarrhoeal diseases are a major cause of death and disease among children under five years. The majority of the deaths in diarrhoea are due to dehydration, that is, loss of water and minerals.

Four golden rules to observe if a child has diarrhoea

a) the child is breast fed, breast-feeding needs to be continued more frequently.

b) the child needs to consume fluids other than milk, feeding in small quantities needs to be continued.

c) after the child recovers and normal appetite returns, the child may be given more food than normal to regain lost weight.

d) extra fluids need to be given: ORS (oral rehydration solution) needs to be given.

Guide the mothers for preparing ORS

The mother with a child having diarrhoea must be guided. She should be asked to take one litre of clean drinking water in a clean container after washing hands with soap and water. Add one packet of ORS in it and stir it thoroughly so that the powder is mixed well. Cover the vessel. One teaspoon of ORS should be given every one-two minutes to infants as per the table below:

Diarrhoea Management Chart

Advise mothers to give home available fluids(HAF), e.g., plain clean water, *lassi, shikanji*	2 months up to 2 years	2 years and more
5 spoonfuls and more if the child wants it	¼ - ½ cup	½ - 1 cup

Prevention of diarrhoea

Diarrhoea can be prevented if the following practices are observed: (a) exclusive breastfeeding for the first six months; (b) thorough hand washing before cooking food and feeding the child (c) keeping containers clean while preparing food and also for feeding the baby; (d) keeping the food and drinking water covered; (e) consuming freshly prepared food within one hour; (f) keeping the house and neighbouring area clean and proper disposal of waste so that houseflies don't breed; (g) advising the families about getting sanitary latrines constructed in the houses.

6.8.2 Acute Respiratory Infection (ARI) and Its Management

Acute respiratory infection is an important cause of mortality and morbidity in children. Most children up to the age of 5 years are susceptible to ARI. If not treated in time, some of them develop pneumonia, which can result in death. The affected child has some or all of the following symptoms: cough, running nose, fever, and difficulty in breathing. Serious morbidity and death are preventable if it is identified early and treated in time.

Acute Encephalitis Syndrome (AES)

Japanese encephalitis virus (JEV) is the major cause of AES in India. Other viruses are also causes of AES outbreak and characterised with acute-onset of fever and a change in mental status (mental confusion, disorientation, delirium, or coma) in India. During 2018, 10485 AES cases and 632 deaths were reported from 17 states to the National Vector Borne Diseases Control Programme (NVBDCP) in India. Recently outbreak of AES in Muzzafarpur (Bihar) and Gorakhpur (Uttar Pradesh) most commonly affected children which lead to considerable morbidity and mortality.

Care during cough and colds may include following aspects: (a) keep the child warm, (b) give plenty of fluids and continue breast-feeding, (c) give home remedies – ginger, honey, lemon, *kandha,* etc. (d) increase feeds after the child recovers, (e) enough rest is to be taken by the child, (f) giving immunisation to children on time for vaccine preventable diseases also helps to prevent ARI, (g) timely administration of Vitamin A, and (h) good nutrition and avoiding exposure to cold, dust and smoke will help in preventing pneumonia.

6.9 NUTRITION EDUCATION FOR CHILD HEALTH CARE

As you know nutrition is required for a child to grow, develop, be active, and to reach adulthood with sound health. Macronutrients such as carbohydrates, fats, proteins are required in large amounts, while some micronutrients such as vitamins, iron, calcium, iodine, etc. are required in tiny amounts. The growth of a child can be assessed by plotting height and weight for the age in the Health Chart. If the child is not growing properly, it means the child is malnourished or under nourished.

6.9.1 Nutritional Care of Infants and Young Children

The nutritional education on infant care can be broadly divided into three categories that are: care of newly born child usually less than six months; infant between six months to 12 months; and child more than one year. The nutrition care of 0-6 months old infants must include following aspects: (i) infants up to six months are to be exclusively breast-fed (at least eight times a day) (ii) mothers should be encouraged to breast-feed on demand; (iii) bottle-feeding should be discouraged. The mother's milk is recommended for following reason: (i) breast milk is the ideal food for young infants as it contains all nutrients; (ii) chances of malnutrition in breast-fed infants are less; (iii) it prevents infection, as it is clean and free from bacteria; (iv) colostrum acts as the first immunisation for infants; (v) breastfeeding enhances brain development; and (vi) breastfeeding increases mother and child bonding and helps in better development of the child.

Children aged6-12 months, need complementary feeding. The complementary feeding needs to follow these practices (i) start home-made complementary foods after six months, 4-5 times a day; (ii) continue breastfeeding as often as the child wants. If the child is not breastfed, it may be given undiluted milk in a cup and complementary food five times a day.

Children aged 12 months to two years, should continue to be breastfed for two years or beyond and also be giving home cooked food 4-5 times a day. Then, from the age of 2 years onward, children should be given cooked food 5-6 times a day as they eat small quantities. Besides, children should be weighed every three months to assess their growth in all age-groups.

Diseases due to nutritional deficiencies can be prevented by giving information and counselling on the following aspects: (a) healthy food habits, (b) hygienic and correct cooking practices, (c) checking for anaemia, especially in adolescent girls and pregnant women; checking, advising, and referring, (d) weighing of infants and children, and (e) importance of iron supplements, vitamins, and micronutrients.

6.9.2 Micronutrients (Vitamin A, Iron, Iodine) Deficiency

You know that Vitamin A deficiency causes night blindness. Vitamin A is important for normal vision though in very small amounts. It is not possible for even that amount to be synthesised in the body. Vitamin A deficiency is most common between 6 months and 3 years. It can even cause blindness. Night blindness is the earliest symptom. Besides 'vitamin A' deficiency, iron deficiency can lead to anaemia among children, it is very common problem because of inadequate diet

and recurrent infections and worm infestations. Daily one small iron tablet for 100 days in a year is given to children under 5 years suffering from nutritional anemia.

Another deficiency to be looked into is iodine deficiency as it could lead to goitre, congenital hypothyroidism, and developmental disability. Iodine is an important trace element. It is required for the normal growth and development of human beings. Its deficiency during pregnancy can lead to spontaneous abortion, still birth, and mental retardation in children. You should advise the pregnant women to take iodised salt in food, which is enough to prevent the iodine deficiency.

a) Health education on micronutrient deficiencies must cover the aspects that follow. Administration of six-monthly doses of vitamin A to be given to children between 6months to 3 years.

b) Increase intake of carrots, green leafy vegetables, yellow fruits, eggs, milk, fish, etc., in food.

c) The grassroots health workers must track dropouts and give vitamin A to children suffering from measles.

d) Mothers should be advised regarding proper nutrition with iron and protein rich diet – jiggery (*gur*), milk, eggs, pulses, green leafy vegetables, guavas, apples, etc.).

e) Mother also should be advised regarding prevention of diarrhoea and the importance of de-worming. Mothers should be informed that iron can cause dark colouration of stools and increased or decreased frequency of stools.

f) Mother should be educated about the use of iodised salt.

In this unit, you read about the phases of childhood and growth of child, child health care package, neo-natal care and routine care of newborn, immunisation, childhood diseases and their management, and nutrition education for child health care. Now attempt the questions given in check your progress-3.

Check Your Progress 3

Note: a) Write your answer in about 50 words.

b) Check your answer with possible answers given at the end of the unit

1) What is an immunisation schedule?

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2) What is ARI? What care is taken of a child suffering from cough and cold?

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3) What is the significance of nutrition education for the growth of a young child?

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6.10 LET US SUM UP

Childhood comprises of different phases. The crucial period for child survival is the neo-natal period. The objective of child health care is to provide essential as well as emergency care. Exclusive breast feeding and full immunisation are essential components of newborn care at different levels. Hence, tracking of babies is done, for the support of health personnel. Growth monitoring is done to identify malnourished children. These children are referred for treatment. Child health care requires strong preventive health care besides curative health care facilities. Thus, the contribution of health professionals, health workers and the role of all forms of communication through media plays a significant role in creating awareness among the masses about child health programmes and various schemes.

6.11 REFERENCES AND SUGGESTED READINGS

1) Ministry of Health and Family Welfare *Navjaat Shishu Suraksha Karyakram*, Basic New Born care and Resuscitation program.

2) Ministry of Health and Family Welfare, National Rural Health Mission, Frame work for implementation for the year 2005-2012.

3) Ministry of Health and Family Welfare (2006) *Reading Material for ASHA,* book no. 2 Maternal & Child Health for the year 2006.

4) Ministry of Health and Family Welfare (2016) National Family Health Survey-4 (2015-16), IIPS publication under MOHFW, India.

6.12 CHECK YOUR PROGRESS: POSSIBLE ANSWERS

Check Your Progress-1

1) What are the phases of childhood?

Answer: Childhood is divided into (i) Infancy: neo-natal and post-neonatal period (ii) pre-school age (iii) school age**.**

2) Define growth monitoring. Write the steps of growth monitoring.

Answer: Regular weighing of the child, and the recording of that weight on a graph (called a growth chart) enables one to see changes in the weight of a child. Giving advice to the mother based on this weight change is called growth monitoring. Growth monitoring involves five steps:(i)determining

correct age of child (ii) accurate weighing of each child (iii) plotting the weight accurately on the growth chart (iv) interpreting the direction of the growth curve and recognising if the child is growing properly, and (v) discussing the child's growth and follow-up action with the mother.

Check Your Progress 2

1) What is infant mortality? What are the factors influencing infant mortality?

   Answer: Infant mortality is defined as the ratio of infant deaths registered in a given year to the total number of live births registered in the same year. Some of the major factors influencing infant mortality are:(i) weight of the newborn baby (ii) age of mother (iii) birth order (iv) malnourished mother (v) birth spacing (vi)family size (vii) quality of mothering (viii) breast feeding (ix) early marriage (x) sex of the baby (xi) environment and (x) multiple births.

2) What are the basic needs of all newborns?

   Answer. Four basic needs of all babies at the time of birth (and, for the first few weeks after birth) are: (i) warmth, (ii) normal breathing, (iii) mother's milk, and (iv) protection from infection.

3) What are the main causes of low birth weight babies?

   Answer: The main causes of low birth weight babies are related to maternal factors as well as certain fetal causes including abnormalities and intrauterine infections.

Check Your Progress-3

1) What is an immunisation schedule?

   Answer: The schedule that tells us when and how many doses of each vaccine are to be given is called immunisation schedule.

2) What is ARI? What care is taken of a child suffering from cough and cold?

   Answer: Acute Respiratory Infection (ARI) is a significant cause of mortality and morbidity in children with the following symptoms: cough, running nose, fever, difficulty in breathing. The baby should be kept warm and provided with good nutrition and protected from cold, dust, and smoke to avoid pneumonia.

3) What is the significance of nutrition education for the growth of a young child?

   Answer: Nutrition is required for a child to grow, develop, and remain active .The growth of the child can be assessed by plotting its height and weight for the age in Road to Health Chart. If the child is not growing properly, it means the child is malnourished, i.e., undernourished.

UNIT 7 ADOLESCENT HEALTH CARE AND LIFE CYCLE APPROACH

Structure

7.1 Introduction

7.2 Concept and Phases of Adolescence

7.3 Life Cycle Approach and Importance of Adolescent Health Care

7.4 Physiological Issues of Adolescence

7.5 Adolescent Health Problems and Health Education

7.6 Role of Health Care Providers and Adolescents Health

7.7 Awareness of Adolescent Health Care

7.8 Let Us Sum Up

7.9 References and Selected Readings

7.10 Check Your Progress: Possible Answers

7.1 INTRODUCTION

In earlier units of this block, you have read about reproductive healthcare, maternal healthcare and child healthcare. Here, you will read about the most crucial stage between childhood and adulthood i.e. adolescence. You might have seen adolescent boys or girls and likewise you must have passed through your own adolescence. What is adolescent healthcare and what are its associated issues and challenges? There is around 1.2 billion adolescent population worldwide whereas India's adolescent population is 243 million (more than 20 percent) which shows a sizeable number and their healthcare can play a significant role in development. The significance of adolescent health can also be analysed through the following important indicators of ~~w~~World ~~h~~Health Organisation (WHO): Globally it has been observed that a) 44 births per 1000 to girls aged between 15 to 19 per year b) half of the mental health disorders start~~s~~ by the age of 14 c) high mortality of adolescents recorded every day, mostly from preventable or treatable causes d) increasing injuries among this group, and the risk of HIV and diarrhoeal diseases. Hence, these facts about adolescents have serious social, economic, and public health implications. Adolescents are not a homogenous group. Their situation varies by age, sex, marital status, class, region, and cultural context.

After studying this unit you should be able to:

a) explain the concept and importance of adolescence,

b) discuss the significance of adolescent health and life cycle approach,

c) analys~~z~~e adolescent health problems and health implications,

d) describe the adolescent reproductive and sexual health services.

7.2 CONCEPT AND PHASES OF ADOLESCENCE

Many development psychologists consider the phase of adolescence as a period between 13 and 18 years of age, while some put it between 10 and 19 years, and others extend it up to 24. However, there is a growing consensus in favour of not

associating adolescence with a precise number of years. Age, alone, is not sufficient to determine membership in the adolescent group. Whereas, the World Health Organization (WHO) assigns an age parameter of 10 to 19 years, it also defines adolescence as the progression from appearance of secondary sex characteristics (puberty) to reproductive maturity, development of adult mental processes and adult identity, and transition from total socio-economic dependence to relative independence. Adolescence is usually divided into three phases. It must be noted here that there is a great deal of overlapping among these three phases, as development rarely takes place in strict conformity with a set of norms. The three phases are described as follows:

i) **Early adolescence (10-13 years):** This stage is also known as the pre-adolescence period, and is characteri~~z~~sed by a spurt in growth and the beginnings of sexual maturation. This spurt may occur differently in different individuals. Gender differences in height may be seen at this time. Girls, during this period, are generally taller and slightly heavier than boys.

ii) **Mid-adolescence (14-15 years):**Mid-adolescence is a period when the main physical changes are completed. Each adolescent develops a stronger sense of self-identity and relates more strongly to his or her peer group. This phase of development is a time for experimentation in the spirit of adventure. An adolescent starts defining his or her relation to himself or herself, the opposite sex and peer groups, although families usually remain important. Thinking becomes more reflective. Mental organis~~z~~ation becomes more complex, emotions become deeper ~~and tenser~~, and there is a sense of finality in choices.

iii) **Late adolescence (16-19 years):** This is a period when the body fills out and takes its adult form. In this period, adolescents develop distinct identity and more settled ideas and opinions. Adolescents by this time are able to define life goals, although economic dependence on parents may continue for many years. During this phase they develop a more consistent framework of values, morals and ethics, and are able to think abstractly. They have different needs according to their stage of development and their personal circumstances. They, however, require a system of graded support from parents and society that will enhance the gradual development of their powers to cope with the roles they are expected and ready to play. Some adolescents are especially vulnerable or hard to reach, and are in need of extra support.

7.3 LIFE CYCLE APPROACH AND IMPORTANCE OF ADOLESCENT HEALTH CARE

7.3.1 Life Cycle Approach

A life cycle is a series of stages (the course of developmental changes) through which an organism passes from its inception. It is a progression through a series of differing stages of development. As such, the life cycle approach to child development is a philosophy that encompasses all actions essential for preparing for future, ensuring optimal growth development that, in turn, should lead to responsible adulthood. This is an approach to child and adolescent development, caring for the most critical intra uterine growth, the vulnerable first six years of life, and the most neglected adolescent period. As stated above, each adolescent passes through three stages, early adolescence, mid-adolescence and late

adolescence. Whereas most adolescents pass through all these stages continuously and spontaneously, many of them confront problems and all of them experience certain critical concerns.

Most of these problems and concerns not only impact the adolescents as individuals but also have significant public health implications. Adolescents have certain well-defined needs which are now increasingly being recognised. We need to address the identified risk factors and holistically address the needs of the adolescents to make a dent on these and other public health concerns. It is important to recognise that many of the identified risk factors can be understood, and their impact reduced or even neutralised only when adolescents are empowered by making them well-informed and, developing in them, relevant life skills. There is growing evidence that access to age and sex appropriate information and health and counselling services is necessary; however, information alone is not sufficient to prevent problems. In addition to information, they need life skills to translate their knowledge into informed decisions, in order to remain healthy. It is to be remembered that good health among adolescent is important for healthy motherhood. Healthy motherhood leads to healthy children, and, healthy children grow into healthy adolescents. This completes the life cycle.

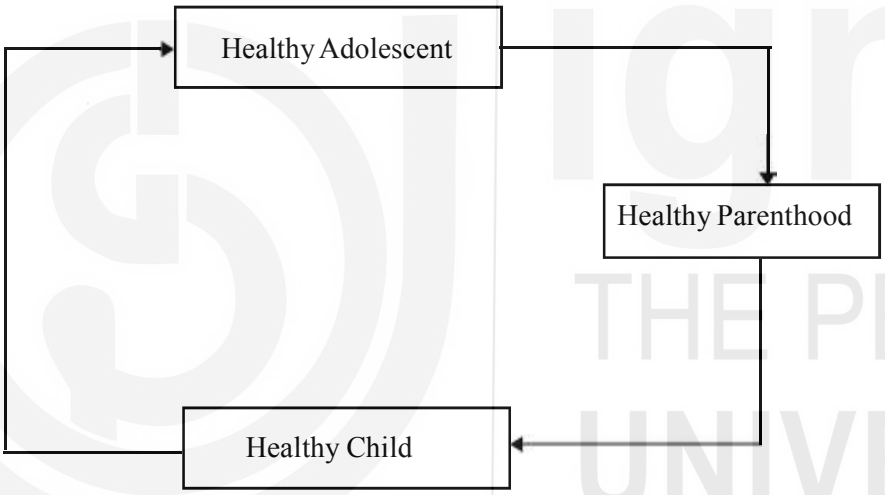

Figure-1: Life Cycle Approach

7.3.2 Importance of Adolescent Health Care

The general impression that adolescents are healthy people is somewhat wrongly placed. In fact, studies have come out with facts about problems related to adolescent health. We need to pay attention to the health needs of adolescents for the following reasons.

a) Reduce incidence of deaths and diseases, now and during their future lives.

b) Ensure that the rights of adolescents to health care, especially reproductive health care are well-protected.

c) Ensure that this generation of adolescents will, in turn, safeguard the health of their own children.

d) Influence the health-seeking behaviour of adolescents as their health status will be central in determining the nation's health, mortality and morbidity ~~in them~~ and the population growth scenario in the country.

e) Focus on public health challenges for adolescents that include adolescent pregnancy, excess risk of maternal and infant mortality, sexually transmitted infections (STIs) and reproductive tract infections (RTIs), and the rapidly rising incidence of Human Immuno-Deficiency Virus (HIV) infection in this age-group.

f) Make sure that adolescents do not suffer from malnutrition and anaemia. Anaemia, especially among adolescent girls, can get worse during pregnancy. Ill-health among adolescent girls has profound implications for maternal, neonatal, and infant mortality

g) Guarantee access to sexual and reproductive health services to all adolescents as a human right, based on the equality of men and women.

In this section, you have studied the concept and phases of adolescence, importance of adolescent health care, and the life cycle approach to adolescent development. Now, answer the questions given in Check Your Progress-1.

Check Your Progress 1

Note: a) Write your answer in about 50 words.

b) Check your answer with possible answers given at the end of the unit

1) What are the different phases of adolescent period?

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2) What is the significance of adolescent health?

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3) What is the life cycle approach?

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7.4 PHYSIOLOGICAL ISSUES OF ADOLESCENCE

Adolescence is the period during which accelerated physical growth and development occur. Prior to this phase, children go through a brief period known as pubescence, which encompasses the physical changes that lead to puberty. A sudden increase in the activity of the pituitary gland starts production of sex hormones which are known as progesterone and oestrogen in females and testosterone in males. These hormonal changes result in the development of secondary sexual characteristics among both male and female children.

7.4.1 Physical Growth and Development in Males

The physical growth and development that occur in adult males are outlined below.

i) **Growth spurt**: The growth related changes occur when a boy is around 12 years of age and are observed in the growth of arms, legs, and penis. He also gains weight. The age for completion of this growth ranges from 12 to 16 years. The spurt in height occurs relatively later in boys than in girls, between ages 11 to 13 years. The body also fills out and changes shape. A boy's shoulders grow wider and the body becomes more muscular. A bit of breast growth on the chest is also noticed. This is normal and goes away for most boys by the end of puberty.

ii) **Growth of testes and scrotum**: The growth of testes and scrotum usually begins between the ages of 10 to 13 years. The development continues through most of puberty and is completed sometimes between the ages of 14 to 18 years. Along with increasing growth of the testicles, reddening, and wrinkling of scrotal skin occurs. The testes are the male reproductive glands and produce sperms and ~~the~~ male hormones. With the generation of sperms, males become capable of fathering a child.

iii) **Straight pubic hair appearance**: The appearance of pubic hair around the penis and scrotum is usually an early event during puberty. It occurs during the ages of 10 to 15 years. Pubic hair becomes darker, coarser and curlier as it spreads over the scrotum and higher up the abdomen. Straight pubic hair appears before the first ejaculation (nocturnal emission), but pubic hair becomes kinky after this milestone is reached. The first ejaculation usually occurs about a year after testicular growth.

iv) **Voice change**: During the adolescence period in boys a significant development in the form of deepening of the voice happens due to the enlargement of the larynx, also known as the voice box. The production of testosterone in boys causes the larynx to grow and the vocal cords to get longer and thicker. As the body adjusts to the changes, the voice may "crack" or "break". But this process lasts only for a few months. Once the larynx has finished growing, the voice will not make unpredictable, funny noises any more. The deepening of the voice occurs relatively late in adolescence and it is often a gradual process.

v) **Growth of body hair**: Body hair generally appears a couple of years after the growth of pubic hair. The hair grows on the chest, the armpits and on the face. It is one of the body's many ways of telling that the boy is entering adolescence.

vi) **Activation of oil and sweat glands**: Oil and sweat glands are activated and this occurrence leads to the development of body odour and the appearance of acne. Body odour and acne are common concerns for many adolescents.

vii) **Growth of facial hair**: Facial hair begins to grow at about the time the auxiliary hair appears. There is a definite order in which the facial hair (moustache and beard) appear. To begin with the facial hair, it grows at the corners of the upper lips. Then these spread to form the moustache over the entire upper lip~~s~~. This is followed by the appearance of hair on the upper part of the cheeks and the area under the lower lip~~s~~. These eventually spread to the sides and lower border of the chin and the rest of the lower face.

7.4.2 Physical Growth and Development in Female

The physical growth and developments that occur in girls are given below.

i) **Growth spurt**: The growth spurt among girls usually starts at about 10 years of age and peaks at 12. It ends at around 14 years of age. Any further noticeable growth in stature stops at 18. At the end of the growth the average girl of 14 years already reaches 98 per cent of her adult height. Besides, the body of a girl usually becomes curvier. Girls also gain some weight.

ii) **Breast budding**: With the onset of puberty, breast development begins among girls. This starts between 8 to 13 years and is completed between 13 to 18 years, though in some cases a girl's breasts may continue to grow in her early 20s.

iii) **Growth of bony pelvis**: Girls have a wider pelvic outlet at birth, so that the natural adaptation for child bearing is present in them from ~~the~~ a very early age. The growth of the bony pelvis primarily involves the widening of the pelvic inlet and broadening of the hips.

iv) **Pubic hair appearance**: Pubic hair begins to grow between 11 to 12 years of age and the growth is completed by 14. Pubic hair appears after the period of maximum growth in height. This development indicates that the first menstruation is approximately 6 months to 1 year away.

v) **Growth of body hair**: Another physical change that occurs among adolescent girls is the growth of underarm hair and coarser body hair. The ultimate amount of body hair an individual has seems to depend largely on heredity.

vi) **Activation of oil and sweat glands**: The activation of glands causes the appearance of acne and development of body odour among girls. This has been explained above in the section on male physical growth and development.

vii) **First menstrual period or menarche**: Menstruation is a monthly event that happens in every woman. It is a normal function of a healthy female body and is also called menarche. Generally, the age range for menarche may vary from 9 to 18 years. It usually begins 18 months to 2 years after the start of breast development. The ovaries produce ova (egg cells). Each of the two ovaries holds thousands of egg cells which are tiny, no bigger than the tip of a pin. During the menstrual cycle, one ovum matures and ripens every month and is released by the ovary. This is called ovulation and it occurs around mid-cycle. The ovum travels down the fallopian tubes into the uterus. Before the ovum leaves the ovary, the uterus builds up its inner

lining with extra blood and tissue. If it meets with sperm in the way, it is fertilis~~z~~ed and conception takes place. But when it is not fertili~~z~~sed, the uterus no longer needs the extra blood and tissue. The uterus, therefore, begins shedding its lining and blood flow starts. Menstrual flow consists of blood, mucus, and fragments of lining tissues. In India the average age of the first menstrual period is 13.7, and it is important to note that this age is gradually advancing. Menstruation occurs at an average interval of 28 days + 3 days. It lasts for about 2-3 days and in some cases 4-5 or 7-8 days.

viii) **Completion of the growth of uterus and vagina**: Although the growth and development of the uterus and vagina start early, their growth is the last to be completed. The musculature wall of the uterus becomes larger and elaborate. This is designed to accommodate the fetus during pregnancy, as well as to expel ~~it~~ the fully developed baby during childbirth. The vagina becomes larger and its lining grows thicker. At birth, the ovary is a fairly complete organ.

7.4.3 Emotional and Social Changes

Adolescence is often described as a period of great excitement and emotional development. The changes that take place in adolescents result in sudden upsurge of sex feelings in them. Growing adolescents may experience sexual excitement from simply watching and being near to someone they are attracted to. It is a time, also, of frequent shifts of moods for most adolescents. Discomfort and concern about changes in their bodies and feelings may cause emotional stress. Some of them become irritable, restless, angry, and tense due to hormonal imbalance. The whole process is presumed to be emotionally stressful and give rise to the types of behaviour described below.

i) **Pre-occupation with body image**: Body image is an individual concept of how one's body appears to self and others. It also refers to the way a person feels about his or her physical appearance. Although the size, shape, colour of skin, height and some other characteristics of the body are mainly determined by heredity conditions and natural environment, the formation of the body image is influenced by the socio-cultural factors. The media and the role models promoted by electronic media in particular, have a predominant impact on the concept of body image of adolescents. Many of them feel concerned, if the shape and size of some part of their body is not in consonance with their image of an ideal man or woman.

ii) **Desire to establish own identity**: At this stage adolescents try to define themselves and establish their personal identity. Personal identity is the awareness one has of oneself as a consistently whole person. The establishment of identity is a gradual process. As adolescents mature physically, they normally develop a stronger sense of personal identity developed during early childhood. They tend to assert and take their own decisions about their needs, interests, abilities, and vocations. During this phase of experimentation, adolescents are expected to develop a gender role identity, a positive body image and a sense of self-esteem and self-confidence

iii) **Other critical changes**: Besides other critical changes such as, fantasy or day dreaming, attention seeking behaviour, sexual attraction, curiosity and inquisitiveness, concrete thinking, self-exploration, and evaluation,

distancing from parents, and conflicts with family over control, there is dependence on peer group which defines behavioural codes and the formation of new relationships which have decisive impact on adolescents.

7.4.4 Development and Health Implications during Adolescence

Adolescents are often under psychological stress as they become more and more independent and assertive as part of their growing up. They also undergo sexual development and often end up with the risk of unprotected sex resulting in (i) diseases related to reproductive tract infections and sexually transmitted diseases, and (ii) risk of unwanted pregnancy and induced abortion.

The following chart may help you to visualize some of the health implications during the adolescent period due to the physical changes taking place within the body.

Chart on Physical Changes & Health Implications during the Adolescent

Physical Changes	**Health Implications**
Normal growing-up	Anxiety and tension
Increase in height and weight	Increase nutrition requirement, if inadequate, malnutrition and anaemia
Breasts development	Stooping of shoulders, poor posture, back pain
Skin become oily	Acne
Desire to be thin, have a good figure	Protein-energy malnutrition, anaemia, stunting
Sexual Development	**Health Implications**
Desire to have sex	Unsafe sex leading to unwanted pregnancy STIs, HIV; need of health education and services
Ejaculation	Fear, guilt, emotional problems
Menstruation	Dysmenorrhoea (pain), menorrhagia (heavy bleeding), anaemia, lack of menstrual hygiene may lead to infections.
Emotional Changes and Social Development	**Health Implications**
Development of identity	Confusion, moodiness, irritability~~tion~~
Very curious	Experimentation, risk-taking behaviour
Peer pressure	Effect on lifestyle: a) unhealthy eating habits leading to obesity b) Smoking and alcohol use leading to ill-health c) Rash driving, accidents

7.4.5 Special Attention Group

It is worth mentioning that adolescents are a diverse group who undergo various types of psychological, physiological and social changes. The concerns of different

groups of adolescents may not be the same. For instance, boys and girls, married and unmarried, urban and rural adolescents have different issues of interest and concern. Social circumstances can influence personal development. The sexual and reproductive health service needs of adolescents are correspondingly heterogeneous. For instance, adolescents who are not yet sexually active have different needs from those who are sexually active. Similarly, needs vary from those experiencing unwanted pregnancies or infection or those who have been forced into sexual relationships. It is, therefore, important to be aware of the diversity of sexual and reproductive health needs of adolescents and tailor our responses as heath educators to their specific needs. In addition, adolescents may also be categorised as:

i) out of school adolescents and street adolescents

ii) sexually abused adolescents

iii) commercial sex workers

iv) adolescents with mental and physical disabilities

v) orphan adolescents, i.e., those in foster care and institutions

vi) adolescents in conflict with the law

vii) working adolescents

7.5 ADOLESCENT HEALTH PROBLEMS AND HEALTH EDUCATION

Some health problems during adolescence are outlined below.

i) **Sexual and reproductive health problems**: Adolescents confront a number of sexual and reproductive health problems that have been ignored for a long time. Quite a few of them enter into irresponsible sexual relations, one of the major risks of which has been the spread of HIV/AIDS among adolescents and young people. Over 35 per cent of all reported AIDS cases in India occur among young people in the age-group of 15 to 24 years and more than 50 per cent of the new HIV infections occur also among young people (NACO, 2005). Yet another problem, particularly among girls, is sexual harassment in public spaces, institutions of education, in and around home, and, at the workplace is a well-established fact. Child abuse, bullying, and ragging are also common, and, more so among boys. This is reinforced by the gender stereotype that men/boys are naturally or hormonally violent and, hence, justified in exerting force over women/girls.

ii) **Complications of adolescent pregnancy:** Biologically, an adolescent girl's body which is still in the developing stage is not prepared to take on the added strain of pregnancy and childbirth. The pelvic bones are not mature enough to bear the burden of delivery. As it is, her body requires special nutritional needs during adolescence; and, it becomes an additional strain on a young girl, as she may not be mentally prepared for motherhood with all its added responsibilities, which could result in problems like depression. Some of the complications related to pregnancy that occur more commonly in adolescents than in adults are pregnancy induced hypertension and anaemia.

iii) **Substance abuse**: Tobacco and alcohol use among young people is a matter of concern. The projected number of drug abusers in India is about 3 million, and most are in the age-group 16 to 35 (UNODC, 2003). Nearly 11 per cent were introduced to cannabis before the age of 15 years and about 26 per cent between the age of 16 to 20 years (UNODC and the Ministry of Social Justice and Empowerment, 2004). Findings from NFHS-3 show that 40 per cent of young men and 5 per cent young women in the age-group of 15 to 24 had ever used tobacco, while 20 per cent of young men and 1 per cent in the age-group of 15 to 24 of young women had ever consumed alcohol.

iv) **Injuries and accidents:** A major threat to adolescent health is injury. Apart from the significance of being a leading cause of death in young people, injuries are also recognised as a major contributory factor to morbidity, disability, and health care and other costs such as loss of future work and quality of life. Among unintentional injuries, fatalities from road traffic accidents (RTA) are quite prevalent.

v) **Acute and chronic diseases:** The diseases like asthma, TB (tuberculosis), diabetes, etc. also affect adolescent health.

7.6 ROLE OF HEALTH CARE PROVIDERS AND ADOLESCENTS HEALTH

Health care service is very essential for adolescents. Health services can help to meet adolescent needs, only if they are part of a comprehensive programme. Some of the factors that facilitate adolescent health are outlined below.

i) Safe and supportive environment that offers protection and opportunities for development, such as education, nutrition, physical development, mental/ emotional development, vocational training

ii) Information on the adolescent growth process and training in skills to understand and interact with the outside world

iii) Training and development of life skills for problem identification, decision making, and problem solving and negotiation skills

iv) Health services and counselling to address health problems and to deal with personal difficulties. Health service providers cannot meet all these needs alone. They can join or create networks that act together and maximise resources

v) The inter-sectoral approach is best – education and health sectors should work together

Other essential conditions required for the effective health care services delivery to adolescents are presence of trained counsellors, adequate space and privacy, affordable services, availability of accurate information, treatment with dignity and support, and non-judgemental service providers.

7.6.1 Role of a Healthcare Provider in Promotion of Adolescent Nutrition

The health care provider holds a key position in advising the adolescent about good nutrition. He should promote healthy lifestyle, physical exercise and eating

practices. Activities like individual nutritional assessment, detection and treatment of micronutrient deficiency, management of severe under-nutrition, antenatal nutrition education and management of clinical condition should be undertaken in an adolescent clinic or even in schools and communities. Remember that the nutrition of an adolescent is a major determinant of the future health of the societies in which they live. A summary of education on nutrition for adolescents would include the points below.

i) Highly fatty foods should be avoided.

ii) Adolescents should be encouraged to exercise their choice and responsibility of foods.

iii) The diets of girls needs special emphasis on iron rich food, like leafy vegetables, whole gram, cereals, dry fruit, egg, jaggery etc. The iron requirement is high because of menstrual losses and growing phase.

iv) Adolescents also need high amounts of calcium in diet because their bones are growing and getting mineralized.

7.6.2 Role of Healthcare Providers for Adolescent Health Care at Community Level

Health care providers must educate communities to provide education on the importance of adolescent nutrition, and, influence adverse socio-cultural practices. Education regarding balanced diet for both boys and girls should focus on the following:

i) importance of nutrition for adolescents themselves and of their offsprings

ii) good food selection and safe cooking practices

iii) concept of kitchen gardens, where green leafy vegetables, etc., can be grown at a very low cost

iv) awareness in communities of factors that contribute to malnutrition and nutritional anaemia, especially in girls

v) awareness in communities about the role of malaria and hookworm infestation in causing and aggravating anaemia.

Table 7.1: Proposed Service Delivery Provision at the L-evel of Sub-Centre and PHC/CHC

Level of centre care	Service Provider	When	Services
Sub-centre (SC)	HW (F)	During routinesub-centreclinics	a. Enrol newly-married couples b. Provision of spacing methods c. Routine ANC care and institutional delivery d. Referrals for early and safe abortion e. STIs/HIV/AIDS prevention education f. Nutrition counselling including anaemia prevention (management) g. TT Immunisation

Primary Health Centre (PHC)/ Community Health Centre (CHC)	Health Assistant (F)/LHV Medical Officer	Once a week: Teen Clinic will be organiszed at ---PHC for 2 hours	a) Provision of contraceptives b) Management of menstrual disorders c) RTI/STI preventive education and management d) Counselling and services for pregnancy termination e) Nutritional counselling and treatment of anaemia f) Counselling for sexual problems g) TT Immuniszation

In this section, you have studied the physiological issues of adolescence, adolescent health problems and health education, and the importance of health services for adolescents. Now answer the questions in Check Your Progress 2.

Check Your Progress 2

Note: a) Write your answer in about 50 words.

b) Check your answer with possible answers given at the end of the unit

1) What health problems are experienced during adolescence?

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2) What are the major complications of adolescent pregnancy?

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7.7 AWARENESS OF ADOLESCENT HEALTH CARE

The adolescent stage has immense potential which must be educated to utilise their energy for productive purposes. Often this energy is wasted in violence and non-productive activities. Through *Yoga* it can be transformed for their growth and development. Here, you will study two major components (a) significance of yoga for adolescents and (b) the role of extension educator to promote adolescent health both for male and female adolescents.

7.7.1 Significance of Yoga for Adolescents

As you have read in the earlier section, adolescent stage indicates major changes in physiological conditions and requires adolescents immense energy. Channelling this energy in the right direction, awareness about adolescent health care can play a significant role in their rapid growth and development. There are multiple benefits to reduce stress by rejuvenating through various *asanas* and breathing based *yogic kriyas.* Studies reveal five-dimensional benefits -- physical fitness, emotional strength, educational development, mental calmness, and social integration. In Indian tradition *yogic kriya* was part of education system which has been forgotten with the influence of modernisation and westernisation. The following benefits are suggested for adolescents and teenagers, through yoga *asana*.

I) **Management of Body Mass Index (BMI) –**Changed food habits and lesser physical activity resulted in obesity and enhanced other disorders related to collection of unsaturated fat in body. Teenagers can also gain weight due to hormonal changes. The practice of yoga can prevent weight gain. *Badhakon asana* (butterfly pose) improves body mass index. It has also been observed that stress leads to over eating which results in weight gain. Similarly, *adho mukha úvânâsana* (downward facing dog), *tadasana* (mountain pose), *virabhadrasana* (warrior pose) enhances physical and emotional capability. Yoga engages you physically, and in a safe manner when practiesed right. It also helps to build bone and muscle strength.

II) **Promotes Better Posture and Self Image–** Posture is an indicator of good health and attractive personality which adolescents aspire to be. Yoga enables one, through *agnistambh asana* (fire log pose), *taadasana* (mountain pose), *vrikshasana* (tree posture), *navasana* (boat pose) to have better body posture. School going children who carry heavy backpacks are prone to bad posture and spine problems. These yoga asanas are helpful to maintain an upright posture. It is also useful for self-image particularly among teenagers. Yoga a*sana* like, *utthita trikonasana* (triangle pose), *balasana* (child's pose), *paschimottan asana* (seated forward bend), are very useful for good posture. These Yoga *asanas* promotes self-awareness and self-image, which helps teenagers to overcome their poor self-image.

III) **Improved Mood And Cognitive Functioning –** Adolescent stage ~~is~~ brings rapid changes in cognitive functioning (memory, academic performance) and social relationships, influencing~~es~~ their mood and motivation. For effective output of these functions few asanas are very supportive, such as, *bhujang asana* (cobra pose).~~i~~It also ~~improves~~ removes stress, anxiety, and fatigue. A few other breathing *asanas* also improve an adolescent's performance in tests, study and overall cognitive development.

IV) **Emotional Strength and Stress Management –** Today stress is a common challenge for all, particularly more among teenagers. Yoga is considered a stress reliever. A few *asanas* like *Uttan asana* (standing forward bend), *utthita trikon asana* (triangular pose), *shavasana* (corpse pose) are very effective along with breathing techniques to regulate not only energy in the body but also stress management.

V) **Improves Breathing and Concentration –** The breathing exercises in yoga improve concentration. *Pranayam*, *badhakonasana* (butterfly pose), *anulom-*

pratiloma kriya are important breathing exercises and strengthen emotional well-being. *Pranayam* teaches five different types of right breathing techniques- *samanya pranayam* (watching breath inhalation and exhalation), *ujjayi pranayama* (victorious breath), *nadi shodhana pranayama* (alternate-nostril breathing), *kumbhaka pranayama* (breath retention), *kapalabhati pranayama* (breath of fire or skull-shining breath). The right breathing exercises / *asana* prepares teenagers to promote mindfulness and complete relaxation. As they grow into healthy adults, teenagers who practice yoga will also be able to enjoy happiness with concentration and inner wellness.

7.7.2 Role of an Extension / Health Educator in the Promotion of Adolescent Health

The perceived role of an extension / health educator in the promotion of adolescent health in general and women's health in particular is given below.

i) **Spreading messages about the ill-effects of adolescent pregnancy:** This would include various aspects of pregnancy and childbirth which carry more risks in adolescents than in adults, because adolescent girls are not yet mature physically and emotionally for motherhood. The higher maternal mortality in adolescents is among those aged 15 years and under. The risk of poor pregnancy outcome is more common in adolescent pregnancy than among adults. Babies born to adolescent mothers have a higher risk of being of low birth weight. Unintended pregnancy among both married and unmarried girls may prompt them to resort to illegal and unsafe abortions. This is more pronounced in unmarried girls. Pregnancy and the responsibility of child-rearing could reduce the ability of the girl to continue with her education and employment opportunities.

ii) **Spreading messages about prevention of anaemia among adolescents:** There are five essential messages for prevention of anaemia during adolescence.

   a) educate mothers regarding balanced diets for both boys and girls
   b) create awareness in communities about factors contributing to malnutrition and nutritional anaemia in girls
   c) involve other functionaries like AWW, school teachers, ANM/ male workers to identify and tackle nutritional problems
   d) create awareness among communities about the role of malaria and hookworm infestation in causing and aggravating anaemia
   e) promote management of malaria, hookworm infection and tuberculosis etc.

iii) **Spreading messages on signs and symptoms of diseases of reproductive tract. These would comprise:**

   a) for both adolescent boys and girls: Genital sores, burning sensation while passing urine, swelling in the groin, itching in the genital region
   b) for adolescent girls: unusual vaginal discharge, pain in lower abdomen, pain during sexual intercourse
   c) for adolescent boys: discharge from the penis.

iv) **Spreading messages for prevention of RTIs and STIs:** This would include issues such as

a) maintaining proper genital hygiene and menstrual hygiene is important for girls

b) practicing responsible sexual behaviour by practicing safe sex by using contraceptives

c) by not neglecting any unusual discharge (from private parts of the body)

d) seeking help early

e) ensuring complete treatment of self and sexual partner's treatment

f) opting for institutional delivery or home delivery by a trained birth attendant

g) availing safe abortion services

h) assisting in monitoring of utilis~~z~~ation of health services by assessing increased number of adolescents coming to clinic, reduction in teenage pregnancy, and increase in ante-natal care coverage ~~in the~~during pregnancies.

7.8 LET US SUM UP

Adolescence is the phase of life which is characteris~~z~~ed by physical, psychological, and behavioural changes bringing about transformation from childhood to adulthood. These changes that occur during adolescence are vital to their development as adolescents are ~~at~~ vulnerable to health risks and their implications due to their nature of experimenting and exposure to limited information. It is important to identify health related issues and the concerns of adolescents for investing in adolescents' health and development so as to make them responsible adults. The health services need to be gender-sensitive and more empathetic towards adolescents to deliver adolescent-friendly reproductive and sexual health services.

7.9 REFERENCES AND SELECTED READINGS

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3) Central Statistics Office (2017) Youth in India, Social Statistics Division, Ministry of Statistics and Programme Implementation, Government of India, New Delhi.

4) UNFPA (2017) Every Woman Every Child, Technical Guidance for Prioritizing Adolescent Health, Sustainable Development Goals, UNFPA Report, web site-https://www.unfpa.org/sites/default/files/pub-pdf/UNFPA_EWEC_Report_EN_WEB.pdf.

7.10 CHECK YOUR PROGRESS: POSSIBLE ANSWERS

Check Your Progress 1

1) What are the different phases of adolescent period?

Answer: Phases of adolescent age-group are: (i) Early adolescence (10 to 13 years): is characterised by a spurt of growth, and the beginnings of sexual maturation. (ii) Mid-adolescence (age 14 to 15 years): the main physical changes are completed, while the individual develops a stronger sense of identity and relates more strongly to his or her peer group, although families usually remain important. Thinking becomes more reflective. (iii) Later adolescence (age 16 to 19 years): the body fills out and takes its adult form, while the individual now has a distinct identity and more settled ideas and opinions.

2) What is the significance of adolescent health?

Answer: We need to pay attention to the health needs of adolescents to: Reduce death and disease, now and during their future lives. Deliver on the rights of adolescents to health care, as adolescents are central in determining India's health, mortality and morbidity and the population growth scenario in the country. Ill-health during adolescence has profound implications for maternal, neonatal, infant and child health.

3) What is the life cycle approach?

Answer: The life cycle approach deals with life skills, which are a group of psycho-social competencies and interpersonal skills that help people make informed decisions, communicate effectively, and develop coping and self-management skills, to lead ~~a~~ healthy and productive lives. Life skills may be directed toward personal actions or actions toward others, as well as to actions to change the surrounding environment to make it conducive to health.

Check Your Progress 2

1) What health problems are experienced during adolescence?

Answer: (i) Sexual and reproductive health problems (ii) Nutritional problems (iii) Substance abuse (iv) Injuries and accidents (v) Acute and chronic diseases (like asthma, TB (tuberculosis), diabetes, etc.)

2) Which are the major complications of adolescent pregnancy?

Answer: Pregnancy-induced hypertension, anaemia, risk of mother-to-child transmission (in case of HIV patient), pre-eclampsia (complication of pregnancy), bleeding, malaria, etc.

UNIT 8 CARE OF ELDERLY

Structure

8.1 Introduction

8.2 Concept of Elderly

8.3 Scenario of Elderly: Global and Regional

8.4 Health Problems of the Elderly

8.5 Who Cares for the Elderly in India?

8.6 Policy and Programmes for the Elderly

8.7 Challenges Before the Elderly

8.8 How to Improve Health Status of the Elderly

8.9 Let Us Sum Up

8.10 References and Suggested Readings

8.11 Check Your Progress: Possible Answers

8.1 INTRODUCTION

Elderly are the senior citizens of the society and are respected in the society and family in India. They have contributed substantially to the well-being of their family, society, and the nation and still continue to do something or the other. They are generally considered as a storehouse of knowledge and wisdom. In their old age when they become physically weak and disabled, the duty of family, society and government is to take care of them, while maintaining their dignity. Not much was done earlier in India but now they are becoming a focal point of the public concern, public policy and research. The forces of social change have not yet penetrated Indian society as it has happened in the industrialised western countries. Though there are some changes in technology, fashion, lifestyles, housing, medical sciences etc. the Indian traditional spirit is still intact. Either because of the inherent social bonding of people or it is that India has not developed so much that the elderly could be provided high-tech assisted care in nursing homes and old age homes; so there is only the family and related network to take care of the elderly. Looking after the elderly in general and in condition of disability in particular is considered a good deed in Indian culture. Due to increased income of the average households in India, the elderly are living more comfortably today than 100 years ago (Shah, 1999).

Though the population of elderly all over the world is increasing very fast but in India this rate is slow. The population of children (6-14 years) is still much higher than the population of the elderly (60 years and above). They suffer from many physical health problems and disabilities in their old age which requires proper medical care. The most difficult stage of older persons' life is the state of complete disability when they become bedridden. A permanent care-giver is required for that period. The elderly who are single and destitute have to face more problems. The elderly are not a homogeneous group rather they are divided as per their socio-economic status. Their problems are not the same; these are also graded as per their social status. The poor have to face more problems. The government has introduced several policies and programmes for elderly such as old age

pension, food security, concession in trains and buses, and a few other facilities but yet those facilities are not available to all elderly. Care of the elderly is a big challenge in the present society but it has to be done by involving families, societies and government.

After going through this unit, you will be able to:

a) analyse the meaning, concept and theory of ageing,

b) describe various issues and problems faced by elderly,

c) explain the elderly demographic status and its changes in India and worldwide,

d) discuss the disability and health of the elderly,

e) explain various challenges of the elderly and their solutions.

8.2 CONCEPT OF ELDERLY

The elderly are referred by several terms such as aged, ageing, older persons and senior citizens. Ageing refers to the process of growing old, maturing, and the changes that occur as the result of the passing of time. It is a lifelong and inevitable process. It can be viewed as a continuum of the whole life span, where there is conception on one end and death on the other. But socially the individuals are not considered old until they produce noticeable effects such as balding, greying hair, wrinkling of skin, weakening of sensory organs, wearing bifocals, etc. (Crondall, 1980). According to J. K. Barren (1959), "Aging refers to the regular changes that occur in mature genetically representative organism living under representative environmental conditions as they advance in chronological age." Aging is experienced as an inevitable and life long process.

8.2.1 Ageing

The elderly may be seen in a frame of reference. One of the frames of reference is chronological age while others are social, psychological, temporal and cultural. But unfortunately, there are negative stereotypes about the aged which relate to physical and mental deterioration and disorders. Older people are generally branded as unproductive, cautious and asexual. Myers (1985) has elaborated in terms of various aspects such as biological: birth to death; psychosocial: social position, roles played, and status in the family when the seniors or grandfather or grandmothers are considered old or aged. However, due to many administrative reasons chronological age is used to identify a person as elderly. In India, those individuals who have crossed 60 years of age are considered as old persons. However, the age-criteria of defining the older person varies from place to place and country to country. The Government of India provides Railway concession to women at the age of 58, but to men at the age of 60, considering them as senior citizens. However, there is a general consensus among the policy makers and social scientists that 60 years is a good criterion to define old age for many reasons and is officially used everywhere (Kohli, 1996). In the USA, 65 years and above is considered as old age.

The study of aging or the aged is done under many disciplines i.e. in psychology, sociology, social work, anthropology and medical science but a separate discipline emerged in 1930s, called Gerontology. Gerontology, or the study of aging, is a broad term and encompasses the psychological, socioeconomic and physical

aspects of aging (Read, 1960). Overall it is the study of the whole person and ageing processes as reflected in all aspects of life functioning –biological, psychological and social factors are used in defining ageing. To the extent that gerontology studies socio-structural phenomena and their changes in the processes of ageing, they concentrate on the possible effects on the individual level or on the socio-psychological level. Lars Tornstam (1982) explains that gerontologists have to consider that single individual, groups of individuals and social institutions participate in a ongoing dialectic process where social institutions are as much affected by the ongoing group processes in society as vice versa.

Susan Rechard (1962) identified five categories of older persons based on their responses to the ageing process:

a) Mature type: Free from conflict, accepting change, no regrets for the past.

b) Rocking chair type: Passive, welcoming a change to rest and be free of responsibility.

c) Armoured type: Having a highly, developed set of defences to protect themselves against the anxieties of aging.

d) Angry type: Blaming others, unable to accept their aging status.

e) Self-haters: Blaming themselves and seeing life as disappointing.

8.2.2 Process and Theories of Ageing

Low level of functional capacity in an elderly person is not necessarily the result of old age or the diseases that are part and parcel of old and being ill. However, chronic conditions are more common in later part of life. Different aspects of the body begin to decline at different times. Thus, biological age is not a completely satisfactory concept. For the purpose of studying the process of ageing on should look at the elderly person in his/her totality. Therefore we have to study the biological, psychological, social and spiritual aspects, as well as the political and functional aspects of ageing.

The aged persons are viewed by several approaches and theories. The 'disengagement theory' defines an inevitable withdrawal or disengagement, resulting in decreased interaction between the aging person and others in the social milieu (Havinghurst, R. J, 1952). The 'continuity theory' is based upon the premise that the various stages of the life cycle are characterised by a high degree of continuity (Dhillon, 1992). Age Stratification Model Theory is a new theoretical perspective which views age like social class as another criterion based on which societies are stratified (Riley MV and Foner A, 1968). Societies arrange themselves into hierarchies, age strata composed of cohorts or categories of people born during the same period.

8.3 SCENARIO OF ELDERLY: GLOBAL AND REGIONAL

Demographic Change

To see the elderly through the changes in the ratio of the population of children, adult and old is the demographic perspective. The demographic changes in India are slow in comparison to the industrialised western countries. If we locate the proportion of the elderly population and the population of children we can see

the differences. All over the world the elderly population (60+ years of age) is increasing and the population of children (0-14 years) is decreasing. Japan is has the highest elderly population in the world followed by Italy and Greece (Table: 8.1).

Table: 8.1: Percentages in Top Ten Countries of Elderly People

Serial No.	Countries	Percentage of elderly
1	Japan	26.30
2	Italy	22.40
3	Greece	21.40
4	Germany	21.20
5	Portugal	20.80
6	Finland	20.50
7	Bulgaria	20.00
8	Sweden	19.90
9	Latvia	19.40
10	Malta	19.20

Source:http://www.worldatlas.com/articles/countries-with-the-largest-aging-population-in-the-world.html (Retrieved on August 25, 2016)

However, the proportion of elderly (60+) population in India is relatively small, which is increased from 6.8% in 1991 to 8.6% in 2011, i.e., less than 2% increase over two decades. In India the age of senior citizen is 60 years and above, so the elderly population is also counted on that ground though in other countries it is being counted at the age of 65 and above. As per the report of the Census of India 2011 total elderly population was 103.8 million. With the shifting demographic pattern, the proportion of elderly can be expected to increase rapidly in the coming decades. In India, the populations of children and younger age-groups are much higher than the elderly population. In last three successive Censuses of India it could be seen that largest proportion of age-groups has been between 15 years and 59 years (Tables 8.2 & 8.3).

Table: 8.2: Percentage of Population in selected age-groups in India: 1991 to 2011

Age group (years)	Census 1991[1]	Census 2001[2]	Census 2011[2]
0-4	12.2	10.7	9.3
5-9	13.3	12.5	10.5
10-14	11.8	12.1	11.0
15-59	55.4	56.9	60.3
60+	6.8	7.4	8.6
Age not stated	0.6	0.3	0.4

1) Excluding Jammu & Kashmir,

2) Excluding Mao Maram, Pao Mata and Purul Sub Divisions of Senapati district of Manipur

Source:http://www.censusindia.gov.in/2011census/Age_level_data/Age_level_data.html (Retrieved on August 25, 2016)

Table: 8.3: Population of selected age-groups in India: 1991 to 2011 in millions

Age group (years)	Census 1991[1]	Census 2001[2]	Census 2011[2]
All ages	838.6	1028.6	1210.6
0-4	102.4	110.4	112.8
5-9	111.3	128.3	126.9
10-14	98.7	124.8	132.7
15-59	464.8	585.6	729.9
60-99	56.5	76.5	103.2
100+	0.2	0.1	0.6
Age not stated	4.7	2.7	4.5

** 1- Excluding Jammu & Kashmir state,

2- Mao Maram, Pao Mata and Purul Sub Divisions of Senapati district of Manipur

Source: http://www.censusindia.gov.in/2011census/Age_level_data/Age_level_data.html (Retrieved on August 25, 2016)

Generally the calculation of dependency ratio is based on the calculation of population of children (0-14) plus the population of the elderly (60+) who are considered to be dependents upon the active population of 15-59 years. Calculation of dependency ratio of the elderly in Indian context is somehow different because many elderly continue to work in unorganised or agricultural sectors where there is no retirement age. In addition, child labour is also prevalent. So the notion of dependency is not a sound parameter of judging society's burden of the elderly. The average life expectancy is considered to be 65.6 years at birth in India.

In India the trend is that more developed states have higher percentage of elderly population and less developed states have a lower proportion of older persons. The top five states in which the highest older population is seen are Kerala followed by Tamil Nadu, Punjab, Maharashtra and Andhra Pradesh (Table 4). As, these states are considered to be the developed states of India. Among the five states of India the lowest proportion of elderly is in Assam followed by NCT of Delhi, Jharkhand, Bihar and Jammu & Kashmir (Table 4.4). These states are considered as the poorest in India.

Table: 8.4: Percentage of elderly (60 +) population in Top 5 and Bottom 5 States in India

Top 5 States	Percent elderly	Bottom 5 States	Percent elderly
Kerala	12.6	Assam	6.7
Tamil Nadu	10.4	NCT of Delhi	6.8
Punjab	10.3	Jharkhand	7.1
Maharashtra	9.9	Bihar	7.4
Andhra Pradesh	9.8	Jammu & Kashmir	7.4

Source: http://www.censusindia.gov.in/2011census/Age_level_data/Age_level_data.html (Retrieved on August 25, 2016)

It is also important to note that population ageing in the developing world is accompanied by persistent poverty. Just saying that due to demographic transition the problem of Indian elderly is increasing is not seems to be valid. In India, where there in low productivity, poverty, unemployment, poor health facility, poor welfare infrastructures, and overall low quality of life in comparison to western countries.

After studying this section and reading about the concept of elderly, process of aging and its global and Indian scenario you must be able to evaluate yourself with Check Your Progress-1.

Check Your Progress 1

Note: a) Write your answer in about 50 words.

b) Check your answer with possible answers given at the end of the unit

1) What do you mean by the term ageing?

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2) Describe the important theories of ageing.

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8.4 HEALTH PROBLEMS OF THE ELDERLY

8.4.1 Health, Disability and Care of the Elderly

Health includes almost all aspects of human life- physical, mental, social, spiritual, positive health, ecology of health etc. but in practical terms and in everyday use we mean the physical health- the biological aspect which encompasses diseases, doctors, hospitals, clinics, and medicines.

The health of elderly is an important aspect of life. Physical health includes disability and coping with disability: treatment, care, availability of treatment facility i.e. doctors and caregivers etc. Common health conditions of the older persons are associated with ageing process- the decaying and weakening of the body. Common conditions in older age include hearing loss, cataracts and refractive errors, back and neck pain and osteoarthritis, chronic obstructive pulmonary disease, diabetes, depression, and dementia. Furthermore, as people age, they are more likely to experience several health problems at the same time.

Disability is very common among the elderly. Disability and functionality of elderly are also measured through Activities of Daily Living (ADL), Instrumental Activities of Daily Living (IADL) as well as locomotors disability. The most severe form of disability among the elderly is a state when they are completely bed-ridden and not able to do his/her daily activities such as taking food, going to the toilet, without help of others. For them a permanent care-giver is required. In India it is generally the family members who take care of the elderly in this condition but in the western courtiers there are infirmaries (advanced nursing homes) for the extremely disabled. Such kind of disabled elderly are around 5% in India (Mishra U S, 1993; Ansari H, 2015). Thus, this is the most dreaded state for the elderly and everybody prays to God not to come across such form of disability and wish to die in active age. All security measures are required for this period. That's why everybody is longing for a male child, at least who could provide care in that age of disability.

Several types of disabilities among the older persons are categorised below:

i) Bedridden due to paralysis

ii) Bedridden due to the deformities of old age

iii) Disability with capability of self-care; the elderly can walk with difficulty and can go to the toilet and manage to defecate and urinate.

iv) The elderly can walk or can just manage to go outside the house premises with the help of some supporting tools (mainly a walking stick).

v) The elderly can walk and go to the market and to look after crops with the help of a walking stick.

vi) Complete blindness.

vii) Partial blindness.

Disability could be seen as per the socio-economic status, gender and family structure. Among the poorest and poor more number of severe disabled elderly are found in comparison to the better-off and well-off economically. Among the poorest the disability comes in early age due to lack of quality food and medical treatment. The female elderly have more severity of disability, they are more in number among those with bedridden, blind and even among the severe but they are less among the moderate disables.

Though the highest number of elderly survive in joint and extended families and few are among the nuclear and the single; but the number of the disabled elderly is highest among the nuclear families. The structure of family is related to socio-economic status. Among the poorest, majority of the households are under nuclear families. On the contrary, among the well-off the majority of households come under joint families. Elderly feel more comfortable in joint families and are less prone to disability (Ansari, 2015).

The self-perceived health problems and taking treatment (health seeking behaviour) of the elderly depends on their economic class. The poor report less health problems than the rich. The poorest elderly hardly consider themselves as ill unless they become bedridden but the well-off elderly report themselves as ill while even having a little health problem. The poorest and the poor elderly generally consult the local untrained medical practitioners (Quacks) but the rich consult the trained medical doctors (MBBS, MD) in the towns. Similarly the

causes of not taking treatment are monetary among the poorest and the poor while other reasons were cited by the better-off and well-off elderly.

There are around 8-10% single elderly who have to depend on self. Some of them are issueless- having no children. Those who have no children and have some land or property are cared for by their distant relatives. Some who are totally destitute have to depend on their neighbours, community, caste or clan. For such people, old age homes are required but such facilities are hardly available to them.

8.4.2 Causes of Health Problems of Elderly

The determinants of health of the older persons are many factors such as human biology, environment, ways of living and lifestyles, socio-economic status, health services, welfare measures etc. The status of health of the elderly is reflected through many indicators such as mortality indicators, morbidity indicators, disability rates, health care resources, utilisation rate of health services, indicators of social and mental health, health policy indicators, and indicators of quality of life. Health problems of the elderly are not the health problem of the old age at its cut off age of 60 years but rooted in the maintenance of health from the early years of life. A person's health status at sixty year so age depends on how well he /she has taken care of health, the level of nutrition and the type of lifestyle that a person has had in the early years of his / her life.

Some causes of health problems of the elderly are following:

a) The natural old-age deformity and degeneration of body due to decaying process of the body as the age advances.

b) Poor health services and lack of specialised geriatric care. In India the special geriatrics wards have not been made available as yet except the few in metro cities.

c) In India the older persons are not considered as a separate group with special health needs; rather they are part of the common population and thus provided the general health care services.

d) Poverty and poor quality of life result in ill-health in early life and thus the ageing process is faster and the elderly more prone to diseases in lower income groups.

e) Lake of transport facilities in rural areas to go the hospitals in towns and cities. Transporting the weak and disabled elderly is a big problem. Thus poor households just can't afford hiring private vehicles for the elderly. In the absence of intensive care units at nearby villages or towns older persons die in many cases while going to the hospitals.

f) Lack of social security. Since adulthood, due to lack of proper employment, there is no social security in old age so the maintenance of life in old age is difficult.

8.5 WHO CARES FOR THE ELDERLY IN INDIA?

In India there is a greater role of family and other traditional institutions for the care of the elderly, disabled, children, widows, issueless women etc. though these

institutions are declining and require protection. Either because of the inherent social bonding of the human being in the Indian society or because India has not yet so developed as the elderly could be provided with high tech assisted care in nursing/old age homes so there is only the family which has to take care of the elderly.

Largest number of older persons is cared for in joint and extended families (83.72%) and a few are cared for by nuclear families (8.38%) and single elderly families (7.93%). Within joint families majority of them are cared for by their close relatives (93.4%) such as their sons, daughters-in-law, unmarried daughters, grandchildren, and spouse. A few elderly (4.09%) are cared for by distant relatives such as married daughters, son-in-law, nephew etc. and only 2.51% depend on self. It could be inferred that overall 97.4% elderly within joint families are cared for by their close and distant relatives and only 2.6% elderly are cared for by others (Ansari, 2015). The old age homes could provide shelter and support to the destitute elderly but the destitute are not in a position to get it. Even those who can afford it do not want to stay there because this would imply separation from their family members and forsaking any meaningful engagement.

This is supported by many sociological studies. In India the joint family still exists in many parts of the country and majority of the elderly live in joint families. John Willigen (2000) of the USA, working on issues of ageing in India and the USA says, "In India we have the joint family systems, in the west you have old age homes; India is better." He further explains that on an average, older Indians live in large households compared to the Americans. He concludes that joint families in India are robust and important. Rural to urban migration of the younger generation in India has not much affected the care of the elderly rather the roles of elderly become further important and they look after the women and children at home and provide safeguards to the family. If there is total migration of sons with their wives and children, then there is a problem, but such cases are few.

Various types of other traditional social institutions apart from family such as neighbourhood, community, caste and clans are somehow also contributing to the care of elderly in India. They work as pressure groups for the family members to take care of their elderly. Offering food and water to the elderly is considered to be a means of showing respect to them. Service of the elderly in general and in condition of disability in particular is considered as *punya* (a good deed) in many cultures. The Hindu believes it to be equivalent to a holy dip in the river Ganga, while Muslims believe that the same is equivalent to pilgrimage *Haj*.

8.6 POLICY AND PROGRAMMES FOR THE ELDERLY

Policies and programmes have to be made according to the needs of the elderly, through the measures suited to the local social and cultural context. Many welfare services introduced by the government are not beneficial to the majority of the rural poor elderly. For them there is no meaning of such relaxations as tax benefits, provident funds, gratuity, concessions in air fare and train fare etc. In the era of globalisation and privatisation when the pressures on the families of all classes is increasing and the state is withdrawing its financial support from social welfare, the role of community initiatives, NGOs and individual volunteers become very important. For prioritisation of the policy formulation, it is necessary to find out,

who are the most vulnerable sections in society and who requires assistance first. Roughly, around 49% of the elderly are the poorest and the poor and around 50% are among the backward, Scheduled Castes and Scheduled Tribes.

Around 40% are among the special categories- widow, widower, divorcee, unmarried, issueless etc. adding 13% physically disabled. So roughly around 40% elderly are the most vulnerable and they require all sorts of assistance. In India, though, majority of elderly are taken care of by their close relatives and distant relatives but majority of the care providers are themselves so poor and have inadequate resources that they cannot provide adequate care and services to their elderly such as medicine, food, living spaces etc. So policies and programmes should be made as per the needs of the elderly. Some policies and programmes for the elderly in India are following:

1) National Policy on Older Persons (NPOP) 1999

The Indian government announced the National Policy on Older Persons in 1999 on the eve of the 'United Nations International Year of Older Persons' and declared the year 2000 as the National Year of Older Persons. That policy highlighted the plight of the vulnerable older persons- such as widows, women in general, the poor, rural residents, the disabled and chronically ill (including mentally ill). The other facilities as the programmes show that strengthening the primary health services, providing geriatric care facilities at secondary and tertiary level, starting new specialised courses in geriatric medicine, starting mobile health services for ailing old persons, meeting the education, training and information needs of older persons and so on. In 2010, the Ministry of Social Justice and Empowerment set up a committee to draft a new National Policy on Senior Citizens which was submitted in 2011 to the government of India. It takes a broader view of the issues involved.

2) Integrated Programme for Older Persons (IPOP) 1992

In 1992 this programme was initiated to provide support to Non-Governmental Organisations (NGOs) for running and maintenance of old age homes, day-care centres and mobile Medicare units for older persons living in slums, rural and inaccessible areas where proper health facilities are not available, in the form of financial assistance up to 90% of the project cost. The funds are, however, very limited, increasing to over five thousand Indian Rupees (i.e., approx. USD 85) per beneficiary annually in 2008-2011. But even more significant is the small number of beneficiaries relative to the number of elderly (0.037%) (Ansari H and Priya R, 2014).

3) Old age pension: social security schemes

For the pension of the elderly working in the unorganised and agricultural sectors, the government of India has started a project called Old Age Social and Income Security (OASIS) through which everybody has to deposit Rs. 5 per day and if it will be sustained throughout the working years (35years) then there would be a large pool of money which could be given as pensions. But they failed to understand the daily cash income and household expenditure about the rural poor and so the programme was failed.

A meager amount of pension is given presently to the older persons in BPL family at the rate of Rs. 200 to 500 which has been promised to be increased

up to Rs 1000 per month in some states and Rs. 2000 in some other states. This is only a token payment and cannot afford income or livelihood security and under that only a fraction of the elderly population is covered by old age pension and other schemes. Recently (February 2019) the government of Bihar has started Universal Pension Schemes for older persons including all social and economic groups except those elderly who are in government services and availing service benefits. However, the amount of the monthly pension is Rs. 400 only for those who are 60-79 years old and Rs. 500 only for those 80 years and above.

4) National Social Assistance Programme (NSAP) 1995

In 1995 the National Social Assistance Programme (NSAP) was initiated by the central government to ensure minimum national standards for social assistance in addition to the benefits that state governments might provide. Two of its schemes address the elderly: the Indira Gandhi National Old Age Pension Scheme (IGNOAPS), a non-contributory old age pension (launched in 2007). Under IGNOAPS Rs. 200 (approx. USD 3.3) monthly per poor elderly was provided as central government assistance to all persons below poverty line aged over 65. In 2011, Government lowered the age limit to 60 years, increasing the number of beneficiaries from 17.1 million to 24.3 million. Simultaneously, the rate of pension was increased from Rs. 200 to Rs. 500 to persons of 80 years and above. Even with this large programme, it is only a token support, and only about one-fifth of the elderly population is covered. For the poor elderly, it barely mitigates their destitution. Annapurna Scheme was launched by the Ministry of Rural Development in 2000-2001 for indigent senior citizens of 65 years of age or above who were not getting any pension. Under the scheme, 10 kg of food grains per person per month is to be supplied free of cost.

5) National Programme for Health Care for the Elderly (NPHCE)

This programme, launched in 2010-11, provides dedicated preventive, curative and rehabilitative services to elderly persons. Health care of the elderly is viewed in a medicalised, institutional framework, linked to non-communicable diseases alone. Also, there is no explicit mention of the traditional systems. While there is widespread use of the traditional systems and practices especially for non-communicable diseases, even by modern doctors, there is no formal mechanism for integrating the strengths of various systems.

6) The National Institute of Social Defence

The National Institute of Social Defence was set up to provide technical inputs to the Government of India and is now the nodal training and research institute for interventions in the area of 'social defence'. It conducts several diploma and certificate courses on geriatric care and also programmes for caregivers organised in collaboration with NGOs, provided training to 4500-6000 persons per year over the period 2007-11.

7) Law for the elderly

The Maintenance and Welfare of Parents and Senior Citizens Act, 2007 provides for: maintenance of parents/senior citizens by children/relatives made obligatory and justifiable through tribunals, revocation of transfer of

property by senior citizens in case of negligence by relatives, penal provision for abandonment of senior citizens, establishment of Old Age Homes for Indigent Senior Citizens, and adequate medical facilities and security for Senior Citizens. The main aim of that law was to prevent abuse and abandonment of the elderly by their children and other relatives.

8) Other schemes and benefits

Some privileges are also provided by other ministries to the elderly. The Ministry of Health and Family Welfare has created separate queues for older persons and geriatric clinics in government hospitals. The ministries concerned with transport have made provisions such as a separate ticket counter for senior citizens, fare concessions and provision of lower berths to elderly passengers, wheelchairs at stations for old passengers and introducing buses that are convenient to the disabled and elderly.

8.7 CHALLENGES BEFORE THE ELDERLY

Elderly members are facing several problems in the family and society. With enhanced life expectancy their populations are increasing but health problems are also deteriorating in ageing process. How they live comfortably and with dignity is a challenge before the family, society and the government. Some major challenges are following:

a) The increasing population of older persons all over the world. This demographic transition is more rapid in the western industrialised countries than in the third world. In industrialised countries they age with the advancement of medical care and other facilities which the third world countries lack. In such a condition, in India with poor health care facilities, poverty and unemployment, the increase elderly population is alarming and challenging.

b) Disintegrating traditional family system and kinship support. Though it is slow in Indian continent and yet the forces of social change have not penetrated as it happened in the industrialised western countries but long Indian traditional social institutions such as family and kinships will be protected no one knows. So it requires protection and preservation because in India majority of the elderly are living with their families and their blood relatives take care of them.

c) Slowly the value system among the youth is changing. Socialisation of the younger generation by inculcating proper values is essential for the care elderly. In India it is the youth upon whose shoulders the care of the elderly rests so the youth could be trained and socialised in a way so that they could respect and take care of their senior citizens but socialising them properly in present era is a challenge.

d) Suffering from social isolation and loneliness due to over engagement of younger generations. Interactions with younger people should be ensured through spaces for social interactions or protecting already existing traditional spaces such as *chaupal* or *bathan* in rural areas and community centres and old age day-care centres in urban areas.

e) Poor medical care is a big challenge for everybody for but it is more challenging for the elderly. Specialised geriatrics care is hardly available to the elderly. Majority of older persons depend on general medical practitioners. The hospitals and medical care services are available in urban centres. Due to poor transportation facilities the elderly in the remote rural areas, in emergency, are unable to reach the towns and cities for medical care.

f) Social security in India for everybody is difficult except those few who are in salaried jobs in organised sectors in the government or private sectors. The majority of the masses (more than 94%) are working in unorganised sectors either as casual labourers or daily-wage earners where there is no retirements and thus no retrial benefits. They do not have any social security in their old age. Old pension of Rs. 200 to 400 per month is not sufficient. So providing at least some substantial social security in old age is essential.

g) Another challenge in caring for the elderly is to create age-friendly environment in the surrounding areas and at every public places where the older persons could travel/walk easily. It is not in the agenda of the policy makers and planners to develop public places as age-friendly such as construction of railway foot over bridges, parks without any barriers, easy access to the bus stands and buses, except the few places in the metro cities where some conveniences have been started recently but are yet not fully functional.

h) No proper development of science and technology to ease the lives of the elderly. Yet the third world, particularly India, is so poor in developing the age-friendly, age-care technology through which their lives could be made easy. These are: providing moving electric chairs, age-friendly toilets, age-friendly houses, age-friendly buses, trains and any other modes of public transportation.

8.8 HOW TO IMPROVE HEALTH STATUS OF THE ELDERLY

a) Ensuring better care of the older persons in the family by providing adequate food with nutrition. For that the family itself should have sufficient resources. So the employment of the sons and grandsons is necessary because a large majority of the elderly depend on their incomes.

b) Some social security measures should be created for the Indian people, especially those who are working in unorganised sectors so that in their old age at least, they could bear the cost of treatment and medicines.

c) Regular screening for health problems of the elderly for certain physical health problems such as osteoporosis, hypertension, diabetes, lipid disorders, colorectal cancer, etc.

d) Better health facilities at doorsteps of the elderly by providing mobile medical vans because disabled elderly are not able to go the hospitals. Though there is a provision of special geriatric care at the Primary and Tertiary Health Centres but yet it has not been achieved. This calls for specialised training of medical officers and other paramedics in geriatric medicine.

e) Preference should be given to older persons in the hospitals for treatment and allotting beds. Though government has arranged the system of separate queue for senior citizens, b in private hospitals and clinics, where majority of the patients are going for treatment, there are no such provisions.

f) The probable solution is a multi dimensional approach that comprises not only curative, but also non-curative methods of care that are essentially preventive, rehabilitative and ones that pertain to terminal and respite care.

g) To avoid social isolation, loneliness and boredom social interaction with younger people and with peer groups should be arranged. Some common spaces in villages and towns should be created for social interactions where all the three generations- children, adults and elderly could interact.

After studying this unit, particularly sections on health status of the elderly, elderly policy, major challenge and scope of improvement in problems of the elderly, now evaluate your progress given in Check Your Progress-2.

Check Your Progress 2

Note: a) Write your answer in about 50 words.

b) Check your answer with possible answers given at the end of the unit

1) What are the major health problems of the elderly?

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2) How can the health of the elderly be improved?

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3) Who care the elderly in India?

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8.9 LET US SUM UP

Elderly persons in India garner respect in the family and society. They are considered as the most experienced persons and the storehouses of knowledge. Majority of them are cared for by their family members and only the few who are destitute have to depend on others. Though there is a change in lifestyles of the younger generation, fashion, technology etc. the spirit of Indian social values is still intact and not changed as much as it has changed in the industrialised western developed countries. In the western countries, they have infirmaries (advanced nursing homes for elderly) for the elderly. In India it is the family which cares for the older persons.

In old age the most common problem is of the physical health. Generally due to the degenerative process of body, they fell ill frequently and suffer of various diseases such as cough, joint pains, indigestion, heart problems, asthma etc. They should be provided adequate food with nutrition. Their medical treatment could be done by providing mobile medical care units at their doorsteps as they are unable to go to the hospitals. Specialised geriatric care at Primary Health Centres and Tertiary Health Centres should be provided. Care of elderly is a challenge for the society and the government. To deal with these challenges various measures should be ensured such as protecting and promoting value system in the family and society, promoting joint family system which is good for elderly as well as for socialisation of children, ensuring proper income of the family on which the older persons are dependent, providing social security at old age in terms pensions and other benefits, social interactions of three generations should be provided to protect them from social isolation, loneliness and boredom etc. An integrated and holistic perspective of care should be evolved where all stake holders should participate in care of older persons.

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8.11 CHECK YOUR PROGRESS: POSSIBLE ANSWERS

Check Your Progress 1

1) What do you mean by the term 'ageing'?

Ans. Ageing refers to the process of growing old, maturing, and the changes that occur as the result of the passing of time. It can be viewed as a continuum of the whole life span. Socially individuals are not considered old until they produce noticeable effects such as balding, greying hair, wrinkling of skin, weakening of sensory organs, wearing bifocals, etc. Ageing is experienced as an inevitable and life-long process.

2) Describe the important theories of ageing.

Ans. There are several theories of ageing. The Disengagement Theory-an inevitable withdrawal or disengagement, resulting in decreased interaction between the ageing person and the rest of society (Havinghurst, R. J, 1952). The Continuity Theory says that the various stages of the life cycle are characterised by a high degree of continuity. Age Stratification Model Theory views age like social class as another criterion based on which societies are stratified. Hence, societies arrange themselves into hierarchies, age strata composed of cohorts or categories of people born during the same period.

Check Your Progress 2

1) What are the major health problems of the elderly?

Ans. Common health problem associated with ageing process are - the decaying and weakening of the body, hearing loss, cataracts and refractive errors, back and neck pain and osteoarthritis, chronic obstructive pulmonary diseases, diabetes, depression, and dementia. Furthermore, as people age, they are more likely to experience several health problems at the same time.

2) How can the health of the elderly be improved?

Ans. These measures could be taken to improve the health of the elderly: a) Ensuring better care in the family b) Regular screening of their health problems c) Better health facilities at doorsteps by providing mobile medical vans d) Provision of special geriatric care at the Primary and Tertiary Health Centres e) Multi-dimensional approach comprises curative, preventive, rehabilitative methods of care f) Avoid their social isolation, loneliness and with social interaction.

3) Who cares for the elderly in India?

Ans. Largest number of older persons is cared for in joint and extended families (83.72%) and a few are cared for by nuclear families (8.38%) and single elderly families (7.93%). Within joint families majority of them are cared for by their close relatives (93.4%) such as their sons, daughters-in-law, unmarried daughters, grandchildren, and spouse. Others are cared for by distant relatives or self.