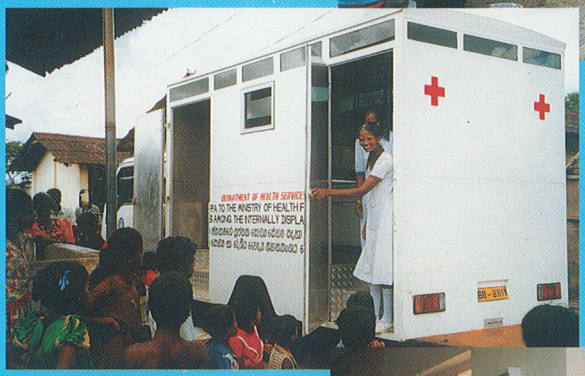
Reproductive Health Manual For Volunteer/Auxiliary Health Workers In Conflict Affected Situations

Family Health Bureau



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This manual is

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Preface

The importance of responding to reproductive health needs of people displaced and affected by armed conflicts has become evident to development and relief agencies working in emergency and complex political settings.

Often reproductive health needs tends to get neglected and overlooked as providing basic services like shelter, food, water and sanitation take priority. However, reproductive health care is not a luxury but a critical basic service which must be an integral part of any emergency relief program. Furthermore, access to quality reproductive health services constitutes a human right.

Competent health personnel are the backbone of a reproductive health services to this segment of the population it is necessary to train auxiliary health workers. This training manual has been developed for auxiliary health personnel who are currently and / or will be, providing reproductive health services to populations affected by the ongoing conflict. The objective of this field manual is to provide guidance to such personnel and enable them to provide reproductive health information and services.

This manual is prepared under the project SRL/99/P01 - Improving Access and Quality of Reproductive Health Services to the Populations affected by the Conflict which is executed by the Ministry of Health Services of Amparai, Anuradhapura, Batticaloa, Jaffna, Kilinochchi, Mannar, Mullaitivu, Polonnaruwa, Puttalam, Trincomalee and Vavuniya. This project is supported by UNFPA with multi assistance from the Australian Government.

The project wishes to record its appreciation of the services rendered by Dr. Kusum Wickramasooriya, Former Director, Maternal and Child Health of the Family Health Bureau who authored this manual.

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Chapter 1

Introduction

Concept of reproductive health recognizes the special health needs of women before, during and beyond child bearing age, as well as the reproductive health needs of men. Reproductive health deals with the reproductive system, reproductive functions and reproductive behaviour throughout life within a specific social and cultural context.

What is reproductive health?

Reproductive health is a state of complete physical, mental and social wellbeing and not merely absence of disease or infirmity, in all matters relating to the reproductive system, its functions and processes at all stages of life. Reproductive health therefore implies that the people are able to have a responsible, satisfying and safe sex life and they have the capability to reproduce and the freedom to decide if, when and how often to do so. This would mean that the right of men and women to be informed of and to have access to safe, effective, affordable and acceptable methods of fertility regulation of their choice, and the right of access to appropriate health care services that will enable women to go through pregnancy and child birth and provide couples with the best chance of having a healthy infant. Reproductive health is an integral part of Primary Health Care supported by secondary and tertiary levels of health care.

Basic components of Reproductive Health would include:

1. Fertility regulation and family planning
2. Maternal Care and safe mother hood.
3. Infant and Child health.
4. Adolescent reproductive health.
5. Prevention of abortion and management of consequences of abortion.
6. Reproductive tract infections including STDs, HIV AIDS, Post-partum and Post-abortal infections
7. Management of Subfertility.
8. Reproductive organ malignancies.
   Ca of uterus/cervix, breast etc
9. Menopause and associated conditions
10. Gender equity, empowerment of women and Male involvement

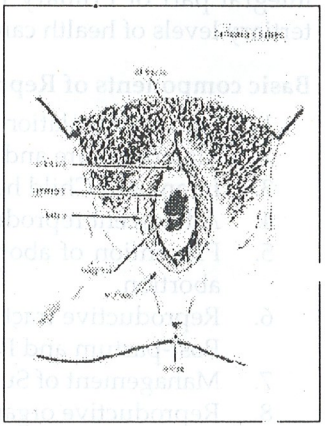
What are the reproductive health services that are available?

- Information, education and counselling and provision of contraceptive services for family planning and prevention of unwanted pregnancies.
- Care of antenatal mothers, provision of facilities for safe delivery, post natal care including promotion of breast feeding and nutrition education.
- Care of infant and child including monitoring growth and development
- Information, education and counselling on human sexuality, responsible sexual behavior for married etc.
- Prevention and appropriate management of subfertility
- Prevention and treatment of reproductive tract infections including STDs/HIV
- Early detection of reproductive organ malignancies like cancers of breast, cervix and uterus.

Male and Female Reproductive Systems

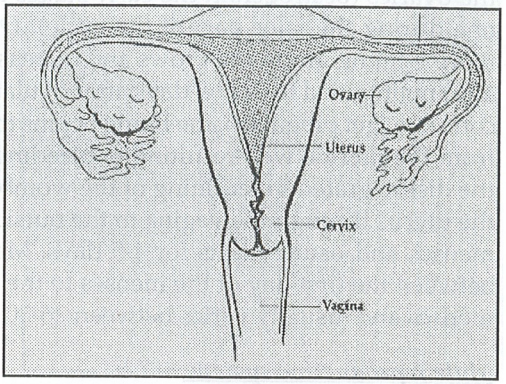
Female reproductive system:

The female reproductive system consists of the vagina, uterus (womb) and the ovaries. The female external genital area is called the vulva and is covered by two pairs of flaps called the labia. At the front most end is a small muscular structure with erectile tissue called the clitoris. Below the clitoris within the vulva, are the openings of the urethra (urinary tract) and the vagina (reproductive tract).



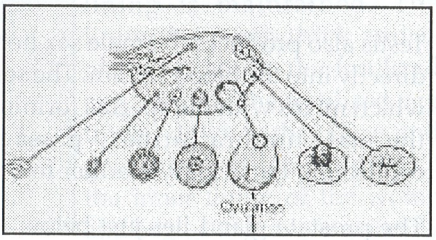
The lower, is the vaginal opening which is larger and is partially covered by a membrane called the hymen which gets ruptured at the time of first intercourse. Usually there is slight bleeding when this happens.

Rarely-the hymen may not be present and there may not be any bleeding at the time of first intercourse.



The vagina is a tubular passage, which is 3-4 inches long, leading to the uterus (womb) which is situated in the lower part of the abdomen.The uterus is a pear shaped muscular organ, which is about 3 inches by 2 inches in size and having a cavity inside. The lower portion is narrower and projects slightly into the top end of the vagina. This part is called the neck of the womb (cervix) while the rest is called the body of the uterus. The inside of the uterus (Uterine cavity) is lined by a membrane called the endometrium, which undergoes change during the menstrual cycle. At the upper end of the uterus are two tubes (fallopian tubes), each about 3 inches in length extending side ways from the uterus. The outer end of the fallopian tube is expanded in the form of a funnel with finger like processes called fimbrae. The ovaries are situated just below the outer expanded end of the fallopian tubes.

Each ovary is about the size of a cashew nut and is oval in shape. It contains a very large number (thousands) of small immature eggs which cannot be seen with the naked eye. These immature eggs are present from the time of birth, and once the girl attains menarche, with each menstrual cycle, an egg begins to mature under the influence of certain hormones produced within the girl's body. After maturation, the egg is released from the ovary. This is called ovulation.

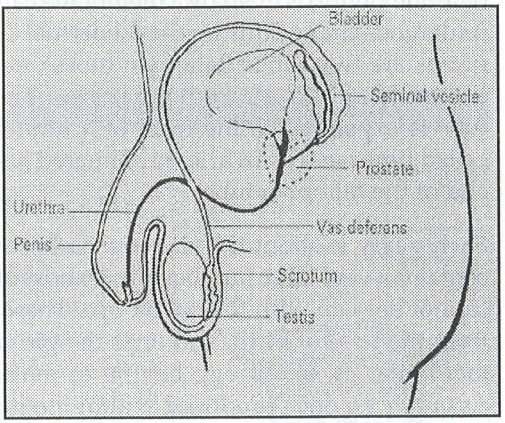


Ovulation usually occurs 14 days before the onset of the next period. Once the egg (ovum) is released, it falls into the fimbriated end of the fallopian tube and gets carried towards the uterine cavity.

During the menstrual cycle, certain changes occur in the uterine lining (endometrium) under the influence of certain hormones produced by the ovaries (oestrogen in the early stages and oestrogen & progesterone during the later part of the cycle). During the early stages, the uterine lining gradually grows and increases in thickness and is there after maintained for a few days after ovulation. If the woman does not conceive (get pregnant), the lining begins to disintegrate and separates from the uterine wall resulting in bleeding. The blood together with the disintegrated inner lining of the womb is thereafter expelled from the uterus through the vagina to the outside. This is called periods or menses and usually lasts for 4-5 days. Menstrual cycle is the period between the first day of the menses to the commencement of the next menses and usually varies between 26-30 days.

Male reproductive system:

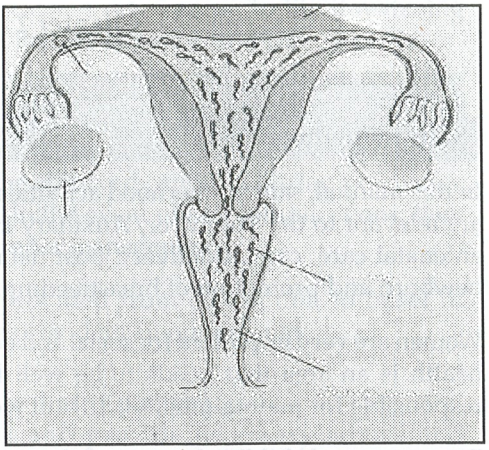
The external genitalia of the male is made up of the penis and the scrotum which supports the testes. The sperms (ie. cells that can unite with the female egg) are formed in the testes and through the spermatic cord (vas deferens) reaches the seminal vesicles where it is temporarily stored. Sperms are produced in large numbers (millions) by the testis from the time the boy reaches puberty. They can move very slowly and could survive in the seminal vesicles for periods up to 3 months.



Testis also produces the male sex hormone-testosterone, which passes directly into the blood stream. The seminal vesicles produce secretions, which mixes with the sperms forming the seminal fluid and open into the male urethra (urinary passage) which traverses the penis, connecting the urinary bladder to the exterior.

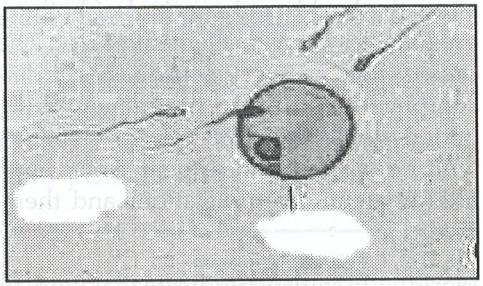
The prostate gland lies just below the bladder and produces a fluid that helps to keep the sperms alive. At the time of ejaculation during

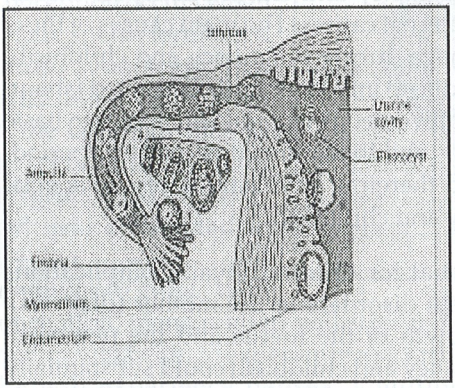
sexual intercourse, millions of sperms pass out in the seminal fluid. Since they are motile, they could enter the womb through its neck and ascend upwards into the uterine cavity and into the fallopian tubes.



❑ ***How do women get pregnant?***

After release of the matured egg from the ovary, while it is carried in the fallopian tube, if the egg unites with a man's sperm, fertilization takes place and the woman conceives.





After fertilization, the hormones (oestrogen and progesterone) continue to be produced and the uterine lining is maintained. The lining becomes thick and is ready to receive the fertilized egg (ovum). The fertilized egg travels down to the uterus and gets attached (embedded) to the inner lining of the womb and begins to grow, eventually forming the foetus and the baby.

Chapter 2

Safe motherhood

In this manual, safe motherhood activities will include only those that are relevant to the Volunteer/Auxiliary Health Workers in respect of antenatal care, care at delivery, post natal care including care of the newborn and promotion of breastfeeding.

Women are very important for social and economic development. Their health is an area that needs to be well looked after, since they are responsible for maintaining health and wellbeing of their families.

Pregnancy and childbirth are special events in a woman's life and also in the lives of their families. Pregnancy is not a disease but a natural process. However it may be associated with certain risks that could affect the health and survival of both: the mother and the baby. All pregnancies carry an element of risk. These risks are present in every society and in every setting. Early detection and management of complications during pregnancy, childbirth and the post partum period would therefore be very vital. Every pregnant woman, even if well nourished and appear to be healthy, can suddenly develop life-threatening complications and therefore requires good obstetric care.

Worldwide statistics indicate that more than 585,000 women die every year from complications of pregnancy and childbirth. In Sri Lanka, about 240 women die due to maternal causes. The main causes of these maternal deaths are: haemorrhage during pregnancy and childbirth, toxaemias of pregnancy, sepsis due to infections and obstructed labour. Most of these deaths could be prevented if women had access to basic medical care during pregnancy, childbirth and post-partum period. Every pregnant woman should therefore have easy access to special care facilities during pregnancy and childbirth.

Good maternal health is essential for child survival. Complications related to pregnancy and certain disorders in the mother (diabetes), could adversely affect the growth of the foetus and the newborn. Appropriate care during pregnancy and childbirth could substantially reduce newborn deaths.

Women in conflict affected areas are more prone to life threatening situations and therefore needs greater attention and care.

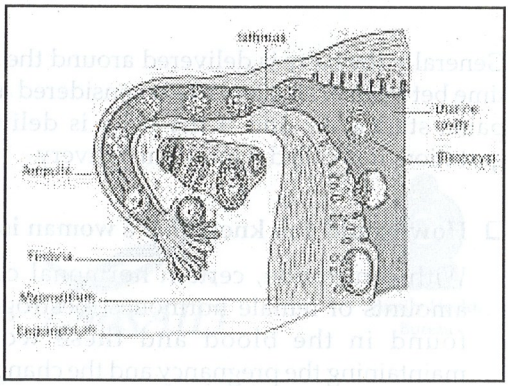
Antenatal care:

Antenatal care is essential for ensuring maternal and foetal well being. The mother and baby should be observed carefully during pregnancy to prevent any complications. In the event of any complications, they should be referred early for proper management.

Antenatal care needs to be provided from conception to onset of labour. It gives the health care providers an opportunity to:

- provide the necessary care during pregnancy,
- identify any risk factors and provide necessary advice and referral,
- educate mothers on care during pregnancy and prepare her for child birth,
- educate pregnant women and family members on importance of good nutrition,
- promote healthy behavior and family support during pregnancy, child birth and post partum period,
- promote breastfeeding and advice on preparation for lactation, provide information on family planning and child rearing.

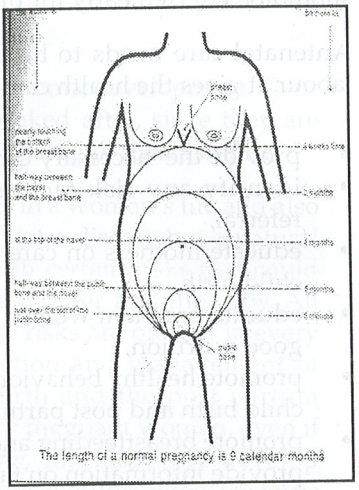
❑ Conception and pregnancy



Conception occurs when a male sperm fertilizes a female ovum (egg). This fertilization takes place in the fallopian tube of the uterus and thereafter it travels into the uterus and gets embedded in uterine wall and continues to grow. With conception, menstruation will stop and after two to three weeks, the mother will begin to experience a sickish feeling. By about the 6th week she will experience nausea, vomiting and sometimes excessive salivation especially in the mornings (called morning sickness).

At 8 weeks, the foetus has taken a distinctly human appearance and by the 12th week the placenta has taken on its complete form. The foetus is now attached to the placenta by the umbilical cord and lies within the amniotic sac (bag of waters). The oxygen and nutrition needed for growth of the foetus is obtained from maternal blood through the placenta. If the mother is anaemic and is undernourished, the baby will not grow well and would have a low birthweight.

The uterus gradually begins to enlarge to accommodate the growing foetus. By 12 week the uterus is usually palpable in the abdomen just above the pubic bone (symphysis) and by the 24th week, the fundus reaches the level of the umbilicus (navel). At 36 weeks it touches the breastbone (Xiphisternum) and at term, it descends slightly due to the presenting part of the foetus sinking into the pelvis. The mother usually begins to feel the movements of the foetus between the 18th and 20th week.



Duration of pregnancy:

Generally the baby is delivered around the 40th week. Delivery at any time between 37 to 42 weeks is considered as term. Some times labour pains start early and if the baby is delivered before 37 weeks of gestation, it is called a pre-term delivery.

❑ **How would you know that a woman is pregnant ?**

With conception, certain hormonal changes take place. Large amounts of female hormones (oestrogen and progesterone) are found in the blood and these would be responsible for maintaining the pregnancy and the changes that occur in the mother during pregnancy.

Early signs of pregnancy:

- Missed periods – menstruation does not occur as expected,
- Morning sickness – experiences nausea, vomiting and excessive salivation, This usually passes of after three months.
- Changes in breast - Fullness and tenderness of breast, visible superficial veins,
- Darkening and enlargement of areolar (secondary areolar formation),
- Increased frequency of passing urine,

Morning sickness is seen after 6-8 weeks. The mother may experience nausea and mild vomiting especially in the morning as she wakes up. She should be advised to have something (slice of bread, biscuit) before getting up. This usually passes off after 3 months. However if the mother vomits frequently after her meals, then it is abnormal and should be referred to a doctor.

❑ **How to tell when the baby will be born?**

The expected date of delivery (EDD) is very important to assess the time of delivery. This could be calculated. Ask her about the last regular menstrual period (LRMP). Find out the date of the first day of her LRMP and add 7 days and 9 months. This will give the Expected Date of Delivery (EDD).

❑ **Early commencement of antenatal care**

This is very crucial and the VHW should be able to identify pregnant women early in pregnancy. When a woman is identified as pregnant, she should be registered and a "Pregnancy Record" given with the necessary instructions to attend the local MCH clinic early for necessary care.

Calculation of EDD

If the 1st day of LRMP was 10th Aug. 1999.

EDD = 10.08.1999
07.09
17.05.2000

EDD will be around 17th May 2000

❑ **Frequency and timing of antenatal visits**

Women should be encouraged to commence antenatal care early. They should be referred to the local antenatal clinic preferably during the first three or four months. Thereafter they should attend the local clinic regularly. Regular antenatal care would help to ensure a healthy pregnancy with reward of a healthy baby. Regular attendance at clinics would help to detect many of the problems: both medical and obstetric, which otherwise would have adverse effects on the course and outcome of pregnancy.

Some of the common problems

- Medical – Anaemia, Heart Disease, Diabetes, Urinary infections.
- Obstetric - High Blood Pressure during Pregnancy, Multiple pregnancies, Malpresentation (baby in wrong position eg.Breech)

Such conditions would place the women in the "High Risk" category, where careful supervision throughout pregnancy and skilled management during delivery would be needed for a successful outcome.

No. of visits to clinic:

Ideally a pregnant woman should attend the clinic 6-8 times during her pregnancy. Since conflict affected situations may not permit a pregnant woman to visit the clinic frequently, they should be encouraged to make at least a minimum of four visits to the clinic. If any abnormality or risk factors have been identified, they should be advised to visit the clinic more frequently as instructed.

Timing of visits:

Recommended schedule:

- Monthly visits during the first six months
- Every two weeks during the 7th and 8th month
- Weekly during the 9th month.

■ **Visits for minimum care:**

1st visit - End of 4th month (16 weeks)
To screen for any risk factors and medical conditions that need early attention, Initiate prophylaxis for or treatment of anaemia, malaria etc

2nd visit - 6th or 7th month (24-28 weeks)
To screen for toxaemia, multiple pregnancies and to identify any other abnormality.

3rd visit - 8th month (32 weeks)
For same reasons as for the 2nd visit.

4th visit - 9th month (36 weeks)
To confirm foetal lie/ presentation,
to update delivery plan and to identify any other abnormality.

If there are any risk factors, the mother will have to attend the clinic more frequently as instructed by the health staff.

Any woman can develop complications during pregnancy, labour and post-partum period. Some women are at a higher risk than others due to the presence of certain "risk" factors. These cases need special care during pregnancy and childbirth, and should be very carefully monitored.

The following are some of the important risk factors that need to be carefully assessed and monitored to prevent complications.

◊ Poor obstetric history
Still birth, early neonatal death, repeated abortions,
Complications during early pregnancies eg, severe bleeding, Toxaemia
Previous caesarian sections (operative delivery),
Twins in a previous pregnancy
◊ Short stature - less than 145 cms
◊ Very young maternal age- less than 18 years
◊ Weight less than 38 kgs or more than 88 kgs
◊ 1st pregnancy (primi) and Elderly primi - more than 35 years
◊ Grand multies - having five or more children

- ◊ Severely anaemic – Mothers who are very pale
- ◊ Suffering from diabetes, heart disease, kidney disease, malaria, STD/HIV infection or tuberculosis,
- ◊ Abnormal lie/presentation – abnormal positioning of baby in the womb,
- ◊ Any complications – toxaemia, APH (bleeding from vagina)
- ◊ Size-date discrepancy

Check for any of these "risk factors". If any are identified, explain to her and the family that it is necessary to see the PHM, or go to the nearest health center or hospital for necessary advice and management very early. Such cases should be followed very carefully throughout pregnancy and advised to go to hospital early for delivery.

Why do "risk mothers " require special attention?

A "risk factor" should be considered as a potential threat to the health and wellbeing of the mother as well as the baby. They are at a higher risk of developing problems during pregnancy and child birth than others and need very careful supervision and care throughout their pregnancy and skilled management during delivery.

Poor obstetric history: Women with problems in their previous pregnancies are at risk of experiencing problems in subsequent deliveries. It is critical to identify women with such a history at the first visit and to assess whether the complication is likely to recur and whether it needs special attention during the antenatal period. Women with a history of previous caesarean section need to be monitored very carefully during labour in a hospital with facilities for emergency obstetric care (surgery). These cases should be referred early to medical institutions where such facilities are available, for their delivery.

Short stature: This can be used as a basis for advising women about their choice of place of delivery. These women have a greater risk of having prolonged/obstructed labour and should be delivered in a medical institution with facilities for emergency obstetric care or at least in a medical institution having ambulance facilities for immediate transfer to a higher level institution.

Very young maternal age: Very young women are at an increased risk of maternal and perinatal mortality and morbidity since their physical growth and maturation is not complete. Counselling and emotional

support should be provided during pregnancy and they should be referred to hospital for delivery.

Primipara and Grand multipara: Primies are at increased risk of prolonged labour and toxaemias of pregnancy. Grandmulties are at risk of antepartum and postpartum haemorrhage, obstructed labour associated with mal-presentation. Ideally primies should be delivered in an institution that has easy transfer facilities (availability of ambulance) in case of prolonged labour or evidence of toxaemia while grandmulties should deliver in a medical institution where emergency obstetric care is available.

Abnormal lie and presentation: Malpresentation of the foetus at the time of labour is associated with increased risk of obstructed labour. Abnormal lie and presentation after 36 weeks is more likely to persist at onset of labour and should deliver in an institution where transfer facilities (eg. Ambulance) are available.

Multiple pregnancies: Sometimes more than one foetus is seen in the uterus. Women who have had twins earlier are more liable to have another twin pregnancy. Multiple pregnancies are associated with increased risk of preterm birth, toxaemia, obstructed labour and postpartum haemorrhage and should deliver in a hospital where emergency facilities area available.

Severe anaemia: In pregnant women, anaemia predisposes to severe maternal ill health and reduces the tolerance to blood loss during child birth. Anaemia is a contributory factor in maternal deaths due to hae - morrhage and infections. It also affects the growing foetus and may result in still births. If a women is very pale, then it should be considered as a risk condition and should be referred for proper management.

Unwanted pregnancy: Unwanted pregnancies are associated with an increased risk of unsafe abortion, psychological problems and potential neglect which could affect the health of the mother and baby. Counselling and support should be provided during pregnancy, child birth and during the post partum period.

Extreme social disruption: This is common in conflict affected situations and all women need psychological support and careful monitoring during pregnancy. In most instances, reassurance and health information will provide the needed support.

Warning signs that need immediate referral to a doctor

- Continued vomiting
- Vaginal bleeding –even very slight
- Severe headache
- Dizziness or Blurring of vision
- Marked swelling of Feet /face
- Breathlessness & Tiredness
- Convulsions
- Severe abdominal pain

❑ **Nutrition during pregnancy**

Child-bearing poses many demands on the woman's nutritional status. She has to meet the extra nutritional needs of pregnancy and lactation – ie. her own as well as the nutritional requirements of the growing foetus. The mothers need extra calories during pregnancy and lactation. Therefore they should have more food than what they were having earlier.

It is essential that the mother receives more calories, proteins, calcium, iron and vitamins to meet this increased demand through an appropriately balanced and culturally accepted diet. This may require supplementary food if the basic food rations available to communities affected by conflict are inadequate.

On an average a normal healthy woman should gain 10-12 kg during pregnancy to have a healthy baby. In Sri Lanka however, most mothers gain only about 7-8 kg. Adequate weight gain is necessary to improve child survival. Mothers need to have regular antenatal care including monitoring of weight gain to improve the situation. Monitoring of maternal weight during pregnancy provides information on the nutritional status of both the mother and her baby.

Malnutrition can be a major health problem in a conflict-affected community. Since malnutrition would be high among mothers in conflicted affected situations, advice on nutrition is very vital for protecting the health of the mother and baby. Malnutrition during pregnancy would invariably result in the delivery of a low birth-weight baby (ie. a baby weighing less than 2500 grams) whose chance of survival would be less than a normal weight newborn (average weight is about 3,000 grams).

Mothers should take

- More food during pregnancy than before
- Locally available foods like rice, dhal, gram, cow pea, soya. kurakkan, dark green and yellow vegetables and fruits would provide the necessary nutrients.
- A small amount of dried fish, fish or egg would improve the quality of the meal.
- Milk and small fish are good sources of calcium.

❑ Other nutritional deficiencies

Two other important nutritional deficiencies that require especial attention during pregnancy: Iron deficiency anaemia and Iodine deficiency disorders (IDD). The risk of ill-health and death are increased for babies as well as mothers who are suffering from above deficiency disorders.

Anaemia in pregnancy:

Anaemia is a major problem during pregnancy and is an important cause of maternal ill-health. It also reduces the tolerance to blood loss during childbirth. Moderate and severe anaemia during pregnancy could result in premature births, low birthweight and stillbirths. Haemoglobin is necessary for transport of oxygen within the body and iron is a component of haemoglobin.

Iron deficiency anaemia:

A pregnant woman is said to be anaemic if the haemoglobin (Hb) level falls below 11 grams/dl and severely anaemic if Hb level is less than 7 grams/dl. An anaemic woman would be pale and would get easily tired. Anaemia could be assessed clinically by examining the conjunctiva, tongue and palm of the hand.

Clinical assessment of anaemia

- Conjunctiva - when the eye lid is pulled down, the inside appears very pale
- Tongue - tongue when protruded appear pale
- Palm of hand - appear pale

Pregnant and Breastfeeding mothers need regular intake of iron/folate, calcium and vitamin C to meet the increased demands in pregnancy. These are provided at the antenatal clinic as a routine. Also green leafy vegetables, pulses, fish and meat are rich dietary sources of iron.

All pregnant women, irrespective of haemoglobin levels should be provided with iron/folate supplementation commencing as early as possible during pregnancy and continued throughout pregnancy and post-partum period. Mothers with severe anaemia may have to be given parental iron therapy (ie. by injection)

All the iron available will not be absorbed and the rate of absorption will be influenced by a number of factors. Iron in animal foods is easily absorbed and also promotes absorption from other sources. Even small amounts of fish, dried fish and meat (animal proteins) would enhance absorption of iron from green leafy vegetables and pulses. Vitamin C improves iron absorption while calcium and tea would inhibit iron absorption. By introducing freshly squeezed lime on vegetables just before eating or eating a fruit rich in vitamin C (mango, guvava, nelli etc.) after meals should be encouraged. Taking tea within one to two hours after a meal or after taking iron tablets should be discouraged since it will inhibit iron absorption. Similarly calcium and iron tablets should not be taken at the same time.

Iron tablets need to be stored in a dark container protected from excessive heat and light to prevent any changes (oxidation) that would prevent absorption.

When taking iron orally, certain side effects like nausea, abdominal discomfort, constipation and passage of dark stools (blackish) may occur. This should be explained to the mother prior to giving oral iron so that they would continue to take it throughout the recommended period.

Infections associated with anaemia in pregnancy:

Apart from nutritional deficiencies of iron and folic acid, malaria and hookworm infections are other important causes of anaemia. Therefore their prevention and control is important.

Hookworm infection:

Hookworm infection causes prolonged blood loss in to the intestines leading to anaemia.

These worms live in the small intestines and feed by sucking blood. Eggs are passed in the stools and they develop into larvae if faeces are passed on to moist ground. The larvae could penetrate through the skin (of feet), and enter the body once again and eventually reach the small intestines where they grow.

Preventive & control measures

- Worm treatment to all pregnant mothers as a routine after 1st trimester (ie. three months)
- Use of foot-wear, use of latrines, provision of safe water and practice of good personal hygiene.

Malaria infection:

Malaria is due to infection the plasmodium parasite. The parasite lives in the red blood cells and destroys them resulting in anaemia. The disease is transmitted from man to man by the bite of infected female anopheline mosquitoes.

Preventive & control measures

- Routine testing of blood for malaria of all pregnant mothers in endemic areas.
- Prophylactic administration of chloroquine - 2 tab weekly commencing early and continuing during pregnancy and post partum period (6 weeks after delivery)

Make sure that this drug is taken weekly. This will protect the mother from getting malaria. If the mother develops fever with chills and rigors, she should be referred to the doctor at once.

Iodine deficiency disorders:

This is not a major problem in Sri Lanka. The only visible sign of lack of iodine is an enlarged thyroid gland known as a goitre. Iodine deficiency during pregnancy can lead to still births and abortions in

the mother and abnormalities (cretinism and impaired brain development) in the child. Iodine deficiency also affects the child's ability to reach the maximum learning potential.

Best sources of iodine are from sea foods and vegetables grown on iodine rich soil. Iodine requirement increases during pregnancy and lactation.

Preventive measures

Use of iodised salt for cooking will prevent ill-effects of iodine deficiency.

❑ **Work and exercise during pregnancy:**

Light house hold work is advised during pregnancy, but manual physical labour like carrying heavy objects, pounding rice, splitting firewood, especially during the last three months should be avoided since it would adversely affect the growing foetus. Many women in rural areas, start work very early and stop work only late at night. The mothers should have adequate rest – at least 7-8 hours of sleep at night and a 2 hour rest after the midday meal. This should be discussed with the family so that they would undertake the heavy household work and give the mother a greater opportunity for resting.

Pregnant women:

- Should have more rest – 7-8 hours of sleep & rest for 2 hours after midday meal
- Should not do hard work especially during latter part of pregnancy

❑ **Personal hygiene:**

Looking after personal hygiene is very essential during pregnancy. The mother should be advised to have a bath daily if possible and ware clean clothing. Clothes should be comfortable and not too tight.

❑ **Personal habits:**

Constipation should be avoided by regular intake of green leafy vegetables, fruits and extra fluids. Purgatives like caster oil should not be taken to relieve constipation.

Sexual intercourse should be restricted especially during the last three months. The husbands should be advised accordingly at least by those who could provide such advice.

Smoking and alcohol consumption during pregnancy could affect the intrauterine development of the foetus. As such their use should be totally discouraged.

❑ **Family support:**

Pregnancy is really a shared responsibility of both: husband and wife. Husbands support during pregnancy makes a big difference to the mother's and baby's physical and emotional wellbeing. Every husband should be made to devote more time to the wife's needs. Similarly support of other family members is very important. They should be encouraged to attend to house hold work and also do any heavy work like carrying heavy objects, splitting of firewood etc. giving the pregnant mother more time to rest and relax.

❑ **Planning for delivery:**

Discuss the place of deliver with the mother. It is important to encourage all mothers to go to hospital for delivery, since transport would be a problem in an emergency in conflict affected areas. Also advise them to go to hospital a few days before the EDD.

Mothers with "high-risk" conditions should deliver in a hospital where facilities for emergency obstetric care (blood transfusion, caesarean section) are available. Such mothers should be advised to go to the selected hospital at least two weeks prior to the EDD or as advised by the doctor.

Advise the mothers to have the items of clothing that have to be taken when going for delivery ready, so that in an emergency she could take them with her.

Item to be taken

- a clean change of clothes,
- clothing for the baby,
- a clean towel to wrap the baby

Organize community support for any emergency situation where the mother needs urgent attention, especially in respect of transport.

Antenatal care by VHW:

- Register mother and provide a "Pregnancy Record".
- Take a history and enter the relevant information on the "Pregnancy Record". The information will include – name, age, address, parity, menstrual history and information about the past pregnancies and any complications.
- Look for any high risk factors (The relevant section in the "Pregnancy Record" will help you to identify most of the obvious factors)
- Visit the mother regularly and inquire about her health. Look for any "danger signs" like persistent headache, blurring of vision, severe swelling of feet, undue breathlessness, vaginal bleeding or any other unusual symptoms. If any of these are identified, the woman should be asked to go to hospital immediately. The VHW/AHW should accompany the woman to hospital where possible.
- Provide necessary advice and guidance regarding:

  * maternal nutrition,
  * personal hygiene,
  * breastfeeding,
  * work and exercise
  * rest and sleep,
  * family planning,

- Check whether the instructions given at the clinic are carried out and the drugs are taken as advised.
- Advice about the importance of attending local antenatal clinic regularly and ensure that the mother will attend clinic as scheduled.
- Advise on baby care, preparation of baby clothes etc.
- Prepare mother for breastfeeding early, especially mothers who are having their first baby.
- Prepare mother for birth of the baby. Help to plan for the delivery.
- Provide any other advice as requested.

- Follow-up mothers in the field and ensure that the instructions given at clinic are carried out.

Antenatal care at clinic:

Attending antenatal clinics regularly is very essential for maintaining the health and wellbeing of both the mother and the baby. This is very important especially in areas subjected to conflict situations, since this may be the only time the mother gets a chance of getting examined by a trained medical person (doctor).

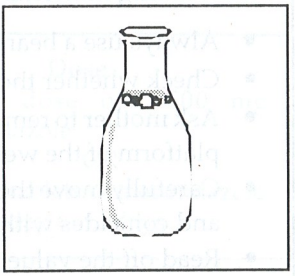
Attendance at antenatal clinics according to the specified schedules would help to identify many of the problems that could be associated with pregnancy and childbirth so that early action could be taken to prevent any complications.

The VHW should assist the health staff at the area clinic. The mothers should be received cordially and should be made comfortable at the clinic. At each visit, the client should be ensured privacy and be given an opportunity to discuss any matters that need clarification with the health staff. Thereafter they should be subjected to the normal clinic activities.

The following activities should be performed at the clinic.

- Register the mother at the 1st visit to clinic.
- Take a detailed history – To be done by the health staff - Check the entries made by VHW in "Pregnancy Record" Record any additional information where relevant.
- Health education talk given by the health staff.
- Test a sample of urine for sugar and albumin.

Collect a sample of urine into a clean container (bottle) and test according to the under mentioned procedure.



Testing for sugar

- Place about 1 inch of Benedicts reagent in a Test tube.
- Add 8 drops of urine with a pipette.
- Boil the mixture for 2 mins. using a spirit lamp.
- Shake tube well as it is boiling to prevent contents from popping out.
- Allow it to cool in a rack.

Results: No colour change ie blue – Negative
Pale green – Trace
Greenish ppt – +
Greenish yellow ppt – ++
Yellow orange ppt - +++
Orange red ppt - ++++

Testing for albumin

- Fill 2/3rd of test tube with urine.
- Add a few drops of dilute acetic acid.
- Heat upper part of the urine over a small flame (spirit lamp) to boiling point.
- Do not shake until the top inch boils.
- If the boiled portion is cloudy - add 4-5 drops of dilute acetic acid.
- Reheat the urine

Results:
If the cloud disappears it may be **phosphates**
If it remains cloudy it indicates **Albumin**

- Maternal height should be taken at the 1st visit using a height-measuring instrument. The adult weighing scales given to clinics are usually equipped with a height- measuring instrument.

When measuring maternal height:

- Ask mother to remove her slippers or shoes and stand in front of the height measuring instrument.
- See that she stands straight looking directly forwards.
- Place head piece of the height measuring instrument over the head and read off the value on the scale.
- Record measurement on the pregnancy record.

- Maternal weight should be taken at each visit using the adult weighing scale (not a bathroom scale) provided at the clinic.

When taking maternal weight:

- Always use a beam balance where available,
- Check whether the balance reads ZERO before weighing,
- Ask mother to remove her slippers/shoes and stand on the platform of the weighing scale with her feet slightly apart,
- Carefully move the weight till the arm becomes horizontal and coincides with the given mark,
- Read off the value and enter it on the pregnancy record.

Record the height and weight in cages provided in the "Pregnancy Record" and plot maternal weight on the graph. Both excessive weight gain as well as lack of weight gain should be noted and the doctor should be informed accordingly.

■ Examination of mother

A medical officer should ideally examine every pregnant mother. If the attendance at clinic is high, the medical officer should at least examine the mother on the 1st visit, at 7-8th month and at the 9th month. A midwifery qualified nurse or a midwife could examine her during the other visits, if the medical officer is unable to do so and refer to the medical officer where necessary.

Examination by a medical officer

- General examination,
- Screen for anaemia – examine conjunctiva, tongue, hands,
- Check for swelling of feet,
- Check Blood Pressure,
- Examine Heart and Lungs,
- Abdominal examination
  - Height of Fundus,
  - Lie and presentation,
  - Foetal Heart Sounds (FHS),
- Record findings on Pregnancy Record,
- Identify any "Risk Conditions"
- Provide necessary advice and Instruction.

■ Provide Tetanus Toxoid immunization

Schedule

- 1st pregnancy – 2 doses given 4 - 6 weeks apart.
- Other pregnancies – Booster dose is given upto a maximum of four pregnancies.

Tetanus Toxoid is given to protect the baby from getting neo-natal tetanus. Tetanus toxoid should be given after the third month. Explain to the mother what has been given and for what purpose it has been given.

■ Provision of drugs

Worm treatment

Mebendazole should be given to all pregnant mothers after the third month at the clinic.

Dose

- Single dose of 500 mg mebendazole

OR

- 100 mg tablets of mebendazole twice a day for 3 days

Iron/Folate and calcium supplementation

Adequate supply of iron/folate and calcium should be given to the mother with the necessary instructions and advice. Sufficient quantities should be given to last till the next scheduled visit to clinic. The mother should be asked to bring a dark coloured bottle to take the iron tablets home.

Iron-Folate/Calcium supplementation

- 2 tablets of Iron/Folate daily after night meal with 1 tab. of Vit C (100mg)
- 1 tablet of calcium lactate (500mg) daily in the morning.
- Inhibitors of iron like tea should not be taken for 1-2 hours after taking iron tablets.
- Provide necessary advice on side effects for better compliance.

- Date of next clinic visit

Date of next visit should be told to her as well as entered in the Pregnancy Record.

Antenatal care is very important.
Make sure that
all pregnant women attend antenatal clinic regularly as instructed

Labour and delivery

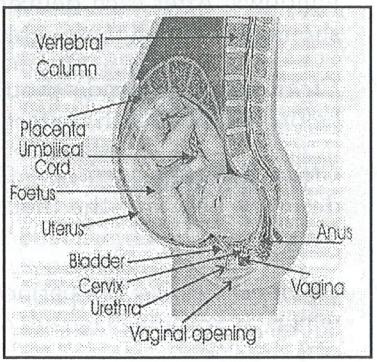
When the baby is ready to live outside the mother's body, the uterus begins to contract and push the baby out. This is called labour. It ends when the baby and the placenta are delivered outside the mother's body.

Most deliveries are normal, but some times unexpected complications can occur. Therefore it is essential that a trained person attends to every delivery. Hospital deliveries are safer since basic facilities would be available in case of any complications.

❑ How is the baby born?

The baby and the placenta are in side the uterus within a bag of water called the amniotic sac. When labour commences, the uterus begins to contract and the mother starts experiencing pain with each contraction (labour pains).

The contractions become more and more frequent and stronger and stronger. With each contraction the baby is pushed done and the birth canal gradually opens and gets wider. At this stage a reddish mucus discharge is passed out (called show). The bag of water raptures and with the contractions the baby is pushed out.



The head will appear at the vulva and with each contraction the baby's head will come out slowly and then the shoulders and the rest of the body. Within one or two minutes after birth, the baby should start breathing and begin to cry. The baby will still be connected to the mother through the umbilical cord and will have to be detached by cutting the umbilical cord about two inches away from the baby. The uterus contracts further and with this, the placenta gets detached and expelled. This happens within 10-15 minutes of delivering the baby. At this time the mother may bleed about a cupful of blood which is normal. Normally it takes about 10-12 hours for a primigravida and about 6-8 hours for multi- para to deliver.

■ Monitoring of labour:

Regular assessment of maternal and foetal condition and the progress of labour should be carried out. To assist in this, a partograph is currently used in many institutions. Maternal pulse, blood pressure, uterine contractions, Foetal Heart Sound have to be regularly monitored. The health staff in the institution will do these.

If the mother has been in labour for more than 8 hours and the progress is not satisfactory arrangement should be made to transfer the mother to a medical institution having Emergency Obstetric Care facilities.

- *Clean and safe delivery practices:*

  Cleanliness during labour and delivery are essential to protect both the mother and baby from infection.

- *Clean delivery practices should include the following:*

◊ *Clean environment* – Delivery room should be kept clean at all time. It should be daily swept and mopped. All surfaces should be damp dusted with disinfectant. This includes furniture, walls and windows. After each delivery, the delivery bed and mackintosh should be cleaned thoroughly.

◊ *Clean hands* – Hands should be washed with soap and water before and after each contact with the client.

◊ *Clean delivery surface* – Clean linen should be used on the delivery bed and the mackintosh used should be clean and disinfected.

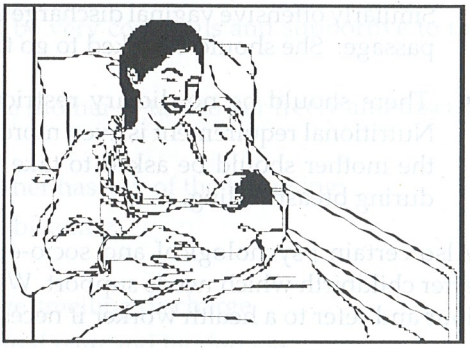
◊ *Clean perineum* – The perineum should be washed with soap and water.

◊ *Clean cord cutting instruments* – These should be sterile and should be part of the sterile delivery pack that will be used for the delivery.

These practices also are applicable for any home delivery in case of emergency.

- The room where mother is going to deliver should be clean.
- Birth attendant's hands should be clean.
- The surface on which the baby will be delivered should be clean.
- The perineum should be clean and anything unclean should not be introduced into the vagina.
- Cord thread should be clean and boiled.
- New razor blade to be used to cut the cord.
- Wipe the baby dry and wrap the baby with a clean dry towel to keep baby warm.
- Put baby on the breast early.
- Examine the genital tract carefully for tears.
- If any tears are present, it needs to be repaired early.
- Look for any bleeding & check pulse.
- If abnormal, mother will have to be taken to the closest hospital immediately.
- A woman who delivers at home should be checked by a PHM as soon as possible.
- Ensure that the baby gets BCG early. Ask mother to bring the baby to the next clinic for BCG immunization.

❑ **Immediate postpartum care**



Once the baby is born, the baby should be wiped dry and wrapped with a clean towel and given to the mother. This will help to keep the baby warm.

Breastfeeding could commence almost immediately. The baby should be put to the mother's breast and made to suck. The initial milk that comes out is called colostrum, which is a yellowish substance produced in the first

few days after delivery. This milk is rich in nutrients and has antibodies, which will protect the infant. This feed is very good for the baby and baby's sucking causes the womb to contract and become hard so that any bleeding would stop. Early breastfeeding encourages the flow of breastmilk and establishes a close bonding between the mother and the baby.

Make mother comfortable (change clothing and linen) and give something to eat and drink. Thereafter, let the mother and the baby rest.

Postnatal care

Six weeks immediately following the delivery is called the postnatal /postpartum period. This period is very crucial for the mother and the baby, since certain complications could occur which could danger the life of both the mother and the baby. Any fever, bleeding from vagina, offensive discharge, abdominal pain and tenderness, pain and tenderness in breast, pain and tenderness in the calves are not normal and require urgent attention.

- Usually the mother would have a blood stained discharge for a few days. Any significant bleeding after delivery is abnormal and may be due to retained products (parts of placenta and membranes). She should be referred to hospital immediately.

- Fever after childbirth is abnormal. It is due to either infection in the birth passage, of the urinary tract or engorgement of the breast. Similarly offensive vaginal discharge indicates infection in the birth passage. She should be asked to go to hospital early.

- There should be no dietary restrictions at all after childbirth. Nutritional requirement is even more during lactation and as such the mother should be asked to take more food during especially during breastfeeding.

Also certain psychological and socio-emotional changes take place after childbirth which needs support. Watch for any abnormal behaviour and refer to a health worker if necessary.

Postnatal care is very important for both the mother and the baby and the VHW/AHW should visit the mother and the baby very early after they come home.

❑ **Aims of postnatal care:**

- To promote the psychological well-being of mother, baby and the family.
- To recognize complications early and refer for appropriate management.
- To promote and encourage exclusive breastfeeding.
- To provide necessary education and advise for maintenance of good health and wellbeing of mother and baby.
- To provide information and counselling for family planning.

❑ **Frequency and timing of postnatal visits:**

Most maternal and infant deaths take place during the postnatal period (within 42 days of delivery). Therefore proper postnatal care is very crucial for both the mother and the baby.

Post partum visits

- **1st ten days of delivery:** Minimum of 3 visits
- **Thereafter:** Once a fortnight during the post partum period.

During the 1st ten days of delivery, at-least 3 visits should be made by the VHW/AHW to the mother. Thereafter the mother and baby could be seen less frequently (once a fortnight).

❑ **What should be done during a postpartum visit by VHW/AHW?**

- VHW/AHW should be very courteous and supportive to the mother.
- Should encourage the mother to talk to her freely and discuss any problems.
- Ask whether the mother has any of the following:
  - ◊ Any vaginal bleeding.
  - ◊ Any fever.
  - ◊ Any offensive smelling discharge
  - ◊ Any abdominal pain and tenderness.
  - ◊ Any pain in legs.
  - ◊ Any other abnormality.

If any of the above are present, ask the mother to go to hospital very early.

- Inquire about the baby – Ask whether there are any problems
  - ◊ Offensive discharge from cord stump
  - ◊ Any fever
  - ◊ Inability to suck
  - ◊ Difficulty in breathing
  - ◊ Eye discharge
  - ◊ Diarrhoea

If any of the above are present, ask mother to take child to hospital very early

- Find out whether the baby is passing enough urine and faeces. During the first few days after birth faeces will be blackish. After a few days it will turn brown and later become yellowish.
- Educate mother on breast-feeding. Mother should exclusively breast feed (give nothing other than breast milk) her baby during the first four months of life. Ask whether there are any problems associated with breastfeeding and provide necessary advice.
- Advice on personal hygiene – This is very important. The mother should bathe as soon as she is fit to do so. She should be encouraged to wear clean clothes to prevent any infection to her and her baby.
- Advice on perineal hygiene – the need for regular washing, changing of cloth pads etc.
- Advice on maternal nutrition – importance of having a balanced diet and about local food taboos. Advice about infant care- bathing, nutrition, immunization, importance of attending CWC etc.
- Sexual relations – could commence after about 2-3 weeks if there are no complications.
- Family planning and child spacing – choice of methods and when to start.

Postnatal care is very important for both the mother and baby VHW/AHW should visit very early after they come home.

Breastfeeding

Breastfeeding is natural and instinctive for the baby. The thick, yellowish milk that is produced during the first few days (called colostrum) is very important for the baby. This milk is rich in nutrients and has antibodies, that will protect the infant against most infections. During the next two weeks, the breastmilk increases in quantity and changes in appearance and composition.

Most mothers could produce enough milk for the baby. Frequent suckling promotes milk production. Therefore, advice the mother to feed whenever the baby wants – called demand feeding. Breast milk production remains relatively unaffected in quantity and quality except in extremely malnourished women. Providing adequate nutrition to the mother during the lactating period, will protect the health of both: the mother and baby.

Breastmilk is the best food a baby could have. It contains all the nutrients that a baby needs for the first four to six months and provides all the water that the baby needs even in very hot weather. The baby should be given only breastmilk during the first four months. No artificial feeds should be given during this period, not even water. After four months, other foods could be introduced.

Baby should be exclusively breastfed for the First-four months.

❑ **Advantages of Breastfeeding:**

- Provides the best food for the baby
  - ◊ Breastmilk contains all the essential nutrients that a baby needs for the first 4-6 months in the right quantities. They are easily digested and absorbed by the baby.
  - ◊ It protects the baby from infection – Breastmilk contains protective substances that would kill the bacteria that may produce any infection. Breastfed babies have less diarrhoea, gastro-intestinal infections and fewer respiratory infections than artificially fed babies.
  - ◊ It is convenient and economical– Breastmilk is always available at the right temperature and never goes bad or sour. Only the mother requires additional nutrition. Distribution of supplementary food may be needed, if the food made available to conflict affected communities is not adequate.
- Could feed on demand - Could be given whenever the baby wants.
- Promotes bonding between the mother and baby – Breastfeeding promotes close physical and emotional attachment between the mother and baby.
- Convenient for the mother as preparation of artificial feeds is troublesome and time consuming. No cleaning of bottles and utensils are necessary.
- Exclusive breastfeeding provides contraceptive protection provided periods (menses) have not returned.

■ *Helping mother to breast feed:*

- Every mother should be motivated for breastfeeding during the antenatal period. Health education should focus on practical advantage of breastfeeding for baby and mother.

- Routine cleaning of breast before feeding is not necessary. Frequent washing especially with soap and water removes the natural oil from the skin of the nipple and areolar. This can damaged the skin.
- Mother could be made to sit or lie in a comfortable position and hold the baby.
- Show her how to hold the baby correctly:

- ◊ Hold the baby in close contact with the mother's body,
- ◊ Baby's head should be in straight line with the body,
- ◊ Bring baby's face close to the breast,
- ◊ Mother should lift her breast with the hand and offer the whole breast to the baby,
- ◊ Touch the baby's lips with the nipple so that it would stimulate sucking,
- ◊ Wait till the babies mouth is wide open and quickly move the baby well onto the breast,
- ◊ Ensure that the whole areolar is inside the baby's mouth, and the baby's chin touches the breast

❑ Burping the child after feeding

After every feed, the wind that is swallowed by the baby during sucking needs to be brought out. This is called burping.

This is done by making the baby sit on the mother's lap and supporting the back and the head with one hand and exerting gentle pressure on the baby's tummy with the other hand. This will help to squeeze the air out. Thereafter, the baby should be kept over the mother's left shoulder pressing baby's tummy against the mother's chest. This will help to bring out some more swallowed air. After that the baby could be put to sleep, turning to the right side. This will further help to expel air from the baby's stomach.

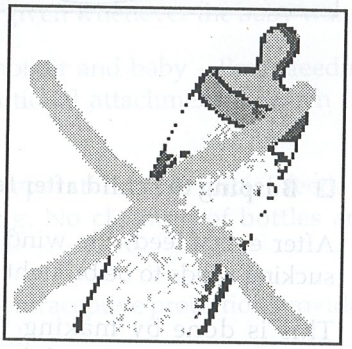
❑ **Problems that could be experienced by the mother**

- Breast could be engorged and painful – Mother should gently ferment the breast with warm water and thereafter express a small quantity of milk manually. Thereafter the baby could be put on the breast.

- Nipples may be sore and breastfeeding painful – Incorrect positioning of the baby at the breast is the commonest cause of sore nipples. It is usually not necessary to stop the baby from feeding. Help the mother to correctly hold the baby and ensure that the nipple and the areolar are well inside the baby's mouth. This will relieve the pain. If the soreness continues for more than a week, refer the mother for medical advice.

- Inadequate breast milk – This is one of the commonest problems that mothers complain. Most mothers could produce enough milk for the baby. Frequent suckling promotes milk production. Also correct positioning of the baby at the breast helps to improve milk supply. Therefore, advice the mother on the correct positioning of the baby and encourage feeding whenever the baby wants a feed. Reassure the mother that they could produce the quantity of milk that the baby needs. If the mother continues to be overanxious, they could be referred to the PHM for further advice.

  Bottle feeds should not be given even temporarily at any time. Once the baby gets used to sucking from a bottle (teat), he will be reluctant to suck from the breast, since sucking from a teat will be easier than sucking from the breast. This will also reduce the milk production in the mother.



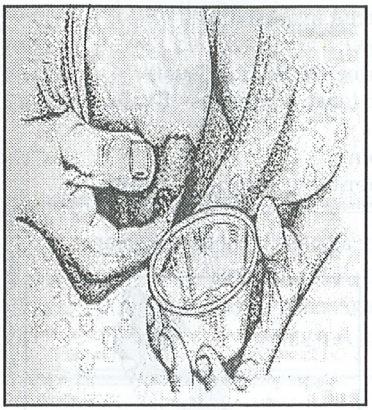
- Cracked nipples – Sometimes the skin of the nipple may get damaged and can lead to infection. By improving the sucking position, usually this would heal. However if the pain continues and the mothers finds it difficult to feed from that side, the milk from that side needs to removed manually till the damaged skin heals. Show the mother how to express the milk. The expressed milk could be fed to the baby using a cup.

❑ Expressing breastmilk by hand

The woman should be taught to express her own milk. The mother can do this manually. Generally it is easy to express when the breast are soft, but would be more difficult if the breast are engorged and tender. If you have to demonstrate, be very gentle. Explain to her how it should be done.

Breastmilk is the best milk that a baby could have.

Don't allow it to go waste.



How to express breastmilk

- ◊ Ask her to wash her hands well with soap & water,
- ◊ Sit comfortably and hold the cup near her breast,
- ◊ Place the thumb on the areolar above the nipple and first finger on the areolar below the nipple, opposite to the thumb,
- ◊ Press the thumb and the first finger inwards towards the chest,
- ◊ Press the areolar behind the nipple,
- ◊ Thereafter, should press & release.

  Repeat process.

  Milk may not come out at first, but after a few movements milk will start to drip.

  This should not cause any pain-If it hurts the Mother; the technique is in correct.
- ◊ Rotate the position of thumb and the index finger so that all segments are covered,
- ◊ Do it on both sides. It takes about 20-30 minutes to express an adequate quantity.

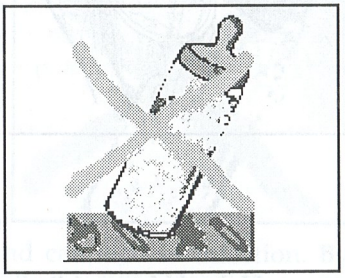
In case of any problem, seek advice of the PHM

What advice should be given for proper breastfeeding

- Start breastfeeding soon after birth.
- Have the baby and the mother together all the time
- Baby should be allowed to feed whenever he/she wants.
- Allow baby to breast feed as long as he wants.
- Feed from both breasts:
  # Start feeding from one breast and allow the baby to suck till it empties. Then transfer to the other breast.
  # Start next feed from the other side and do the same.
- If the baby does not suck enough, the milk supply would decrease
- Baby should be breastfed at night as a routine.
- Continue to breastfeed even when the baby is ill (diarrhoea or any other illness). Mothers should continue to breastfeed during illnesses unless advised by a doctor. Ask mother to inform the doctor that she is breastfeeding.
- All mothers should be taught the correct method of breast feeding
  # Whole areolar should be placed inside baby's mouth
  # Hold the baby correctly during feeding (Visual)
- Give only breastmilk for at least 4 months- Exclusive breastfeeding.
  Not even water should be given.
- After 4 months complementary feeding could be introduced.
- Continue breastfeeding as long as possible – for 2-3 years.

Do not give any artificial milk to the baby at any stage.

Artificial pacifiers and teats should never be used.



Breastmilk is the best milk that a baby could have.
Encourage every mother to exclusively breastfeed for at least 4 months.
After 4 months supplementary feeding could be introduced.

Family Planning

Family planning is an important component of safe motherhood. Family planning is beneficial to mothers as well as babies. Pregnancies too early, too many, too soon and too late poses a threat to the life of the mother and the baby. Too many and too closely spaced pregnancies causes nutrition depletion in the mother and this affects the health of both: the mother and child. Pregnancies that are too close (less than 2 years) affect the nutrition status of the mother. The infants are more likely to be premature and have a low birth weight and the chance of dying is more. A gap of at-least 3-4 years is recommended, so that there would be adequate time for the mother to regain what has been lost during the previous pregnancy. Too early pregnancies (under 18 years) should be discouraged since it poses a threat to the mother as well as the baby.

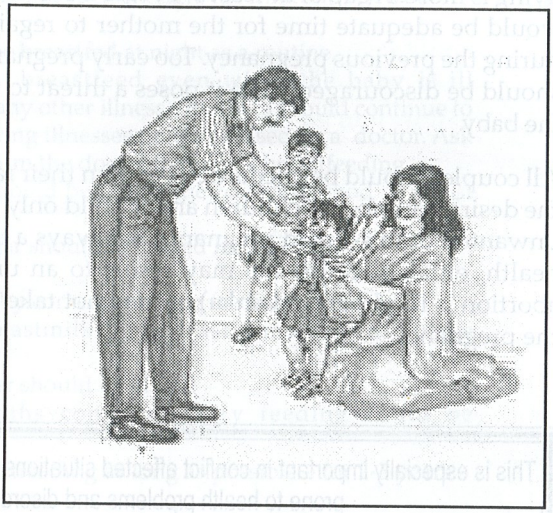
All couples should be encouraged to plan their families and have only the desired number of children and, a child only when they want. Any unwanted or mis-timed pregnancy is always a threat to the woman's health, either because she may resort to an unsafe abortion (since abortion is illegal in Sri Lanka) or may not take adequate care during the pregnancy.

This is especially important in conflict affected situations where women are more prone to health problems and disorders.
They should be encouraged to use a contraceptive method to prevent such situations.

Chapter 3

Family Planning and Contraception

Planning a family means having children as and when the family wants. The husband and wife should jointly decide on the number of children they could afford to have. Family planning is beneficial to mothers as well as babies. It helps to ensure the health and well-being of women, children and even communities. It is known that, too many and too closely spaced pregnancies cause nutrition depletion in the mother. This would be more applicable to conflict affected situations where the women are likely to be more malnourished. It is essential to have a gap of 3-4 years between pregnancies so that there would be sufficient time to regain what has been lost during the previous pregnancies.



Use of contraception, help couples to plan their pregnancies and have the desired number of children and a child only when they want. Any unwanted or mis-timed pregnancy is always a threat to the woman's health, either because she may resort to an unsafe abortion (since abortion is illegal in Sri Lanka) or may not take adequate care during the pregnancy. It is therefore essential that all couples plan their pregnancies and have children by choice and not by chance. In order to facilitate this concept, almost all countries in the world have initiated family planning programmes to assist couples in planning their families.

Aim of family planning

- Assist couples to:
  - ◊ Have the desired number of children only and prevent any unwanted pregnancies.
  - ◊ Adequately space the pregnancies so that mothers could regain what has been lost in their previous pregnancies.
- Assist subfertile couples to have the desired number of children.

Unwanted and mistimed pregnancies could be prevented by the use of contraception. Both men and women should equally share the responsibility of planning their families. There are several contraceptive methods that can be used by couples. These are safe and easy to use. Couples who have completed their family size and do not want any more children could resort to the use of a permanent method while couples who want to either postpone their first pregnancy or space their next pregnancy could use a Temporary method. Contraceptive methods are available for men and women so that both could share the responsibility of contraception.

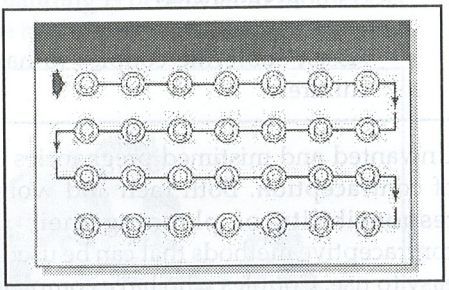
Family Planning methods available

Permanent methods
- Male sterilization - Vasectomy
- Female sterilization – Tubectomy/LRT

Temporary methods
- Artificial methods – Oral Pill, Condoms, IUD, Injectables, Nor-plant
- Natural methods – Safe period, Withdrawal Total abstinence

**All couples should plan their families,
Use of contraception will help couples
to have the desired number of children with
suitable spacing.**

Oral contraceptive pill



The oral contraceptive pill (Oral Pill) contains synthetic hormones similar to oestrogen and progesterone. Each packet contains 28 tablets/pills: 21 containing the above hormones (hormonal pills) and 7 containing iron and vitamins (Placebos) which are of a different colour.

Oral pills are safe and very effective if taken properly. It suppresses ovulation so that the woman will not produce an egg, thereby preventing a pregnancy.

Fertility returns to normal when the pill is discontinued and the woman could get pregnant any time thereafter.

The oral pill should only be prescribed by a health personal after a clinical screening (check-up). Thereafter it could be obtained from other sources. However it is important that the client undergoes a clinical checkup annually, when taking the pill for long periods.

❑ *How to use the pill?*

◊ Start with the 1st hormonal pill on the first day of the menstrual period. ie the pill on the left hand corner of the first row.

◊ Thereafter continue taking a pill every day following the direction of the arrows on the packet untill all the pills in the packet are taken, including the placebos. Continue taking the pill at the same time. It is preferable to take the pill at night before sleeping. When taking the placebo pills, the woman will usually have her periods. Continue taking the balance pills till the packet is over.

◊ Start a new packet with the first hormonal pill and follow the same procedure. There should be no break in the pill-taking between packets.

◊ The client should always have an additional packet with her to ensure continued use.

❑ ***What are the side effects one could have when taking the pill?***

The common side effects resemble symptoms of "morning sickness". The client may experience nausea, mild vomiting and giddiness. These usually pass off within two to three months. It is important that the client be informed of the side effects prior to starting the pill.

Client may also experience breast tenderness, weight gain and rarely menstrual disturbances. These cases should be referred to the FP clinic for necessary advice and management.

❑ ***What needs to be done if a woman forgets to take a pill?***

- **If the women misses one hormonal pill** - Ask her to take the missed pill as she remembers and the next pill at the usual time. (ie. 2 pills the same day or even at the same time). Thereafter she should continue to take the rest of the pills as usual.

- If the woman misses two hormonal pills on two consecutive days **– Ask her to take 2 pills as she remembers, and 2 pills on the following day. Thereafter, she should**

- continue to take a pill daily as usual. The couple should be advised to use condoms as a backup method till the onset of the next menstrual period.

- **If the woman misses more than two hormonal pills** – Ask her to discard that packet and start using a new packet. A backup method (condoms) should be used for the first 7 days.

- **If one or more of the placebo pills are missed** – Ask her to throw away the missed pills and take the rest of the pills as usual. When the packet is over could start a new packet as usual without any interruption.

❑ *For whom could oral contraception be prescribed?*

- Newly married women to post-pone the first pregnancy.
- For couples to space pregnancies.
- Not suitable for mothers who are breastfeeding during the first six months.

Information to be provided byVHW/AHW

- Oral pill is a temporary method of contraception,
- Fertility returns to normal after discontinuation,
- It is very safe and effective if properly taken,
- A pill has to be taken daily without any interruption,
- The user should always have an additional packet,
- Side effects are minimal and pass off after 1 or 2 months,
- It could be obtained from the health center or the area health worker,
- One has to pay only a very small price (highly subsidised),
- It is given for the first time (ie. prescribed) only by a health worker after a careful checkup.
- Thereafter supplies could be obtained from any other source.

Only a health worker could initially prescribe oral pills to a client. Any potential client after initial counselling should be referred to a health personal for further advice and services.

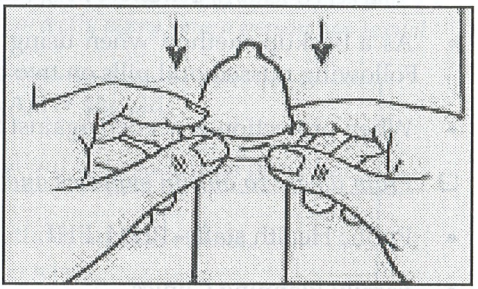
Condom

Condom is a thin rubber sheath used by the male during sexual union. The end of the condom has a "teat" shaped extension for collection of seminal fluid ejaculated during intercourse. Most condoms are lubricated to facilitate penetration into the vagina. Each condom is rolled and packed in foil and is ready for use. Condoms need to be properly stored: away from heat, light and moisture.

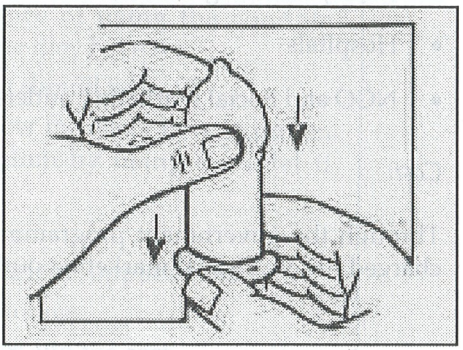
Condoms have to be used by the male partner every time he has sexual intercourse. If correctly used it is a very effective method. It prevents the entry of sperms into the vagina during intercourse thereby preventing a pregnancy. It also protect both partners against sexually transmitted infections (STDs). It is very safe and has no side effects.

❑ *How to use the condom:*

- Condom is used by the male during sexual union.
- It has to be worn before any form of genital contact- ie. before the erect penis touches the vagina.



- Remove the condom from the pack very carefully without causing any damage. Finger nails and rings could damage the condom. Compress the teat at the end of the condom with the thumb and the forefinger.



- Place the condom over the tip of the erect penis and gently unroll along the full length so that it extends up to the base of the penis. (The condom could unroll only in one direction; keep the rolled rim facing upwards). With a little practice this could be done quite easily. Do not

unroll the condoms before use, since it will not be possible to use it thereafter.

- After ejaculation, the penis together with the condom should be withdrawn from the vagina while the penis is still erect. When removing the penis, the male should hold the condom at the bases of the penis to prevent it from slipping off.
- Condom could be used only once. After removal, the condom should be properly disposed. Throw the used condom into a latrine pit or keep it wrapped for burning in a fireplace or burying the following day.

❑ ***For whom are the condoms most suitable?***

- Couples practicing infrequent sex.
- Couples wanting to post pone the 1st pregnancy.
- Couples wanting to use a temporary method of family planning to space their next pregnancy.
- As a backup method when using any other contraceptive. (eg. Following missed oral pills on two consecutive days)
- When protection is needed against STD/HIV infection.

❑ ***From where to obtain supplies and how much will it cost?***

- Public Health staff – PHM, PHI
- Family Planning Clinics,
- Hospitals
- NGO and Social marketing outlets – pharmacies, shops etc.

Cost:

Through the government programme only a very small amount is charged (05 cts.) Social marketing outlets – Price is much higher

❑ ***Additional information on use of condoms:***

- Are condoms an effective method of family planning?

  Condoms are very effective (over 97%) if used correctly and every time the user has sex.

- Do condoms make sex less enjoyable?

  Most users enjoy sex to the same extent and some times more because they are free from worry about pregnancy or STDs

- Do condoms break during sex?

  Condoms seldom break if used properly. Also storage is important since exposure to heat, strong light and moisture could weaken the rubber. Therefore keep condoms in a cool, dark place free from moisture.

- Could condoms effectively prevent STD infections?

  Condoms could provide very good protection against STDs and HIV infection when used correctly every time a person has sexual intercourse.

VHW/AHW should:

- Provide information about the condom to potential clients:

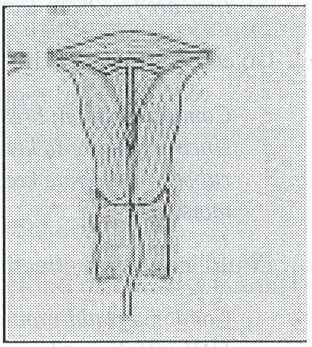
  Safe & effective method, no side effects,

  Also protects against STDs,
- Explain the importance of using the condom correctly and every time they have sex.
- Explain in detail how it should be used.

  Wherever possible, show the client how to put on and remove the condom by using a model if available.
- Disposal after use,
- The need to have a sufficient supplies at hand,
- Importance of proper storage,
- Where to go for supplies and the cost,

Just one unprotected act of intercourse can lead to pregnancy or Sexually Transmitted Disease. Condoms protect couple from having unwanted pregnancies and STDs.

Intra Uterine Devices (IUDs)



Intra uterine contraceptive device (IUD/ IUCD) is a small, flexible, plastic device that is introduced into the uterine cavity by a trained health person. Several varieties of contraceptive devices are available. In the past "Lippes Loop" was the IUD used in the national family programme. Currently a copper-containing device called the Copper T 380 A is in use.

This is a plastic "T" shaped device with a thin copper wire wrapped round the vertical limb of the "T" and having two pieces of nylon thread attached to it. This is effective for period of 10 years and causes minimal side effects confined mainly to the first few months of insertion. This is introduced into the womb through the vagina with a special inserter, by a trained health person (Doctor or a Public Health Nursing Sister). This procedure is done under aseptic conditions.

It prevents conception as long as it is within the womb and once taken out, fertility returns to normal and the woman could have a child. It is normally used as a method for spacing pregnancies, but may be used to limit family size, for couples not willing to undergo a sterilization. Since the effectiveness is only for 10 years, it is necessary to remove the Copper device at the end of this period (even slightly earlier) and re-insert a new device if the client wishes to use it for a longer period.

❑ *When could the loop be inserted?*

IUD should be ideally inserted within the first five days of onset of periods. However it could be inserted any time during the menstrual cycle if the woman is not pregnant.

❑ *What Side effects will a woman experience when using a Copper Device?*

Side effects are minimal with the copper device and is generally seen mainly during the first few months.

The common side effects are:

- Mild abdominal pain for a day or two after insertion,
- Mild irregular bleeding during the first 3-4 weeks,
- Periods may be slightly heavier than usual for the first 2-3 months.

These usually pass off after 2-3 months and thereafter the woman may not even feel that she is using an IUD.

Some times certain problems may be seen after an IUD insertion.

- The IUD may get expelled especially during the first few months. If this happens, ask client to attend the next clinic for necessary advice.
- Infection could be introduced, if proper sterile procedures have not been adhered at the time of insertion. The client will experience fever with chills, lower abdominal pain and tenderness, offensive vaginal discharge etc.

In the event of any infection, the client should be advised to go to hospital immediately for medical treatment.

❑ *Follow-up after IUD insertion:*

- A follow-up after IUD insertion is essential. The client should be asked to attend the FP Clinic 4-6 weeks later for a checkup. If there is no abnormality, she could be asked to attend the clinic annually thereafter.
- The client should also be followed up at home. If there is no PHM in the area, this should be done by the VHW/AHW.
  - During the first three months - once a month, 1st visit should be made during the first few days after IUD insertion.

- Thereafter, if there are no problems - a visit once in 4-5 months would be adequate.

- The client should be taught to check whether the IUD is in place. This could be done by feeling for the threads in the vagina. She should do this check preferably every month after periods.

The client should be asked to report to the FP Clinic if:

- The threads cannot be felt, or a hard part of the device is felt when checking for the IUD.

> *How could this be done?*
>
> ◊ Client should first wash her hands with soap and water,
>
> ◊ She should thereafter sit in a squatting position and,
>
> ◊ Insert the fore-finger in to the vagina as far as she can and feel for the threads.

- She misses a menstrual periods or thinks she could be pregnant.
- IUD gets expelled or comes out during periods.
- Has heavy or prolonged bleeding or irregular periods.
- Threads cause discomfort to the partner during sexual intercourse.

❑ *For whom is the IUD most suitable?*

- For parous females who have had a vaginal delivery,
- For spacing pregnancies, or even limiting family size where sterilization is not acceptable to either partner.
- For women who are unable to get supplies easily.
- Breast feeding mothers could use this method from 6 weeks after delivery.

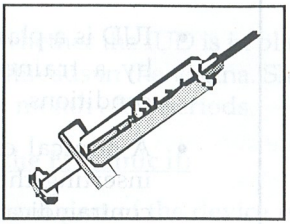
Information to be conveyed by VHW/AHW

- IUD is a plastic device inserted in to the womb by a trained health person under aseptic conditions.
- A clinical examination will be done before inserting the IUD to ensure that there are no contraindications for its use.
- Provides contraception as long as it is in the womb. It is a very effective method.
- Could be removed easily if the client wishes to have a child.
- Fertility comes back to normal very early after removal.
- Side effects are minimal. They pass off after 2-3 months.
- Frequent follow-ups are not necessary
- Only the client has to check whether the IUD is in place.
- Could be used for almost 10 years. After that needs to be removed and reinserted if necessary.
- Provided free of charge at the FP Clinics.

If the woman shows interest in getting an IUD inserted, refer her to the FP clinic for necessary advice and services

IUD is a very reliable method that requires little attention after insertion.
It is a very convenient
and
a good method

Injectable Hormonal Contraceptive: Depo-Provera



Depo-Provera (DMPA) is a long acting hormonal preparation containing synthetic progesterone. It is very effective. A single dose provides contraception for 3 months (90 days). It is given into the muscle and is thereafter, slowly released into the blood stream providing the necessary contraceptive effect.

This prevents ovulation and also thickens the cervical mucus making it difficult for the sperms to enter the womb. After discontinuation, the woman will start to ovulate once again after about 7 to 8 months. (ie. takes longer than the oral pill and the IUD).

Depo-Provera could be given to breastfeeding mothers from the 6th week onwards. Depo-Provera (DMPA) could be given continuously for a long period and could even be continued upto menopause, if there are no contraindications.

❑ *How should Depo-Provera be given?*

- Ideally the first injection should be given within five days of onset of periods. If the woman has not had sexual intercourse after periods, the first injection could be given, but a backup method (condoms or abstinence) should be practised for one week.
- Breast feeding mothers could start using Depo-Provera after 6 weeks following partus. It is not necessary to wait for resumption of menses.
- Repeat injections should be given every three months. A grace period of 14 days before or after is usually allowed.

Do not massage the site after the injection.
Also inform the client not to massage or ferment the injection site.

❑ *What are the common side effects women experience when using Depo-Provera?*

- A woman using Depo-Provera could experience changes in the bleeding pattern (periods). Periods could become irregular for a few months and may even stop completely for some time. This does not mean that she is pregnant. She should attend the FP Clinic on the scheduled day for the repeat dose since this is a common side effect in most women. Rarely, the client may experience heavy bleeding which usually pass off after a few months.
- Some women may gain weight when taking Depo-Provera.

The client should bring this to the notice of the health staff at the clinic when she goes for the repeat doses.

Follow-up visits

- The client should be followed up at home especially during the first few months. Ask about the bleeding patterns. If the woman is worried, reassure that these are not usually dangerous and that she could get necessary advice from the health staff, when she attends the clinic for the repeat injection.
- If there is heavy bleeding refer client to hospital or FP Clinic early.
- Remind her about the date of next injection.

For whom is Depo-Provera suitable?

- For women who want to space the next pregnancy.
- Breastfeeding women after 6 weeks of partus.
- Women who do not like to use other methods.
- Women seeking family limitation, if they do not want sterilization.

Information to be conveyed by VHW/AHW

- Depo-provera is very effective and safe.
- Could be used at any age.
- It is a hormonal preparation that has to be taken every 3 months,
- A single injection prevents pregnancy for at least 3 months,
- Does not interfere with sexual intercourse,
- The effect is reversible, but return of fertility is a little more delayed than other methods,
- Side effects - Menstrual disturbances are common, but nothing to worry,
- Could be taken while breast feeding the baby (ie. after 6 weeks)
- Could be used for a long period of time, even up to menopause,
- Available at Govt. FP clinics free of charge,

Depo-Provera (DMPA) is a safe and effective method, that needs to be taken only once in three months. It is a very convenient method for women, especially in unsettled situations.

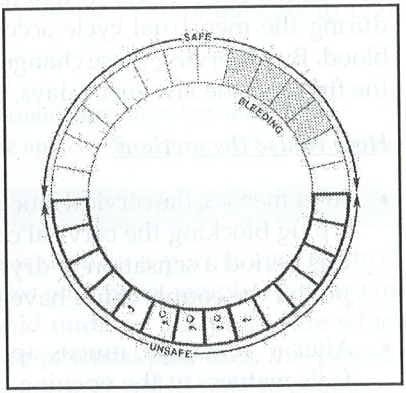
Natural Family Planning Methods

Natural Family Planning methods are based on fertility awareness when the couple could take adequate protection to prevent a pregnancy. The couple avoids pregnancy by changing their sexual behavior pattern during the fertile period. They could either abstain from vaginal intercourse or use a barrier method like the condoms during the potentially fertile period. These methods are not very reliable and show high failure rates. Its practice require good understanding of identifying the potentially fertile period and also close cooperation of the husband to change their sexual behavior pattern during the fertile period. Therefore it is not recommended for women in unsettled communities, unless there are very special reasons for its use.

A woman can use one or a combination of the following methods to identify when her fertile period begins and ends.

Calendar or rhythm method

The woman counts the calendar days to identify the beginning and the end of the fertile period (unsafe period). The calculation of the fertile period depends on the lengths of the previous cycles.



How to calculate the fertile period

Before relying on this method the women has to record the number of days in the menstrual cycle for atleast 6 months. The 1st day of the cycle is counted as day one.

First fertile day is calculated by subtracting 18 from the shortest cycle
Last fertile day is calculated by subtracting 11 from the longest cycle

Example

The duration of the recorded cycles vary from 26 to 32 days
First fertile day = 26-18 = 8
Last fertile day = 32-11 = 21
Fertile period could be from the 8th to the 21st day.

The couple will have to either abstain from having sex
or
use a Barrier method like the condom
during this period.

Cervical mucus method

This is also called the Billings method. This is based on the changes in the mucus produced by the glands at the mouth of the womb during the menstrual cycle, producing changes in wetness at the opening of her vagina. The cervical secretions changes in amount and consistency during the menstrual cycle according to the oestrogen levels in the blood. By observing these changes, the woman will be able to identify the first and the last fertile days.

How to use the method?

- After menses, the cervical mucus becomes thick and sticky and forms a plug blocking the cervical canal (entrance to the womb). During this period a sensation of dryness is felt in the vagina. During this period the couple could have unprotected sex.
- After a few days, mucus appears at the vagina and the woman feels wetness at the opening of the vagina. This is the start of the fertile period. As soon as this is observed, the couple should avoid vaginal sex or use a barrier method like condoms when having sex.
- After about the 7th or 8th day, the secretions become sticky and scanty and the wetness at the vaginal opening is lost and a dry sensation is experienced once again. When this happens, the couple could once again have unprotected vaginal sex until the next period.

It is important that the couple does not have unprotected sex, if the woman is not sure about dryness of the vagina.

Basal body temperature method: The woman's resting body temperature goes up slightly around the time of ovulation and remains elevated until the next menses.

How to use the method?

- The woman takes her body temperature each morning before she gets out of bed using a thermometer having a wider scale. The oral, rectal or vaginal temperature could be taken for this purpose, but the same route and the same thermometer should be used. The temperature should be recorded on a temperature chart.

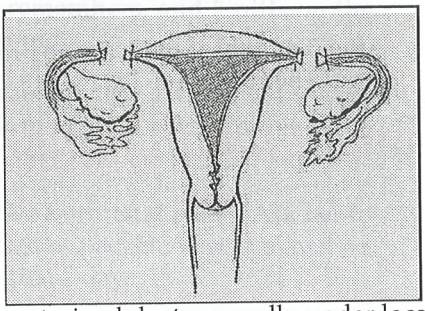
- At the time of ovulation, the temperature shows a slight increase (0.4 to1.0 deg. F). The couple should not have unprotected sex from the 1st day of the periods till the 4th day after the temperature rise is seen. They should either practice abstinence or use a barrier method during this period.
- After this, they could have unprotected sex for the next 10-12 days until her next period begins.

Using this method, couples could have unprotected sex only from the 4th day after temperature rise up to the beginning of the next menses.

Surgical contraception

Surgical contraception or sterilization is a permanent method of contraception available for couples who have completed their family size. Both males and females could undergo this procedure which is very effective, simple and safe. For practical purposes, this procedure is irreversible. Hence it should be recommended only to couples who do not want any more children and written consent should be obtained from both partners on a consent form (H 1198) before either partners could undergo this procedure.

Female sterilization:



This is also called tubectomy or LRT and involves ligation (tying) and cutting a portion of the fallopian tubes on both sides by making a small incision in the abdomen. It is almost 100% effective as a contraceptive method although very rarely a failure may be seen. It's a simple operation taking only a few minutes and is performed by a trained doctor usually under local anesthesia in a hospital with adequate facilities.

The woman is usually hospitalized for a short period (day or so). This may also be performed as an out reach procedure at a suitable health center, with equipment brought from outside. This is provided free of charge in govt. hospitals where facilities are available.

After the operation the woman could attend to her normal work within a few days. Her periods will continue as usual. Very rarely complications may occur which need medical attention.

❑ *When could a woman undergo sterilization?*

A woman can undergo sterilization almost any time after the couple decides that they do not want any more children.

- Immediately after childbirth or abortion.
- Any time after 6 weeks of child birth.
  (It is not recommended between the 1st and 6th week after partus).

❑ *Follow-up:*

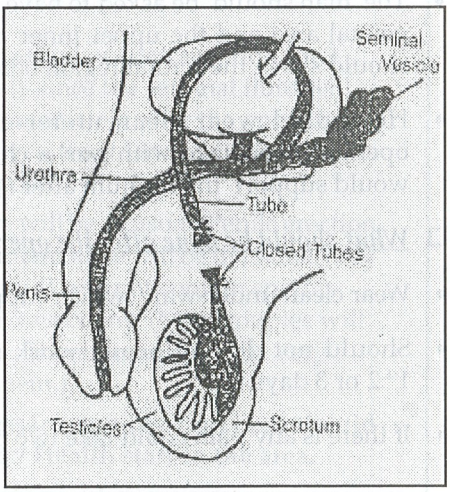
- The client should be got down in 5-6 days for removal of suture if necessary depending upon the suture material used. Necessary advice will be given before discharging the patient from hospital.
- The health worker (VHW/AHW) should visit the client at home at least once a month for a period of 3 months. During the visits she should inquire about any problems (fever, bleeding from wound, wound infection) and refer if necessary to hospital for medical attention.
- After 3 months if there are no problems, a visit once in 5-6 months would be sufficient.

Information to be conveyed to a potential client by VHW/AHW

- It is a very good method for women who have completed their family size.
- The method is permanent. Once performed, the client need not worry any more about getting pregnant.
- Periods continue as normal.
- The client could attend to work as usual.
- It is a one-time procedure.
- Relatively a simple and a safe operation performed through a small incision (cut) in the abdomen.
- Takes only a few minutes.
- Performed by a trained doctor in a hospital with facilities.
- Usually done under local anaesthesia. Therefore not painful and does not loose consciousness.
- Has to be hospitalised only for a day or two.
- Where the client could go for services.

Male sterilization - Vasectomy

Male sterilization or vasectomy is a simple operation removing a small section of the duct (vas deferrence) that carries the sperms produced in the testes on both sides. This prevents the sperms from mixing with the seminal fluid that is produced in the seminal vesicles. The operation is done under local anaesthesia by a trained doctor.



A small incision (about half a centimeter) is made in the mid scrotal region The vas (sperm duct) is brought out through the

incision and a section of about 2 centimeters removed. The two cut ends are tied with suture material and allowed to slip back to its place.

This procedure is thereafter repeated on the other side. It takes only about 5-10 minutes and is usually performed as an out-patient procedure. The man could generally attend to light work after the operation during the first three days. After the wound heals, he could attend to his normal work as usual.

After the operation, it takes at-least three months for the male to be sterile, since the sperms produced prior to the operation would be stored in the seminal vesicles and would remain alive for three months. Therefore during this period, some other method of contraception has to be used till the seminal fluid becomes sperm free. The most commonly advised method for use is the condom. Usually 20 condoms are given free of charge to each individual after vasectomy, with the necessary instructions for its use for the first three months.

Vasectomy is a very effective permanent method of contraception, if the instructions given at the time of operation are carried out properly. After three months, the couple could have unprotected sexual intercourse. Male will continue to have his usual sexual ability with penile erection and ejaculation as usual: only the seminal fluid will be free of sperms.

❑ *What should be done before going for the operation?*

- The man should be asked to have a bath, thoroughly cleaning the genital area and the upper inner part of the thigh. If possible he should shave the scrotal region before bathing,
- He should wear clean under-clothing when going for the operation and take with him a change of clean under-ware that would support the scrotum after the operation,

❑ *What should be done after the operation?*

- Wear clean under-ware which support the scrotum for 2-3 days,
- Should not do any heavy work or vigourous exercise for the 1st 2 or 3 days.
- If there is any pain could take two paracetamol tablets.

- Use condoms (or some other effective backup method) for three months or for 20 ejaculations.

If facilities are available, get a sperm count done after three months before having in unprotected sex.

The man should be asked to report to the hospital/clinic at once if he has:

- ◊ *High fever,*
- ◊ *Bleeding or an offensive discharge from wound,*
- ◊ *Swelling and tenderness in the scrotal region*

Information to be conveyed by VHW/AHW to couples who are interested in vasectomy

- Vasectomy is a permanent method and could be used by couples who have completed family size.
- It is a simple operation which is performed as an out-patient procedure.
- It is performed by a trained doctor under local anesthesia and would take only 5-10 minutes.
- The client should be careful only for 2-3 days. Thereafter he could attend to his usual work. (no restriction on doing heavy work)
- Should use a back-up method of contraception for 3 months or 15 ejaculations since the seminal fluid will not be free of sperms immediately after the operation. Usually condoms are given free to individuals after vasectomy for this purpose.
- Sexual ability and desire will be as usual. Penile erection and ejaculation during intercourse will be the same: only the ejaculate (seminal fluid) will not contain sperms after three months after vasectomy. (Most couples will be concerned about this. Therefore it has to be very carefully explained to them.)

For further advice and necessary services, the client should be referred to the Clinic/ Health staff in the area.

Sterilization (Vasectomy & Tubectomy) is a safe and a very effective contraceptive method that could be used by a couple after completing their family size.

Subfertility

Family planning also means helping couples who do not have children and wanting to have a child as well. Normally couples take varying length of time to produce a pregnancy and they should be advised not to worry too much for about a year or so. Reassure such couples of the possibilities of having children and encourage them to attend the family planning clinic for necessary advice on frequency of intercourse and timing in relation to the fertile period. Follow them up in the field and ensure that they carry out the instructions given at the clinic.

❑ *What are the commonest causes of subfertility?*

Certain conditions associated with the male or female could be responsible for subfertility.

Female:

- Failure to ovulate due to certain hormonal imbalances or diseases like diabetes,.
- Blocked uterine tubes following STD infections,
- Abnormalities in the uterus etc.

Male:

- Failure of testis to produce adequate amounts of sperms,
- Blocked vas deferens (spermatic cord) following STD infections,
- Failure of erection and premature ejaculation etc.

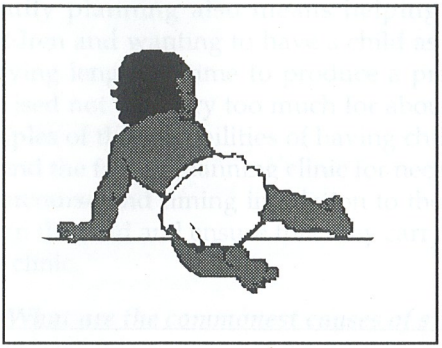
❑ *What should be done if a couple is subfertile?*

If a couple had been living to-gether and had been trying for a pregnancy for more than one year, but not been successful; such a couple should be advised to attend a specialist clinic (Gynaecology/ Subfertility Clinic) for necessary investigation. It is essential that both, the husband and wife attend the clinic for investigation since either of them may be responsible for this condition.

Chapter 4

Infant and child health

Infant is a child up to one year of age and a pre-school child refers to a child from 1 year to 5 years of age. This is a very important period. After birth there is a period of rapid growth up to about three years.



Thereafter growth slows down and continues steadily till about puberty (time at which a child attains age) which occurs around 11-14 years. At puberty it accelerates again reaching a peak and slows down thereafter.

The only way of finding out whether the baby is growing well is to check the weight regularly and maintaining the growth chart (Child Health Development Record - CHDR) given at the time of birth. If a child has not received a CHDR at the time of leaving hospital, the VHW/AHW could issue one during postnatal visits in the field.

❑ *When could a baby start on solids?*

After four months, other foods could be gradually introduced to the baby, but Breastfeeding should be the main meal for the first 6-8 months and should be continued as long as possible. Semi-solids and solids should be gradually introduced to complement breastfeeding. If not the child would become malnourished.

How to start solids

- ◊ Start complementary feeding gradually, with one food at a time so that the baby will get used to the taste.
- ◊ Use a clean small spoon to feed the baby.
- ◊ Start by giving 1or 2 small spoonfuls and increase gradually.
- ◊ Add a little oil to the food where possible. A teaspoon or two of oil should be used when preparing most types of complementary food since it would enhance the energy content of the food.
- ◊ Always give the solids first before the breastfeeding when the baby is hungry.
- ◊ In two months of starting complementary foods, the frequency of feeding should be 2-3 times a day and this should increase to 4 times when the child is 8-9 months of age.
- ◊ When preparing baby's food care should be taken to ensure cleanliness. Hands should be washed with soap and water (preferably running water) before preparing the feed.

❑ *What foods could be given to the baby?*

Fruit juice made in boiled water could be given in small quantities: 2-3 teaspoons to start with and then gradually increased. Also rice cungee could be started after the 4th month: first as a thin gruel and gradually thickening it in consistency. Vegetable soups made with a teaspoon or two of pulses like dahl, green gram and cow pea, and with green leaves could be introduced gradually. Mashed banana or papaw could be given.

By the 5th month, a little dried sprats could be added to the soup, and the soup could be tempered with a little

oil to enhance the energy content in the babies food. The soup could be thickened with foods like potato, carrots, wattakka etc.

By the 6th month, the baby should have 4-5 teaspoons of mashed food (mashed rice with mashed boiled vegetables etc.) before a breastfeed. Egg could be introduced at this stage; initially the yolk (three fourths or fully boiled) and about 2-3 weeks the white of egg could also be given. A biscuit or a rusk may be given to the baby to bite so that the baby will get used to chew and swallow solids.

By the 7th to the 8th month, the baby could be gradually introduced to solids. The baby could be given well boiled, soft rice with a little fish and vegetables. By one year, the child could be given most of the adult type of diet.

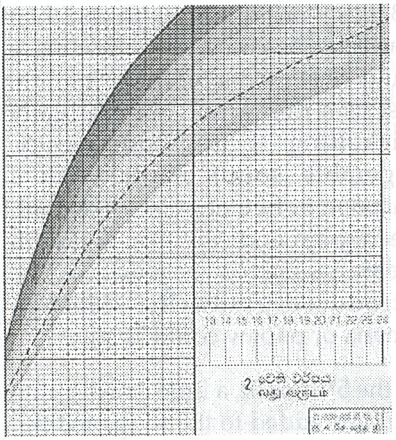
The baby should not be starved during any illness. Even though the baby is ill, the mother should continue to breastfeed and give complementary food as usual. On recovery, the child's appetite will improve and should be fed with nutritious food more often than usual.

❑ *How does one know that the baby is getting adequate food?*

Weight gain should be watched carefully especially during the first three years. If the baby is growing well, it means that the diet is adequate. The baby needs to be weighed regularly for this purpose and the weight plotted on the CHDR.

Pattern of growth needs to be compared with the lines indicated on the growth chart.The growth chart is in two parts. One section indicates the growth pattern upto 3 years from the time of birth and the other section for ages 4 and 5years.

Growth Chart on the CHDR



The dark continuous line indicates the 50th centile for boys (NCHC std.) and the lower dotted line; the 3rd centile for girls (NCHC std.). ie. the average weight for boys

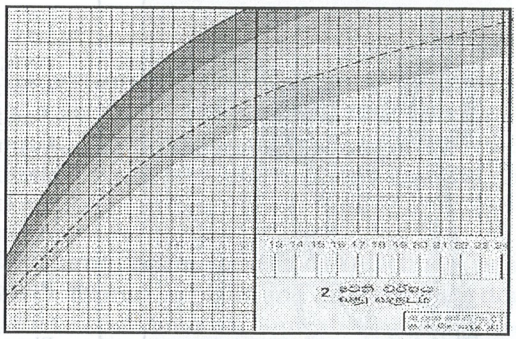
and lower limit of the normal range for girls. The space between the two lines is divided into 6 zones characterized by different shades. The vertical scale indicates the weight of the child and has 100 gram markings. The lower horizontal scale denotes the age of the child in months.

During the first year, encourage the mother to take the child to the CWC once a month for weighing. Thereafter the child could be taken to the clinic once in 2 or 3 months for weighing.

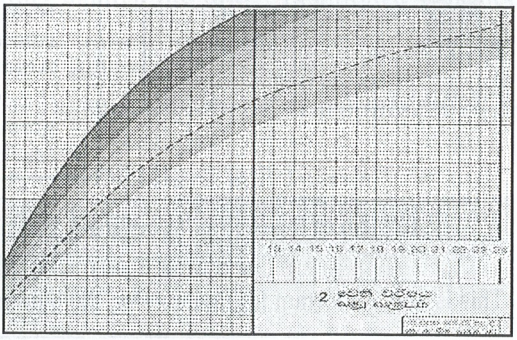
The child should be weighed at every visit and the child's weight should be recorded on the CHDR. The mother should be informed about the growth pattern and necessary advice should be given. Also teach the mother how to interpret the growth curve so that she herself could assess her child's growth.

Interpretation of growth pattern:

The weight gain or the growth curve should run parallel to the lines illustrated on the chart; then we say that the child is growing well.

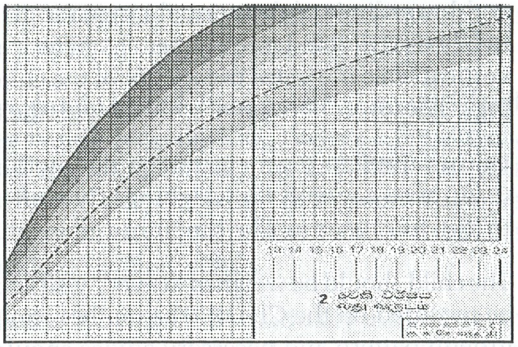


A flattening of the curve or dipping of the curve (moving from one coloured area to another) indicates that the growth is poor. This may be due to poor nutrition or an underlying infection like diarrhoea, a respiratory infection or measles. The mother should be advised accordingly. An improved diet to catch up with the lost weight should be recommended. The mother should also be advised to bring the child to the next clinic for weighing.



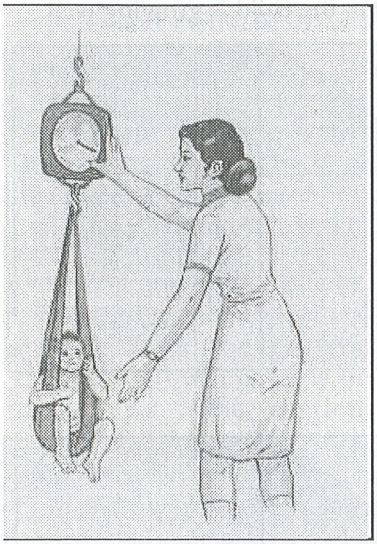
If the child growth curve has remained below the dotted line, but has been

parallel to it, the growth could be considered satisfactory and acceptable though the child is identified as "small" for age.



❑ *Weighing of children:*

For weighing of children, a "hanging type" of weighing scale is used. It is important that the weighing is done correctly. The VHW/AHW should know the correct procedure of weighing.



Steps of weighing

- Use a hanging type of a weighing scale to weigh the children,
- Hang the weighing scale on a beam using a strong rope with the dial of the weighing scale at eye level,
- Adjust the scale so that it reads ZERO level correctly,
- Remove all clothing from the child prior to weighing.
- Place child in the trouser sling provided with the weighing scale and allow the child to hang comfortably,
- After child settles down, read off the weight to the closest 100 grams,
- Mark it on the growth chart.

Explain to the mother about the growth pattern of her baby and what needs to be done.
This is very important for maintaining the health and wellbeing of the child.

❑ Child Development:

Child growth indicates a change in the size of the body and vital organs while development indicates maturity and advancement of body functions. Certain specific body functions occur at different ages. Some of the functions that could be identified easily by the health staff are indicated in the CHDR (sections F/J). These are called milestones. Any delays in achieving these should be brought to the notice of the doctor at the clinic.

Developmental mile-stones

- 1-2 months – Child identifies mother and responds by smiling,
- 3-4 months – Raises the head and keeps head lifted,
- 8-9 months - sits without support,
- 9-10 months – Stands without support,
- 11-15 months – Walks without support,
- 10-15 months - Speaks a few words (Amma, Thatha)
- 15-36 months- Responds to a simple command.

Immunization:

Infectious diseases cause many deaths among children. Certain diseases could be prevented through immunization. By giving a vaccine which contain, killed or weakened disease producing organisms, the body is made to produce antibodies which would protect the person against the particular infection for a considerable time.

Immunization of infants against certain child hood infections: polio, diphtheria, whooping cough, tetanus, measles and tuberculosis is done as a routine. Every baby should get these immunizations at the scheduled time to gain protection from the above diseases. The following vaccines provide immunity against the under mentioned childhood diseases:

- BCG vaccine against Tuberculosis,
- DPT/Triple vaccine against Diphtheria, Whooping cough and Tetanus,
- Double vaccine against Diphtheria and Tetanus,
- Polio vaccine against Polio,
- Measles vaccine against Measles.

It is important that these vaccines are given according to the recommended schedule. If for some reason they could not be given on time, it should be given as early as possible and the next dose given 6-8 weeks apart.

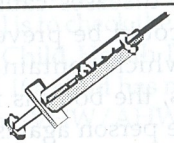
Immunization schedule

At birth:	BCG
Completing 3rd month:	DPT - 1 & Polio - 1
Completing 5th month:	DPT - 2 & Polio - 2
Completing 7th month:	DPT - 3 & Polio - 3
Completing 9th month:	Measles vaccine
At 18th month:	DPT - 4th & Polio - 4th
At school entry:	DT and OPV booster

(DT/Double vaccine provides immunity against Diphtheria and Tetanus only)

❑ *Administration of vaccine:*

BCG, DPT, DT, Measles:



- Administered using a well sterilized syringe and needle. Reusable plastic syringes are used for this purpose.
- Use a steam sterilizer to sterilize the syringes and needles
- A separate syringe and needle should be used for each child. This is very important to prevent infection.
- Only trained health staff should administer the vaccine.

Polio vaccine

- Two drops administered orally.
- Best to avoid giving breast milk for 1 hour before and after giving polio vaccine.
- Any unused vaccine should be discarded at end of clinic.

❑ **Storage of vaccines:**

All vaccines need to be stored properly to prevent them from loosing their potency and becoming in-effective. They have to be always kept at the recommended low temperatures from the time of manufacture up to the time it is administered. The system of storage and transport of vaccines at low temperature from the manufacturer to the immunization center is called "the cold chain".

BCG, DPT, DT, TT and measles should be between 4-8 degree centigrade and therefore should be stored in the lower compartment of the refrigerator. Polio vaccine needs a much lower temperature and should always be stored in the freezing compartment.

Storage of vaccines

- Vaccines should always be stored at a lower temperature.
- BCG, DPT, Measles, DT, TT in the lower compartment of the fridge at 4-8 deg. C. Diluent should be kept in this compartment.
- Polio in the freezer compartment at a much lower temperature (- deg.C.)

Vaccine needs to be transported to the clinic in vaccine carriers or flasks, packed in ice so that the low temperatures will be maintained. Any open vials should be thrown away at the end of the clinic.

❑ *Can vaccines be given if the child is suffering from minor illnesses?*

- Vaccines could be administered if the child is suffering from minor illnesses like coughs and cold or any other minor illness with a temperature less than 100 deg. F.
- If the child is suffering from an acute illness with a temperature more than 100.4 deg. vaccines should not be recommended. If the child is suffering from any other condition, refer the child to the clinic for further instructions.

Diarrhoea:

A child is said to suffer from diarrhoea if he passes three or more watery stools within 24 hours. This definition will not apply to newborn babies, since many pass 6-8 loose stools which is considered normal. Diarrhoeas may be associated with other symptoms like vomiting, fever, abdominal pain. Diarrhoeas are most often due to infection of the small intestines by viruses.

Sometimes it may be due to an infection with bacteria or an organism called amoeba in which case it is called dysentery. In such infections, the stools will contain blood and mucus and are caused by organisms like shigella and other infective agents. Another cause of severe watery diarrhoea is cholera.

❑ *How do diarrhoea producing organisms get into the body?*

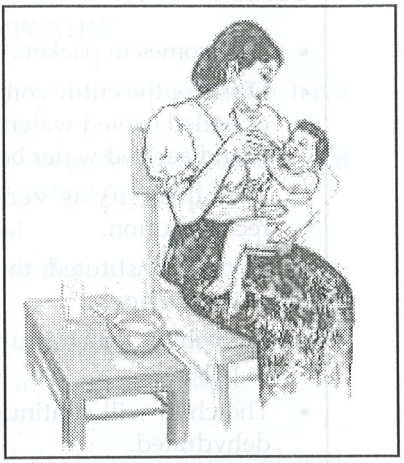
The infective organisms could enter the body through contaminated food, water, unwashed hands, unclean bottles and teats (that is why bottle feeding is totally discouraged), and also when the baby is on unclean floors, by picking up items and putting inside the mouth. Therefore maintaining good food hygiene and other hygienic practices are very important to prevent such infections.

Diarrhoea is one of the major causes of death among children who are under five years. Most of the watery diarrhoeas are caused by viruses and requires no specific treatment. They get cured on their own within a few days. During diarrhoea there is loss of excessive amounts of water and salts into the intestines, which passes out as watery stools. This causes dehydration and the fluids need to be replaced early for normal body function. If neglected this can eventually lead to death. Therefore early management of diarrhoea is very important

❑ *How would you know that a child is dehydrated?*

One of the early symptoms of diarrhoea is thirst. In an infant this may manifest as excessive crying and being very irritable. Other manifestations would include dryness of skin, sunken eyes, dryness of mouth and tongue, and reduction of tears when crying and the passage of lesser quantities of urine. Therefore always look for these symptoms and signs when you come across an infant/child with diarrhoea.

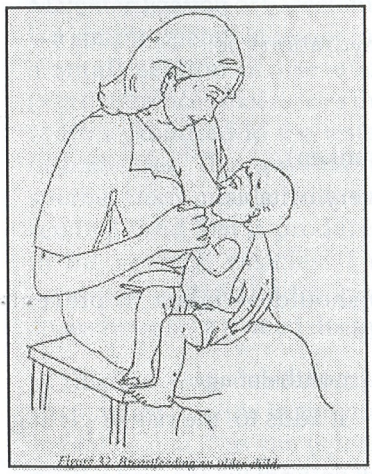
What can be done to prevent dehydration?



Dehydration could be prevented by the use of home based fluids. Mother should be asked to give plenty of fluids like rice cungee, young coconut water, weak solution of lime juice as soon as a child starts watery stools or vomiting. These will help to replace the fluids that are continuously lost during diarrhoea.

A child having mild to moderate diarrhoea could be given oral rehydration salts (ORS) which is available as "Jeevanee" through the health system.

VHW/AHW could obtain supplies of Jeevanee from the MOH of the area and take it with them during home visiting. They should educate the mothers on the importance of giving ORS, so that they get accustomed to using it during episodes of diarrhoea.



Breastfeeding should be continued and the mother should be asked to give the normal feeds during diarrhoea. It is not necessary to restrict food intake during diarrhoeas. This is harmful and would lead to nutritional deterioration. If the child suffers from poor appetite, frequent, small feeds could be given. After diarrhoea stops, the mother should be advised to give an extra meal until the child regains normal weight.

Use of ORS - Jeevanee

- ORS comes in packets – Jeevanee
- Dissolve the entire content of the packet in a litre of boiled cooled water. ie. two and half Elephant Brand aerated water bottles,

  This quantity is very important for proper reconstitution.
- Once reconstituted, the solution should be used within 24 hours,
- Feed child using a cup and spoon as frequently as possible,
- The child will continue to take as long as he is dehydrated.

ORS only prevents dehydration.
It does not reduce the frequency or duration of diarrhoea

❑ *When should a mother be asked to take the child to a doctor?*

- Severe diarrhoea with the passage of large quantities of a watery stools.
- Stools contain blood and mucus.
- Child shows evidence of severe dehydration - ie.

  Passes very little urine,
  Eyes severely drawn in (sunken),
  Child is very thirsty and very irritable.

❑ *How can diarrhoea be prevented?*

The following preventive measures should be taken to prevent children from getting bouts of diarrhoea.

- Give babies only breastmilk up to 4 months of age,
- Artificial milk should not be given - it adds to the risk of getting diarrhoea.
- Continue breastfeeding as long as possible,

- Always wash hands with soap and water before making any weaning foods for the baby,
- Always use boiled cooled water when preparing weaning foods that are not cooked or fruit juices for the baby,
- Always use boiled cooled water for drinking,
- Practice hand washing before eating,
- Always keep food covered to prevent flies from settling on it,
- Proper disposal of children's stools,

  This is especially important in temporary settings where conflict affected communities are housed.
- Use of latrines by all members of the family,
- Good personal hygiene.

Community measures:

- Provision of safe water to internally displaced persons camps/ settlement villages.
- Educate on the use of boiled cooled water for drinking.
- Use of latrines and proper disposal of sewage
- Proper disposal of refuse to prevent fly breeding – to be burnt or buried,
- Educate community on hand washing with soap and water after defaecation and also before eating

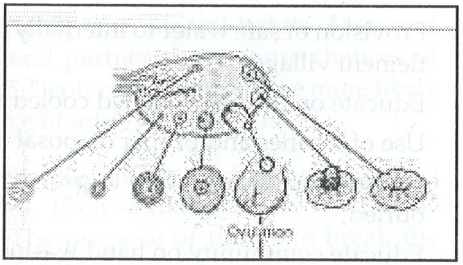
Chapter 5

Adolescent Reproductive Health

Adolescence is defined as the period of between 10–19 years and youth as between 15-24 years. Adolescence is a period where major physical changes take place in boys and girls. There is growth spurt seen during this period in both boys and girls. This is also a period where mental and psychological development takes place causing great stress in the individuals.

❑ *What are the physical changes that occur in girls?*

Around 10-14 years of age, certain body changes are seen in the girl child. There is breast development, appearance of hair under the armpit and around the genitals (pubic hair) and deposition of fat in certain parts of the body, which gives the characteristic female shape. There is also a change in behaviour during this period. This period during which these changes occur is called puberty.



The ovaries in a healthy girl begins to ovulate around puberty, and the girl starts to menstruate (ie. begins to have periods) which is a sign of "attaining age" or menarche and indicates onset of fertility. The girl, if exposed to sexual contact could now conceive and become pregnant.

The girl as she approaches puberty should be made aware of the changes that would take place and made to anticipate her first menstrual period. If not she could get frightened and shocked when these occur.

Certain cultural practices are seen in many societies. Many of these are harmless, however if any harmful practices exist like depriving the girl of nutritious food, or not allowing her to bathe during periods, these should be discouraged. There is no medical reason for avoiding

any type of food or bathing during periods. Nutritious food and a daily bath are recommended for hygienic reasons. The girl should also be advised to wear clean pads (homemade pads could be used) during periods.

The periods could be infrequent or irregular during the first year; this is not unusual. Also they could experience mild abdominal pain especially at the beginning of the periods. Reassure them that these are normal and there is nothing to worry. However if menarche is delayed and does not occur by the age of 15 years, ask them to see a doctor for necessary advice.

❑ *What are the physical changes that occur in boys?*

Puberty in boys usually comes later than in girls. It may begin with a change in the voice (cracking of voice), with growth of hair on the face, body and around the genitals. There is also the development of genitals with occasional erections and may experience wet dreams at night when they may involuntarily ejaculate (nocturnal emissions). This is normal and usually experienced by all boys. There is no necessity to get alarmed.

Adolescence begins with puberty and is the time for the final growth spurt in boys as well as girls. The rapid growth that occurs during this period places extra demand on nutritional requirements. Adolescent girls also need additional iron requirements to meet the iron loss during periods. Good nutrition is equally important for both: boys as well as girls. Inadequate nutrition could have serious consequences throughout the reproductive period. The young girl's nutritional status prior to pregnancy is very important. An undernourished girl has a greater risk of developing complications during pregnancy and childbirth than a well nourished girl.

❑ *Psycho-sexual development:*

During adolescence, the physical and physiological changes result in changes in behaviour patterns. They become more concerned about sexuality and often worry about the size and shape of their sexual organs. If the necessity arises, it must be explained to them, that there could be much variation between individuals and try to alley their fears. If they still continue to worry, then they should be referred to a doctor for necessary counselling.

Often girls are embarrassed about their menses since they believe that they are unclean during this period. It would be necessary to explain to them that during menstruation, the bleeding is due to the womb shedding the lining it prepares during the menstrual cycle and that, this is a normal physiological process and there is no reason for any embarrassment.

During adolescence, there is a strong tendency to gradually move from involvement with groups of the same sex to mixed groups and sexual pairing; some times leading to sexual activity. It is best to provide factual information about sexual development and discuss with them about their sexual feelings, thoughts and even practices if the situation warrants such assistance.

Adolescence is also a period when young persons look beyond their relationships with their parents and families Adolescent behaviour during this period could vary from, exploring sexual relationships to alcohol, tobacco and substance abuse. They could be driven to practice unprotected sex and use of hard drugs, alcohol and tobacco thus posing a special threat to the health of young individuals.

Common problems seen in adolescents

- Alcohol, Tobacco and substance abuse – pose special threat to health of young people,
- Irresponsible sexual behaviour – Having pre marital sex,
  - # Accidental pregnancies – unsafe abortions - even death.
    Teenage pregnancies, unwed mothers.
  - # Risks associated with sexually transmitted diseases,
- Sexual harassment, rape and incest,
- Forced prostitution -may be economically - coerced due to poverty,

Many of these will be experienced by adolescents/youth in refugee situations. Adolescents generally acquire information on sexuality mainly from friends and available reading material. Therefore they often lack factual information. Most parents and adults are uncomfortable to talk about sexuality. Myths still persist that sex education leads to promiscuity. But this is not so. It has been repeatedly shown that sex education leads to responsible sexual behaviour.

Adolescents and youth rarely have adequate knowledge about their own sexual development. They need factual information in order to lead a healthy, responsible life and protect them from reproductive health problems. They need information about physical and psycho-social changes that take place during adolescence in their own culture.

An effective way to provide factual information would be to communicate through an interactive process involving adolescents/ youth and responding to their questions. This would build the confidence that they would have in you and thereafter come to you for help at the time of need.

Provide factual information on reproductive health when ever possible. It will lead to more responsible sexual behaviour.

Unsafe abortion practices

This is mostly seen in countries where abortion is illegal and therefore safe abortion services are not available. It is estimated that more than 20 million unsafe abortions take place around the world and more than 80,000 mothers die and hundreds of thousands get disabled due to unsafe abortions.

In Sri Lanka, abortion is illegal. And it is estimated that a large number of unsafe abortions take place all over the country. Almost 8-10 % of maternal deaths are due to abortion related causes and a large number end up with ill health as a result of unsafe abortions. Most of these are done by quacks under unhygienic conditions, and pose a great threat to the woman's life due to severe infection, perforation of the womb, shock and haemorrhage.

A woman with a history of recent abortion experiencing fever, vaginal bleeding, offensive vaginal discharge or abdominal pain require immediate life saving measures and should be taken immediately to hospital for medical attention.

Unsafe abortions are a major public health problem among young women both married as well as unmarried. They are mainly due to unplanned pregnancies, and pregnancies associated with rape or incest. Educating the community on reproductive health and unsafe abortion, as well as motivating couples to practice contraception are very essential to prevent unsafe abortions. Compassionate counselling including family planning information and services should be offered to any woman who has undergone an abortion to prevent its recurrence. *This would be one of the main roles of the VHW/AHW in field of abortion*

A woman with a history of recent abortion has:

Fever with chills
Offensive vaginal discharge
Lower abdominal pain and tenderness
Vaginal bleeding

Take her to the closest hospital immediately

Sexually Transmitted Diseases including HIV/AIDS

Sexually transmitted diseases (STDs) are diseases that can spread from one person to another by sexual contact. Therefore a man or a woman could pass on the infection to his or her partner during sexual intercourse. STDs are a common problem among men and women in the reproductive age and cause much suffering and disability. Some of the common curable diseases are: Gonorrhea, Trichomonas and chlamydial infections and syphilis.

Many of the STDs are curable especially in the early stages. Therefore it is important to identify such cases and refer them early for necessary treatment. The common symptoms that a client could present are:

Male – Urethral discharge,
Genital ulcer/sore – on the penis which could be painful or even painless.
Genital warts on or near penis,
Swollen penis/testicles,
Burning sensation when passing urine.

Female – Vaginal discharge,
Genital ulcers/sore – painful or even painless
Intense vaginal burning/itching
Genital warts,
Burning sensation when passing urine.

❑ *What can happen if these diseases are not properly treated?*

If the infections are not treated, it could pass to the inner sexual organs: Womb, tubes and the ovaries in the woman, testis in the man. This could cause severe acute illness at first, both in males and females. They may become sterile and will not be able to have children thereafter.

STDs in pregnant women could cause foetal abnormality, abortion or still births. Pre-maturity is also caused by STDs. A baby born to a woman suffering from gonorrhoea or chlamydial infection could suffer from corneal damage and blindness (Ophthalmia neonatorum) if not treated early. Therefore, any baby with an purulent discharge from the eye during the first two weeks should be referred to a hospital for medical attention.

A baby born to a syphilitic mother could suffer from congenital syphilis: a condition that will affect the health of the baby. Women who are pregnant, should be routinely screened for syphilis, by taking blood for VDRL testing since the infection could be transmitted from the mother to the foetus through the placenta. Any cases that are sero-reactive (positive) should be referred to a medical institution/clinic with facilities for further investigation and management.

❑ *How can STDs be prevented:*

People can avoid STDs by changing their sexual habits. Men and women who have sex with several partners have more chances of getting STDs. Sex workers and the clients of sex workers are more likely to get STDs and would be a source of infection to others.

As with other communicable diseases, STDs cannot be prevented by merely treating the infected cases. Their sexual partners need to be identified and treated as well. The purpose of this is to break the transmission and prevent spread of the disease.

Therefore men and women should be encouraged to always:

- Have sex only with the same partner ie. Be mutually faithful to each other.
- Use condoms if having sex with any other partner.
- Avoid having sex with known sex workers.
- Seek early treatment if they suspect infection or develop symptoms.
- Get infection cured before having sex.
- Ask the other sex partners to get treated early so that the disease will not be passed to others.

HIV/AIDS

AIDS refers to Acquired Immune Deficiency Syndrome and is caused by the Human Immuno-deficiency Virus (HIV). HIV can be transmitted by sexual contract, by blood products and from a pregnant mother to her child during pregnancy, childbirth and occasionally by breastfeeding.

AIDS reduces the body's ability to resist infection. As a result, patients with AIDS develop disease very easily and most patients die of diseases which under normal circumstances would have been overcome by the body's natural defenses.

When the HIV virus enter the body, it begins to multiply and the affected person becomes HIV positive. The virus begins to attack the immune system and with time the immune system gets destroyed and the body cannot defend itself against other invading micro-organisms. It usually takes about 5-8 years for the person to develop AIDS and death usually occurs within a year or two after developing the disease. Currently there is no cure for AIDS.

❑ ***How could a person get infected with HIV?***

The virus is present in the seminal fluid, vaginal secretions, and blood of infected persons. HIV infection could spread through:

- Vaginal and anal intercourse,
- Transfusion of infected blood
- Use of contaminated hypodermic needles or surgical instruments.
- Sharing of hypodermic needles with an infected person as seen among drug users.
- Pregnancy. An infected pregnant woman could pass the virus to her foetus during pregnancy and childbirth, and sometimes through her breastmilk.

Sexual intercourse is the most common method of transmission of disease from one infected person to another. HIV infection *does not spread* by kissing, touching or sharing food, clothing or toilets. Also mosquitos, flies or bugs do not spread the disease. Therefore it is not risky to associate with a HIV infected person and such persons need no isolation.

❑ *How does a person know that he/she is infected?*

The blood of any suspected person or persons who are at risk could be tested for antibodies but this facility is available only in special STD clinics. Even if the person is infected, the blood may not show antibodies in the first three months (called the window period) and the test may be negative. The test may have to be repeated later if necessary. Blood collected from donors, is usually tested for HIV antibodies before it is used. However if collected during the window period the test will not show the presence of antibodies.

❑ *How can HIV/AIDS be prevented?*

HIV/AIDS can be prevented in the same way as other STDs.

- Always have sex only with one partner. Do not have multiple partners.
- Always use condoms if having sex with any other partner,
- Always make sure that the hypodermic needles used for injections and instruments used for clinical examination (eg IUD insertion) and other surgical procedures are properly sterilized between use on different patients. Use a steam sterilizer/mini autoclave for this purpose.
- Avoid sharing of items like razors, ear piercing instruments etc.

Currently it is estimated that there are more than 7000 HIV positive cases in Sri Lanka and this would increase to higher levels in the near future. Vast majority of HIV infections are sexually transmitted. Displaced populations are more vulnerable to sexually transmitted diseases since unsettled conditions could lead to break-up of stable relationships and disruption of social norms related to sexuality. Both children and women may be forced into sex, making them victims of sexually transmitted diseases.

The health workers including VHW/AHW are also at risk of HIV infection. They should take adequate precautionary measures like:

- Hand washing with soap and water especially after contact with body fluids.
- Use of gloves for all procedures involving contact with blood or any other body fluid.
- Safe handling of sharp instruments so that there will not be any accidental injuries.
- Safe dispersal of waste material. All waste material should be burnt and those items that pose a threat (disposable syringes and needles) should be buried in a deep pit away from a water source.

HIV/AIDS is a dreaded disease. There is no cure for this. Taking preventive measures will be the only way to protect a person from getting the disease.

Chapter 7

Reproductive Organ Malignancies and Menopause

Women have certain health problems associated with the reproductive system which are specific to females. Some of these problems will include disorders of menstruation, inability to have children (subfertility), lowering of the womb (prolapse of the womb), certain tumors associated with the female genital tract like cancers of the neck of the womb, body of the womb etc. With increase in age, the woman may begin to suffer from certain diseases like high blood pressure (Hypertension) and diabetes.

In the females, almost 50 percent of the malignancies are cancers of the reproductive tract. Cancers of the breast and cervix (neck of the womb) are common malignancies seen and are mostly curable if diagnosed in the early stages. However if the disease is allowed to progress, it would be fatal. Therefore early identification is very important.

Similarly diabetes and hypertension are common diseases which affect persons, and are an important cause of chronic ill-health, disability and death. In the early stages, these diseases may not produce any symptoms and may be identified only at a routine health checkup. If these conditions are not identified early and treated, these would finally produce complications, which could even be fatal.

With a view to detect some of these conditions, which occur with increasing age, a programme was started to examine women over 35 years of age for illnesses like reproductive organ malignancies (cancers of the neck of the womb [cervix] and breast), high blood pressure and diabetes. The services are provided through "Well Woman Clinics" established in the Health areas.

The following will be done at the clinic:

- General examination to check for any identifiable abnormality,
- Checking of Blood pressure,
- Examination of urine for sugar,
- Breast examination for evidence of abnormality,

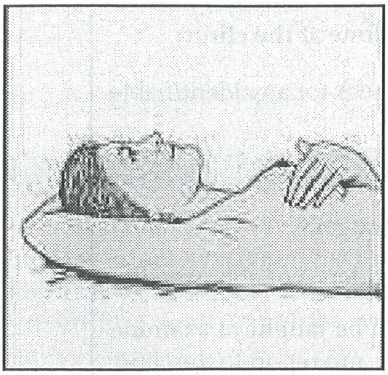
  At the clinic, women will be taught to examine their own breast regularly and report to the clinic if they notice any change.
- Cervical examination (visual),
- Cervical smear where facilities are available.

By subjecting women who are apparently normal to regular examination, some of these conditions could be detected early. Any abnormalities would be referred to the hospital system for further management. The public health staff in the field will there after follow any of the referred cases that need follow-up, to ensure that the instructions given at the clinic or hospital are carried out.

Since the women are apparently normal, it is difficult to get them to the clinic. It requires lot of effort to motivate them to attend the Well Woman Clinics for a checkup. This would be one of the important roles of VHW/AHW working in conflict affected areas.

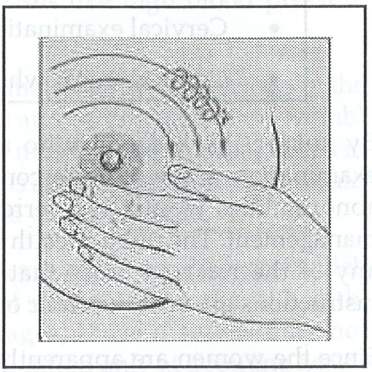
❑ ***How could a woman do a self examination of breast?***

In displaced situations, since privacy is limited, women may be asked to examine their breast during bathing or while lying down at night.



If the woman is to examine lying down, she should be asked to remove the pillow and place it under the shoulder. The hand of that side should be kept behind to support the head.

Any thickening of skin, hardness or a small lump is an early warning sign. The woman should be asked to report to the clinic at the earliest opportunity for a further checkup.



- Self-examination should ideally be done monthly, preferably one week after periods.
- Ask patient to palpate both breast with the palmer aspect of fingers to detect any lumps or thickening of skin.
- Palpation should start from the outer margin and should gradually extend towards the nipple in a clock-wise direction.
- The right hand should be used to examine the left breast, and the left hand to palpate the right.
- After palpation of the breast, the client should be asked to put the hand to the armpit and feel for any nodules.
- Finally she should squeeze the nipple using the thumb and the index finger to detect for any abnormal discharge.

Any abnormality should be brought to the notice of the doctor at the clinic at the earliest opportunity. Cancer can be cured if detected early.

Role of VHW/AHW

- Educate women both married and unmarried on the importance of having a regular health check-up,
- Motivate them to attend the area Well Woman Clinic and accompany them to clinic where-ever possible,
- Assist the health staff at clinic,
- Visit any client who require follow-up and see that they comply with the instructions given at clinic.
- See that the women do self-examination of the breast correctly.
- Demonstrate the correct procedure if necessary.

Menopause

This is a period in a woman's life when her reproductive capacity is coming to an end. Her periods, which occurred since menache, will gradually cease and she will become infertile. This usually occurs around 45-50 years. At this time, the woman may experience certain physical and psychological changes due to alterations in the pattern of sex hormones in the body. She may experience:

- "Hot flushes" – a burning sensation in different parts of the body lasting for a few seconds,
- Tiredness, giddiness/dizziness, palpitations
- Numbness of hands and feet,
- Inability to cope with problems,
- Irritability, lack of concentration and certain emotional changes,

Usually most women adjust themselves to the above symptoms and these do not trouble them any further.

They would also develop dryness of the skin and mucus membranes especially of the vagina, which makes intercourse difficult and even

painful. With time vaginal atrophy and reduced sexual desire will be seen. Also loosing of calcium from bones would take place with time making them more prone to fractures.

Reassurance and psychological support is important during this period. Regular exercise, a healthy diet and maintenance of good personal hygiene should be recommended to women reaching menopause so that some of the above menopausal problems could be reduced.

Chapter 8

Role of Volunteer/Auxiliary Health Workers in conflict affected areas

You have a very important role to play in the community. You may be the main health care provider in conflict affected areas and the community would depend on you for advice and guidance in health and health related matters.

What are you expected to do?

- ❖ Work closely with the local health staff to provide RH services in areas where there are no Public Health Staff.
- ❖ Visit settlements/camps and provide reproductive health services including health education to affected populations.
- ❖ Assist local health staff in conducting MCH/RH clinics.
- ❖ Attend monthly conferences at MOH office
- ❖ Liase with NGOs working in the area and get their support for implementation of activities.
- ❖ Work with the community and get their support for RH activities.
- ❖ Maintain necessary information about the populations in conflict affected areas.

- **Maternal care:**

Antenatal care- Identify pregnant women
Register Antenatal mothers
– Provide "Pregnancy Record"
Health education and advice
Look for risk conditions
Refer to MCH clinic / PHC
Check on the use of drugs given at clinic
See that the instructions are carried out properly

Intranatal care - Be available at the time of any home delivery (**Not conduct**)

Postnatal care - Education on BF/LM
Look for any danger signs in mother and baby
Advice on what needs to be done

- *Child care:* Growth and development – using CHDR
  Nutrition education
- *Family planning:* Provide information on importance of Family Planning and prevention of unwanted pregnancies
  Counsel on family planning methods
  Distribute condoms, oral contraceptives for re-users
  Refer for other services
- *STD/HIV prevention:* Provide necessary education and advice,
  Refer any suspected cases to PHC system.
- *Reproductive Health for Adolescents:*

  Provide basic information needed by adolescents on reproductive health. – Sexuality and reproduction, Sexual violence, STDs
- *Reproductive organ malignancies and women's health*

  Provide information of reproductive organ malignancies and other diseases that are screened at WWC.
  Importance of attending WWC for regular check-ups. Motivate women to attend clinics.
- *Sexual and Gender based violence:* Educate community about sexual and gender based violence.
- *Personal hygiene and Environmental sanitation:*
- *Data collection and record keeping:*

Getting organized to provide RH services

The health workers must be able to organize basic health care services for the populations within their areas. In order to do this it would be necessary for you to collect some basic information.

- *Gathering of basic information*
  - The boundaries of the area that needs to be covered by them,
  - Population to be severed within the area,
  - Number of families and their average family size,
  - Where they are located,
  - Number of camps/resettlement areas,
  - Number of households in each of the resettlement areas,
  - Conditions of living,
  - Water and sanitation facilities available at each location,

    From where do they get their water,

    Is there any danger of pollution of water supply,

    How is excreta disposed,

    Are there adequate latrines, type of available latrine,
  - What welfare facilities are available at each location,
  - What health facilities are available to them within the camp/ resettlement area,
  - Closest health facility to each of the above locations – Clinic, Health center/hospital,
  - Who are the NGOs working in the area,
  - Local organizations within the area,
  - Community leaders within area,
  - Occupational patterns among displaced populations,
  - Traditional customs and beliefs,
  - What are the main health problems within each location, etc…

- It will be very useful for you to go and meet them and discuss with them about the health needs in each of the situations. This will also help you to establish a good rapport with them and get their support when ever necessary.

- Draw a map of the area indicating the camps/resettlement areas/ clusters with other displaced populations, road ways, health facilities etc. Indicate the populations in each of the above locations.

- Prepare tentative plan for work for the month – Could be in the form of an advance programme as used by the PH staff. This should be realistic and should be based on the amount of time that the VHW/AHW could devote for a day.

  VHW/AHW will have to visit the camps/settlement areas and hamlets with displaced populations if you are to provide a useful service to the target populations. Also you should attend the area MCH/RH clinic and assist the health staff. These should be taken into consideration when developing your tentative plan.

- VHW/AHW should maintain certain records at her work place which will help her with the day to day activities.

  Eligible Family Register,

  Births and Immunization Register,

  Pregnant Mothers Register,

  These will help you to know who needs services regularly. Plan your home visits each day – where to go and whom to visit

- Always attend the monthly conference conducted by the MOH for his staff. You could discuss any problems and organize any special programmes with the health staff.

- Provide the monthly return to the MOH of the area, that has been developed to collect some basic data from your area.

Working with people

Most of the work a VHW/AHW has to do is health education. Every time you persuade a mother to do something to improve her health or her baby's health, you are giving health education. Therefore good communication between you and the user is very essential. This is especially so for reproductive health. Some of the areas that you handle are very sensitive and needs very careful communication. People have certain ideas, myths and beliefs and also certain ways of doing things. Some of these are incorrect and may even be harmful. By educating them you are trying to change their behaviour and practices. This is not easy and one has to be cautious when attempting to bring about a change.

It has been shown that one-to-one communication is one of the most powerful channels to provide information, which could bring about a change in behaviour. Always build a good rapport with the people in order to win their goodwill and confidence. You must always give respect to the views of the people. Listen carefully to what they have to say and always make the other person comfortable. Exchanging ideas is always better rather than forcing ideas showing that the other person is wrong. Always use simple words that are easily understood by them. Some words make people angry or embarrassed. Avoid using such words. Wherever possible use a visual aid to convey the message that you want to give. It helps people to understand better and remember longer. The tone of your voice could communicate your feelings. Always be cautious about the way you communicate, especially till you develop adequate skills in communication.

Points to remember when working with people

- Build a good rapport with the people and win their good will and confidence,
  You should be acceptable to the people with whom you work,
- Always make the client feel comfortable and relaxed when you talk with them,
- Use simple language that the client could understand when explaining anything to her. Do not use any words or phrases that could embarrass them.
- Give a hearing to what they have to say, do not be too critical about their beliefs and practices,
- Gradually introduce the new ideas and health messages, do not be forceful in your approach,
- Use a simple visual when explaining or putting across a message,
- Maintain confidentiality with respect to personal information, Any personal information of families should not the divulged to others.

Beyond communicating with the service users, it is important to build a good rapport with the community. The nature and intention of the services should be explained to them and their cooperation sought for implementing the activities.

Building a good rapport with the people is very important. You need to be accepted by the people as a friend who can help

to solve some of their health problems.

Monthly Reporting Format for VHW/AHW

Month of reporting: .....

Name of VHW/AHW: .....
Area: .....

To be forwarded to:
MOH of the area before the 10th of the following month

No. of families within area: No. visited for the month	
No. of pregnant women registered: No. of pregnant women visited at home: (includes new and subsequent visits)	
No. of deliveries during the month: No. of mothers provided post partum care *(upto 42 days)* Maternal deaths identified during the month:	
No. of infants visited Infant deaths identified during the month:	
No. of preschoolers visited *(1year to under 5 years)* Preschool deaths identified during the month:	
Family planning – New clients motivated to attend clinic (Only the number who attended clinic should be stated) No. of condoms distributed during the month No. of packets of Oral Pills distributed during the month	
WWC – No. motivated to attend WWC (Only the number who attended clinic should be stated)	
Total number of clinics attended for the month: Total number of days doing field visits:	

Any comments:

Date: .....

Signature of VHW/AHW