

REPRODUCTIVE AND CHILD HEALTH

Overview of Reproductive and Child Health Programme

1.1. Introduction

The rapidly growing population had been a major concern for health planners and administrators in India since independence. The result was the launching of National Family Planning Programme by the Government of India. India was the first country to have taken up the family planning programme at the national level. A CHANGED POLICY named as TARGET FREE APPROACH came into existence from 1.4.96. Thereafter, following the recommendations of the International Conference on population and Development (ICPD) held in Cairo in 1994, the Govt of India introduced the Reproductive & Child Health (RCH) package to supplement the MCH services in the country. Reproductive and Child Health Program is a major initiative in 9th Five year Plan from April, 1999 following the International Conference of Population Development in Cairo.

1.2. Milestones in the history of MCH care in India

- Establishment of training of dais in Amritsar in 1880
- Passing of first Midwifery Act in London in 1902 to promote safe delivery.
- Setting up of advisory committee on maternal mortality in 1931-32. Advisory committee in 1930 scrutinised causes leading to maternal deaths in hospitals and recommending course of actions to prevent such mortality. Even today no maternal mortality reviews are held to prevent such recurrences.
- Bhore committee, set up in 1946, recommended health programmes to be built on foundations of preventive health and referral services. Primary health centres came up since 1952 & MCH centres become its integral part by 1956.
- By 1974, in a very sound conceptual move, family planning services got incorporated in MCH care. But at the field level, in practical terms, it simply shifted the focus of MCH care to centrally driven, target-oriented family planning programme with major emphasis on sterilisation.
- Universal Immunisation Programme in 1985
- Child Survival & Safe Motherhood programme was introduced during 1992, which did produce the desired results, to some extent.

- In 1994, major conceptual shift occurred in family welfare programme. Target free approach with emphasis on quality services and birth spacing methods were recommended.

1.3. Lessons from experiences

Poor health status of women and children in terms of high mortality and morbidity was another health priority in this country. Health facilities like hospitals and health centres were established for providing Maternal and Child Health (MCH) care through ante-natal, intra-natal and post-natal services. In addition, a number of special programmes and schemes like immunization against vaccine preventable diseases, nutrition interventions like iron and folic acid distribution and vitamin A supplementation, diarrhoeal disease control through Oral Rehydration Therapy (ORT), Acute Respiratory Infection (ARI) control programme etc. were implemented over the past. In order to ensure maximum benefit from these programmes and to provide services in an integrated manner to these vulnerable group, the Child Survival and Safe Motherhood (CSSM) programme was implemented in India since 1992.

Despite all these efforts, desired impact on the population growth, health and development of women and children could not be achieved in the country and the need for a new approach to the problem was well felt. In 1994, during the International Conference on Population and Development (ICPD), held in Cairo, it was recommended that a new approach needs to be adopted to tackle the problem. Under this approach, it was decided that family planning services should be provided as a component of the comprehensive reproductive health care. Reproductive health approach implies that men and women will be well informed about and will have access to safe and effective contraceptive methods, women can go through pregnancy and child birth safely and that couples are provided with best chance of having a healthy infant.

Being one of the 180 participating countries of the ICPD conference, India also agreed to the decision taken during the conference to adopt the 'Reproductive Health' approach to the population issues. Accordingly, as a follow-up action to this conference, the Government of India launched the Reproductive and Child Health (RCH) programme in October, 1997.

1.4. Reproductive and Child Health Programme

Reproductive and Child Health (RCH) has been defined as a state in which "People have the ability to reproduce and regulate their fertility; women are able to go through pregnancy and childbirth safely, the outcome of pregnancy is successful in terms of maternal and infant survival and well being; and couples are able to have sexual relations free of the fear of pregnancy and contract diseases". This means

that every couple should be able to have child when they want, that the pregnancy is uneventful, that safe delivery services are available, that at the end of the pregnancy the mother and the child are safe, well and that contraceptives by choice are available to prevent pregnancy and of contracting diseases. With the new approach of the programme, it is expected that health personnel, including you, will be able to understand more easily and completely the needs of the population and deliver the services accordingly. The RCH programme is envisaged to provide an integrated package of services, which will include the following:

- *Services for mothers during pregnancy, child birth and post-natal period, and also safe abortion services, whenever required.*
- *Services for children like newborn care, immunization, Vitamin A prophylaxis, Oral Rehydration Therapy (ORT) for diarrhoea, management of Acute Respiratory Infections (ARI), anaemia control etc.*
- *Services for eligible couples through availability and promotion of use of contraceptive methods, and infertility services when required.*
- *Prevention and management of Reproductive Tract Infections (RTIs) and Sexually Transmitted Infections (STIs).*
- *Adolescent health services including counselling of family life and reproductive health.*

For rendering the above stated services, the new approach under the RCH programme places emphasis on **client-oriented, need-based, high quality, integrated services** to the beneficiaries. There has been major shift/change in the approach from the past and some of these important changes are:

➤ **Target Free approach Based on Community Needs**

In the past, the workload of the health functionaries was based on the centrally determined, contraceptive method-specific targets. Under the RCH programme, this method is withdrawn and in its place, you yourself can estimate your workload by using **Community Need Assessment Based Approach (CNAA)**. Since 1996, the Government of India has started the implementation of this approach.

➤ **Participatory Planning**

The estimation of needs of services is required and its planning is to be actually undertaken by the health workers under your guidance with active involvement of and consultation with community members including women's groups, members of the Panchayat institutions etc.

➤ **Emphasis on quality of care and client satisfaction**

Under the RCH programme, special emphasis is placed on good quality of care. Therefore, you have to ensure that all services provided are of good quality and acceptable to the clients. This can be achieved by ensuring practice of technically correct procedures while rendering various services. It also need better interpersonal relationship between clients and service providers. The

clients are to be informed them about causes and seriousness of their health problems, types of services currently available and place of service delivery. Counselling services are to be provided, whenever needed, so that the clients are able to take correct decisions for accepting the services. This, in turn, is expected to increase satisfaction about with the services received. This will increase acceptance of the services further.

There was fragmented attention in the decade of 1980s & earlier. Presently, there has been a major change in the approach. The National Family Welfare Program has undergone a Paradigm shift, from the past, with its focus on

- *Target free approach based on community needs*
- *Decentralized participatory planning*
- *Greater emphasis on quality of care and client satisfaction*

The reason for the *shift* is the substantial inter-district variations in health indicators and even variations within the same state.

Well trained and highly motivated personnel are essential pre-requisite for successful implementation of this programme which deals with highly sensitive and personal issues of life, like contraception, abortions, maternal and child health services etc. In order to provide RCH services under the changed approach described above, service providers including you should have reasonable technical competence as well as sufficient skills in effective communication and managerial capabilities. Therefore, an essential intervention for success of this new approach of the programme is sensitising the service providers to the new approach and for developing necessary skills.

The Reproductive and Child Health (RCH) Programme was launched throughout the country on 15th October, 1997. This programme aims at achieving a status in which women will be able to regulate their fertility, women will be able to go through their pregnancy and child birth safely, the outcome of pregnancies will be successful and will lead to survival and well being of the mother and the child. The couples will also be able to have their sexual relation free from fear of pregnancy and of contracting sexually transmitted diseases.

The RCH approach consists of need-based, client-oriented, demand-driven and high quality integrated services which include:

- *Maternal health services*
- *Child health services*
- *Prevention of unwanted pregnancies*

- *Prevention and management of Reproductive Tract Infection (RTI) / Sexually Transmitted Infections (STI)*
- *Adolescent health services*

Five Key Principles as the basis of RCH Programme:

- ◆ **Moving away from traditional approach of numerical, method-specific, contraceptive targets and incentives to a client-centered system of performance goals and measures.**
- ◆ **Expanding the use of male and reversible contraceptive methods and broadening the choice of contraceptives.**
- ◆ **Improving the breadth, availability and quality of services and involving communities for managing the public sector programmes.**
- ◆ **Strengthening the role of the private sector in the programme.**
- ◆ **Assuming adequate funding for the current programme and for the expansion, which is implicit in adopting the reproductive health approach.**

The provision of good quality care is the main thrust of the RCH programme. Thus, greater emphasis is given to better quality of services than that under the previous National Family Welfare Programme. Good quality of services are determined by:

- Type of services provided : need based and through community needs assessment approach,
- Competence of the service providers,
- Good quality of equipments, which are correct, appropriate, well-maintained and well-utilized,
- Attention to Social aspects of the reproductive and child health problems.
- Gender sensitivity
- Timing of delivery of the services which is suitable for women
- Encouraging male participation and
- Involvement of women in the programme.

The new approach under the RCH program places special emphasis on *client-centered, demand driven, high quality, integrated services based on the need of the community, evolved through decentralized participatory planning.*

There is an **urgent need of comprehensive integrated approach for reproductive health care.** Reproductive Health is **not merely the absence of disease or disorder of the reproductive processes, but is a condition in which reproductive functions & processes can be accomplished in a state of physical, mental and social well being.**

Client satisfaction would become the program's primary goal; with demographic impact a secondary, though an important concern of RCH Programme.

To Summarize

In RCH Programme, the contour has broadened with major emphasis on:

- **Integrated delivery of services for fertility regulation**
- **Maternal health**
- **Child health**
- **Safe abortions**
- **Nutrition**
- **Communication for behavior changes**
- **RTIs / STIs**
- **Adolescent health**

The **essential elements of reproductive and child health services** at the community and sub-centre level are given below, this will help you to understand how the reproductive and child health services are to be provided at the community level. The different services provided under RCH programme are mentioned hereunder.

1.5. The recommended package of services

➤ ***For the mothers:***

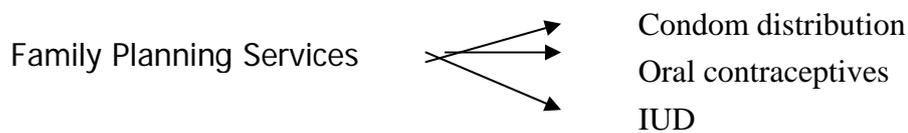
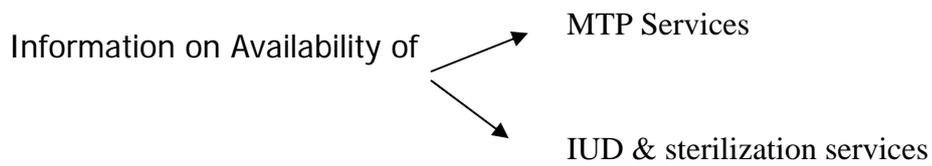
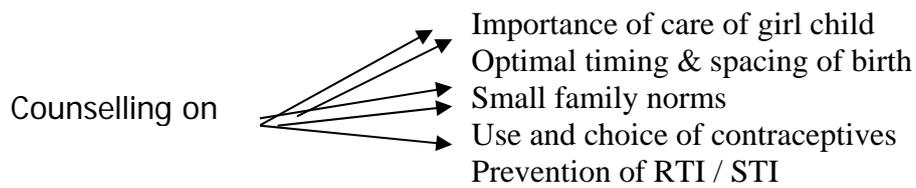
- Tetanus Toxoid Immunization
- Prevention and treatment of anaemia
- Antenatal care and early identification of maternal complications
- Deliveries by trained personnel
- Promotion of institutional deliveries
- Management of obstetric emergencies
- Birth spacing

➤ ***For the children:***

- Essential newborn care
- Exclusive breast feeding and weaning
- Immunization
- Appropriate management of diarrhoea
- Appropriate management of ARI
- Vitamin A prophylaxis
- Treatment of Anemia

- *For eligible couple:*
 - Prevention of pregnancy
 - Safe abortion
 -
- *Prevention and treatment of reproductive tract infection (RTI) and sexually transmitted diseases (STD).*

- *Women of reproductive age must receive:*



Services for Recognition & Referral of RTI / STIs

- *Adolescent Health*
- *involvement of Male*

SAFE MOTHERHOOD AND CHILD SURVIVAL

2.1. Maternal Mortality

Death of women during Pregnancy or within 42 days of termination of pregnancy, irrespective of duration or site of pregnancy; from any cause related to or aggravated by pregnancy or its management, but not from accidental causes.

Some Questions

- ┌ Why maternal deaths are more common in developing countries?
- ┌ Why out of 6 lakhs of maternal deaths, 90% occur in developing countries?
- ┌ Why risk of death due to pregnancy related complications or during child birth is 1 in 48 in developing countries, whereas 1 in 1000 in the developed countries?
- ┌ Why maternal deaths in India is 400 times higher than that of Sweden, when India has even conquered space?

2.2. Disparities of maternal death between developed and developing countries arise due to:

- ◆ Barriers to receive timely and good quality care.
- ◆ Barrier of availability and accessibility of services operate at different levels leading to lack of timely and good quality maternal care. The single most effective way to reduce maternal deaths is to ensure that a properly trained and equipped health professional be present during child birth.
- ◆ Political barrier: where civil unrest has an impact on access to health care and nutrition
- ◆ Geographical barrier: where mobility is difficult.
- ◆ Cultural barrier: Cultural and traditional beliefs lead to inequity of access to food. Traditionally people also believe that excess food to mother will create problems during delivery. Rest for pregnant mothers is not commonly practised. Cultural patterns lead to preference of home deliveries.
- ◆ **Women's literacy and women's empowerment program** reduces the gender inequalities and discrimination. Thus it improves the women's choices and the inability to gain access to health care.
- ◆ Time barriers: Delay, at different levels, in receiving care during pregnancy or child birth. Difficulties in organising timely referral and transportation in case of complications.

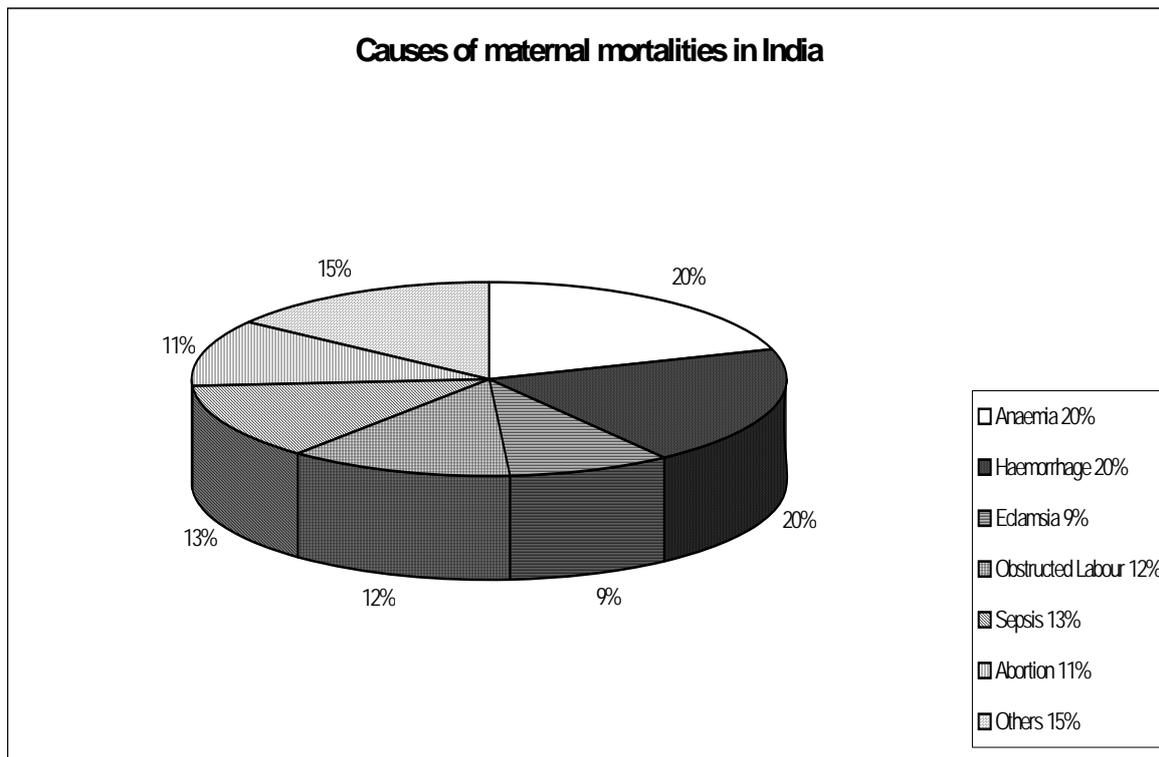
- ◆ Economic barriers: cost is often the major deterrent of utilisation of services, even where they services exist. Sri Lanka had a MMR of 30/1000 live births, while Ivory Coast had 830 with a GNP of \$700. This means that a country's overall might not reflect the maternal health status.
- ◆ Barrier to obtain health personnel at the grass root level: the single most effective way to reduce maternal deaths is to ensure that a properly trained and equipped health professional is present at the time of child birth.

2.3. Causes of maternal deaths

A. 80% causes are direct

υ Severe Bleeding (25%)	υ Hypertensive disorder (12%)
υ Infection (15%)	υ Obstructed labour (8%)
υ Unsafe abortion (13%)	υ Other direct causes (8%)

B. 20% causes are indirect



Important underlying factors responsible for maternal deaths

- ◆ Early marriage
- ◆ Short birth interval
- ◆ Low female literacy
- ◆ Illiteracy, ignorance coupled with poverty and low status of woman
- ◆ Lack of access to health care delivery system and non-availability of appropriate obstetric care.
- ◆ Delay or not seeking treatment, due to socio-cultural barriers and poor logistic support.
- ◆ Majority (60 – 80 %) of deliveries are conducted at home by untrained personnel, who can't recognize early signs of complications. They have very scarce knowledge regarding importance and timely referral at the appropriate place
- ◆ Lack of transport and communication facilities for reaching health care facilities in time.
- ◆ Rural urban differences

A study report from Ananthpur district of Andrapradesh

- ♥ Ananthapur district study clearly demonstrated demographic, social, economic & medical factors responsible for maternal deaths.
- ♥ There was four fold difference in the Maternal Mortality Rate (MMR) between rural & urban areas.
- ♥ There was four fold difference in the MMR between poorly developed and highly developed villages.
- ♥ MMR rates were lower in higher socio-economic groups.
- ♥ Less than half (46%) of the women who died due to maternal causes were registered for antenatal care.
- ♥ Forty two percent of deaths were considered preventable, another are also 37% possibly preventable.
- ♥ Forty nine percent of the women who died at home were predisposed to some or other complications, such as anaemia, hypertension (PET) or excessive bleeding.
- ♥ Forty one percent deaths occurred at home and another 9% on the way towards hospital.
- ♥ Out of 140 mothers taken to hospital in serious condition
97 were taken by public bus
27 were taken by bullock cart
4 were taken by rickshaw,
Only 12 were taken by ambulance
- ♥ 78 died in transit or shortly after arrival, to hospital mainly due to Haemorrhage.

- ♥ Early transfer of the patient to the hospital for supervised specialist care was the most important action, which could have prevented maternal deaths.
- ♥ Thus Ananthpur district study dramatically brought to light the importance of transport to prevent maternal deaths.

2.5. Prevention of maternal deaths

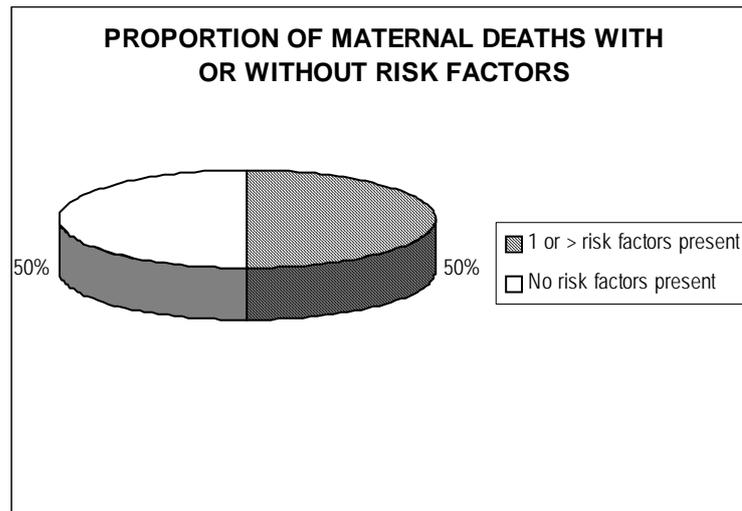
Every pregnancy is full of risks and majority of maternal deaths are preventable.

- Obstetric care should include:
 - Essential obstetric care for all**
 - Early identification of complications**
 - Emergency obstetric care for those, who need it**
- PROPER COMMUNICATION, TRANSPORT, TRAINING OF STAFF, AVAILABILITY OF MATERIALS FOR SAFE DELIVERY ETC. ARE THE ESSENTIAL COMPONENTS OF SAFE MOTHERHOOD SERVICES.
- FIRST REFERRAL UNIT(FRUs) OR (HOSPITALS) IS THE VITAL LINK BETWEEN THE COMMUNITY AND THE CENTRALIZED DISTRICT/PROVINCIAL HOSPITAL. THIS FACILITY HAS OBSTRETIAN, ANAESTHESIST, PADIATRICIAN, EQUIPMENT AS WELL AS BLOOD TRANSFUSION FACILITIES.
- The staff should be trained to manage obstretic emergencies and provide neonatal care.
- Involvement of trained TBA for delivery and referral
- Transport and communication should be available for referral to FRU. Integration and co-ordination of community resources for referral must be made beforehand.
- Training of Health Workers, TBA and other peripheral level workers should know when and where to refer.
- NEWER THINKING- BORDER DISTRICT PROJECT. THE PILOT PROJECT IS GOING ON IN SOME STATES WHERE FEW INTERSTATE BORDER DISTRICTS WERE CLUBBED TO PROVIDE SAFE MOTHERHOOD AND CHILD SURVIVAL SERVICES TO BRING DOWN IMR AND MMR.

2.6. Important components of services for pregnant women:

λ Essential obstetric care for all:

It was observed that among all maternal deaths, 50% pregnant women had risk factors, while the remaining 50% had no risk factor. Therefore, risk approach should be replaced by 'Essential Obstetric Care (EOC) for all'.



- **Early Antenatal registration**, preferably by 12-16 weeks
- Antenatal Review **at least 3 times** the purpose of antenatal check-up is to monitor progress of the pregnancy, to identify complications and refer the complicated cases for appropriate treatment in a hospital.
- **Tetanus toxoid immunization** should be given to all pregnant women with two doses at one-month interval. If already immunized during the previous pregnancy within last 3 years, she should receive only one dose of Tetanus Toxoid in the first check up.
- Give 1 tablet of **Iron & Folic Acid (IFA)** (large i.e. containing 100 mg elemental iron & 500 microgram folic acid) daily at least for **100 days** to all pregnant women.
- Treat those with clinical signs of pallor with **2 IFA (large)** tablets daily for **at least 100 days**.
- **Deworm with mebendazole** (or albendazole) (during 2nd / 3rd trimester), in areas where hookworm infestation is common.
- Prepare the woman for **exclusive breast feeding** of the newborn and timely complementary feeding.
- Safe and clean delivery by **skilled personnel** and **promote institutional delivery**.
- **Post natal care**, including advice and services for limiting or spacing births as well as for promoting and maintaining exclusive breast feeding for 6 months, followed by timely complementary feeding.
- **Early detection** of complications.
- Clinical examination to detect **anaemia**. Anaemia is not only a major cause for maternal mortality and morbidity, but also a major contributory factor for low birth weight of newborn.

- If there is bleeding during pregnancy (APH) and excessive bleeding after delivery (PPH), she should be referred to the nearest First Referral Unit (FRU) by the quickest mode of transport.
- Weight gain of more than 1½ kg in a month or systolic blood pressure of 140 mm of mercury or more should arouse suspicion of **pre-eclampsia**. Such cases may also get fits (Eclampsia). All these cases are medical emergencies and should be referred to the nearest hospital for appropriate treatment.
- **Prolonged labour or obstructed labour** (labour pain for more than 12 hours) can lead to rupture of the uterus. It is, therefore, essential to take them to the nearest hospital where facilities for cesarian section are available.
- **Fever – 39°C and above** after delivery or after abortion are mostly due to infections some times it may be fatal. They also require appropriate treatment in hospital.

Remember:

PRE-ECLAMPSIA SHOULD BE DETECTED AND MANAGED EARLY. THUS, ONE CAN PREVENT 9% ALL DEATHS WHICH OCCUR DUE TO ECLAMPSIA.

2.7. Important ante-natal advices

- **Rest, Sleep & extra diet**

Pregnant women need to take an extra meal every day alongwith her usual family diet. No special food is necessary. No habitual food is to be restricted during pregnancy. Alcohol and tobacco are strictly prohibited. The pregnant women needs to take rest for about two hours during the day and should sleep for at least 8 hours at night. Short periods of rest in between physical work are also useful. She must not do heavy work, she must take rest, as often as she can. It is important to advice the women and other family members including her husband, so that family responsibilities are shared and the pregnant woman gets the rest she needs.

Rest, sleep and avoidance of heavy work brings down total calorie requirement, as motor vehicle do not require petrol when it is in garage.

- **Anaemia Prophylaxis**

Explain about the extra requirements of iron during pregnancy and the dangers of anaemia during pregnancy. All pregnant women must get 100 tablets of Iron & Folic Acid (IFA – Large) during pregnancy and consume 1 tablet daily. Lives of many pregnant women can be saved by consumption of 1 tablet of IFA daily for 100 days. Moreover, women with visible sign of pallor should be given two IFA (large) tablets daily, for at least 100 days.

- **Tetanus Toxoid (TT) Immunisation**

Explain to the pregnant woman that TT immunisation will protect herself and also her newborn baby against tetanus of newborn. Neonatal tetanus is a serious disease causing death. TT immunisation must be given to all pregnant women and there is no contraindication to this vaccine. The first injection of TT is given at the first contact with the pregnant woman. The second injection is given after one month of first injection. If the woman had received tetanus toxoid during previous pregnancy during last 3 years, only one injection is sufficient. However, give 2 injections at one month interval in case of doubt.

The injections must be completed at least one month before delivery. There may be slight pain at the injection site for a day or two.

The spores of tetanus are widespread in the environment, especially in the rural areas where there are large number of animals living in close proximity. It is therefore important that high TT immunization coverage levels are sustained and clean delivery practices are continued, even if there are is no reported case of neonatal tetanus.

- **Personal Hygiene**

Regular bath and maintenance of personal cleanliness should also be emphasised during pregnancy and delivery.

Inform the mothers about the warning signs and need of referral to the FRUs

Preparation for Labour

Health worker or Trained Birth Attendant (TBA) must make necessary preparations for delivery. If the family plans for home delivery, trained dias should be contacted before hand. They should be provided with a disposable delivery kit (DDK). In case the DDK is not available, they should be advised to buy a new blade and thread and keep those in known place at home. The thread should be boiled for 20 minutes and sun dried before its use during delivery.

The women should be advised to keep 2 cotton cloths of adequate size (e.g. dhuti or sari) ready for herself and her newborn. It is important that these are clean.

Cloths should be washed with soap and sun dried and kept away from dust.

All pregnant women must be informed about the nearest hospital and FRU, so that they can reach there immediately, if there is any emergency. The family and the community must also make some arrangement, of transport, in advance, so that no time is lost, if the woman has to be rushed to a hospital. Blood transfusion is often required for

management obstetric emergencies. So, family members and friends must be prepared to donate blood.

All pregnant women must also be advised about early and exclusive breast-feeding and care of the newborn.

Exclusive breast feeding for 6 months followed by timely complementary feeding will prevent both malnutrition and infection.

- **Minor ailments during pregnancy**

Some minor problems related to pregnancy can cause lot of discomfort and interfere with nutrition of the pregnant woman. Such woman would require help and advice. You must be able to help them in such situation. These are:

Morning sickness

Advise her to eat dry foods in the morning, small frequent meals. Moreover, the food should be tasty, avoid greasy food, eat lot of green vegetables and drink plenty of fluid. In case the woman is not able to retain food or fluids and urine becomes scanty and dark, with signs of dehydration, refer her to Primary Health Centre (PHC) for treatment.

Heartburn and nausea

Advise her to avoid eating greasy, spicy or rich food, take sips of milk and to avoid eating just before bed time. If the symptoms persist or become worst, refer her to PHC.

Backache

Teach her good posture and advise her to increase the duration of rest and to take more milk. If the pain is severe and persistent, advise her to go to PHC.

Constipation

Advise her to drink at least 7 tumblers of fluid, eat well washed raw fruit and vegetables, coarse ground cereals and green leafy vegetables. She should also be advised to take light exercise regularly. If in spite of following these advises, the constipation continues, the woman should consult a doctor.

- λ **Emergency care for those who need it**

- Early identification of obstetric emergencies.
- Provide immediate management and refer to the pre-identified referral hospitals, time should not be wasted, as because delay can be fatal.
- Use fastest available mode of transport. The health workers must know the hospital where such cases can be treated and properly guide the attendants so that they can shift the patient by quickest mode of transport as available locally and by shortest route.
- During transfer of such cases, and the patient should lie on her left side. In case the patient has fits, a roll of cloth should be placed between teeth to avoid tongue bite.

2.8. Provision of clean and safe delivery practices at the community level

- Create awareness among the community about the need for 7 clean practices during delivery

1.	Clean surface
2.	Clean hand
3.	Clean towel
4.	Clean blade
5.	Clean cord and tie
6.	Clean stump
7.	Clean warm water

- Deliveries must be conducted by trained personnel
- Provision of Disposable Delivery Kits (DDKs) for all pregnant women
- Promotion of institutional deliveries
- Information about danger signals
- Identification and referral of high risk cases at the community level by trained dais.

2.9. Family Planning

Women in the reproductive age group

Under the Reproductive and Child Health (RCH) Programme, you will ensure the following.

Counselling on:

- ◆ Care of girl child
- ◆ Optimal timing and spacing of birth
- ◆ Small family norms
- ◆ Use and choice of contraceptives
- ◆ Prevention of RTI / STIs

Emphasis on Birth-Spacing and Timing

Access of all couples to adequate information and service facilities for spacing and timing of births from the existing level to 100%.

To increase the effective couple protection rate from present level to 65% by 2010 AD.

Birth spacing and timing of birth are most important determinants of maternal and childhood morbidity and mortality. The crucial issues which requires immediate attention in our country are:

- ◆ Early marriage and first pregnancy before 20 years (teenage pregnancy);
- ◆ Birth interval less than three years;
- ◆ Four or more pregnancies;
- ◆ First pregnancy after the age of 30 years;

Implications of Birth-timing and spacing

Problem	Implications on health of		Action required
	Mother	Baby	
Pregnancy before 20 years of age	Mother physically & psychologically not ready for child birth and care. Higher maternal mortality due to obstructed labour. Chance of Anaemia more.	High Low Birth Weight newborn incidence Perinatal & infant mortality	Delay marriage after 20 years for girls. If married earlier, adopt spacing method.
Birth interval of less than 3 years	Higher incidence of anaemia and infections	High rate of Low Birth Weight Baby Higher IMR	Spacing method soon after child birth (breast feeding not reliable for country)
Third or later Pregnancy	Higher incidence of Anaemia, APH, PPH	Higher IMR	Adopt terminal method as soon as family completed
Pregnancy after 30 years	Higher incidence of obstructed labour.	Increase in congenital anomalies	As above, greater care if pregnancy occurs

	APH, PPH, Anaemia	Perinatal mortality	
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λ **Information about availability of**

- ◆ MTP services
- ◆ IUD and sterilization services

λ **Provide family planning services**

- ◆ Condom distribution
- ◆ Oral contraceptives
- ◆ IUD
- ◆ Birth timing and spacing

Prevent too early pregnancy, too close pregnancies & too many children

λ **Family Planning Services**

- ◆ Prevention of RTI / STIs

λ **Recognition and referral of RTI / STD**

- ◆ Management of infected partners

CARE OF THE MOTHER DURING POST NATAL PERIOD

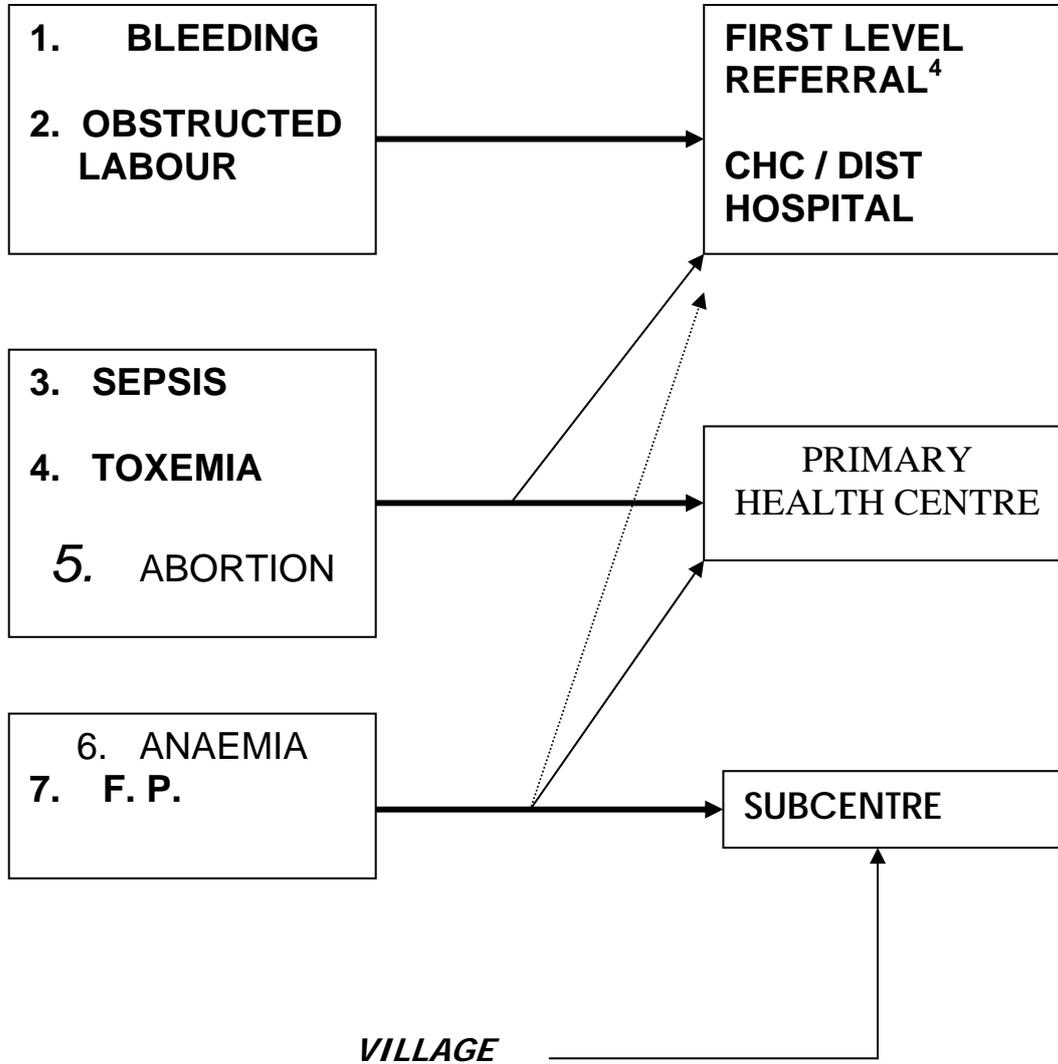
Day of visit	Health assessment procedures	Health care and advice	Referral
First visit Second day (home visit)	<p><i>Ask about:</i></p> <ul style="list-style-type: none"> i) amount and characteristics of lochia ii) fever iii) pain or discomfort (breasts, abdomen, perineum) iv) appetite v) urine passed vi) bowels open vii) sleep <p><i>Conduct the following examination</i></p> <ul style="list-style-type: none"> i) Check size and consistency of uterus ii) Observe characteristics of lochia iii) Note condition of perineum iv) Measure height of fundus v) Note size of bladder vi) Check condition of breasts and milk 	<p>On the basis of the health assessment:</p> <ul style="list-style-type: none"> i) Treat minor ailments including those related to the delivery ii) Demonstrate to her: <ul style="list-style-type: none"> a) Care of the breast b) Care of the perineum iii) Ask her to report to you if any of the following occur: <ul style="list-style-type: none"> a) Fever b) Engorgement of the breasts c) Presence of foul smelling lochia d) Pain in the legs or chest e) Difficulty or frequency of urination iv) Teach her about: <ul style="list-style-type: none"> a) Diet during breast-feeding 	<p>If the woman has:</p> <ul style="list-style-type: none"> i) Fever above 39°C ii) Pain in the legs or chest iii) Difficulty or inability to urinate iv) Fresh vaginal bleeding or very heavy foul lochia

	<p><i>Make a note of:</i></p> <p>i) Mother's way of handling baby</p> <p>ii) Mother's response to your visit</p> <p>After delivery a woman who seems to have very little energy, is lethargic in her behaviour and is not interested in what is happening around her, may be suffering from post-partum depression.</p>	<p>b) Need for physical activity</p> <p>c) Personal hygiene</p>	
<p>Second visit Fifth or sixth day (home visit)</p>	<p>Proceed as for the first visit but pay special attention to the following:</p> <p>i) Engorgement of breasts</p> <p>ii) Height of fundus & haemoglobin estimation</p>	<p>Pay special attend to:</p> <p>i) Care of engorged breasts</p> <p>ii) Treatment of anaemia</p> <p>iii) Family planning advice</p>	<p>In addition to the complications listed above, if the woman has:</p> <p>i) Breast abscess</p> <p>IMPRESS UPON THE MOTHER THAT PREGNANCY CAN OCCUR EVEN THOUGH SHE IS</p> <p>i) BREAST FEEDING</p> <p>ii) NOT MENSTRUATING</p>

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Day of visit	Health assessment procedures	Health care and advice	Referral
Third visit Ninth or tenth day (home visit)	Proceed as for first and second visits	Emphasize : i) Need to attend MCH clinic at 6 to 8 weeks ii) Need to attend family planning clinic at 6 to 8 weeks.	Same as at first and second visits in addition if the height of the fundus is more than 2 fingers above the public bone and there is foul lochia
Fourth visit Second to fourth week after delivery (home visit)	Check: i) That uterus is no longer felt above public bone ii) That lochia has stopped iii) That breast feeding has been well established iv) That there is no breast infection or cracked nipples v) That there are no symptoms of prolapse vi) How the mother handles her baby and look for evidence of her interest in caring for it in a loving way vii) Whether there is a noticeable change in her general behaviour or in her relationship with her husband	Pay special attention to: i) Motivation of woman to accept a family planning method ii) Post-natal exercises iii) Whether the mother is taking sufficient food iv) Whether the mother is getting sufficient rest and sleep	If the woman has: i) Symptom of prolapse ii) Painful intercourse iii) Persistent heavy lochia iv) Uterus felt above public bone v) Little or no interest in the care of the baby vi) A sad look, is dejected, apathetic or cries easily.
Fifth visit Sixth or eighth week after delivery (clinic visit)	Same as for fourth visit	Same as for fourth visit	Same as for fourth visit

REFERRAL



⁴ First level referral hospital with surgical, anaesthetic and blood transfusion facilities available round the clock.

CHILD SURVIVAL

Infants

- **Newborn care**

- **Take birth weight of all newborns:** Normal birth weight is above 2500 gms. Babies whose weight is between 2000 to 2500 gms would require special care. Such babies are to be covered well with cloth and put close to the mothers, breastfed optimally and not handled by too many people in order to prevent infections. If the birth weight is less than 2000 gms, the newborn must be referred to a Medical Officer for further examination and management.

- **Resuscitation of babies :** The mucus trapped in the mouth to be gently sucked with the help of a mucus sucker. Mouth to mouth respiration should be given if signs of asphyxia is present like, baby does not cry, respiration not started, or baby becomes blue.

- **Prevention of hypothermia:** Newborns are susceptible to cold. After birth the newborn is to be wiped dry and covered well with soft pre warmed clean cotton cloth which has been washed with soap and dried in the sun. **No Bath to the Newborn for first 7 days.** The baby should be kept in close contact of mother. Head of the baby should be kept covered.

- **Exclusive breast feeding within one hour of delivery:** It is essential that the newborn is given the first milk (colostrum), because it contains many essential nutrients and help in developing immunity against diseases. The infant should be breastfed exclusively and no other fluid is to be given till the age of 6 months. From 6 months, homemade semisolid food should also be given, as complementary food.

- **Referral** of newborns who show signs of illnesses.

- the mother on essential newborn care, prevention of hypothermia and infections, nutrition (breast-feeding and weaning), immunization, Vitamin A supplementation and recognise early signs of illness when to seek help.

- **Immunisation**

- BCG - 1 dose at birth (in case of institutional delivery) or at 6 weeks alongwith OPV & DPT vaccines.
- DPT - 3 doses, beginning at 6 weeks and at monthly interval
- Oral Polio - '0' dose at birth (for all institution deliveries), 3 doses beginning at 6 weeks and at monthly interval.
- Measles - 1 dose at completion of 9 months of age.
- Vitamin A - First dose (100,000 IU) alongwith measles vaccination

Children (1 – 3 years)

Immunization

- DPT and OPV booster dose at 16-18 months
- Vit. A - 2nd dose (200,000 IU) at 16-18 months alongwith DPT and OPV booster
 - 3rd to 5th doses (200,000 IU each) at 6 month intervals thereafter.

Children (1 – 5 years) (TREATMENT OF ANAEMIA)

- IFA (small) tablets if the child has clinical signs of anemia
- Treatment of hookworm infestation, if suspected.

Prevention of deaths due to ARI

- Standard case management for all cases of acute respiratory tract infections including early recognition of signs of pneumonia home management and continue feeding during ARI.
- Early initiation of Cotrimoxazole to children with signs of 'pneumonia'
- Referral of children with 'severe pneumonia' or 'very severe illness' with a dose of cotrimoxazole.

Prevention of deaths due to Diarrhoea

- Increase fluid intake.
- Use of home available fluids to immediately when diarrhoea starts.
- Start ORS as early as possible.
- Continue feeding, including breast feeding during diarrhoea
- Look for signs of dehydration and refer it health facilities.
- Contact health worker or attend nearest health institution for immediate rehydration with ORS or IV fluid.

NUTRITION

3.1. Introduction

Good nutrition forms the basis for good health of a child, more so for girls. However, malnutrition is still widely prevalent in our country. Malnutrition reduces body resistance to fight against infections, retards intellectual and physical development. This also leads to increased morbidity and mortality in children.

Nutrition is required for a child to grow, develop, keep active and to reach the adulthood as well. Several of these nutrients are essential and their deficiencies lead to various problems. **These essential nutrients are carbohydrates, proteins, fats, vitamins and minerals (or micro-nutrients), which are necessary to maintain growth, development and tissue integrity.**

3.2. Breast-feeding

Breast milk is the ideal food for the newborn. Exclusive breast-feeding can save many lives by preventing malnutrition and reducing risk of infections during early infancy.

Feeding anything other than breast milk, even water is not only unnecessary, but is also potentially harmful during first 6 months of life.

3.3. Terms for Infant Feeding Practices

Exclusive Breast feeding: If only breast milk is offered to a baby and no other food or drink or even water is offered to the child, this is exclusive breast feeding. The baby should not even have a pacifier or dummy.

Predominant Breast feeding: If small amounts of other food or drinks, such as water or water based products such as tea is offered to the baby, alongwith almost exclusive breast feeding, this is called predominant breast feeding. This is also a wrong practice.

Prelacteal feeding: Very often the newborn is offered sweet water, honey, or even artificial milk, during first 2 or 3 days of life. Colostrum of mother is not offered. After 2 or 3 days breast feeding is started. This wrong practice is called Prelacteal feeding.

Partial Breast feeding: If a baby gets some breast feeds and some artificial feeds, or other drinks, or weaning foods are started, but continues to breast feed; it is called partial breast feeding.

Token Breast feeding: If a child mostly on other foods, but still breast feeds sometimes, it is called token breast feeding.

Artificial feeding: If a baby gets artificial milk feeds, and no breast milk at all, we call it artificial feeding. Sometimes, to be clear, we say that a baby is completely artificially fed.

Bottle feeding: Bottle feeding means feeding a baby from a bottle whatever may be in the bottle, including expressed breastmilk, also.

Timely complementary feeding: Timely complementary feeding means giving a baby other home available foods, in addition to breast feeding, when it is appropriate i.e. after the age of 6 months.

3.4. Advantages of breast-feeding

- The advantages of breast feeding are more than just the advantages of feeding a baby on breast milk. Breast feeding protects a mother's health in several ways, and can benefit the whole family, emotionally and economically.
- The advantages to the baby having breast milk are,
Nutrition – It contains exactly the nutrients that a baby needs;
Easily Digestible – It is easily digested and efficiently used by the baby's body;
Protective – It protects the baby against infections.
Species specific – All other milks are different, and not as good for a human baby. However, milk is for human and animal milk is specific for animal.
- The advantages of breast feeding are that:
 - ┌ It costs less than artificial feeding;
 - ┌ Always available;
 - ┌ Suckling helps baby's teeth and gum development.
 - ┌ It helps bonding between a mother and baby that is, it develops a close, loving relationship;
 - ┌ It helps baby's growth and development;
 - ┌ It can help to delay next pregnancy;
- The advantages to the mother who is feeding breast milk are:
 - ┌ It protects the mother's health,
 - ┌ It helps the uterus to return to its previous size. This helps to reduce bleeding, and may help to prevent anaemia;
 - ┌ Breast feeding also reduces the risk of ovarian cancer; and possibly breast cancer, of mother.

Important Messages

- **No prelacteal feeding**
- **Feeding colostrum is essential**

- **Exclusive breast feeding for 6 months.**
- **Continue breast feeding during illness of mother also.**

3.5. Under-nutrition

India, Bangladesh & Pakistan contribute nearly 50% of the undernourished children of the globe. According to the report of National Family Health Survey (NFHS 2), 47% of Indian Children, under 3 years of age, suffers from under-nutrition. Many children are born with low birth weight, that is, less than 2.5 Kg. Higher prevalence of severe degree of under-nutrition is common among children under 2 years of age and more among the female children, in particular. As a result, these children are at highest risk of suffering from illness and death. So, these children need special attention. Further, their need of food are high, because they are constantly growing and are very active.

3.6. Undernutrition has adverse consequences

The risk of morbidity increases sharply with severe undernutrition. Moderate malnutrition also increases duration and, possibly, severity of illness.

Severe Malnutrition increases the incidence, duration and severity of infection and reduces the immune response.

The risk of death from some of the most common childhood diseases is **double** for a mildly malnourished child;

Triple for a moderately malnourished child and

Multiply by more than 10 times for a severely malnourished child.

Upto 80% of all children who die of diseases related to or aggravated by malnutrition, are only mildly or moderately affected.

Lack of only 200-300 calories daily in a young child's regular diet is often the difference between normal growth and the growth faltering and

predisposes the child descent towards infection / illness, malnutrition and possibly **Death**.

3.7. Causes of malnutrition

- No breast feeding / partial breast feeding and /or use of diluted animal milk or artificial milk (commercial milk formulae).
- Delayed introduction of complementary feeding and use of diluted milk.
- In the other words delayed introduction of semi-solid food.
- Too early, too frequent pregnancies, too many children.
- Ignorance, illiteracy and poverty.
- Repeated Infections e.g. measles, diarrhea, ARI, Worm.
- Psychological trauma (separation from mother, birth of new siblings).

3.8. Clinical features

- Weight not as per the age (less weight for age)
- Wasting of subcutaneous tissue and muscles.
- Swelling of the baby, in severe cases.

3.9. Management

- For those who are able to take food, advice the mother to give more food from common family diet.
- For those children who are not taking food, vomiting on feeding or diarrhoea. Refer them to PHC / FRU.

3.10. Advice of feeding during illness

- **Advice on fluid and food**

Excessive fluid & nutrients may be lost due to diarrhea, vomiting, fever or fast breathing. So, the child should be given extra fluids & more food.

Home available fluids (such as plain water, lemon water, light tea, rice water, puffed rice water etc.) should be started initially to prevent dehydration.

Fluids should not be over diluted, if mother feels that the fluid is strong for the child, she should be advised to give some plain drinking water to the child after giving the fluid.

Fluids should be given in more than the usual amounts. It is advised that fluids are given in the form of sips at every one to two minutes interval, if the child has vomiting with diarrhea.

The best way to determine the amount of fluid to be given is to be guided by the thirst of the child.

Breast-fed babies should continue breast milk during illness. Mothers should be told to feed for longer durations and more often i.e. continue feeding during illnesses. The children on complementary feeding should also be offered his / her usual diet during illness.

Continue feeding during the illness as well as offer extra amount of food to the child immediately after each episode of illness.

3.11. Growth Monitoring

By regular checking of weight one will be able to know when growth falters. On identification of growth faltering, actions like deworming, management of infection like diarrhoea, ARI and providing double ration through ICDS should be initiated.

Encourage growth monitoring of all the children under five years of age through Anganwadi Centres of ICDS

3.12. Other nutritional deficiencies

Vitamin A – an essential micronutrient

- The role of vitamin A in ensuring normal vision is well known.

- Vitamin A also plays a critical role in protecting us from disease and infection.

3.12.1. Vitamin A deficiency

Vitamin A deficiency can lead to blindness. It is most common between 6 months to 3 years of age. Improvement of dietary practices can prevent it. Early symptoms of Vit A deficiency include **night blindness**.

Vitamin A is required to:

- Maintain the integrity of tissues viz. lining of the eyes, gastro-intestinal tract, genito-urinary tract, the respiratory system etc.
- Ensure optimal functioning of the immune system.
- Vitamin A deficiency, increases the risks of infections, and severity of diseases, particularly among children.

Prevention of Vitamin A deficiency

- Promote kitchen gardens
- Dark green leafy vegetables (DGLV) are rich sources of vitamin A

A child less than 2 years needs only about one tablespoon (17g) of cooked DGLV per day to meet his entire vitamin A needs. Similarly, a pregnant woman / nursing mother will need 2-3 tablespoons of cooked DGLV each day.

Every week if about half cup of cooked DGLV is given to a child, one cup given to a pregnant mother and one and a half cup given to a nursing mother respectively, their daily requirements of Vitamin A are taken care of.

A family of five members, parents and three children, need to procure and cook only about 250 grams of DGLV on a daily basis, to fulfil their need of vitamin A.

This means cup of cooked vegetables for the entire family per day. If procured from the market, this amount of any seasonal DGLV would cost less than Rs. 1.00/ \$0.031.

- Promote exclusive breast-feeding and feeding of colostrum
- Provide 5 (Five) Vitamin A prophylactic doses to children between nine months to three years of age at six month interval.
- Increase coverage with measles vaccine.

Blindness due to vitamin A deficiency can be prevented by following proper schedule of mega doses of vitamin A supplementation for children.

D	Age	Dose
1	9 months (<i>with measles vaccine</i>)	100,000 I.U.
2	16-18 months (with booster on DPT/OPV)	200,000 I.U.
3	After 6 months (24 th month)	200,000 I.U.
4	After 6 months (30 th month)	200,000 I.U.
5	After 6 months (36 th month)	200,000 I.U.

Vitamin A solution is available in the PHC and sub-centre in the form of liquid preparation. Each ml. of this contains 100,000 I.U. of Vitamin A.

3.12.2. Iron deficiency anaemia

Anaemia, due to deficiency of iron, is very common in children. It can be recognized by noting paleness of the hands, lips, tongue and the conjunctiva.

It results from :

- Inadequate intake of iron rich foods in daily diet
- Increased loss take place due to recurrent diarrhoea, Malaria and worm (Hookworm) infestations.
- Increased requirement due to growth.
- Certain substances in diet which interfere with absorption dietary iron.
- Vegetarian diet leads to low absorption of dietary iron.

Treatment

- Advise the family to eat foods rich in iron such as fresh, green leafy vegetables and pulses, jaggary and animal foods.
- Advise mother about good hygiene in order to prevent diarrhoea and worm infestations.
- In iron deficiency anaemia, administer IFA one small tablet once daily for 100 days.
- Such cases should be referred to the medical officer for confirmation of diagnosis and appropriate management.

3.12.3. Iodine Deficiency Disorders

Due to depletion of iodine from soil, the common sources of iodine like foods and water are deficient in iodine content. Because these foods grown in iodine deficient soil and have low iodine content even animal foods also because iodine deficient.

- To prevent this disabling disease, only iodised salt should be regularly used by all even for pet animals foods.

ADOLESCENT HEALTH

4.1. Introduction

Adolescence is a period of transition from childhood to adulthood. It is the period of life between age of 10 – 19 years.

This period is very crucial, since these are the formative year of life of an individual, when major physical, psychological and behavioral changes take place. This is an impressionable period of life. This is also a period of preparation for undertaking greater responsibilities including healthy responsible parenthood in future. Adolescents form prospective human resource for the society.

Besides physical growth and development, significant physiological changes also take place during adolescence period, both among boys and girls. The period usually begins (puberty) around the age of 10 years in girls and about 12 years in boys. During this period, secondary sexual characteristics appear in body of both boys and girls, alongwith accelerated growth and development of genital organs. The adolescents should know that all these changes are normal. There is no need to be ashamed or frightened. Moreover, among girls, menarche, that is, first menstruation occurs at around 12 years of age. This is often recognised as a sign of maturity in girls.

Health problems of adolescents are very different from those of younger children and older adults. Due to lack of accurate information, adolescents are prone to various behavioural and reproductive health problems. The period of transition from childhood to adulthood is hazardous for the adolescent health, because they develop behavioural problems in absence of proper guidance and counselling. As a health worker, you can play very important role in preventing these problems.

4.2. Health problems during adolescence

Some health problems among adolescents are consequences of certain childhood infections, polio-myelitis etc. or other factors affecting health status like malnutritionS

such as stunting and wasting, anaemia, physical and mental handicap due to iodine deficiency or nutritional blindness as a consequence of vitamin A deficiency in early life.

4.2.1. Menstrual Disorders:

Irregular bleeding is sometimes seen after menarche: Delayed menarche or painful menstruation may also occur. You should reassure the girl and her parents and advise her to take nutritious diet. In most of the cases, the periods get regular within first 2 years of menarche. If they do not get regular menstrual bleeding thereafter, then you should refer her to MO (PHC) or any other qualified doctor, who is acceptable and available.

4.2.2. Under-nutrition

During adolescence, growth spurts occur and about 35% gain of adult weight and 11% of adult height are acquired. So, the nutritional requirement of adolescents is more due to rapid growth spurt and increase in physical activities. Good nutrition is equally important for proper growth of both male and female adolescents. Moreover, stunted and undernourished girls are more likely suffer from obstructed labour and also may give birth to low birth weight babies.

Undernutrition among adolescents, particularly among girls, is a major public health problem in India. Undernutrition during childhood and adolescence leads to impaired growth (stunting), anaemia, iodine deficiency disorders etc.

So, the adolescents need more nutrients, particularly calorie, protein, calcium, iodine and iron. They should take calcium rich food, like milk and milk products, consume iodised salt and iron rich food like green leafy vegetables, whole pulses, jaggery, meat, poultry and fish etc. So, you have to ensure that during the period, the adolescents are encouraged to develop healthy eating habits and life styles.

4.2.3. Unprotected sex and unwanted / unplanned pregnancy

Since adolescent sexuality remains taboo in many societies, there is widespread ignorance among adolescents about risks associated with unprotected sexual activity. Unprotected sex may lead to unwanted / unplanned pregnancy, which in turn may lead to increased demand for induced abortion. Pregnancy among

unmarried adolescent girls may lead them to seek abortion services from untrained practitioners and quacks and become victims of the consequent complications. Termination of unwanted pregnancy through induced abortion among adolescent girls cause greater risk than in adult women. Even if pregnancy continues, tendency to hide the same and to avoid proper antenatal care, may lead to serious complications of pregnancy and childbirth.

4.2.4. Risk of pregnancy in adolescence

Health of adolescent girls is at high risk, if they are married at very young age, which leads to consequent early child bearing. The chance of anemia, retarded fetal growth , premature birth and complications during labour are significantly higher among adolescent mothers and may even lead to death.

4.2.5. Unprotected sex and sexually transmitted diseases

A major consequence of unprotected sex among adolescents is the chance of infection, like STDs which include syphilis, gonorrhoea and HIV / AIDS. Young adolescents of both sexes, who are exposed to unprotected sexual activities, are highly vulnerable to STDs.

Acquiring STDs during adolescent often result in serious consequences like infertility, pelvic inflammatory disease, ectopic (tubal) pregnancy etc.

4.2.6. How to prevent adolescent pregnancy and STDs ?

Adolescent pregnancies are high risk pregnancies. Hence, for delaying pregnancies, there is need to delay age at marriage also. This can be achieved through advocacy, counselling and social as well as legal actions. However, sex education to prevent premarital pregnancy and STDs is also necessary.

Counselling of adolescents can enable them to take proper decisions to prevent pregnancies by adopting abstinence or use of contraceptives.

Counselling will also help them to take decision for adopting safe abortion services in case of unplanned / unwanted pregnancy.

Use of condom not only provides protection against unwanted pregnancies but also protects against STD and HIV / AIDS. Counselling and education may be

provided to the adolescents regarding need for practice of safe sex, not only to avoid pregnancy but also for protection against STDs including HIV / AIDS.

Remember that adolescents have a right to obtain complete, correct and detailed information regarding to their development; physical and psychological changes that take place during adolescence; sexuality in human beings and its implications on their health as well as means to protect themselves from reproductive health related problems.

4.2.7. Psychological and behavioural problems

Due to rapid physical and sexual changes of body during adolescence, they may develop anxiety and apprehension. Due to lack of appropriate information about these changes, the adolescents are prone to health risk behaviours such as sex experiments which may lead to teenage pregnancy and RTI / STI, HIV/AIDS, suicides etc.

Adolescence is a period of curiosity, exploration, adventure, aggressive and impulsive behaviour and experimentation leading to consumption of alcohol, tobacco use etc. and may indulge on risky behaviour like risky driving and disregard to traffic regulations, leading to injury, accidents.

4.2.8. Crucial role of family and community for adolescent health

Family has a crucial role in shaping the adolescents' behaviour. Parents and adults in the family must ensure a safe, secure and supportive environment for the adolescents during their formative years of growth and development. Family members need to be informed and educated in this regard. A positive and encouraging attitude among parents and family members to interact with adolescents, to give clarifications and correct information on their doubts will facilitate better relationship of trust and confidence. Moreover, the school teachers may be trained on adolescent health for its inclusion in school health education. Formal community leaders may also play a vital role on adolescent health care.

4.2.9. Your role to educate the community to help adolescents

Adolescents confront a number of problems because of the lack of authentic knowledge regarding their process of growing up, particularly, the issues relating to reproductive health.

They need accurate information and do not often know from where to obtain this. Therefore you are expected to educate the community members as well as adolescents about the normal physiological changes with special reference to nutrition and health needs of adolescents. You should educate the adolescents about healthy life style and behaviours.

4.3. Key points

1. Adolescents need extra food as they are growing very fast.
2. Adolescents are more likely to become anaemic due to rapid growth in muscle mass (and menstruation in girls). Give them more iron rich foods like whole pulses, green vegetables, jaggery, meat, poultry, fish etc. and treat with IFA tablet, if they are anaemic.
3. Adolescents are under psychological stress very often, as they are becoming more independent and assertive as part of their growing up. Hence they should be dealt in a more sympathetic and understanding manner by family members, teachers and other adults in the community.
4. Adolescents are undergoing sexual development and they are curious to know about it. They should be encouraged to ask and know about this from parents, health workers and others who can give them correct information. They should be told about the risk of unprotected sexual behaviour i.e. diseases like STD and AIDS.
5. Adolescents may not have adequate information about consequences of experimenting with unprotected sex, use of dangerous substances like drugs and alcohol, risky driving, smoking etc.
6. Adolescents have the right to obtain information and knowledge about their development, healthy behaviour, sensitive sexual issues, their own health needs etc.
7. Unprotected sexual relations increase the risk of unwanted pregnancy, induced abortion and STDs.
8. ***A pregnant adolescent below the age of 18 years is 2.5 times is at risk and more likely to die than a pregnant woman between 18 – 25 years.***
9. STDs are major causes of reproductive health complications and its sequelae including infertility.
10. Lack of knowledge, lack of access to contraception and hesitation in seeking information from adults put the adolescents at high risk of unwanted pregnancy and STDs.
11. All efforts for counselling of adolescents should advocate that premature, unprotected sexual relation and pregnancy in adolescence should be avoided.

PREVENTION AND MANAGEMENT OF REPRODUCTIVE TRACT INFECTIONS / SEXUALLY TRANSMITTED INFECTIONS

5.1. Introduction

Reproductive tract infection (RTI) is an infection of the genital tract. The infection can affect vulva, vagina, cervix, uterus, tubes and ovaries in the woman. Infection of uterus and the tubes is known as Pelvic Inflammatory Disease (PID). It can occur even without producing symptoms. In addition to the personal discomfort in woman, it may also result in infertility. In severe cases of PID, the infection can spread to abdominal cavity and even lead to death of the woman.

Sexually Transmitted Infections (STI) occur following sexual intercourse with the infected person, which results in genital ulcers discharges and frequent abortions. If untreated, they can even be a cause for spread of HIV / AIDS in the community. Presence of RTI / STI in any person may result in flare-up of infection following insertion of IUCD. Therefore, insertion of IUCD in such patient is contra-indicated. From pregnant women, the foetus may be affected by these infections. It may also be a cause cervical cancer.

5.2. Identification of the Individual with Symptoms of RTIs / STIs

RTI / STI is suspected in a woman who seeks health care for:

- Vaginal discharge with or without itching
- Genital ulcers
- Lower abdominal pain
- Backache
- Woman whose husband / sexual partner has problem of urethral discharge with burning during urination or ulcers of genitals, scrotal swelling or enlarged inguinal lymphnodes.
- Frequent abortions

5.3. Importance of Partner Identification and Prompt Referral

All the STIs are transmitted from infected partners. The treatment of the individual alone is not sufficient, unless and until her partner is also treated simultaneously. Sometimes, her male sexual partner may not be having any manifestation, like ulcers, urethral discharges or other complaints.

It is important that the affected sexual partner also gets properly diagnosed and treated by referring him to M.O. PHC. This will prevent recurrence, persistence and spread of infection among the sexual partners.

5.4. Condom Promotion:

Consistent and correct use of condom should be advised to the clients and their sexual partners for every sexual act.

5.5. Probable source of infection of HIV / AIDS

Heterosexuals	-	74%
Others	-	11%
Injectable drug users	-	7%
Homosexuals	-	7%
<i>Recipients of blood</i>	-	1%

(Source NACO, Country Scenario 1998 – 99, India)

There are three modes of HIV transmission:

- Sexual transmission
- Blood transmission (Blood, blood products, infected needles or instruments)
- Vertical transmission (Placental i.e. maternal to foetal)

5.6. Key Points for management of RTI/ STI

- ◆ Identify the women with RTI / STIs.
- ◆ Manage the woman promptly for at SC level by ANM.
- ◆ Identify sexual partners and ensure their treatment.
- ◆ Advise correct use of condom during every sexual act.
- ◆ Provide counselling / health education to infected individuals, sexual contacts, family and community.
- ◆ Practise infection prevention measures to prevent spread of infection amongst the health personnel.

5.7. Key Points for Infection Prevention

- ◆ Prevention is better than cure.
- ◆ Infection can be transmitted from client to client or client to health worker or vice-versa and from health care facility to community.
- ◆ Mode of transmission is the easiest point to break in the disease transmission cycle.
- ◆ Every person working in the health care facility has the responsibility to practise Infection Prevention measures.
- ◆ Standard precautions must be followed with every client, as it is not possible to know whether the client is infected with HIV or Hepatitis – B infection.
- ◆ Antiseptics are to be used only for living tissues (skin, mucus, membranes). Disinfectants should not be used on skin or mucus membranes.
- ◆ Always decontaminate before cleaning, sterilization.
- ◆ Thorough hand washing with soap and clean running water is the most important step in Infection prevention.
- ◆ Use of the principles of '7 cleans' is crucial for Infection Prevention during or after delivery.
- ◆ Appropriate disposal of contaminated waste is important to prevent spread of infection in the community.

5.8. Universal Standard Precaution

Clinical practice recommendations to help to minimise the risk of exposure to infections are as follows:

- ◆ Wash hands.
- ◆ Wear gloves in both hands.
- ◆ Wear gowns / plastic aprons.
- ◆ After examining a patient, wash hands first and then remove the gloves.
- ◆ Proper disinfection of instruments and equipments.
- ◆ Maintain environmental cleanliness and adopt appropriate waste disposal practices.
- ◆ Correctly, handle and disinfect the soiled & used linens.
- ◆ Prevent injuries with sharp instruments (puncture wounds).

I. COMMUNICATION FOR BEHAVIOUR CHANGE

7.1. Using communication for behaviour change

To keep the staff, client and community motivated, you need to communicate with them frequently and with greater commitment than what had been done in the past. However, the term 'frequently' is relative and therefore, it is left to your discretion. For example, during outbreak of an epidemic, you will need to communicate and interact with your staff every day, may even be 2-3 times a day. While on a routine basis, at least once a week. On the other hand, the frequency of your interactions with the community members and clients will be situation driven and should be planned so.

Generally people like to talk about their health to their friends, peers and relatives. They also want to know and be assured about their health status. They even want to discuss about it with competent and caring health providers like you. If motivated, they are also willing to change their health behaviour. Effective communication through interpersonal communication, with the support of television / radio or even through print media, can facilitate motivation of people to change their behaviour pattern. You must have realised that as and when you communicate with purpose and with attention, their trust and confidence on you increase.

In RCH programme, Information Education & Communication (IEC) has a specific role to play for bringing desirable changes in health practices of people. The word behaviour refers to peoples' and the communities' existing knowledge, opinion, attitudes and practices for their health and its care. Peoples' health behaviour changes over time through the process of acquiring new information and knowledge (awareness) about their health and its care, which lead them to form opinion, attitudes (favourable or unfavourable) and acceptance or rejection, in real life situations. The changes in peoples' behaviour also require a process of transmitting and sharing RCH information which will improve both your subordinate health providers' and their clients' levels of knowledge, scientific attitudes towards

health care and health services. This will also motivate other people in the community to adopt new RCH care practices.

Health behaviour varies from one person to another, from one household to another, from one cultural / social group to other. This variation among people calls for assessing the health behaviour in detail so as to develop suitable activities that would facilitate change in behaviour.

7.2. Factors that influence behaviour

To a large extent, health status of individual households and communities are determined by their health behaviour. It is important to understand the nature of health behaviour. The nature of health behaviour depends largely on the impact of the following key factors:

- Physical
- Socio-economic
- Psychological

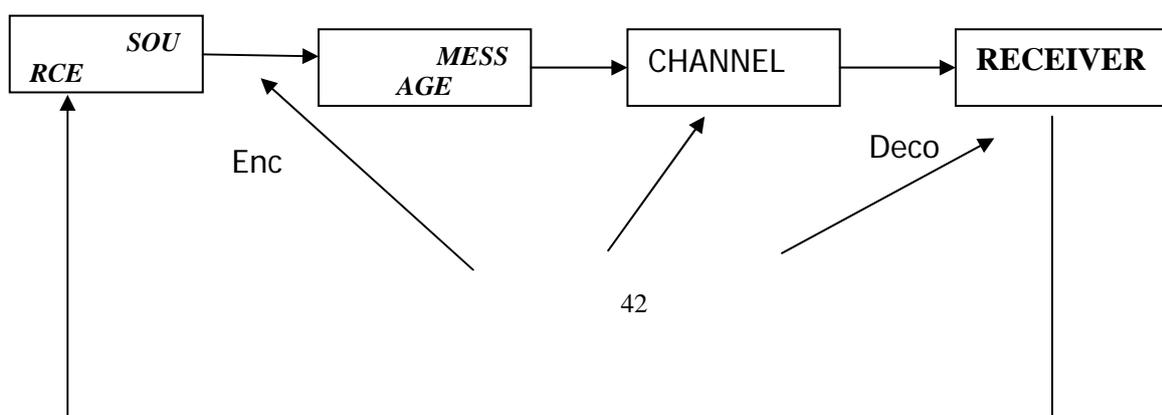
There are some important behaviours which may be considered for change or to be encouraged as role model for others. These are:

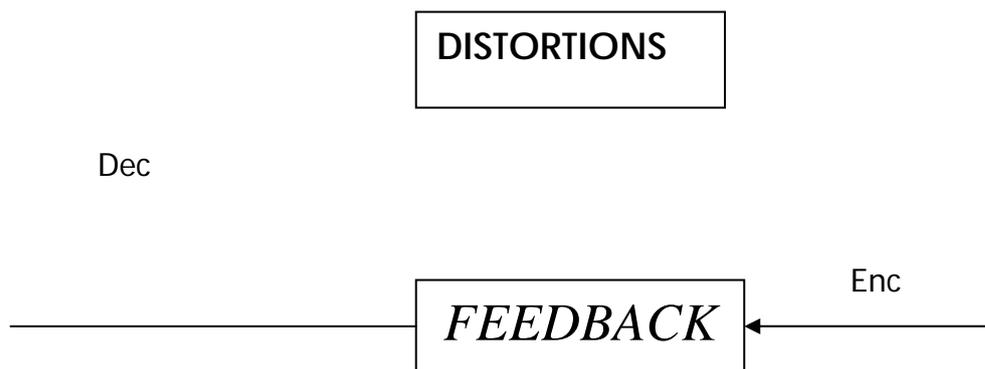
- HABITS (Repetitive)
- SERVICE BEHAVIOUR (Related to health seeking and utilisation behaviour)
- MANAGEMENT OF ILLNESS EPISODES BEHAVIOUR (At household level)
- HOUSEHOLD LEVEL BEHAVIOUR
- SOCIAL BEHAVIOUR (Related to Indian social environment)
- ENVIRONMENT BEHAVIOUR (Physical)

Your IEC activities must:

- **Focus on practice changes, instead of awareness creation.**
- **Develop IEC activities which are audience centred, rather than general IEC activities.**
- **Develop specific IEC activities according to the need.**
- **Develop monitoring system for IEC activities.**

The Communication Process





7.3. Developing Inter-Personal Communication (IPC) skills

To establish rapport and sustained relationship with clients, to get necessary help and support from community leaders and for people's participation in key programmes of RCH; interpersonal communication skills are necessary.

These skills can also give you results, when you work with other health providers especially with Health Workers, LHV, BEE even NGOs and others.

Using IPC skills, encourage support and co-operation of all members for quality service delivery.

Frequently used IPC skills include interview and counselling.

Tips for good interview:

- ◆ **Keep the surroundings clean and cheerful so that the client feels relaxed.**
- ◆ **Make the client comfortable by being friendly, relaxed and confident.**
- ◆ **Ask relevant question in any, easy to understand, language.**
- ◆ **Be a good listener to understand the psychology of the patients and interpret their answers correctly.**
- ◆ **When the patient poses a problem, you should be able to provide necessary information, offer solution or give a feed back correctly.**
- ◆ **Use non-verbal behaviour appropriately to communicate empathy and understanding.**

7.4. Counselling

Counselling is a process of enabling the client / patient to express her / his feelings and create a physical and psychological environment in which the client feels confident enough to take his own decisions.

There are some salient points, which can be used, judiciously in any counselling situation. At this point, we can look at counselling as a stepping stone through which the doctor guides his client and leads to a solution to the satisfaction of the client.

7.5. The process of counselling goes through the following steps in a sequential manner:

- ◆ Greeting: With a smile and in a friendly manner
- ◆ Attention: Concentrate fully on the client
- ◆ Openness: Use open-ended question to set the discussion on a voluntary basis
- ◆ Take Notes Taking note can be mental, since some clients may feel conscious if recorded in a paper. Basic point is that counsellor should have total concentration.
- ◆ Analysis of Select the important information from rest of the detail information confirm from the client. In case of gaps left, the client fills it up.
- ◆ Examine alternative This is a critical stage, since the client has to assess the opportunities, alternatives solutions. Counsellor should help this process by mentioning advantages and disadvantages of possible course of action.
- ◆ Helping client to To resolve dilemma of the client, the desire for adoption of a possible choice should come from the client. If it is a voluntary decision, it will be faithfully implemented.
- ◆ Developing action The counsellor should help the client to think clearly on the possible course of action in order to execute the idea accepted by the client.
- ◆ Planning future It would be appropriate, if the counsellor ensures that the client meets occasionally to develop linkages.

7.6. Constraints of communication

1. Clients, especially women, find it difficult to express their emotions and their health problems.
 2. Identify these women clients through their gestures and facial expressions.
 3. Show them concern and help them overcome through their barriers conforing them, by being approachable.
- ◆ Sit where you can see the speaker and watch him / her for unspoken signals / gestures.
 - ◆ Beware of hearing only what you expect, or want to hear.
 - ◆ Keep an open mind

- ◆ Make notes
- ◆ Don't let your mind wander
- ◆ Speak with care
- ◆ Give correct information.

7.7. Key Points in communication for behaviour change

- ◆ Frequent Communication provides the ground for community participation.
- ◆ Proper motivation can lead to behaviour change.
- ◆ If communication is effective, then the trust and confidence of the people increases.
- ◆ To change behaviour, health behaviour of the people need to be identified.
- ◆ Importance should be given to avoid distortion of messages.

II. COMMUNITY NEED ASSESSMENT

III. &

IV. PARTICIPATORY LEARNING FOR ACTION

6.1. Introduction

The approach of RCH programme has changed the earlier norm of providing services according to set targets passed on to the service providers, to the setting of norms for the services as per actual need of the community, estimated by the service provider at his / her level. This approach of need assessment and local planning of services to be provided is referred to as "Community Need Assessment(CNA)".

6.2. Concept of Community Need Assessment

The Community Need Assessment (CNA) Concept refers to need assessment and planning for services with the involvement of the community, NGOs, Community Health Volunteers, Women's groups and Panchayat. Since the emphasis is on providing quality health and family welfare services as well as on promoting use of birth spacing methods, the CNA concept means that these would be based on the actual needs of the people and not on the needs as perceived by the top level professionals and health care administrators.

Thus, the implementation of the RCH programme is focussed at sub-centre level and enables the health worker (female) to take initiative to organise health care services in accordance with actual community needs and demographic projections of the sub-centre area.

6.3. Importance of Community Need Assessment

Through the CNA approach, you can provide services to the community, according to their actual needs, as these will be assessed systematically. Therefore, these would help you in:

- Setting priorities

- Identifying target as well as high risk groups
- Calculating a realistic estimation of each type of service and matching of resources which are needed for the same.
- Developing realistic action plan / work plan for the functionaries / service providers that would be relevant to local situation.

6.4. Mechanism of CNA

The mechanism suggested in this approach for estimation of community needs include conducting household surveys and consulting with other functionaries, transacting with the same community and the representatives of the community. Therefore the CNA approach is:

- ◆ Based on the felt needs of the community.
- ◆ Not arbitrary but systematic and relevant to the local situation.
- ◆ Not to give uniform target to all the sub-centres, which was earlier done in 'top down' approach, but to develop realistic norms based on local variations in requirement of services.
- ◆ Also based on actual capacity of performance.
- ◆ Based on peoples' involvement though consultation and hence, more co-operation and utilisation of services, leading to more client satisfaction.

CNA also helps in:

- ◆ Setting priorities
- ◆ Identifying target as well as high risk groups
- ◆ Realistic estimation of services and resources for providing them
- ◆ Developing realistic work plan / action plan for the functionaries.

6.5. CNA Process:

At sub-centre village level, a team should be developed under the leadership of the Health Worker (female) comprising of the following members:

- Anganwadi workers
- Traditional Birth Attendant / Dai
- Mahila Swasth Sangha, or any equivalent worker group members (ISS, DWACRA, etc.)
- Link person (if any),
- Leaders of youth organisation (both sexes).
- Other non-health government workers.

These members can directly assist the female health worker for conducting the household surveys, collection of relevant information and reporting of the major events like – birth, death, marriage, pregnancy, epidemic etc. to the health workers.

The other members in the group for consultative process under the CNA approach are:

- *Panchayati Raj members*
- *Teachers*
- *Religious leaders / Priests*
- *Members of other NGOs*
- *Members of informal organisations*

These members should be consulted for more information along with household surveys and also for validation of certain information provided by other some members of the team.

The first step in this process of decentralised planning starts from village level with the initiative of the health worker (female). The female health worker must have discussions with the working team comprising of AWW, TBA, MSS members, link persons and the other consultative members like Panchayet members, teachers, priests etc. to estimate the felt needs of the local community for different services to be provided for them. The requirement of each of these services will be estimated the basis on these identified needs. The resource requirement for these services will be worked out by the health worker and submit the report for necessary supply. However, this estimated requirement should be compared with the estimation done by demographic calculations, the details of these will be given under planning.

These requirements will also be compared with the actual performance of the previous year and ensure that these are within 5 – 25% higher than the previous year's achievement. Hence, planning done at the most peripheral level i.e. sub-centre is not only need based but also scientific and realistic.

All the sub-centres action plans will be compiled at PHC e.g. MTP, number of RTI / STI causes treated and referred will be added to prepare an action plan for the respective PHC.

Thus, all the PHC plans and plans from other components at district level will form the annual plan for the district. All the district plans will be put together to prepare the state's annual plan. Instead of directives of the set targets from top level to down below, the planning of norms and targets for all the service components of the RCH programme will start from the most peripheral level and will go up in a stepwise manner to the highest level (bottom up approach).

6.6. Preparation of Sub-centre Action Plan

The preparation of Sub-centre Action Plan is the first step in the process of decentralised planning. It provides the basis for determining the requirements of services for the population of that area. Hence, the health worker should be able to assess the service needs of her service area realistically, set norms for each service and make a plan for provision of those services. So, the sub-centre action plan is also prepared by summation of different village action plans under the sub-centre area.

6.7. Action Plan

A plan of activities to be carried out in a specified time frame, indicating the resource requirements, timetable and place for each action is referred to as the Action Plan.

Hence, for the preparation of the Action Plan, the health worker will have to identify the tasks to be performed, in order to provide the required services, estimate the requirement of each resource for these services and prepare a timetable for carrying out the activities.

All the PHC Medical Officers submit the PHC plans to the district; which along with other services provided at district level form the Annual District Plan. All the district plans are put together to prepare the annual plan for the state.

Methods of Participatory Learning for Action (PLA)

Community Need Assessment is one of the foundations of the Participatory Planning and RCH approaches. It helps in identifying two things:

- Community's need as perceived by them
- Community's needs as perceived by the service providers

The only way to identify what the community feels its needs are is to

- Solicit their views and
- Listen to them

How to identify?

One of the effective ways to ensure that the community accepts and acts on identified needs is by involving them in planning and decision-making at all stages of service delivery. They should feel that it is their programme rather than a government or the health worker's programme.

How to do?

One interact with a large number of people representing all socio-economic groups in your villages in such a way that in a short time you are able to collect valuable information.

What is PLA?

Participatory Learning for Action or PLA uses methods of interaction with the community to uncover and understand their needs. These methods have been tried successfully in a wide range of development programmes, including the health sector.

PLA consists of a process of communication with the community through a wide range of methods. It encourages and sustains community participation throughout the process of building on community's views on any issue, enabling them to do their own analysis of the views and use the learning from the analysis to plan, implement and monitor services relevant to their needs. The complete process involves

- (i) Assessment of needs;
- (ii) Analysis of problems; and
- (iii) Actions to be taken for correction

It is referred to as the "Triple A" approach.

PLA has three basic characteristics and is not complete in any one of the three is missing.

These are:

1. Attitude and behaviour;
2. Methods; and
3. Sharing.

Your attitude to the villagers will greatly influence the level of participation. People will not respond to anyone who has the superior attitude of being a "giver" of services for the benefit of the community or a "taker" of information for your own use only. Attitudes and behaviour which can encourage participation are as explained below. You will notice the similarities with the principles of adult learning.

1. You should respect the knowledge and experience that the people have.
2. Do not ignore or ridicule home-based or traditional belief systems of healing.
3. Give them as much information about your services as they ask for and allow them to express their views about these services.
4. If you do not live in the village, make sure that the people get a feeling that you depend on them to learn about their life, values and needs.
5. Believe that the villagers are capable of taking logical decisions, implementing, monitoring and evaluating the services. They may do this at community, group, family or individual levels.

Just as it is important for you to be willing to listen to the community and understand their experience from their perspectives, they should also be willing to share their views and experiences with you. Unless they are willing, they will not participate. It is therefore very important that both you and the community are willing to trust and respect each other. If they do not trust or respect you, they are not likely to participate. If the participation of the community is not adequate, the quality of information collected will not be appropriate.

Methods of PLA

There are many methods of PLA. Of these, you can use the following four methods to assess the community's needs.

1. Chapati diagrams

These diagrams show relationships of various institutions, organizations, programs or individuals with each other and with the village as perceived by the villagers. The exercise is carried out with the use of different sizes of circles or paper contents which indicate the relative importance or unimportance of a particular institutions / individual to that particular village or area.

In general this method could be used to establish the total picture in terms of the village's relationship with (a) different institutions such as Anganwadi, PHC, Sub-centre, school, PDS, banks or (b) individuals such as AWW, ANM, Dai, Registered Medical Practitioner (RMP), PHC Medical Officer, Village leader, school teacher etc.

Specially, the exercise may be done by asking the villagers to indicate, for example, their positioning and ranking of various constituents such of the health service providers for a pregnant women such as the ANM, Dai, Registered Medical Practitioner (RMP), PHC Medical Officer, Elderly women in the family, traditional healers, etc.

The basic steps for preparing Chapati diagram are:

1. Ask the people to list individuals or institutions that are important for them in terms of health. They may make a list of the TBA, you, the PHC doctor, the local private practitioner, traditional healer, etc.
2. Ask them to place paper circles in different sizes proportional to the importance of these individuals or institutions. The size of the circle will be largest for an individual or institution that is most important for them. Similarly, the circle of least important relationship will be smallest.
3. The circles are arranged according to the interaction between various individuals and / or institutions. You can find out the relationship between these individuals and institutions by the way the two circles are positioned in the diagram. If the circles are far away from the person at the centre or from each other, it means that there is no contact between the two institutions and / or individuals. If the circles just touch each other, it means that the information passes between the two but there is no shared responsibility for decision-making.
4. Discuss the inter-relations with the participants for a greater understanding of the situation. You can ask questions such as: Why are people so important? Why are they so fare or apart? Why are they close to each other? etc. Use this information to determine who the influencers or partners are in the environment, how they may be reached, and how important partnership can be established or enhanced.

2. Seasonality diagram

This is an extremely important and useful exercise which is used to determine seasonal patterns related to disease prevalence, crops, employment etc.

Basic steps involved in Seasonality diagram include:

1. Ask the villagers to list various seasons of the year in a horizontal line. They may use either the Indian calendar of lunar months or seasons associated with crops.
2. Find out their perception on in which season a particular disease is more common. They can use sticks or drawing vertical lines on the ground to depict the frequency. If the frequency is more, the sticks or vertical lines will be longer. Similarly, the sticks or vertical lines will be shortest for seasons when the disease is not common. You can ask help the community decide on the relative frequency of the disease by asking if it more or less than the frequency in other seasons.
3. After the villagers have completed their diagram, copy it on a paper for your record.

The seasonality exercise has a wide range of applications. It can be used to indicate disease frequency, rainfall, employment, milk yields, work load, agricultural produce etc. There are several diseases which are more common in some seasons. For example, diarrhoeal diseases are more common in summer months and acute respiratory infections are more common in winter months. Seasons may also affect the nutritional status of the people, especially the women and children. This is because of the crops grown and their availability in different seasons. Depending upon the disease frequency indicated by the seasonality diagram, you can plan your service delivery and group training or health education sessions appropriately with the community's involvement.

3. Relative ranking

This method indicates priorities and preference of the people. It gives them an opportunity to actually rank various items or preferences or some uses. They can also change the ranking if necessary. This is a very useful method if they have a long list of felt needs and you need to select the most important needs. In addition to giving you information on what needs are more important to them, this method will also give you reasons for their choices. Basic steps involved in relative ranking include:

1. Ask the villagers to list various health services that are available to them. They may also add services that are not available but are important for them.

2. Write the one health service on one card or paper. Thus, you will have as many cards or papers as there are community's perceived.
3. Place any one card on the floor. Pick up another card and ask the community if the service listed on the second card is more or less important than the service listed on the card on the floor. If it is more important, place the second card above the first and if it is less important, place it below it.
4. Continue placing one card after another by asking if the service listed is more or less important than the those listed on the floor. This way you will be able to help the community make decisions on the priorities for the health services.
5. Discuss the ranking with the participants. You can ask questions such as: "Why is this service more important to you?" "How can we improve the services?" etc.
6. After the relative is completed, make its copy on the paper for your reference. It will also help you to focus more on the priorities of the community.

4. Participatory mappings

Participatory mapping is a very important PLA method. In this method, villagers group together to prepare maps of their village using chalks, Rangoli powder or other locally available materials. They can draw this map either on the ground or on paper. You can use this method to map most aspects of rural life: resources within the community, location of various social and economic groups, location of houses with beneficiaries such as pregnant and lactating women, young children, location of women and children diseases, etc. This will also save you the time of walking through every village to visit every house to collect the same information.

You can use the following guidelines to use participatory mapping:

1. Ask the villagers to prepare a basic map of their village using any available materials. Encourage the villagers to make drawings on the ground or in some form where it is easy to modify or correct the maps. As they proceed, ask them to show where the roads, wells, school, Anganwadi Centre, the TBAs house and number of houses in each road or area are:
2. Since you know your villages very well, it will not be very useful to just find out the resources within the village. Ask the villagers to use some marker to identify houses with beneficiaries. These include pregnant women, children below one year of age, children one to five years of age and eligible couples. They can use different objects to identify different categories of beneficiaries. For example, small stones for plotting pregnant women and dried twigs to plot under-five children.
3. You can also ask the villagers to plot houses where there are sick children.
4. After they have completed their map, copy it on a paper for your record.

5. Ask your participants to help you plan your services on the basis of the maps prepared by the village in such a way that you can cover all the beneficiaries in a systematic manner in a short time.

6. **Village transect**

This is an Observatory walk through the village living area, observing and making notes of the layout of the village, housing, drainage, backyards, infrastructure such as school, shops, well etc. zones and areas. It helps to locate or access, map and analysis various aspects of the residential area of the village that normally go unnoticed.

Village transect is a pre-requisite for mapping, especially if you are not familiar with the village. In addition to zoning of different areas, transect can also help locate areas in the village which need to be further developed. It is important to do transect with the villagers. This will enhance the quality of the exercise whether it is for planning or monitoring or obtaining a general knowledge about the area. The interaction with the villagers during the transect will also enhance participation and the quality of PLA exercise.

As you transect a village, observe the drainage and sanitation, utilization of backyard space, location of drinking water taps, etc. You will also have greater insight into the aspects of village life that are of a social nature such as caste, culture, customs, religion, health etc. In addition, habits, behaviour and interactions, particularly interactions between various caste and economic groups can also be observed. A walk through the village will bring to focus household activities and economic activities such as livestock management, grain storage, rural artisan etc.