UNIT 1 RATIONALE AND GOALS OF MCH

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1.0 OBJECTIVES

After going through this Unit, you should be able to:

- discuss the rationale of maternal and child health services;
- enlist various milestones in development of MCH/RCH;
- enumerate the goals of MCH as identified by National Health Policy 2017 and Sustainable Development Goals by 2030;
- list the major reproductive health problems of Women and Men;
- list the major health problems of Children in India;
- identify the underlying causes or social determinants of maternal and under-five deaths;
- describe the health care delivery system for MCH; and
- describe the continuum of maternal, newborn, child and adolescent health across time and place.

1.1 INTRODUCTION

This Unit gives an overall view of development of Maternal and Child Health (MCH) services in India after independence. It briefly describes major issues of women and children related to health, family planning, nutrition and diseases to set a tone for evidence-based interventions for improving the health status of women and children and their quality of life. It lays stress on preventive and promotive MCH services. The subsequent Units on MCH will cover the specific areas of MCH in much more details. *It extensively makes use of the information of NFHS-5, National Health Policy 2017, Sustainable Development Goals, National Rapid Survey on Children (RSOC), UNICEF and WHO reports and cites references for further reading to enrich the self-directed learning.* MCH and RCH (Reproductive and Child Health) have been used interchangeably.

Most of the MCH services are promotive and preventive in nature. Improvement of nutritional health status is as a result of actions at family, household and community level; e.g. initiation of breastfeeding immediately after birth, universal exclusive breastfeeding up to 6 months of age, adequate complementary feeding and continuation of breastfeeding up to 2 years or even beyond. Household level utilization of preventive and promotive health services like ante-natal care, immunization, Vitamin A prophylaxis and IFA; spacing between births and limiting the size of family; improved hygienic practices like hand washing with soap and water, safe water storage, improved sanitation; adequate eating during pregnancy and lactation, right age of marriage and child bearing, choosing the place of delivery; improved infant and young child feeding, appropriate response at the onset of diarrhoea and fast breathing; continued feeding during illness, etc. can reduce the maternal and child morbidity and mortality to a large extent. Linking households/families and community with dynamic health system for referral support of emergency obstetric and newborn care and skilled attendance at birth can reduce deaths and save millions of lives.

1.2 RATIONALE OF MCH CARE

Women and children constitute approximately 51% population in India, children aged 0–14 years constitute about 26% of India's population, while women in the reproductive age group (15–49 years) account for approximately 24–25% of the total population (NHFS 5, Census 2011).

They comprise the most vulnerable (exposed to risks) section of the population due to risks connected with child bearing in case of women and growth and development and survival in case of infants and young children. India has dubious distinction of having high maternal mortality, neonatal mortality and under 5 mortality as compared to other countries. Some states of India like Assam, UP, Bihar, Odisha, M.P. and Rajasthan have much higher levels of maternal mortality and under-five mortality than the national averages. UP and Bihar has shown high levels of Total Fertility Rate (TFR)

with TFR for UP as 2.35 and Bihar as 2.98. These states are high focus states for Reproductive and Child Health services. Essential obstetric care for all pregnant women is justified because any mother can develop complications at any stage during pregnancy, labour and at birth or within 42 days of birth.

Care for women and children supports their rights to health and well- being.

- Millions of women who survive child birth event, suffer from pregnancy related injuries, infections, diseases and disabilities.
- Millions of lives of women and children can be saved with high impact simple interventions and actions at community level by continuum of care.
- Major causes of maternal mortality are Haemorrhages 24%, unsafe abortions 13%, High BP 12%, Infection 15%, Obstructed Labour 8% and other causes 28%. Majority of these causes are preventable at community level.
- Major causes of neonatal deaths are pre-term deaths and prematurity 35%, severe infections 33% and birth asphyxia 20%, congenital malformation 9% and others 3%.
- Major causes of deaths in under-five children are - Neonatal causes 53%, pneumonia 15%, Diarrhoea 12%, injuries and measles 3% each and others 14%.

1.3 OBJECTIVES OF MCH

Over the years since its inception MCH activities have come up with improving goals and targets in order to meet specified objectives. They keep the Programmes on tract and give finite direction to work upon. The important objectives are presented below.

Important MCH/RCH objectives:

- Reduction of Maternal Morbidity and Mortality
- Reduction of Infant Morbidity and Mortality
- Reduction of Under 5 Morbidity and Mortality
- Promotion of Adolescent Health
- Control of Reproductive Tract Infections (RTI) and Sexually Transmitted Infections (STI)

1.4 MAJOR HEALTH PROBLEMS OF WOMEN AND CHILDREN

The major health problems of mother and child could be grouped as follows:

1.4.1 Major Health Problems of Women

Maternal care involves healthy living during the entire nine months of pregnancy. In smaller towns and villages, more women die of insufficient healthcare during pregnancy than any other diseases. In India, the risks of infection and complication pre and post pregnancy are high.

i) Malnutrition in women and adolescent girls

Fifty-seven percent of women age 15-49 have anaemia. 18.7% of women have BMI (Body mass index) below 18.5 which is an evidence of chronic energy deficiency. Malnutrition has intergenerational impact. Women who are anaemic and malnourished give births to low birth weight babies. Women's work capacity goes down and anaemic women stand to the risk of increased haemorrhages after delivery and are vulnerable to infections and eclampsia / pre-eclampsia.

ii) Early marriages and teen age pregnancies

Thirty-eight percent of women age 20-49 marry before the legal minimum age of marriage of 18 years. Early marriages lead to teen-age pregnancies which are risky pregnancies with a 50% increased risk of still births and neonatal death. Percentage of women age 15-19 who have begun childbearing is 3.8% for urban and 7.9% for rural (NFHS-5).

iii) High Fertility

Crude Birth Rate in India is 17.1 as per NFHS-5 and the total fertility rate is 2.0 children per woman, which declined from 2.2 children in 2015-16 and is currently below the replacement level of fertility of 2.1 children per woman. However, crude birth rate is high in rural areas and in states like U.P., Bihar, Rajasthan and M.P. have higher birth rate of 20.5, 25.9, 18.7 and 17.2 respectively. These states of India are home to 40% of the total population. Infant mortality and maternal mortality are also high in these states and couples are not sure of survival of their children, hence give birth to more children in the process.

iv) Current Practice of Family Planning Methods and unmet need for family planning.

The contraceptive prevalence rate among currently married women aged 15-49 years increased from 54 percent in 2015-16 to 67 percent in 2019-21. Female sterilization remains the most popular modern contraceptive method. Among currently married women aged 15-49 years, 38 percent use female sterilization, followed by male condoms (10%) and pills (5%). Modern contraceptive use by currently married women has increased from 48 percent to 56 percent between 2015-16 and 2019-21. Female sterilization is still the most popular contraceptive method, used by 38 percent of currently married women. Male sterilization is low at 0.3%, IUD/PPIUD (Postpartum Intrauterine Device) practice is low at 2.1%, oral pill use rate is 5.1% and 9.5% of couples use condoms. Hence spacing methods need to be promoted aggressively and male

participation must increase by popularizing 'No scalpel vasectomy'. Unmet need for any method of contraception is about 9.4%. Nine percent of currently married women have an unmet need for family planning, down from 13 percent since 2015-16.

v) High Incidence/Prevalence of RTI/STI

Twelve percent of women and 9 percent of men age 15-49 who have ever had sex reported having a Sexually Transmitted Infection (STI) and/or symptoms of an STI. Over 30 to 35 million curable episodes of Reproductive Tract Infections (RTI)/STIs occur in India per annum and women have to bear the brunt most often – vaginal and cervical discharge syndrome and genital ulcers and lower abdominal pain syndrome in women are quite common. STIs and RTIs have a major impact on sexual and reproductive health; such as infertility, still births, neonatal deaths. Persons with RTI/STI are at risk of acquiring and transmission of HIV (human immunodeficiency virus) – a deadly STI. HIV prevalence in pregnant women in India is 0.35%, while overall adult HIV prevalence level was 0.26% in the year 2015. Sero prevalence of Syphilis was 0.38%.

vi) Unsafe Abortions

Nearly 13% of maternal mortality is on account of unsafe abortions in India. Though termination of pregnancy is legal in India by MTP Act, illegal abortions are rampant and are unsafe most often and life threatening.

vii) Low Levels of Coverage of Full Antenatal Care

Besides the variable Quality of Antenatal Care (ANC), 70% of antenatal mothers had antenatal checkup in first trimester. Pregnant mothers receiving 4 antenatal care visits during gestational period were 58.1%. The proportion of women age 15-49 in India who received ANC has risen from 84 percent in NFHS-4 (2015-16) to 94 percent in NFHS-5 (2019-2021), and 85 percent received ANC from a skilled provider in NFHS-5. Seventy percent of women had their first ANC visit during the first trimester and 59 percent had four or more ANC visits, an increase from 51 percent in 2015-16, consuming Iron and Folic Acid (IFA) tablets for 100 days or more were 44.1% and only 31.2% of women had full antenatal care (4 Antenatal checkups, at least one tetanus toxoid injection and IFA tablets taken for 100 or more days).

viii) Post-natal Care Inadequate Coverage

Nearly 78% of mothers received post-natal care with 2 days of delivery from a doctor/nurse/Lady Health Visitor (LHV)/ Auxiliary Nurse Midwife (ANM) and other health personnel. Only 36.4% received financial assistance under Janani Suraksha Yojana (JSY).

ix) High out of Pocket Expenditure for Delivery

Women had to spend on average Rs. 2916/- for delivery in government health facility.

x) Institutional Deliveries

Institutional deliveries in India have increased markedly from 39 percent in 2005-06 to 79 percent in 2015-16 and 88.6 percent in 2019-21, this offers a window of opportunity for promoting exclusive breast-feeding, post-partum contraception, prevention of sepsis and at birth immunization programmes. However, over 70% of mothers stay less than 24 hours at institution after delivery and hence have to be cared at home after delivery by home visits or outreach services. Institutional deliveries have increased substantially on account of JSY and Janani Shishu Suraksha Karyakram (JSSK) which provides free drugs, diagnostic services, diet and transportation.

xi) Adverse Female Sex Ratio

940 women per 1000 men in India mean over 37 million females are missing in India. The sex ratio represents the survival scene of women in India. Adverse female sex ratio is attributable to sex syndrome – son preference, female foeticide and infanticide, neglect of girl child and high mortality in girls at younger age groups, high maternal mortality, easy availability of sex determination and abortion services and misuse of ultrasound technology.

xii) Infertility

Nearly 10-15% of couples are infertile in India. There has been a rising demand for in vitro fertilization (IVF) by these couples. Hence assisted reproductive techniques for infertility are being used in the programme at regulated infertility clinics.

xiii) Breast, cervical and oral cancers

Most common cancers are breast and cervical cancer in women apart from oral cancers in tobacco users. Community based screening and opportunistic screening programme have been mounted for early detection and management of common cancers in women apart from prevention programme as a part of comprehensive Primary Health Care at the level of sub-centres to be named as Health and Wellness centres.

xiv) Menopausal Problems and Problem of Elderly Women

A large number of women face menopausal and old age problems. National Programme for care of older persons support such elderly men and women as a matter of policy.

1.4.2 Major Health Problems of Children

i) Low Birth Weight Babies (LBW)

The incidence of low birth weight babies, weighing less than 2500 g is eighteen percent. The LBW belong to two categories (a) Pre-term babies born before 37^{th} week of gestation and (b) small for gestational age (SGA) i.e. they are full term babies and have intra-uterine growth

retardation (IUGR). LBW is a predominant cause of high IMR.

Factors for LBW are adolescent and maternal malnutrition, anemia, early marriages, teenage pregnancies, less spacing between births, high birth orders and lack of or inadequate ante-natal care besides inadequate diet and inadequate consumption of IFA tablets; besides poverty and illiteracy.

ii) Inadequate Newborn Care

Newborn babies receive inadequate care. Though 80% of them are born in institutions, they go home within 24 hours of deliveries; hence they need care at home after delivery or after discharge from newborn stabilization and special Newborn Care units. Accredited Social Health Activists (ASHAs) and ANMs have been made responsible for home-based newborn Care. Inadequate newborn care leads to high neonatal deaths, disease and disability.

iii) High Level of Neonatal, Infant and under-five mortality

Though substantial progress has been made in reduction of Infant Mortality Rate (IMR), the neonatal mortality has declined at a very slow speed in the past 10 years. This component of IMR needs special attention. India Newborn Action Plan has been launched to reduce Neonatal Mortality and still births to single digit by 2030 through package of evidence-based interventions.

iv) Adverse Child Sex Ratio

One of the most disturbing features of demography is adverse and declining ratio of female children below the age of 6 years (Juvenile/ child sex ratio). Female child sex ratio has declined from 945 in 1941 to 943 in the year 2011 and in most of the well to do states (economically better of states). The lowest child sex ratio of 830 was observed in Haryana in the last census. In this dubious club were the states of Punjab, Delhi and Chandigarh. Jhajar and Mahindergarh are the bottom most districts on child sex ratio that lie in the state of Haryana too.

There is alarming practice of selective sex abortions and misuse of ultrasound technology and its easy availability in urban areas.

v) Discrimination against Girl Child – Gender issues

Girl child is not allowed to be born. Girl child is considered as lesser child. Wide spread discrimination in upbringing girl child prevails in the society. Morbidity and mortality rates in girl child are very high in comparison to male children.

There is also urban and rural divide, regional variations and economically divide between wealthy and weaker section in maternal and child mortality and development of health services in various states.

vi) Malnutrition

Under nutrition - Protein energy malnutrition: 35.5% of children under age five years are stunted (height-for-age); 19.3% are wasted (weight-for-height); 32.1% are underweight (weight-for-age); and 3.4% are overweight (weight-for- height, as per NFHS-5.

Micronutrient deficiency - Vitamin A: Iodine and Iron and folic acid. Iodine deficiency disorders: 333 districts are endemic where iodine deficiency disorders are more than 5% (TGR) in children aged 6-12 years. Between 2015-16 and 2019-21, the prevalence of anaemia among children age 6-59 months increased from 58.6% to 67.1%.

Over-nutrition - Obesity: It is an emerging problem in young children and adolescent age group. One in ten children is obese in India translating to a total of 14.4 million obese children.

Wrong beliefs and faulty feeding practices: Many harmful dietary beliefs and practices prevail in the individual, family and community, which are detrimental to the nutritional status. Cereals are considered to be harmful for young children, common belief is that cereals and GLYs can't be digested by young children and lead to protuberance of abdomen and bad for liver; hence avoided or given in very small quantity in the diet of young children. Whole milk is considered to be heavy and is diluted several times with water. Several dietary restrictions are imposed during diarrhoea and acute respiratory infections. Some foods are considered hot and abortifacient and are not given to pregnant mothers. Initiation of breast-feeding is delayed. Complementary foods are given in very small quantities. Best practices are universal breast-feeding in India, curd, green gram and rice are encouraged and considered to be light and easily digestible; by sick children.

vii) Pneumonia and Diarrhoeal Diseases

Pneumonia and diarrhoea together are responsible for 27% of deaths in under-five children in India. Large proportion of these deaths are preventable or avoidable by actions at the household and community. Family response such as fluids and feeding and use of Oral Rehydration Solution (ORS) and Zinc, hand washing with soap and water and drinking safe water and use of sanitary latrines can prevent diarrhoeal deaths. Rotavirus vaccine also prevents diarrhoeal deaths. Similarly pneumonia deaths are preventable by use of specific antibiotics and immunizations against measles, Hib (Haemophilus influenza type b), whooping cough and diphtheria as also prevention of Indoor air pollution. Integrated Plan on Prevention and Control of Pneumonia has been launched in four states where 50% of under 5 deaths occur each year.

viii) Worm Infestations

Worm infestation is quite common in children and adolescent and pregnant women as also in adults. Heavy infestations lead to anaemia in children and pregnant women.

ix) Childhood Disability and Impairment

Visual, hearing and physical disabilities are common in children, mental impairment due to iodine deficiency, residual neurological effects after JE, visual impairment due to Vitamin A deficiency and refractive errors, congenital defects due to rubella, cerebral palsy and mental retardation are some others to mention. Most of these impairments are preventable and some need rehabilitation for life long.

x) School Health Enrolment, School Health Services and Services for Adolescents

Low levels of enrolment for girls and unorganized school health and adolescent health services.

xi) Weak Public Health Care Delivery Systems

Maternal and child health services are to be delivered in the existing health care delivery system which must be functional and strong to ensure uninterrupted services of high quality based on equity and convergence. However present system is weak because of insufficient human resources in health, inadequate budget and lack of equipment and supplies and essential drugs are important bottlenecks in the system to name a few.

1.4.3 Other Social Determinants of MCH

Other than the mother and child specific health problems, several social issues determine the MCH indicators. The important ones are:

a) Female Illiteracy: Seventy-two percent of women are literate in India, which means around 28% are illiterate and these women have less information and less health knowledge and low levels of exposure to modern media and technology and hence are deprived of power of health literacy and use of available MCH services.

b) Poverty: Poverty is rampant in India. Official estimates on poverty in India are low at 22%, however these levels are very high in many parts of India. Poverty itself is a disease. People cannot afford health services and over 70% of episodes of illness get treated by private sector involving high out of pocket expenditure; because of weak government health system or lack of faith in the system.

c) Poor Referral Services & Inadequate First Referral Units: Referral Services and Emergency Obstetric Care is poorly developed in India. Over 80% of specialist's positions are vacant in Community Health Centres (CHCs) and First Referral Units (FRUs) are non-functional on this account. Most emergency obstetric care is available at district level only, through government and private sector away from homes/ households an example of poor geographical access.

d) **Women Workload:** Workload on women is energy intense and least rewarding. Women work for farm, fetch fuel and water, wash clothes, cook meals for family, care for children, do varieties of household chores and unpaid work at home; but eat the least and at the last of all. So, most of them are anaemic and malnourished.

e) **Women Status:** Women face discrimination. Thirty-two percent of ever-married women age 18-49 have experienced physical, sexual, or emotional spousal violence. Ever-married women's ever experience of spousal physical or sexual violence has declined from 31.2%in NFHS-4 to 29.3% in NFHS-5. Women represent nearly half of our nation but have inadequate power and representation as only one third of seats in village panchayats, block samitis and Zila Parishad and Municipal Committees/Corporations are reserved for women to empower women and mainstreaming women in development process. The scenario for scheduled caste and tribes are in development process. Scheduled caste ad tribal women also enjoy reservation. The movement of 40% of reservation for women is on the agenda of the government.

Check Your Progress 1

1. List the important objectives of MCH services to be attained by 2030.

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2. What is the status of malnutrition in women and girls in India

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3. Enlist causes of adverse sex ratio in India.

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1.5 EVOLUTION OF MCH SERVICES

Before independence, the health services were rudimentary in British era. Missionaries provided most of maternal and child health services. One of the landmarks in the history of development of health services was setting up of Sir Joseph Bhore Committee in 1943; popularly known as "Health Survey and Development Committee". Outstanding recommendations of this committee formed the basis of health services development in India. During

successive Five Year Plans the health services were developed and reformed by various committees to cover vast rural areas of the country.

Health services and policy development in Independent India can be divided into the following phases of development.

a) Phase I (1947-1972)

Health was considered a development function, as a part and parcel of "Community Development Programme". Movement of Community Development Programme began in 1952. One primary health centre was established in each Community Development Block to serve about 1,00,000 population; Each Primary Health Centre had three MCH sub-centres and subsequently 3 more Family Planning sub-health centres were established. Gradually the number of Sub-Health Centres increased in various phases and as of now one sub-Health Centre for 5000 population in plain areas and one for 3000 in tribal, hilly and desert area has been set up. Primary Health Centres were established to provide comprehensive primary health care including – preventive, promotive, curative and Massive training Programme of indigenous Dais was launched during this phase to provide at least one Trained Birth Attendant (TBA) per village or 1000 population. Community Health Volunteers – Health Guides males and female (1: 1000 populations) scheme was launched to enhance community participation in rural areas and give a push to promotive and preventive actions by the people themselves. 'People's health in people's hands' was the objective in mind.

b) Phase II (1972-1977)

During the Pre-Alma-Ata-Declaration period Indian health care received valiant feedbacks for its continuum through Kartar Singh Committee (1973) which stressed on amalgamation of peripheral workers into a single cadre of multipurpose workers. This was meant to integrate health and medical services at peripheral and supervisory levels. There was also recommendation for organizational change with respect to Primary Health Centres (PHCs) and Sub-Centres (SCs); in the nature of 'one PHC for every 50,000 population and Each PHC to be divided into 16 SCs each for a population of 3000-3500 and each.'

This was also the period when Shrivastav Committee (1974) made its recommendations on medical education and creation of manpower support system. They stressed on reorient of medical education in accordance with the national needs and priorities and develop a curriculum for health assistants who were to function as a link between medical officers and MPWs. Thus, a brand of paraprofessional and semi-professional health workers from the community were created.

We also observed integration of Family Planning (FP) with MCH. The year 1974 was a pivotal year when India established a National Policy for Children. In pursuance to National Policy for Children of 1974 Integrated Child Development Services Scheme (ICDS) was launched in 1975 to develop human resources in the country. Locally resident voluntary honorary Anganwadi Workers (1: 1000 populations) chosen by the people themselves were recruited for development of women and children by integrated services on Health, nutrition and informal education Programme. ICDS focused on women in reproductive age group, pregnant and lactating mothers, adolescent girls and children below 6 years of age. Anganwadi became a focal point for convergence of MCH services.

c) Phase III (1977-1995)

Alma-Ata declaration of "Health for All" through primary health case, was made in 1978 to attain acceptable standards of "health for all', which could not succeed and gave way to selective Primary Health Care in 1980. However, concept of primary health care is relevant even today. Reorientation of Medical Education (ROME) scheme was launched to orient medical education to the real health needs of rural areas in the country. Medical colleges took responsibility for well defined community to provide comprehensive primary health care and train students in these locales.

First National Health Policy was formulated in 1983. Out of 17 goals of National Health Policy, 12 were related to Maternal and Child Health Programme. Thus, high priority was given to Maternal and Child Health and Family Planning Programme. The overall goal of the policy was to achieve "health for all" by 2000 A.D.

Universal Immunization Programme (UIP) was launched in 1985 to control vaccine preventable diseases. In view of high MMR and IMR, **Child Survival and Safe Motherhood Programme (CSSM)** was launched to address 9 specific goals of national health policy- 1983 with the aim of reducing infant and child mortality and maternal mortality ration in the country. Focused interventions for mothers and children were the key areas. CSSM was built on the edifice of Universal Immunization Programme and it integrated the Programme of UIP, Family Planning, and Child health; thus UIP became UIP + Programme. CSSM Programme laid down the foundation of Newborn care and First Referral Units (FRUs) in the country. It also laid standard list of essential drugs for sub-centres (Kit-A and Kit-B) to be provided twice in the year.

National Education Policy was formulated in 1986. "Education for all and Health for all" were linked to achieve the results of these twin policies.

d) Phase IV (1996-2005)

A paradigm shift in National Family Planning and Maternal and Child Health Programme was made in 1996 as a follow up measure of landmark International Conference on Population and Development (ICPD) at Cairo in 1994 (United Nations Fund for Population Activities). India launched 'Reproductive and Child Health' (RCH) Programme in the year 1996 to carry forward the process of integration of MCH services. First Phase of the RCH was launched in 1997. India's Family Welfare Programme moved to a 'Reproductive and Child Health Approach'.

It was a turning point in Family Planning Programme. The major policy shift was announced in 1996. Salient features of this historical landmark paradigm shift were:

- Doing away targets of Family Planning and launching of Target Free Approach.
- Community Needs Assessment Approach focusing on demand driven, client centered, high quality services based on client need by integrating all the interventions of fertility regulation, maternal and child health with reproductive health of both men and women.
- Full range of maternal and child health services including RTI/STI and HIV/AIDS and adolescent health by "Life Cycle Approach" or continuum of health services throughout life cycle were adopted.

Thus, RCH meant Integration of CSSM, Family Planning, Prevention and Control of RTI/STI including HIV/AIDS, and Adolescent Health.

National Population Policy was adopted in year 2000. National demographic goals were set up to 2010 and beyond. These goals included Total Fertility Rate of 2.1, Cent Percent registration of birth and deaths marriages and pregnancies, promote delaying marriages of girls not earlier than 18 and preferably after 20 years, reduce infant mortality to 30 and maternal mortality to below 100 and achieve population stabilization by 2045.

Eight Millennium Development Goals were developed by United Nations in 2000. These goals included eradication of extreme poverty and hunger, universal primary education, improvement of maternal health and reduction of infant and under-five mortality by 2015.

Revised National Health Policy was adopted in the year 2002. The fundamental Push was to increase Public Health spending on Health from a low of 0.9% to 2% of GDP and spending 5.5% total outlays of health on primary health care, 35% for secondary and 10% for tertiary health care. Emphasis was given to Equity i.e. more resources for weaker areas and weaker sections coverage with adequate health services.

e) Phase V (2005-2012)

RCH Phase-I commenced in 1997 and continued till 2005. RCH Phase-II was launched under National Rural Health Mission (NRHM) a Flagship Programme of Govt. of India (2005-2012). Then came the National Urban Health Mission in 2012 focusing on coverage of urban slum population. NRHM and NUHM together formed National Health Mission (NHM).

f) Phase VI (2012-2017)

During this phase Programme of 'Universal Health Coverage' was rolled out to attain 'health in all'. 12th Five Year Plan strived to establish system of 'Universal Health Coverage'. Over the next two plans periods, it will ensure equitable access to all Indian citizens in any part of the country, regardless of income level, social status, gender caste or religion to affordable, accountable and appropriate assured quality health services (Promotive, preventive, curative and rehabilitative) as well as services addressing wider determinants of health (water sanitation, nutrition and education). This era also observed uses of mobile technology via launch of 'Kilkari' and Mobile Academy (2016).

KILKARI is a Hindi word that mans 'a baby's gurgle'. Every woman registered under Mother and Child Tracking System (MCTS) receives 72 free audio-messages of about 2 minutes duration each, regarding pregnancy, child health, child care directly to family's mobile phones from the second trimester of pregnancy until the child is one year old. Kilkari has been launched in Jhharkhand, Odisha, Utter Pradesh, Uttrakhand and High priority districts of M.P. and Rajasthan state.

Mobile Academy: It is a free audio training course designed to expand and refresh the knowledge base of Accredited Social Health Activists (ASHAs) and improve their communication skills. Mobile Academy offers ASHAs a training opportunity via their mobile phones which is both cost effective and efficient. It reduces the need to travel and ASHAs learn at their own pace and at a time convenient to them.

Together Kilkari and Mobile Academy are improving family health including family planning, reproductive maternal and child health, nutrition, sanitation and hygiene by generating demand for healthy practices.

Pardhan Mantri Surakshit Matritiva Abhiyan (PMSMA): PMSMA was launched in July 2016 to provide fixed day assured, comprehensive and quality antenatal care universally to all pregnant women on 9th of every month by government and private sector. These services are in addition to the routine ANC. One of the critical components of the Abhiyan is identification and follow up of high-risk pregnancies with entry of red mark sticker on mother and child protection card.

1.6 DELIVERY OF MCH SERVICES IN INDIA

The approach for delivery of MCH care in rural and urban areas is covered in detail under the national health mission in Block 2, of this Course.

i) **Rural areas:** Nearly two-thirds (66%) of India's population resides in rural areas, where MCH services are delivered primarily through the public health system at the community level. ASHAs with the support ANMs and Anganwadi Workers, play a vital role in providing home-based and village-level services related to antenatal care, delivery, postnatal care and child health (MoHFW, 2021; Census of India, 2011).

   a) **System of Sub centres**: There are 169,615 sub-centres one each for 5000 population in plains and for 3000 in tribal hilly and difficult terrains. Sub-centres provide outreach health services to mothers and children through sub-centre clinic on daily basis. Sub-centres provide basic primary health care mainly MCH services through skilled multipurpose health workers Female and Male.

   b) **Sub-health centres** will function as Health and Wellness Centres and will be part of comprehensive primary health care, screen common NCDs and common cancers. A mid-level provider will be placed at SC.

   c) **System of PHCs**: There are 25300 Primary Health Centres that provide comprehensive primary health care services for mother and children including basic emergency obstetric services. As per Rural Health Statistics 2022–23, one primary health centre covers 30000 population in plain rural and 20000 population in tribal, hilly areas. It also serves as a referral unit for 6 sub-centres. With string focus on MCH, services of professionals i.e Doctors and Nurses are available at this level with arrangements of delivery for 24 hours. PHCs are being further strengthened and reoriented to health and wellness centres in order to provide comprehensive primary health care for Non-Communicable Diseases and Chronic conditions and Diseases (MoHFW,2023).

   d) **System of CHCs**: 5616 Community Health Centres have been set up in the country. Some of the CHCs have been upgraded to the level of **First Referral Units** which provide comprehensive obstetric and newborn care including emergency obstetric care and Newborn Stabilizing Unit (NBSU) for newborn care with 4 beds. CHC is a referral support for 4 PHCs. As per the Indian Public Health Standards, CHCs are established to cover and serve 1.2 lakh population in Plain rural areas and 80,000 in hilly, tribal areas.

CHCs are established to provide specialist care in obstetrics and gynaecology, pediatrics, general medicine and general surgery, along

with 24-hour emergency services, including emergency obstetric care. The CHCs are supported by District Health Services for high level maternal and neonatal care facilities, special Newborn Care Unit with 12 beds and Neonatal Intensive Care Unit at regional level. In addition to this, community level support is provided under ICDS with over 14 lakh Anganwadi Workers (AWWs) and around 13 lakh Anganwadi Helpers (AWHs) to deliver mother and child development services like nutrition, health and education.

ii) **Urban Areas:** According to the census 2011, 31 percent of population lives in urban areas. In urban areas, MCH services are provided through Urban Health Centres. One Urban Primary Health Centre is planned for approximately 50,000 population and one Urban Health Post for about 25,000 population, particularly in slum and vulnerable areas (NHFS-5, Census 2011). District and sub-districts hospitals have been set up by the government which also provide free MCH services under programmes like JSY and JSSK. In addition, Private health sector which are accredited by the government also provide MCH services, but most private practitioners provide these MCH charging heavy fees, which is unaffordable by many people residing in urban areas.

iii) **Tribal areas:** The tribal population in India is 104.3 million which accounts for 8.6 % of the total population of India (Census,2011). Special Programmes of priority for tribal areas have been accorded by the government.

iv) **Involving Private Sector in MCH Care:** It is imperative to involve this sector as it is a predominant provider of MCH care. Private sector account for over 70% outpatient care and nearly 50% of institutionalized deliveries (NHFS-5).

Mother and Child a Dyad: Dyad means two elements. Since woman and child form a dyad, and Programmes wish to provide services to both elements of the dyad, they both are included in the package of RMNCH + A. The Package of Essential **R**eproductive **M**aternal and **N**ewborn and **C**hild **H**ealth (RMNCH) along with **A**dolescent is called RMNCH+A. The package of essential services would include mother and child survival interventions. Most reproductive health interventions benefit both woman and child.

The RMNCH + A approach recognizes that newborn health and survival is inextricably linked to women's health across all life stages.

Continuum of MCH Care (Life Cycle Approach)

Linking or connecting maternal and child health services at critical life points with places of care such as homes/households, outreach and clinics and health facilities for referral support services for better outcome is an

imperative need (Refer to Figure 1.1(a) and Figure 1.1 (b)). It essentially means two-way flow of patients, two-way flow of providers and two-way flow of services, two-way flow of records to make services more effective and to fill the gaps and correct root causes of services gaps at these levels. Continuum of care establishes virtuous circle, reinforcing the impact of previous phase on the next phase of life cycle; e.g. preparing adolescents for safe motherhood by prevention and treating anaemia with adequate diet will prevent low birth weights, unwanted pregnancies and reduce IMR and MMR.

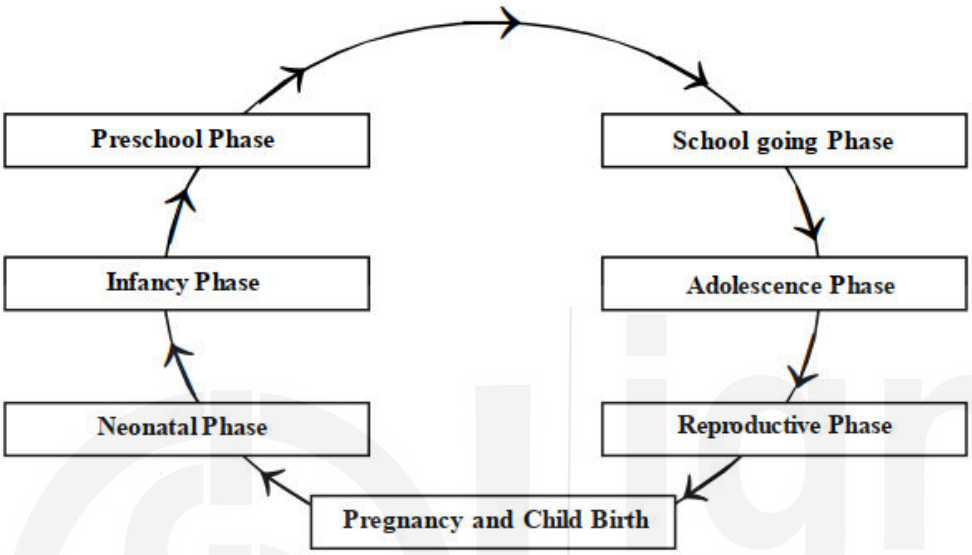

Fig. 1.1(a): Linking MCH Care in phases of Life

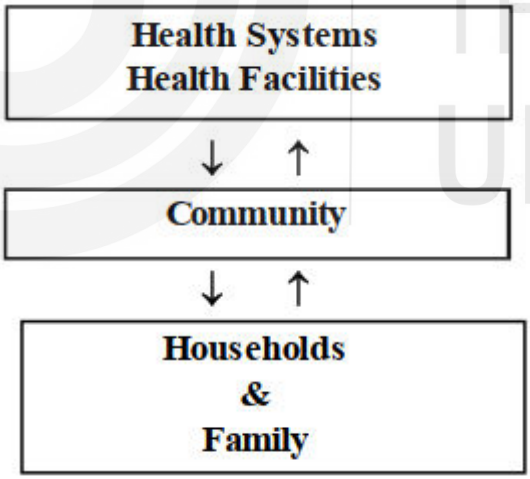

Fig. 1.1(b): Linking the Places of Care

1.7 PACKAGE OF EVIDENCE BASED HIGH IMPACT RCH SERVICES

The World Health Organization had estimated that high coverage (90%) of proven/evidence-based intervention packages of RMNCH+A by 2025 could prevent almost 75% of newborn deaths, one-third of still births and 50% of maternal deaths.

a) Adolescent Phase (10-19 years) Adolescent Health

Priority interventions include:

- National Iron Plus Initiative weekly IFA supplementation for adolescents
- Adequate diet / enough eating at home.
- Biannual deworming with Albendazole tablets 400 mg.
- Prevention of worm infestation by using sanitary latrines and observing personal hygiene practices.
- Adolescent friendly health services to address reproductive and sexual health concerns of adolescents.
- Adolescents to adolescents' community based Programme: health promotion of adolescents by peer educators.
- Weekly dedicated clinics for adolescents at PHC; specialty clinics at CHCs and district hospital on every day; and walk-in services at sub-centre level.
- Promotion on menstrual hygiene practices among adolescents by provision of sanitary napkins (NRHM brand free days). Rashtriya Kishor Swasthya Karyakram (RKSK) has been launched for comprehensive adolescent health services of Nutrition, reproduction, RTI/STI-HIV, Drug abuse, RTA, Mental Health Promotion.

b) Pre-pregnancy Phase Services – Reproductive Years (15-49 years)

- Doorstep distribution of contraceptives.
- Promotion of spacing methods – IUCA 375 and 380.
- Limiting size of family by sterilization services for men and women.
- Comprehensive Abortion Care Services.
- Management of sexually transmitted and reproductive tract infections by syndromic approach for men and women and sexual partners.
- l Balanced protein energy supplementation, supplementary nutrition through ICDA and supplementation of IFA and improvement of nutrition by adequate diet.

c) Pregnancy and Child Birth Phase

i. Ante-natal Care Package: it includes 4 ANCs, 180 IFA, 2 TT/ booster (TT= Tetanus Toxoid)

ii. Universal testing for syphilis and HIV for prevention of parent to child transmission

ii. Skilled obstetric care

   a. Operationalization of delivery points

   b. Janani Surksha Yojna for promotion of institutional deliveries

   c. Janani Shishu Suraksha Karyakram to reduce out of pocket expenditure

   d. Navjat Shishu Suraksha Karyakram for essential newborn care

iv. Emergency Obstetric and Newborn Care at FRU, sub district and district level.

v. Post-partum Care for mother and baby.

vi. Post-partum IUCD insertion.

vii. 180 IFA tablets for Lactation period.

viii. Implementation of Pre-conception and Prenatal Diagnostic Technique Act.

ix. Preventive use of folic acid in peri-conception period to prevent neural tube defects and other congenital abnormality.

d) Newborn Care

- Immediate drying delayed cord clamping, delayed bathing, hygiene and easy initiation of breastfeeding.
- Essential newborn care and resuscitation for babies who do not breath at birth.
- Vitamin K at birth.
- Kangaroo mother care (KMC)-Prolonged skin to skin contact.
- Optimal feeding of low birth weight babies.
- Home based newborn care by ASHAs: 6-7 home visits upto 42 days of life.
- Facility based care of sick newborns at BNSU, SNCU and NICU.
- India Newborn Action Plan (INAP) 2014 was implemented within the framework of RMNCH+A to achieve single digit neonatal mortality and still birth rate by 2030 with package of evidence based high impact interventions.

e) Pre-school Children 0-6 years

- Early childhood education or stimuli for 0-3 years at home.
- Non-formal education at Anganwadi for 3-6 years.

- Health checkup of 0-6 years children at Anganwadi for screening of 4Ds (defects, disability, developmental delays, disease and deficiency)
- Immunization services
- Growth monitoring
- Supplementary nutrition
- Essential micronutrient supplementation Vitamin A and IFA and iodized salt.
- Management of children with severe acute malnutrition at Nutrition Rehabilitation Centres (NRC)
- Integrated management of neonatal and childhood illness (IMNCI)

f) School Health Services

Comprehensive Child health screening for 4Ds (i.e. **D**efects at birth, **D**eficiencies, **D**iseases and **D**evelopment delay including disability) and early intervention services for all children from birth to 18 years of age under the Rashtriya Bal Swasthya Karyakram (RBSK). The 'District early intervention centre' (DEIC) located at district hospital will act as link for the screened children.

g) Mother and Child Tracking System (MCTS)

Under RMNCH + A Programme every pregnant and child is being tracked by name by web enabled system for quality ANC, INC, PNC, immunization and full maternal and child health coverage. The objective of MCTS is to ensure maximum coverage and thereby to reduce maternal, infant and child mortality. MCTS also helps in generation of work plan for field staff for providing full range of services on time. MCTS has been integrated with maternal death review. Mother and child tracking facilitation centre has been set up at NIHFW, Delhi to validate data on MCTS. This centre guides and helps both the beneficiaries and service providers at various levels.

h) Health Management Information System for MCH (HMIS)

Integrated RCH register has been developed for tracking system. Revised sub-centre single format monthly reporting. Format has been introduced in 2017 at the level of sub-centre to capture the outputs/ outcome and impact of MCH services. In-built system of monitoring of monthly reports provide information on performance of health teams and also helps to identify the gaps in services and system. Root causes of theses gaps are determined in the system for rectifications to improve the coverage and quality of maternal and child health services. However, reports are seldom read, understood and used for planning or midcourse correction. Private sector reports still remain a grey area.

Check Your Progress 2

1. What are the phases of evolution of MCH services in India?

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2. What is the process of continuum of RCH?

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3. What is mother and child tracking system?

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1.8 LET US SUM UP

In this Unit we have learnt the rationale and signifance of services for women and children as an over-riding priority in order to achieve national health goals. Planning and investing in mother and child health ensures better future and also contribute to the healthier and more productive population. The evolution in MCH since independence highlights a significant expansion in scope and utilization of these services. As a result, the focus of these MCH services has shifted to reproductive and child health (RCH) approach which include both for men and women. These RCH problems are preventive in nature – amendable to prevention by actions/responses at the level of family and households, supported by community. Improvement of nutritional status is linked to best practices of early initiation of breast- feeding and universal exclusive breast-feeding for 6 months and continued breast-feeding along with complementary feeding even up to 2 years or beyond is ultimately a family/household decision. Improvement of infant and young child feeding practices at family level is the responsibility of parents and families. Similarly, prevention of diarrhoeal diseases and ARIs begins at home. Utilization of immunization services and essential obstetric care and recognition of danger signals by the mothers and family and health care seeking behaviour can prevent most morbidity and deaths. The health system must support the households and families in this endeavour to achieve the public health goals for MCH-RMNCH+A. Continuum of care across life cycle and linking places of services can result in better outcomes and it becomes a virtuous circle. Simple evidence based and high impact

interventions at community level can save millions of lives of children and mothers. Over the years these integrated interventions have led to decline in mortality, fertility and improved nutritional status.

1.9 ANSWERS TO CHECK YOUR PROGRESS

Check Your Progress I

1. i) Reduction of Maternal Morbidity and Mortality

   ii) Reduction of Infant Morbidity and Mortality

   iii) Reduction of Under 5 Morbidity and Mortality

   iv) Promotion of Adolescent Health

   v) Control of Reproductive Tract Infections (RTI) and Sexually Transmitted Infections (STI)

2. Fifty-seven percent of women age 15-49 have anaemia. 18.7% of women have BMI (Body mass index) below 18.5 which is an evidence of chronic energy deficiency. Malnutrition has intergenerational impact. Women who are anaemic and malnourished give births to low birth weight babies. Women's work capacity goes down and anaemic women stand to the risk of increased haemorrhages after delivery and are vulnerable to infections and eclampsia / pre-eclampsia.

3. • Discrimination against Girl Child, dowry system, male child preference, social customs.

   • Alarming practice of selective sex abortions and misuse of ultrasound technology.

Check Your Progress 2

1. • D Phase 1 (1947-1972): Health is a part of Community Development Programme.

   • Phase II (1972-1977): Pre-Alma Ata Declaration period. Amalgamation of peripheral workers into a single cadre of multipurpose workers.

   • Phase III (1977-1995): Alma Ata declaration of 'Health for All' through primary health care.

   • Phase IV (1996-2005): RCH Programme launched in India.

   • Phase V (NRHM 2005-2012): RCH Phase II was launched under National Rural Health Mission (NRHM).

   • Phase VI (2012-2017): 'Universal Health Coverage' rolled out to attain health in all.

2. Continuum of care establishes virtuous circle, reinforcing the impact of previous phase on the next phase of life cycle; e.g. preparing adolescents for safe motherhood by prevention and treating anaemia with adequate diet will prevent low birth weights, unwanted pregnancies and reduce IMR and MMR.

3. Under RMNCH+A Programme, every pregnant and child is being tracked by name through web enabled system for quality, ANC, INC, PNC, immunization, and full maternal and child health coverage. The objective of MCTS is to ensure maximum coverage and thereby to reduce maternal, infant and child mortality.

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