**Family and Community Medicine Dept**

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**Fourth Grade/ 2018-19 (2ND term)**

**Maternal and Child health -3**

**Child Health**

**Objectives:**

- **Identify objectives of child health services**

**- Outline health of new born (causes, and measurement of different mortality rates)**

**- Recognize the priority arears to improve newborn health.**

**- Define infant mortality, its causes and key elements for reduction through MCH.**

**The childhood is divided into the following age periods**

**l. Infancy (up to 1 year of age)**

a. Neonatal period (first 28 days of life)

b. Post neonatal period (28th day to 1 year)

**2. Pre-school age (1-4 years)**

**3. School age (5-14 years)**

**Objectives of Child Health Services**

1-Promote the health of children to ensure that they achieve optimal growth and development both physical and mental.

2.Protect children from major hazards through specific measures (immunization, chemoprophylaxis, & dietary supplements) and through improvement in the level of care provided by the mother and the family.

3-Treat diseases and disorders with particular emphasis on early diagnosis, the aim is to provide an effective remedy at an early stage before complications occur.

**The Risk Factors that may Influence the Child Health**

* Birth weight less than 2.5 kg.
* Fifth child & more.
* Brothers or sisters under nourished.
* Birth less than 2 years after last birth.
* Twin.
* 3 or more children in the family died.
* Single parent.

**Health of Newborn**

The infancy is the 1st year of human life, the infancy traditionally divided into two periods, which are:

* Neonatal
* Post neonatal

The neonatal period comprises the first (28 days) of life, in terms of health and disease, it is the single most important period of all infancy and childhood during which the highest mortality occurs.

**Causes of Neonatal Morbidity and Mortality**

**The most important common causes are:**

1-Prematurity and intrauterine growth retardation

2-Low birth weight

3-Neonatal Infection

4-Respiratory Distress Syndrome (RDS)

5-Congenital Abnormality

6-hyperbilirubinaemia

7-Birth Asphyxia

8-Babies born to mothers with chronic diseases.

**Health risks to newborns are minimized by:**

- Quality care during pregnancy.

- Safe delivery.

- Strong neonatal care.

**Measures of mortality during Infancy**

1. **Perinatal mortality**

Perinatal period is lasting from 28th week of gestation to the seventh day after birth.

Perinatal mortality includes both late fetal deaths (Still birth) and early neonatal deaths.

**Peri- Natal Mortality Rate:**

**PNMR =** Late fatal deaths (28 wks. gestation and more) +early neonatal death (1st week)/ Late fatal deaths + live births x 1000 {in one year}

**Causes of Peri- natal mortality:**

* **Intrauterine and birth asphyxia**
* **Low birth weight**
* **Birth trauma**
* **Intrauterine and neonatal infection**

**Neonatal Mortality**

These are deaths occurring during the neonatal period, beginning at birth and ending 28 completed days after birth. This usually divided into:

* + ☞Early neonatal death-1st seven days
  + ☞ Late neonatal death8-28days

More than 37 percent of all child deaths occur during the first 28 days of life, the neonatal period, and three quarters of those deaths occur within the first week of life.

**Neonatal Mortality Rate**

**NMR =** Number of deaths of children under 28 days of age in a year/Total live births in the same yearx1000

A child’s risk of death in the first four weeks of life is nearly 15 times greater than any other time before his or her first birthday.

**Causes of neonatal mortality:**

* Low birth weight
* Birth asphyxia
* Atelectasis
* Birth injuries
* Congenital malformation
* Infections (tetanus, diarrhea)
* NMR is more in boys as they are biologically more fragile than girls.

**Early Neonatal Mortality Rate**

**ENMR =** Number of deaths of children<1 wk. of age in a year/Total live births in the same year x1000

**Late Neonatal Mortality Rate**

**LNMR =** Number of deaths of children after 7th day till 28th day of age in a year/Total live births in the same year x1000.

Perinatal and neonatal mortality reflect causes of deaths related to maternal health prior to pregnancy as well as events during pregnancy, delivery and early neonatal period.

**Priority Areas to Improve Newborn Health**

* **Before & during Pregnancy**
* **During Pregnancy**
* **During & soon after Delivery**
* **During the First Month of Life**

**1-Before & during Pregnancy**

* Well-timed, well-spaced, & wanted pregnancies (family planning)
* Well-nourished & healthy Mother
* Tetanus & rubella immunization
* Prevention of mother to child transmission of infection (HIV)&HB.
* Female education.

**2-During Pregnancy**

**A-Early contact with health system (ANC)for:**

1-Birth & emergency preparation

2-Early detection & treatment of maternal complications

3-Monitoring of fetal well-being & timely interventions for fetal complications

4-Tetanus immunizations

5-Prevention & treatment of infections

**B-Good diet**

**C-Prevention of violence against women.**

**3-During & Soon After Delivery**

1- Safe & clean delivery by skilled attendant

2- Early detection & prompt management of delivery & fetal complications

3- Emergency obstetric care for maternal & fetal conditions (EmOC)

4- Newborn resuscitation.

5- Newborn care ensuring warmth & cleanliness

6- Newborn cord, eye & skin care

7- Early initiation of exclusive breast feeding

8- Early detection & treatment of newborn complications

9- Prevention & control of infections

10- Information & counseling on home care, danger signs & care seeking.

**4-During the First Month of Life**

* Early post-natal contact
* Protection, Promotion & support of exclusive breast feeding
* Prompt detection & management of disease in newborn infant
* Immunization
* Protection of girl child.

**Post neonatal period:** The major contributors to the health during post neonatal period are malnutrition, infectious disease, and problems with the home environment.

**Causes of Infant Death in The Post neonatal Period: Post neonatal deaths are caused by two major factors:**

1-Infection

2- Malnutrition

**The immediate causes of deaths in this age group are:**

* Diarrheal diseases culminating in dehydration
* Acute lower respiratory infections [pneumonia]
* Other communicable diseases like measles.

**Post neonatal mortality is the death of children aged 29 days to one year.**

This rate is more closely linked to environmental factors especially socioeconomic disadvantages.

**Infant Mortality:** Death of the child under 1 year of age.

**Indicates:**

1-Health status of community

2-Level of living

3-Effectiveness of MCH services.

4-The overall state of maternal health as well as quality and accessibility of PHC available to pregnant women and infants.

It is given a specific and separate **ATTENTION** because:

* It is largest single age category of mortality
* Deaths are due to peculiar set of disease and conditions
* It is affected quickly by special health programme.

**Predisposing Factors of Infant Mortality**

**1-Biological Factors**

* + Birth weight, Age of the mother, Birth order, Birth spacing, Multiple births, Family size, High Fertility.

**2-Economic Factors**

* + Low socioeconomic factors, quality & availability of health care

**3-Cultural & Social Factors**

* + Breast feeding, Early marriage, maternal education.

**Infant Mortality Rate**

**IMR=** Number of deaths of children less than 1 year of age in a year/Number of live births in the same year x1000.

**Specific Measures for Reduction of Infant Death through MCH Services**

1. Promotion and protection of breast feeding at least the first six months [exclusive breast feeding].
2. Ensuring the introduction of appropriate supplementary foods at six months of age[complementary food].
3. Nutritional and health education of mothers with emphasis on correct weaning [ weaning refers to termination of BF, WHO recommends that no child be fully weaned before the age of 2years], and feeding with adequate food & hygiene precautions.
4. Promoting maximum immunization coverage of all infants for the childhood diseases.
5. Screening for hypothyroidism and PKU.
6. Monitoring child growth and development.
7. Integrates management of the most common childhood problems through {IM NCH}

(pneumonia, diarrhea, measles, malnutrition, anemia, ear problems) through PHC.