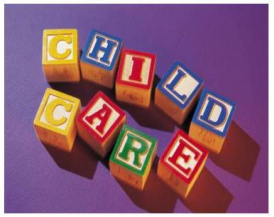
Infant and Child Care



Child Care

- The period of early childhood development is the most important period of life.
- In order to reach their full potential, children need appropriate support from families, education and healthcare professionals during this period.
- Research has consistently shown that good early childhood development will have a direct positive impact on a child’s long-term health outcomes and will improve future opportunities and school attainment.
- Particularly important is the impact of this period on a child’s emotional and social development, which is vital for their future confidence, communication, relationships, and mental health.

Child care

- Early childhood experiences have a profound impact on brain development – affecting learning, health, behaviour, and, ultimately, productivity and income.
- A child's brain develops in response to both **genes** and the **environment** (multifactorial)

→ while genes provide the initial map for development, it is the experiences and relationships babies and children have every day that literally shape their brains.

→ For optimal brain development: a stimulating environment, adequate nutrients , attentive caregivers & social interactions are required

Families have an extremely important ongoing influence on children’s development. The community and service environments in which children and families interact also play a key role in supporting optimal development.

Infant and Child Care:

Well Baby Clinic

- **Well-care visits** are scheduled check-ups designed to support the healthy growth and development of children and adolescents from birth through early adulthood.

- These visits aim to:

1. Ensure **physical, mental, and emotional well-being**.
2. **Support and guide parents** in caring for their children and themselves.

Well Baby Clinic Objectives[1]

1. **Health Promotion**: Encourage healthy habits and behaviors in children and adolescents.
2. **Growth and Development Monitoring**: Track physical, mental, and social milestones to ensure children and teens are developing appropriately.
3. **Vaccinations and Disease Prevention**: Provide essential immunizations and educate families on disease prevention and nurturing care.
4. **Early Identification of Risks or Delays**: Detect any health risks, developmental delays, or disabilities that may require intervention.
5. **Support for Specialized Needs**: Offer tailored support for children, adolescents, and caregivers who need extra care or resources.

- **Evidence on Scheduling:**
- Currently, there is no strong evidence for an optimal, universal schedule for well-care visits.
- The recommended schedule suggests **a minimum of 17 visits** between birth and 19 years, aligned with key developmental stages.
- This schedule should be adapted based on local contexts and specific population needs.

Proposed Well-Care Visit Schedule[1]:

Neonatal Period (0–28 days)

3 Visits: Within 24 hours, at 48–72 hours, and at 7–14 days.

Objective: Essential newborn care, early health monitoring, and breastfeeding counseling.

Infancy (1–11 months)

4 Visits: At 6, 10, and 14 weeks, and at 9 months, aligned with routine vaccination.

Objective: Growth monitoring, immunizations, early health interventions.

Early Childhood (1–4 years)

5 Visits: At 12 and 18 months, and at 2, 3, and 4 years.

Objective: Developmental assessments, support for school readiness, booster vaccinations.

Later Childhood (5–9 years)

2 Visits: At 5–6 years and 8–9 years.

Objective: Health checks at school entry and pre-adolescence, booster doses (e.g., diphtheria toxoid).

Adolescence (10–19 years)

2 Visits: At 10–14 years and 15–19 years.

Objective: Adolescent health counseling, immunizations, social and mental health support.

Well-Baby Clinic Services

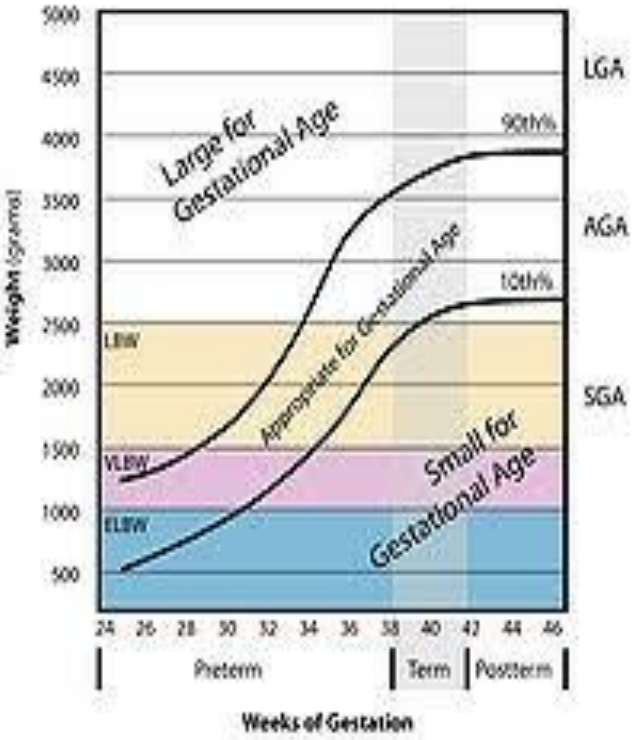
1. Physical Examination
2. Growth and Development
3. Vaccination
4. Nutrition
5. Health Education (breastfeeding education, maternal hygiene & smoking cessation, etc..)

Definitions

- **Neonatal mortality:** Death < 28 days.
- **Post neonatal mortality:** Deaths between 28 days and one year.
- **Infant mortality:** Deaths between 0 and 12 months.
- **Under-five mortality:** The mortality of children under the age of five)
- **Perinatal mortality (PNM):** The number of late foetal deaths (also called still births) and early neonatal deaths (day 7) per 1000 births

- Low birth weight (LBW): <2500 g.
- Preterm birth, premature delivery (<37 weeks gestation).

- Large for gestational age: >4000g



Infant mortality

- Infant deaths are divided into two groups:

1. **Neonatal deaths**: Those occurring at less than 28 days after birth.
2. **Post neonatal deaths:** Those occurring at ages 28 days and over but under one year.

Infant mortality

- **Neonatal** mortality rates are especially sensitive to events during **pregnancy**, **delivery** and the **neonatal** period, and to the care given to mothers and their babies.

- **Post neonatal** mortality is thought to be influenced to a greater extent by **parental circumstances**, including their *socioeconomic position*, and the *care* they provide for their infant.
- The earlier a baby is born, in terms of completed weeks of pregnancy, the higher the risk of infant death.

Causes of Perinatal mortality (PNM)

Pregnancy complications :

1. Premature delivery (esp. multiple gestation)results in **LBW.**
2. Uncontrolled hypertension (results in preeclampsia & LBW)
3. Uncontrolled diabetes.
4. Antepartum haemorrhage.
5. Intra uterine growth restriction IUGR “foetal growth restriction”, results in **LBW.**
6. Oligohydramnios
7. Foetal anomalies (e.g. Anencephaly)

PNM

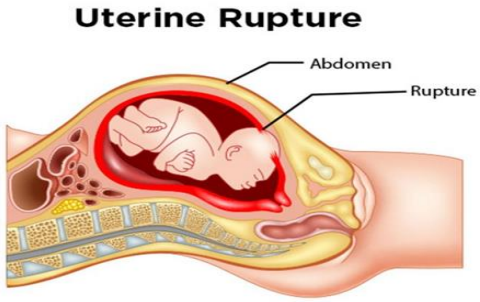
A prolapsed cord occurs when the umbilical cord is below the presenting part of the fetus.

Delivery complication :

(during normal delivery) is mainly **Asphyxia results in low birth weight**

Asphyxia could be due to :

1. Cord prolapse
2. Ruptured uterus
3. Placental abruption
4. Sepsis (mostly due to prolonged rupture membrane)



Basic needs of a newborn that can help ensure a healthy start in life.

During labour and delivery, mothers and newborns need:

1. **Skilled attendance** – provide safe management of normal delivery and timely referral for complications.
2. **Support and care** – promote family support and a baby and woman-friendly environment for birth and maternal and new-born care.

Basic needs of a newborn that can help ensure a healthy start in life.

3. Infection control – ensure clean delivery, including clean surface, hands, blade, and cord tie.

4. Management of complications – identify and manage complications, including bleeding, high blood pressure, prolonged labour, and foetal distress

Interventions to Reduce Stillbirths and Newborn Mortality and Morbidity

- Addressing stillbirths and neonatal mortality requires interventions across the continuum of care (preconception, antenatal, intrapartum, immediate postnatal period, and after) (Black, Laxminarayan, Temmerman, & Walker, 2016). The **continuum of care** is a core principle of programmes for maternal, newborn, and child health, and as a means to reduce the burden of mortality.

Evidence-Based *Antenatal* Interventions that Reduce Perinatal Morbidity and Mortality

Nutritional Interventions

- Supplementation of diets with **folic acid** reduces the risk of neural tube defects that account for a small proportion of stillbirths or neonatal deaths (Gaxiola, Dowswell, & Peña-Rosas, 2010).
- **Dietary advice and balanced energy supplementation**: Balanced energy and protein supplementation (BES), defined as a diet that provides up to 25% of total energy in the form of protein, is an important intervention for the prevention of adverse perinatal outcomes in populations with high rates of food insecurity and maternal undernutrition (Imdad & Bhutta, 2012).
- The WHO recommends maternal **calcium supplementation** from 20 weeks' gestation in populations in which calcium intake is low to reduce the risk of hypertensive disorders in pregnancy (Khan, Wojdyla, Say, Gülmezoglu, & Van Look, 2006). Calcium supplementation was also associated with a significant reduction in neonatal mortality and risk of pre-term birth.
- Maternal **Zinc supplementation** resulted in significant reduction in preterm birth (Ota et al., 2015).

Antenatal Treatment of Maternal Infections

- Maternal infections frequently have adverse effects on perinatal outcomes, and striking mortality reductions can be obtained by antenatal interventions related to tetanus, syphilis, and HIV.

Tetanus

- Neonatal tetanus infection results from umbilical cord contamination during unsanitary delivery, coupled with a lack of maternal immunization.

- Immunizing pregnant women or women of childbearing age with at least two doses of tetanus toxoid was estimated to reduce mortality from neonatal tetanus by 94%.

Syphilis

- Pregnant women with untreated syphilis have a 21% increased risk of stillbirths (Gomez et al., 2013).
- Congenital syphilis (CS) is a disease that occurs when a mother with syphilis passes the infection on to her baby during pregnancy.
- Up to half of all babies infected with syphilis die shortly before or after birth.
- Treatment of syphilis with penicillin suggests a significant reduction in stillbirths, pre-term births, congenital syphilis, and neonatal mortality (Blencowe, Cousens, Kamb, Berman, & Lawn, 2011).

HIV

- Most children with HIV acquire it from their mothers.

- Antiretroviral Therapy (ART) is vital in preventing vertical (mother-to-child) transmission → short ART courses commencing before labor, with treatment extended to newborns during the first week of life, have been shown to significantly reduce mother-to-child HIV transmission

Treatment of Diabetes Mellitus and Gestational Diabetes Mellitus (GDM)

- Optimal blood glucose control in pregnancy compared with suboptimal control was associated with a 60% reduction in the risk of perinatal mortality (Syed, Javed, Yakoob, & Bhutta, 2011).

- Lifestyle change is an essential component of management of gestational diabetes mellitus and may suffice for the treatment of many women. Medications should be added if needed to achieve glycemic targets (American Diabetes Association, 2024)


THANK
YOU