

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

الحمد لله رب العالمين والصلاة والسلام
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المرسلين وعلى آله وصحبه أجمعين وبعد

B-Infant and Child Care:

Risk Factors



- 1- Prenatal Care of the infant: (Prematurely, Congenital abnormalities, Birth injuries, and neonatal infections. Good Nurseries).

A-W.B.C.

- 1- Physical Examination (Scheduled Visits)
- 2- Growth and Development
- 3- Vaccination
- 4- Nutrition
- 5- Health Education.

- B- **Day Care of Children** out-side the home Good child care services are a primary need.
- C- **Health of the school age** child (School health)
- D- **Care of adolescents**: Youth Clinics (Psychological problems, Contraception, Smoking, Drug addiction etc.)
- E- **Handicapped Children** (Physically and Mentally).

Needs of the Newborn

- Improving newborn survival will dramatically reduce infant mortality worldwide.
- Of the 7.1 million infants who die each year, approximately two-thirds die in the first 28 days after birth – the neonatal period.

- Of these deaths, two-thirds take place in the first week after birth.
- Ninety-eight percent of all neonatal deaths occur in developing countries.
- There are basic needs of a newborn that can help ensure a healthy start in life.

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

- **During labour and delivery, mothers and newborns need:**
- **Skilled attendance** – provide safe management of normal delivery and timely referral for complications.
- **Support and care** – promote family support and a baby and woman-friendly environment for birth and maternal and newborn care

- **Infection control** – ensure clean delivery, including clean surface, hands, blade, and cord tie.
- **Management of complications** – identify and manage complications, including bleeding, high blood pressure, prolonged labour, and foetal distress

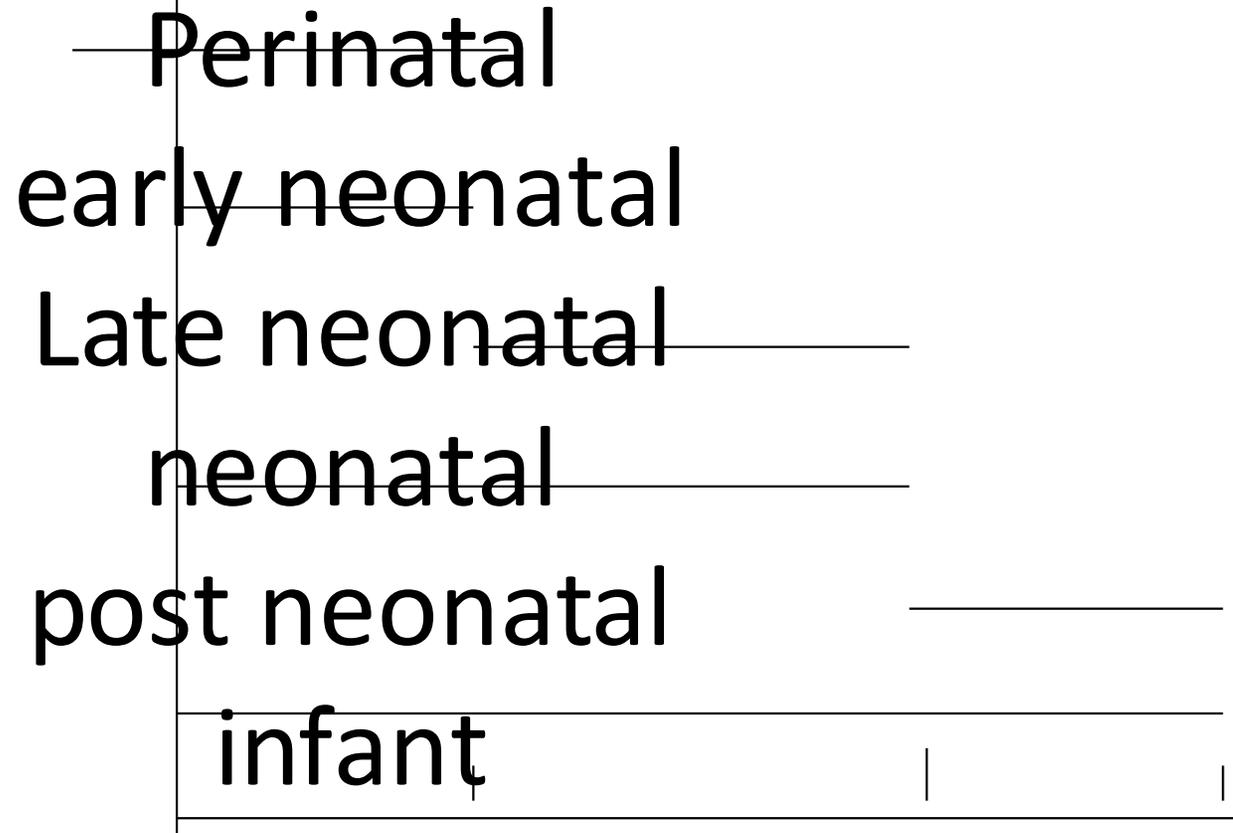
Assessing the baby's capabilities



Infant and Child Mortality/The five measures of infant and child mortality

- **Neonatal mortality**, the probability of **dying in the first month of life**
- **Postneonatal mortality**, the probability of **dying after the first month of life but before the first birthday** (the difference between infant and neonatal mortality rates)
- **Infant mortality** ($1q_0$), the probability of **dying before the first birthday**

- **Child mortality** ($4q1$), the probability of **dying** **between the first and fifth birthday**
- **Under-five mortality** ($5q0$), the probability of **dying** **before the fifth birthday**.
- All of these rates are calculated per 1,000 live births, except for child mortality which is calculated per 1,000 children surviving to age one.



Birth 1 wk 1 mon. 1 y

Infant mortality

- **Critical indicator of population health reflecting the overall state of maternal health as well as quality and accessibility of PHC available to pregnant women and infants.**
- **Infant Mortality Rate (IMR): number of infant deaths per 1,000 live births in a population.**

Other indicators.

- **Neonatal Death:** Death of an infant **less than 28 days after birth (<28 days).**
- **Postneonatal Death:** Death of an infant **between 28 days and one year after birth (28-364 days).**
- **Low Birthweight (LBW):** Birth weight **less than 2,500 grams and VLBW 1500.**

Perinatal and fetal mortality.

- Health of infants depends in large part on their health in utero. A fetus with severe defects or growth problems may not be delivered alive.
- Because only live births are counted in infant mortality rates, perinatal and fetal mortality rates provide a more complete picture of perinatal health than does the infant mortality rate alone.

perinatal is the most sensitive measure

Perinatal mortality.

- The perinatal mortality rate includes both deaths of live-born infants through the first 7 days of life and fetal deaths after 28 weeks of gestation.**
- This rate is a useful overall measure of perinatal health and the quality of health care provided to pregnant women and newborns.**

Perinatal Mortality (PM)

- **General Consideration**
- Of the 13 million deaths each year in children under 5 years old in the developing world, 3 million occur in the first week after delivery.
- In addition, there are some 4 million stillbirths or late fetal deaths each year.
- Perinatal mortality is the number of late foetal deaths (also called still births) and early neonatal deaths (before day 7 (168 hours) per 1000 births.

- Among the estimated 25 million low-birth-weight babies born each year worldwide, 24 million are in developing countries where 80% of global births occur, The perinatal mortality rate ranges from 40 to 60 per 1,000 live births in most developing countries, but it is between 6 and 10 in industrial countries.

Causes of Perinatal Mortality

- • Low birth weight
- • Cord prolapse
- • Asphyxia
- • Birth injury
- • Congenital anomalies
- • Sepsis
- • Neonatal tetanus
- • Complicated labours (prolonged, obstructed, breech, transverse)
- • Mismanagement of labour

Low Birth Weight

- Low birth weight is an extremely important factor predisposing for PNM.
- Because the perinatal mortality rate for low-birth weight babies is five to thirty times higher than for fetuses or infants of normal weight. Low-birthweight infants who survive may have serious neurological problems and hearing and visual defects and may be subject to slow development throughout life.

Causes of low birth weight include:

- • Short stature
- • Low pre-pregnancy weight
- • Inadequate weight gain during pregnancy
- • Anemia
- • Reproductive tract infections,

- Other infections during pregnancy. For example, women suffering from malaria in sub-Saharan Africa give birth to an estimated 3 million severely underweight babies. A woman with HIV has a 25 to 40 percent chance of passing the infection on to her fetus in the womb or at birth. According to WHO, 25 percent of the children born with HIV will be diagnosed with AIDS in the first year and 80 percent by the fourth year.
- Antepartum haemorrhage
- Eclampsia,

Fetal death.

- Fetal death often is **associated with maternal complications of pregnancy**, such as problems with amniotic fluid levels and blood disorders.
- Also when birth defects, such as anencephalus, renal agenesis, and hydrocephalus, are present.

Fetal death.

- **Rates of fetal mortality are 35 percent greater than average in women who use tobacco during pregnancy and 77 percent higher in women who use alcohol.**
- **Targeting prenatal risk screening and intervention to high-risk groups is critical to reducing this gap.**

Stillbirth (around in the dark)

- Information about 4 million neonatal deaths worldwide is limited, even less information is available for stillbirths (babies born dead in the last 12 weeks of pregnancy) and there are no systematic global estimates.**
- The numbers of stillbirths are high and regions in which most stillbirths occur, with under-reporting being a major challenge.**

Infant and neonatal mortality.

- Infant mortality rate is made up of two components: **neonatal mortality** (death in the **first 28 days** of life) & **postneonatal mortality** (death from the infants' **29th day but within the first year**).
- The leading causes of neonatal death include birth defects, disorders related to short gestation and LBW, and pregnancy complications.

Neonatal mortality.

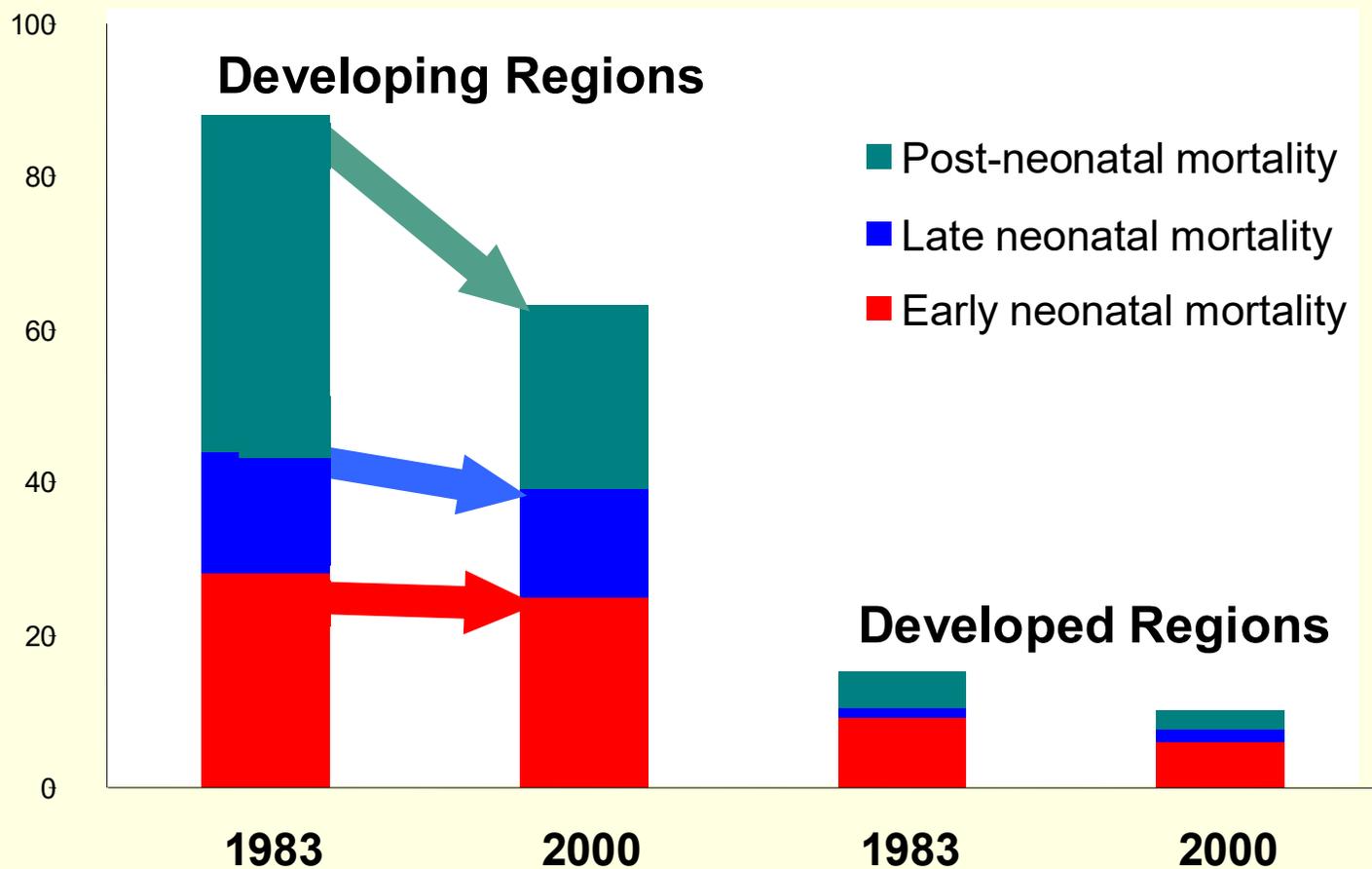
- The most to be preventable are those related to preterm birth and LBW, which represent approximately 20 percent of neonatal deaths.**
- Postneonatal death reflects events experienced in infancy, including SIDS, birth defects, injuries, and homicide. SIDS is the leading cause of postneonatal death.**

Neonatal mortality.

- Most neonatal deaths usually occur in the first 24 hours of life, and three-quarters of neonatal deaths occur in the first week after birth.**
- Most newborn deaths are preventable through affordable interventions. To address the high burden of newborn deaths care must be available during pregnancy, labour and postpartum**

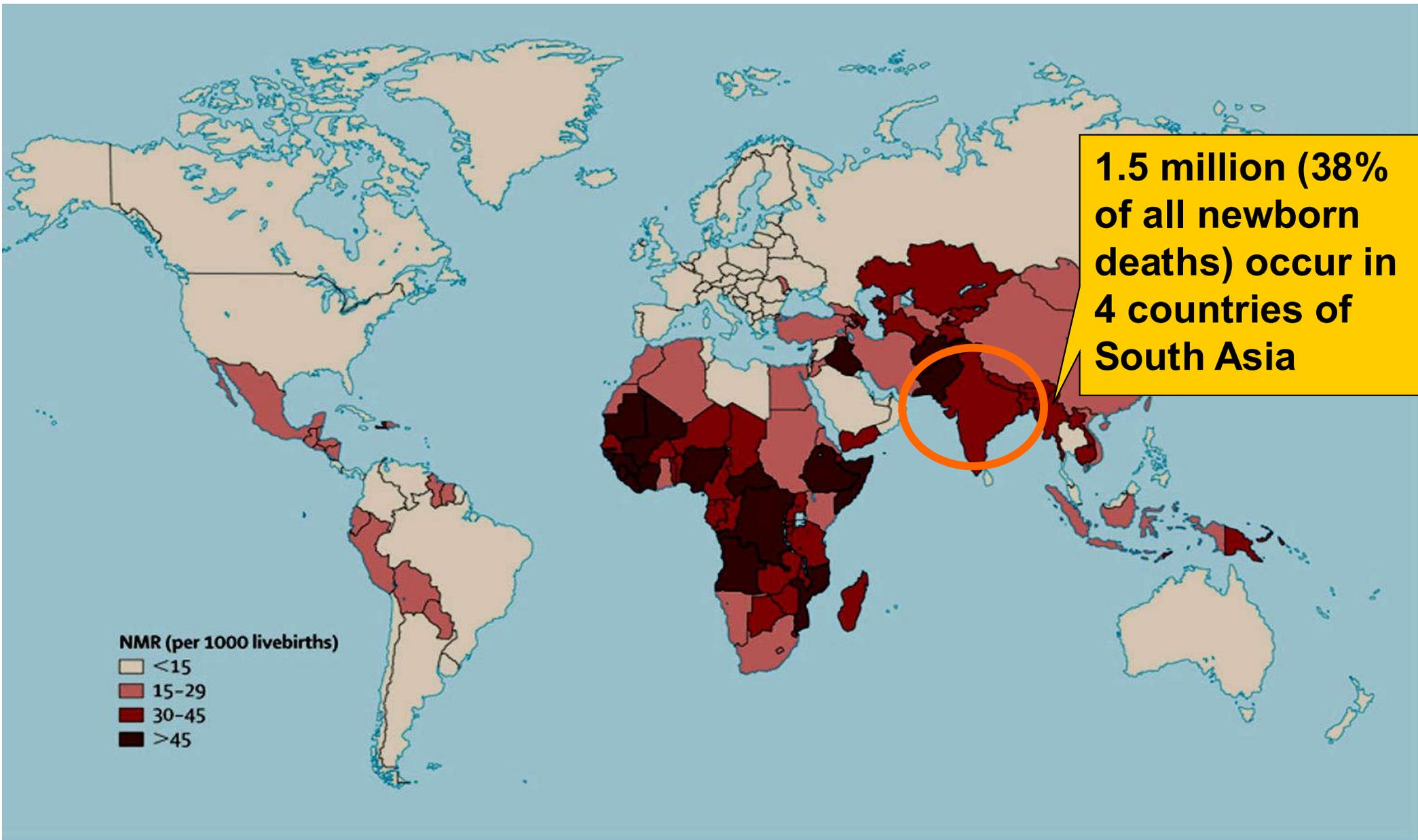
Deaths among infants under 7 days are decreasing more slowly than among older infants

we mainly focus on post-neonatal mortality



Source: RHR/WHO, 2003

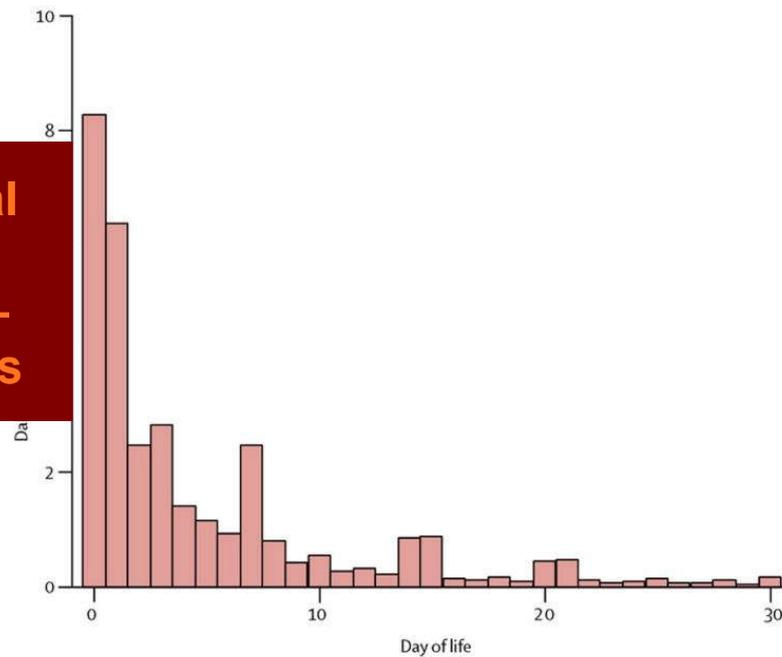
Where do 4 million newborns die?



When do they die?

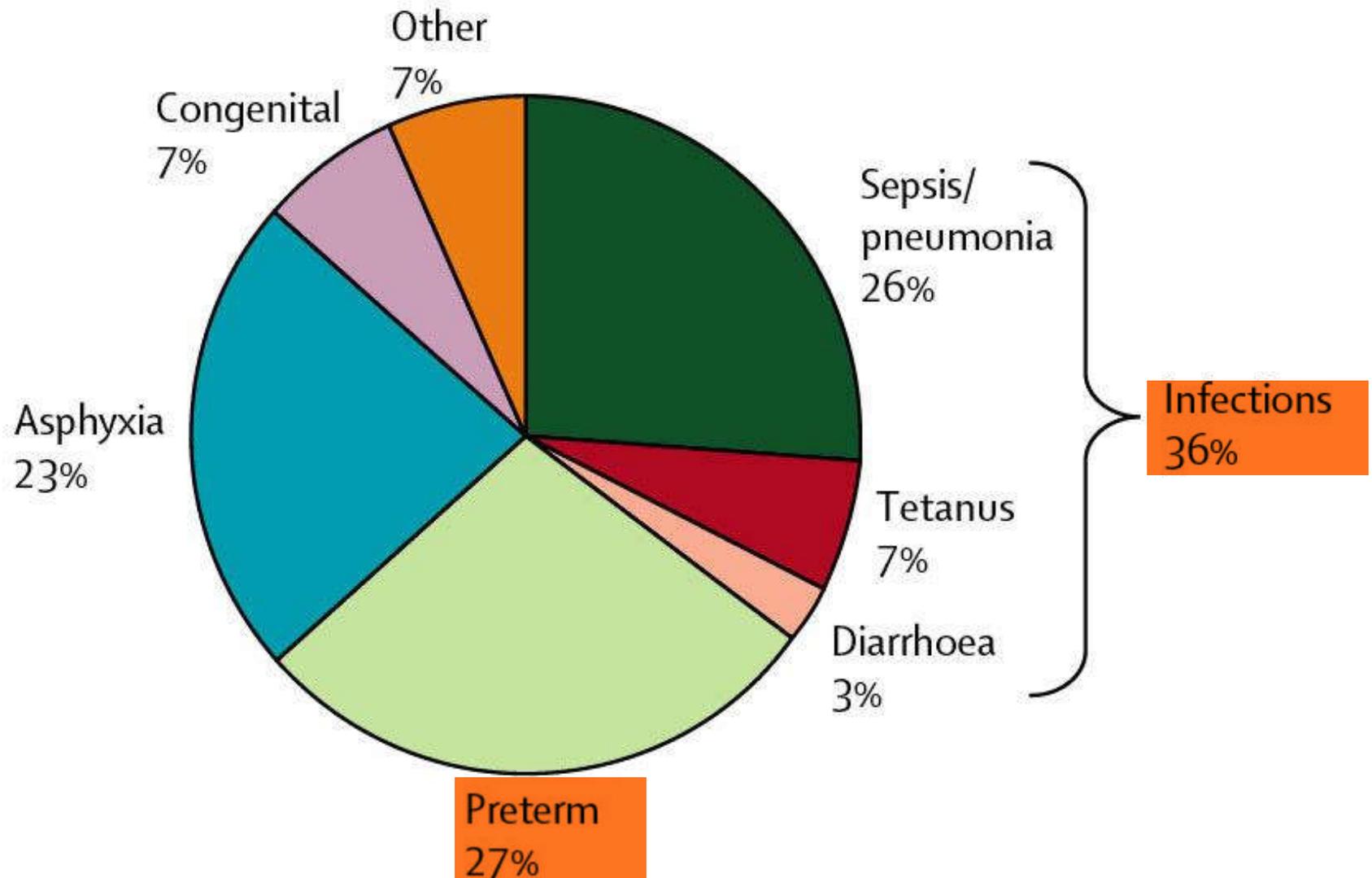
Up to 50%
of neonatal
deaths are in
the first 24 hours

75% of neonatal
deaths are in
the first week –
3 million deaths



4 million newborn deaths – Why?

almost all are due to preventable conditions



Two thirds of all neonatal deaths are in LBW infants

Children health.

- Child's health includes **physical, mental and social well-being** too.
- Under-five mortality has improved dramatically – yet each and every day in 2016, **15 000 children died before reaching their fifth birthday**. After unprecedented global gains in malaria control, progress has stalled because of a range of challenges, including a lack of sustainable and predictable funding.
- (WHO 2018)
- **At least 6.6 million child deaths can be prevented each year if affordable health interventions are made available to the mothers and children who need them.**

Underlying causes of Child illness and death.

- **Poverty: More than 200 million children under five live in absolute poverty, on less than \$1 per day.**
- **Under-nutrition and malnutrition: At least 200 million children under five are malnourished.**
- **High fertility and short birth intervals**

Under-five mortality rate (U5MR) .

- Indicates the probability of dying between birth and exactly five years of age, **expressed per 1,000 live births**, if subject to current mortality rates.
- **It has several advantages as a barometer of child well-being in general and child health in particular.** It measures an 'outcome' of the development process.

Under-five mortality rate (U5MR)

- Is known to be the result of a wide variety of inputs:**
- nutritional status and the health knowledge of mothers;**
- level of immunization and oral rehydration therapy;**
- availability of maternal and child health services (including prenatal care);**

Under-five mortality rate (U5MR)

- **Income and food availability in the family;**
- **Availability of safe drinking water and basic sanitation;**
- **Safety of the child's environment, among other factors**

MDGs and maternal/child health

- Millennium Development Goal 4 aims to reduce child deaths by two-thirds between 1990 and 2015.
- Millennium Development Goal 5 has the target of reducing maternal deaths by three-quarters over the same period.