



Get
every one
in the picture

Infant and Child mortality

Data analysis and Report writing workshop for Civil registration and vital statistics data.

Important indicators for development



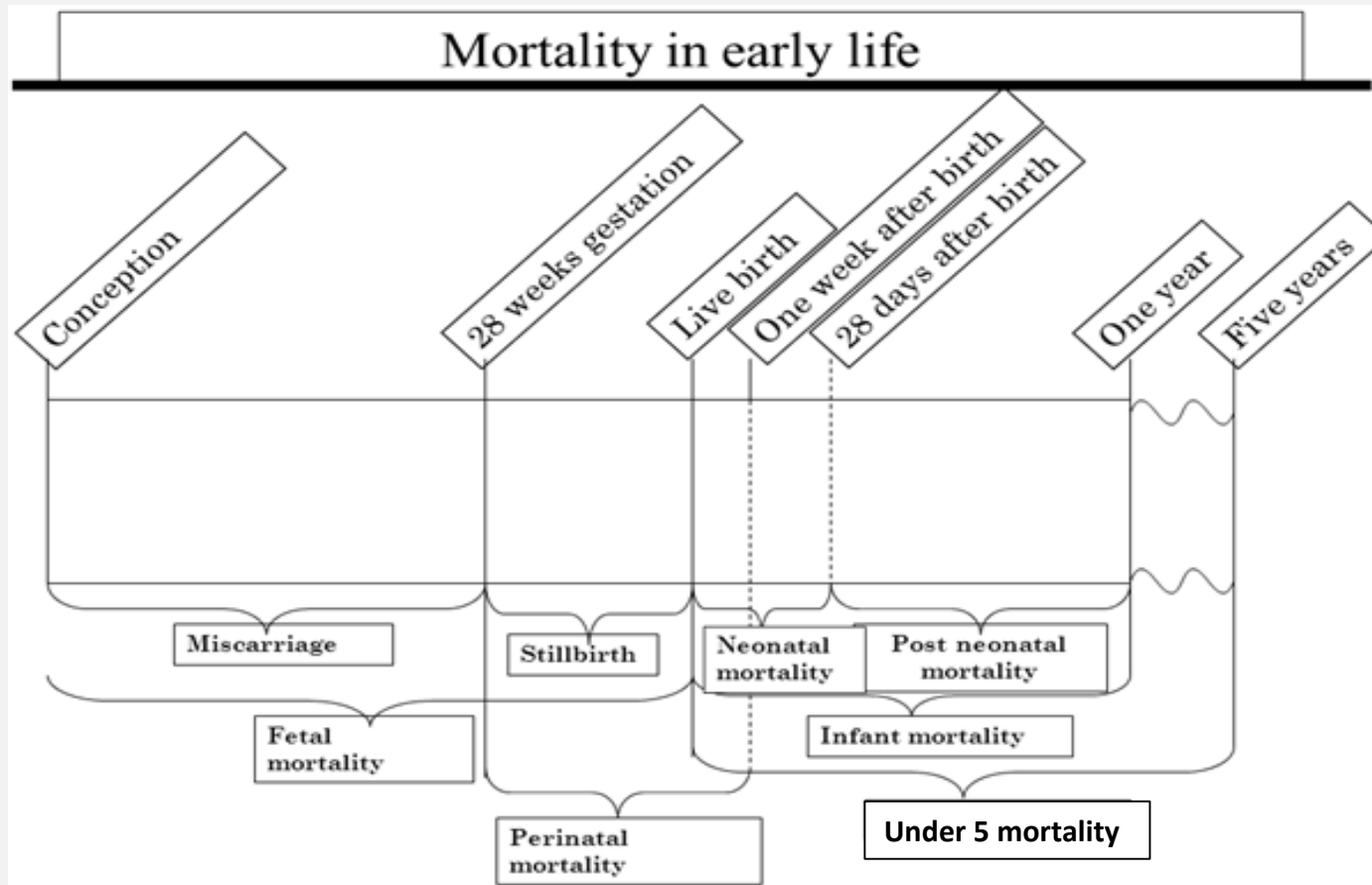
- ◆ NNMR and U5M are key indicators under SDG Goal 3 of the **Sustainable Development Goals**
- ◆ Many of the causes of death in this age-group are amenable to interventions

SUSTAINABLE DEVELOPMENT GOAL 3

Ensure healthy lives and promote well-being for all at all ages



Measures of infant and child mortality



Neonatal mortality

◆ Neonatal mortality rate

$$= \frac{\text{Number of deaths in children < 28 days old in calendar year}}{\text{Number of live births during calendar year}} \times 1000$$

◆ May be subdivided into:

- ◆ early neonatal deaths, occurring during the first seven days of life (0-7 days),
- ◆ late neonatal deaths, occurring 8-27 days of life.

◆ Considered to be a useful indicator of maternal and newborn neonatal health and care.

◆ As IMR falls and fewer deaths are attributed to infectious diseases and environmental influences, a greater proportion of infant deaths would be expected to occur in the neonatal period. - **The neonatal mortality rate should not increase as this occurs.**

Infant mortality

- ◆ **Infant mortality rate**

$$= \frac{\text{Number of deaths in children < 1 year}}{\text{Number of live births}} \times 1000$$

- ◆ A very widely used indicator to compare between countries and over time.

Major causes of infant mortality

Neonatal Period

- ◆ Birth complications
- ◆ Prematurity and other developmental conditions
- ◆ Congenital conditions
- ◆ (Malnutrition)
- ◆ (Infectious diseases)

Post -neonatal Period

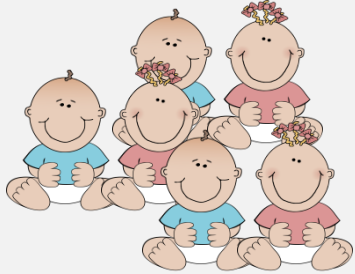
- Malnutrition
- Infectious Diseases
- (External causes- accidents and injuries)

Under 5 mortality rate

$$= \frac{\text{Number of deaths in children < 5 years}}{\text{Number of live births}} \times 1000$$

- ◆ Also a very widely used indicator to compare between countries and over time.
- ◆ Used to reflect the economic, social, and health conditions in countries
- ◆ Although called a rate – this is actually a **probability of dying** (as are IMR and NNMR)
- ◆ An important summary measure of development as it looks at the overall impact of mortality on early childhood.

Difference between a population based rate and a probability



Live births



Proportion of these children that die before 5 years

Deaths in children aged <1



Deaths in 1 year olds



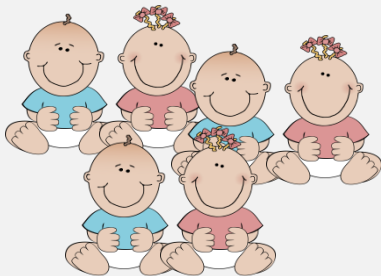
Deaths in 2 year olds



Deaths in 3 year olds



Deaths in 4 year olds



Assessing your data for plausibility

- ◆ Infant and child deaths may be under-reported
 - ◆ Why would this be?
 - Is this possible in the local context
- ◆ Need to compare to other sources
 - ◆ Census/ DHS etc
- ◆ Are the proportions plausible?
 - ◆ What proportion of the infant deaths are neonatal?
 - Is this consistent with what you know of your health system?



Exercises

- ◆ Calculate the neonatal, infant, and under 5 mortality rate of your test data.
 - ◆ Should you use adjusted or unadjusted number for deaths?
 - ◆ Should you use adjusted or unadjusted numbers for births?
- ◆ Perform this exercise with your own country data.
- ◆ If possible, graph how this indicator has changed over time.