Infant and Child mortality

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

Get every one in the picture

UNITED NATIONS
ESCAP
Economic and Social Commission for Asia and the Pacific

Important indicators for development

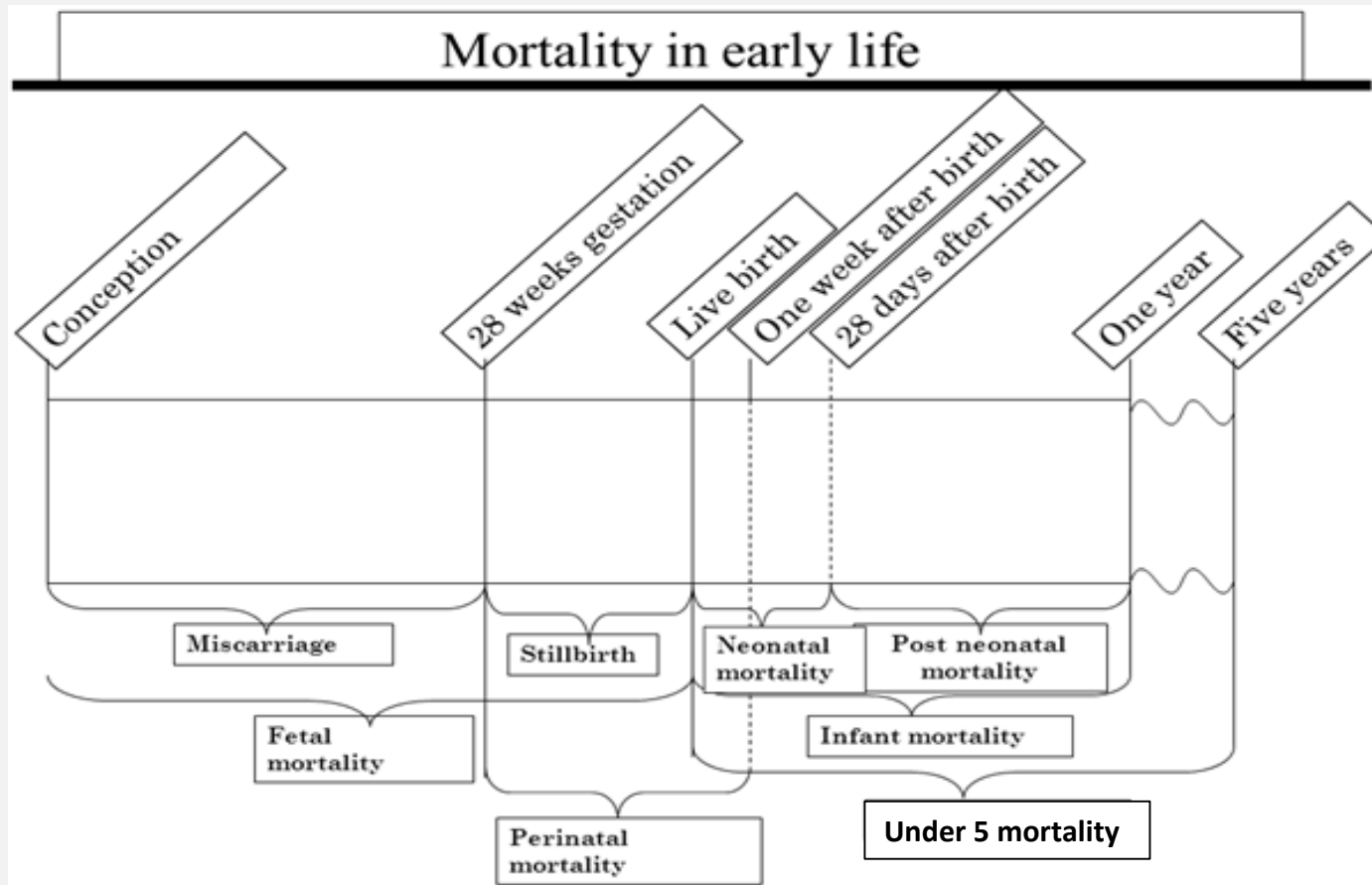- NNMR and U5M are key indicators under SDG Goal 3 of the **Sustainable Development Goals**

- 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

Mortality in early life

Neonatal mortality

- **Neonatal mortality rate**

= <u>Number of deaths in children < 28 days old in calendar year</u> x 1000
            Number of live births during calendar year

- 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**

= <u>Number of deaths in children < 1 year</u>   x 1000
            Number of live births

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

Major causes of infant mortality

| Neonatal Period	Post -neonatal Period
- Birth complications - Prematurity and other developmental conditions - Congenital conditions (Malnutrition) (Infectious diseases)	- Malnutrition - Infectious Diseases (External causes-accidents and injuries)

Under 5 mortality rate

= Number of deaths in children < 5 years   x 1000
    Number of live births

- 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
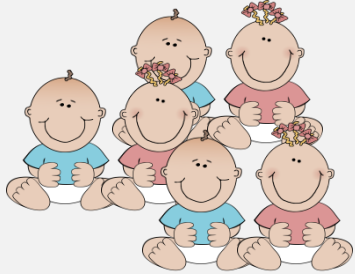
Live births

Proportion of these children that die before 5 years

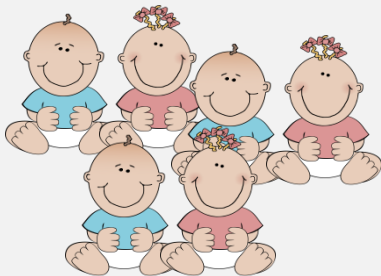Deaths in children aged <1 **+** Deaths in 1 year olds **+** Deaths in 2 year olds **+** Deaths in 3 year olds **+** Deaths in 4 year olds

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.