The under-five mortality rate: The indispensable gauge of child health

The under-five mortality rate, often known by its acronym U5MR or simply as the child mortality rate, 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.

First, it measures an ‘outcome’ of the development process rather than an ‘input’, such as per capita calorie availability or the number of doctors per 1,000 population – all of which are means to an end.

Second, the U5MR is known to be the result of a wide variety of inputs: the nutritional status and the health knowledge of mothers; the level of immunization and oral rehydration therapy; the availability of maternal and child health services (including prenatal care); income and food availability in the family; the availability of safe drinking water and basic sanitation; and the overall safety of the child’s environment, among other factors.

Third, the U5MR is less susceptible to the fallacy of the average than, for example, per capita gross national income (GNI per capita). This is because the natural scale does not allow the children of the rich to be 1,000 times as likely to survive, even if the human-made scale does permit them to have 1,000 times as much income. In other words, it is much more difficult for a wealthy minority to affect a nation’s U5MR, and it therefore presents a more accurate, if far from perfect, picture of the health status of the majority of children (and of society as a whole).

Underlying and structural causes of maternal and child mortality

Maternal, newborn and under-five deaths and undernutrition have a number of common structural and underlying causes, including:

- Poorly resourced, unresponsive and culturally inappropriate health and nutrition services.
- Food insecurity.
- Inadequate feeding practices.
- Lack of hygiene and access to safe water or adequate sanitation.
- Female illiteracy.
- Early pregnancy.
- Discrimination and exclusion of mothers and children from access to essential health and nutrition services and commodities due to poverty and geographic or political marginalization.

These factors result in millions of unnecessary deaths each year. Their wide-ranging nature and interrelatedness require them to be addressed at different levels – community, household, service provider, government and international – in an integrated manner to maximize effectiveness and reach.

The solutions to these impediments are well known, particularly those relating to the direct causes of maternal, neonatal and child deaths. The necessary interventions involve the provision of packages of essential primary health-care services for children across a continuum of care that spans pregnancy, childbirth and after delivery, leading to care for children in the crucial early years of life (see Panel, page 17, for a full definition of the continuum of care).