

MORTALITY RATE OF CHILDREN AGED 0-14 YEARS DUE TO PHYSICAL INJURIES

GENERAL CONSIDERATIONS	
<i>Issues</i>	Physical injuries
<i>Type of indicator</i>	Health outcome
<i>Rationale</i>	Physical injuries are a major cause of death amongst children. Injuries occur for many different reasons: amongst the most important are road traffic collisions, drownings, falls, natural disasters and physical assault. This indicator provides a measure of the health effect of injuries, in terms of the mortality rate amongst one of the most vulnerable groups – children aged 0-4 years.
<i>Issues in indicator design</i>	<p>This indicator raises relatively few design issues, since it expresses a clear health outcome, deriving from an explicit cause. Some data problems may be experienced because of uncertainties in coding and inadequate georeferencing of the place of accident. Data on external cause of injury are also often unreliable and weak. It is also essential to compute separate measures for boys and girls because of the strong effect of gender on levels of risk.</p> <p>An age range of 0-14 years is used for this indicator, because risks extend throughout the child's life.</p>
SPECIFICATION	
<i>Definition</i>	Mortality rate amongst children aged 0-14 years due to physical injuries.
<i>Terms and concepts</i>	Deaths due to physical injury: death in which the main cause was physical damage to the body caused by an external force.
<i>Data needs</i>	Number of deaths due to physical injury by external cause, age and gender. Total number of children aged 0-14 years by gender.
<i>Data sources, availability and quality</i>	<p>Data on mortality rates due to physical injuries are likely to be available from routine death registrations, and as such should be broadly reliable. Problems of diagnosis are likely to be less than for many other causes of death, but data on external cause of injury are often weak and unreliable.</p> <p>Data on total population are available from national censuses and should also be broadly reliable.</p>
<i>Level of spatial aggregation</i>	Health district
<i>Averaging period</i>	Annual
<i>Computation</i>	<p>The indicator can be computed as a simple mortality rate:</p> $1\ 000 * (D_{inj} / C_{tot})$ <p>where: D_{inj} is the total number of deaths due to physical injuries amongst children aged 0-14 years;</p> <p>C_{tot} is the total population of children aged 0-14 years.</p>
<i>Units of measurement</i>	Number per thousand head of population.
<i>Worked</i>	Assume that there are 690 deaths of children due to physical injury in an

<i>example</i>	<p>area containing 36 420 children aged 0-14 years. In this case, the value of the indicator would be:</p> $1\ 000 * (690 / 36\ 420) = 18.9 \text{ per thousand}$
<i>Interpretation</i>	<p>This indicator provides a measure of the death rate amongst young children due to physical injuries. It can thus be interpreted as a direct indication of risks to children's health from this source. Because physical injuries may be due to many different factors, care is needed in interpreting causality.</p>
<i>Variations and alternatives</i>	<p>This indicator might usefully be devised for more specific classes of physical injury: for example, traffic collisions, drownings, injuries at home, workplace injuries. In these cases, also, it may be appropriate to target the indicator at different age ranges (e.g. 0-4, 5-14 years).</p>
<i>Examples</i>	<p>None known</p>
<i>Useful references</i>	<p>Manciaux, M. and Romer, C.J. 1991 <i>Accidents in childhood and adolescence</i>. The role of research. Geneva: World Health Organization.</p> <p>Peden, M., McGee, K., Krug, E. (Eds.) 2002 <i>Injury: A leading cause of the global burden of disease, 2000</i>. Geneva: World Health Organization.</p>