### Healthy Life Expectancy Metadata

#### Name abbreviated

**Healthy life expectancy (HALE)**

#### Indicator name

Healthy life expectancy at age x (e.g., at birth, at age 60 years, etc)

#### Definition

Average remaining number of years that a person can expect to live in "full health" at a certain age by taking into account years lived in less than full health due to disease and/or injury.

#### Method of estimation/calculation

HALE is a metric based on methods by Sullivan (1971), provides a single summary measure of population health across all causes combined by weighting years lived with a measure of functional health loss before death and is the most comprehensive among competing expectancy metrics.

HALE at age x is the sum of YWD, from i = x to w (the last open-ended age interval in the life table) divided by l_x (survivors at age x):

$$HALE_x = \left[ \sum_{i=x}^{w} YWD_i \right] / l_x$$

- **YWD_x** = L_x (1 – D_x) – Years lived without disability, equivalent years of healthy life lived between ages x and x+5.
- **l_x** – Survivors at age x.
- **L_x** – Total years lived by the life table population between ages x and x+5.
- **D_x** – Equivalent lost healthy year fraction between ages x and x+5.

#### Numerator

See above

#### Denominator

See above

#### Preferred data sources

Vital registration systems which record deaths with sufficient completeness to allow estimation of all-cause death rates.

National health examination surveys on the prevalence of diseases, injuries, and disabilities.

#### Other possible data sources

Sample registration systems; verbal autopsy.

#### WHO GPW13 Framework

Outcome

#### Disaggregation

By sex, location (urban/rural, major regions/provinces), and socio-economic characteristics (e.g., education, wealth quintile).

#### Expected frequency of data collection

- Lack of reliable data on mortality and morbidity, especially from low income countries.
- Lack of comparability of self-reported data from health interviews and the measurement of health-state preferences for such self-reporting.

#### Data type

Number of years

#### Related links