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| 42 | 42 | 1 | Contact point in international agency | Agency: World Health Organization (WHO)  Website: [https://www.who.int](https://www.who.int/) |
| 42 | 42 | 2 | International agreed definition | Definition:  Mortality rate attributed to cardiovascular disease, cancer, diabetes or chronic respiratory disease. Probability of dying between the ages of 30 and 70 years from cardiovascular diseases, cancer, diabetes or chronic respiratory diseases, defined as the per cent of 30-year-old-people who would die before their 70th birthday from cardiovascular disease, cancer, diabetes, or chronic respiratory disease, assuming that s/he would experience current mortality rates at every age and s/he would not die from any other cause of death (e.g., injuries or HIV/AIDS). This indicator is calculated using life table methods (see further details in section 3.3).  Concepts:  Probability of dying: The likelihood that an individual would die between two ages given current mortality rates at each age, calculated using life table methods. The probability of death between two ages may be called a mortality rate. Life table: A table showing the mortality experience of a hypothetical group of infants born at the same time and subject throughout their lifetime to a set of age-specific mortality rates. Cardiovascular disease, cancer, diabetes or chronic respiratory diseases: ICD-10 underlying causes of death I00-I99, COO-C97, E10-E14 and J30-J98.  Rationale:  Disease burden from non-communicable diseases (NCDs) among adults is rapidly increasing globally due to ageing and epidemiological transitions. Cardiovascular diseases, cancer, diabetes and chronic respiratory diseases are the four main causes of NCD burden. Measuring the risk of dying from these four major causes is important to assess the extent of burden from premature mortality due NCDs in a population.  Comments and limitations:  Cause of death estimates have large uncertainty ranges for some causes and some regions. Data gaps and limitations in high-mortality regions reinforce the need for caution when interpreting global comparative cause of death assessments, as well as the need for increased investment in population health measurement systems. The use of verbal autopsy methods in sample registration systems, demographic surveillance systems and household surveys provides some information on causes of death in populations without well-functioning death registration systems, but there remain considerable challenges in the validation and interpretation of such data, and in the assessment of uncertainty associated with diagnoses of underlying cause of death. |
| 42 | 42 | 3 | Method of computation | The methods used for the analysis of causes of death depend on the type of data available from countries:  For countries with a high-quality vital registration system including information on cause of death, the vital registration that member states submit to the WHO Mortality Database were used, with adjustments where necessary, e.g. for under-reporting of deaths, unknown age and sex, and ill-defined causes of deaths.  For countries without high-quality death registration data, cause of death estimates are calculated using other data, including household surveys with verbal autopsy, sample or sentinel registration systems, special studies and surveillance systems. In most cases, these data sources are combined in a modelling framework.  The probability of dying between ages 30 and 70 years from the four main NCDs was estimated using age-specific death rates of the combined four main NCD categories. Using the life table method, the risk of death between the exact ages of 30 and 70, from any of the four causes and in the absence of other causes of death, was calculated using the equation below. The ICD codes used are: Cardiovascular disease: I00-I99, Cancer: C00-C97, Diabetes: E10-E14, and Chronic respiratory disease: J30-J98   Formulas to (1) calculate age-specific mortality rate for each five-year age group between 30 and 70, (2) translate the 5-year death rate into the probability of death in each 5-year age range, and (3) calculate the probability of death from age 30 to age 70, independent of other causes of death, can be found on page 6 of this document:  NCD Global Monitoring Framework: Indicator Definitions and Specifications. Geneva: World Health Organization, 2014 (http://www.who.int/nmh/ncd-tools/indicators/GMF\_Indicator\_Definitions\_FinalNOV2014.pdf?ua=1) |
| 42 | 42 | 4 | Importance of the indicator in addressing gender issues and its limitation | For adult ages and at global level the top causes of death are different for women than for men. The three top causes of death for adult women are infectious and parasitic diseases; cancers; and cardiovascular diseases. The three top causes of death for adult men are injuries, cardiovascular diseases and infectious and parasitic diseases. Adult men have higher mortality rates than adult women for all these causes of death with the exception of cancers where male and female rates are similar. Across regions and countries there are variations in the ranking of the causes of death and the gender gap in adult mortality due to specific causes of death. For example, in Africa the number one cause of death for both women and men is HIV/AIDS and women have a higher adult mortality rate from this cause than men. The second most prevalent cause of death is other infectious and parasitic diseases where adult men have a higher mortality rate than adult women. The third cause of death is injuries for men and maternal and nutritional conditions for women. As another example in low- and middle-income countries of the Americas the leading cause of death for adult women is cancers from which they have a higher mortality rate than men. For adult men the number one cause of death is injuries from which their rate of mortality is several times higher than women’s. (WHO 2011. Mortality estimates by cause age and sex for the year 2008) |
| 42 | 42 | 5 | Sources of discrepancies between global and national figures | In countries with high quality vital registration systems, point estimates sometimes differ primarily for two reasons: 1) WHO redistributes deaths with ill-defined cause of death; and 2) WHO corrects for incomplete death registration. |
| 42 | 42 | 6 | Process of obtaining data | Description:  The preferred data source is death registration systems with complete coverage and medical certification of cause of death. Other possible data sources include household surveys with verbal autopsy, and sample or sentinel registration systems.  Collection process:  WHO conducts a formal country consultation process before releasing its cause-of-death estimates. |
| 42 | 42 | 7 | Treatment of missing values | * At country level:   For countries with high-quality cause-of-death statistics, interpolation/extrapolation was done for missing country-years; for countries with only low-quality or no data on causes of death, modelling was used. Complete methodology may be found here:   WHO methods and data sources for global causes of death, 2000–2019 (https://www.who.int/docs/default-source/gho-documents/global-health-estimates/ghe2019\_cod\_methods.pdf) |
| 42 | 42 | 8 | Data availability and assessment of countries’ capacity | Almost 70 countries currently provide WHO with regular high-quality data on mortality by age, sex and causes of death, and another 58 countries submit data of lower quality. However, comprehensive cause-of-death estimates are calculated by WHO systematically for all of its Member States (with a certain population threshold).  Time series: 2000-2019 |
| 42 | 42 | 9 | Expected time of release | Data collection:  WHO annually requests tabulated death registration data (including all causes of death) from Member States. Countries may submit annual cause-of-death statistics to WHO on an ongoing basis.   Data release:  End of 2020. |
| 42 | 42 | 10 | Data source | Data extracted from SDG database, <https://unstats.un.org/sdgs/indicators/database/> (on 28 May 2021)  Metadata extracted from SDG database, https://unstats.un.org/sdgs/metadata/files/Metadata-03-04-01.pdf (on 16 June 2021) |