Glossary:Standardised death rate (SDR)

Statistics Explained

The **standardised death rate** , abbreviated as **SDR** , is the death rate of a population adjusted to a standard age distribution. It is calculated as a weighted average of the age-specific death rates of a given population; the weights are the age distribution of that population.

As most causes of death vary significantly with people's age and sex, the use of standardised death rates improves comparability over time and between countries. The reason is that death rates can be measured independently of the age structure of populations in different times and countries (sex ratios usually are more stable).

Standardised death rates are calculated on the basis of the 'European Standard Population' revised by Eurostat in 2012 (and published in 2013).

As method for standardisation, the direct method is applied. Standardised
death rates are calculated for the age group 0-64 ('premature death'), 65 years and more, and for the total of all ages.

$$SDR_A = \frac{\sum_x \left({}^A m_x \, {}^S P_x \right)}{\sum_x {}^S P_x}$$, where

SDR_A = age standardised death rate for population in region A

${}^A m_x$ = age specific death rate at age x last birthday in population in region A

${}^S P_x$ = the population exposed to the risk of death at age x last birth day in the standard population

Figure 1: Standardised death rate

Further information

- Causes of death (ESMS metadata file — hlth_cdeath_esms)

- Demographic statistics: mortality (ESMS metadata file — demo_mor_esms)
- Revision of the European Standard Population — Report of Eurostat's task force — 2013 edition

Related concepts

- Death

Statistical data

- Causes of death statistics
- Causes of death statistics by age group