Healthy life expectancy (HALE)

Rationale for use

Substantial resources are devoted to reducing the incidence, duration and severity of major diseases that cause morbidity but not mortality and to reducing their impact on people’s lives. It is important to capture both fatal and non-fatal health outcomes in a summary measure of average levels of population health. Healthy life expectancy (HALE) at birth adds up expectation of life for different health states, adjusted for severity distribution making it sensitive to changes over time or differences between countries in the severity distribution of health states.

Definition

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

Data sources

Death registration data reported annually to WHO: Mortality data for calculation of life tables. For countries without such data, available survey and census sources of information on child and adult mortality are analysed and used to estimate life tables.

WHO Global Burden of Disease (GBD) study, WHO Multi-Country Survey Study (MCSS) and World Health Survey (WHS). Estimation of prevalence data. The GBD study draws on a wide range of data sources to develop internally consistent estimates for the incidence, prevalence, duration and years lived with disability for 135 major causes. The World Health Survey, carried out by WHO in more than 70 countries, uses anchoring vignettes to maximize comparability of self-report capacities for a set of core health domains. It also includes a health state valuation module for assessing the severity of reported health states.

Methods of estimation

Since comparable health state prevalence data are not available for all countries, a four-stage strategy is used:

Data from the WHOGBD study are used to estimate severity-adjusted prevalence by age and sex for all countries.

Data from the WHOMCSS and WHS are used to make independent estimates of severity-adjusted prevalence by age and sex for survey countries.

Prevalence for all countries is calculated based on GBD, MCSS and WHS estimates.

Life tables constructed by WHO are used with Sullivan's method to compute HALE for countries.

Disaggregation

By age and sex.

References
- The world health report 2004 - changing history
(http://www.who.int/whr/2004/en)

- Health systems performance assessment: debates, methods and empiricism.

Database

- Burden of Disease: (http://www.who.int/entity/healthinfo/statistics/bodgbdddeathdalystimates.xls)
Statistical measures relating to the burden of disease. Includes: Healthy Life Expectancy (HALE);
Life Expectancy; Discussion Papers. Also, this is where to find manuals, resources and software
for carrying out national burden of disease studies.

Comments

The first challenge is lack of reliable data on mortality and morbidity, especially from low income
countries. Other issues include lack of comparability of self-reported data from health interviews
and the measurement of health-state preferences for such self-reporting.