

Metadata – Disability-Free Life Expectancy

Description	<p>The “Disability-Free Life Expectancy (DFLE)” at a given age - also called “Healthy Life Years (HLY)” - measures the number of remaining years that a person of a certain age is expected to live without disability. It is a “Summary Measure of Population Health”, pertaining to the family of “Health Expectancy (HE)” indicators that bring together data on both the length and the quality of life (1;2). They are considered important population health outcome measures (3).</p>
Rationale	<p>As life expectancy increases, it is important to measure whether this increase is accompanied or not by an increase in years spent in good health.</p> <p>The indicators of the “Health Expectancy” family, to which belong the DFLE, extend the concept of life expectancy to morbidity and disability in order to assess the quality of years lived.</p> <p>Monitoring time trend of LE and DFLE together allows assessing whether the years of life gained are healthy years or not.</p> <p>DFLE was included as the Lisbon structural indicator on health (4;5), with the main purpose to monitor health trends and health gaps in Europe. It is also an indicator of the ECHI shortlist (6).</p>
Primary Data source	<p>The calculation of the DFLE requires two data sources:</p> <ol style="list-style-type: none">A data source providing mortality data by sex and age group. From this mortality data source, life tables are computed; this step can be done either at national or international (Eurostat) level, each producing slightly different results.A data source providing the prevalence of activity limitation by age and sex. Generally, those data originates from surveys (HIS or SILC; the census 2001 also included those data). <p>For the calculation of DFLE at Belgian and regional levels, the following data sources were used:</p> <ol style="list-style-type: none">Statbel life tables;Health Interview Surveys (HIS) (which are nationally and regionally representative) for the prevalence of long-term “Global Activity Limitation” (GALI). <p>For comparisons between the European countries, the following data sources were used:</p> <ol style="list-style-type: none">Statbel provides mortality data by sex and age group;EU-SILC (nationally representative survey) for the prevalence of long-term “Global Activity Limitation” (GALI) by sex and age group. <p>For the DFLE by “Socioeconomic Status” (SES), the following data sources were used:</p> <ol style="list-style-type: none">Statbel census 2001 and 2011 linked with the National Registry (NR) (mortality follow-up);The health interview surveys 2001 to 2013 for the disability prevalence. <p>For the DFLE by SES, no international figures are available.</p>
Indicator source	<p>Sciensano for national and regional figures.</p> <p>EUROSTAT for international comparisons (7); those are also published and commented in the OECD “Health at a glance” reports.</p> <p>Publications from researches for the DFLE by SES (8;9)</p>

Periodicity For Belgium at the regional level, every 3-5 years (according to the HIS periodicity).
For international data: Eurostat: annually since 2004.
For DFLE by SES: every 10 years

Calculation, technical definitions and limitations The DFLE can be calculated at any specific age. It is computed as LE at a particular age, from which the expected number of years lived with long-term activity limitations is subtracted. It is calculated using the Sullivan method (10;11) based on life table data and age-specific period prevalence data on long-term activity limitation, according to the Euro-REVES Global Activity Limitation Indicator (GALI). This indicator (GALI) is a single survey question capturing long-standing limitations in usual activities, worded as follows in the HIS as well as in the SILC: "For at least the past 6 months, to what extent have you been limited because of a health problem in activities people usually do?" (Answering categories: yes strongly limited, yes limited, no not limited). People answering "yes strongly limited" or "yes limited" are grouped into a category "limited". The calculation of the years lived with and without disability is done integrating those 2 data sources, according to the Sullivan method.

For the calculation of DFLE at Belgian and regional levels, the following steps are undertaken:

- Statbel provides mortality data by region, sex and age group;
- Statbel also computes the life tables at national and regional levels that will be used for national and regional figures;
- The prevalence of long-term "Global Activity Limitation" (GALI) by region, sex and age group is obtained from the Health Interview Survey (HIS) (which is nationally and regionally representative).

For comparisons between the European countries the following steps are undertaken:

- Statbel provides mortality data by sex and age group;
- Eurostat computes the life tables;
- The prevalence of long-term "Global Activity Limitation" (GALI) by sex and age group is obtained from the EU-SILC (nationally representative survey).

The computation of the DFLE by socioeconomic status (SES) is more complex : as life table by SES are not routinely produced in Belgium, we have to resort to more complex approaches to obtain such, like the mortality follow-up of cohorts (ideally census-based, however survey-based follow-up of cohorts revealed to be an acceptable alternative (12)).

In the Health Status Report (HSR), we have used results from published researches based on the census 2001 and 2011 linked with the national register for the mortality follow-up and merged with the HIS for the disability prevalence.

International comparability Availability: yes. International comparisons are available at EU level.
Comparability: There is some concern about the GALI question. It is thought that the complexity of this question makes it difficult to be understood and very small changes in the formulation (e.g. place of the words) have consequences on the prevalence. Comparability is limited given that some countries changed the wording of the GALI question and that question wording was not included in the translation guidelines of the EU-SILC survey. The complexity of the question can also hamper the validity of the indicator in a way that can vary across the countries. Consequently, the meaning of the self-reported long-term activity limitation is likely to vary between countries. The comparability improved however since the revision of the translation of the GALI in 2008.

Reference List

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