### 40. Health expectancy: Healthy Life Years (HLY)

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<thead>
<tr>
<th><strong>ECHIM Indicator name</strong></th>
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</thead>
<tbody>
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</tbody>
</table>

#### Relevant policy areas
- Sustainable health care systems
- Healthy ageing, ageing population
- (Planning of) health care resources

#### Definition
Expected remaining years lived from a particular age without long-term activity limitation. This is the Structural Indicator named ‘Healthy Life Years’ (HLY).

#### Calculation
HLY is computed as the life expectancy from which the expected number of years lived with long-term activity limitations is subtracted. It is calculated by the Sullivan method based on life table data and age-specific period prevalence data on long-term activity limitations (according to the Euro-REVES General Activity Limitation Indicator (GALI)). For more information on long-term activity limitations see Documentation Sheet 35.

#### Relevant dimensions and subgroups
- Calendar year
- Country
- Region (according to ISARE recommendations).
- Sex
- Age group (at birth and at age 65).
- Socio-economic status (see availability and remarks)

#### Preferred data type and data source
Preferred data type: For calculating HLY both mortality and data on activity limitation (disability) are needed. Age-specific mortality (probability of dying between exact ages x and x+5) and life tables are obtained from official national population estimates and death counts. Data on activity limitation (disability) are obtained from surveys (since 2004 EU-SILC (Community statistics on income and living conditions), before 2004 ECHP (European Community Household Panel)).

Preferred source: Eurostat and Joint Action for EHLEIS

#### Data availability
Currently data are available for all EU Member States. Concerning the Candidate and EFTA countries data are available for Iceland, Norway, Switzerland and Turkey, but due to quality issues results for Turkey and Switzerland have not been disseminated yet. No data are available for Croatia, the Former Yugoslav Republic of Macedonia and Liechtenstein. Not all countries started the implementation of EU-SILC in 2004. Therefore, for 2004, data are available based on EU-SILC for twelve of the ‘old’ EU15 Member States (no data for Germany, the UK and the Netherlands) as well as for Estonia and Norway. From 2005 onwards the data are available for all EU25 Member States and for Iceland and Norway. Bulgaria and Turkey launched the SILC in 2006. Romania and Switzerland did it in 2007. For the ‘old’ EU15 Member States (excl. Luxembourg) trend data for the years 1995-2001 are obtained from the ECHP (European Community Household Panel) and data for 2002-2003 are linearly extrapolated from the previous years. Data are available for both sexes and both age groups (at birth and at age 65), but regional data and data by socio-economic status are not (yet) available (data by socio-economic status; see remarks and reference to Eurostat OMC web page on indicators of the health and long term care strand. Data by region; see remarks).

#### Data periodicity
The SILC is carried out annually and HLY have been calculated annually by Eurostat and the EHEMU (2004-2007) and EHLEIS project (2007-2010) since 2004. The Joint Action for EHLEIS (2011-2014) continues the EHEMU and EHLEIS projects.

#### Rationale
Health Expectancies extend the concept of life expectancy to morbidity and disability in order to assess the quality of years lived. It is a summary measure of population health (SMPH) that takes into account both mortality and disability, providing more information on burden of poor health in the population than life expectancy alone. Monitoring time trend of life expectancy and healthy life years together allows assessing whether years of life gained are healthy years or not.

#### Remarks
- The indicator “Healthy life years at birth” has been specifically developed by the European
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40. Health Expectancy: Healthy Life Years (HLY) | Commission as a Structural Indicator within the Lisbon Strategy (2000-2010) to monitor whether increase in life expectancy is accompanied or not by a corresponding increase in healthy active life, and whether health inequalities between Member States are reducing or not.

- HLY is also an indicator in the flagship initiative ‘Innovation Union’ which is one of the seven flagship initiatives in the new strategy Europe 2020 (2011-2020). The Pilot European Innovation Partnership on Active and Healthy Ageing (EIPAHA) aims to add an average of two years of healthy life for everyone in Europe.

- HLY (both at birth and at age 65) is also the headline indicator for public health alongside life expectancy at birth within the list of Sustainable development indicators.

- HLY is at the core of a Joint Action between the Commission and the Member States, for a European Health and Life Expectancy Information System (EHLEIS), to extend its use for monitoring social and regional health inequalities among Member States.

- Within the health and long-term care strand of the Open Method of Coordination on Social Inclusion and Social Protection data on Healthy life years by socio-economic status are under preparation.

- The Joint Action for EHLEIS (2011-2014) may result in a sustained data collection for this indicator. EHLEIS (2007-2010) and its predecessor EHEMU (2004-2007) were projects so in fact not a good (=sustainable) data sources for ECHIM. However, it is the only source currently available.

- The Joint Action EHLEIS will work together with the United States and Japan to propose a new measure to replace the General Activity Limitation Indicator GALI.

- Together with questions on perceived health and longstanding health problem, the GALI question comprises the Mini European Health Module, for which data are collected annually within the EU SILC in all Members States (see Documentation Sheet 33, 34 and 35).

- The European Health Interview Survey (EHIS) also contains a question on activity limitations. However EHIS will not become the source in the future because it's not a yearly source.

- Healthy Life Years is one specific health expectancy and others can be calculated based on for example self-perceived health or self-reported chronic morbidity (see Documentation Sheet 41).

- It would be informative to have information on this indicator at regional level. Currently however this indicator is calculated based on data derived from national surveys. Regional level data therefore would require separate regional data collections.

- The wording of the questions for activity limitations differ between ECHP and EU-SILC. Therefore, the change of the data source from ECHP to EU-SILC in 2004 created a break in series for all countries. This break in series limits the comparability between the pre-2004 data and the data for 2004 onwards notably. The Task Force on Health Expectancy decided that the ECHP series and the SILC series should not be assembled as a unique chronological series.

- Healthy Life Years is a different concept than the HALE (Health-Adjusted Life Expectancy) and DALE (Disability-Adjusted Life Expectancy) both used by the WHO. The HALE is the number of expected years of life equivalent to years lived in full health and the DALE uses disability weights in the calculation, thus part of the life expectancy with disability is added to disability free life expectancy to obtain the latter. Since the HALE and HLY calculations use different basic data, assumptions and methodologies, their outcomes are different.

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**References**

- For HLY as a structural indicator data are available from the Eurostat database, [Structural indicators on health](https://ec.europa.eu/eurostat/web/health/data/database)
- For HLY as a Sustainable indicator data
- At DG Health & consumers most recent data
- Joint Action EHLEIS
- EHEMU: Health Expectancy Calculation by the Sullivan Method: A Practical Guide
- DG Sanco: Healthy Life Years

More information about HLY is also accessible at:

- Eurostat Statistics Explained.
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<td>- The general public website on HLY</td>
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<td>- HLY at Wikipedia</td>
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<td>- EU Task Force on Health Expectancy</td>
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<td>- OMC, indicators of the health and long term care strand, Eurostat website</td>
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<td>- Health Indicators in the European Regions (ISARE) project</td>
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<td>- The Pilot European Innovation Partnership on Active and Healthy Ageing</td>
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<td>- Eurostat metadata on EU-SILC</td>
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<td>- Eurostat: Note on the harmonisation of SILC and EHIS questions on health.</td>
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<tr>
<td><strong>Work to do</strong></td>
<td>- Monitor developments within the JA for EHLEIS and the Open Method of Coordination regarding Healthy Life Years by socio-economic status</td>
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