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HEALTH EXPECTANCY IN HUNGARY

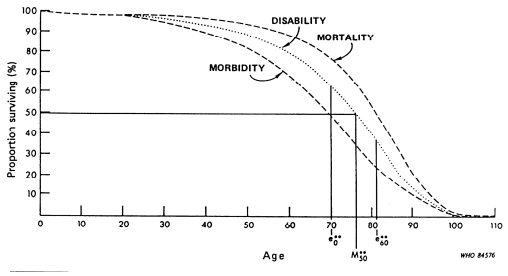
What is health expectancy?

Health expectancies were first developed to address whether or not longer life is being accompanied by an increase in the time lived in good health (the **compression of morbidity** scenario) or in bad health (**expansion of morbidity)**. So health expectancies divide life expectancy into life spent in different states of health, from say good to bad health. In this way they add a dimension of quality to the quantity of life lived.

How is the effect of longer life measured?

The general model of health transitions (WHO, 1984) shows the differences between life spent in different states: total survival, disability-free survival and survival without chronic disease. This leads naturally to life expectancy (the area under the 'mortality' curve), disability-free life expectancy (the area under the 'disability' curve) and life expectancy without chronic disease (the area under the 'morbidity' curve).

The general model of health transition (WHO, 1984): observed mortality and hypothetical morbidity and disability survival curves for females, USA, 1980.



e_0^{**} and e_{60}^{**} are the number of years of autonomous life expected at birth and at age 60, respectively.
M_{50}^{**} is the age to which 50% of females could expect to survive without loss of autonomy.

There are in fact as many health expectancies as concepts of health. The commonest health expectancies are those based on self-perceived health, activities of daily living and on chronic morbidity.

How do we compare health expectancies?

Health expectancies are independent of the size of populations and of their age structure and so they allow direct comparison of different population sub-groups: e.g. sexes, socio-professional categories, as well as countries within Europe (Robine et al., 2003).

Health expectancies are most often calculated by the Sullivan method (Sullivan, 1971). However to make valid comparisons, the underlying health measure should be truly comparable.

To address this, the European Union has decided to include a small set of health expectancies among its European Community Health Indicators (ECHI) to provide synthetic measures of disability, chronic morbidity and perceived health. Therefore the Minimum European Health Module (MEHM), composed of 3 general questions covering these dimensions, has been introduced into the Statistics on Income and Living Conditions (SILC) to improve the comparability of health expectancies between countries. In addition life expectancy without long term activity limitation, based on the disability question, was selected in 2004 to be one of the structural indicators for assessing the EU strategic goals (Lisbon strategy) under the name of "**Healthy Life Years"** (**HLY**).

Further details on the MEHM, the European surveys and health expectancy calculation and interpretation can be found on www.ehemu.eu.

What is in this report?

This report is produced by the European Health Expectancy Monitoring Unit (EHEMU) as part of a country series. In each report we present:

- health expectancies based on activity limitation **(HLY)** for the country of interest and for the overall 25 European Union member states (EU25), using the SILC 2005 question on long term activity limitation. As the SILC has been only recently initiated, to document trends we provide previous HLY series based on the disability question of the 1995-2001 European Community Household Panel (ECHP)
- health expectancies based on the two additional dimensions of health (chronic morbidity and self-perceived health) for the country of interest, based on SILC 2005
- a global analysis of health expectancies of European countries, based on the SILC 2005

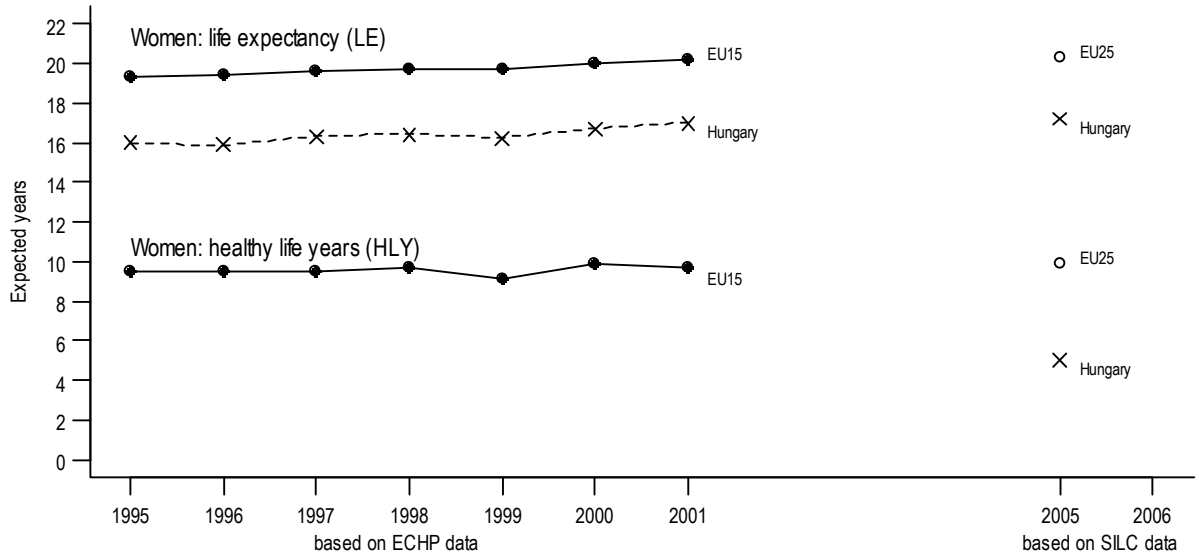
References

Robine JM, Jagger C, Mathers CD, Crimmins EM Suzman RM, Eds. *Determining health expectancies*. Chichester UK: Wiley, 2003.

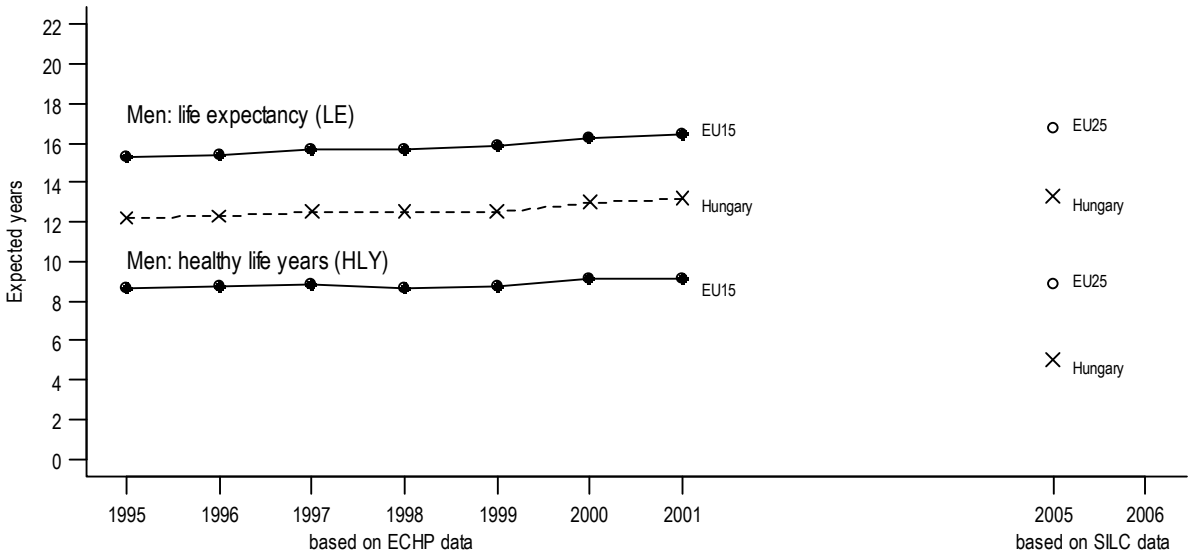
World Health Organization. *The uses of epidemiology in the study of the elderly: Report of a WHO Scientific Group on the Epidemiology of Aging*. Geneva: WHO, 1984 (Technical Report Series 706).

Sullivan DF (1971) A single index of mortality and morbidity. HSMHA *Health Reports* **86:**347-354.

Life expectancy (LE) and Healthy Life Years (HLY) at age 65 for Hungary and the European Union (EU15 and EU25) based on ECHP (1995-2001) and SILC (2005)



Hungary	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Women: LE	16.0	15.9	16.3	16.4	16.2	16.7	17.0	-	-	-	17.2	
Women: HLY	-	-	-	-	-	-	-	-	-	-	5.0	
%HLY/LE	-	-	-	-	-	-	-	-	-	-	29%	

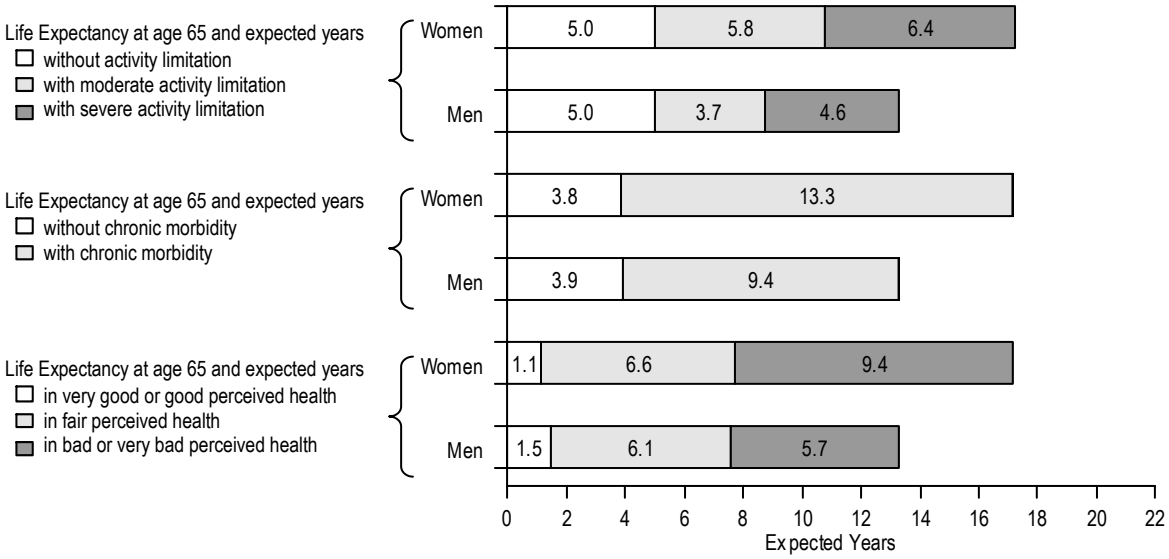


Hungary	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Men: LE	12.2	12.3	12.5	12.5	12.5	13.0	13.2	-	-	-	13.3	
Men: HLY	-	-	-	-	-	-	-	-	-	-	5.0	
%HLY/LE	-	-	-	-	-	-	-	-	-	-	37%	

Key points:

- Hungarian life expectancy (LE) at age 65 has increased by 1.2 years for women and 1.1 years for men over the 1995-2005 period: LE for both sexes between 1995-2001 was below the EU15 average and remained below the EU25 average in 2005.
- Because Hungary joined the European Union in 2004, the first series of health expectancy based on activity limitation (HLY) over the 1995-2001 period is not available.
- The new HLY series, initiated in 2005 with the SILC data, shows that women and men at age 65 can expect to spend 29% and 37% of their life without *self-reported long-term activity limitations* respectively. The HLY values for Hungary are 4.9 years and 3.8 years below the EU25 average for women and men respectively. Hungarian men and women may be more likely to report health problems than the EU25 as a whole.

Life and health expectancies at age 65 based on activity limitation (Healthy Life Years), chronic morbidity and perceived health for Hungary (Health data from SILC 2005)



Key points:

- In 2005, LE at age 65 in Hungary was 17.2 years for women and 13.3 years for men.
- Based on the SILC 2005, at age 65, women spent 29% (5.0 years) of their remaining life without activity limitation (corresponding to Healthy Life Years (HLY)), 34% (5.8 years) with moderate activity limitation and 37% (6.4 years) with severe activity limitation.*
- Men of the same age spent 37% (5.0 years) of remaining life without activity limitation compared to 28% (3.7 years) with moderate activity limitation and 35% (4.6 years) with severe activity limitation.*
- Although total years lived by men were less than those for women, for all the health expectancies the years of life spent in positive health were similar.
- Compared to men, women spent a larger proportion of their life in ill health.

These results should be interpreted cautiously given the lack of the institutional population and in some countries the small sample size. The sample size for Hungary comprised 1973 women and 1111 men aged 65+ years.

* These may not sum to Life Expectancy due to rounding.

Published results and other reports of health expectancies for Hungary

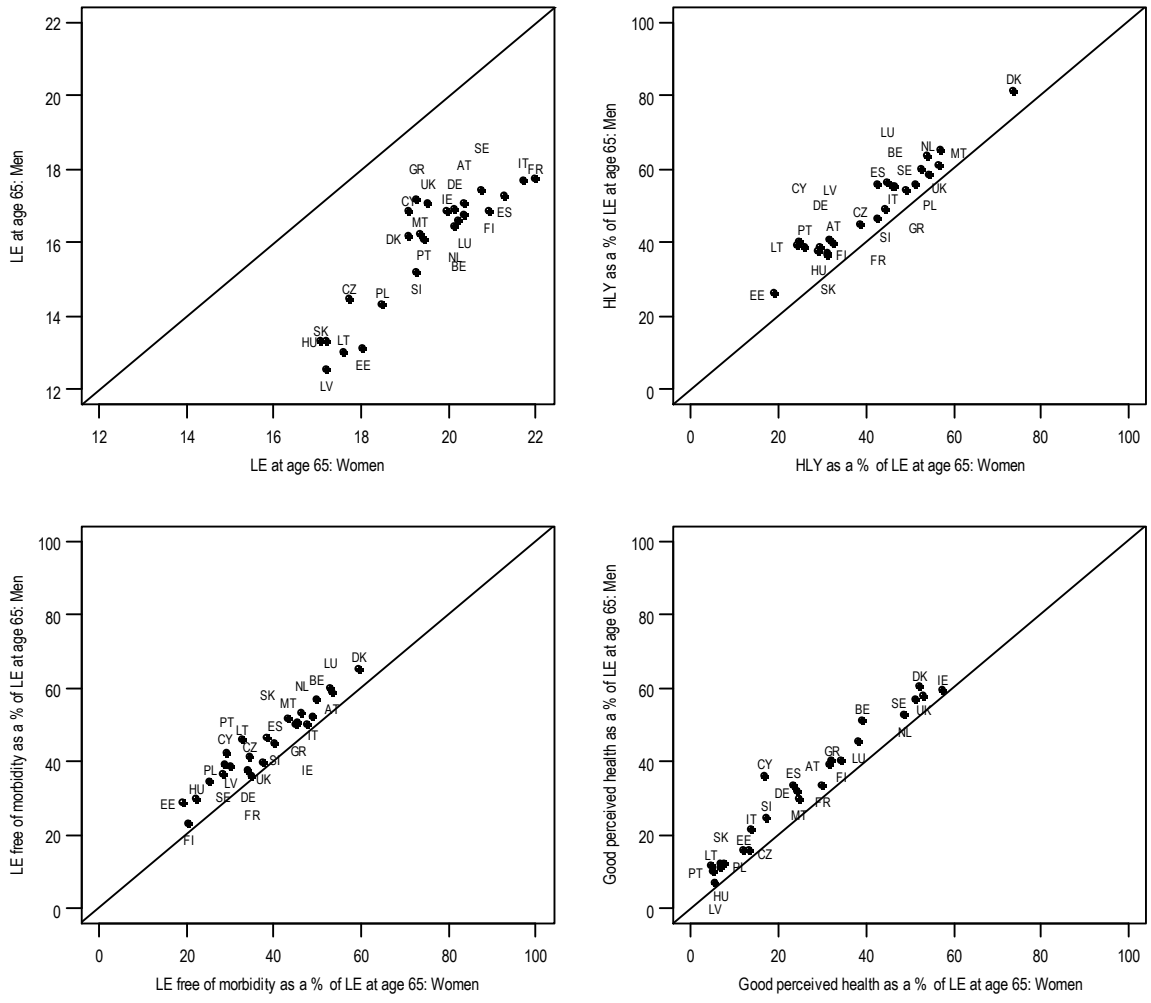
Farago M. *Egészségesen várható élettartamok Magyarországon 2005:Egy összetett , kvalifikált mutató a népesség egészségi állapotának mérésére [Healthy life expectancy in Hungary 2005: a summary measure of population health]*. Budapest: Hungarian Central Statistical Office; 2007.

European health expectancies at age 65 for 2005

The figure below shows life expectancy at age 65 and different health expectancies as a proportion of life expectancy at age 65 for the EU25 in 2005 with the values for men plotted against those for women. The key points are:

- LE at age 65 varies by 8 years in Europe from 12.5 years for men in Latvia to 21.5 years for women in France. LE for women is always higher than that for men – around 3 years on average.
- The proportion of LE free of activity limitation (corresponding to the HLY), in good perceived health and free from chronic morbidity varies by country from 19% to 81%, 4% to 60% and 19% to 65% respectively, providing other perspectives of health in Europe. Even ignoring potential outliers there still appears to be considerable cross-national variation.
- Whatever the health expectancy considered men and women give the same picture of their country in terms of proportion of life spent healthy.
- In all countries women live longer but spend less of their life healthy, a difference of 7% on average.

Health expectancies as a proportion of life expectancy at age 65 based on activity limitation (Healthy Life Years), perceived health and chronic morbidity for the EU25 (Source: SILC 2005)



About EHEMU

The European Health Expectancy Monitoring Unit (EHEMU) is funded by the European Public Health Programme (2004-2007) and is a collaboration between: French National Institute for Health and Medical Research (INSERM) and CRLC (Montpellier, France), University of Leicester (UK), the Scientific Institute of Public Health (ISP Belgium) and the French National Institute of Demography (INED). EHEMU aims to provide a central facility for the co-ordinated analysis, interpretation and dissemination of life and health expectancies to add the quality dimension to the quantity of life lived by the European populations. Further details about EHEMU can be found on the website: www.ehemu.eu.

European Health Expectancy Monitoring Unit – EHEMU – website: http://www.ehemu.eu
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