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European health expectancy monitoring unit

EHEMU

Observatoire européen des espérances de santé

HEALTH EXPECTANCY IN PORTUGAL

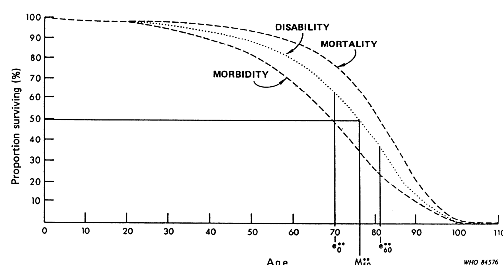
What is health expectancy?

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.



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

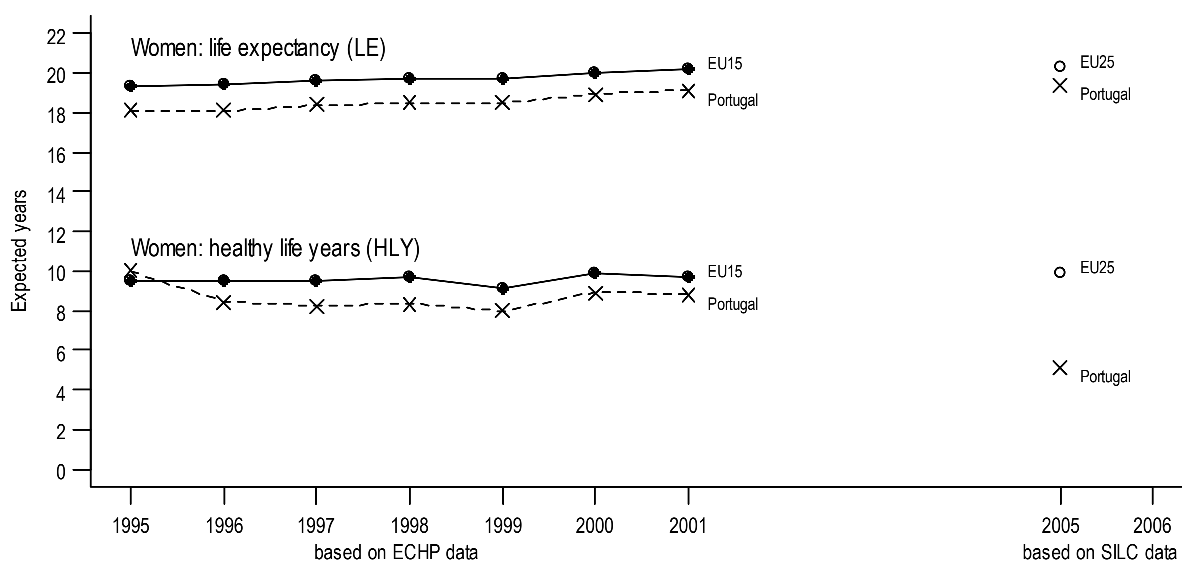
References

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

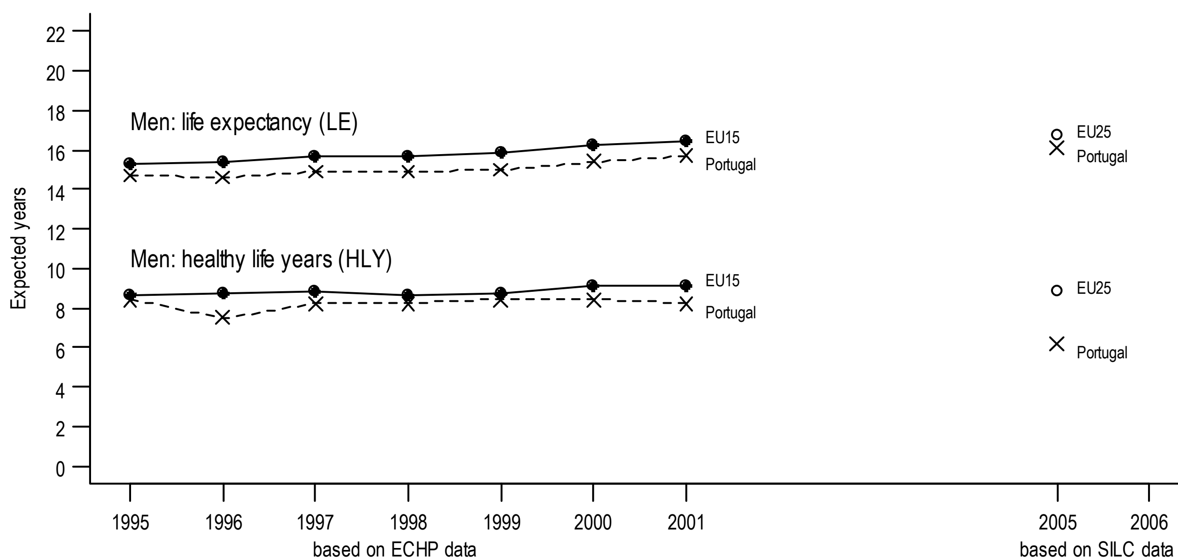
World Health Organization. *The uses of epidemiology in the study of the elderly: Report of a WHO Scientific Group on the Epidemiology of Aging*. Geneva: WHO, 1984 (Technical Report Series 706).

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 Portugal and the European Union (EU15 and EU25) based on ECHP (1995-2001) and SILC (2005)



Portugal	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Women: LE	18.1	18.1	18.4	18.5	18.5	18.9	19.1	-	-	-	19.4	
Women: HLY	10.0	8.4	8.2	8.3	8.0	8.9	8.8	-	-	-	5.1	
%HLY/LE	56%	47%	45%	45%	43%	47%	46%	-	-	-	26%	

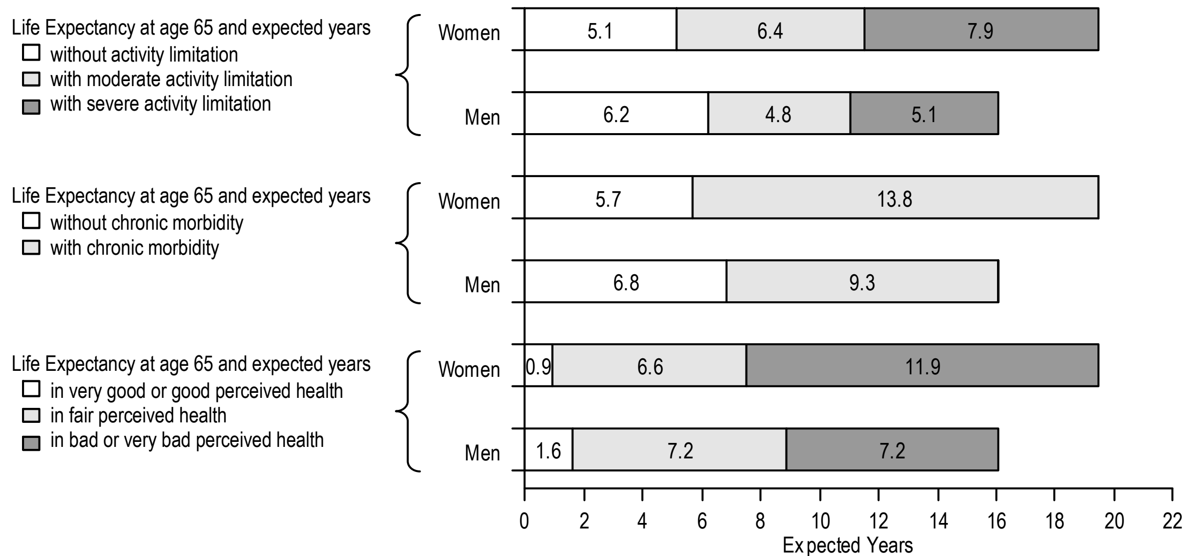


Portugal	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006
Men: LE	14.7	14.6	14.9	14.9	15.0	15.4	15.7	-	-	-	16.1	
Men: HLY	8.4	7.5	8.2	8.2	8.4	8.4	8.2	-	-	-	6.2	
%HLY/LE	57%	51%	55%	55%	56%	55%	52%	-	-	-	39%	

Key points:

- Portuguese life expectancy (LE) at age 65 has increased by 1.3 years for women and 1.4 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.
- Over the 1995-2001 period, health expectancy based on activity limitation (HLY) at age 65 from the ECHP data remained almost stable. The proportion of HLY (or years without *self-reported limitations due to health condition or disability*), within the total expected years, decreased for both sexes, being close to 46% for women and 52% for men in 2001. Between 1996 and 2001 HLY in Portugal was below the EU15 average.
- The new HLY series, initiated in 2005 with the SILC data, shows a lower value for Portugal than previously and below the EU average being 4.8 years and 2.6 years lower than the EU25 average (and below the EU15 average) for women and men respectively. Women and men at age 65 can expect to spend 26% and 39% of their life without *self-reported long-term activity limitations* respectively. Compared to earlier trends, the SILC question may result in people reporting limitations of different severity than previously and Portuguese women and men may be more likely to report less severe problems than before and 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 Portugal (Health data from SILC 2005)



Key points:

- In 2005, LE at age 65 in Portugal was 19.4 years for women and 16.1 years for men.
- Based on the SILC 2005, at age 65, women spent 26% (5.1 years) of their remaining life without activity limitation (corresponding to Healthy Life Years (HLY)), 33% (6.4 years) with moderate activity limitation and 41% (7.9 years) with severe activity limitation.*
- Men of the same age spent 39% (6.2 years) of remaining life without activity limitation compared to 30% (4.8 years) with moderate activity limitation and 31% (5.1 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 greater for men than women.
- Compared to men, women spent a larger proportion of their life in ill health and these years of ill health were more likely to be years with severe health problems.

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 Portugal comprised 1458 women and 1016 men aged 65+ years.

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

Published results and other reports of health expectancies for Portugal

Lievre A, Jusot F, Barnay T, Sermet C, Brouard N, Robine J-M, et al. Healthy working life expectancies at age 50 in Europe: a new indicator. *J Nutr Health Aging*. 2007;11(6):508-514.

Khoman E, Weale M. *Healthy life expectancy in the EU Member States: ENEPRI Research report n°33 - AHEAD WP5*. sl: ENEPRI; 2006.

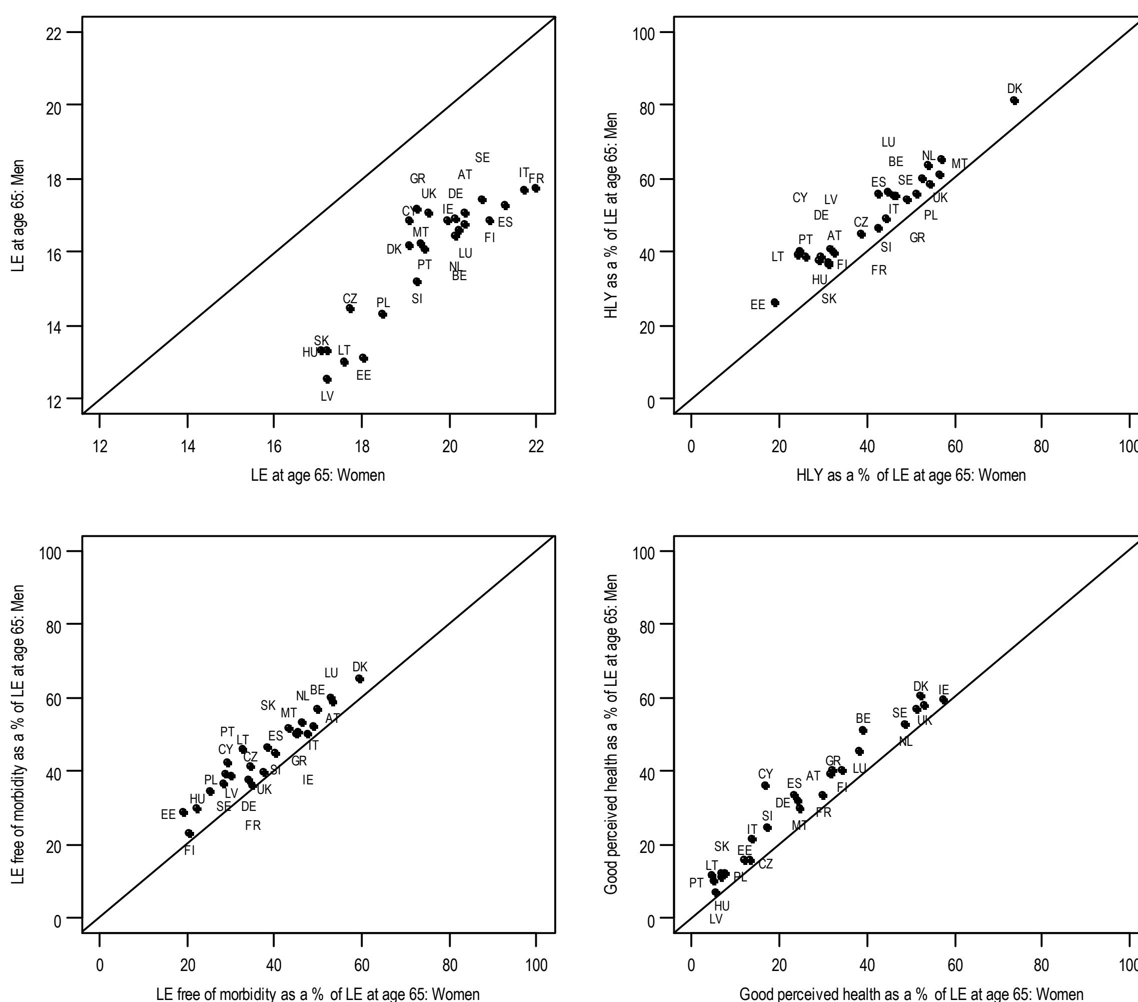
Esperanças de vida sem incapacidade fisica de longa duraçao: Portugal continental: 1995-1996. Portugal: Instituto Nacional de Estatistica; 2000.

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
Contact Isabelle Romieu, Equipe INSERM Démographie et Santé – CRLC Val d'Aurelle - Parc Euromédecine - 34298 Montpellier cedex 5 – France Tel: +33 (0) 467 61 30 27 - e-mail: iromieu@valdorel.fnclcc.fr