Health Expectancy in Malta

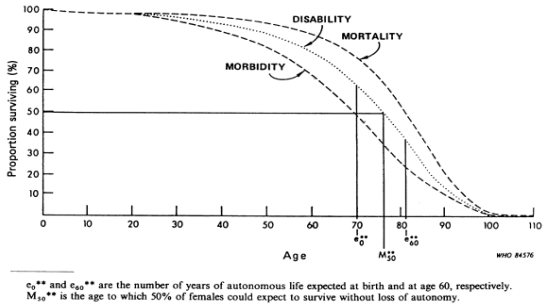
What is health expectancy?

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 summary measures of disability (i.e., activity limitation), 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.eurohex.eu.

What is in this report?

This report is produced by the Joint Action European Health and Life Expectancy Information System (EHLEIS) as part of a country series. In each report we present:

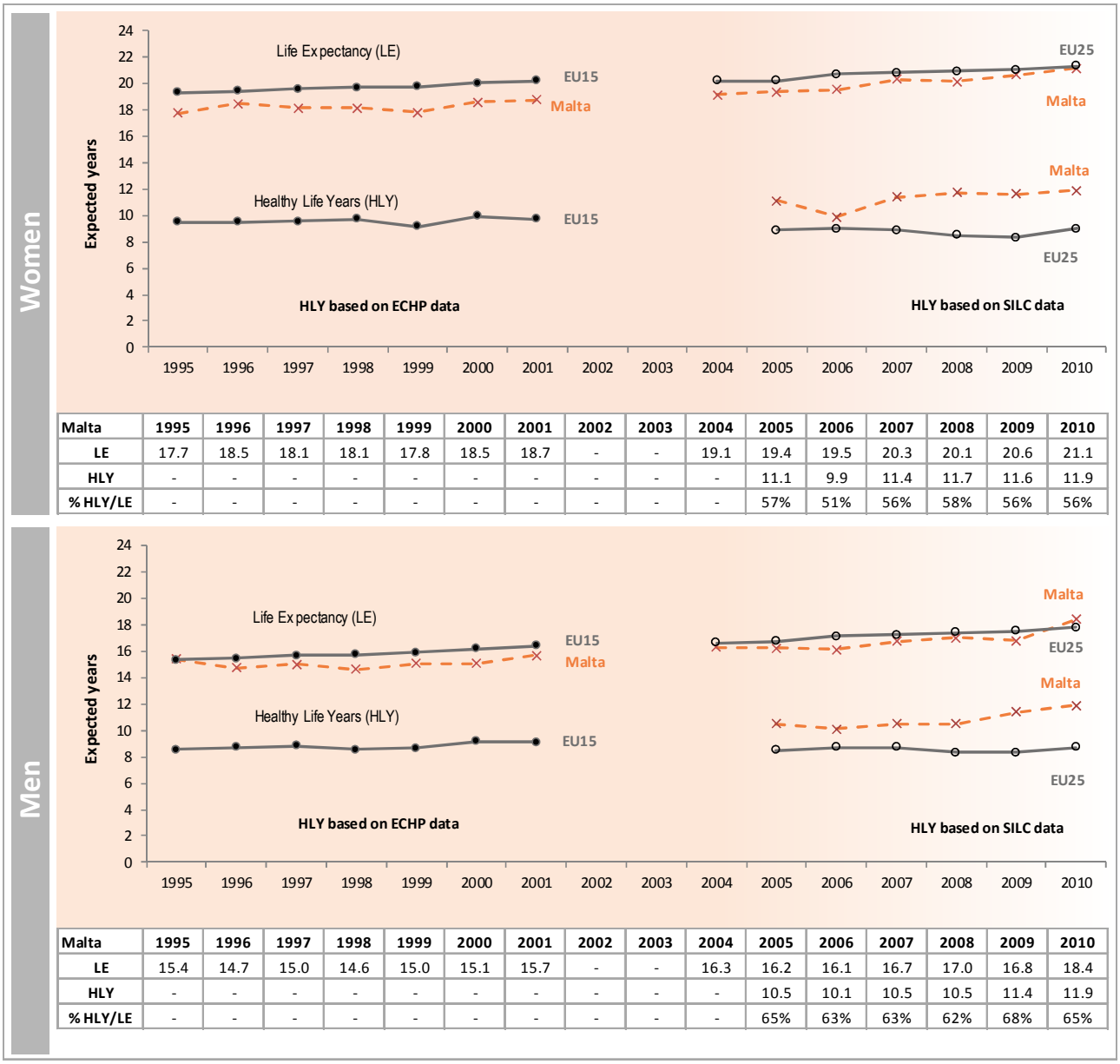
- Life expectancies and Healthy Life Years (HLY) at age 65 for the country of interest and for the overall 25 European Union member states (EU25), using the SILC question on long term health related disability, known as the GALI (Global Activity Limitation Indicator), from 2005 to 2010. The wording of the question has been revised in 2008. When available, 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 2010;
- Mean, maximum and minimum values of three health expectancies at age 65 in the European Union (EU27), based on activity limitation, chronic morbidity and self perceived health (SILC 2010).

References

Jagger C., Gillies C., Moscone F., Cambois E., Van Oyen H., Nusselder W., Robine J.-M., EHLEIS Team. Inequalities in healthy life years in the 25 countries of the European Union in 2005: a cross-national meta-regression analysis. *The Lancet*. 2008;372(9656) 2124-2131
Robine J.-M., Jagger C., Mathers C.D., Crimmins E.M., Suzman R.M., Eds. *Determining health expectancies*. Chichester UK: Wiley, 2003.
Sullivan D.F. *A single index of mortality and morbidity*. HSMHA Health Reports 1971;86:347-354.
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).

* Before the revision of 2008, the translations of the module used in some countries were not optimum (See Eurostat-EU Task Force on Health Expectancies common statement about the SILC data quality). This revision is being evaluated.

Life expectancy (LE) and Healthy Life Years (HLY) at age 65 for Malta and the European Union (EU15 and EU25) based on ECHP (1995-2001) and SILC (2005-2010)



Malta	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
LE	17.7	18.5	18.1	18.1	17.8	18.5	18.7	-	-	19.1	19.4	19.5	20.3	20.1	20.6	21.1
HLY	-	-	-	-	-	-	-	-	-	-	11.1	9.9	11.4	11.7	11.6	11.9
% HLY/LE	-	-	-	-	-	-	-	-	-	-	57%	51%	56%	58%	56%	56%

Malta	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
LE	15.4	14.7	15.0	14.6	15.0	15.1	15.7	-	-	16.3	16.2	16.1	16.7	17.0	16.8	18.4
HLY	-	-	-	-	-	-	-	-	-	-	10.5	10.1	10.5	10.5	11.4	11.9
% HLY/LE	-	-	-	-	-	-	-	-	-	-	65%	63%	63%	62%	68%	65%

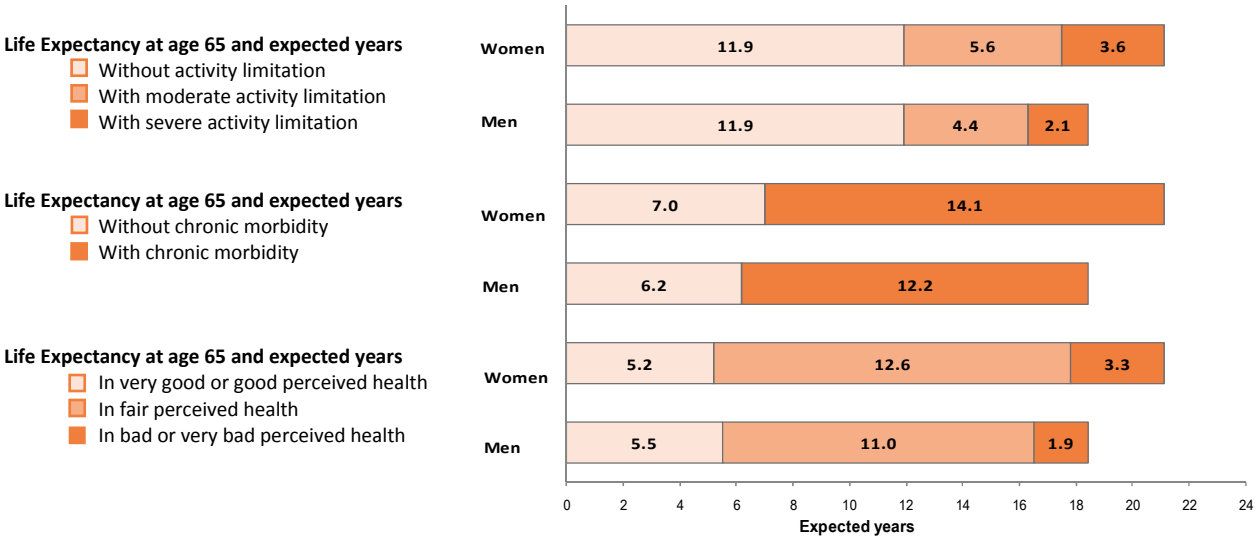
Key points:

Maltese life expectancy (LE) at age 65 has increased by 2.6 years for women and 3.3 years for men over the period 2000-2010: LE for both sexes between 1995 and 2001 was below the EU15 average, but in 2010 passed the EU25 average (21.3 for women and 17.8 for men) for men by 0.6 year and became almost similar to EU25 for women.

Because Malta joined the European Union in 2004, the first series of health expectancy based on activity limitation (HLY) over the period 1995-2001 is not available.

The new HLY series, initiated in 2005 with the SILC data, shows that in 2010 women and men at age 65 can expect to spend 56% and 65% of their life without *self-reported long-term activity limitations* respectively. In 2010 the HLY values for Malta are above the EU25 average (9.0 for women and 8.7 for men) by 2.9 years for women and 3.2 years for men. Except a dip in 2006, HLY remained almost unchanged for women and men between 2005 and 2009 with an increasing trend between 2009 and 2010. Note that the wording of the GALI question was not changed in Malta in 2008.

Life and health expectancies at age 65 based on activity limitation (Healthy Life Years), chronic morbidity and perceived health for Malta (Health data from SILC 2010)



Key points:

In 2010, LE at age 65 in Malta was 21.1 years for women and 18.4 years for men.

Based on the SILC 2010 at age 65, women spent 11.9 years (56% of their remaining life) without activity limitation (corresponding to Healthy Life Years (HLY)), 5.6 years (27%) with moderate activity limitation and 3.6 years (17%) with severe activity limitation.*

Men of the same age spent 11.9 years (65% of their remaining life) without activity limitation compared to 4.4 years (24%) with moderate activity limitation and 2.1 years (11%) with severe activity limitation.*

Although total years lived by men was less than those for women, the numbers of years lived in very good or good perceived health and years lived without activity limitation were almost similar for women and men. However the number of years lived without chronic morbidity was slightly greater for women than men.

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, such as people living in nursing homes, and the size of the samples varying from 1300 in Denmark to 10126 in Italy. The sample size for Malta comprised 1088 women and 859 men aged 65+ years in 2010.

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

Publications and reports on health expectancies for Malta

- Jagger C., Gillies C., Mascone F., Cambois E., Van Oyen H., Nusselder W.J., Robine J.-M., EHLEIS team. Inequalities in healthy life years in the 25 countries of the European Union in 2005: a cross-national meta-regression analysis. *The Lancet*. 2008; 372(9656):2124-2131.
- Jagger C., Robine J.-M., Van Oyen H., Cambois E. *Life expectancy with chronic morbidity*. In: European Commission, editor. *Major and chronic diseases - report 2007*. Luxembourg: European Communities; 2008. p. 291-304.

Health expectancies at age 65 in the European Union in 2010, based on activity limitation, chronic morbidity and self perceived health (Health data from SILC 2010)

	Health expectancies at age 65 (in years)							
	Activity limitation			Chronic morbidity		Perceived health		
	Without	With moderate	With severe	Without	With	Very good or good	Fair	Bad or very bad
Women								
EU27	8.8	7.2	5.0	7.6	13.5	7.1	8.8	5.2
(min-max)	(2.8-15.5)	(3.0-9.4)	(2.0-7.3)	(3.1-12.1)	(8.0-17.7)	(1.0-13.3)	(6.2-12.6)	(1.6-11.7)
Men								
EU27	8.6	5.6	3.4	6.7	10.8	6.8	7.1	3.6
(min-max)	(3.3-14.1)	(2.3-7.0)	(1.4-4.4)	(3.4-11.0)	(5.8-13.5)	(1.1-11.7)	(5.1-11.1)	(1.1-6.2)

Key points:

In 2010, LE at age 65 in the EU27 was 21.1 years for women (range across countries from 17.0 to 23.4 years) and 17.5 years for men (range across countries from 13.2 to 18.9 years).

Based on the SILC 2010, at age 65, EU27 women spent 8.8 years (range 2.8 years to 15.5 years) without activity limitation(corresponding to Healthy Life Years (HLY)), 7.2 years (range 3.0 to 9.4 years) with moderate activity limitation and 5.0 years (range 2.0 to 7.3 years)with severe activity limitation.*

Men in the EU27 of the same age spent 8.6 years (range 3.3 to 14.1 years) without activity limitation compared to 5.6 years (range 2.3 to 7.0 years) with moderate activity limitation and 3.4 years (range 1.4 to 4.4 years) with severe activity limitation.*

The numbers of years lived free of activity limitation were almost identical in men and women but constituted 49% of remaining life in men and 42% of remaining life in women. Years in very good or good health were slightly higher for women than men and years free of chronic morbidity were higher by 0.9 year. However, 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, such as people living in nursing homes.

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

About the Joint Action EHLEIS

The current Joint Action EHLEIS (European Health and Life Expectancy Information System) and EurOhex (www.eurohex.eu) are co-funded by 11 Member States, the European Commission, DG SANCO, and two French institutions: the Ministry of Health and theNational Solidarity Fund for Autonomy (CNSA). It is a collaboration between: Austria (Statistik Austria, Vienna Institute of Demography of the Austrian Academy of Sciences, European Centre for Social Welfare), Belgium (Scientific Institute of Public Health – ISP-WIV),the Czech Republic (Institute of Health Information and Statistics of the Czech Republic - UZIS CR), Denmark (Danish National Board of Health - SST; Economic Council of the Labour Movement - AE; University of Southern Denmark - IPH; University of Copenhagen - UCPH), France (National Institute of Health and Medical Research - INSERM; National Institute of Demography - INED; Regional Oncology Research Centre - CRLC; University of Montpellier - UM2), Germany (Robert Koch Institute - RKI ; Rostock Center for Demographic Change - UROS), Greece (Hellenic Statistical Authority - ELSTAT), Italy (University La Sapienza - DSSEAD), The Netherlands (Erasmus Medical center - EMC; National Institute for Public Health and the Environment - RIVM; Statistical Office - CBS), Sweden (National Board of Health and Welfare - SoS/NBHW) and the United Kingdom (Office for National Statistics - ONS; Newcastle University - UNEW). The JA:EHLEIS and EurOhex aim 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 the Joint Action can be found on the websites: www.eurohex.eu and www.healthylife-years.eu

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