Health Expectancy in Latvia

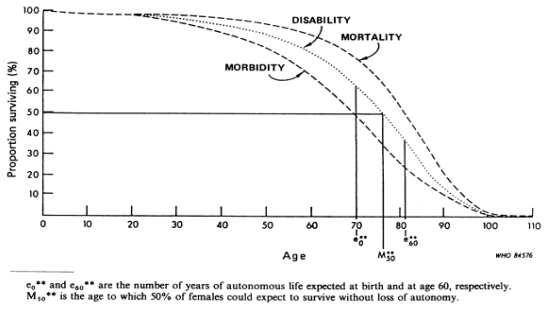
What is health expectancy?

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:

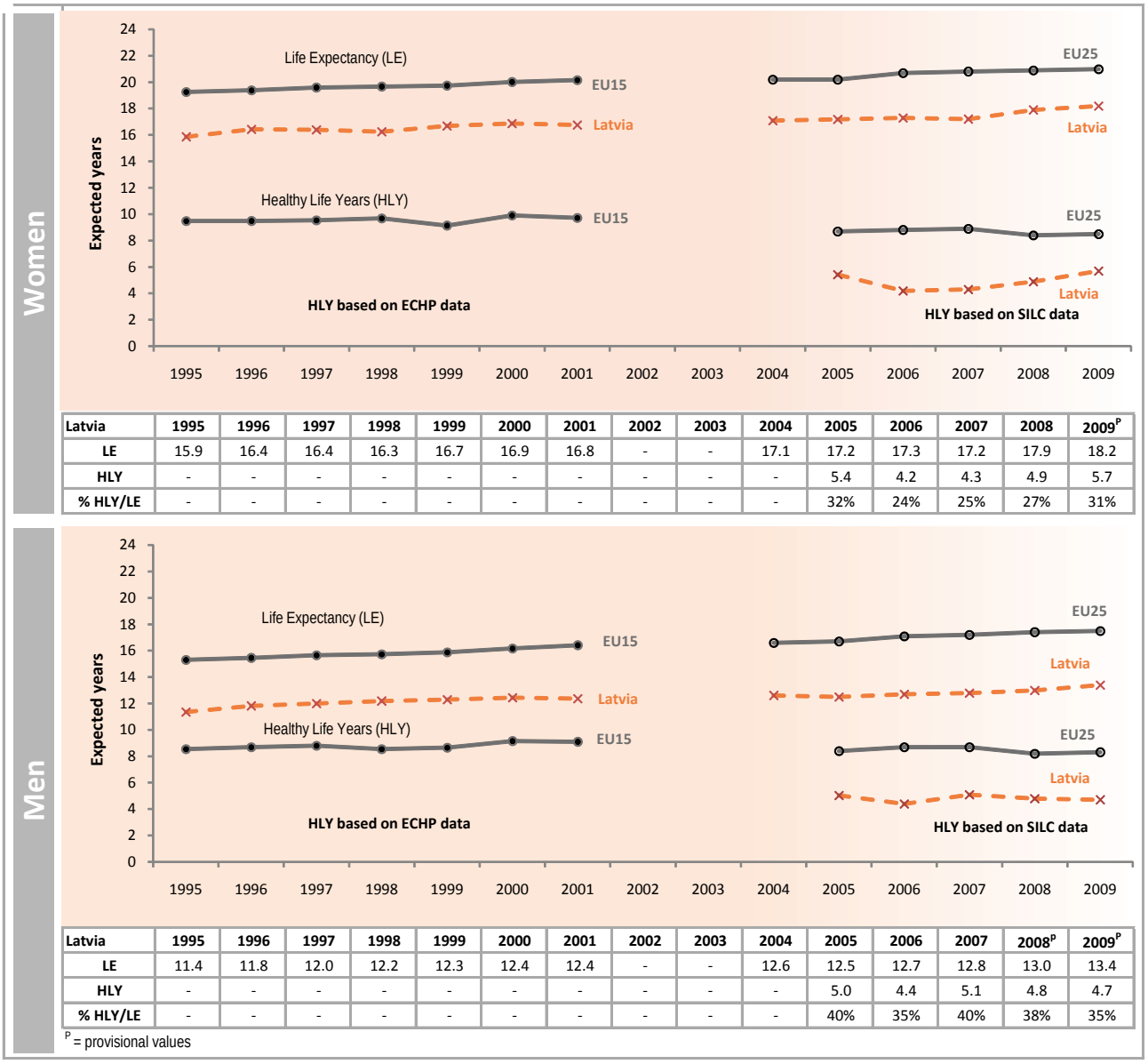
- life expectancies and Healthy Life Years (HLY) at age 65 for the country of interest and for the overall 25 (27 after 2007) European Union member states (EU25 then EU27), using the SILC question on long term health related disability, known as the GALI (Global Activity Limitation Indicator), from 2005 to 2009. 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 2009;
- the correlation between life expectancies and HLY at age 50 in 2005 (EU25) and 2009 (EU27) for the member states.

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 Latvia and the European Union (EU15 and EU25) based on ECHP (1995-2001) and SILC (2005-2009)



Latvia	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009[P]
LE	15.9	16.4	16.4	16.3	16.7	16.9	16.8	-	-	17.1	17.2	17.3	17.2	17.9	18.2
HLY	-	-	-	-	-	-	-	-	-	-	5.4	4.2	4.3	4.9	5.7
% HLY/LE	-	-	-	-	-	-	-	-	-	-	32%	24%	25%	27%	31%

Latvia	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008[P]	2009[P]
LE	11.4	11.8	12.0	12.2	12.3	12.4	12.4	-	-	12.6	12.5	12.7	12.8	13.0	13.4
HLY	-	-	-	-	-	-	-	-	-	-	5.0	4.4	5.1	4.8	4.7
% HLY/LE	-	-	-	-	-	-	-	-	-	-	40%	35%	40%	38%	35%

[P] = provisional values

[P]=provisional values: Total population number estimate was higher than 7 per cent in comparison with Population census results of 1 March 2011. Consequently factual LE and HLY are slightly overestimated for 2008 and 2009 and will be recalculated after the publication of the final Population census results.

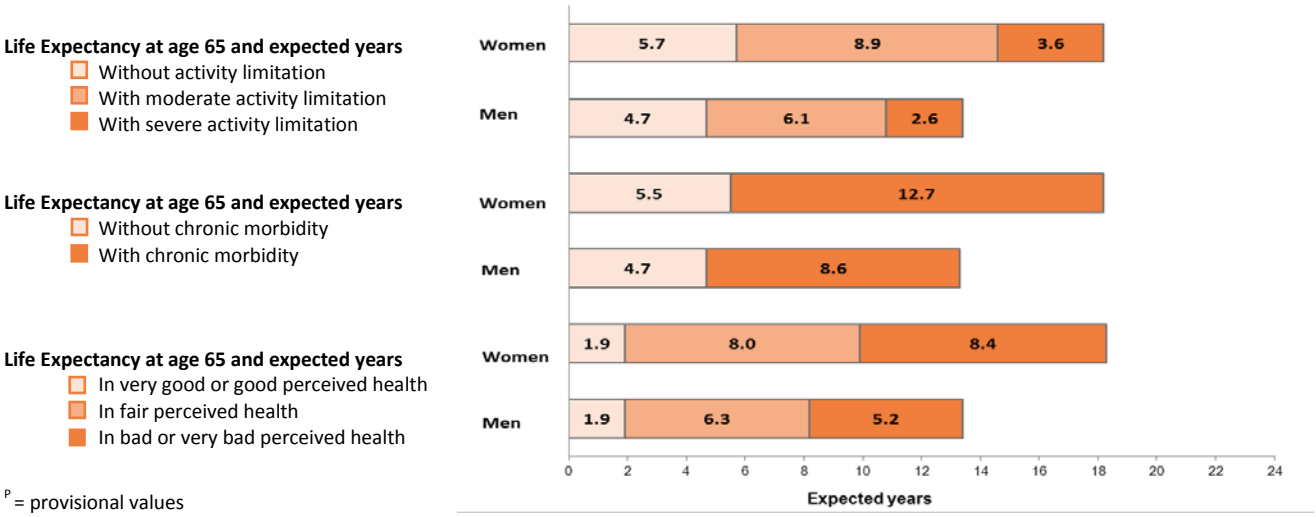
Key points:

Latvian life expectancy (LE) at age 65 has increased by 1.5 years for women and 1.1 year for men over the period 1999-2009: LE for both sexes between 1995 and 2001 was below the EU15 average and remained below the EU27 average (20.7 for women and 17.2 for men) in 2009, 3.8 years for men and 2.5 years for women.

Because Latvia 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 in 2009 women and men at age 65 can expect to spend 31% and 35% of their life without *self-reported long-term activity limitations* respectively. In 2009 the HLY values for Latvia are 2.5 years and 3.5 years below the EU27 average (8.2 for women and men) for women and men respectively. Since 2006 HLY increased for women in Latvia while the HLY trend seems much flat for men. Note that the wording of the GALI question was not changed in 2008.

Life and health expectancies at age 65 based on activity limitation (Healthy Life Years), chronic morbidity and perceived health for Latvia (Health data from SILC 2009[p])



[p] = provisional values

Key points:

In 2009 LE at age 65 in Latvia was 18.2 years for women and 13.4 years for men.

Based on the SILC 2009, at age 65, women spent 5.7 years (31% of their remaining life) without activity limitation (corresponding to Healthy Life Years (HLY)), 8.9 years (49%) with moderate activity limitation and 3.6 years (20%) with severe activity limitation.*

Men of the same age spent 4.7 years (35% of their remaining life) without activity limitation compared to 6.1 years (46%) with moderate activity limitation and 2.6 years (19%) with severe activity limitation.*

Although women lived more years without chronic morbidity and/or without disability, compared to men, they 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.

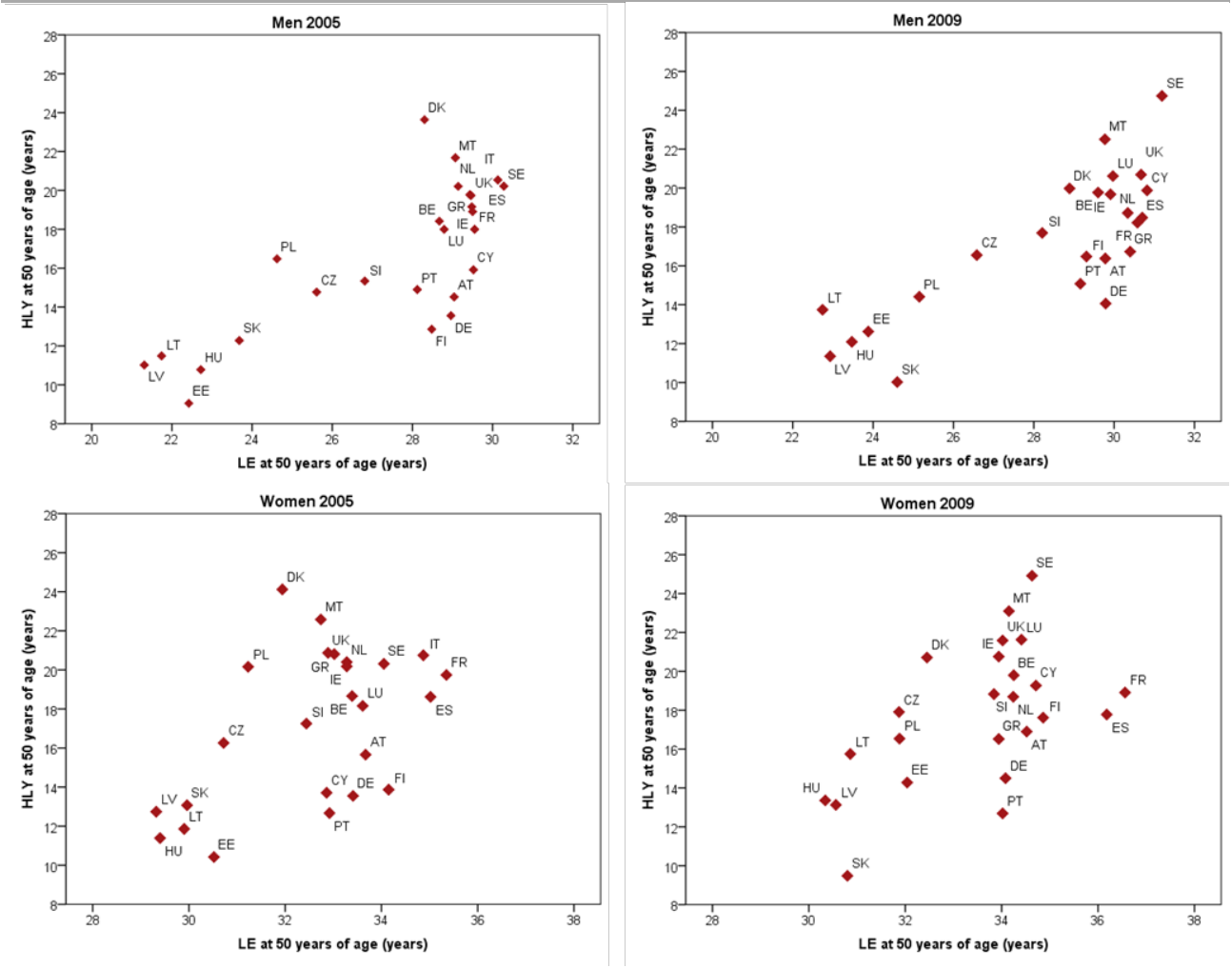
These results should be interpreted cautiously given the lack of the institutional population, such as people living in nursing homes, and in some countries the small sample size. The sample size for Latvia comprised 2086 women and 1028 men aged 65+ years in 2009.

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

Publications and reports on health expectancies for Latvia

- Krumins J. Health Policy and Recent Changes in Mortality and Life expectancy in Latvia. *Humanities and Social Sciences: Latvia*. 2008; 1 (54): 57-71.
- 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.
- Khoman E., Weale M. *Healthy life expectancy in the EU Member States: ENEPRI Research report n°33 - AHEAD WP5*. sl: ENEPRI; 2006.
- Jagger C., EHEMU team. *Healthy life expectancy in the EU 15*. In: Institut des Sciences de la Santé, editor. *Living longer but healthier lives: how to achieve health gains in the elderly in the European Union Europe Blanche XXVI, Budapest, 25-26 November 2005*. Paris: ISS; 2006. p. 49-62.

Life expectancy (LE) and healthy life years (HLYs) at 50 years of age in 2005 and 2009, by sex, SILC EU25 2005 and SILC EU27 2009



When the first values of HLY for 2005 for all EU25 countries were published1, the relationship between HLY and life expectancy (LE) at age 50 were reported. The graphs showed a cluster of Eastern European countries with very low LE and HLY for men and women and, for men particularly, a large group of countries with very similar life expectancies but widely ranging HLY. By 2009 there have been a number of changes, notably:

- A large group of countries with very similar LE but widely varying HLY has emerged in women. The HLY ranking has little changed over time;
- The large group with similar LE for men in 2005 has dispersed somewhat showing that these countries have gained LE differentially;
- The inclusion of Bulgaria and Romania in 2009 has resulted in more distinct groups of low and high life expectancy for both men and women, though within these groups HLY vary considerably.

1. Jagger et al. *The Lancet*. 2008;372:2124-31

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 10 Member States, the European Commission, DG SANCO, and two French institutions: the Ministry of Health and the National Solidarity Fund for Autonomy (CNSA). It is a collaboration between: 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 - KU), 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 - HSA), 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.healthy-life-years.eu.

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