## Regional differences in life expectancy, self-perceived health, reported activity limitations and chronic morbidity in Latvia during 2006-2012

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**Keywords:** self-perceived health, activity limitations, chronic morbidity, healthy life expectancy

**Abstract.** Healthy life expectancy extension is a main challenge in both Europe and the world. Population aging and related social and health care expenditure growth makes life expectancy and healthy life expectancy improvement of great importance.

Final results of Population Census 2011 in Latvia allowed to update information on population number and age composition, and to recalculate socio-demographic indicators during pre-census period. Standard tabulation procedure does not include calculation of life expectancies, HLY and associated health characteristics for urban-rural residents and by regions. The study aims to give a brief overview of differences in self-perceived health in the three Baltic countries as well as to analyze differences in life expectancies and health expectancies at different ages, based on self-perceived health, activity limitations and chronic morbidity in Latvia during 2006-2012.

## Differences in Self-perceived health in Latvia, Estonia and Lithuania 2005-2012

In all the three Baltic countries males are likely to declare better health status than females, but significant differences in health perception in Latvia, Lithuania and especially Estonia had been observed (figure 1).

70.0 Females 60.0 60.0 Very good/good 50.0 50.0 40.0 40 O Fair 30.0 30.0 Very bad/bad 20.0 20.0 Very bad/bad 10.0 10.0 0.0 0.0 2005 2006 2007 2008 2009 2010 2011 2012 2005 2006 2007 2008 2009 2010 2011 2012 ······ Estonia — Latvia ---- Lithuania ····· Estonia — Latvia ---- Lithuania

Figure 1 Self-perceived health in Estonia, Latvia and Lithuania 2005-2012 (%)

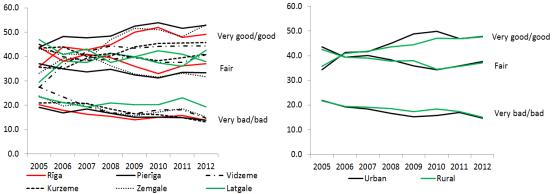
Data: Eurostat

Estonian citizens more often than Latvian residents rate their health as good and very good. Self-reported health status dynamics of Estonian citizens had no any significant fluctuations and stayed rather stable for both males and females while Latvian and Lithuanian trends (especially for females) have changed radically. In difference to Estonian and Lithuanian citizens who generally rated their health as "good" and "very good", the ratio of Latvians perceiving their heath as very good and good exceeded "fair" number only started from the year 2005 for males and 2008 for females. At the same time the share of reported chronic morbidity for both sexes in all age groups in

Estonia over the Latvian and Lithuanian indicators is higher as well as the share of reported limitations in daily activities.

More or less pronounced transition from good to fair health status and back at certain time periods can be observed also within one country in urban-rural and regional data trends (Figure 2).

Figure 2 Self-perceived health in Latvian regions, urban and rural areas 2005-2012 (%)



Regional differences in life expectancy, self-perceived health, reported activity limitations and chronic morbidity in Latvia

Data: EU-SILC 2005-2012

By the moment there is no any official statistics available concerning regional differences therefor all the information presented is authors' estimations based on data provided by Central Statistical Bureau of Latvia. Data should be compared and analysed keeping it in mind.

Based on the EU-SILC data, life expectancy of urban population in Latvia at all ages was longer than for those, living in rural areas (Figure 3).

Figure 3 Relative excess of urban-to-rural Life expectancy (LE), Healthy life years without activity limitation (HLY) and healthy life years without chronic morbidity (LIFLE - long-lasting illness free life expectancy) at different ages in Latvia, 2011

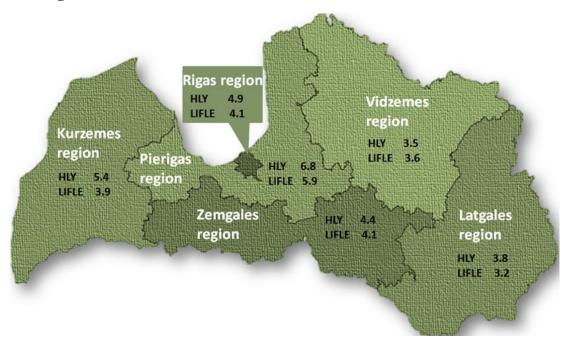
Urban/rural, %	AGE							
	16	25	35	45	55	65		
LE	106.3	107.2	108.5	111.1	114.6	118.9		
HLY	108.5	110.1	112.9	116.9	130.7	145.1		
LIFLE	102.6	103.4	103.2	103.2	109.4	121.7		

Data: Calculations are done by Natalja Dubkova based on data provided by the Central Statistical Bureau of Latvia.

Years lived without disability and chronic morbidity for urban population exceeded the value for rural areas substantially. In the year 2011 at age 65 life expectancy of urban population was 18.9% longer. Years lived without disability exceeded value for rural areas by 8.5% at age 16 up to 45.1% at age 65. As regards years spent without long-lasting illness, then for urban population this indicator was from 2.6% up to 21.7% higher than for those living in rural areas.

Regional differences in healthy life years, life expectancy without activity limitations (Figure 4) and life expectancy indicators (Figure 5) were recorded as well.

Figure 4 Healthy life years without activity limitation (HLY) and healthy life years without chronic morbidity (LIFLE - long-lasting illness free life expectancy) for both genders at age 65 in regions of Latvia



Data: Calculations are done by Natalja Dubkova based on data provided by the Central Statistical Bureau of Latvia.

Figure 5 Life expectancy (LE) for women and men at age 65 in regions of Latvia (health data from SILC 2011), 2011

	Latvia	Rigas region	Pierigas region	Vidzemes region	Kurzemes region	Zemgales region	Latgales region
LE 65+ females	18.7	19.2	18.9	18.7	18.3	17.8	17.8
LE 65+ males	13.4	14.2	14.1	13.0	12.9	12.7	12.2

Data: Calculations are done by Natalja Dubkova based on data provided by the Central Statistical Bureau of Latvia

In the year of Census the highest LE at age 65 was recorded in Riga. For males the indicator amounted 14.2 years and for females - 19.2 years. As regard HLY and LIFLE indicators, the highest values which exceeded country total were recorded in Pieriga- a region around the capital city Riga (6.8 and 5.9 years respectively).

In capital city Riga, only life expectancy and healthy life years exceeded country total values whereas life expectancy without long-lasting illness was shorter.

Highest and statistically significant difference (95% confidence limit) from other regions demonstrated socio-economically least-developed Latvia's region Latgale, where life expectancy for males was 1.2 years below country total and 2 years less than in capital city – Riga. 65 years aged females in Latgale could expect to live 1.4 years less than females in Riga and 0.8 years less than in the country on average. HLY and LEFLE indicators were significantly below country total as well.

Compared to other Latvian regions (Based on EU-SILC 2011) only in Riga, Pieriga and Vidzeme life expectancy at age 65 exceeded country total value. On the other hand only population of Kurzeme (likewise Riga and Pieriga) indicated longer life without activity limitation and even exceeded Riga's indicator.

## **Conclusions**

The current study was focused on changes in life expectancy, HLY as well as health perception, declared disability and morbidity in time (2006-2012), by Latvia's region, gender and area. The main target was to calculate and study whether the regional differences in observed indicators exists.

The main conclusion to be made following the study results: significant regional differences really can be observed and population living in rural areas and in certain Latvia's regions can expect to live shorter life with more years spent with chronic morbidity and disability.

Research focused on the main reasons for the differences would give better understanding of the situation and serve as a good base for further improvements.