Main determinants of healthy life in a post-transitional society: case of Estonia

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In the following we focus on the overview of the population health development in Estonia over the decades on the background of late improvements. The trend of long-term population health is evaluated on the basis of the trend in life expectancy, standardised mortality rates and healthy life years, the latter based on the Estonian Health Interview Survey 2006 data. The indicators are mainly analysed from gender aspect as well as from the native and immigrant population division, the latter denominated by the Estonian/Non-Estonian variable due to data availability.

In general, throughout the post-war period the health development of the population in Estonia can be charaterized as stagnating (Katus, Puur 1997). Male life expectancy had reached in 1959 64.4 years and for females 71.9 years, however, from that date on the total increase of life expectancy between 1960-1990 after the end of the first stage of health transition was practical nil for males and only 3 years for females. The social tranformation of the 1990s despite the downsurge of the indicators in the very beginning of the 1990s has brought about the recovery in the health of the population of Estonia: male life expectancy has increased in the last almost 20 years more than 4 years, comprising 68,7 years and female corresponding indicator by 4.6 years reaching 79,5 in 2008 (Eurostat). In comparison with neighbouring Baltic countries and Russia, the developments in health of Estonian population deserve attention because of the relatively steep upsurge of the indicator in recent years (see Figure 1).

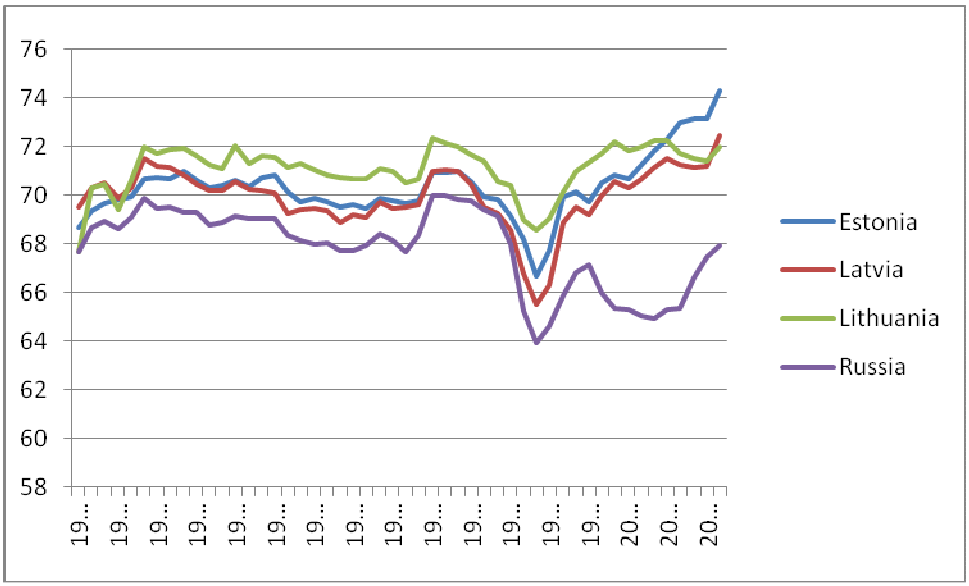

Figure 1. Total population life expectancy 1959-2008: Estonia, Latvia, Lithuania, Russia

Source: 1959-2007 Human Mortality Database. University of California, Berkeley (USA), and Max Planck Institute for Demographic Research (Germany). Available at www.mortality.org or www.humanmortality.de (data downloaded on [30.12.2009]). 2008:Eurostat, 2009

On the conceptual level the trend of the last decades in Estonia can be seen as signalling towards the end of the second phase of health transition with decreasing trend in standardised mortality rates of cardiovascular diseases, in particular in the age groups 0-64 for both sexes. It seems that the impact of the so-called man-made diseases has been lesser on female and native population, both population groups have demonstrated higher increase rates in the last decades in life expectancy and higher decrease rates in mortality rates by three main causes of death (circulatory diseases, neoplasms, external causes) (Sakkeus 2008). In the last decade the trend in mortality of external causes is also demonstrating decreasing trend, however the almost 4 times higher level of corresponding mortality rates for male and twice for female population compared to the level of 15 old member states of Europe indicates that this area of health behaviour might be the main source for further improvements in life expectancy for Estonia (Eurostat 2009).

Despite the recent favourable trends in population health if measured by life expectancy and causes of death, the question remains whether this also means living more years with activity limitations. Present indicators of healthy life years for Estonia demonstrate one of the lowest levels in Europe (49.5 years for males and 54.6 years for females in 2008 (Eurostat,2009)). On an average Estonian population has to live almost one third or more than 20 years of their lifetime in the circumstances where their daily activities are limited due to health problems. Significantly lower healthy life expectancy of male population in Estonia compared to other Baltic countries and Finland, four countries with lowest levels of the indicator in Europe, asks for in-depth analysis of the determinants of health on individual level. Estonian HIS 2006 offers a good basis to further look in the conditions and factors determining the current status of population health, thus offering more insight into the future developments of population health in Estonia (Oja, Matsi, Leinsalu 2008).

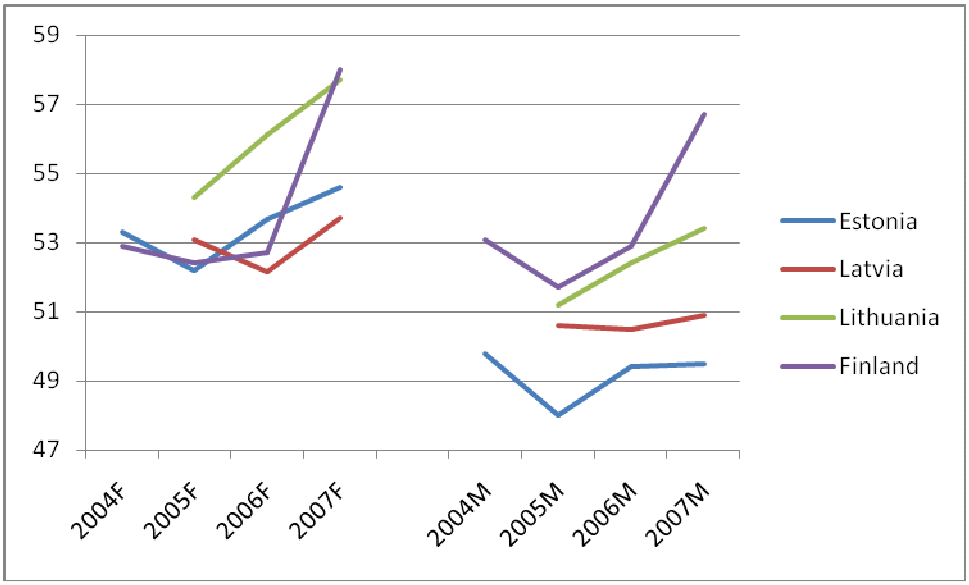

Figure 2. Healthy life expectancy for female and male population 2004-2007: Estonia, Latvia, Lithuania and Finland.

Source: Eurostat 2009

In the presentation we focus on main determinants which have brought about the health disparities between gender and native and immigrant population. The disparities are investigated in the population from the socio-economic, demographic, health behaviour and utilisation of health care aspects.

This study is based on the data from population-representative Estonian Health Interview Survey 2006 (EstHIS). EstHIS data gives an opportunity to analyse population health status and its determinants from the perspective of native, 1st and 2nd generation immigrant population as well as from gender aspect. In total, 6343 face-to-face interviews were carried out with individuals aged 15–84 (response rate 60.2%). Survey data were weighted to compensate non-response and calibrated to reduce bias caused by non-response. Immigrant population is defined as the person himself and/or both of his/her parents having born outside Estonia and not being of titular ethnicity. In the context of Estonia, where more than 30% of its population is of immigrant origin, originating mostly from countries of previous Soviet Union and prevalently of Slavic origin, the average indicators for total population mask the real impact of different behavior patterns of such diverse communities.

In the analysis logistic regression will be used (SPSS ver 16.0). Dependant variable is health status, defined as a person being limited in his/her daily activities for at least 6 months because of health problems. The models include 3 main sets of determinants: 1) socio-demographic determinants (partnership status, level of educational attainment, lifetime occupation) 2) determinants of health behavior (smoking, alcohol, nutrition, physical activity) 3) social disposition (satisfaction, locus of control, networks).

The main hypotheses to be tested is that more than socio-demographic or behavioural determinants the social disposition plays the main role whether the person will be enjoying better health status in the future.

Data analysis is presently under way.