

Impact of Political Systems on European Population Health

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Abstract

Much of Europe was frozen for over forty years in an iceberg of Soviet totalitarian dominance, governed by self-imposed ideological doctrine, rather than by democratic checks and balances. Soviet Union and its people were exposed to these damaging influences for over 80 years. While the state-directed propaganda boasted with excellent results in health care, statistical facts prove the opposite. Life expectancy at birth, healthy life years and the standardized mortality for specific health disorders all indicate the adverse impact of political oppression on population health. Dire consequences have been much more prominent in Russia, reflecting longer duration of political mismanagement. Recovery from adverse health trend after breakdown of the iron curtain was faster in post communist Eastern Europe when compared with Russia. Of the countries emerging from communism, the Czech Republic made the best health progress and it is coming closest to its west European partners. Regrettably, Slovaks of the former eastern part of Czechoslovakia experienced one of the worst healthy life years of all Europe. A large gap between healthy life and total life expectancy projects an unfavorable burden of ill health misery associated with financial expense for diseases. All these are important lessons for political scientists, historians and health administrators at the time of globalization, overall integration and intensive borderless population movement.

Keywords: Communism; Life expectancy at birth [LE]; HLY: Healthy Life Years; Cardiovascular (CVD) mortality; Eastern Europe; EU: European Union; Russia; Czech Republic; Slovakia

Introduction

There is an abundant evidence that population health depends on the quality of the prevailing political system. When authoritarian rule replaces democracy, population health takes a toll. This is convincingly exemplified by the recent history of health stagnation and decline in countries emerging from communism. Eastern Europe has been burdened with economic consequences of totality. Financial crises contributed to sluggish recovery, further delaying attainment of health standard reached in the free world. Even when the life expectancy [LE] improves, a wide gap between Healthy Life Years [HLY] and LE reflects a worse quality of life. This review is based on two recent reports of the World Health Organization [WHO] [1,2] and data provided by Eurostat [3,4]. These include health and mortality of European males and females from 1970 to 2010-2011.

Life Expectancy at Birth [le]. Impact of Communist Rule in Europe

This basic demographic indicator expresses the chance of survival, the probable age a respective population can reach. Favorable health trends are associated with rising LE. The male cohort in this review had similar trend as the women.

Period 1970-2010 dramatically documents impact of communist hegemony on the LE (Figure 1). In traditionally democratic European countries there was a steady rise in the LE as a consequence of economic growth and substantial improvement in quality of health care and life. In former Czechoslovakia, compared with Sweden and Austria there started a stagnation in LE until 1990 when democracy was restored. After fall of communism the LE in the Czech Republic improved and it is now approaching similar course of LE in western Europe.

The Soviet Union and then the Russian Federation took even more unfavorable development in health care reflected in lower LE (Figure 1).

Russia and Life Expectancy

It is rewarding to closely analyze the LE in Russia that has been

markedly more unfavorable than in the Eastern Europe (Figure 2). It has been stigmatized by an unprecedented instability and variation.

Transformation from seventy years of central planning and one-party hegemony of the market economy, induced in Russia a remarkable and devastating rise in unemployment and in general poverty. An unprecedented gap between the very destitute and the excessively rich

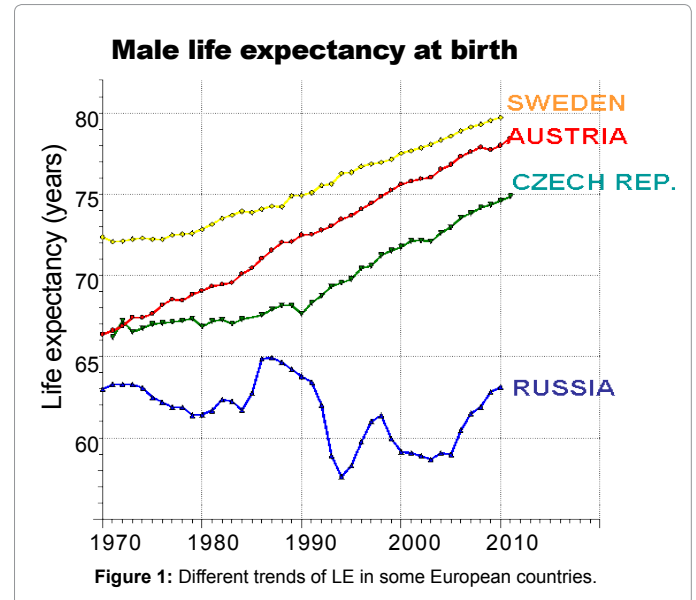


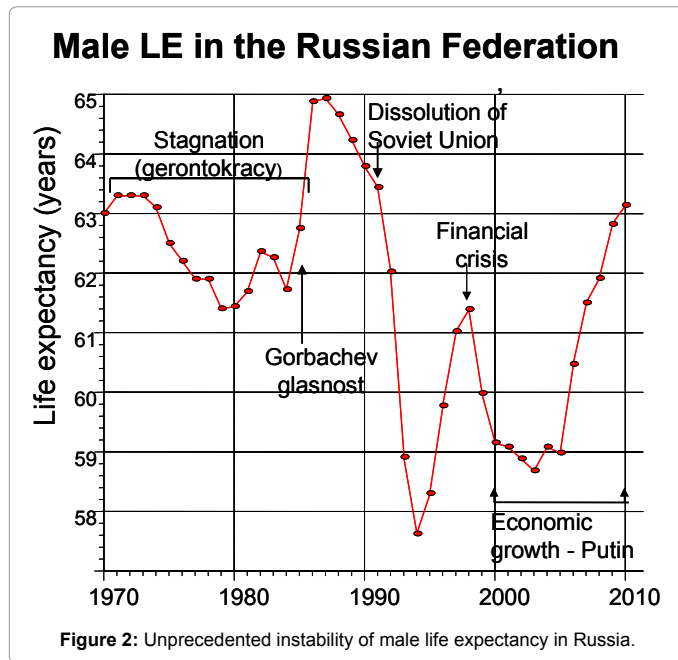
Figure 1: Different trends of LE in some European countries.

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Received May 21, 2014; Accepted September 30, 2014; Published October 01, 2014

Citation: Simko V, Ginter E (2014) Impact of Political Systems on European Population Health. J Pol Sci Pub Aff 2: 123. doi:10.4172/2332-0761.1000123

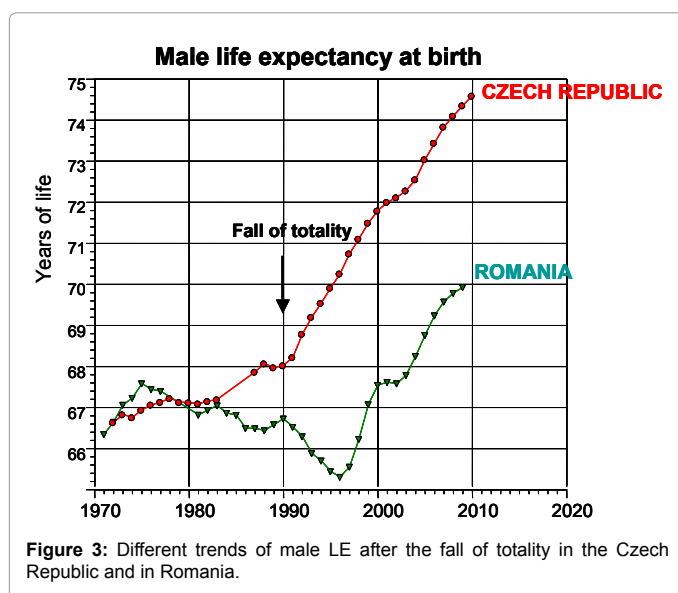
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Decades of accumulated mismanagement resulted in the collapse of the authority and of the Soviet Union. The decade after 1990 is a textbook example of an association between the health of the society and the health of its population. Loss of leadership, slow progress in democratic reforms, and disillusion from the breakdown of an established empire and re-emergence of excessive alcohol abuse resulted in dire decline in health. LE of Russian males declined by eight years! At 58 years the Russian male LE reached a level existing only in the poorly developed parts of the world.

In the mid-nineties the LE started to improve but only until another economic disaster, the Russian financial crisis. This situation improved with advent of Putin's reign. Despite improvement, the LE in Russian males is still below the level observed in Indonesia and in the Philippines.

Other more specific factors instrumental in low Russian LE might have been nutritional deficiencies, breakdown in health services and variation in excessive alcohol abuse [6-9]. Another factor adversely affecting population health is believed to be the disturbed state of psychological well-being, of satisfaction with general and private life. Chronic frustration and depression exert negative feedback on health behavior and contribute to accelerated cardiovascular disease [CVD] [10,11] (Figure 2).



Central Europe and the Balkan

Compared to USSR, in the former Soviet satellites of Central and Eastern Europe the general health was initially better but during the Soviet rule the LE stagnated [10]. After the fall of the Iron Curtain, in the 1990's these countries attained progressively improved health, best documented by the LE in the Czech Republic (Figure 3).

There were differences in the quality of communist totality. It is rewarding to compare the LE in two post-communist countries, in the Czech Republic and Romania. The impact of totality had its unique features. Czech Republic, due to its geographic closeness to western democracies and also its past liberal tradition, had closer cultural link with the rest of the world, including prominent dissent of Havel and of the Charter 77. In Romania, people were subjected to the hard totalitarian rule of Ceasescu.

However, it is not just a question of extending this evidence base on what works and at what cost. It is critically important to take account of context in understanding what influences individual behaviors and the uptake of interventions. Effective public health interventions from one setting may require careful adaptation before they can be implemented in different settings. Economic evaluations need to take account of this, as illustrated through the development of tools to allow country adaptation of data provided by WHO-CHOICE. Future methodological developments might consider how to enhance and increase the use of holistic approaches to economic evaluation that make use of qualitative methods to obtain contextual information on the implementation of interventions. Approaches such as theory of change modelling merit further consideration.

Czech society was more ready for improvement and democratic transition. LE in the Czech Republic started to impressively rise soon after 1989 (Figure 3). But like in Russia, the fall of communism in Romania induced a decline in LE during the first post-communist chaotic years. It took almost seven more years for the LE of Romanians to show a promising improvement.

The totalitarian era casts a long shadow on population health in Europe. Even twenty years after the demise of communism there is a

brought along dire human consequences [5]. Official data indicate that up to 30% of Russians strive below the poverty level. These poorest socioeconomic levels of population experienced the greatest overall disadvantage when compared to other parts of Europe. Such sharp and sudden drop in life expectancy in the mid-nineties as in Russia has not been observed anywhere else in the world. In the years 1970-1984 the LE in Soviet Union was under the spell of stagnation related to overaged senile politicians [Brezhnev, Andropov, Chernenko]. The decline in LE was, in the absence of major international disasters, truly remarkable. After 1985 the reins acquired Gorbachev who subjected the system to a long needed partial reform, perestroika. LE rapidly responded with improvement. One component, probably quite instrumental were strict limitations imposed on traditional Russian alcohol abuse [6]. In the short course of few years the LE of Russian males reached previously unprecedented almost 65 years.

sharp delineation in the mean LE between established democracies and the post- communist countries (Table 1).

The difference between Switzerland and the Russian Federation in LE at birth is staggering: more than 17 years for men and 10 years for women. Of all the post-communist countries the best score in LE has achieved the Czech Republic but it is still falling behind Finland, which has of all traditional European democracies the lowest LE.

This involves the identification of why and how intervention planners believe that change in behaviour or practice will occur, and subsequently how this will link to changes in short-, mid- and long-term outcomes.

Czech males compared with Finns lived 2.6 years less, Czech women had life shorter by 2.8 years. Challenging is the difference between two other neighboring countries that previously formed Austro- Hungary: Slovak men lived a 6.6 years shorter life than their Austrian counterparts.

Healthy Life Years [Hly] Versus Life Expectancy

Increased longevity without quality of life is an empty prize. Health expectancy is thus qualitatively different than the LE. It is important to determine if extra years of life gained through increased longevity are spent in good or bad health. Since LE at birth is not able to fully assess the quality of life, indicators such as healthy life years [HLY] have been developed [10]. This indicator measures the number of years that a person at birth is still expected to live in a healthy condition. It combines information on mortality and morbidity.

HLY data for men and women in 2011 are presented in Table 2. Quality of life expressed as years of good health shows less remarkable

Country	Males	Females
Switzerland	80,4	85,0
Italy	79,8	85,0
Sweden	79,7	83,7
Spain	79,4	85,5
Norway	79,3	83,7
Netherlands	79,1	83,1
England [U.K.]	78,8	82,7
Greece	78,6	83,2
Ireland	78,5	83,0
Austria	78,4	84,0
France	78,2	85,2
Germany	78,1	83,1
Denmark	78,0	82,1
Portugal	77,6	84,1
Belgium	77,5	83,0
Finland	77,5	84,0
Czech Republic	74,9	81,2
Poland	72,7	81,2
Slovakia	71,8	79,4
Hungary	71,3	78,8
Estonia	71,3	81,4
Bulgaria	70,8	77,9
Romania	70,2	77,6
Latvia	68,6	78,4
Lithuania	68,0	79,0
Ukraine	66,0	76,0
Belarus	64,8	76,6
Russian Federation	63,1	75,0

Table 1: Life expectancy at birth in Europe [last available data 2010-2011].

Country	Males	Females
Sweden	71,1	70,2
Norway	69,9	70,0
Greece	66,4	66,9
Switzerland	66,3	64,7
Ireland	65,8	68,2
Luxembourg	65,8	67,1
Spain	65,3	65,8
England [U.K.]	65,2	65,2
Netherlands	64,0	59,0
Denmark	63,6	59,4
Italy	63,4	62,7
Belgium	63,3	63,5
France	62,7	63,6
Czech republic.	62,2	63,6
Portugal	60,7	58,7
Poland	59,1	63,3
Hungary	57,6	59,2
Romania	57,5	57,1
Lithuania	57,1	62,1
Estonia	54,2	57,9
Slovenia	54,0	53,8
Latvia	53,7	56,7
Slovakia	52,1	52,3

Table 2: Healthy Life Years at birth in Europe [last available data from 2011].

differences among European countries than the LE. In contrast to LE, Czechs enjoyed more years of healthy life than some of the traditionally democratic countries [Portugal, Austria, Finland] and they came close to HLY in France. None of the post-communist countries had the HLY as good as the Czech Republic.

HLY values in 2011 unexpectedly turned out with comparatively low healthy years survival for Slovak men and women. Such poor health indicator of the Slovak population is worse than in Hungary, in the Baltic republics and in Romania. HLY data from Russia, Belarus and Ukraine are not available.

Compared with the leader in HLY, Sweden where people live up to 90% of their life in good health, Slovaks have only 73% of their life without health trouble. Compared with the Swedes, Slovak males have 19 years less of a healthy life, Slovak women 18 years less. Obviously, this data should sound an alarm with the Slovak health administrators.

Cause Specific Mortality Data

The LE and HLY are general indicators of health. Their results have to be reviewed with regard to specific diseases that affect populations and their survival.

Compared with the European Union [EU], Standardized Mortality [SDR] for all causes is in Russia 2.4 times higher for men and 1.9 times higher for women. This includes significantly higher Russian mortality for infections, parasitic disease, disorders of the respiratory and digestive systems, homicide, intentional injury and suicide. Russian males also have higher mortality for malignancy while Russian females have malignancy similar to EU. The only disorder that Russians suffer less than the rest of Europe is, remarkably, diabetes mellitus.

Cardiovascular diseases [CVD] are one of the main contributors to ill health and mortality in the world. Impact of CVD on the health of Russians is documented by the close association ($P < 0.001$) between CVD mortality and LE (Figure 4).

Male life expectancy vs cardiovascular mortality in Russia

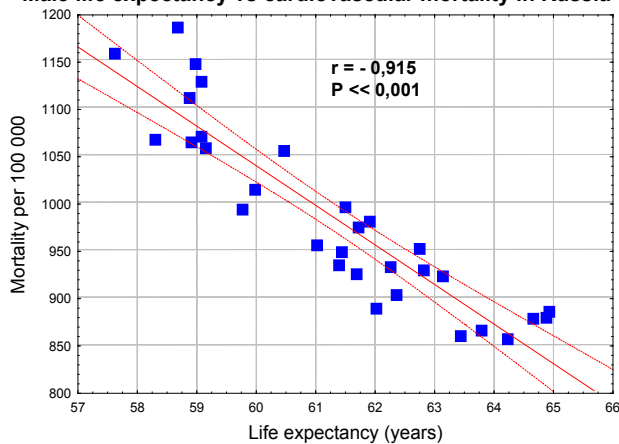


Figure 4: Close correlation between male cardiovascular mortality and life expectancy in the Russian Federation.

Different trends of male cardiovascular mortality between Russian Federation and European Union

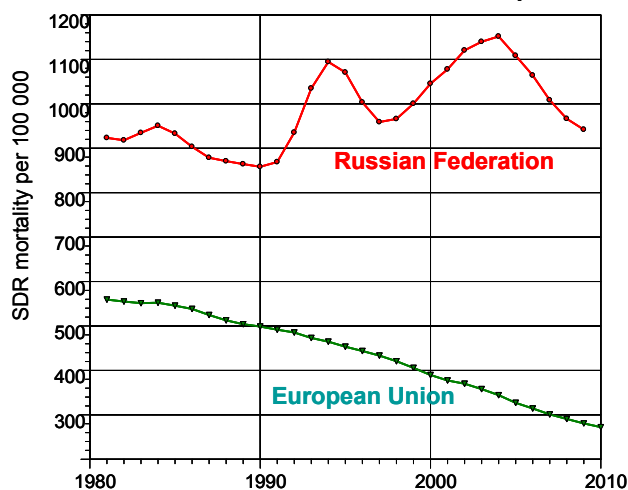


Figure 5: Very different trends of male cardiovascular mortality in Russia and EU.

It is unfortunate that CVD mortality in Russia has been largely out of control (Figure 5). While in the EU there has been a progressive decline in CVD mortality in 1980-2010, in Russia CVD mortality remains high, following a see-saw course. Presently, CVD mortality in Russia is 3.5 times higher than in the EU.

When SDR mortality for CVD in Russia is compared with Czech Republic, Czechs as opposed to Russians have similar declining trend in CVD mortality as the average of the EU (Figure 6).

In addition to established risk factors, diet, smoking and alcohol, chronic depression is also instrumental [11-13].

Conclusion

Czechoslovakia had the Life Expectancy [LE] in 1970 similar to its historic partner, Austria. Thereafter the communist mismanagement started to reflect in the quality of population health. While Austria

Different trends of male cardiovascular mortality

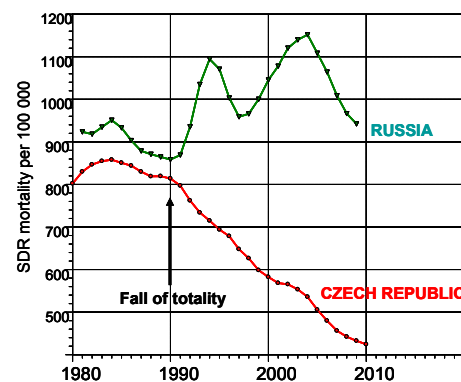


Figure 6: Fall of communism: very different trends of male cardiovascular mortality in Russia and the Czech Republic.

experienced a steady increase in the LE, this indicator stagnated in Czechoslovakia until the fall of totality in 1989. Presently the Czech Republic experiences LE and the perspective of healthy life years close to established west European democracies. In other post-communist countries and especially in Russia, the return to freedom and better health was slowed down by social and economic upheaval. This further compromised population health in the first years after revolution. Impact of political manipulation on the health of people provides an important historic memento: It is healthy to live in a free society.

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