

GEOPOLITICAL DETERMINATIONS OF THE CHANGES OF THE DEMOGRAPHIC AND HEALTH SITUATION IN CENTRAL EUROPE

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Preface

The main aim of this paper is to show the demographic and health situation of the population in the former socialist countries after "the autumn of the peoples". The spatial coverage includes almost all former socialist countries lying in Europe: Belarus, Bulgaria, Croatia, Czech Republic, Estonia, Lithuania, Latvia, Moldova, Poland, Romania, Slovakia, Slovenia, Ukraine and Hungary. Bosnia and Herzegovina as well as (new) Yugoslavia has not been taken into account because of wars waged there. Chaos is another reason to exclude Albania. The analysis presented in this paper is based mainly on the Internet database "Health for all" dated 1996 (made available by WHO Europe, Copenhagen). The selection of indicators to describe the health situation of the population comes from works by A. A. Keller, V. I. Kuvakin (1998), Liliana Dumitrache, Iuliana Armas (1998), G. Moon (1994), L. T. Shevchuk (1997). To make countries of a similar demographic situation stand out the following indicators are used: mortality rates, live births and vital statistics. To find out which countries show similar health situation, seven indicators have been used: life expectancy at birth [in years], female-male difference in life expectancy [in years], mortality of circulatory system diseases [per 10 thous. person], mortality of malignant neoplasms [per 10 thous. person], mortality of infections and parasitic diseases [per 10 thous. person], infant mortality rate [per 1000 live births], tuberculosis (all forms) incidence [per 100 thous. person], main STD infection incidence (syphilis and gonococcal) [per 100 thous. person].

Demographic situation

As far as live births are concerned there is a noticeable division within the analysed group of countries as they fall into two subgroups (Fig. 1): Macedonia with a high birth rate (15,8‰) and the rest of the countries with an average or low birth rate (7,9-12,1‰). There are not, however, any tangible connections between the above mentioned birth rates and the social, economic and political situation in the analysed countries. This may lead to an inference that the birth rates in the region are influenced by numerous and complex factors.

A similar approach should be taken when explaining the number of deaths (Fig. 2). Here there are not any direct connections between the social, economic and political situation and death rates either. Such countries as Slovenia, which enjoys good economic situation and Macedonia, which suffers economic hardships, are among the countries with similarly low death rates. The countries showing the highest death rates are equally

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economically diversified: Ukraine is in the worst decline, while Hungary is the most successful.

The analysis of the vital statistics of the population divides the countries of the region into four groups (Fig. 1):

1. Demographically sound countries (Macedonia), with the natural increase of 7,7 %, whose current demographic situation has deteriorated considerably due to the waged war.

2. Those countries, which are characterised by a slight natural, increase in the population (approx. 0,04 to 1,7%) (Slovakia, Poland, Croatia, Moldova and Slovenia).

3. Such countries (as Lithuania, Czech Republic, Romania), which have plunged into a bad demographic situation with the natural decrease in the population (-0,1 to -2,4%).

4. And finally the group of countries, which are in the worst demographic situation threatening their further national survival (Estonia, Hungary, Belarus, Latvia, Bulgaria and Ukraine) (-3,7 to -6,1%).

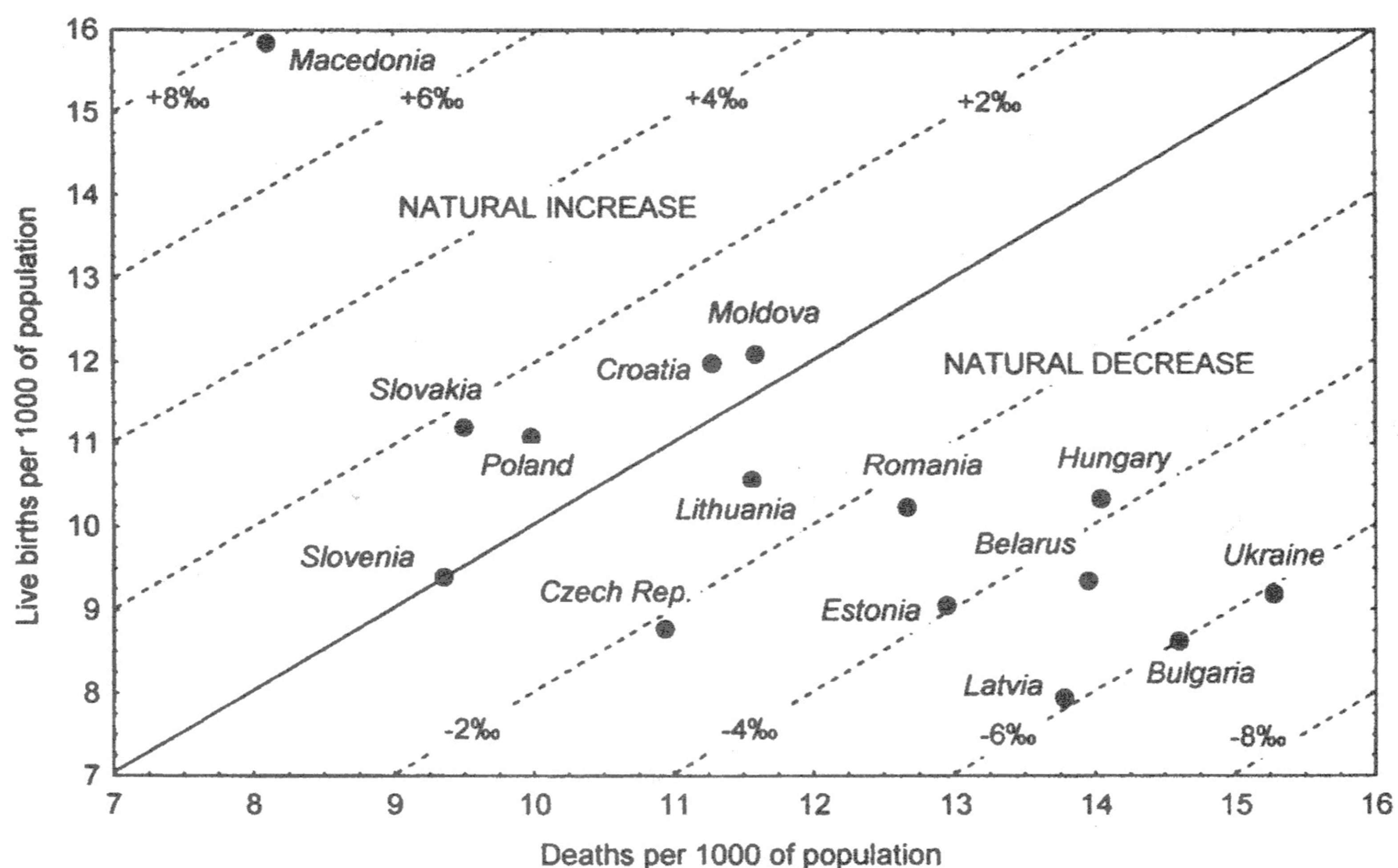


Fig. 1. Natural increase in countries in Central Europe in 1996.

Health situation

To find out which countries are in a similar health situation the multi-feature classification has been used (Ward method, Euclidean distance). The countries of the analysed region clearly fall into two groups: post-soviet countries and post-socialist ones. If a closer look at these countries is taken they may fall into five groups (Fig. 2):

I. Slovenia, Hungary, Croatia, Macedonia, Czech Republic, Slovakia and Poland - the countries of a long life expectancy, high mortality rate caused by malignant neoplasms, low mortality rate in terms of circulatory system diseases and low tuberculosis incidence.

II. Romania, Bulgaria and Macedonia - the countries characterised by a slight female-male difference in life expectancy, relatively low mortality of malignant neoplasms, a high mortality of circulatory system diseases and a high infant mortality rate.

III. Lithuania, Latvia and Estonia - the countries known for their significant female-male difference in life expectancy, the mortality caused by malignant neoplasms close to the average rate, high mortality of infections and parasitic diseases and a high main STD infection incidence.

IV. Ukraine, Moldova and Belarus - the countries of a relatively short average life expectancy as well as a high mortality of malignant neoplasms, infections and parasitic diseases accompanied by a high infant mortality rate and syphilis and gonococcal incidence.

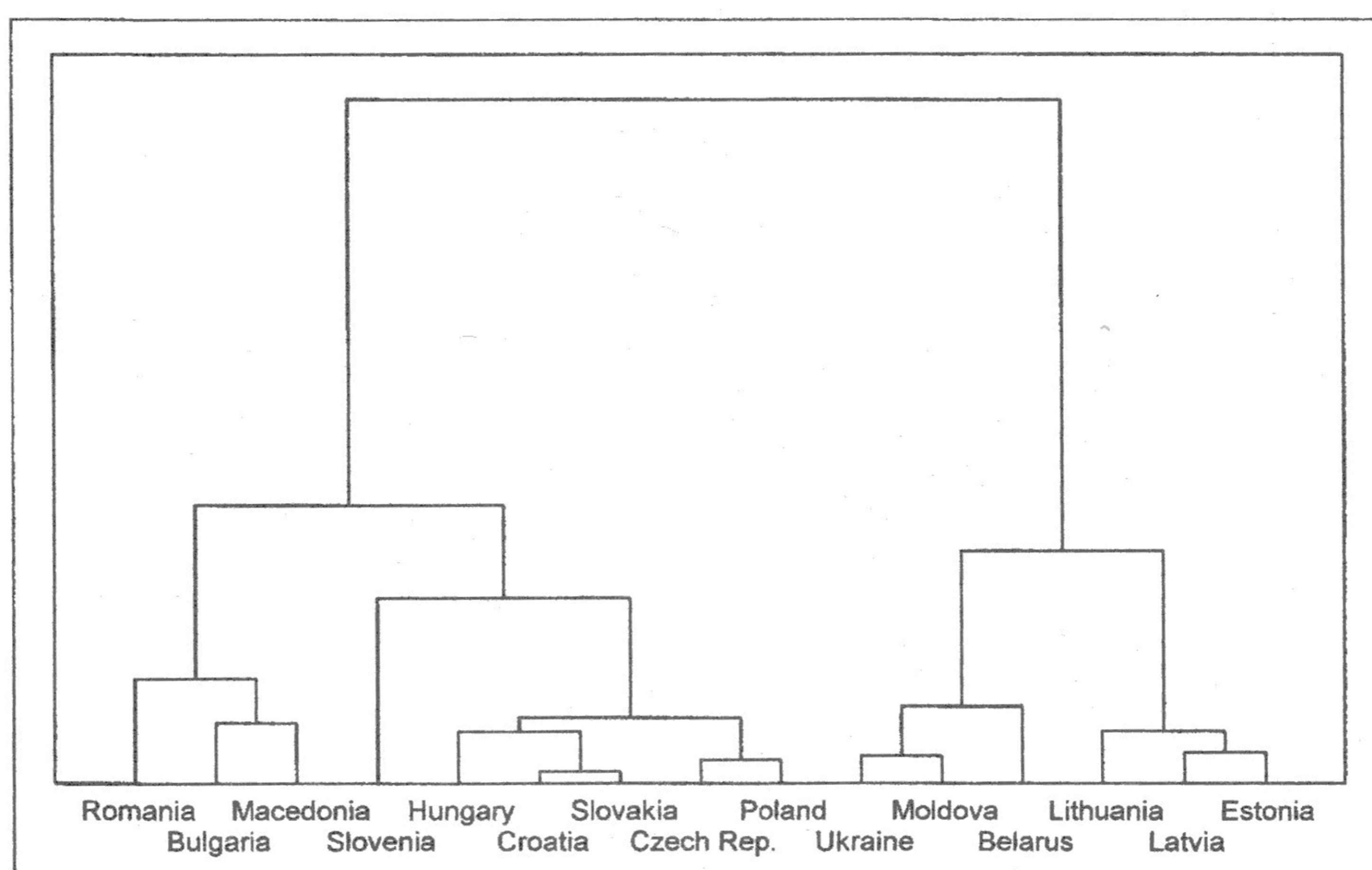


Fig. 2. Dendrogram of health situation in countries in Central Europe in 1996.

The above presented division of the analysed countries is similar to the one introduced by T. Michalski in his paper (2000). The differences consist in "shifting" Macedonia from group I to group II and cancelling the one-item group of Belarus which has been incorporated into group IV.

Such changes do not seem to be of a great importance as they result from taking into account partly different variables. All things considered, it seems that the classification offered herein deals with the chosen differences in the health situation of the analysed countries in a more adequate way.

Conclusions

Any tangible connections between vital statistics and the social, economic and political situation can hardly be noticed. This comes as a result of the impact of a few factors, of which the following are the most important: (1) the high mortality rate in the most underdeveloped countries which is due to an unhealthy life style, bad economic

conditions and poor health service; (2) the high mortality rate in the most developed countries which results mainly from an unhealthy life style; (3) the low birth rate in the most underdeveloped countries which is probably a consequence of the high level of neuroses (stemming from the feeling of lack of prospects for the future) and pregnant women's bad state of health; (4) the low birth rate in the most developed countries caused mainly by consumerism being more and more popular with their societies.

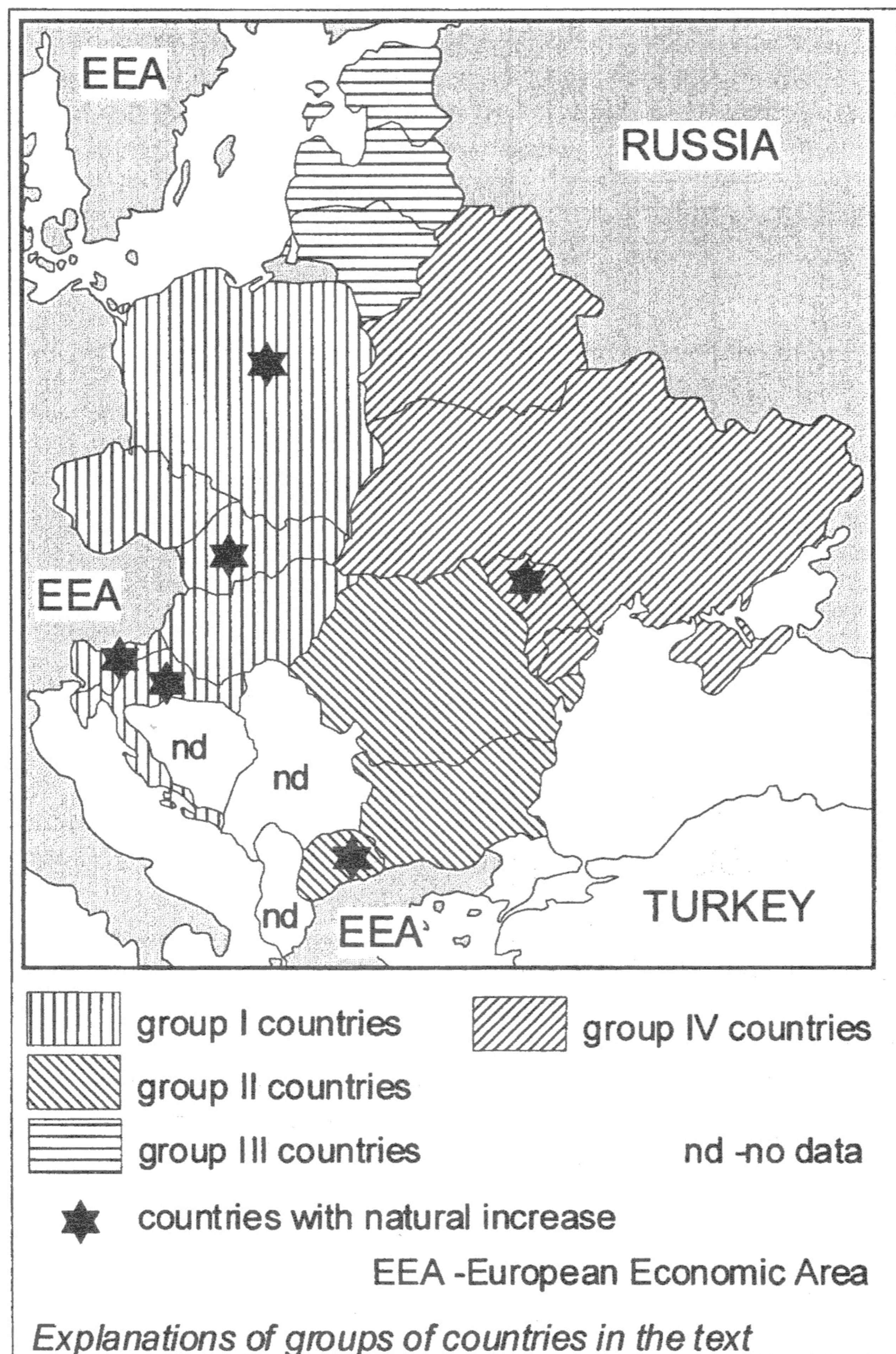


Fig. 3. Groups of countries in Central Europe insofar as the demographic and health situation in 1996.

There are however clearly outlined connections between the health conditions and the advancement of the social, economic and political reforms (the political past and the achieved economic development as well) (see J. Wendt, 1999). Group I includes so called "far-away-lying countries"¹: Slovenia, Czech Republic, Poland, Slovakia, Hungary and Croatia which are characterized by the most advanced market reforms as well the highest economic development in the region. Group II comprises the following "far-away-lying countries" which are overwhelmed by a crisis and serious internal shortcomings: Romania, Bulgaria and Macedonia. Group III is made up of so-called "not-so far-away-lying countries"² which have considerably advanced their market reforms and clearly manifest their pro-western policy. Estonia, Lithuania and Latvia belong to this group. Finally, there is group IV consisting of Ukraine, Moldova and Belarus. These countries have not made much progress in terms of social and economic reforms and their economies have sunk into decline.

The above presented results are entirely confirmed by the thesis discussed in D. R. Phillips and Y. Verhasselt's paper (1994), which proves that the social situation, especially the achieved economic development, exerts a direct impact on a society's health situation.

The results of the analysis, which has been carried out above, are shown in Fig. 3. Poland, Slovakia, Slovenia and Croatia belong to the countries, which enjoy a relatively good demographic and health situation. The rest of the analysed countries find themselves either in a bad demographic situation (Czech Republic, Hungary), or in a bad health situation (Macedonia, Moldova) or both in a bad demographic and health situation (the remaining countries of the region).

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¹ This is a term related to Russian geopolitics. The Russians regard former European socialist democracies belonging to the former Soviet Union as „far-away-lying countries”.

² This term refers to Russian geopolitics. The Russians consider former soviet republics to be closer to them, so the term 'not-so-far -away-lying countries' has been coined. Of course, the former Russian Federal Republic is excluded from that group.

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