

CLASSIFICATION OF REGIONS OF THE RUSSIAN FEDERATION DEPENDING ON THE POPULATION STATE OF HEALTH

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In this article the possibility of application of integrated factors for the analysis of regional distinctions depending on the state of health of the population is considered. The results of the calculations of integrated coefficient of pooled estimate of health are presented.

To estimate the basic tendencies of change in the level of health and reveal territorial features a simple and convenient for calculation coefficient of pooled estimate of health of the population is applied. The coefficient of pooled estimate of health of the population includes three groups of indicators:

- ◆ life expectancy of males;
- ◆ life expectancy of females;
- ◆ factor of infant death rate;
- ◆ standardised mortality rate coefficient of males;
- ◆ standardised mortality rate coefficient of females.

The value of this coefficient represents the rating of a region. It defines the place of a region on the basis of an estimation of the level of public health through death rate and life expectancy indicators.

We have carried out the calculation of the coefficient of pooled estimate of health of the population for 85 regions of the Russian Federation for 1990 and 2007. The analysis of the received grouping of regions on the level of health of the population allows not only to allocate similar regions, but also to track the dynamics of the level of health of citizens in a specific territory.

It is necessary to pay attention to the expansion of the group of regions with low level of health: in comparison with 1990 in 2007 the number of regions belonging to this group increased by 2 regions. For the investigated period 6 regions have left the given group, 8 have lowered their level, and 9 regions have remained at the same level of health of the population. Generally, the structure of the given group of regions includes the sub-

jects of the Siberian and the Far East federal districts, except for the Tver, Pskov, Novgorod and Smolensk areas.

The group of regions with the lowered level of health has also expanded from 19 subjects in 1990 to 22 regions in 2007. Less than a half of the regions included in the given group remained without change - 10 regions. During seventeen years 9 regions of Russia have left the given group, but in a different direction, so in 7 subjects the level of health of the population has decreased from lowered to low, and 2 regions (the Udmurt Republic, the Vologda area) have on the contrary raised the level of public health. The group of regions with the lowered level of health of the population includes 12 regions, 6 of which have risen from the lower category, and the remaining 6 have gone down from the higher position.

The group of regions with satisfactory level of health of the population is the most numerous. In 1990 its superiority was rather considerable and made 33 regions, and in 2007 it is only 26 regions. Thus the basic structure of the regions has not changed. As a result of the increase of the rank only 2 regions have found themselves in the given group, namely the Udmurt Republic and the Vologda area. In total 14 subjects of the Russian Federation have left the given group of regions. Half of them has experienced an increase of level of public health, the other half - the fall. Thus the Smolensk region has skipped a level and taken a place in the group of regions with low public health.

The fourth group of regions is a group of subjects with good (with the highest, on our classification) level of health of the population. It includes 20 regions of our country, it is 2

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subjects bigger in comparison with 1990, thus 65 % of the regions remained invariable.

In our opinion it will be rather interesting to consider the leaders among the regions of Russia on the level of health of the population. So in 1990 the first place was occupied by Ingushetia Republic, the value of the coefficient of pooled estimate of health being 394 units, and in 2007 the first place passed to Moscow, the value of the indicator being 403 units. In seventeen years Moscow has increased its rating by 11 positions, and the Republic of Ingushetia has on the contrary lowered the given value, it is possible to tell

that they have exchanged places, remaining in the group of regions with high level of health of the population.

Thus, the analysis allowed to consider the condition of public health in the regions of Russia, to group them on the basis of the level of health of the population, to allocate the most problematic zones and to define the basic tendencies of development.

1. *Keller A.A., Kuvakin V.I.* Medical ecology. Under the editorship of A.A.Keller. - SPb.:PETROC, 1998.

2. *Reshetnikov K.V.* Regional features of public health in Russia in a transition period//forecasting Problems. 2001. №3.

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