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Development of socialization of the economy on the conditions of financing sports and health activities

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Abstract---The aim of the study is the impact of funding for sports and health activities on the development of socialization of the economy. Research methods used in writing the article: theoretical, correlation-regression, and statistical analysis. The results showed a particular impact between final consumer public health and GDP better, with an increase in such expenditures by UAH 1 million, GDP potential by UAH 0.0036 million. UAH The close relationship between GDP and the volume of services provided in the field of sports and health activities has been proved, with estimated GDP growth of UAH 1 million. UAH protection against the increase in services provided in the field of sports by 2.05 thousand UAH, which confirms the

hypothesis of the dependence of the development of sports and cultural spheres on economic factors. It is substantiated that the very level of involvement of citizens in the field of sports and health activities is one of the health factors influencing the development of socialization of the economy. It is determined that investments in the development and information support of mass sports, promotion of healthy lifestyles, and creation of conditions for the development of sports organizations of all types have statistics of the best government policies around the world.

Keywords---sports and health activities, public health, socialization of the economy, financing, correlation, and regression analysis.

1 Introduction

Modern society is increasingly suffering from external factors, such as pandemics, wars, etc., which in turn leads to a deterioration in their health. Given the limited funding for sports and health for society, there are new challenges in finding tools to ensure a healthy lifestyle. To implement it is necessary to involve all segments of the population, thus ensuring the socialization of the economy. The study of the impact of financing sports and health activities on the development of socialization of the economy in modern conditions is quite relevant.

Petryshyn D. notes that the development of physical culture and sports is an indicator not only of social progress but also one of the conditions for increasing labor productivity, along with such factors as scientific and technological progress, training, and labor organization. The latter creates an economic basis for the general interest in the development of fitness and sports, taking into account the introduction of innovative technologies. Based on the role played today by physical culture and sports in the formation and strengthening of the Ukrainian state, the priority should include funding for maintaining and improving public health and funding needs to prepare Ukrainian athletes to participate in competitions (Petryshyn, 2015).

Stakhiv I.M. defines that "the economy of sports and health - is the rational management of the economy, which offers methods for solving theoretical and practical problems that arise between the subjects of sports and health relations related to the use of material, labor, financial and other resources at the level of individual sports and health organizations and society as a whole to forecast economic processes and their regulation "(Stakhiv, 2014).

Tsimbalyuk S.M. «Emphasizes that the sports and health sphere plays an important social and economic role in society, determining the moral and psychological condition of the population, its physical health, and productivity. At the same time, according to foreign experience, it can provide significant economic effects, such as creating new jobs, producing socially important services, increasing the country's GDP from intangible production» (Tsymbalyuk, 2020).

In addition to improving the quality of the productive forces of society, sport as a means of socio-economic strengthening of the country is manifested in many other areas of human activity. For example, by positively influencing the state of human health, sport contributes to the growth of the most valuable of all the wealth of the state - the able-bodied population, which, in turn, increases the welfare of the state itself. Considering this aspect of the impact on the economy, it should be noted that this role is played primarily by physical education and sports and health services, the main purpose of which is to improve the population and maintain its reproductive qualities (Stakhiv et al., 2020).

Highlights the approaches to the development of sports and health activities and sports tourism in various spheres of society. It is proved that the current standard of quality of life in Ukraine is characterized as not satisfactory. Many factors affect the quality of life: lifestyle, genetic and environmental factors. However, one of the main issues remains the underfunding of development. The work investigates the state of financial support for health care, which is closely related to the level of low healthy life expectancy. It is determined that in modern conditions physical culture and sports are a necessary element of life for every Ukrainian. It is justified that grant programs are the main financial source for the development of physical culture and sports. It is proved that the state and non-state policy for development of physical education and sports should be built on the creation of the corresponding concept for the next five years, which will include the appropriate strategy and program for development of physical culture and sports (Melikh et al., 2019).

Most research, for example, has examined the correlation of risk factors for physical activity, smoking, and sodium consumption with blood pressure in coastal societies. This study was a cross-sectional project with 150 respondents from coastal societies collected by cluster selection, where the sample was based on a predetermined area. One-factor and two-dimensional data processing were performed using the Chi-square test (Lesmana et al., 2022). The aim of our study is the impact of financing sports and health activities on the development of socialization of the economy, using correlation and regression analysis.

2 Materials and Methods

To determine the impact of physical culture and sports on GDP through the mechanisms of public funding of this industry and receive feedback, as well as the role of this area in the health of Ukraine, we conducted a correlation and regression analysis. Based on available statistics, an attempt was made to determine whether there is a correlation between public policy in the field of financing physical education and sports and financing the development of the health care system, morbidity, the amount provided to the ambassador in sports, and GDP. The study is based on a hypothesis that is confirmed in the practice of most countries with developed economies and assumes the following judgments:

- 1) The increase in health care costs, provided they are effectively redistributed, contributes to improving the health of the population, reducing morbidity, and increasing life expectancy. This, in turn, increases the productivity of labor potential, and contributes to the growth of the economically active

population, labor productivity, and general well-being, which has a positive effect on GDP growth.

- 2) Improving the health and well-being of the population stimulates the development of culture and sports, which has a positive effect on further reduction of morbidity (including psycho-emotional disorders) and stimulates economic growth in this area, in particular by increasing services, which in turn, also has a positive effect on GDP.
- 3) Increasing public spending on funding for physical culture and sports has a positive effect on the development and promotion of sports, increasing private investment in its development and promoting the involvement of the general population through increased physical and economic accessibility.
- 4) Increasing the share of the population, physical education, and sports which is an important attribute of lifestyle contributes to reducing morbidity for various reasons, stimulates productivity, and, consequently - GDP growth.

Thus, hypothetically, the spheres of health care, physical culture and sports, and business are closely interconnected and together, provided that effective public policy in these areas creates a certain synergy effect, which leads to GDP growth. Of course, many factors affect the development of the areas under consideration. However, in our opinion, if other factors are abstracted from the action at the level of national systems, a certain correlation should be maintained, which will indicate the effectiveness and proportionality of economic and social components in the field of health care and sports. To determine the existence of relationships between the studied factors and to verify the presented judgments, we conducted a correlation analysis. The initial data for analysis are shown in table 1.

Table 1. Initial data for correlation analysis of economic, medical, and sports relations in Ukraine

Period	GDP, UAH million	Final consumer expenditures of the public sector on health care, UAH million	Number of newly registered cases, thousand	Total funding for the development of physical culture and sports, UAH million	Volumes of work performed (services provided) in the field of sports activities, thousand UAH
	X1	X2	X3	X4	X5
2012	1404669	56182	31162	6907,3	4868608
2013	1465198	59826	31024	5733,846	4593027
2014	1586915	59741	26881	4410,434	4862996
2015	1988544	69234	26789	5642,999	4946928
2016	2385367	69959	27361	5710,9	6345548
2017	2983882	95246	26615	3855,45	5899335
2018	3560596	112019	26532	10778,23	9348325
2019	3974564	126238	25481	964,2784	10147453

Source: State Statistics Service of Ukraine, Ministry of Youth and Sports of Ukraine (2022)

Using the MS Excel function "CORRELATION", the functional relationships between the variables listed in Table 2 are defined. The results of the correlation analysis are shown in table 3.

Table 2. Correlation dependence between the studied variables

	X1	X 2	X 3	X4	X5
X 1	1				
X2	0,98	1			
X 3	-0,74	-0,69	1		
X4	-0,14	-0,16	0,29	1	
X 5	0,93	0,92	-0,61	-0,04	1

The results of the correlation analysis showed that there are close functional links between the level of GDP and public spending on health care (0.98), the volume of services provided in the field of sports and health activities (0.98), and the level of morbidity (-0,74). At the same time, no correlation was found between the volume of public expenditures on the development of physical culture and sports and other studied variables. This is primarily since that the vast majority of expenditures are directed to the development of high-achievement sports, as well as funding for physical education activities and lessons in secondary education, which does not have a significant effect on the economy and health in general.

The volume of services provided in the field of sports is closely correlated with the indicators of health expenditures (0.92), morbidity (-0.61), and GDP (0.93). This confirms the hypothesis of the role of grassroots sports in ensuring the health of the population and GDP growth. Correlation-regression analysis was performed to clarify the data that can be used for forecasting and formation of sports development programs. To avoid autocorrelation, regression analysis was performed in terms of pairs of indicators that determine the relationship between economic and social factors between sports and health activities. The results of the analysis are shown in table 3.

Table 3. The results of correlation and regression analysis of the relationship between the development of sports and health activities and GDP

Indicators	Regression equation	Coefficient determination of R^2
1. 1. The impact of public sector final consumption expenditures on health care on GDP	$y = -543990 + 0,0036x$ where, in GDP, UAH million; x - final consumer expenditures on health care, UAH million	0,97
2. The impact of morbidity on the final consumption expenditures of the public sector on health care	$y = 31987,6 - 8,61x$ where, final consumer expenditures on health care, UAH million; y-number of newly registered cases, thousand UAH.	0,47

3. The impact of the volume of services provided in the field of sports on the level of morbidity	$y = 31571 - 0,0006x$ where, y - the number of newly registered cases, thousand x - volumes of work performed (services provided) in the field of sports activities, thousand UAH.	0,37
4. The impact of the volume of services provided in the field of sports on the volume of final consumer spending of the public sector on health care	$y = 7686 - 0,012x$ where, final consumer expenditures on health care, UAH million; x - volumes of work performed (services provided) in the field of sports activities, thousand UAH	0,89
5. The impact of GDP on the volume of services provided in the field of sports	$y = 1406378 + 2,05x$ where, in- volumes of work performed (services provided) in the field of sports activities, thousand UAH x-GDP, UAH million	0,88

3 Results and Discussions

The analysis allowed us to draw the following conclusions:

- 1) There are no significant functional relationships between the amount of public spending on health care and the level of morbidity. The obtained coefficient of determination is lower than the level of its statistical significance (0.47). Such results may indicate an insufficient level of effectiveness of fiscal policy in the field of health care, ie the focus of public spending on overcoming the consequences of the disease, rather than their prevention) or the bias of statistics in the field of health care. There are also no functional links between the volume of services provided in the field of sports with the level of morbidity, ie the number of newly registered cases of morbidity for various reasons, which is also a consequence of biased health statistics and still low prevalence. mass sports in Ukraine.
- 2) There is a fairly high relationship between government final consumption expenditure on health and GDP. In particular, if such expenditures increase by UAH 1 million, GDP potentially increases by UAH 0.0036 million. In our opinion, the functional links are due, among other things, to the growth of the pharmaceutical market, as well as, in part, due to the increase in the working capacity of citizens with the successful treatment of chronic diseases.
- 4) There is a very close but inverse relationship between the volume of services provided in the field of sports and the volume of public spending on health care. That is the increase of the first by 1 thousand UAH. leads to a reduction in public spending on medicine by 0.012 million UAH. Such ratios can be explained in part by the positive impact of increased physical activity, but given their still low share in the population structure, the result of this ratio is seen in the action of other factors, namely reduction of health expenditures per capita, reduction the number of hospitals and the transition of part of the population to the use of paid medical services, etc.

- 5) Close relationships have been established between GDP and the volume of services provided in the field of sports and health activities, with estimated GDP growth of UAH 1 million. leads to an increase in the volume of services provided in the field of sports by 2.05 thousand UAH. confirms the hypothesis of the dependence of the development of sports and culture on economic factors.

Trends have been identified and forecasted for the development of sports and health services in Ukraine. The main factors influencing the further development of sports and health services in Ukraine are indicated. The goals set in the Strategy for the Development of Physical Culture and Sports for the period up to 2028 are analyzed. It is proposed to strengthen state support in the field, promote physical culture and sports in the country, and restore sports infrastructure. To achieve certain goals, it is important to establish fruitful cooperation between state institutions, local communities, private sports organizations, public associations, and specialists in this field (Pavlikha et al., 2021).

4 Conclusion

Studies have shown that the level of involvement of citizens in the field of sports and recreation is one of the factors influencing the development of socialization of the economy. That is why investing in the development and information support of mass sports, promoting a healthy lifestyle, and creating conditions for the development of sports organizations of all types should become one of the priorities of public policy around the world. In turn, the development of high-achievement sports should also be at the highest level, because it is athletes and their achievements that are an important factor in promoting sports and the appropriate lifestyle among young people.

An important factor in the development of any sector of the economy is to ensure the appropriate level of funding and efficient allocation of financial resources by the needs and objectives. The main sources of development of sports and physical culture, depending on the field of activity are the funds of state and local budgets as well as local communities, funds of sponsors and international organizations, funds of private business, and the population.

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