# Construction medical to cluster in system of development of state-private partnership

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#### **ABSTRACT**

It is found out, that realization of state-private partnership in Ukraine is the base of decision of sharp socio-economic problem of country is proceeding in the human capital of health busy and other categories of population. Investigational problems and prospects of development of state-private partnership are in Ukraine. The brought analysis over of statistics of development of state-private partnership in the separate countries of the world. Socio-economic effects are analyses from realization of the system of state-private partnership in the system of revival of medicine of labour in Ukraine. Built model medical to the cluster, that consists of next blocks: organizational, legal, financial, economic. Marked model a mechanism of development of state-private partnership is the basis of, that allows within the framework of modern tendencies to provide further reformation of public relations.

Keywords: state-private partnership, medicine of labour, human capital of health, cluster, concession, synergistic effect

# 1. INTRODUCTION

Research actuality is related to the emergency necessity of decision of sharp socio-economic problem of Ukraine – catastrophic depreciation of health of labour resources of Ukraine, that are a brake not only for development of economy, but also by the powerful threat of national safety of country. Yes, from 100 thousand persons by age 20–64 in Ukraine does not live so long 65 to near 40% men, and, for example, in Poland – 25,2 %, Sweden – 10,5 % [1, p. 57]. A situation gets worse negative demographic tendencies that influence on demand and supply at the market of labour of Ukraine [2]. To Tom, within the limits of reformation of all spheres of vital functions of country, in particular systems of health protection, there is a necessity for the search of innovative models that is able effectively to overcome the problem of depreciation of human capital of health of Ukrainians. One of such models there is a construction medical to the cluster in direction of revival of medicine of labour in the system realization of state-private partnership (SPP), that are extraordinarily important in the conditions of realization of reform of decentralization in Ukraine and increase of level of human capital of citizens.

Research actuality strengthens expression of one of more progressive presidents of the USA – *Franklin Delano Roosevelt*, that with lightning speed showed a country out of Major Depression due to effective politics of the «New course»: «building new course of development of the USA and all world economy, mortgaging bases of welfare of the own state, state-private partnership must become a fundamental mechanism and, mainly, than any more and more active business will invest in a social infrastructure, in a population, the a more trust people will have to business, and a consequence will become stable, quiet atmosphere in society, that and be directionally on strengthening position state system and government on the whole» [3]. Thus, realization of SPP, as world experience testifies, in Ukraine does not have alternatives, in particular it touches the system of health protection that from 2018 began radically to reform.

To the problems of development of state-private partnership (SPP), in particular to the different aspects of his influence on human development the devoted labours of many home scientists, among that, O. Amoshi, S. Bandura, O. Batalova,

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E. Bondarenka, O. Berdanovoi, I. Valyushka, V. Varnavskogo, V. Vakylenko, M. Voynarenka, O. Grishnovoi, G. Dmitrenka, A. Kolota, E. Libanovoi, Jl. Lisogor, V. Novikova, O. Novikovoi, V. Onikienka, S. Pirogkov, and many other. Alongside with it presently the thoroughly not exposed problem of increase of level of human capital of health of the concerned population due to development at Ukraine of SPP.

Thus, from data of scientists of the National institute of strategic researches, in particular O. Batalova, I. Valyushka for today, unfortunately, in Ukraine it is not fixed cases of the successful bringing in of private investments on principles of SPP in strategically important social humanitarian projects, in particular in the sphere of medicine of labour [4]. Therefore in the article attention is accented on realization of strategic task of present time – revivals of medicine of labour and strengthening of human capital of health of labour resources of country due to a construction medical to the cluster.

The aim of work is a construction to the cluster, namely – innovative model of revival of medicine of labour in the system of development of state-private partnership and human capital of health.

The scientific novelty of model is a construction medical to the cluster in the system of development of state-private partnership, that unlike the existent system, allows within the framework of modern tendencies reformation of public relations to revive medicine of labour at Ukraine that will allow to get a complex effect as strengthening of health of labour force and decision of existent demographic and socio-economic problems of country.

Basic part. Unfortunately, for 27 last the of independence Ukraine loses such important constituent that is responsible for maintenance and strengthening of human capital of health – medicine of labour gradually. Presently every third concerned person works in terms, that does not answer sanitary-hygienic terms and employers exploit workers cruelly [5, p. 50]. Absence of the effective system of medicine of labour results in realization of formal medical reviews of the concerned citizens. As a result – workers call to the doctors extremely late, that requires huge charges on treatment. It all conduces to the high level of morbidity, especially among the masculine article, decline of mean time of life, high level of death rate and socio-economic and demographic irretrievable losses.

The problem of decline of level of human capital of health of the concerned population is related to availability and quality of the rendered medical services. In fact, if a worker cares of the health, his behavior will be sent to individual explained in relation to a timely address to the doctor, passing of prophylactic medical reviews, observance of recommendations of domestic doctor during passing of treatment. With the aim of improvement of the system of health protection in Ukraine from 2018 medical reform began to operate. Where her important direction is that communal establishments of primary help must be reorganized in noncommercial communal enterprises that will conclude the direct acceding to National service of health of Ukraine [6] but to get the direct financing for the rendered services in the State budget. But the reform marked to this day was sent to the construction of requiring payment medicine, that resulted in a substantial access of the concerned citizen's restriction to the sphere of health protection and formed inequality between them. Therefore, unfortunately, in the marked reform not paid attention to creation of the system of medicine of labour. Workers of enterprises (establishments, organizations) like, as well as to introduction of reform will apply not in the specialized establishments, but to the same district or domestic doctors at passing of medical reviews (for money of employer), that is regulated by Law of Ukraine «On a labour protection», by Bases of legislation about a health protection and others like that. Therefore, within the limits of reformation of the system of health protection Ukraine and development of SPP it is necessary to find a compromise between quality of grant of Medicare, realization of prophylactic medical reviews and socio-economic efficiency of the use of medical base of curative establishments. For this purpose it is suggested in-process to build a medical cluster in the system of creation of centers of medicine of labour in regional, municipal, district hospitals, that will allow not to close part of medical establishments within the limits of realization of reform, to improve quality realization of medical reviews and corresponding treatment exactly for the concerned population of Ukraine, within the framework of realization of strategic direction – development of SPP, that it is represented in Conception of the national program «Health – 2020: the Ukrainian measuring» (in 2011).

Legal framework of SPP is Constitution of Ukraine, Civil code of Ukraine, Commercial code of Ukraine, Law of Ukraine «About state-private partnership» and other legislative and normatively-legal acts. Yes, in accordance with the object of our research and law [7], under SPP in wide sense a collaboration understands between public organs (by partners) and legal and natural persons (by private partners), that comes true on the basis of agreement and to the corresponding order. Creation of centers of medicine of labour (CML) must satisfy to main principles of realization of SPP is a concordance of interests of state and private partners with the aim of receipt of mutual benefit and providing of higher efficiency of activity. An offer suggestion in the article comports with the priority sphere of SPP – health

protection and is based on such form, as is a concession that is mostly used in world practice. Being based on data [4], in Ukraine SPP is not developed, reasons are: insufficient attractiveness for the private investors of considerable part of objects; absence of effective tax or custom deductions is for private investors in the process of realization of projects of SPP; imperfection of home-legal base; absence of the use of experience of countries of EU is in relation to the collaboration of the state and business on principles of SPP; high level of corruption that loosens the transaction holds of business; a low level of motivation of public administrators is in relation to development of SPP in Ukraine; a low level of awareness of business representatives is in relation to advantages of the use of mechanisms of SPP; a low level of trust of business is to power that inconsistently carries out economic politics and others like that. Thus, the task of economic block to Government of Ukraine are a decision of the above-mentioned defects and maximal assistance to development of SPP, being based on experience of the developed countries.

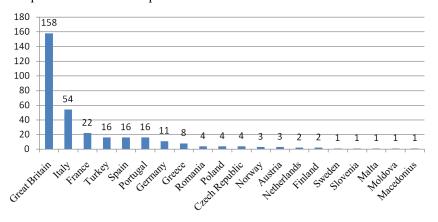


Figure 1. Amount of projects of SPP in the separate countries of the world, units Source: it is made authors on basis [9] (for period 2002–2011).

Insiders in the system SPP in the world are Great Britain, France, Germany, USA (rice. 1). For example, there is every fifth project of SPP in Great Britain [8] effectively realized in the system of health protection, for example, at building of hospitals, their reconstruction, exploitation and management of medical establishments, grant of medical services, building of diagnostic centers, grant of unmedical services (organization of feed, transporting, processing of medical wastes and others like that), an infrastructure. For the evaluation of their efficiency brought around to rice. 1 countries use the model of «comparator», that gives an opportunity to provide their comparing to analogical, that operate in a public sector. On the whole specific gravity of projects of SPP in the system of health protection in the general structure of the realized projects in EU presents near 17% (fig. 2)

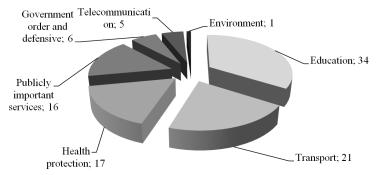


Figure 2. Specific gravity of the realized projects of SPP in the countries of EU in the general structure of directions of economic activity, % (Source: it is made authors after [10] (by the state on 01.2012)

Examining the amount of projects of SPP, that were realized it is possible to mark in the separate countries of the world (see rice. 1), that the their most operated in Great Britain are 158 projects, to Italy -54, to France -22, to Turkey -16,

to Spain – 16, to Romania, Poland, Czech Republic – 4, to Republic of Moldova – 1. Unfortunately, in Ukraine to this pores not a single corresponding project of SPP is realized.

Rom lines. 2 evidently, that most specific gravity of the realized projects of SPP is occupied by such spheres of economic activity, as: education -34%, transport -21% and health protection -17%. Id east essentially every sixth project of SPP in EU will be realized in the sphere of health protection, that strengthens actuality of research of our article, grounds the necessity of construction medical to the cluster in Ukraine and gives an opportunity to all his participants to get benefits, for example, for:

- are the States the having a special purpose and effective use of resources is provided in a sphere PH due to realization of mechanism of concession, that allows to decrease the volumes of the budgetary financing; modern innovative medical technologies, facilities, equipment's, are entered, medical technique and others like that; used highly skilled medical shots are well taught; efficiency of the use of capital assets, resources of the system PH rises Ukraine; effective reformation of the system PH and possibility of receipt of the animated effect are provided in the different spheres of economic;
- to business possibilities to extend the markets of grant of medical services are given; the risks of financial activity diminish due to support from the side of the state; optimal terms are formed for development of competition; state support comes true and given state guarantee of development of business and others like that;
- employers possibility appears qualitatively, quickly, accessible and it comfortably to conduct diagnostics of the state of health of workers and in case of necessity to conduct a rehabilitation with the use of modern medical technologies; there is a prospect of receipt of state under backs on condition of realization on the enterprises of the programs sent to strengthening of human capital of the workers, in particular «Maintenance of health of workers in the workplace»; motivation is formed to save the human capital of health of busy due to a receipt huge effects through reduction of level of productive traumatism, professional morbidity and absenteeism and others like that;
- the concerned population quality of given medical rises.

Thus, becomes clear that realization of projects of SPP in a sphere PH, in particular in direction of revival in Ukraine of medicine of labour becomes extraordinarily important for the state, business, employers, workers. Therefore, it costs to choose the effective model of realization of SPP with the aim of strengthening of human capital of health of the concerned workers of Ukraine. Among existent approaches in world practice an important place is occupied by cluster strategies, approaches, models. Yes, under a medical cluster understand the innovative model of organization of process of grant of Medicare, that is based on the concerted operating under realization of profile selection, treatment, rehabilitation, clinical watching patients [11,16,17].

In addition, in the specialized literature distinguish the next features of medical cluster, in particular, it is establishment of lines, proof of long duration relations between different participants (curative establishments, dispensaries, diagnostic centers, medical universities, government bodies, business representatives, public organizations and other structures and organizations); co-ordination between all elements of model of cluster, maintenance of no interaction of participants to the cluster, functioning on the basis of construction of rational competition relations, possibility of the free including of participants of model and exit from to the cluster.

Therefore, for the decision of problem of revival in Ukraine of the system of medicine of labour, it costs to pay attention to world experience of realization of effective cluster models. Marked model principle of association of different medical establishments of regional level, general use of necessary databases is the basis of with the aim of realization of effective diagnostics and rehabilitation of the concerned citizens and creation on their basis of powerful diagnostic centers.

For example, the powerful system of medical establishments operates in Vinnitsa, in particular stemmatological profile («Vinnitsa municipal clinical stemmatological center», «Municipal clinical stemmatological policlinic»), regional and municipal dispensaries (endocrinology, radiation defense of population, ant phthisic, oncologic, cardiologic, medical-athletic); hospital establishments (combat hospital, municipal clinical hospitals (1−3); neuropsychiatric regional hospital the name of A. I. Yushchenko, regional funny house № 2; a regional hospital the name of M. I. is Pirovovo, Centers of primary medical and sanitary help 1−7) and other curatively-diagnostic centers. But medical establishments are given above operate separately. The in addition, pre-arranged program of Town Council of Vinnitsa is «Vinnitsa 2020: health Protection the proper level» does not envisage in the directions the increase of efficiency of grant of quality services in the sphere of medicine of labour, in particular for the concerned citizens.

Thus, at the construction of model medical to the cluster (rice. 3) within the limits of development of SPP it is necessary to find a private investor and explain him. His task is a construction of powerful diagnostic (rehabilitation) center of medicine of labour on the basis of providing of co-ordination with all necessary curative establishments of region. It must envisage the association of curative establishments with the aim of exchange experience, knowledge, information, effective use of modern diagnostic equipment, creation of only InfoBase of these patients (concerned citizens) and others like that. Thus, it costs in parallel to create other models of clusters, in particular providing medications, by facilities, modern equipment and clusters of biotechnologies and innovations at adjusting of close mutual relations with scientific medical establishments, by educational establishments and others like that.

Thus, a medical cluster must be based on the large and perspective hospitals of region. For example, in the Vinnitsa area it is a regional hospital the name of M. I. Pirogov, where due to realization of project of SPP a powerful diagnostic center can be created, as a legal individual, that can perform not only the duty of realization of medical reviews of the concerned population but also realization of the health center system of all population of region. Due to it is possible to attain ponderable public results, namely: to revive medicine of labour; to improve quality and availability of passing of medical reviews the concerned citizens and encourage other categories of population to the health center system, in particular within the framework of input of medico-actuarial science in Ukraine; to cut down expenses on realization of diagnostics and rehabilitations due to the effect of scale; to enter modern medical technologies; to cut down expenses on the use of ineffective operating diagnostic medical technique and concomitant charges (administrative, expense materials and other); to provide possibility of grant in a middle a cluster not only curatively-diagnostic services but also rehabilitation; to improve quality of service due to the increase of efficiency of the use of factors of production, information, technologies, co-ordination with other elements medical to the cluster; to stimulate creation of new organizational structures that will extend an operating cluster and will pawn basis of future development and increase of his productivity; to assist to development to the innovative processes in the sphere of health protection and economy of Ukraine on the whole due to the action of effect of synergy [12,13]. Thus, built model medical to the cluster consists of next blocks: organizational, legal, financial, economic. The organizational constituent of model provides for, that the object of SPP are existent capital assets of establishments of health protection community property, that is passed to the private partner with the aim of creation of powerful regional center of medicine of labour, that will conduct not only medical reviews but also carry out a rehabilitation and health center system of different categories of citizens at providing of close collaboration with other establishments of medical profile, in particular; by dispensaries, hospitals, Centers of primary medical and social help, Research institutes and others like that on the basis of realization mechanism concession. Thus there is other important question - search of necessary highly skilled medical shots with the aim of realization of project. On the first stage it is suggested to attract supernumerary specialists, that have necessary knowledge, skills and experience in the sphere of medicine, east to use the mechanism of autstaffing [14,15,16].

A legal constituent provides for, that a concession agreement (on the management of medical establishment of community property and creation of diagnostic center capital assets) consists between the participants of SPP, where state and private interests and corresponding obligations are fixed by a term 50. Legal framework of the model built higher are international and home norms, in particular: «Global strategy of BOO3 «Medicine of labour for all»»; A «global plan of actions of BOO3 is on a health protection working on 2008–2017»; «Strategy of providing of safe terms of labour and maintenance of health of working is in Ukraine»; «Health 2020: the Ukrainian measuring»; Laws of Ukraine, in particular «About state-private partnership», «About concessions»; normatively-legal acts: «About approval of Conception of development of state-private partnership in Ukraine on 2013–2018» (in 2013); «About some questions of organization of realization of SPP» (2011); «About claim of Methodology of exposure of risks of realization of SPP, their estimation and determination of management form by them» (in 2011); «About claim of List of objects state ownership rights that can be given in a concession» and many other.

In addition, for efficiency of realization of model (fig. 3) it is necessary to study and take into account world experience, principles of development of SPP, methodology of estimation of efficiency of his functioning, exchange experience, aspects of his planning, planning, financing and others like that. For this purpose it costs to work out the close partner relationships with international organizations, in particular: international center of SPP of the Europe economic commission of the United Nations, Europe consultative center of SPP, International center of SPP of the Europe economic commission of the United Nations, Resource center of SPP in the field of an infrastructure, CEPP, Organization of industrial development of the United Nations, IFC and other.

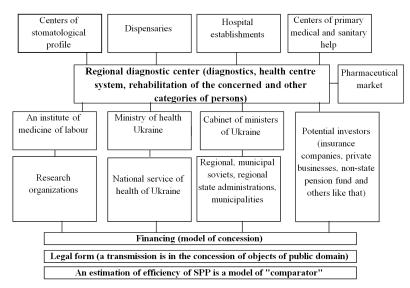


Figure 3. Model of construction medical to the cluster on the basis of SPP.

The financial constituent of model (rice. 3) can envisage such sourcing's, in particular due to the financial resources of private partner, adopted (credit) resources, money state (local) budgets and other sources of not forbidden by a legislation. Taking into account that the built model a concession is the basis of, then from the side of the state additional tax deductions, payments (SPP envisaged within the framework of entered into a contract), must be envisaged. For example, a concessionaire can rid of in payment of concession payments for introduction of modern diagnostic equipment due to money of private person SPP.

## 2. CONCLUSION

Thus, built model medical to the cluster allows to provide development in Ukraine of the system SPP, to create the new system of medicine of labour fundamentally, to assist strengthening of human capital of health, population concerned in particular. Application of principle of cluster approach at the construction of model on the basis of SPP allows to score to all his participants powerful enough advantages: modern innovative medical technologies, facilities and methods of diagnostics, are inculcated; an only scientific medical base (home and foreign) is used; competitive edges turn out due to internal specialization; charges are minimized and innovations are entered; flexible businesses, that will assist the revival of business in particular small as in a region, are attracted, for example, in the Vinnitsa area, so on the whole on Ukraine. Thus, realization of projects of SPP, as experience of separate countries of the world and row of their advantages testify, in particular at the use of cluster models is the effective instrument of strengthening and development of human capital of health of the concerned citizens and revival of medicine of labour in Ukraine.

The features of the built model are providing of complex cooperation of the state and private structures in direction of realization of medicine of labour. It will allow to get huge socio-economic effects, in particular: to promote a health of the concerned citizens level, quality of medical service of other categories of population to the level of standards of the developed countries of the world, for example, of Japan, Scandinavian countries, USA, Great Britain, Germany and others like that; effectively enough and optimally to use public and private investments; to form basis of input in Ukraine of the system of medical insurance (obligatory and voluntarily); to provide forming of competition environment that will result in upgrading of the rendered medical services and reduction to their cost; to activate the process of development of concession relations, for example, not only in the system of health protection but also in other industries of economic activity; to get the effect of synergy in the system of development publicly of important spheres of vital functions of country.

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