Original article

Development and implementation of healthcare technologies in the structural-functional model of public administration: bronchopulmonal dysplasia experience

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Abstract

The results obtained in the previous research and the author's analysis of the ways and experience of solving similar organizational and methodological problems have identified the need for structural and logical systematization and their generalization for the sound development of structural-functional model (SFM) medical care for children 0-3 years old with bronchopulmonal dysplasia (BPD) and children of older age groups dysplastic dependent pathology of broncho-pulmonal system. The urgency of such development is conditioned by the existing socio-medical significance of the problem of health preservation, first of all prematurely born children with low and low body weight, high levels of their disability and morbidity. The aim of the study: to substantiate and develop a systematic complex of regulatory and legal support for SFM of medical care for children with BPD and dysplastic-dependent pathology of the bronchopulmonary system, in particular with regard to the introduction of health-improving measures. The author provides the legal and legal support for the components of the SFM assistance to children with BPD and dysplastic dependent pathology of broncho-pulmonal system, in particular regarding the improvement of health technologies in regional health systems. In order to improve this area of legislative and regulatory support, in 2014-2016 the directions of implementation of the legislative initiative were determined. The substantiated, submitted for consideration seven legislative acts of Ukraine, which improved the regulatory and legal support of the SFM components.

Keywords: public health,structural-functional model, bronchopulmonal dysplasia, improvement of health technologies.

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Introduction

The results obtained in the previous research and the author'sanalysis of the ways and experience of solving similar organizational andmethodological problems have identified the need for structural and logicalsystematization and their generalization for the sound development of structural-functional model (SFM) medical care for children 0-3 years old with bronchopulmonal dysplasia (BPD) and children of older age groupsdysplastic dependent pathologyofbroncho-pulmonal system (BPS)[1-8]. The urgency of suchdevelopment is conditioned by the existing socio-medical significance of the problem of health preservation[4, 9-11], first of all prematurely born children with low andlow body weight, high levels of their disability and morbidity [5-8; 12-17].This

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publication describes the elaborated regulatory acts on the introduction of health technologies in SFM [18].

The aim of the study: to substantiate and develop a systematic complex ofregulatory and legal support for the structural-functionalmodel (SFM) of medicalcare (MC) for children with bronchopulmonary dysplasia (BPD) and dysplastic-dependent pathology of the bronchopulmonary system (BPS), in particular withregard to the introduction of health-improvingmeasures.

Materials and methods of research. The realization of the research was based onthe conducted bibliosemantic analysis of scientific sources, own study of social-medical problems of rendering medical care (MC) with the analysis of unresolvedmedical-organizational issues and substantiation of directions of research[19-23]. In particular, we applied the following methods: a systematic approach - forquantitative and qualitative analysis of the organization and optimization ofmedical and social substantiation of SFM medical care for patients with BPD [1, 24]; bibliosemantic analysis - for studying and analyzing scientific literature dataregarding the domestic and foreign experience of providing MC to patients withBPD [5,14, 25-28];epidemiological analysis - to determine the levels, structure anddynamics of the incidence and prevalence of respiratory system respiratory systemin childhood, to identify risk factors [6, 29-33] ; statistical analysis - to collect, process and analyze the information received.The materials and methods listed areoutlined in published articles; the current article is devoted to characterization ofdirections of improvement of the principles of the state policy in the field of healthcare, which the author has executed.

Results and Discussion. Taking into account regional and ecological differences, in particular with respect to Dnipropetrovsk region and in order to improve the conditions of socio-economic compensation of the risk to the population living in the area of nuclear facilities observation, we (in co-authorship) substantiated and submitted to the Verkhovna Rada of Ukraine a draft law of Ukraine one on Improving the Conditions of Socio-Economic Compensation of the Risk of Population Living in Observation Areas "(Bill No. 1395 of December 11, 2014).Considering that according to Article 3 of the Constitution of Ukraine, a person, his life and health, honor and dignity, integrity and security are recognized in Ukraine as the highest social value. According to the provisions of the Law of Ukraine of February 8, 1995 No. 39/95-VI "On the use of nuclear energy and radiation safety", which is fundamental in the nuclear legislation, the population of territories where nuclear facilities are located has the right to socio-economic compensation for the risk from the activities of these facilities, which is carried out at the expense of the proceeds of the fee for socio-economic risk compensation.

In addition, the Law of Ukraine "On Amendments to Certain Laws of Ukraine on the Regulation of Social Protection of Population Living in the Observation Areas of Uranium Mining Enterprises, Nuclear Installations and Objects for the Management of Radioactive Waste" No. 1565-VI, a levy on socio-economic compensation for the risk of the population living in the territory of the surveillance zone was introduced.

In accordance with the provisions of Article 12-2 of the Law of Ukraine "On the Use of Nuclear Energy and Radiation Safety", the proceeds from the collection of socio-economic compensation for the risk of the population living in the territory of the surveillance zone are channeled in the form of a subvention from the special fund of the State Budget of Ukraine to special funds of the budgets regional, rayon, city councils of monofunctional cities.

In this regard, the bill proposes to increase the amount of socio-economic risk compensation for the population living in the surveillance zone from one to two percent and to provide the most vulnerable population categories (children, disabled and pensioners) with health insurance in order to obtain the latest access to quality health care.

In addition, the bill extends the concept of "socio-economic risk compensation for the population living in the surveillance zones" to include provision of health insurance for children and disabled persons, and the adoption of the Law will help create conditions for more intensive development of insurance medicine at the regional level, providing health insurance the population - children, the disabled, other categories, giving the latter access to quality health care. With regard to the SFM target contingent (Table 1), it provides health insurance for children, giving them access to high-quality MC and improving the risk compensation conditions for the SFM target group, taking into account the regional and environmental situation.

Considering the peculiarities of immune prevention of BPD cells and DDP BPS, as well as the pre-

existing prohibition for children without appropriate vaccinations, we (in co-authorship) justified the bill No. 1729 "On Amendments to Some Laws of Ukraine on the Protection of the People against Infectious Diseases", which was submitted to the VerkhovnaRada of Ukraine on 14.01.2014.

Thus, in the three current laws of Ukraine and the normative-legal act of the central body of executive power on health issues (according to the order of the Ministry of Health of Ukraine, which approved the Calendar of preventive vaccinations), the list of infectious diseases against which mandatory preventive vaccinations are carried out is defined. Thus, the laws of Ukraine "On the protection of the population against infectious diseases" (Article 12) and "On ensuring the sanitary and epidemiological well-being of the population" (Article 27) identified 6 infectious diseases, vaccinations against which are obligatory (tuberculosis, polio, diphtheria , cough, tetanus and measles), and the Law of Ukraine "On Approval ofthe National Program of Immune prevention and Protection of the Population from Infectious Diseases for 2009-2015" and the Calendar of 10 preventive vaccinations (tuberculosis, polio, diphtheria, whooping cough, gingiva, measles, measles, measles, hemophilic infection, rubella and mumps). However, the enacted acts do not take into account the peculiarities of the formation of the immune status of children with BPD and DDS BPS at the stages of their development.

For this reason, we have improved the legal framework (justified and submitted the bill) in the field of immune prevention through the introduction of a systematic and comprehensive approach in the implementation of vaccination, strengthening the protection of the rights and legitimate interests of the child for health care and education, in particular for children with BPD and PD visits to children's wellness, preschools and schools by children who have not received prophylactic vaccinations according to the calendar, which is important for the individualization of the immune prevention of the target SFM contingent.

Legislative act №4355 of March 31, 2016 "On Amendments to Certain Legislative Acts of Ukraine on Expanding the Authorities of Local Self-Government Bodies" implemented the support of voluntary association of territorial communities in order to form capable local self-government bodies to fulfill their authority to deregulate their deregulation powers regional-ecological state of the environment with an emphasis on health at the municipal level, which allows to develop health at the municipal level.

In addition, the Government's Action Program provides for the creation of a new public health system and relevant law. This task should also be addressed through the improvement and modernization of sanitary legislation and the law of Ukraine "On ensuring the sanitary and epidemiological well-being of the population", which is an important integral part of public health legislation, in particular in the implementation of two out of ten public health functions namely, monitoring and response to health hazards and emergencies and health protection, including ensuring the safety of the living environment health, including environmental, occupational, food safety, and other determinants.

"On Amendments to Certain Legislative Acts on the System of Central Executive Bodies" of 04.10.2016 regulates the performance of monitoring functions of regional environmental factors, which is crucial for the SFM target contingent.

Responding promptly to the processes underway at the reform stages of the Healthcare of Ukraine also required the initiation of legislative acts on the financial support of the system, in particular, the increase of medical subsidies from the state budget to the local budgets to ensure the main activity in the field of health care (bill # 4472 of 04/19/2016). Also of paramount importance is the fulfillment of Ukraine's commitment tofurther implement the provisions of the WHO Framework Convention on TobaccoControl and its Guidelines in order to reduce the prevalence of smoking and deaths from tobacco-related diseases, as implemented in draft law No. 4119 of 19.02. 2016 "On the Statement of the VerkhovnaRada of Ukraine on the WHO Framework Convention on Tobacco Control (Law No. 1087-VIII)".

The Framework Convention (WHO FCTC) is the first international treaty to which more than 180 countries are home to over 90% of the world's population. In the last decade, the WHO FCTC has become an effective public health tool that has enabled Parties to make significant strides in the fight against tobacco. In this fight for the human right to health, Ukraine has shown considerable progress, which has made it possible to halt the tobacco epidemic in the country.

Since the ratification of the WHO FCTC in Ukraine, legislative changes have been approved that have saved hundreds of thousands of lives. During this

able 1, **Author's normative - legalsupport of components of the structural-functional model of assistance to children with bronchopulmonarydysplasia anddysplastic-dependent diseases of the bronchopulmonary system: improvement of regional health care systems**

№ of Act	Data	Name of the legislative act	The overall goals of that are achieved in the health care system	A specific goal, what is being achieved in SFM
1395	11.12.2014	Amending Some Legislative Acts to Improve Conditions for Compensating Risk to Population Living in Surveillance Areas[34]	- strengthening of social protection in the observation areas. -creation of conditions for the development of insurance medicine at the regional level. - the concept of "socio-economic risk compensation for thepopulation living in observation areas" has been expanded	- providing health insurance to children by giving them access to quality MD. - Improvement of the conditions of risk compensation for the SFM target group taking into account the regional and environmental situation.
1729	14.01.2015	On Amendments to Some Laws of Ukraine on the Protection of the People from Infectious Diseases [35]	- improvement of the legal framework in the field of immune prevention, introduction of a systematic and integrated approach in theimplementation of vaccination against infectious diseases, strengthening the protection of the rights and legitimate interests of the child in health care and education	- the ban on attending childcare facilities for children who have not received prophylacticvaccinations according to the calendar, which is important for the individualization of the immune prevention of the target SFM contingent, is lifted
2309a-дП	10.12.2015	Adopting the Bill on Amendments to Certain Legislative Acts on the Improvement of Legislation on Health (1337-VIII) as a Basis[36]	- creation of conditions for development of the system of state and municipal institutions of health care. Comprehensive reform of the health care system to create a network of health care facilities in Ukraine with sufficient level of autonomy to provide effective and timely MC	- clarified the guarantee that funds not used by the institution of HC in the current year will not be withdrawn and can be used to finance the upgrading of the material and technical base, which is significant for the target contingent of the SFM
5134-1	04.10.2016	Amendments to Certain Legislative Acts on the System of Central Executive Bodies[37]	- introduction of an effective and economical risk-oriented approach in state oversight.	- regulates the performance of monitoring functions of regional environmental factors, which is crucial for the SFM target contingent
4472	19.04.2016	On Amendments to the Law of Ukraine "On the State Budget ofUkraine for 2016" [38]	- directing additional revenues to local budgets, and also financingof individual social expenditures	- increasing the amount of medical subsidy from the statebudget to the local budgets to ensure the main activity in the field of health care
4119	19.02.2016	On the Statement by the VerkhovnaRada of Ukraine on the WHO Framework Convention on Tobacco Control (1087-VIII) [39]	- Ukraine's commitments to further implement the provisions of the WHO Framework Convention on Tobacco Control and its Guidelines have been implemented to reduce the prevalence of smoking and death from tobacco-related diseases	- reducing the prevalence of smoking For the SMF target group, this law provides a tobacco-free environment
4355	31.03.2016	On Amendments to Some Legislative Acts of Ukraine Regarding Expansion of Full-Strength of Local Self-Government Bodies [40]	-Support forvoluntaryassociationterritorial communities for thepurpose of formation able local bodies self until fulfillment of the powers given to them	- deregulation control over regional and ecological state environment with an emphasis on health at the municipal level

Note: SFM is a structural and functional model, HC is healthcare. A circumstance that prompts rapid and comprehensive improvement of sanitary legislation is a change in the powers of the executive authorities and the inability to execute a government decree on the optimization of the system of central executive bodies without legislative regulation of these powers.

time, tobacco and smoking have changed, almost all forms of tobacco advertising, sponsorship and marketing have disappeared, new cigarette packaging labeling rules have been introduced, most jobs have become "smokeless", and cigarette prices have been significantly reduced due to the constant increase in excise duty rates.

The first and basic tobacco control law, "On Measures to Prevent and Reduce the Use of Tobacco Products and Their Adverse Effects on Public Health," was adopted as early as 2005. Following the ratification of the WHO FCTC, changes to legislation that saved hundreds of thousands of lives have been adopted in Ukraine.

During this time, the attitude towards tobacco and smoking changed; almost all forms of tobacco advertising, sponsorship and marketing have disappeared; introduced new rules for the labeling of cigarette packages; most jobs have become "smokeless"; Significantly reduced cigarette affordability due to continued excise duty rates.

From fourth place in the world in terms of smoking prevalence in 2006, we have moved into the third ten, according to the latest WHO report on the global tobacco epidemic. In the year of WHO ratification of the FCTC, more than 37% of Ukrainians were daily smokers, and recent studies say that 24% of adults are smokers. As a result of these and other prophylactic measures, the incidence of asthma, coronary heart disease, upper respiratory tract diseases, etc. has decreased.

It is safe to say that the measures implemented have been effective in health care. In monetary terms alone, over the last 8 years, revenues from excise duties have increased 9 times more from the State Budget: from UAH 2.5 billion in 2007 to 22.2 billion in 2015. However, in the past years, no expenditures from the state budget on tobacco control programs have been made, although it is Ukrainian smokers, not corporations, who pay the excise tax on cigarettes.

However, there is still a long way to go to end the tobacco threat. In 2010, researchers at the University of Oxford estimated Ukraine's tobacco-related losses at 63,000 deaths each year. Due to the lack of tobacco control measures in 2015, the prevalence of smoking did not decrease. Control over the implementation of anti-tobacco legislation remains weak, and the influence of tobacco corporations on power is strong.

Most tobacco proposals and activities are initiated and implemented by NGOs, and tobacco control activities are funded by international donors. Tobacco smoking, as a socio-medical problem and a significant risk factor for BPD in children whose parents smoke - continues to be relevant in medical research. However, as demonstrated in our study (section 5), it remains a prognostically dangerous factor and a significant indicator of the effectiveness of prevention programs to reduce the risk of BPD and premature birth, as well as the birth of low birth weight children.

Prospects for further research on the issues of socio-medical effectiveness of regulatory and legal support for SFM components are related to the assessment of their impact on the implementation of health technologies at regional, communal and family levels.

Conclusions. The author provides the legal and legal support for the components of the SFM assistance to children with BPD and DDP BPS, in particular regarding the improvement of health technologies in regional health systems. In order to improve this area of legislative and regulatory support, in 2014-2016 the directions of implementation of the legislative initiative were determined. The substantiated, submitted for consideration seven legislative acts of Ukraine, which improved the regulatory and legal support of the SFM components.

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