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ASSESSMENT OF THE STATE AND EFFICIENCY OF THE PUBLIC MANAGEMENT AND ADMINISTRATION OF THE COMMUNICATION ACTIVITY OF PUBLIC HEALTH IN UKRAINE

Abstract. An assessment of communication activity in the public management of public health in Ukraine is given. To assess the stages of formation of public health in Ukraine, the relevant normative legal acts, official websites, analysis of the development of communication activities of public health at different

stages of development are defined. The main indicators that can be indicators of the success of communication activities in the country are studied. Such indicators include: actual health indicators (number of strokes, heart attacks, the abandonment of bad habits), communication components accepted by the population (detection of stroke by non-medical workers, street resuscitation, use of personal protective equipment, vaccination) and communication (communication companies are remembered by the population, the level of trust in the sender of information). The actual indicators are studied, and the tendencies to changes of these indicators for the last five years are given. A qualitative and quantitative assessment was made on the basis of objective indicators of communication companies and indicators of the nation's health. It has been determined that the development of the public health institution is just beginning in Ukraine. Normative legal acts (NLA) are insufficient, and the strategy of communication activity is not formed. Among communication companies, communication activities developed with the support of international partners (HIV, Tuberculosis) and those with strong global trends (smoking) were the most effective, but the results of these companies are also difficult to consider satisfactory. It is also determined that most communication companies focus on the situational problem (outbreak of infectious diseases, vaccination, etc.) and there is no long-term communication strategy.

It is also determined that some important public health issues have not been included and are not addressed at the state level (obesity, outpatient intensive care, etc.).

Keywords: public administration, healthcare, communication activities, communication technologies, healthcare communications, public health communications, public health.

ОЦІНКА СТАНУ ТА ЕФЕКТИВНОСТІ ПУБЛІЧНОГО УПРАВЛІННЯ ТА АДМІНІСТРУВАННЯ КОМУНІКАТИВНОЇ ДІЯЛЬНОСТІ ГРОМАДСЬКОГО ЗДОРОВ'Я В УКРАЇНІ

Анотація. Наведено оцінку комунікативної діяльності в публічному управлінні громадським здоров'ям в Україні. Для оцінювання визначені етапи становлення громадського здоров'я в Україні, вивчені відповідні нормативно-правові акти, офіційні вебсайти, надано аналіз розбудови комунікативної діяльності громадського здоров'я на різних етапах розвитку. Вивчені основні показники, які можуть бути індикаторами успішності комунікативної діяльності в країні. До таких показників віднесено: фактичні показники здоров'я (кількість інсультів, інфарктів, відмова від шкідливих звичок), комунікативні компоненти, прийняті населенням (виявлення інсульту не медичними працівниками, вуличні реанімації, використання засобів індивідуального захисту, вакцинація) та комунікативні (комунікативні компанії запам'ятовуються населенням, рівень довіри до відправника інформації). Вивчено фактичні показники, та наведено тенденції до змін цих показників за останні п'ять років. Зроблено якісну та кількісну оцінку на основі об'єк-

тивних показників комунікативних компаній та показників здоров'я нації. Визначено, що в Україні тільки починається розбудова інституції громадського здоров'я. Нормативно-правові акти (НПА) недостатні, а стратегія комунікативної діяльності не сформована. Серед комунікативних компаній найбільшу ефективність мала комунікативна діяльність, розроблена за підтримки міжнародних партнерів (ВІЛ, Туберкульоз), та ті, які мають потужні світові тренди (тютюнопаління), однак результати цих компаній також важко вважати задовільними. Визначено, що більшість комунікативних компаній спрямовані на ситуаційну проблему (спалах інфекційних захворювань, вакцинація тощо), при чому повністю відсутня довгострокова комунікаційна стратегія.

Також визначено, що деякі важливі питання громадського здоров'я не були включені та не розглядаються на державному рівні (ожиріння, позалікарняні реанімації тощо).

Ключові слова: публічне адміністрування, охорона здоров'я, комунікативна діяльність, комунікативні технології, комунікації в охороні здоров'я, комунікації в громадському здоров'ї, громадське здоров'я.

ОЦЕНКА СОСТОЯНИЯ И ЭФФЕКТИВНОСТИ ПУБЛИЧНОГО УПРАВЛЕНИЯ И АДМИНИСТРИРОВАНИЯ КОММУНИКАТИВНОЙ ДЕЯТЕЛЬНОСТИ ОБЩЕСТВЕННОГО ЗДОРОВЬЯ В УКРАИНЕ

Аннотация. Приведена оценка коммуникативной деятельности в публичном управлении общественным здоровьем в Украине. Для оценки определены этапы становления общественного здоровья в Украине, изучены соответствующие нормативно-правовые акты, официальные вебсайты организаций, ответственных за общественное здоровье, дан анализ становления коммуникативной деятельности общественного здоровья на различных этапах развития. Изучены основные показатели, которые могут быть индикаторами успешности коммуникативной деятельности в стране. К таким показателям отнесены: фактические показатели здоровья (количество инсультов, инфарктов, отказ от вредных привычек), коммуникативные компоненты, приняты населением (выявление инсульта не медицинскими работниками, уличные реанимации, использование средств индивидуальной защиты, вакцинация) и коммуникативные (коммуникативные компании, которые запоминаются населением, уровень доверия к отправителю информации). Изучены фактические показатели и приведены тенденции изменений этих показателей за последние пять лет. Сделано качественную и количественную оценку на основе объективных показателей коммуникативных компаний и показателей здоровья нации. Определено, что в Украине только начинается развитие института общественного здоровья. Нормативно-правовые акты (НПА) недостаточны, а стратегия коммуникативной деятельности не сформирована. Среди коммуникативных компаний наибольшую эффективность имела коммуникативная деятельность, разработана при поддержке международ-

ных партнеров (ВИЧ, туберкулез), и те, которые имеют мощные мировые тренды (курение), однако результаты этих коммуникационных компаний тоже сложно считать удовлетворительными. Определено, что большинство коммуникационных компаний направлены на ситуационную проблему (вспышка инфекционных заболеваний, вакцинация), при этом долгосрочная коммуникационная стратегия отсутствовала.

Также определено, что некоторые важные вопросы общественного здоровья не были включены и не рассматриваются на государственном уровне (ожирение, внебольничные реанимации и т. д.).

Ключевые слова: публичное администрирование, здравоохранение, коммуникативная деятельность, коммуникативные технологии, коммуникации в здравоохранении, коммуникации в общественном здоровье, общественное здоровье.

Formulation of the problem. Today, in the Ukrainian medical industry, one can observe a rather rapid development of a new direction — public health. According to the World Health Organization (WHO), public health is one of the key components of a well-functioning healthcare system. The main tasks of public health are primarily to improve the health of each citizen and the population as a whole, prevent disease, increase life expectancy and prolong the active period through organized efforts of the society. [1].

World experience shows that the development of policies and strategies aimed at disease prevention, anti-epidemic measures, healthcare and promotion should be central to public health communication. To successfully implement such a model, the government must communicate with a wide range of stakeholders. This position is fully consistent with the system approach [2; 3].

Although the assessment of the communication activities is important enough to understand public health, it

is very difficult to identify key components for the assessment.

Ukraine started building public health less than ten years ago and today there is still 'initial chaos' in the system, so it is important to understand the level and quality of existing communication activities from the beginning and take the necessary steps to strategically build this crucial area, taking into account the roles of all the stakeholders.

Analysis of recent research and publications. For the Ukrainian scientific space the term 'public health' is quite new and has many different interpretations, but in most cases it reflects a qualitatively new approach to the development of healthcare area. Among domestic scientific developments, the view on the interpretation of the term and the role of public health are covered in the works of I. S. Myroniuk, H. O. Slabkyj, O. O. Kyukalo [4; 5].

Among the important works in which public health is studied should be noted Belinska M. M., who assessing the impact of the public administration on the development of public health in

Ukraine, deals exclusively with issues of economics and welfare, and at the same time not considering the communication component. Accordingly, there is no assessment of the effectiveness of the development of this industry in Ukraine [6].

The works of T. A. Zanfirova and Ya. F. Radysh define the multicomponent nature of public health, but do not reflect such important components as public and communicative, respectively, and there is no assessment of success or effectiveness [7].

Quite a thorough analysis was provided by K. O. Bulavinova, O. Z. Detsyk and Z. O. Tsyhon on the roles of communication strategies, there were considered the stages of development and identified some important points in the development of communication activities in the field of public health in Ukraine, but did not assess the quality of communication activities [8].

Goal. To study the current model of communication activities in the field of public health in Ukraine. To determine objective assessment criteria based on evidence, and assess the communication model that exists in Ukraine. Based on the analysis of the results, suggest ways to improve the model of the public management and administration of communication activities of public health in Ukraine.

Presentation of the main material of the research. First of all, starting the assessment of communication activity, it is expedient to consider it on the basis of a clear definition of the model of such activity inherent in our country. In the modern scientific literature there is still no generalized definition of 'model', but more often the term 'model' means a

system or lines of interaction through communication, dialogue, information or exchange of administrative information [2]. Different countries use either an administrative linear-functional model of communication, aimed at exchanging information in the system of administrative relations. Such a model involves only informing the public about the situation. According to the model, it is expected that the citizens should understand everything and behave in a certain way. The almost opposite model is used by most democracies – the verbalization of new public management and good, or appropriate management, which is based on the transfer of all responsibility for the results of communication to the target group, which is the public. This model is based on the idea of active participation of the population in solving all the problems of the state. In this model, the public is no longer the object of information, but a full-fledged subject of communication and takes responsibility for their own health.

In Ukraine, the development of public health is at an early stage, but three main stages can already be clearly identified:

The first stage of development of the vertical management of the public health system in Ukraine began with the accession of Ukraine as a UN member and signatory of the Association Agreement between Ukraine and the European Union, the European Atomic Energy Community, to the Sustainable Development Goals through the development of relevant national strategic objectives. This document, in Chapter 22, defined Ukraine's commitment to implement measures to protect human

health as a prerequisite for sustainable development and economic growth.

An institution was established to coordinate all actors involved in this process (healthcare system, other ministries and departments, local governments, public and patient organizations and citizens themselves) – State Institution ‘Center for Public Health of the Ministry of Healthcare of Ukraine’ (SI ‘CPH of the MoH of Ukraine’). In November 2016, the Cabinet of Ministers of Ukraine approved the Concept of Public Health System Development, and in 2017, the Cabinet of Ministers of Ukraine approved an action plan to implement the Concept of Public Health System Development.

In the second stage of communication activities, the reform of the public health system for all levels – national, regional and local – was presented. An important issue was the communications of the Public Health Directorate and the CPH with other ministries. To implement the policy and appropriate communication, regional CPHs were established, which brought together the Centers for Medical Statistics, Health Centers, Centers for Monitoring and Assessing the Implementation of Program Measures to Combat HIV-infections/AIDS and Tuberculosis (M&E Center), and laboratory centers of the MoH [9].

It should be noted that neither in the above strategy, nor in the future, there were no clear criteria and indicators of effectiveness of both communication activities and the activities of regional CPHs in general. As can be seen, their communication activities focus either on a situational problem (vaccination, outbreak of infectious diseases) or on

important health issues (HIV, alcohol consumption, cancer prevention) do not take into account the state and local programs of other institutions that exist in parallel.

In the third stage, the issue of insufficient number of specialists in the field and training of medical specialists in relation to communication activities on public health issues was finally raised. An important step was the creation of a Bachelor’s program in ‘public health’ that are implemented both in the newly created departments of public health (Uzhgorod National University, NMAPE named after P. L. Shchupryk, etc.) and in the departments of Social Medicine, Healthcare Organization and Medical Law (Ivano-Frankivsk National Medical University). As well as the expansion of Master’s programs to meet the needs of communication and general competencies in public health of the heads of healthcare facilities. ‘Public health’ education programs have been developed. Also in the third stage, there was a high intensification of various trainings and schools on communication related to public health issues. Or as noted by K. O. Bulavinova in Ukraine, this work is carried out on a volunteer basis, by private training centers or at the expense of international organizations and is in no way related to the systemic vision of the state strategy for communication activities of public health [8]. In the scientific literature, methods and approaches to assess communication activity are aimed exclusively at communication activity in the commercial sphere. Most publications define two groups of parameters: to assess sales growth and its impact on the individual. However, this approach is

not satisfactory for assessing the effectiveness of the communication activities in public health. After all, it is necessary to use objective indicators that are based on the goals and directions of public health in general [10; 11].

Therefore, it is advisable to study the indicators that indicate both the improvement of community health as a whole and the results of the communication companies themselves: actual health indicators (number of strokes, heart attacks, abandonment of bad habits), communication components accepted by the population (detection of stroke by non-medical workers, street resuscitation, use of personal protective equipment, vaccination) and communication (communication companies are remembered by the population, level of trust to the sender of information).

Based on the analysis of the official website SI 'CPH of the MoH of Ukraine' (www.phc.org.ua) it can be noted that the institution in cooperation with international partners implements numerous projects aimed primarily at combating HIV-infections/AIDS, tuberculosis. Among the projects mentioned are: Strengthening the capacity of HIV/AIDS treatment in Ukraine within the framework of the U.S. President's Emergency Plan for AIDS Relief (PEPFAR); Support for the HIV epidemiological surveillance system and the Ministry of Healthcare of Ukraine's laboratory management/improvement system, improving the use of strategic information, and building public health capacity under the U.S. President's Emergency Plan for AIDS Relief (PEPFAR); Accelerating Ukraine's progress in ensuring a sustainable healthcare response to tuber-

culosis and HIV-infection; Providing support to Ukraine in the development of a modern public health system; FHI Healthcare Cooperation with Ukraine; Strengthening of the implementation of the WHO Framework Convention on Tobacco Control in Ukraine.

Within these projects, individual communication components of optimization and advocacy of antiretroviral therapy (ART), improvement of immunization information systems, raising awareness of regional media on the topic of tobacco control have been identified. At the same time, none of the projects contains a multi-level national communication strategy. In addition, many public health issues that are indicators around the world (obesity, stroke, heart attack, mental health) are not reflected on the official website of the SI 'CPH of the MoH of Ukraine'.

With regard to regional units, the goals and missions include educational activities and social communication, adapted to the needs of specific socio-economic groups and designed to promote the improvement of lifestyle and behaviour of the population, the environment [12]. At the same time, the centers themselves are poorly represented on the Internet, and many of them do not even have a website separate from the Department of Healthcare. As for communication tools, social networks are mostly used, most often Facebook, materials on the pages are arranged chaotically and in fragments, mostly own content is missing. Odessa Regional CPH publishes an electronic magazine 'Medical Space', the issues of which are available on their own website (<https://healthcenter.od.ua/online/zhurnal-medychnyj-prostir/>). The

magazine itself serves more as a newsletter.

Communication activities on the prevalence of HIV-infections/AIDS and the factors that contribute to its development are most widely represented in Ukraine. It should be noted that in Ukraine all topics related to the prevalence of HIV-infections/AIDS from prevention to ART advocacy and prevention of stigmatization of these segments of the population are quite well represented. A number of normative legal acts (NLA) have been adopted within the framework of the public administration (Law of Ukraine 'On Counteracting the Spread of Diseases Caused by Human Immunodeficiency Virus (HIV) and Legal and Social Protection of People Living with HIV', Order of the Cabinet of Ministers of Ukraine 'On Approval of the Strategy for Ensuring a Sustainable Response to the Epidemic of Tuberculosis, Including Chemo-resistant, and HIV-infections/AIDS for the Period up to 2020 and Approval of the Action Plan for Its Implementation', Orders of the MoH of Ukraine 'On Amendments to the List of Diseases for Which a Person Cannot Be An Adoptive Parent', 'On Approval of Methodical Recommendations On Providing Legal Assistance to Women From Vulnerable Social Groups', 'On Approval of the Procedure For Providing HIV Prevention Services Among Representatives of High-Risk Groups For HIV Infection', On approval of Amendments to the Standard Regulations on the 'Dovira' Cabinet) introduction of the Medical Guarantees Program: treatment of HIV patients, and determination that ART drugs in Ukraine are available to everyone with

HIV infection and are also provided free of charge.

In accordance with these NLA, a strategy has been developed, that includes communication activities of public health in the main areas: HIV/AIDS prevention among the population of Ukraine, use of personal protective equipment, especially among adolescents and socially irresponsible segments of the population, HIV testing, advocacy of ART therapy, prevention of stigmatization of people living with HIV (PLHIV).

In recent years, numerous communication campaigns aimed at prophylaxis, prevention, detection of HIV/AIDS, ART advocacy and prevention of stigma of PLHIV, with the participation of SI 'CPH of the MoH of Ukraine', regional CPH, international organizations (WHO, UNICEF and USAID and others) NGOs ('100 % of Life', 'Public Health Alliance', Charitable Organization 'Positive Women', Kherison City Public Organization '21st Century', etc.).

According to the WHO, Ukraine is a region with a high prevalence of HIV-infection. According to the data of the SI 'CPH of the MoH of Ukraine' and the UNAIDS estimate, the number of PLHIV in Ukraine reaches 240 thousand people. Only every second HIV-positive person knows about their status and seeks medical help. At the same time, according to Andrushchak M.O. and co-authors, 75 % of HIV-positive people in the world knew about their HIV status (70 % in early 2017); 79 % of those who knew about their HIV status received treatment, 81 % of those who received ART reached an indefinite level of viral load on HIV in the

blood [13]. As of May 1, 2019, 143 766 PLHIV are registered in Ukraine [14], there is a negative trend towards late detection of HIV, which is diagnosed in more than half of people in the 3rd and 4th clinical stages [15].

Analyzing the situation with regard to the trend towards a negative trend in the fight against HIV in Ukraine, Shapka Ye. M. notes that the state pursues a policy of ART advocacy without paying attention to other aspects aimed at reducing the number of HIV infections in Ukraine [16], that according to Horpynych A., despite the great attention paid to the issue of discrimination and stigma of HIV-positive people, these phenomena remain widespread among our society [17], and Ohorenko V. V. and Hnenna O.M. indicate intolerance to PLHIV, even in 17,7 % (17,7 %) of sixth-year medical students [18].

When studying actual health indicators, it is advisable to focus on those that are the main factors of death and disability, and which are most affected by public health communication: obesity, the state of care for strokes, diseases of the circulatory system, abandonment of bad habits.

In Ukraine, 22,1 % of the population is obese, and ranks 14th among European countries in the number of obese people. For comparison, in the Great Britain this figure is 28,4 % for women and 26,2 % for men, and is the worst in Europe [19]. Despite the fact that there is now a global trend to overcome obesity, and communication on this issue is carried out by both medical and non-medical professionals (fitness instructors, influencers, Instagram models), in Ukraine there are no broad communication companies on this issue. The

only event aimed at the public is a plate of healthy nutrition of the Ukrainians developed by the MoH in cooperation with the 'Association of Nutritionists of Ukraine' [20]. However, this initiative is not widely reflected in the information field.

With regard to childhood obesity, according to the State Institution 'Center for Medical Statistics of the MoH', the prevalence of obesity among children in Ukraine is much lower compared to European countries (<http://medstat.gov.ua/ukr/statdan.html>). However, according to I.E. Zabolotna and L.V. Yashchenko, this is not due to the best state of public health and preventive medicine, but to the fact that the study and statistical analysis of the prevalence of overweight among children in Ukraine is not conducted [21]. According to Pomohaibo K. H., pediatric patients for the first time seek medical help for complaints related to the development of complications of obesity [22]. Another important indicator is that according to the WHO in 2001 in Ukraine the number of overweight children was 14,4 %. This indicates that the obesity prevention system in children has a number of shortcomings in the organization, process and results: non-compliance by primary care physicians with the provision of medical care to children, neglect of existing protocols, lack and fragmentation of the normative legal framework, lack of consistency between the regulations of the Ministry of Healthcare and lack of documents defining communication strategy in this matter.

In most countries of the world, the main public health challenges are non-communicable diseases that lead to

disability and death: injuries, strokes, heart attacks. According to official statistics, in Ukraine the cerebrovascular diseases are the second leading cause of death (100 000-110 000 deaths, about 14 % of all deaths). However, it should be noted that the frequency of deaths from these diseases is largely due to the quality and availability of specialized medical care. Thus, it cannot be a clear indicator of the effectiveness of public health, but rather indicates the efficiency or non-efficiency of the healthcare system as a whole.

Stroke is quite indicative in assessing the effectiveness of the communication activities in public health. After all, this disease has clear risk factors: high blood pressure, sedentary lifestyle, bad habits (smoking and excessive alcohol consumption), high blood cholesterol, obesity and diabetes, which can be influenced through communication activities aimed at changing the lifestyle.

In addition, early detection of stroke and appropriate treatment are very important for disability. For early detection of stroke in the United States of America and the European Union information and communication programs are conducted aimed at early detection of stroke by non-medical professionals. The slogan of these programs is 'The Brain is Time'. Due to the early detection of stroke and the availability of qualified medical care in Europe and the USA, up to 80 % of stroke survivors return to a normal lifestyle.

There are 100 000 to 110 000 strokes each year (more than a third of them are in people of working age), and according to the Ukrainian Stroke Association, the real figure is 150 000. 30–40 % of stroke patients die within the first 30

days and up to 50 % within a year of the onset of the disease; 20–40 % of surviving patients become dependent on outside care (12,5 % of primary disability) and only about 10 % return to full life [23]. A study conducted in the southern region showed that by 2015 25–30 % among all stroke emergency calls the patients refused hospitalization. The reasons for refusal were mostly related to poor awareness of the patient and his relatives about modern standards of stroke treatment (13,5 %), and the presence of relatives of doctors or nurses (11,7 %), lack of funds (18,9 %), family circumstances (6,3 %), general serious condition of the patient (4,5 %). Over the past two years, the number of hospitalizations in the presence of stroke has decreased 2,5 times, and the number of patients who were taken to the hospital within the therapeutic window has also increased by 36,3 % [24].

However, the positive changes are more related to the improvement of the availability of stroke care and the communications provided by the National Health Service of Ukraine (NHSU). From 2020, the treatment of acute stroke is included as a priority in the Medical Guarantee Program. Accordingly, the NHSU, as the sender of information, conducts regular communication campaigns on the availability and free of charge of such assistance [25]. At the same time, communications related to purely public health in stroke (ability to recognize the signs of stroke, assistance to patients in rehabilitation, creating an accessible environment) in Ukraine are conducted by public organizations (NGO 'Ukrainian Association for Stroke Control', NGO

‘South Ukrainian Regional Association of Angioneurology’) and international organizations – European Stroke Organization, European Project ‘Angels Initiative’ [26]. One of the few videos in which they teach to detect signs of stroke was created by the Poltava Stroke Simulation Center with the support of the European Project ‘Angels Initiative’.

With regard to communications for the prevention of cardiovascular disease, the situation is about the same. Myocardial infarction is classified by the WHO as one of the most important non-communicable diseases. Nevertheless, according to Koshel I. I. in recent years in Ukraine there has been a decrease in the incidence of acute myocardial infarction with a level of 117,2 per 100 thousand adult population, there were determined some fluctuations in terms of administrative territories, which is 1,55 times. The gender features of myocardial infarction among men are determined, the incidence of acute myocardial infarction (153,3) is 1,75 times higher than in women (87,5), which corresponds to the global trend [27]. In addition, in recent years there has been a tendency to reduce the mortality rate in Ukraine due to myocardial infarction, which is apparently due not to the development of communication strategies aimed at preventing the development of the disease, but the development of a network of Reperfusion centers operating 24 hours 7 days a week 365 days a year (24/7/365). The NHSU has concluded agreements with these centers to provide assistance to the population of Ukraine under the Medical Guarantees Program. The NHSU also conducts appropriate com-

munication campaigns on the possibility and rights of the patient to receive medical care in this area [28]. In addition, according to Sokol K. in Ukraine from AMI, with about 50 thousand patients, 20 % of patients die annually, while in European countries – 5 % [29], and according to the mathematical model of Ruden V. V., Kovalska I. M. [30] there is a tendency to increase, which indicates the ineffectiveness of the existing strategies of communicative and preventive activities aimed at this disease.

According to the existing programs of the SI ‘CPH of the MoH of Ukraine’, the Main communication companies are aimed at giving up bad habits and implementing a safe lifestyle (prevention of TB, HIV, etc.). According to the SI ‘Center for Public Health of the MoH of Ukraine’, 85 000 deaths each year are related to smoking, and more than 14 000 to exposure to secondhand tobacco smoke. In 2019, the national information campaign ‘Tobacco Smoke – An Invisible Killer’, the published report states that due to a successful advocacy campaign that lasted from 2017–2019 to January 2020, a number of pieces of legislation were passed that will triple the excise tax on electric heating products, cigars and introduce a tax on e-cigarettes from 2021. Bill 2813 has also been registered, which increases the number of public places where smoking will be completely banned.

It should be noted that this is the first national information and communication company aimed at combating tobacco. The company has 25 national and more than 60 regional TV channels that broadcast a social video about the harms of secondhand smoke. In ad-

dition, social advertising is located on the streets of the capital and 10 cities of Ukraine. The inclusion of regional centers for public health has made it possible to distribute more than 10 000 posters, 25 000 stickers and leaflets about the dangers of secondhand smoke, especially for children who cannot protect themselves.

Today it is too early to assess the success of the national anti-tobacco company, but it can be noted that in general in 2008–2019 sales of cigarettes in Ukraine decreased from 125 billion to 45 billion cigarettes, i.e. by 80 billion or 64 %. In addition, it was noted that the launch of the anti-tobacco company has led to greater involvement of the citizens, such a share of those who protect the right to a smokeless environment. The study found that among respondents 3,2 % more remarks were made to smokers in inappropriate places (21 % before the company and 24,2 % after the start of the company), 1,3 % of citizens pasted the sign 'No smoking' (2, 2 % and 3,5 %, respectively) and 1,2 % more complained to the relevant authorities (2,1 % and 3,3 %, respectively) [31].

An important indicator of successful public health communication companies can be considered a change in lifestyle in accordance with the communication companies (detection of stroke by non-medical workers, street resuscitation, use of personal protective equipment, vaccination) and communication (communication companies are remembered by the public, level of trust in the sender of information).

According to world statistics, most heart attacks due to non-traumatic diseases occur on the street, out of reach

of medical staff. Thus, Audrey L Blewer and co-authors point to the frequency of outpatient cardiopulmonary resuscitation as an important component of public health. Thus, according to the American Heart Association (AHA), non-medical cardiopulmonary resuscitation (CPR) increases a person's chance of surviving a cardiac arrest out of hospital, but the incidence of such CPR is low in most countries (approximately 40 %) [32].

Despite the high interest of the public in home health education, due to the events with a large number of human casualties and disabilities over the past five years: The Revolution of Dignity, the anti-terrorist operation in the East of the country, the unstable socio-political situation with clashes and confrontations, a large number of emergencies, road accidents and terrorist acts. It is important to note that in 2007 the State Institution 'Ukrainian Scientific and Practical Center for Emergency Care and Disaster Medicine of the MoH of Ukraine' approved the procedures for providing home medical care to persons in emergencies (Order of the MoH of Ukraine of 16.06.2014 No. 398). In addition, the SI 'Ukrainian Scientific and Practical Center for Emergency Medical Care and Disaster Medicine of the MoH of Ukraine' is the main institution that provides organizational and methodological assistance and provides scientific support for the establishment and operation of a single emergency medical care system, which determines that the institution should develop and implement communication activities on home care. In 2013, the institution passed the State Accreditation and was included in the State Register of Scien-

tific Institutions Provided with State Support. However, it should be noted that neither the SI 'Ukrainian Scientific and Practical Center for Emergency Care and Disaster Medicine of the MoH of Ukraine', nor the SI 'CPH of the MoH of Ukraine' conducts any communication activities to train non-medical workers in home care.

Today in Ukraine there are a large number of private institutions that conduct courses and master classes on home care, but there is no single standard of education, nor any measures to accredit the courses in Ukraine. So, different private training centers teach in different programs. Thus, the All-Ukrainian public organization 'All-Ukrainian Council for Resuscitation and Emergency Care' teaches in accordance with the standards of the European Resuscitation Council (ERC), and represents Ukraine in the network of the national resuscitation councils in Europe. 'Special Training Center' LLC teaches in accordance with the standards of the American Heart Association (AHA). Another important actor in the training of home care is the Ukrainian Red Cross Society, whose programs are certified in the reference-center for first aid of the International Federation of Red Cross and Red Crescent Societies. At the same time, most organizations that train non-medical workers in Ukraine (SAR ® Training Center, 'CAB' First Home Care Courses', 44 Training Center, etc.) conduct training according to their own programs, which are in no way tested and inconsistent with the existing NLA in Ukraine. All these organizations are engaged in communication activities mainly aimed at commercial needs and creating demand among

the population for knowledge of home care. Such communication activity is also not coordinated, and is unlikely to give a systemic result. Thus, according to the Ukrainian Foundation 'Health', 82 % of respondents said they would not be able to provide first aid to the victim, because they do not know what to do. Another 62 % will not save because they are afraid of harm and possible liability that may occur as a result of such actions. Also, according to the study, only 1 % can use an automatic external defibrillator, while in Europe this figure is 40%.

Vaccination is a global public health communication problem. Vaccination coverage against diphtheria, pertussis and tetanus is a good marker of the success of immunization programs in the country. All high-income countries have a vaccination coverage rate of over 90%. According to research, well-constructed communication strategies give better results than legal coercion and prohibition. There has been an increase in the number of parents who believe that compulsory vaccination violates their civil rights, leading to a clear reduction in vaccinations in Italy, France and Australia, where the governments have in recent years decided to require vaccination of the children attending public schools [33]. However, as Yudin O. notes, according to the decision of the European Court of Human Rights, the main priority for the state is the protection and preservation of life and health of its citizens, so in certain cases these interests have priority and the state has the right in certain cases to oblige the citizens to undergo medical procedures in order to eliminate the threat of harm to public health [34].

Numerous vaccination awareness campaigns have been conducted in Ukraine recently with the involvement of international partners, but according to the MoH of Ukraine, an outbreak of measles has been going on in Ukraine for almost two years. The highest level of the disease was recorded in the regions with the lowest vaccination rates (Lviv, Ivano-Frankivsk, Zakarpattia, Odessa regions) [35]. It should be noted that the vaccination coverage among the population of Ukraine is rather low.

According to the SI 'CPH of the MoH of Ukraine' from tuberculosis are vaccinated only 33,4 % of children under one year of age, hepatitis B – 26,7 % of children under 1 year, measles, mumps, rubella – 28,3 % of one-year-old children and 30,1 % – children aged 6 years, diphtheria, tetanus are vaccinated only 31,6 % of children under one year, 32,4 % of children aged 18 months, 15,9 % of children aged 6 years, 15,5 % of children aged 16 years, hemophilic infections up to one year – 76,5 % of people, one year – 80,0 % [36].

This attitude towards vaccinations has already resulted in a powerful outbreak of measles in 2017–2019, if the approaches to communication activities in this area are not changed, Ukraine expects a deterioration of the epidemiological situation regarding the vaccine-controlled infections.

According to Chernenko, despite the large number of communication companies, there is still a low culture of the population, which leads to the wrong attitude of people to their diseases, low medical literacy, exaggeration of folk medicine, homeopathy, and so massive refusals of vaccinations [37].

Conclusions from this research and prospects for further exploration in this direction: It should be noted that the communication activity of the public administration of public health is a rather complex material for assessing effectiveness, as it does not have clearly defined measurable indicators that could be compared between different countries and models. Today in Ukraine only the public health system is being created, the central body of the SI 'CPH of the MoH of Ukraine' has already been established and the formation of regional CPHs related to public administration is almost complete, it can be noted that the NLA is mostly present in the regulation and coordination of public health, but in terms of communication activities, the NLAs are insufficient and the communication strategy is not formed. Thus, in the strategy approved by the government, or in the future, there were no clear criteria and indicators of the effectiveness of both communication activities and the activities of the regional CPHs in general. Most communication activities are aimed either at the situational problem (vaccination, outbreak of infectious diseases) or at international health trends (HIV, alcohol consumption, cancer prevention) without the existing communication strategy of the regional CPH and without taking into account the state and local programs of other institutions that exist in parallel.

Among the public health issues, high attention is paid to the spread of HIV/AIDS, smoking and vaccination. However, the results of these interactions are difficult to consider satisfactory (only 50 % of PLHIV are aware of their diagnosis, a high percentage of

those detected in the later stages of the disease, low vaccination coverage, etc.). Many communication companies are conducted without a central strategy and even without state involvement (obesity, prevention of strokes, heart attacks, etc.). Thus, it can be noted that the participation of the state in the creation and development of a strategy for communication activities of public health is minimal and does not meet most of today's challenges.

According to the results of this research and given the fact that the study of the available scientific literature did not reveal research on communication companies that are remembered by the public in public health, promising for further research are questions and analysis of the success of companies, and the main elements that played a role in their memorization, and determine whether they influenced the behaviour of the target audience, as well as communication activities of the public organizations in the public management and administration of public health.

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