Modern Pharmaceutical Law, Administration and Corporate Terms in Pharmaceutical and Healthcare Industries for Corruption-Free Circulation of Vaccines

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Abstract. The article considers an interdisciplinary approach to the analysis of legal, administrative and corporate mechanisms for regulating the circulation of vaccines in the pharmaceutical industry during the COVID-19 pandemic. A comprehensive study of the level of transparency of procurement, vaccine effectiveness, profitability of pharmaceutical corporations and compliance with anti-corruption legislation in the EU countries and Ukraine was conducted. Special attention is paid to the characteristics of corporate norms operating in the medical and pharmaceutical environment, their legal status, scope and significance for the formation of ethical behavior of market entities. As a result, the need for harmonization of national pharmaceutical law with European standards, development of corporate responsibility and strengthening of state and public control over the circulation of medicines and vaccines was substantiated.

The study is based on the analysis of regulatory sources, official statistics, reports of international organizations, judicial precedents and examples from practice. Conclusions are drawn regarding the prospects for expanding the regulatory field and the role of corporate norms in the system of combating pharmaceutical corruption.

Keywords: vaccines, circulation, corruption, pharmaceutical companies, anti-corruption regulation, public-private partnership.

Introduction. Current data (as of June 01, 2025) indicate that COVID-19 is still very active. SARS-CoV-2 strains are returning to Asian countries. The number of cases of morbidity among all segments of the population is increasing sharply in Hong Kong, China, Singapore, Thailand and certain regions of the United States of America [1-3].

WHO experts are constantly monitoring and analyzing the situation, promptly responding to the emerging situation with the spread of morbidity [4]:

- growth is observed mainly in the countries of the Eastern Mediterranean, Southeast Asia and the Western Pacific;
- since early 2025, global trends in SARS-CoV-2 variants have changed somewhat, with LP.8.1 circulation decreasing and NB.1.8.1, the variant under monitoring (VUM), reporting increasing, reaching 10.7% of global sequences as of mid-May;
- global SARS-CoV-2 activity increasing (since mid-February 2025), with the positivity rate reaching 11%, a rate not seen since July 2024;
- growth dynamics of SARS-CoV-2 activity are broadly in line with the levels seen during the same period in 2024, but clear seasonality in SARS-CoV-2 circulation is still lacking and surveillance is currently limited.

Therefore, the study of the spread of modern SARS-CoV-2 strains (LP.8.1; NB.1.8.1), which are returning to some Asian countries and the USA, requires, in our opinion, the Cabinet of Ministers of Ukraine and the Ministry of Health of Ukraine to adopt a resolution on financing the development of a domestic vaccine adapted to new COVID-19 strains (LP.8.1; NB.1.8.1) [5].

The pharmaceutical market in Ukraine is dominated by the pharmaceutical companies Darnytsia, Farmak, Arterium, Borshchahivskyi HFZ, Zdorovya, Yuriya-Pharm, Biofarma, Kyiv Vitamin Plant, Chervona Zirka [6].

In the global pharmaceutical business environment, the pharmaceutical companies Pfizer, Roche, AstraZeneca, Merck, Sanofi, Novartis, GlaxoSmithKline [7]. The basic basis is corporate interests and profit-making during the circulation of vaccines and medicines of all clinical-pharmacological, classification-legal, nomenclature-legal groups [8-12].

The influential role of global pharmaceutical giants in the markets of medicines of the world's countries was sharply manifested during the COVID-19 pandemic against the background of covid, post-covid, long-covid disorders in accordance with ICD-11 [13-33]. During the pandemic, a high level of premature deaths was recorded among all population groups [34, 35].

The purpose of the study was to research the circulation of vaccines from the perspective of pharmaceutical law, administration and corporate norms in the pharmaceutical industry and healthcare.

Materials and methods. During the study, the following sites were studied: PubMed, EUROPOL, EU, Verkhovna Rada of Ukraine, Cabinet of Ministers of Ukraine, Ministry of Health of Ukraine, modern world medical, pharmaceutical and legal journals. Methods of monitoring, observation, questionnaires, graphic, documentary, regulatory and legal, tabular analysis were used.

The study is a fragment of the research works of:

- Private Scientific Institution "Scientific and Research University of Medi`cal and Pharmaceutical Law" on the topic "Multidisciplinary study of post-traumatic stress disorders during war among patients (primarily combatants)" (state registration number 0124U002540, implementation period 2024-2028);
- Lviv Medical University on the topic "Improvement of the drug circulation system during pharmacotherapy on the basis of evidence-based and forensic pharmacy, organization, technology, biopharmacy and pharmaceutical law" (state registration number 0120U105348, implementation period 2021-2026).

Results and discussion. The intensive incidence rate of acute respiratory viral infections, including COVID-19, is 271.6 per 100,000 population, which is 43.8% less than the epidemic threshold calculated for Ukraine and 0.9% less than the same indicator last week. Among patients whose clinical condition is subject to determination of a case of severe acute respiratory infection, 95 patients were registered, the proportional contribution is 1.8%. Circulation of influenza viruses has been established in 7 (28%) regions, which indicates the regional geographical spread of influenza viruses in Ukraine. In Kyiv, 19,390 new cases of influenza and acute respiratory viral infections, including COVID-19, were registered in the 11th week of 2025. The incidence rate is 17.7% lower than the epidemic threshold. Currently, this indicator is 656.8. In general, in Kyiv, compared to the previous week, there has been a decrease in morbidity by 12.2% due to the children and adults. Thus, the morbidity among children changed from 12,206 to 11,099 (a decrease of 9.1%). And the level of disease among adults – from 9,888 to 8,291 (a decrease of 16.2%). Children make up 57.2% of the total number, in the previous week – 55.2%. The morbidity among schoolchildren decreased by 9%. Thus, 7,050 cases were registered among school-age children. Also, 29 people fell ill with COVID-19, including 6 children under 17 years old. 5 people were hospitalized, 2 of whom were children. There were no patients with COVID-19 in the intensive care unit. Over the past week, 7 deaths from complications of influenza were registered [36-38].

Therefore, it is important to study the level of corporate interests of leading pharmaceutical companies during the pandemic and the transparency of vaccine procurement in the EU and Ukraine in order to combat corruption. For example, the European Court of Auditors states that the Commission signed contracts worth 71 billion euros for the supply of up to 4.6 billion doses of the COVID-19 vaccine [39]. The Dutch NGO SOMO claims that AstraZeneca and Janssen decided not to receive huge profits from the sale of the COVID-19 vaccine. Pfizer ($35 billion), BioNTech ($20 billion) and Moderna ($20 billion), on the contrary, received huge profits from government contracts in 2021/2022 [40]. According to their reports, Moderna and Pfizer pay almost no tax on their profits and are engaged in tax evasion through Switzerland, the Netherlands and Delaware (USA). The EU launched its vaccine procurement strategy in June 2020. By the end of 2021, contracts worth €71 billion had been signed. The EU has secured a diversified portfolio of vaccines for member states, although it started procurement later than the UK and the US. Contracts signed in 2021 have stronger provisions on key issues than contracts signed in 2020 [41, 42]. Consider the court case concerning the European Commission's refusal to grant a New York Times journalist's request for text messages between Commission President Ursula von der Leyen and Pfizer CEO Dr. Albert Bourla. They exchanged text messages in 2021 during the conclusion of a Covid-19 vaccine deal. When the Commission refused to provide the messages, The Times filed a lawsuit in early 2023 challenging the decision. The issue at the heart of the case was whether Ms von der Leyen's text messages were subject to EU transparency laws and should have been made public. The Luxembourg General Court ruled that the Commission had not provided a sufficient explanation for its refusal to grant the request. The court added that the Commission had also "failed to explain in a plausible manner" why it considered that the messages exchanged on such an important issue – the procurement of vaccines to address a public health crisis – did not contain essential information. The Pfizer messages attracted attention in part because they concerned a topic of great public interest – the Covid vaccine deal. The deal with the pharmaceutical company was one of the largest procurement contracts in the history of the European Union. The Commission published redacted procurement agreements but did not disclose the full terms of the contracts [43-47]. The study of the problems of high-quality, timely and safe operation of healthcare institutions, the competence of professionals and specialists in the field of healthcare, providing citizens with vaccines during the COVID-19 pandemic, patients with medicines in pharmacotherapy is devoted to publications by domestic and foreign scientists [48-57]. At the same time, it is important for law enforcement agencies to study the forensic, pharmaceutical, criminal, legal and socio-economic risks, as well as the causes and conditions that caused corrupt actions during the COVID-19 pandemic, which are associated with the circulation of vaccines, medicines, the timeliness of medical care and the placement of patients in hospital conditions [28, 31].

The latest data from the World Health Organization on the impact of the COVID-19 pandemic indicate over 774,000,000 confirmed cases and over 7,000,000 deaths worldwide [58]:

- in European countries, the condition has resulted in over 2,250,000 deaths;
- the highest number of new deaths in March 2024 were recorded in the United Kingdom, Sweden;
- Romania has recorded over 68,000 deaths due to COVID-19;
- when COVID-19 infection coexists with pre-existing comorbidities such as hypertension, cardiovascular disease, diabetes, chronic kidney disease, malignancies or immune-related disorders, the associated mortality tends to be higher;
- excess premature mortality in 2020, 2021 and 2022 by cause of death (cardiovascular diseases, cancer, digestive diseases, injuries, COVID-19 and other causes) and by gender compared to the average period from 2017 to 2019 based on deaths registered in Bihor County (48,948 people);
- assessment of excess premature deaths (under 75 years of age) and potentially lost years of life allows ranking the causes of death as an expression of the burden of diseases in the population.

A statistical analysis of the impact of the 2019 coronavirus disease pandemic on premature mortality in the general population indicates an increase in the proportion of deaths at an age closer to the established premature mortality threshold (75 years). The results of the primary efficacy analysis showed 95% efficacy of BNT162b2 against COVID-19, starting 28 days after the first dose. The data obtained indicate good tolerability of the vaccine in all subgroups among 43,000 study participants; no serious safety concerns were identified; the only grade 3 adverse events that occurred with a frequency of more than 2% were increased fatigue (3.8%) and headache (2.0%) [59].

The profits of pharmaceutical companies from the sale of vaccines against COVID-19 are shown in Fig. 1.

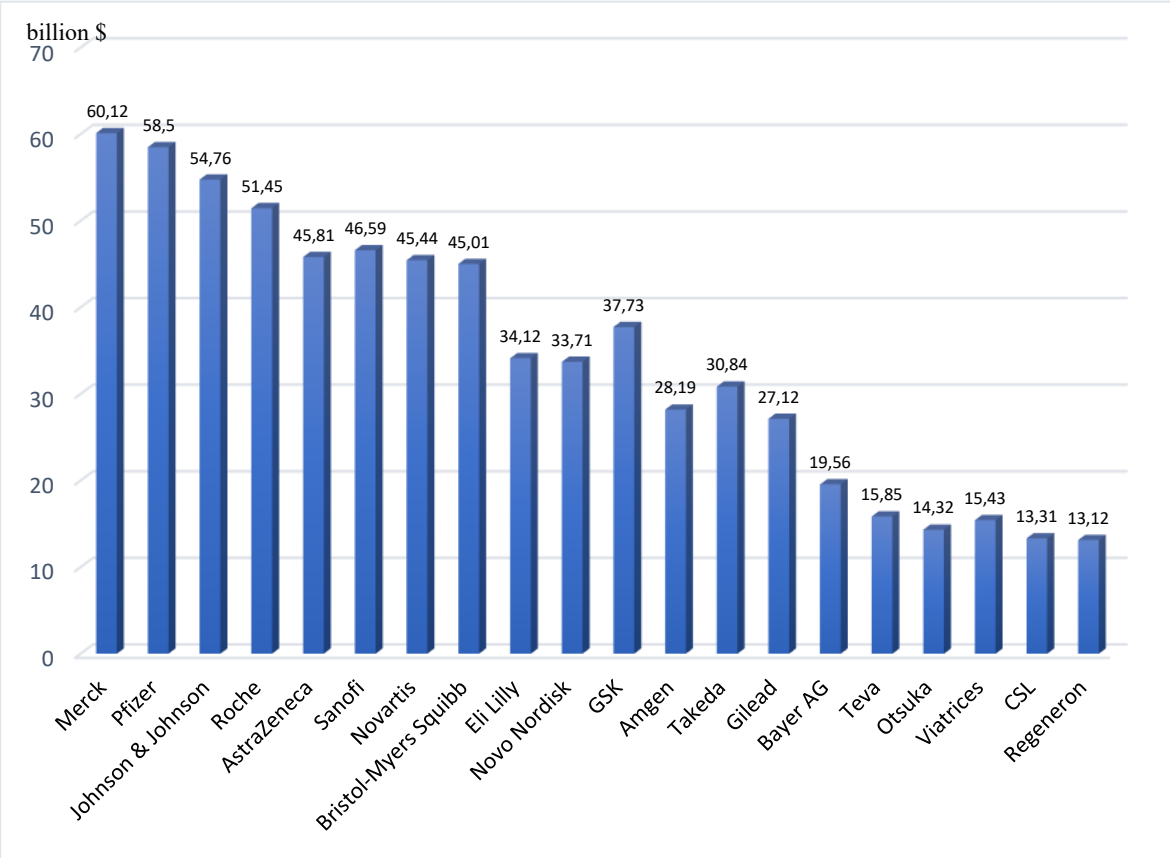

Fig. 1. Global vaccine revenue by pharmaceutical companies [59].

Pfizer Inc. (NYSE: PFE) and BioNTech SE (Nasdaq: BNTX) announced that their mRNA vaccine candidate for COVID-19, BNT162b2, met all of the study's primary efficacy endpoints in a final efficacy analysis of an ongoing Phase 3 trial. Efficacy was consistent across demographics, including age, gender, race, and ethnicity. Efficacy in adults over 65 years of age was over 94%. There were 10 severe COVID-19 cases during the trial, nine of which occurred in the placebo group and one in the BNT162b2-vaccinated group. Most vaccine-related adverse events resolved shortly after vaccination. The only grade 3 (severe) adverse events that were related to the vaccine and occurred at a frequency of 2% or greater after the first or second dose were fatigue (3.8%) and headache (2.0%) after the second

dose. Older adult participants tended to have a lower frequency and severity of adverse events after the vaccine, consistent with previously reported results. The companies have developed temperature-controlled transport containers that will maintain a temperature of –70°C ± 10°C using dry ice. They can be used as temporary storage containers for up to 15 days by refilling the container with dry ice. Each transport container is equipped with a temperature sensor with GPS functionality, which allows the location and temperature of each vaccine shipment to be tracked along pre-defined routes using Pfizer's extensive distribution network [59].

There are risks associated with the marketing of vaccines:

- confirmation of efficacy and potential commercial success;
- regulatory decisions affecting the labeling, manufacturing, safety of the vaccine, and other characteristics that could affect the availability or commercial potential of the vaccine, including the development of medicines or treatments by other companies;
- termination of relationships between the company and its partners or third-party suppliers; risks associated with the availability of raw materials for vaccine production;
- difficulties associated with the ultra-low temperature formulation of the vaccine and the associated storage, distribution and administration requirements;
- the risk that the company will not be able to successfully develop non-frozen forms of the vaccine;
- the risk that the company will not be able to establish or scale up production capacity or access logistics or supply channels in a timely manner commensurate with the global demand for any potential approved vaccine, which would adversely affect the company's ability to produce the planned number of vaccine doses during the specified period;
- uncertainty about whether and when agreements will be made for additional vaccine supplies;
- doubts about the ability to obtain advice from vaccine technical councils and other public health authorities.

The new Law of Ukraine "On Medicinal Products" is gradually being put into effect. Changes will occur in the system of legal relations "doctor-patient-pharmacist" during the circulation of drugs of all clinical-pharmacological, classification-legal, nomenclature-legal groups [60]. According to the results of the documentary analysis of the authors of the article, the Ministry of Health of Ukraine planned to purchase 7.9 million doses of vaccinations for 3.9 million people. Up to 40% (about 1.6 billion hryvnias) of the budget procurement program was spent. The price for one dose of the vaccine, provided for by the budget program, was 504 hryvnias. The same price was paid for a dose of the Chinese CoronaVac vaccine. The cost of a dose of the Indian Covishield vaccine is unknown. Only 500 thousand doses of the Covishield vaccine were delivered to Ukraine, as well as 215 thousand doses of the Chinese CoronaVac vaccine. On December 30, 2020, Ukraine paid an advance of UAH 964.3 million for the future supply of 1.9 million doses of the Chinese COVID-19 vaccine CoronaVac. The contract was concluded between the state-owned enterprise "Medical Procurement" and the private company "Lekhim". The preliminary effectiveness of this drug, according to the Ministry of Health's website "COVID-19 Vaccination", is 50%. However, in the agreement with the manufacturer, Ukraine stipulated a requirement of at least 70%. If the average effectiveness is lower, the manufacturer will compensate Ukraine for the funds spent [62].

The corruption scandal related to the purchase of vaccines has gained momentum. NABU is investigating abuses that likely led to an increase in the cost of the Chinese vaccine for Ukraine. The Ministry of Health and the intermediary company claim to be acting within the law, while the State

Enterprise "Medical Procurement", public organizations and some experts accuse the Minister of Health personally. The Ukrainian government has contracted the Chinese vaccine Sinovac. The effectiveness of this drug is about 50.4%, significantly lower than that of Western coronavirus vaccines. Currently, its use is allowed only in Turkey, Brazil, China and Indonesia. Experts, anti-corruption bodies and opposition representatives are already talking about its overpricing and corruption schemes during its purchase. The published report of the Medical Procurement Department indicates that this state-owned enterprise participated in the purchase of the COVID-19 vaccine. According to the document, it was this enterprise that paid the distributor Lekhim for a batch of the vaccine from the Chinese manufacturer Sinovac Biotech. However, in mid-January, the Ministry of Health decided to change the purchasing organization. The European Union and the European Regional Office of the World Health Organization will cooperate to provide large-scale support for the introduction of the COVID-19 vaccine and vaccination in Ukraine, the press service of the WHO office in Ukraine reported on February 11. Ukraine has agreed to supply vaccines from Pfizer, Sinovac, AstraZeneca, and Novavax [62]. The efficacy of the vaccines is shown in Fig. 2.

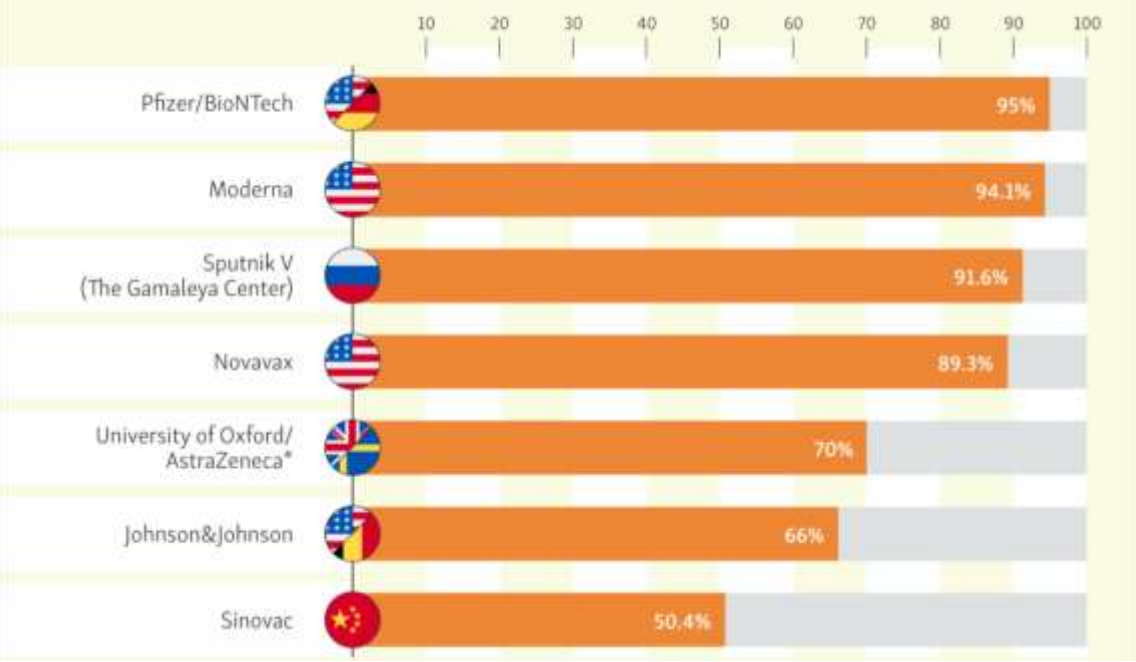

Fig. 2. Regarding the effectiveness of vaccines of equal pharmaceutical manufacturing companies against COVID-19 [62].

Example from forensic and pharmaceutical practice No. 1. Criminal proceedings were initiated against the person entered into the Unified Register of Pre-Trial Investigations on 03.02.2021 on the grounds of a criminal offense provided for in Part 2 of Article 364 of the Criminal Code of Ukraine (Fig. 3).

НАЦІОНАЛЬНЕ АНТИКОРУПЦІЙНЕ БЮРО УКРАЇНИ
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05.02.2021 № 0441-24/3529 На № _____ від _____

Рада громадського контролю
НАБУ

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У Національному антикорупційному бюро України розглянуто ваше звернення № 255 від 19.01.2021 щодо можливого здійснення службовими особами Міністерства охорони здоров'я України закупівель вакцин за завищеною вартістю.

Повідомляємо, що інформацію, викладену у зверненні, буде розглянуто в рамках кримінального провадження № [redacted] внесеному до Єдиного реєстру досудових розслідувань 03.02.2021 за ознаками кримінального правопорушення, передбаченого ч. 2 ст. 364 КК України.

Керівник
Першого підрозділу детективів
Головного підрозділу детективів О. Кроловецька

Fig. 3. Copy of the letter from the First Detective Division of the Main Detective Division, regarding the initiation of criminal proceedings under Part 2 of Article 364 of the Criminal Code of Ukraine (in Ukrainian).

Example from forensic and pharmaceutical practice No. 2. Kansas accuses Pfizer of misleading the public about the COVID vaccine in a lawsuit [63]. The lawsuit in the Thomas County District Court alleges that the New York drugmaker's alleged false statements violate Kansas' consumer protection law. It seeks unspecified monetary damages. Kansas also alleges that Pfizer falsely claimed that its vaccine, developed jointly with its German partner BioNTech, was for the original strain of the virus. BioNTech is not a defendant in the case.

Example from forensic and pharmaceutical practice No. 3. Hematologist Dr. Sue Pavord was a big advocate of vaccination, but she realized something was wrong when she saw the side effects [64]. The AstraZeneca vaccine has been somewhat controversial. The injection was hailed as the "vaccine for the world" on the grounds that, unlike the Pfizer injection, which had to be stored at ultra-low temperatures, it could be stored in refrigerators, making it easier to transport and distribute in developing countries. Numerous side effects have been reported after its use. The AstraZeneca vaccine can cause a

condition known as vaccine-induced thrombocytopenia, a thrombosis that can lead to fatal or life-changing injuries in patients.

The first batch of the Comirnaty vaccine, produced by the US-German Pfizer/BioNTech companies and purchased with state funds, was delivered to Ukraine on May 26, 2021. The delivered vaccine will be used to vaccinate educators, doctors, and law enforcement officials. The Ministry of Health announced that supplies of the Pfizer coronavirus vaccine to Ukraine will be doubled this year. Thus, in 2021, instead of 10 million, we will receive 20 million doses of this drug. The Pfizer/BioNTech vaccine, called Comirnaty, has been authorized for emergency use by the World Health Organization [65-67].

Pfizer, BioNTech, and Moderna make $1,000 in profit every second, while the world's poorest countries remain largely unvaccinated.

Demand is growing for companies to share vaccine recipes and technologies as billionaire pharmaceutical executives gather for "Big Pharma Davos."

New data from the Peoples Vaccine Alliance shows that the companies developing the two most successful COVID-19 vaccines – Pfizer, BioNTech, and Moderna – make a combined profit of $65,000 every minute.

"Pfizer, BioNTech, and Moderna have used their monopolies to favor the most lucrative contracts with the richest governments, leaving low-income countries out in the cold."

Despite receiving more than $8 billion in government funding, the three corporations have refused to urgently transfer vaccine technology and know-how to powerful manufacturers in low- and middle-income countries through the World Health Organization (WHO), which could increase global supply, lower prices, and save millions of lives. In Moderna's case, this has happened despite clear pressure from the White House and the WHO's pleas for the company to cooperate and help. [68]

Pfizer, BioNTech, Moderna, and Sinovac made an extraordinary $90 billion in profits on their COVID-19 vaccines and drugs in 2021 and 2022 [69].

- Pfizer made $35 billion in net profit from its products;
- BioNTech and Moderna each made $20 billion;
- Sinovac made $15 billion.

As health policymakers around the world review the lessons learned from COVID-19, it is crucial that they agree on strong measures to prevent such extreme profits at taxpayer expense in the future. The Pandemic Accord, a new international instrument that begins negotiations this week(opens in new window) , recognizes the need for governments to set conditions for public funding of medical research and development. However, the draft text published earlier this month does not include binding conditions on pricing, profit margins, and equitable access. Corporate giants will continue to receive unconditional government funding and make flawed deals. Government funding is supposed to serve the public interest, which means affordable and safe medicines available to all, not super-profits for big pharma [69].

At the height of the pandemic, governments have spent billions to support vaccine research and development. Seven vaccine manufacturers have received at least $5.8 billion in government funding, with the US government being the largest sponsor, providing $5 billion. As far as could be determined, the deals did not include any obligation for the companies to repay the funds, even if large profits were made. Vaccine manufacturers have benefited even more from advanced purchase agreements (APAs),

which provide upfront funding for development and production while transferring risk from suppliers to buyers. Pharmaceutical companies have received at least $86.5 billion through these APAs [69].

The huge profits made by big oil companies like Shell and Exxon and food multinationals like Unilever and Ahold-Delhaize have been in the news. While ordinary people struggle with the rising cost of living, Big Oil and Big Food are becoming super-rich, as is Big Pharma. While oil companies are cashing in on climate change and profiting from the economic crisis caused by war, and international food companies are taking advantage of inflation to artificially raise their prices, pharmaceutical companies are profiting from the global pandemic and the huge influx of public money. These huge profits by big business are deepening wealth inequality around the world [69].

A significant group of social norms related to the interests of a particular citizen (doctor, pharmacist, patient), public health in general are corporate norms adopted in public organizations (for example, consumer protection unions, pharmaceutical associations, etc.), labor collectives, educational institutions, business unions (for example, entrepreneurs and employers), political parties, trade unions, foundations (for example, prevention and counteraction to HIV/AIDS, drug addiction, alcoholism, etc.). These norms are reflected in statutes and regulations. Most corporate norms are organizational rules for the implementation of the interests of their members, and the mechanism of their action and the features of the norms of public entities have significant similarities with regulatory and legal ones. Corporate norms in the pharmaceutical industry cover the rules of conduct of pharmacy specialists, medicine and consumers of pharmaceutical and medical services, textually enshrined in the relevant acts-documents.

Corporate norms of the pharmaceutical industry are [70]□

- a system of norms;
- are adopted according to the appropriate procedure;
- are ensured by means of organizational measures or sanctions.

Along with this, corporate norms differ significantly from legal norms and the distinction between them is made according to the criteria given in Table 1.

The law establishes the impossibility of alienating the subject of the offense from society. Thus, decisions of public organizations to impose a penalty are not subject to appeal in court. In terms of legal force, scope, and bindingness, corporate norms are inferior to regulatory norms, but their functioning is important for ensuring the action of civil society, initiative, interaction, and activity of citizens (pharmacists, doctors, patients). At the same time, corporate norms extend their influence beyond the boundaries of regulatory and legal regulation.

There are examples of corporate norms being endowed with the properties of regulatory and legal norms (for example, the procedure and order of issuing temporary disability certificates to insured persons).

Table 1. Criteria for distinguishing legal norms and corporate norms.

Criterion name	Interpretation of corporate norms
By the subject to whom they are addressed	Apply only to members of a given community, are local in nature, while regulatory and legal norms are characterized by the feature of general obligation

By orientation	Express the will of members of organizations or their governing bodies, while regulatory and legal norms are the agreed interests of various subjects of social relations
By the method of establishment and entry into force	Created in the process of organization and activity of the community at relevant congresses (for example, pharmacologists, doctors, pharmacists), meetings, conferences (for example, toxicologists), meetings and enter into force after their legalization, while regulatory and legal norms are established by state bodies that have norm-making competence and enter into force within the period established by law
By the form of external expression	Enshrined in statutes, programs (for example, prevention of HIV/AIDS, drug addiction), regulations, decisions of public entities, while regulatory and legal norms are fixed in the relevant regulatory acts (laws, decrees, resolutions, instructions, etc.)
By the degree of certainty of influence measures	Not directly related to the activities of the state and guaranteed in case of violation by organizational and coercive measures of influence provided for by the statutes or regulations of these non-state organizations, while regulatory and legal norms are related to the activities of the state
By the specification of sanctions	Guaranteed by such sanctions as reprimand, remark, warning, exclusion from the organization, while the sanctions of regulatory and legal norms provide for imprisonment, fine, correctional labor, etc. (for example, this is provided for in the Code of Criminal Procedure and the Criminal Code of Ukraine)

At the same time, all corporate norms have a general premise regarding compliance with the requirements of the Constitution of Ukraine, legislation and regulatory legal acts, in general, and the norms of criminal, pharmaceutical law and medical law, in particular, in preventing corrupt actions, prevention, counteraction and fight against offenses and crime in the healthcare and pharmaceutical industries. Therefore, it is necessary to give examples, namely:

- ✓ according to Art. 152 of the Labor Code of Ukraine, it is established that instead of applying state coercive measures to offenders, it is possible to apply measures of public influence;
- ✓ compliance with corporate (statutory, charter) norms sometimes depends on the application of pharmaceutical or labor law norms, in accordance with Art. Art. 40-41 of the Labor Code of Ukraine, the dismissal of an employee (pharmacist, doctor) at the initiative of the owner, head of the pharmacy (medical institution) or the body authorized by him requires the consent of the trade union, while the quorum at this meeting is established according to the norms of the charter of the trade union organization;
- ✓ the principles of morality, norms of morality, consciousness and discipline of members of corporate organizations determine the order of their life activities, that is, a free and at the same time clearly structured organization of a collective of citizens based on moral incentives, positive moral qualities of members of the organization or association.

How a pharmacy can win its client according to strategic marketing data Tokar O. [71]:

- analysis - do not rely on your intuition to find out how best to increase sales;
- do not average reports - the situation may differ in different cities., you need to find out which product categories are most popular with your customers in a particular pharmacy, simplify the search for these drugs, "push" the visitor to make a purchase;
- an offer that cannot be refused - make relevant offers to consumers for additional products based on prescribed medications;
- place related products next to each other so that customers can easily find what they are looking for;
- each pharmacy has its most visited and transparent areas - this can be the cash register, entrance area, in a large pharmacy - aisles between rows near the counter, change the places of goods in these areas;
- FMCG method – moving product groups inside the pharmacy;
- consumers who have established trust are more likely to return to you than to go to another pharmacy;
- an individual approach to each client.

Pharmacy chains have learned to effectively use their own brands. Pharmacy chains and pharmacy associations are actively engaged in the production and promotion of their own pharmacy brands. Own brands are a tool that allows a pharmacy chain to achieve its strategic goals, gain a share in the chain's assortment portfolio, and increase profitability. Own brands grow faster than traditional and well-known brands. Marketing of large brands does not take into account an aggressive competitor who has a more advantageous position in promotion and recommendations than the manufacturer's brand [72].

Some manufacturers have offered pharmacy chains to produce their own brands at their facilities, having previously agreed on the production volumes and the share in the network of their brands. Many have produced excellent products and have the opportunity not to reduce, but to increase the volume of production and sales.

An effective partnership between a manufacturer and a pharmacy chain is possible with the right strategy and mutual understanding. Manufacturers should realize that a pharmacy chain is a partner that can load the production site, reduce marketing and external service costs, and provide growth in the category. Manufacturers should:

- reconsider their attitude to their own brands of pharmacy retail;
- begin to analyze the share of their own brands and the dynamics of the development of categories with their own brands;
- inquire about plans for the introduction of their own brands, perhaps it makes sense to place an order for the production of their own brands at your production sites;
- understand that pharmacy retail has lost its usual trade markup due to price wars, exchange rate differences, the economic situation in the country, and also due to the increase in the cost of utility bills. This means that ways are needed to maintain and increase profitability.

Implementing effective anti-corruption measures is a significant challenge for many EU countries, and a Eurobarometer survey (2024) showed that “Europeans remain skeptical about national governments’ efforts to combat corruption (Fig. 4, 5) [73-75].

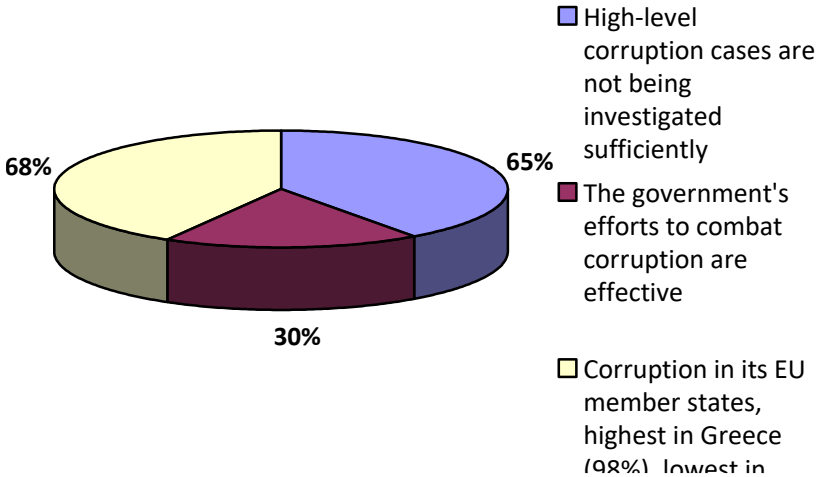

Fig. 4. Implementation of anti-corruption measures [74]

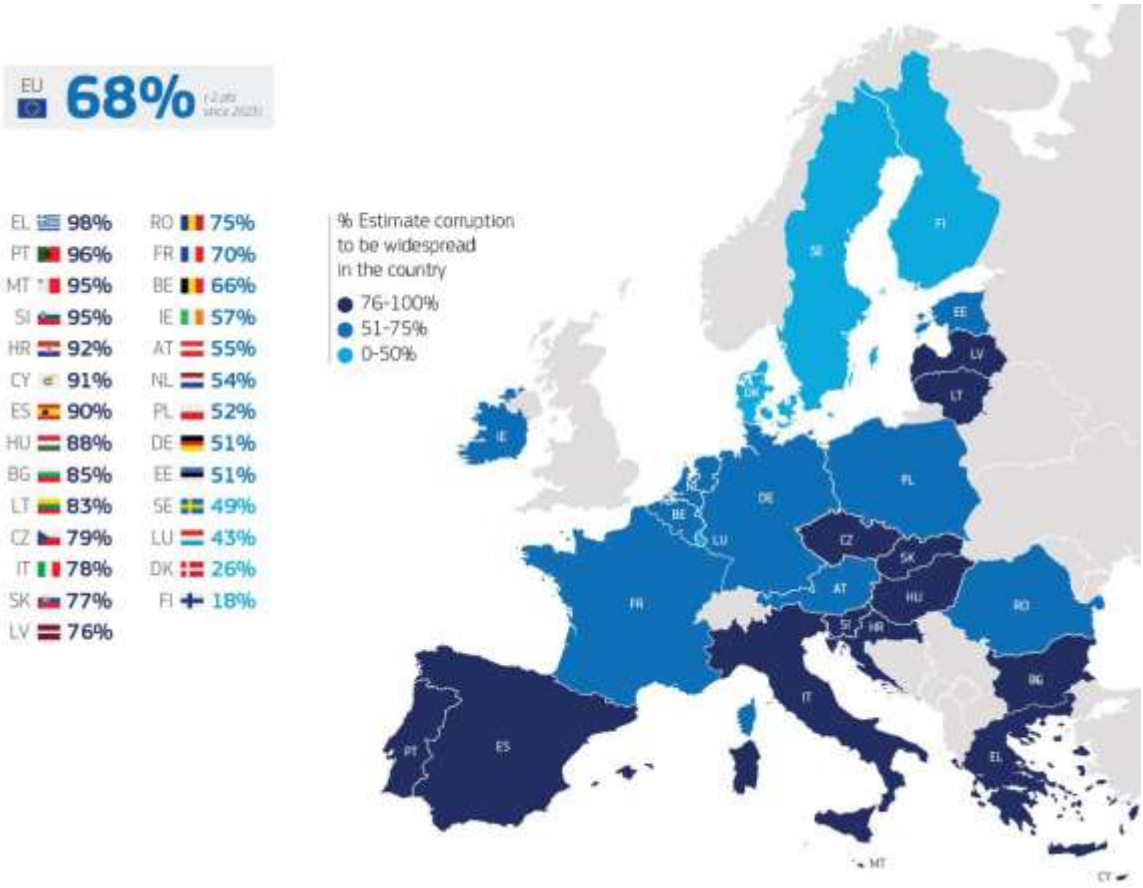

Fig. 5. Corruption in their EU member states [75].

Pharmacies ready to reduce drug prices: declaration with proposals sent to the Ministry of Health, step expected from manufacturers. The public association "Pharmacy Professional Association of Ukraine" sent to the Ministry of Health of Ukraine a Declaration on cooperation in reducing the cost of medicines, which has already been signed by a number of large pharmacy chains. It talks about a specific mechanism for reducing prices, which involves joint steps by all market participants – from manufacturers to pharmacies [76].

The signatories of the declaration emphasized that its text is based on the principles of good faith partnership, transparency, responsibility and social significance. They support the need for immediate measures that will reduce drug prices and at the same time maintain the stability of the drug market. The declaration stipulates the following obligations of all market participants:

- national manufacturers of medicines reduce the selling prices of their products by a certain percentage compared to the prices as of January 1, 2025;
- distributors reduce wholesale prices proportionally to the manufacturer, which will affect the entire logistics network;
- pharmacies, for their part, reduce retail prices for medicines, providing the end consumer with a real reduction in the cost of drugs, i.e., they apply a discount proportional to the manufacturer on their mark-up.

In order to avoid manipulation of pricing, market participants, by signing the declaration, undertake not to allow hidden price increases or changes in supply schemes that may nullify the agreements. In case of violation of obligations, other participants have the right to apply to associations and market regulators with a request to review the violator's participation in the initiative.

Along with the signing of the declaration, the Verkhovna Rada of Ukraine and the Cabinet of Ministers of Ukraine were addressed with proposals to resolve a number of important issues:

- ✓ provision of advertising, marketing services, and services for the promotion of medicines related to the sale of medicines to the end consumer for a fee by adopting a resolution of the Cabinet of Ministers, approving the List of Prohibited Services;
- ✓ harmonization of the provisions of Ukrainian legislation regarding the “Bolar provision” with EU pharmaceutical legislation, in particular with Directive 2001/83/EC, in order to facilitate the immediate availability of generic and biosimilar medicines after the patent expires.

Pharmacies demonstrate their readiness to support the President’s initiative and work on reducing the cost of medicines. Their position is that the reduction should be fair and comprehensive - all market participants should make their contribution to the availability of medicines for Ukrainians. It is expected that the memorandum will also be signed by leading Ukrainian manufacturers and distributors.

Thus, the level of application of pharmaceutical law, administration, and corporate norms in the pharmaceutical industry and healthcare sector during the COVID-19 pandemic and its consequences for the safe circulation of vaccines for humans and public health and the protection of public health was considered.

Conclusions.

1. The COVID-19 pandemic has revealed the critical importance of effective administration of vaccine circulation and compliance with pharmaceutical law in the context of a global crisis. The need for domestic vaccine production is becoming an urgent task to ensure the epidemic security of Ukraine.
2. Corporate norms in the field of healthcare and pharmaceuticals are of great importance for increasing the ethics, responsibility and transparency of the activities of medical and pharmaceutical entities. They complement the current legislation and contribute to the formation of trust in the healthcare system.
3. An analysis of judicial and anti-corruption practice related to the procurement of vaccines in Ukraine and Europe indicates the existence of serious risks of abuse, ineffective management

decisions and commercial pressure from transnational pharmaceutical corporations. This requires increased public control and transparency in decision-making.

4. Monitoring of the efficacy and safety of vaccines, in particular based on international studies, has shown that most approved drugs have high efficacy rates. At the same time, side effects of certain vaccines (such as AstraZeneca) have confirmed the need for continuous pharmacovigilance.
5. The financial component of vaccination campaigns has revealed large-scale profits for a number of companies (Pfizer, Moderna, BioNTech), which have not always met the ethical principles of fair access to medical innovations, especially in low-income countries. The lack of obligations to return public funding or limit profitability has created an imbalance between public interest and private benefit.
6. Corporate responsibility and self-regulation in the pharmaceutical sector should be considered as tools to combat corruption, increase transparency and ethical behavior of pharmaceutical companies, pharmacy chains and professional associations.
7. Strengthening national legislation, in particular the implementation of the new version of the Law of Ukraine "On Medicinal Products", will increase the effectiveness of legal regulation of the circulation of medicines, harmonize pharmaceutical policy with European standards, and promote the development of corporate self-governance.
8. Mechanisms of voluntary partnership between the Ministry of Health of Ukraine, manufacturers, distributors and pharmacy chains (in particular, by signing declarations on price reductions) demonstrate the potential for building an effective and socially responsible system of drug provision.
9. Further scientific research into corporate norms in the context of pharmaceutical law is a promising direction of interdisciplinary cooperation, which will increase the effectiveness of national health policy in the context of pandemics and post-crisis transformations.

Conflict of interest. The authors confirm that they are the authors of this work and have approved it for publication. The authors also certify that the clinical data and studies obtained were conducted in accordance with the requirements of moral and ethical principles based on medical and pharmaceutical legislation, and in the absence of any commercial or financial relationships that could be interpreted as a potential conflict of interest.

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