

MODERN STATE POLICY IN THE HEALTHCARE SECTOR

POLÍTICA ESTATAL MODERNA NO SETOR DA SAÚDE

IRYNA MYKOLAIETS

Intrregional Academy of Personnel
Management, 03039, Kyiv,
Ukraine
Mikolaetsirina@ukr.net

VALENTYN PIONTKOVSKYI

Yuri Semenyuk Rivne regional Clinical
Hospital Communal Enterprise of
Rivne Regional Council, 33000, Rivne,
Ukraine
pion_val@ukr.net

MYROSLAVA KOKOSHKO

Taras Shevchenko National University
of Kyiv, 01601, Kyiv, Ukraine
Myroslava.kokoshko@gmail.com

OLENA BABYAK

Taras Shevchenko National University
of Kyiv, 01601, Kyiv, Ukraine
matst@ukr.net

OLEH VIVSYANNYK

Department Civil Defense and Public
Health Protection Rivne Regional State
Administration, 33028, Rivne, Ukraine
vvo@ukr.net

Received: 5 Jan 2023

Accepted: 25 Feb 2023

Published: 16 Mar 2023

Corresponding Author:
Mikolaetsirina@ukr.net



Abstract: The formation and control of the healthcare market is a priority for the public sector, which can improve the quality of implementation of the state's domestic policy in this segment. The use of high-quality tools for implementing state policy in the healthcare sector can improve the current state of social protection and stabilize the existing situation in the country. The article aims to analyze effective measures, programs, and instruments for the formation and development of state policy in the field of healthcare, considering the experience of developed countries and Ukrainian realities. Using an effective methodology for the development of public health policy is important because it helps to improve the standard of living of the population. Moreover, it strengthens the country's economy, given the development of the corporate sector, commodity markets, and the development of international cooperation in healthcare and technology exchange. The results of the study may be useful for optimizing the current state policy in the field of health care. Besides, they can be rationally used in the public sector of available political and administrative resources. The article analyzes the state of the healthcare sector and proposes effective actions for further development of the state policy in this segment.

Keywords: Healthcare. Public administration. Medical services. Pharmaceutical market. Social services. State policy.

Resumo: A formação e o controle do mercado de saúde é uma prioridade para o setor público, o que pode melhorar a qualidade da implementação da política nacional do Estado neste segmento. O uso de ferramentas de alta qualidade para implementar a política estatal no setor da saúde pode melhorar o estado atual da proteção social e estabilizar a situação existente no país. O artigo visa analisar medidas, programas e instrumentos eficazes para a formação e

desenvolvimento da política estatal no campo da saúde, considerando a experiência dos países desenvolvidos e as realidades ucranianas. O uso de uma metodologia eficaz para o desenvolvimento

de políticas de saúde pública é importante porque ajuda a melhorar o padrão de vida da população. Além disso, ela fortalece a economia do país, dado o desenvolvimento do setor empresarial, dos mercados de commodities e o desenvolvimento da cooperação internacional em saúde e intercâmbio de tecnologia. Os resultados do estudo podem ser úteis para otimizar a atual política estatal no campo da assistência à saúde. Além disso, eles podem ser utilizados racionalmente no setor público de recursos políticos e administrativos disponíveis. O artigo analisa o estado do setor de saúde e propõe ações efetivas para o desenvolvimento futuro da política estatal neste segmento.

Palavras-chave: Cuidados com a saúde. Administração pública. Serviços médicos. Mercado farmacêutico. Serviços sociais. Política do Estado.

1. Introduction

The current issues of public health policy play a key role in ensuring the stability of social protection, human capital development, and the formation of a high standard of living. The state's influence in the healthcare sector should be elevated in terms of control and regulation of the industry. However, to achieve effective results, the healthcare market must be capable of self-regulation. This will have a positive impact on the region's condition and the quality of social and medical services. The key factors in the development of state policy in the healthcare sector are the construction of an effective mechanism for managing the sector, as well as the creation of a regulatory framework to ensure its operation. The spread of the coronavirus pandemic has become the first global challenge in combating geopolitical consequences. Moreover, the pandemic has caused the modernization of the healthcare sector. Owing to the strong economic situation, EU countries were able to partially contain the threat of the pandemic and overcome its consequences. This has led to some transformational processes in public policy, as well as an increased role of the state in the healthcare market. In Ukraine, the healthcare policy is in a fragile state during the war. Moreover, the key goal of the state is to ensure its minimum vital activity by engaging the corporate sector, and international organizations, and improving the transportation of medicines to the population. Given the current situation, it is worth investigating the peculiarities of modern mechanisms for implementing healthcare policy. The qualitative tools for its further development, which will affect the country's macroeconomic situation in the long run, should also be studied. Under such conditions, further development of the state policy in the healthcare sector is a priority issue in the implementation of the state development strategy. Therefore, it should be focused on social protection and maintaining the living standards of the population. Despite the existence of a compulsory health insurance market, this market is still

developing in Ukraine. This is due to many private insurers providing medical services to citizens.

Given these factors, it is crucial for the state healthcare policy to address the issue of social assistance and provide for the population affected by the war. The article aims to analyze the effective state policy in the healthcare sector, as well as the possibility of implementing the foreign experience of highly developed countries. The main task is to analyze the methodology of the state policy, the role of the state, and the tools for developing the healthcare sector through the state mechanism of influence. The peculiarities of the implementation of the state policy in the healthcare sector are the use of the corporate sector, the introduction of digital technologies, and the reform of local self-government bodies in terms of supervision and quality control of the implementation of the state policy in the healthcare sector.

The article focuses on the quality of infrastructure development and the ability to support the healthcare sector in Ukraine in difficult socio-economic conditions. The prospect of the study is to outline rational measures that can stabilize the living standards of the population. It is crucial to ensure social protection for the most affected groups, as well as to promote the construction of an effective healthcare model in the long term based on the proposed measures.

2. Literature review

The current features of public health policy are the most relevant topic among scientists, as the development of living standards is a priority for highly developed countries. The quality of implementation of such policies will serve as a factor in strengthening human capital, creating new pharmaceutical markets, and overcoming geopolitical challenges such as the spread of the coronavirus pandemic and the risks of war. Auschra (2018) notes that modern public health policy cannot function properly without a proper insurance market. Browne (2021) agrees with this, stating that the key principles of modern health policy development are not only the use of social protection but also the strengthening of the role of institutional investors. Banking institutions and pension funds allow insurers to operate through cooperation with compulsory health insurance institutions, which ultimately obliges citizens to receive medical services from them. According to Briggs (2018), this principle is the most effective, as it is implemented by the

EU countries, some Eastern countries, and the United States. An important thesis in this area is that healthcare policy includes not only the development of the country's domestic healthcare capacity but also ensures the development of the pharmaceutical industry and digital technologies. Cassell (2018) points out that the advantage of modern public health policy is the use of digital technologies in healthcare facilities, as well as the introduction of innovative technologies in the provision of healthcare services to citizens. Furthermore, Unger (2020) argues that the further prospect for the development of the healthcare sector should be to strengthen the role of the state as a control and monitoring body, but not regulation. According to this approach, the healthcare market should be only partially controlled by the state. This means that it should be capable of self-regulation and promote conditions for the development of natural competition among healthcare providers. In Ukraine, the healthcare sector has been significantly reformed in recent years since the end of 2017. This has led to some positive developments in the direction of compulsory health insurance, as well as the creation of affordable healthcare services for the population. However, according to Marani (2021), the issue in Ukraine is the superior legal position of the corporate sector concerning healthcare, which has significant advantages over the state sector. Therefore, a significant share of healthcare services in the country belongs to the private sector, as public services are plagued by bureaucratic problems and inefficient resource allocation. The conditions of war and the growing demand for social services determine the specifics of public policy implementation. Therefore, for the healthcare sector, it is most appropriate to use the mechanism of life support and partial functioning and to re-contract the main funding to the state. An important idea is to use digital infrastructure for the development of medicine. As noted by Kroezen (2018), the key to the development of healthcare in the future will be the ability to access such technologies, as well as educational activities among the population on the use of such services online. Further research on modern state healthcare policy should take into account not only the challenges and threats of the modern world but also the effectiveness of interaction between the state and business in the field of healthcare.

3. Methods and materials

To study the current state policy in the healthcare sector, the author analyzed the regulatory framework and the practical aspect of implementing such a policy in developed

countries. The results of the study were obtained based on statistical data. A survey was conducted among the corporate sector operating in Ukraine. The method of search analysis was applied to characterize the current state of the healthcare sector in the world in more detail, as well as to identify the basic principles of state policy implementation in this segment. The use of the synthesis method made it possible to study the peculiarities of the implementation of state policy, as well as its role as the main body responsible for regulating the legal framework of the healthcare sector. This method was also used to study the quality of further development and functioning of the healthcare market in Ukraine in the context of socio-economic instability and the strengthening of the role of social protection. Analytical reports and assessments of European institutions such as the World Bank, WHO, and many other international organizations that were able to determine the current state of damage from the Russian armed aggression were used to identify the key problems of implementing state policy in the domestic healthcare sector. The problem of maintaining the state policy in the field of healthcare is to ensure its vital activity, as well as to use the most appropriate model for possible further development. Based on such provisions, the results of the study on possible optimization of the current state policy of the State are consistently presented. The methods used in the article allow us to outline effective tools for improving the current public policy in the EU countries, as well as to prepare for possible further global challenges and improve the state of social protection of the population. The approaches to the current public health policy are used to develop real measures to optimize the healthcare market at the regional level, and possible scenarios for the development of the healthcare sector are outlined. The article pays attention to improving the role of the corporate sector in the healthcare sector, as well as improving its activities following the current conditions of its functioning.

4. Results

Modern healthcare policy plays a key role in ensuring the development and maintenance of human capital, given the evolution of hostilities in Ukraine. The problem of using an effective public health policy emerged in 2019 due to the spread of the coronavirus pandemic, which showed that the number of hospitals and the state's readiness for global challenges was insufficient. Only over the past few years, the EU has reorganized its public sector management policies in response to the pandemic to provide healthcare

infrastructure and improve first aid. In today's world, more and more attention is being paid to healthcare policy. Furthermore, current and future challenges require reforming the organization's policy and improving the functioning of government agencies.

An important issue in the current healthcare policy is the training of qualified personnel, as their number remains significantly scarce. The reason for this is the growing demand for healthcare services in the EU. According to the European Employment Agency, in 2021-2022, a study was conducted on the labor market for healthcare workers. According to its results, out of 30 countries, about 18 stated that they had a shortage of highly qualified personnel. Moreover, there is also a catastrophic shortage of doctors' assistants, assistants, and nurses, which leads to an increased demand for leading personnel not only from the country but also the encouragement of foreign personnel for employment in the educational field. In Ukraine, in 2022, due to mass migration and economic contraction, there will be a significant shortage of medical personnel caused by the war. However, given the current realities, many specialists from international donor organizations, as well as representatives of surgical specialties and emergency doctors, have been brought to the country.

To address the shortage of personnel in the healthcare sector, it is essential to implement a high-quality state policy aimed at providing additional social benefits, ensuring high salaries, and conducting educational activities at the national level. In the EU, funding is predominantly provided to higher education institutions aimed at financing highly qualified personnel and providing them with high-quality educational software. This creates advantages for European educational institutions at the global level. In Ukraine, the state policy in education is at a high level, if we analyze the budget expenditures on education and the number of applicants for medical education in recent years. This trend is positive, as it not only solves the problem of lack of specialized personnel but can also provide the resource needed for human capital in times of war.

An important factor in effective public health policy is the use of the compulsory insurance mechanism, which has several advantages for overcoming the negative effects of the pandemic and promoting social protection. First, the development of the insurance market through compulsory health insurance is a practice of such highly developed countries as the United States, Germany, France, Sweden, Switzerland, and some others. The importance of implementing such a policy allows not only to create of a high-quality mechanism for the development of the insurance market but also ensures the functioning

of the social protection mechanism, which, in the face of individual risks or massive geopolitical fluctuations, such as the spread of the coronavirus pandemic, war, can provide a social guarantee of protection for the most vulnerable segments of the population. In addition, such a policy can promote natural competition in the insurance market and strengthen institutional investors in the country's economic sustainable development. The emergence of a strong insurance market in Europe is a factor of a strong economy that has internal financial resources to overcome the crisis.

The issue of developing a compulsory insurance market in Ukraine is a recent product of the gradual reform of the state healthcare policy. This is due to technical problems in the development of the relevant infrastructure, as well as informing citizens about the implementation of such a policy. A functioning market for compulsory health insurance can be introduced with the help of regulatory legislation. The reform of the state healthcare policy in this area began in 2017 when the NHSU (National Health Service of Ukraine) was formed and assumed the function of providing medical care to the population. The key principles of this institution's work are the use of insurance services for healthcare facilities and the creation of financing programs. Currently, the compulsory insurance program is only partially implemented. The reform was completed in 2022, which requires improvements in terms of citizens' access to such services. Basic medical care is free of charge. However, a special declaration agreed upon by a citizen and a family doctor provides the benefits of additional free medical services. To strengthen the state healthcare policy, a gradual mechanism of transition to compulsory health insurance should be used, where the influence of the corporate sector will be weakened, and internal monitoring of insurers' activities will be strengthened. However, such steps are possible only after the war ends in 2022, as the functioning of business and the corporate sector is a priority for the state. In such circumstances, it would be ineffective to introduce compulsory health insurance, following the example of the United States or Germany, where about 87% of citizens are covered by the state health insurance program and only 11% are covered by private insurers. The issue of war is changing approaches to the organization of public health policy and forcing us to consider such factors as maintaining a strong economy and meeting the needs in the regions of hostilities.

The experience of European countries shows that the development of the healthcare sector is possible with the use of effective public policy as a monitoring and control body. However, the actual involvement of the state in the healthcare sector is also

important. Such measures can only be achieved through the development of a strong corporate sector, as well as a real effective regulatory framework aimed at supporting the most vulnerable segments of the population and performing the functions of social protection for the population. In addition, the development of the pharmaceutical industry, as well as the establishment of cooperation with TNCs and the regulation of their activities in the EU, are set out in clear regulations. This practice will be relevant for Ukraine as well, as there is a significant shortage of medicines and drugs due to military operations, which is one of the key problems of modern state policy for the country in the context of war. To improve the system of providing the first necessities, it is necessary to strengthen diplomatic cooperation and work on logistics supplies to the country, which can be carried out partly through the borders of Poland and, in particular, the port in the Black Sea, which is limited but accessible.

Table 1. Directions of state policy in the field of healthcare

Programs	Content	Effect
Development of international cooperation	Strengthening the participation of international organizations in meeting the medical needs of the population and establishing diplomatic relations.	Reducing the shortage of medicines, and meeting the demand for medical services.
Improving logistics due to the shortage of medicines	Promoting the development and reconstruction of logistics and transportation infrastructure, financing government agencies and the corporate sector.	Establishment of transportation routes in the most affected regions to enable access to medical services.
Improvement of social policy	Ensuring free treatment for the most affected strata of the population, as well as creating a high-quality service mechanism in medical institutions.	Preserving the country's human capital and improving living standards.
Development of private business in medicine	Creating investment projects, providing grants, preferential lending, and encouraging business.	Strengthening the functioning of the healthcare system in the face of war, restoring it to pre-war levels.
Optimization of compulsory health insurance	Simplification of bureaucratic procedures for concluding declarations, and promotion of the insurance market.	Reducing the burden on public healthcare institutions and strengthening the corporate sector.
Regulation of volunteer organizations, promotion of activities	Involvement of volunteer organizations in medical services, restoration of infrastructure, and provision of qualified personnel.	Addressing the shortage of medical services and specialized personnel.

Source: compiled by the author

The problem of social expenditures of the state makes it difficult to finance the healthcare sector, and it is possible to invest in healthcare only if there is a socially useful function. Under such conditions, it is only after the social standard of living of the population is restored to positive living conditions that the level of recovery of the healthcare sector can be enhanced. However, the key principles of state policy are to encourage the development of the insurance market and strengthen the medical corporate sector in the regions most affected by the war. In addition, Ukraine is experiencing a significant wave of migration to the western regions, which is causing a significant shortage of specialists, medical facilities, and private institutions that provide medical services to the population. Therefore, the priority task is to create preferential lending for businesses, facilitate the participation of specialists in employment in the regions that need it most, and provide the special infrastructure necessary to create mobile hospitals and perform medical services for citizens. The current state of Ukraine's reconstruction and recovery needs in the social protection sector is summarized in Table 2.

Table 2. Reconstruction and rehabilitation needs in the social protection sector as of June 1, 2022 (USD million)

Category	Total cost, (mln. USD)	Share of the total cost (%)
Restoration of irrevocably lost jobs	14,432	70.0
Assistance based on financial circumstances	4,107	19.9
Social assistance to IDPs	259	1.3
Rebuilding social infrastructure and operating expenses	386	1.9
Restoration of social services	900	4.4
Social assistance to the military and other long-term war-related payments	533	2.6
In total	20,617	100.0

Source: compiled based on World Bank, 2022

According to the data provided, it can be predicted that the healthcare sector in Ukraine is aimed at performing social protection functions. Its real funding is used to meet military needs, as well as to cover the most urgent needs in the regions affected by Russia's military aggression. According to Table 2, the largest share of expenditures is spent on restoring jobs and damaged infrastructure. In addition, the healthcare sector is also facing

the threat of military shelling of healthcare facilities closest to the front line. Under such conditions, there is a strong separation of the presence of medical institutions and private enterprises that geographically change their location. To strengthen the social level of protection, the state needs to focus on financing transportation costs, as well as the development of digital technologies to provide the regions with medicines and medical services.

An effective practice is to use mobile hospitals, as well as to restore infrastructure for the most affected regions to adjacent areas that can withstand the burden of IDPs and create favorable living conditions. However, the restoration of medical infrastructure in the frontline areas is currently impossible due to high risks for medical personnel, risks for businesses, etc. Given these realities, it is necessary to increase funding for social expenditures, the participation of international organizations, the transportation of medicines, as well as the development of digital infrastructure and educational activities that could help the population in these affected areas.

The use of grant programs for future healthcare entrepreneurs could be an appropriate method of developing current public policy, as it could encourage the restoration of healthcare services in the affected regions. Strengthening the role of the corporate sector will help improve social protection functions, reduce the burden on local governments, and improve the quality of service delivery. Grant programs can also be used to create a transportation business for the supply of medicines. An important function for the restoration and functioning of the healthcare sector is to set up programs with organizations such as the Red Cross, the UN, the WHO, and others that can provide humanitarian assistance and create rapid response units inside Ukraine.

An important factor in strengthening the state policy in the field of health care may be the use of volunteer organizations, as well as the provision of certain rights to them that can help to perform social protection functions and support the most vulnerable segments of the population. The role of volunteers in the state healthcare policy has become an important factor in ensuring the country's vital activity in the context of military operations and supporting the most affected population by providing basic medical services and medicines. In addition, several state educational programs have been created for people willing to volunteer in the affected regions. Programs are also available to anyone who wants to improve their knowledge and skills in first aid, etc.

Hence, the current state policy in the healthcare sector in Ukraine is a state of maintaining the current level and making efforts to ensure at least partial functioning. The bulk of financial resources is directed to social protection and support for key needs at the frontline. To improve the state policy in the healthcare sector, it is necessary to strengthen international cooperation in this area, as well as to involve the corporate sector in the development of the healthcare market. The experience of European countries shows that the development of compulsory health insurance is promising, which can be useful in the context of post-war reconstruction, but not in times of war. From this perspective, government policy should focus on logistics, diplomatic cooperation, digital technologies, and the development of volunteer organizations.

5. Discussion

The results of the study show that the issue of building an effective state policy in the field of healthcare is of strategic importance not only for Ukraine but also for the EU countries. Geopolitical challenges, as well as the spread of the coronavirus pandemic that began after 2019, have caused a wave of economic and social shocks that can only be addressed through government instruments and the strengthening of other corporate market participants, including the insurance sector. Improving the quality of educational services and providing highly qualified medical personnel is a prerequisite for improving the social protection of the population and overcoming possible future challenges.

In the context of the development of state policy in the healthcare sector, it is important to study the quality of building a mechanism for integrating the corporate sector into the pharmaceutical and medical services market, as well as the implementation of a high-quality mechanism for managing and controlling these processes by the state. For Ukraine, it is a priority to create grant programs, develop investment projects, and conduct research on the possible development of partial digital medicine in regions with limited conditions for the geographical economic activity of healthcare facilities. The transportation of medicines and the deployment of mobile medical hospitals and facilities will be one of the key activities of the healthcare sector. Moreover, further research should identify the prospects for involving volunteer organizations in the provision of medical services, as well as training internal personnel who can provide first aid under a shortened program.

An important issue of the postwar period is the improvement of the compulsory health insurance market, which will follow the example of the United States and Germany. However, in the Ukrainian reality, to achieve this level, it is necessary to use not only mechanisms to promote the development of the insurance sector, but also to use effective tools for insurers, in particular, the influence of the banking sector through lending and special service programs in financial institutions. After 2017, the healthcare reform changed radically in the direction of ensuring the development of compulsory health insurance. However, given the military situation, incentives for this type of insurance will slow down the current efficiency of healthcare services and create additional bureaucratic burdens for the population. In such circumstances, it is appropriate to explore how to build an effective program to restore the healthcare sector without significant losses and destructive consequences for the social sector.

Given the results of the study, the biggest problem is the provision of social protection, as well as the restoration of damaged infrastructure as a result of destroyed or damaged infrastructure. In such circumstances, it would be most appropriate to use special programs of measures to be developed by domestic scientists, as well as educational programs that can reduce the burden on personnel involved in military brigades or highly qualified specialists.

Thus, the prospects for further research may include modeling the proposed measures, taking into account the economic effect and consequences for the state. In addition, it is worth conducting research in the field of digital technology development, improvement of logistics and transportation infrastructure, etc. The main issue is to overcome the shortage of medicines and drugs, which is currently possible only through diplomatic relations with international organizations.

6. Conclusion

Thus, the study shows that the current state policy in the healthcare sector in Ukraine is in an unstable state, which is caused by difficult socio-economic and geopolitical conditions. The healthcare reforms implemented since the end of 2017, which were close to the European model, proved to be effective, but insufficient in terms of the state's presence, which led to the dominance of the corporate sector in the healthcare segment. After the spread of the coronavirus pandemic, using public policy in the provision of

healthcare services and ensuring the sustainable functioning of social protection for the population is a priority.

The key areas of development of modern state policy are the use of international cooperation policy and the involvement of international organizations that could not only improve control over the provision of medical services but also help to overcome the shortage of medicines and drugs. The main feature of developed countries in healthcare policy is a strong domestic market for compulsory health insurance, which provides benefits to the population in terms of guaranteeing payments in case of risk. Implementing the experience of the United States and Germany is currently difficult in Ukraine, as the majority of budget expenditures are spent on defense and social protection. The healthcare sector is not currently a separate segment of expenditures, and during martial law, it is integrated into social protection, which requires only partial functioning.

The development of the transport and logistics industry, the increasing influence of digital technologies, and the improvement of the quality of educational services provided to specialized highly qualified personnel who can overcome the shortage of specialists in the healthcare market in the future should be promising for the development of public policy in the healthcare sector, both in the EU and in Ukraine. In addition, the key principles of further development of the healthcare sector, initiated by the state, should be to promote the strengthening of corporate social responsibility of the private sector, as well as its partial integration into internal state processes, which can ensure positive changes in healthcare policy.

REFERENCES

- Anderson M, Pitchforth E, Asaria M, Brayne C, Casadei D, Charlesworth A, et al (2020) 'LSE-Lancet Commission on the Future of the NHS: Re-laying the foundations for an equitable and efficient health and care service after COVID-19', *The Lancet Commissions* 397(10288) p1915-1978.
- Auschra C (2018). Barriers to the integration of care in interorganisational settings: a literature review. *International Journal of Integrated Care*, 18(1):5.
- Browne J (2021) Fair Social Care: Priorities and Funding Options, Tony Blair Institute for Global Change. <https://institute.global/policy/fair-social-care-priorities-andfunding-options>
- Briggs AM et al. (2018). Elements of integrated care approaches for older people: a review of reviews. *BMJ Open*, 8(4):e021194.
- Cronin J, Murphy A, Savage E (2017). Can chronic disease be managed through integrated care cost-effectively? Evidence from a systematic review. *Irish Journal of Medical Science*, 186(4):827–834.
- Chiapperino L, Tengland P-A (2015). Empowerment in healthcare policy making: three domains of substantive controversy. *Health Promotion Journal of Australia*, 26(3):210–215.
- Department of Health and Social Care [DHSC] (2021) Statement of Impact – The Health and Social Care Act 2008 (Regulated Activities) (Amendment) (Coronavirus) Regulations 2021.
- Cassell A, Edwards D, Harshfield A, Rhodes K, Brimicombe J, Payne R and Griffin S (2018) 'The Epidemiology of Multimorbidity in Primary Care: A retrospective cohort study', *British Journal of General Practice*, 68(669), ppe245–e251. <https://doi.org/10.3399/bjgp18X695465>
- Jessica Barnett and Edward Berwhick. "Health Insurance Coverage in the United States: 2016, Current Population Trends" U.S. Census. 2017. September
- G. J. Young, C.-H. Chou, J. Alexander et al., "Provision of Community Benefits by Tax-Exempt U.S. Hospitals," *New England Journal of Medicine*, April 18, 2013 368(16):1519–27.
- Olivier de Sardan J.P., Ridde V. (2013). Contradictions and inconsistencies in public policies. An analysis of healthcare fee exemption measures in Burkina Faso, Mali and Niger. In *Abolishing user fees for patients in West Africa: lessons for public policy*. Olivier de Sardan J.P., Ridde V. Ed., Agence Française de Développement 2013.
- Unger, JP., Morales, I. & De Paepe, P. Objectives, methods, and results in critical health systems and policy research: evaluating the healthcare market. *BMC Health Serv Res* 20 (Suppl 2), 1072 (2020). <https://doi.org/10.1186/s12913-020-05889-w>
- NHS Digital (2021d) Statistics » Consultant-led Referral to Treatment Waiting Times. <https://www.england.nhs.uk/statistics/statistical-work-areas/rtt-waitingtimes/>
- Marani M, Katul G, Pan W and Parolari A (2021) 'Intensity and Frequency of Extreme Novel Epidemics' *PNAS* 118(35). <https://www.pnas.org/content/118/35/e2105482118>

Hospital Episode Statistics (2021) 'Hospital Episode Statistics for Admitted Patient Care and Outpatient Data', NHS Digital.

Thomson S, Cylus J, Evetovits T. Can people afford to pay for health care? New evidence on financial protection in Europe. Copenhagen: WHO Regional Office for Europe; 2019

WHO Regional Office for Europe, The World Bank. Ukraine: review of health financing reforms 2016–2019: WHO–World Bank joint report. Copenhagen: WHO Regional Office for Europe; 2019

The WHO Council on the Economics of Health for All – Manifesto: 24 September 2021. Geneva: World Health Organization; 2021

Ertem Z, Raymond D, Meyers LA, Tanaka MM. Optimal multi-source forecasting of seasonal influenza. 2018; Available from: <https://doi.org/10.1371/journal.pcbi.1006236>

Louw JM, Marcus TS, Hugo JFM (2017). Patient- or personcentred practice in medicine? – A review of concepts. *African Journal of Primary Health Care & Family Medicine*, 9(1):e1–e7.

Kroezen M, Hoegaerden M van, Batenburg R (2018). The Joint Action on Health Workforce Planning and Forecasting: Results of a European programme to improve health workforce policies. *Health Policy*, 122(2):87–93.