

Perspective of schools of public health on war in Ukraine – reactions to military conflict in Europe and international cooperation

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Abstract

Since February 24, 2022, the hybrid war between Russia and Ukraine has been transformed into a very severe and open military conflict, having dramatic humanitarian and public health consequences – first of all, for the Ukrainians, but also for the whole world, in various dimensions. The impacts of this war are complex, multidimensional and multilateral. This paper aims to characterize the selected major impacts of the ongoing war on public health, as well as to characterize the selected reactions of the international academic public health community, including especially the three organizations from Moldova, Poland and France. Several positive responses of the academic community to the unprecedented humanitarian and public health crises caused by the Russo-Ukrainian war have been described. These efforts should be continued, developed and modified to the dynamically changing situation. The already existing international cooperation platforms, networks and alliances should be used for that purpose.

Key words: academic organizations, France, Moldova, Poland, public health, Russia, Ukraine, universities, war

Słowa kluczowe: Francja, Mołdawia, Polska, Rosja, szkoły wyższe, Ukraina, wojna, zdrowie publiczne

Introduction

The date of February 24, 2022 has been recorded as yet another tragic card in the turbulent history of Europe. This was when Russia openly invaded Ukraine, thus continuing the gradual annexation of its territory, started in 2014 in form of a hybrid war limited at that time to the Crimean Peninsula and Donbas region (Luhansk and Donetsk oblasts or provinces). The Russian military attack on Ukraine was launched from the south (Crimea), the east (Donbas region), and the north east (from territories of Russia and allied Belarus). The original Russian plans to seize the capital city of Kyiv and subsequently take control of

the Ukrainian state have been demolished due to the mobilization and resistance of the Ukrainian nation, the scale of which has turned out to be huge and unexpected by many external observers. The unification of Ukrainians in their struggle against the foreign aggressor has been facilitated by the significant support coming from several states, offered either instantly or gradually just after the war's onset. Sadly, the Ukrainian resistance has also been galvanized by the spine-chilling reports of the war crimes committed by the Russian aggressors in locations like Bucha or Borodyanka, just to mention these two as examples. The successful defense of Kyiv, which resulted in Russia's withdrawal from mid-northern parts of Ukraine and forced Russia to redefine their

military goals, will most probably be remembered as the pivotal moment of this military conflict.

As of early August 2022, the Russo-Ukrainian war seems to remain very far from its ending. It remains waged in form of the open, kinetic conflict, where military clashes are very much alike those of the Second World War, including intensive use of artillery and the resulting heavy human losses, including lives of many civilians with children among them.

The goal of this paper is to characterize the selected major impacts of the ongoing war in Ukraine on public health, as well as to characterize the selected reactions of the international academic public health community, especially including the three organizations from Moldova, Poland and France.

■ Impacts of war in Ukraine

The Russian invasion on Ukraine has triggered several types of crises. The most widely outlined can be the humanitarian crisis, including the almost instantly evoked refugee crisis and increasing threat of the incoming nutrition crisis on a global scale. Another major impact of these crises must be on the overall health status of the Ukrainians, expressed in indices like life expectancy, crude mortality or child mortality, as well as on the incidence of specific diseases due to a worsened prevention (e.g., tuberculosis or cancer). The situation must also impact mental health, a specific domain which should be carefully monitored [1], including the cases of post-traumatic syndrome [2]. Finally, there must also be an impact on the health care system which is under severe pressure [3] due to the destruction of health care facilities in Ukraine, the afflux of traumas and injuries, and the exodus of health care professionals from this state.

After five months of war, around eight million of Ukrainians have become internal refugees [4]. It is estimated that about one third of the Ukrainian population had to leave their homes. Additionally, 13 million Ukrainians are estimated to be stranded in affected areas or unable to leave due to heightened security risks, destruction of bridges and roads, as well as the lack of resources or information on where to find safety and accommodation. Altogether, 63% of Ukrainian population either had to migrate (externally or internally), or have become stranded, or unable to leave war-affected areas [5]. Only ten days after the Russian invasion, public health scientists sent warnings: “The physical and mental health problems experienced by the anticipated millions of refugees and internally displaced persons will once again be substantial” [6].

Soon after the start of this war, the global public opinion realized that Ukraine was the major food producer (!), exporting grains to locations all over the world including, e.g., the Middle East and North Africa—actually not having been even aware before where their daily bread had been coming from. Many countries could be affected by food shortages and hunger due to the war in Ukraine. According to the Global Crisis Response Group, nearly 100 countries and about 1.6 billion people are now severely

exposed to the food, fuel or finance crisis, and about three-quarters of them live in countries that are very vulnerable with regard to all of these threats combined [7]. Millions of tons of grain were blocked in storages in Ukraine, and their number was estimated to increase even to 75 million tons by autumn this year (2022) if the transport channels (especially through the Black Sea) are not maintained open.

Due to the war, this year’s wheat harvests in Ukraine are estimated to be 30–50% lower as compared with pre-war times. Moreover, not only Ukraine has experienced problems with exporting grain harvested from its fields—Russia may limit its own exports, and India may keep its own grain export stopped in fear of being unable to secure the needs of its own large population. As a result, more people in the world could suffer and die of hunger due to the war in Ukraine than as a direct result of military actions. The global food supply problems have a differentiated background. These are accompanied with the diminished production of soil fertilizers. By early June 2022, ca. 3,000 sq. km of the Ukrainian land has been polluted with mines or unexploded shells, which is not surprising if we take into consideration that, e.g., over 2,500 rocket missiles were used by that time against Ukraine. According to the Ukraine’s Emergency Services, the Ecology Ministry and the Reuters Agency, about 27% of Ukraine’s territory will need to be cleared of mines and explosives [8].

Shortages of water on Ukrainian territories affected by war result in severe public health, hygiene and sanitary threats and consequences, as well as the nutrition problems. For example, there have been severe problems with access to drinking water noted in Mariupol, including introduction of registration, waiting lists with several days of waiting, and rationing.

■ Reaction of academic and public health community in Moldova to the war in Ukraine

Republic of Moldova was among the first countries to receive refugees from Ukraine. It is important to mention that Moldova received the highest number of refugees per capita of all the countries, despite being one of the poorest countries in Europe [9].

The School of Public Health Management of the Republic of Moldova (SPHM) launched different new initiatives in context of the war, such as trainings and support materials for authorities, refugees, and general population, like “Guide on the organization and operation of temporary camps for disaster victims” and “Guide on the management of medical staff in crisis situations,” and others.

In order to manage the health of the people from migrant flows better, in July 2022 SPHM in collaboration with the Ministry of Health and with the support of the Swiss Agency for Development and Cooperation started the national training for health managers, regarding the management of non-communicable diseases at the local level during the migration period.

Another new initiative of SPHM is the development of the National Health Communication Platform that ensures a transparent, professional, apolitical and equidistant

dialogue with all institutions in the public health system to provide decision-making support to managers and health authorities at all levels, also in emergency situations.

■ **Reaction of academic and public health community in Poland to the war in Ukraine**

On the onset of Russo-Ukrainian war and massive influx of Ukrainian war refugees to Poland, the self-government of students of the Jagiellonian University Medical College (JUMC) in Krakow, Poland, has established a team of volunteering students who started helping with Ukrainian-Polish translation at the university hospital. Together with the Polish Ministry of Health, the JUMC have provided help for students from Ukraine, enabling them to continue their studies in Poland. The university has been disseminating up-to-date guidelines, including those prepared by the Ministry of Health, on providing health care for the Ukrainian war refugees. Notably, the scope of this care is basically the same as for those who have the compulsory health insurance in Poland. Since the JUMC owns several student dormitories in Krakow, it has been able to organize and secure space to stay and live there for the Ukrainian war refugees. The Students' Legal Office has been offering legal consultations and legal support for the Ukrainian citizens, while the Students' Center for Support and Adaptation has been offering psychological consultations and support for the Ukrainian students in Krakow. The JUMC has organized the electronic contact point for those who need or want to offer all kind of help, focusing on students from Ukraine.

Cooperating with other organizations and institutions, the JUMC has been also gathering and disseminating information on all other ways of help provided for the Ukrainian war refugees. This has included, among others, the state government, the local self-government (the City of Krakow) and various non-governmental organizations. The scope of this information has included for example:

- practical aspects of using health care services in Poland;
- specialized women's health services;
- psychological support;
- useful information centers;
- providing accommodation / shelter services / free of charge food supplies;
- legalization of stay and legal support;
- work in Poland;
- sport and play activities for children;
- free telecommunication;
- free phone starters;
- support for pets / animals brought from Ukraine;
- language and translation services;
- distribution of charity items, including clothing, food, hygienic items and other everyday life items.

The war in Ukraine has also influenced thinking about academic curricula and their adaptations, every-day academic activities and international cooperation. There have been introduced voluntary courses of first aid with elements of combat medicine have been introduced for students within the framework of a supplementary educational

line „ZintegrUJ,” providing extracurricular knowledge and skills for participants of all kinds of studies at the Jagiellonian University.

Last but not least, Poland as a state neighboring Ukraine, with very severe historical experiences with military conflicts in this region of Europe, has a special role in spreading awareness about the ongoing war, its actual dimensions and consequences, including the ones which relate to public health. This is why since the war's onset the staff of the Institute of Public Health (IPH) of the Faculty of Health Sciences JUMC participated in several conferences, seminars and webinars, including special sessions dedicated to war, and important and current issues of the ongoing war have appeared in the university social media, too [10–12]. Moreover, the IPH has launched new, war-related topics in its research activities. It has also liaised with the Ukrainian researchers for their conduct.

■ **Reaction of academic and public health community in France to the war in Ukraine**

France has welcomed and hosted, until now, a small number of the Ukrainian refugees. At the end of June 2022, approximately 100,000 of them were recorded by the Ministry of Interior. Since the beginning of war, the higher education community has been mobilized to welcome both students and faculty members coming from Ukraine. Besides numerous initiatives in universities having historic relationships with their counterparts in Ukraine, a special program set up to help the scientists in exile already in 2017 by the Ministries of National Education and Research and Higher Education, designed for helping faculty members in the war context in Syria, has been activated for the Ukrainian people [13] and quickly completed by an emergency fund. In the meantime, there is a need for coordination to merge and manage different individual or institutional offers. This is why the French government has launched a national platform to gather these efforts, in close cooperation with other European initiatives [14].

Within the public health area, a double initiative was conducted with a triple goal:

- to help boarder universities integrate Ukrainian students,
- to sustain Ukrainian faculty members in public health, and
- to conduct studies for developing knowledge to the health consequences of this war.

Two agreements were signed—one of them being trilateral with EHESP French School of Public Health in Rennes, France, the JUMC in Krakow, Poland, and SPHM in Chisinau, Moldova, while another—bilateral between EHESP and JUMC. More details about them can be found further in this paper.

■ **International cooperation within public health academic community in face of the war in Ukraine**

Apparently, the amount and scale of human sufferings caused by the Russian aggression on Ukraine, which was

not expected to erupt in Europe after the experiences of both World Wars in the 20th century, has evoked several very positive reactions of the international academic public health community. This has also resulted in an intensification of the international academic cooperation within this environment. On the one hand, there has been the very well understood importance of enhancing training and research, in particular aiming to identify and fulfill the needs of war-affected populations. On the other hand, the great importance of sustaining health care systems has been perceived—both in Ukraine, and in the bordering states, affected either directly or indirectly by the ongoing war. These initiatives have been very much facilitated and sustained by the Association of Schools of Public Health in the European Region (ASPHER).

As was already mentioned, the trilateral agreement was signed in June 2022 between the EHESP School of Public Health in Rennes, France, and two academic centers located in the states bordering with Ukraine, and actively helping to mitigate crises caused by this war (including reception and hosting war refugees from Ukraine): JUMC in Krakow, Poland and SPHM in Chisinau, Moldova [15].

In July 2022, a bilateral agreement was signed between the EHESP School of Public Health in Rennes, France, and JUMC in Krakow, Poland, having three main objectives. These have embraced:

1. Support to facilitate integration of Ukrainian refugee students wishing to study public health at IPH in Krakow, including possibility of taking modules or participating in trainings at EHESP.
2. Support for academicians from Ukrainian higher education institutions, including also refugees, wishing to initiate or continue their scientific research related to public health problems at IPH in Krakow, with possibility of short stays at EHESP.
3. Trainings at IPH in Krakow for Master or Doctor degree students from EHESP, aimed to participate in training or research activities carried out at IPH on topics related to war situation in Ukraine and public health or refugees' health problems which are related to this war.

For the implementation of the above described objectives, the EHESP provided a grant in the amount of EUR 10,000 for the academic year 2022/2023 [16].

The IPH in Krakow has intensified the already existing cooperation with two academic centers in Ukraine – the Lesya Ukrainka Volyn National University in Lutsk, and the National University Ostroh Academy in Ostroh. Firstly, the representatives of both Ukrainian universities were invited to international conferences and seminars, being asked to provide the first-hand experiences and account on the war in their state and war's actual impacts. There are plans to sign the agreements between JUMC and these universities, to provide a platform for the future academic collaboration, as well as teaching and research projects.

As in other areas of life, deeds are usually more important than words. However, testimonies, appeals, statements and reports do have some significant meaning, especially within the academic environment. Already in March 2022, three weeks after the Russian aggression on Ukraine, the ASPHER Statement on the war against

Ukraine was published [17]. The ASPHER has established its own Task Force on War, with three groups which focus on provision of scientific advice, tackling the problems of neighboring countries especially in the refugee context, as well as various aspects of training and broader academic context. The initiative of creating the Roadmap to Developing ASPHER Technical Guidance Notes on War and Health was also called. With regard to the threat of increasing food problems and threat of famine caused by the on-going war, the ASPHER Statement for improving food security in the context of the Russia-Ukraine was published [18]. This new role of ASPHER complements that of WHO and many humanitarian non-governmental organizations.

The efforts being undertaken by public health academicians and professionals who participate in the above mentioned ASPHER's initiatives have in common the understanding that the current huge humanitarian crisis caused by the Russian aggression on Ukraine and the resulting on-going brutal war, worsens and exacerbates the already existing very difficult global situation. Just before this conflict's onset, by the end of 2021, the overall number of persons displaced by war, violence, persecution, and human rights abuses stood at 89.3 million. This was up 8 per cent on a year earlier and well over double the figure of 10 years ago [19]. The new role of public health academicians and professionals is to document, study, monitor, and do whatever is possible on the various positions taken by them within their national or regional health care systems, as well as the global academic community. This should be aimed to mitigate the multi-dimensional impacts of the currently increasing humanitarian and refugee crises, erupted in Ukraine and existing also elsewhere for various reasons (war context, ecological threats, impact of climate change, economic crisis...). This must take into consideration the worsening and very fragile geopolitical situation and the current serious threats to peace on Earth, which have been unseen for many decades.

■ Conclusions

The European and global public health academic community should adapt to the very serious geopolitical situation, in which the onset of the current Russo-Ukrainian war in February 2022 has become the pivotal moment and marked the initiation or intensification of several types of crises, including humanitarian, nutrition, and public health crises.

The war in Ukraine has stimulated the European societies, including members of the international public health community, to various kinds of positive responses to tragic events. These initiatives should be continued and developed.

The role of well-established and experienced international academic organizations, suitable for communication and cooperation, like ASPHER or other already existing multilateral networks and academic alliances, cannot be underestimated with regard to the proper response to the war situation. They should be further utilized as effectively as possible, aiming to facilitate, coordinate and manage various kinds of response and mitigation efforts, especially

because the prospects for ending the current severe military conflict in Europe, with its all serious consequences for

the individual and public health, do not seem plausible at this point of time.

References

1. Medecins Sans Frontiers, *Mental Health Needs Grow in Ukraine after 100 Days of War*, 2022, June 02, <https://www.msf.org/mental-health-needs-grow-ukraine-after-100-days-war> (accessed: 10.07.2022).
2. Marshall C.R. et al., *Brain Health: The Hidden Casualty of a Humanitarian Crisis*, "The Lancet. Regional Health – Europe" 2022; 15 (100374), doi: <https://doi.org/10.1016/j.lanpe.2022.100374>.
3. World Health Organization, *One Hundred Days of War Has Put Ukraine's Health System under Severe Pressure*, 2022, June 03, <https://www.who.int/news/item/03-06-2022-one-hundred-days-of-war-has-put-ukraine-s-health-system-under-severe-pressure> (accessed: 15.07.2022).
4. *Legal Aspects of Refugees during the War: Where to Look for Help?*, "VisitUkraine.today" blog, 2022, July 21, <https://visitukraine.today/blog/628/legal-aspects-of-refugees-during-the-war-where-to-look-for-help> (accessed: 30.07.2022).
5. United Nations High Commissioner for Refugees (UNHCR), *Internally Displaced Persons (IDP)*, 2022, <https://www.unhcr.org/ua/en/internally-displaced-persons> (accessed: 10.07.2022).
6. David A.L. et al., *The Russian Invasion of Ukraine and its Public Health Consequences*, "The Lancet Regional Health – Europe" 2022; 15 (100358), doi: <https://doi.org/10.1016/j.lanpe.2022.100358>.
7. Besheer M., *UN: War in Ukraine Could Push Millions Into Hunger Worldwide*, "Voice of America (VOA)", <https://www.voanews.com/a/un-war-in-ukraine-could-push-millions-into-hunger-worldwide/6608856.html> (accessed: 12.07.2022).
8. Karazy S., *Almost one Third of Ukraine Needs to be Cleared of Ordnance, Ministry Says*, "Reuters" 2022, August 12, <https://www.reuters.com/world/europe/almost-one-third-ukraine-needs-be-cleared-ordnance-ministry-says-2022-08-12/> (accessed: 15.07.2022).
9. United Nations High Commissioner for Refugees, *Operational Data Portal. Ukraine Refugee Situation*, <https://data.unhcr.org/en/situations/ukraine/location/10784> (accessed: 25.07.2022).
10. Bochenek T., *Session C4.6 The Health Impacts of the War in Ukraine*, Association of Schools and Programs of Public Health (ASPPH) – Annual Meeting 2022, March 24, <https://aspph.confex.com/aspph/2022/meetingapp.cgi/Session/2160> (accessed: 30.07.2022).
11. Bochenek T., *Why Should Public Health and Health Care Professionals Care about THIS war in Eastern Europe?*, Scientific Conference "War in Ukraine and Public Health. ASPHER Meeting," session "War impact on public health," Gdansk Medical University, Association of Schools of Public Health in the European Region, 2022, May 20, <https://gumed.edu.pl/67265.html>; www.youtube.com/watch?v=SV0IS3grpUw&t=5863s (accessed: 30.07.2022).
12. Bochenek T., *Why Should We Care about War in Europe? Humanitarian, Public Health and Refugee Crises Caused by the War in Ukraine*, "Strengthening Our Academic Collaboration Through Research". The 1st Europubhealth+ Consortium Research Seminar, University College Dublin, School of Public Health, Physiotherapy and Sports Science, Dublin, 16–17 June 2022.
13. Programme National PAUSE, <https://www.college-de-france.fr/site/programme-pause/index.htm> (accessed: 15.07.2022).
14. *Pour L'Ukraine*, French Government webpages, <https://parrainage.refugies.info/> (accessed: 28.07.2022).
15. Bochenek T., *Public Health Academic Institutions from Poland, Moldova and France Tighten their Academic Cooperation in Reaction to War in Europe*, Official website of the Institute of Public Health, Faculty of Health Sciences, Jagiellonian University Medical College, 2022, July 19, <https://izp.wnz.cm.uj.edu.pl/en/aktualnosci/public-health-academic-institutions-from-poland-moldova-and-france-tighten-their-academic-cooperation-in-reaction-to-war-in-europe/> (accessed: 30.07.2022).
16. Bochenek T., *A Bilateral Agreement between Public Health Institutions from Poland and France in the Emergency Context of the War in Ukraine*, Official website of the Institute of Public Health, Faculty of Health Sciences, Jagiellonian University Medical College, 2022, July 23, <https://izp.wnz.cm.uj.edu.pl/en/aktualnosci/a-bilateral-agreement-between-public-health-institutions-from-poland-and-france-in-the-emergency-context-of-the-war-in-ukraine/> (accessed: 30.07.2022).
17. Wandschneider L. et al., *The Role of Europe's Schools of Public Health in Times of War: ASPHER Statement on the War Against Ukraine*, "Public Health Rev" 2022, March 16, <https://pubmed.ncbi.nlm.nih.gov/35371592/> (accessed: 02.08.2022).
18. Association of Schools of Public Health in the European Region, *Task Force on War*, <https://www.aspher.org/task-force-on-war.html> (accessed: 30.07.2022).
19. United Nations High Commissioner for Refugees (UNHCR), *Global Displacement Hits another Record, Capping Decade-long Rising Trend*, 2022, June 16, <https://www.unhcr.org/news/press/2022/6/62a9d2b04/unhcr-global-displacement-hits-record-capping-decade-long-rising-trend.html> (accessed: 22.07.2022).