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The Resilience of the Polish Healthcare System after the Arrival of War Refugees from Ukraine

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After the Russian aggression on Ukraine in February 2022, Poland experienced the largest European movement of war refugees in nearly a century: 8,000,000 crossed the border by the year's end. The European Union granted them immediate access to healthcare systems. This sudden increase in the number of patients challenged Poland's healthcare system's resilience. This article, based on a mixed-methods analysis of data from public and private institutions, a survey of medical students (n=581) and interviews with junior doctors (n=18), investigates how the system remained resilient and identifies the contributing and hindering factors in health-service delivery, the health workforce and leadership/governance. Initially, the system's resilience was upheld by an outburst of support, with doctors working overtime, private providers offering free services and NGOs facilitating access. Personnel shortages were reduced by swiftly employing Ukrainian medical staff, based on a special law. However, in the medium term, communication and other difficulties became evident.

Keywords: refugees, Ukraine, healthcare, resilience, Poland, doctors, medical students

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Introduction

The Russian invasion of Ukraine in February 2022 precipitated the largest movement of war refugees in Europe in nearly a century. Over 2,000,000 people crossed into Poland within a month and 8,000,000 by the end of the year (Duszczyk, Górny, Kaczmarczyk and Kubisiak 2023a). Many continued their journey or returned home but, by December 2023, some 954,874 war refugees – 63 per cent female and 44 per cent minors – still lived in Poland (Otwarte Dane 2023), making it the country with the second-highest number of Ukrainian war refugees (after Germany) and the second highest rate of war refugees per 1,000 inhabitants (after Czechia) (Eurostat 2025).

The situation challenged Poland's already underfunded and understaffed healthcare system (OECD 2023; Statistics Poland 2023). A substantial proportion of the newcomers suffered from chronic illnesses or PTSD – or rated their well-being as poor (Bilewicz, Babińska and Gromova 2024; Kulhánová, Lustigová, Drbohlav, Leontiyeva and Dzúrová 2024). Disparities in treatment methods and vaccination rates between Ukraine and Poland compounded the difficulties. Given the exceptional situation, this article investigates the resilience of the Polish healthcare system in the short and medium term and the factors affecting it. Previous studies on the resilience of healthcare systems have focused mostly on old immigration countries (Catussi Paschoalotto, Alves Lazzari, Rocha, Massuda and Castro 2023; Fleming, O'Donoghue, Almirall-Sanchez, Mockler, Keegan, Cylus, Sagan and Thomas 2022) and mainly covered the response of public entities to existing crises (Ignatowicz, Tarrant, Mannion, El-Sawy, Conroy and Lasserson 2023). By focusing on a new immigrant destination and the unprecedented scale and generosity of public, private and individual responses in providing health services, we are contributing to the rapidly developing scholarly works on policies towards Ukrainian war migrants (Kardas, Babicki, Krawczyk and Mastalerz-Migas 2022; Spiegel, Kovtoniuk and Lewtak 2023). Understanding of the Polish healthcare experience can aid in designing better future responses in mass movement situations.

The Polish case is not only instructive because of the scale and swiftness of arrivals. The European Union's reaction was also unprecedented. For the first time, the EU applied the *Temporary Protection Directive*, which granted war refugees immediate access to the labour market, education, social support and public healthcare. Previously, newcomers – e.g. Syrians in the EU, Lebanon or Turkey – received limited access or were accommodated within separate healthcare structures and policymakers took pains not to attract asylum-seekers by offering more than the utterly necessary care (Biddle, Mladovsky and Bozorgmehr 2020a; Montes 2020; Roos 2023). On 12 March 2022, Poland passed the *Law on Assistance to Citizens of Ukraine in Connection with the Armed Conflict on the Territory of That Country* (hereafter 'Ukrainian special law'), detailing the modes of access and facilitating Ukrainian health professionals' employment in Poland. Ukrainian patients were incorporated into the public Polish system and could use almost all services, from basic care to cancer treatment and organ transplants (Lewtak, Poznańska, Kanecki, Tyszko, Goryński, Jankowski and Nitsch-Osuch 2023; Małyszko, Macech, Kępska-Dzilińska and Nazarewski 2023). An almost general mobilisation of society accompanied the state's reaction to help the newcomers. Although providing healthcare is the responsibility of the healthcare system, the Polish experience highlights the supporting role of various actors – such as businesses, NGOs and individuals.

This paper resorts to the concept of healthcare system resilience (Blanchet, Diaconu and Witter 2020; Thomas and Fleming 2024) and focuses on three of the six building blocks of health systems distinguished by the World Health Organization (2010) which were particularly impacted by the war in Ukraine – health-service delivery, the health workforce and leadership/governance – only briefly touching upon the other three: health information systems, access to essential medicines and financing.

To understand the ongoing changes, we examine various data obtained from public and private healthcare institutions, as well as a survey conducted among medical students and interviews with junior doctors.

It begins by clarifying the concept of health system resilience, understood here not only as the operational capacity of public healthcare in the face of a shock but also as the reaction of a complex body of public and private entities. Previous works have focused on the resilience of public healthcare; we broaden the perspective by including private providers and the role of civil society. We first describe Poland's system and its use by migrants prior to February 2022 and then analyse the service delivery, healthcare workforce and governance after the arrival of war refugees. Changes in the workforce were important because many Ukrainian doctors and nurses were swiftly employed in the Polish healthcare system. We demonstrate the factors which both increased and hindered Polish healthcare resilience in the short and medium term, providing lessons for other situations of large-scale refugee arrivals.

Healthcare resilience during mass arrivals

The concept of resilience began to be applied to healthcare during the 2000s (Blanchet *et al.* 2020; Thomas and Fleming 2024; Truppa, Yaacoub, Valente, Celentano, Ragazzoni and Saulnier 2024) and developed dynamically during the Covid-19 pandemic (Catussi Paschoalotto *et al.* 2023; O'Grady and Shaw 2023). However, a commonly agreed-upon definition is yet to be developed (Saulnier and Blanchet 2024). The differences concern, for example, the magnitude and duration of events which a health system must be able to withstand in order to prove itself to be resilient (Turenne, Gautier, Degroote, Guillard, Chabrol and Ridde 2019). Some authors argue that the choice of approach and indicators should depend on the type of shock experienced (Fleming *et al.* 2022; Ignatowicz *et al.* 2023).

The various definitions of resilience all relate to the ability of a system to continue providing services in the face of a crisis or significant change of circumstances, such as an armed conflict, natural disaster, pandemic or financial crisis (Biddle, Wahedi and Bozorgmehr 2020b; Blanchet, Nam, Ramalingam and Pozo-Martin 2017; Bozorgmehr, Roberts, Razum and Biddle 2020; Kruk, Myers, Tornorlah Varpilah and Dahn 2015). To be defined as resilient, a system must promptly respond to increased numbers of patients where they are gathered, while still providing the same level of services for the local population. Health system resilience is frequently understood on three levels: (i) its absorptive (short-term) capacity – the ability to deliver the same level of services to an increased number of people; (ii) its adaptive (medium-term) capacity – the ability to deliver the same services with fewer or different resources; and (iii) its transformative (long-term) capacity – the ability to transform its structure and functioning in response to changed conditions (Biddle *et al.* 2020b; Blanchet *et al.* 2017, 2020; OECD 2018). This article focuses on the absorptive and adaptive capacities of the Polish health system. In our understanding, a system can be considered resilient only if it provides the same level of service to existing patients while simultaneously serving the newly arrived. A deterioration of services for locals, such as longer waiting times, would probably cause social tensions.

The functioning of health systems is influenced by numerous elements of the formal and informal social, economic and political environments, including social trust (Blanchet *et al.* 2020; Witter, Thomas, Topp, Barasa, Chopra, Cobos, Blanchet, Teddy, Atun and Ager 2023) and governance, as well as information flows (Thomas, Sagan, Larkin, Cylus, Figueras and Karanikolos 2020). A system is resilient when there is a high level of integration between the actors and institutions that comprise it (Nowicka, Bartig, Schwass and Matuszczyk 2021). In Poland, research on the response to war refugee arrivals has demonstrated that a high level of involvement of diverse private and public actors reinforced social

resilience (Cullen Dunn and Kaliszewska 2023; Pachocka, Lewandowski, Nowosielski, Popławska and Wach 2025; Podgórska, Jekaterynczuk, Yarosh, Kuzmuk and Liubchuk 2024). We analyse healthcare in Poland as part of the broader institutional environment, co-created by formal and informal institutions, as well as numerous organisations and individuals who became involved in the response to the mass arrival of war refugees (Pszczółkowska, Bojarczuk and Okólski 2026). In this context, the efforts of commercial medical entities were also a key element of the resilience.

The Polish healthcare system and its foreign patients before and after February 2022

The Polish healthcare system, financed through compulsory social health insurance contributions, is characterised by low financing (6.7 per cent of GDP in 2022, compared to the 9.2 per cent OECD average) and a high share of out-of-pocket expenditures (OECD 2023). Its most significant challenges pertain to the consequences of a rapidly ageing population and the emigration of medical personnel, which has resulted in a low ratio of doctors and nurses per 10,000 inhabitants (Duszczyk *et al.* 2023b; Sowada and Kowalska-Bobko 2021). Patients face lengthy waiting periods for some procedures, e.g., over a year for a hip or knee replacement (Ministerstwo Zdrowia n.d.; Statistics Poland 2023). Many resort to a combination of public care for emergencies and major treatments and private care for treatments they can finance themselves, such as ambulatory or dental care. Moreover, those who do not contribute to compulsory health insurance or are not covered through other entitlements find themselves uninsured (Sowada, Sagan and Kowalska-Bobko 2022).

In December 2021, 627,000 Ukrainians were insured through the public insurance system, out of an estimated 1,350,000 people present in the country (Duszczyk and Kaczmarczyk 2022; ZUS 2025). Other adults were either employed based on various types of short-term contracts, which did not include insurance, or – more rarely – worked without a contract. This was partly the result of Poland's flexible work regulations and unwritten migration policy, which encouraged non-permanent employment and 'incomplete migration' (Okólski 2012). Other migrants resorted to tourist insurance for limited periods (required to obtain a visa), used private healthcare or planned their medical appointments during visits to Ukraine (Cope, Keryk and Kyliushyk 2021; Fiałkowska and Matuszczyk 2021; Levitas 2020;). These people barely used the Polish healthcare system and did not contribute to it. Refugees had healthcare access through dedicated services (Sobczak-Szelc, Pachocka, Pędziwiatr, Szałańska and Szulecka 2023). In comparison to both groups, war refugees – i.e., Ukrainian citizens who crossed the border on or after 24 February 2022 – obtained much easier access based on the 'Ukrainian special law', which guaranteed them free public healthcare (with the exception of spa rehabilitation, the right to treatment abroad and reimbursement for treatment abroad under the EU 'cross-border' directive).

Data and methods

Our mixed-methods approach relied on three types of data. Statistical data were obtained from public institutions and private healthcare providers, as well as publicly available reports – e.g. the private Watch Health Care barometer, which measures the accessibility of services. Data concerning the numbers of patients, types of services and expenditure in 2022 and 2023 were provided upon request by the National Health Fund (NFZ) – which finances healthcare – and the Ministry of Health. Data concerning foreign doctors who were allowed to practice in Poland were obtained from the Supreme Medical Chamber (NIL). Private healthcare provision information was requested from the largest private providers in Poland: Lux Med, Medicover and CM Damiana. We treat the three as illustrative of

the reaction of private providers, although the numbers are not comprehensive for the whole, very fragmented sector (PWC 2023).

The above sufficed to provide a statistical overview of the situation of Polish healthcare. To understand the situation on the ground and ongoing changes, we reached out to health professionals. An online survey was sent to final-year medical students from 13 public universities throughout Poland, which constituted 85 per cent of final-year medical students in the country studying in Polish (February–March 2023, n=581, response rate 17 per cent). We did not observe any self-selection bias in terms of basic demographic features, as the characteristics of our respondents reflected those of medical students in Poland – nearly 60 per cent were women, 34 per cent were men (6 per cent did not answer or chose 'other') and 98 per cent were childless. As the title of the recruitment e-mail revealed that the survey concerned the migration plans of medical students, people interested in migrating may have been more likely to open it and take part. However, it is not apparent whether or not this could have impacted on their opinions on the issues discussed in this article.

Final-year students have insight into the system but do not significantly shape it, providing simultaneously an insider's and an outsider's view. This choice was methodologically innovative, since medical students' perspectives have not yet been considered in studies of health-system responses to refugee migration in Europe. Questions regarding the arrival of Ukrainian patients and doctors were included among a broader set of questions on the migration and professional plans of medical students and the state of Polish healthcare. At the same time, the choice of respondents is a limitation of the study, as the findings cannot be treated as representative of the opinions of all medical professionals in Poland. In particular, the study did not seek the opinions of medical doctors in more senior or managerial roles but focused only on those who were about to embark on a medical career. To partly counter this limitation and to enhance our understanding of the survey responses, in-depth semi-structured interviews were conducted with randomly selected respondents (n=18, 2023–2024). The interviews took place when the respondents were already junior doctors doing their internships, all but one in public hospitals. They were thus already employees of the healthcare system, albeit in junior roles. All interviews were conducted remotely (Zoom, Skype) and lasted 25–40 minutes.

Service delivery as a measure of healthcare resilience

This section focuses on the first building block of healthcare resilience: health-service delivery. We present a comprehensive picture based on statistics, e.g., the number and types of treatment offered to Ukrainian patients, the waiting times for services for all patients and the perceptions of those involved – both doctors and medical students.

Access to public healthcare for Ukrainian patients

The influx of war refugees resulted in the immediate need to admit many of them into the Polish healthcare system. In more than 10 months of 2022, 800,000 public healthcare services were provided to 651,594 Ukrainian war-refugee patients. This means that only a minority of those who arrived and registered in the PESEL UKR database[1] (1,497,000 persons by the end of 2022) or who passed through Poland, used its public healthcare. In the first weeks, up to 100,000 people arrived daily, some undergoing chemotherapy or dialysis (Małyszko *et al*. 2023). This challenged the system, as patients had to be quickly matched with the appropriate services. Employees of the public system, NGOs and private citizens all helped with the coordination, sharing their knowledge of the complex – mostly public

but partly private – Polish healthcare system (Biesiada, Mastalerz-Migas and Babicki 2023). This contributed to the system's short-term adaptive resilience.

By 2023, the Ukrainian population in Poland was more stable and most of those registered (holding a PESEL UKR public registration number) had contact with public healthcare – 802,102 patients received over 2,000,000 services during the whole year (data from the National Health Fund). The number of services per person increased and the types of service provided also changed (see Table 1).

Table 1. Individual Ukrainian patients obtaining services paid from public funds by the National Health Fund under the 'Ukrainian special law' by gender, age and types of services - a selection of the most frequent types

	March–December 2022					January–December 2023				
	Women		Men		Total	Women		Men		Total
Age in years	>18	<18	>18	<18		>18	<18	>18	<18	
Primary healthcare	91,550	130,800	93,287	23,250	338,887	85,079	113,529	86,556	27,175	312,339
Outpatient specialist care	19,911	70,196	23,071	12,139	125,317	20,038	58,720	22,910	11,700	113,368
Dental treatment	22,917	24,982	21,014	3,350	72,263	23,713	22,712	22,367	4,786	73,578
Hospital treatment	14,244	29,225	15,684	7,128	66,281	9,759	25,695	11,347	6,914	53,715
Drug reimbursement	6,420	12,019	6,442	2,085	26,966	49,451	94,914	51,964	19,196	215,525
Medical devices	2,045	2,257	1,194	1,068	6,564	1,727	6,016	1,496	3,880	13,119
Therapeutic rehabilitation	1,416	2,242	1,690	6,132	11,480	1,814	3,931	2,119	976	8,840
Psychiatric and addiction care	531	2,096	900	697	4,224	761	1,833	1,238	685	4,517

Source: Data obtained upon request from the National Health Fund. If a particular patient obtained a service of the same category more than once a year, they were counted only once – e.g. if a child visited a paediatrician several times in one year, they were counted once.

While, in 2022, more war refugees used primary, outpatient and hospital care and therapeutic rehabilitation, by 2023 these numbers fell; however, the number of people obtaining drug reimbursement increased eightfold and medical devices doubled. This suggests a more regular, non-emergency use of the system. This movement from emergency towards regular healthcare by Ukrainian war refugees was also observed by Pędziwiatr, Bielska, Wanke and Luchik-Musiyezdova (2024) based on data from the city of Kraków. The causes of hospitalisation changed compared to the pre-war period – while, before February 2022, accidents were the most frequent cause, followed by childbirth, after the Russian aggression on Ukraine, more cases concerned chronic diseases, including cancer treatment (Lewtak *et al.* 2023). The above demonstrates that, in the medium term, the healthcare system has adapted to serve the varied needs of more regular patients.

A particular type of service, not distinguished above but constituting an important section of the hospitalisation of women, was linked to childbirth. In 2023, 14,846 children were born in Poland to

Ukrainian mothers, over 5 per cent of all births that year (Statistics Poland 2024a). Additionally, Poland treated over 3,300 wounded in Ukraine, most within the EU Medevac programme, which operated a hub near Rzeszów (data obtained by the authors from the Ministry of Health).

Despite the broad range of services provided, the cost of care for Ukrainian war refugee patients remained relatively limited – 514,600,000 PLN in 2022 and 848,000,000 PLN in 2023, amounting to 0.35 per cent of the total current public expenditure on healthcare in 2022 and 0.44 per cent in 2023 (data from the National Health Fund and Statistics Poland 2023). This did not include the cost of existent equipment and personnel – but the financial burden of this crisis seems limited and not comparable to the Covid-19 crisis, when 92,800,000,000 PLN were spent in 2020 alone (NIK 2023). Moreover, in response to the arrival of war refugees, Poland received financial and in-kind support (vaccines, HIV and tuberculosis medications, vehicles, respirators, defibrillators) from the EU, WHO and UNICEF. We thus do not focus in detail on financing as a building block of healthcare resilience, since the funding available per patient did not change fundamentally.

The contribution of private providers

The resilience of the public system was reinforced by private providers offering free services to war refugees. In the first months, they served large numbers of Ukrainian patients (nearly 30,000 services per month), lessening the burden on public healthcare and contributing to its resilience. Data from Table 2 suggest that most services in March and April 2022 were provided privately, which was probably not the case but resulted from initial under-reporting in the public system (Biesiada *et al.* 2023). The types of service used by war refugees in the public and private systems differed, with the more costly specialist and hospital care focused mostly in the public system. Nevertheless, the private system complemented the public, increasing the overall absorptive capacity.

Ukrainian war refugees quickly started contributing financially to the system through employment, which increased rapidly to 78 per cent for all Ukrainian citizens (war refugees and previous migrants) in 2023, compared to 67 per cent for Polish citizens (NBP 2024). About a quarter of war refugees were working as professionals and managers (Górny and Kaczmarczyk 2023) and could probably afford to pay for some private services. Nevertheless, others, due to their health or family situation, found themselves without resources. War departures from Ukraine were strongly selective, with few people over 65 – who are more likely to need healthcare – arriving in Poland (dane.gov.pl 2025). Overall, in a survey of Ukrainian war migrants conducted in the summer of 2022 by the WHO and Statistics Poland (2022), 90 per cent reported having access to health services, the vast majority through the public system – but half indicated an information barrier. In another survey, help with organising a medical consultation was one of the top needs reported by war refugees (Górny 2023). A qualitative study (Follis 2026) documented the difficulties in accessing the system for people without a PESEL UKR number (which can be lost by leaving Poland for over a month) or by people perceived as undeserving – for example a Ukrainian citizen with a non-white skin colour.

One particular challenge concerned the provision of psychological and psychiatric care, given the increased stress levels and the high incidence of post-traumatic stress disorder among war refugees (Bilewicz *et al.* 2024; Długosz 2023). The 'Ukrainian special law' facilitated the recognition of Ukrainian psychological and psychiatric qualifications. The Ministry of Health's pilot programme for trauma victims served 1,327 people in 18 locations (data from the Ministry of Health). Numerous NGOs – for example, the Polish Red Cross – offered free consultations to improve access. Nevertheless, the public

mental-health system, already underserving local patients, especially children (Jankowski, Lazarus, Kuchyn, Zemskov, Gałązkowski and Gujski 2023), remained insufficient.

Table 2. Number of health services made available to Ukrainian war refugees by public and private healthcare providers

		Number of healthcare services made available to Ukrainian war refugees	
		In the public system	In the private system
2022	February		204
	March	393*	27,649
	April	5,485*	27,329
	May	73,046	26,538
	June	122,479	18,227
	July	109,711	15,291
	August	95,579	13,438
	September	97,516	11,991
	October	100,308	11,695
	November	103,046	11,893
	December	119,325	11,220
2023	January	274,840	10,566
	February	153,291	9,457
	March	160,027	10,139
	April	135,852	7,287
	May	121,714	6,529
	June	171,444	5,738

Note: *Data regarding services in the public system were under-reported in the first months, as newly arrived Ukrainian patients did not yet have PESEL UKR numbers and medical administrators were not always aware of how to report such cases.

Source: Data obtained upon request from the National Health Fund and the three largest private healthcare providers (Lux Med, Medicover, Damian Medical Center).

Changes in access to healthcare for the local population

An important indicator of health system resilience during mass arrivals is whether the service for the local population remains unchanged (WHO 2010). In Poland, the arrival of new patients did not substantially impact on waiting times for various services (Ministerstwo Zdrowia n.d., WHC 2023). The Watch Health Care barometer, which measures queues by calling health facilities and registering for visits or procedures, demonstrated that waiting times increased from 3.4 months in 2021 to 3.6 months in November 2022, before dropping to 3.5 months in 2023 (WHC 2023). These changes can be considered minor, given that, in the pre-Covid-19 years, the numbers were 3.7–3.8. The data demonstrate that long waiting times are a problem in the Polish healthcare system – which, however, was not seriously aggravated by the arrival of war refugees.

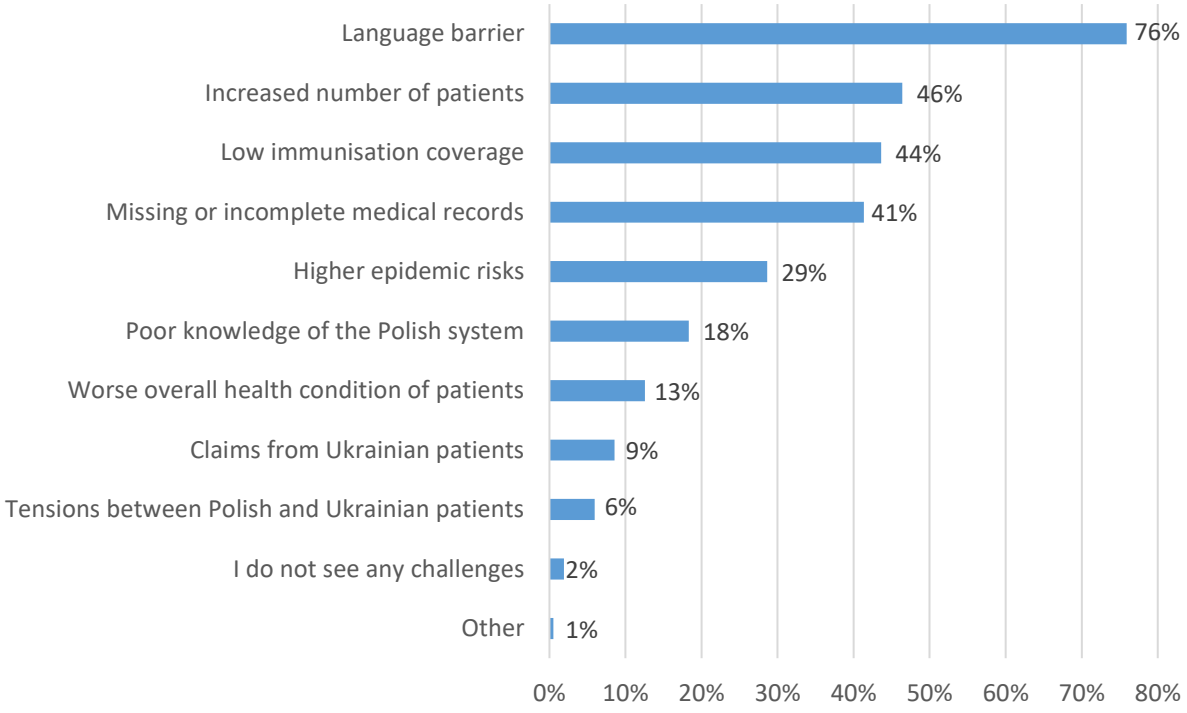
Moreover, changes were not evident for women and children. Generally, many of the longest waiting times concern children. Between February and April 2022, some increased by weeks or even months.

For example, the average wait before admission into an audiology and phoniatrics ward – from 269 days to 303 days – while others such as admission into a pediatric oncological surgery ward decreased – from 211 to 168 days – with no general trend visible (Ministerstwo Zdrowia n.d.). By the end of 2023, waiting times had again fluctuated depending on the type of service. Queues for services for women lengthened between 2022 and 2023 from 2.2 months to 2.5 months, before a similarly large increase in 2024 (when the number of Ukrainian patients did not increase) (WHC 2024). The above suggests that the arrival of Ukrainian patients did not have a clear impact, with other factors playing a larger role.

Difficulties in service provision reported by junior doctors and medical students

The above provides an overview of the situation regarding health provision for Ukrainian and Polish citizens. Below, we aim to provide a deeper understanding of the situation by seeking the opinions of final-year medical students (survey) and junior doctors (interviews). In the survey, participants were asked multiple-choice questions about the major challenges related to the arrival of patients from Ukraine and the consequences for the Polish healthcare system.

Figure 1. Opinions on the inflow of patients from Ukraine among final-year medical students at Polish medical universities. Q: *What major challenges do you see related to the arrival of patients from Ukraine?* [%] (n=573)



Source: Own elaboration based on survey dataset (2023).

By far, the largest group – 76 per cent – expressed concerns over the communication barrier (Figure 1). This was corroborated in interviews – participants had witnessed doctors not understanding medical documentation in Ukrainian or patients not understanding what treatment would be undertaken: 'The older generation of [Polish] doctors, who speak Russian, managed somehow. But for the young, there was a huge communication gap. Especially if the patient didn't speak any English' (Respondent 8,

female). She described how translation was spontaneously organised in her hospital in Kraków by resorting to Ukrainian or Russian-speaking medical students:

> *They were asked to take on translation duty, without remuneration. One of my classmates was Ukrainian. (…) They phoned him and he stepped out of classes to translate in another part of the hospital. (…) He lost out on classes but, of course, did not want to leave his compatriots in need.*

This was an example of resilience created bottom-up by the local community – but it was unlikely to work in the long term. Respondent 6, who was working near the border with Belarus, where the newcomers were from Ukraine and many other countries (because of the migration route through Belarus), pointed out that, frequently, when patients did not speak English, employees tried to make do with Russian or French although their medical vocabulary was insufficient.

The second most popular challenge confirmed by the survey (46 per cent) was the increased number of patients. Some interviewees saw this as a serious problem, while others believed the system managed to serve all in need, thanks to the goodwill and additional unremunerated work of staff. Somewhat ironically, several believed that the system remained operational because medical staff were already used to being overburdened with tasks: 'The system was already inefficient, so the inflow did not deregulate it too much. Every healthcare employee is used to a heavy load of responsibilities, so these people somehow just mixed in' (Respondent 6, male).

The overburdening of the healthcare system in usual times led to a more flexible and efficient response during the crisis. Others, however, believed that the increased number of patients exacerbated problems: 'Even before, access to doctors and procedures was problematic. Now it's worse because the number of patients has increased' (Respondent 7, female).

The frequent lack of immunisations of Ukrainian patients was pointed out as a challenge by 44 per cent of respondents and a higher epidemic risk by 29 per cent. Covid-19 and other vaccination levels were much lower among the Ukrainian population, while the prevalence of diseases such as measles, HIV infections or tuberculosis was among the highest in Europe (Kardas *et al.* 2022; Korzeniewski, Shkilna, Huk, Shevchuk and Marchelek-Myśliwiec 2024). From February 2022 to the end of 2023, Ukrainian citizens in Poland obtained 373,382 doses of Covid-19 vaccines (Ministry of Health data), but individuals had to take the initiative to receive them. Some doctors saw the lack of health screening at the border and mandatory vaccinations as a systemic failure:

> *Why was everybody at the border not vaccinated against transmittable diseases? (…) Why did we not think of this? Free transportation was offered but nobody thought about healthcare, which was a grave mistake. These children started mixing with our children in schools…* (Respondent 4, male).

The issue of 'missing or incomplete medical documentation' was pointed out by 41 per cent of respondents, corroborating the findings of a survey among primary care physicians (Biesiada *et al.* 2023). Some respondents (18 per cent) perceived a lack of understanding of the Polish health system as a challenge. A smaller group (9 per cent) judged Ukrainian patients to be demanding because they asked to be treated immediately, even for minor conditions. Moreover, some junior doctors commented on the poor health of some newcomers:

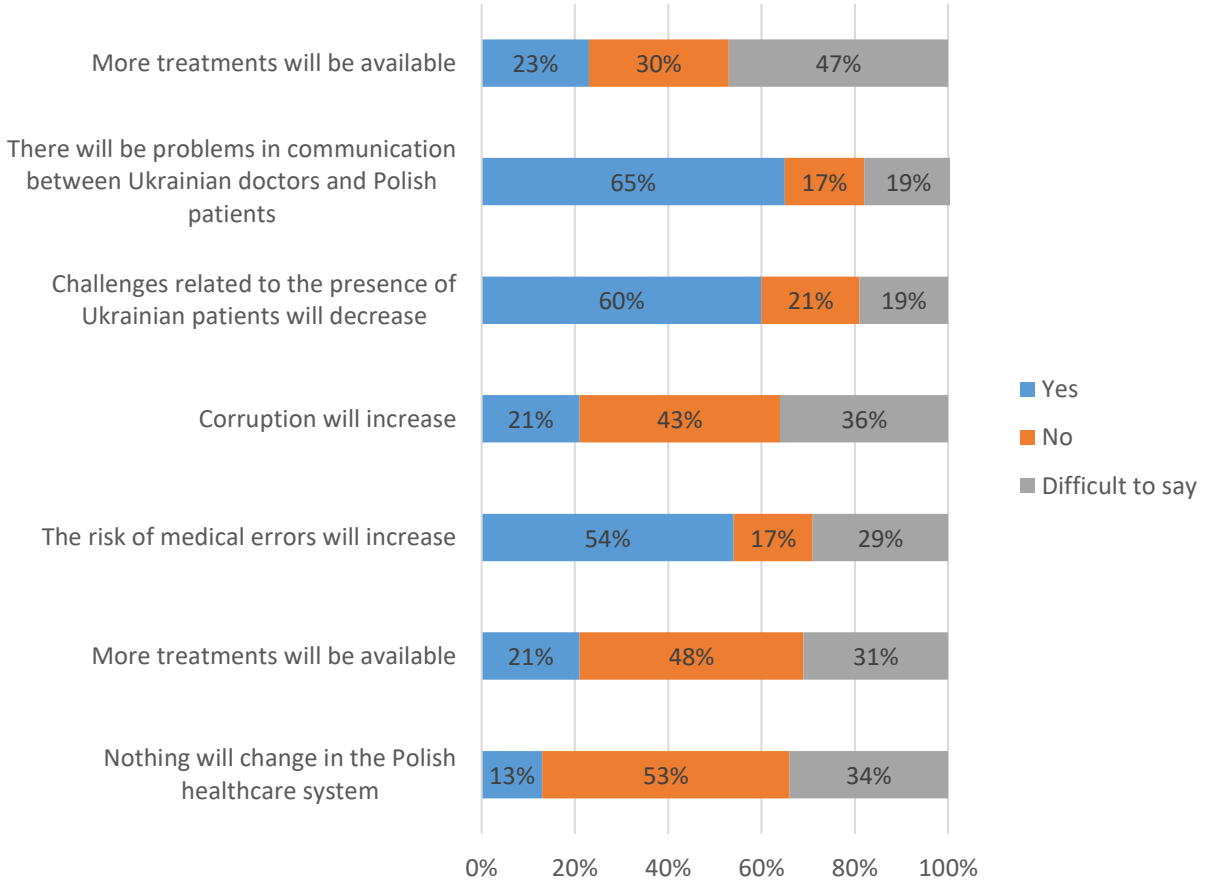
> *More people are in advanced stages of various diseases, so the situation is even more difficult (…). The level of preventive care is lower, so these patients had many viral infections, advanced stages of cancer or various complications of illnesses which, in Poland, would have been cured at an earlier stage and at a lower cost* (Respondent 7, female).

Changes in the health workforce and their impact on resilience

The health workforce, which is the second key building block of a resilient healthcare system (World Health Organization 2010), has been underlined as essential, especially in recent research concerning the response of health systems to the Covid-19 pandemic (Burau, Falkenbach, Neri, Peckham, Wallenburg and Kuhlmann 2022; Onvlee, Jacobs, Tromp, Bailey and Dieleman 2026). Shortages of doctors and nurses, caused by low wages and difficult working conditions, as well as emigration after EU accession in 2004, have long been a problem in Poland (Duszczyk *et al.* 2023b; Pszczółkowska, Bojarczuk, Duszczyk, Matuszczyk and Szyszkowska 2024). Although wages have improved, the problem is not entirely resolved.

The Covid-19 pandemic highlighted the shortages. The Polish authorities introduced a simplified procedure for recognising non-EU qualifications in order to attract doctors from abroad (Andriiashenko, Zabdyr-Jamróz, Lipowski and Domagała 2025). This was a temporary solution, offering the conditional right to practice for a maximum of five years, before the full recognition procedure came into force. The scheme had limited success – in 2021, 1,378 non-EU doctors were practising in Poland, a mere 0.9 per cent of all practitioners (155,600 persons) (Statistics Poland 2022) and fewer than 7 per cent had passed the Medical Verification Examination by 2023 (Andriiashenko *et al.* 2025).

Figure 2. Opinions of medical students regarding the increased number of Ukrainian doctors in Poland. Q: *In your opinion, what are the consequences of the increased number of doctors/physicians from Ukraine in the Polish health care system?* [%] (n=574)



Source: Own elaboration based on survey dataset (2023).

This solution was repeated for doctors, dentists, nurses and midwives under the 'Ukrainian special law', with a permission to practice issued by the Ministry of Health. The Supreme Medical Chamber (NIL) called the employment of non-Polish speakers a 'lowering of standards, which endangered the safety of patients' (NIL 2024). Nevertheless, by the end of 2023, the Ministry had issued 3,959 positive decisions for doctors and dentists (data from the Ministry of Health) and, by January 2024, NIL had confirmed the right to practice of 2,596 of them (data obtained from NIL). In the first quarter of 2024, over 1,000 further positive decisions were issued. The Polish healthcare system thus went from having fewer than 1 per cent of non-EU doctors to having about 4 per cent. Additionally, until the end of the first quarter of 2024, some 2,098 Ukrainian nurses and midwives were issued the right to practice. The increased number of staff undoubtedly helped to resolve shortages and serve Ukrainian- or Russian-speaking patients. Simultaneously, however, the presence of foreign staff in the Polish system posed challenges.

Respondents were asked about the consequences of the increased number of doctors from Ukraine in the Polish system (Figure 2). The majority noticed problems communicating with Polish patients (65 per cent) and an increased risk of medical errors (54 per cent). The only positive effect seen was fewer challenges related to the presence of Ukrainian patients (60 per cent).

Interviewed junior doctors were even more sceptical, due to language issues and because they judged the qualifications of some Ukrainian colleagues as insufficient. One had encountered medical documentation in a Polish hospital written in the Cyrillic alphabet:

> *A doctor needs to speak Polish well enough not only to talk to the patients but also fill out medical documentation, use professional vocabulary. There are more problems with that* (Respondent 6, male).

> *If a doctor speaks good Polish, then fine. But if not, he is the kind of employee others must take care of* (Respondent 2, female).

> *The problem is with junior doctors from Ukraine because their level of education is different. Specialists know a lot and have a lot of experience, also with diseases we don't see here, which is valuable. The problem is with young doctors, who start and end their education at an earlier age and are not taught to EU standards* (Respondent 12, male).

Nevertheless, the interviewees were almost unanimous in their belief that more doctors were needed in the Polish system and were not against sourcing them from abroad. Several believed that the employment of Ukrainian doctors was a positive development. Most did, however, believe that the facilitated route to employment was a problematic solution. In May 2024, the 'Ukrainian special law' was amended by the new government. Most instruments facilitating Ukrainians' access to the medical labour market were abolished. Those whose qualifications had already been recognised in a fast-track procedure were obliged to present at least a B1-level certificate of Polish by 1 January 2026.

The arrival of Ukrainian doctors and nurses in the Polish system increased its short-term resilience, also because they could serve Ukrainian patients and act as intermediaries between them and the system. Simultaneously, language problems became evident. These will probably be resolved over the next few years and the presence of foreign medical staff, if they remain, will alleviate shortages in the medium and perhaps long term, contributing to the absorptive and adaptive capacity of the system.

Governance on the local level

In this article, we argue that, apart from healthcare professionals, social and business actors forming part of the institutional environment, especially at the local level, also contributed to the system's resilience, increasing its absorptive capacity. The role of NGOs in managing migration is growing, especially in facilitating integration and acting as the migrants' advocates in shaping migration policies (Campomori and Caponio 2017). In new immigration states, including Poland, where immigration and integration policies are underdeveloped, the support system relies precisely on NGOs (Jóźwiak, Sánchez-Domínguez and Sorando 2018).

The broad institutional environment of healthcare provision in Poland included public and private organisations, NGOs and informal groups of Polish, Ukrainian and other nationals, who facilitated the war refugees' access to healthcare and provided various types of assistance. Before February 2022, several hundred NGOs dealt with migration, including refugee issues. Immediately after the arrival of the war refugees, thousands of others became involved in helping people affected by the war in Ukraine – according to national statistics, over 32,000 among the 103,000 Polish non-profit organisations undertook such activities in 2022 (Statistics Poland 2024b). Most provided goods or food, with 5.9 per cent of them providing medical aid or healthcare (*ibidem*). Organisations specialising in medical assistance, such as the Sovereign Order of Malta or Doctors Without Borders, stepped in to organise large-scale, comprehensive support (Zakon Maltański n.d.). In practice, NGOs were key actors with their knowledge of how to deal with refugees and which actions should be taken first (Sobczak-Szelc *et al.* 2023). They stepped in immediately, before central and local authorities could take over some activities.

Central and local authorities were active in organising and coordinating various types of support for war refugees, from housing to free transportation and cultural activities. However, local governments were insufficiently funded by the central government and often had to rely on cooperation with NGOs, which were financed by donations from individuals and international sources (Łukasiewicz, Yeliseyeu and Pachocka 2026). The flexibility of NGOs allowed them to organise – at first very basic and then much more advanced – support, while individual citizens joined in, responding to an 'all hands on deck' atmosphere (Pachocka *et al*. 2025). Public statistics have not reported on non-governmental help for Ukrainian war refugees in the years after 2022; however, a 2024 survey of NGOs found that 10 per cent were still helping refugees, including about 1 per cent as their main sphere of activity (Charycka, Bednarek and Belina 2025). This suggests that, after a short period of widespread mobilisation in support of newly arriving Ukrainians, the number of NGOs dealing principally with refugees remains significantly larger than before 2022, while others help occasionally. As Witter *et al.* (2023) argue, shocks sometimes empower local communities to be innovative and not wait for slow top-down orders. This seems to have been the case in Poland, where the arrival of war refugees resulted in a spontaneous and large-scale self-organisation of Polish society and the Ukrainian community already in place (Fomina and Pachocka 2024; Pszczółkowska 2022). The large number of 'social brokers' (Blanchet *et al.* 2017) who acted as intermediaries between Ukrainian patients and the Polish healthcare system seems to have been an important element in facilitating foreign patients' access to the rather complex, mainly public but partly private, Polish healthcare system and contributed to its resilience, especially in the short term. In crisis situations, such bottom-up activity may greatly reinforce the frequently insufficient state-led efforts (Jahn, Perplies, Rast, Biddle, Gold and Bozorgmehr 2025).

Conclusions

In the short term, the Polish healthcare system proved to be largely resilient to the shock of incorporating numerous patients from a neighbouring country, with the incoming group receiving basic and advanced care and the access for local patients not obviously decreasing. Although the system was not fully resilient to begin with, as manifested by long waiting times for various procedures, this did not immediately deteriorate due to the arrival of several million new potential patients temporarily – and nearly one million longer-term.

Several factors contributed to this short-term resilience of the healthcare system. Staff shortages, which impacted on Polish healthcare even before 2022, could have been a significant bottleneck. However, the good will of health professionals – who worked overtime – and the incorporation of Ukrainian medics alleviated these challenges, increasing the system's absorptive capacity and facilitating communication with Ukrainian patients. Private healthcare providers participated by offering free services for over a year after the Russian aggression, decreasing pressure on the public system. NGOs, local authorities and individuals facilitated war refugees' navigation within the health system. The unprecedented solidarity and close cooperation of participants of the whole institutional environment proved especially important in the first months, impacting on the short-term, absorptive capacity of Polish healthcare. However, in the medium term, it started to become evident that social support and willingness to help were dwindling and that more systemic solutions were necessary. As the above critical opinions of junior doctors suggest, resorting to the goodwill and additional work input of medical staff, as well as administrators, NGOs and others, was a spontaneous solution which could not be effective in the longer term. It also became evident to the participants of this system that the language difficulties of patients and some Ukrainian doctors and nurses, which were not dealt with in any systemic way, became a factor hindering the system's functioning. This led to the reintroduction of language requirements for medical staff. It may thus be concluded that, while the Polish healthcare system demonstrated resilience in its absorptive and adaptive capacity, many of the solutions applied were dependent on the goodwill and extra work of doctors and others, which was not tenable in the longer term. It is not obvious that the system would have responded equally effectively if Poland had experienced a second mass arrival from Ukraine. More systemic solutions would be necessary to conclude, in the future, that the system demonstrated a transformative capacity and thus long-term resilience.

The above suggests two broader conclusions regarding healthcare resilience in situations of mass arrivals: one methodological and one practical. Methodologically, our research demonstrated the strategic role of not only the public healthcare system but also a broad spectrum of actors, including private providers, NGOs and other grassroots initiatives. Thus, when conceptualising and researching healthcare resilience, their role needs to be included. Further research should investigate the role of these actors in the longer term, especially in situations whereby public enthusiasm and financial resources dwindle.

On a more practical level, the events discussed can also provide a valuable lesson for future situations of mass arrivals. The case of Ukrainian war refugees in the European Union, including Poland, was specific due to the implementation of the EU's Temporary Protection Directive, which gave them access to public healthcare. As the above analysis demonstrates, in some situations, granting the newly arrived access to the general healthcare system can guarantee appropriate care, without strongly impacting on the system's resilience and service provision for locals. This is an important conclusion for the broader debate regarding modes of healthcare provision for refugees.

Note

1. Number allocated to all Polish citizens and some foreigners, allowing access to public and other services. Numbers with the 'UKR' annotation were allocated to Ukrainian war refugees.

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No conflict of interest was reported by the authors. One of the authors, Prof. Maciej Duszczyk, became Undersecretary of State at the Ministry of the Interior and Administration, responsible for the Polish government's migration policy, on 22 December, 2023. The results of the survey discussed impacted the government's decision to reinstate Polish language requirements for Ukrainian doctors.

AI use disclosure

Grammarly.com was used for language editing. No other AI was used.

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