

## Editorial

# From adversity to advancement: leveraging war-tested approaches for the post-conflict reformation of the Ukrainian healthcare landscape

### Abstract

The Russo-Ukrainian Conflict has had significant repercussions on Ukraine's healthcare system, resulting in civilian casualties and damage to healthcare institutions. The disruption of personnel, medical supplies, and patient transportation has created considerable challenges for healthcare services. However, there are successful approaches from comparable contexts that can serve as a catalyst for post-conflict healthcare reformation in Ukraine. Key strategies include improving healthcare accessibility for marginalized populations through standardized essential health and surgical care packages, rehabilitating damaged facilities, strengthening primary care provisions, and supporting war survivors with disabilities. By adopting these proven practices, Ukraine can strengthen its healthcare system and facilitate a sustainable recovery, contributing to the country's resilience and ensuring essential healthcare services for its population.

**Keywords:** war, healthcare rebuilding, healthcare delivery, healthcare models, Ukraine

### Background and the current implications of war on the delivery of healthcare in Ukraine

The socio-political landscape of Ukraine has undergone a significant transformation since the onset of the Russian invasion, prompting significant global concern due to the escalating casualties and their implications for peace and security. With an estimated 22 734 documented casualties from the frontline, including 8490 fatalities and 14 244 war-related injuries, the nation faces a challenge further compounded by an existing shortage of healthcare institutions and personnel [1].

This situation leaves healthcare establishments increasingly vulnerable to attacks, rendering them inoperable and dysfunctional. The World Health Organisation has reported over 1000 attacks on healthcare institutions since the beginning of the war, resulting in numerous injuries and fatalities among patients and healthcare staff. Consequently, Ukraine is confronting critical shortages of healthcare personnel and facilities, significantly impacting emergency response, care accessibility, and the well-being of civilians [2, 3].

The ongoing conflict has also given rise to numerous unmet healthcare needs and barriers to accessing essential services, with healthcare costs representing a significant impediment. A recent survey revealed that one in five Ukrainians cannot afford necessary healthcare services [3]. Moreover, occupied territories and active combat zones face even greater challenges in accessing healthcare [3].

As a complementary addition to the ongoing endeavours, this editorial seeks to explore successful models from other conflict-affected nations that could be adapted to fortify Ukraine's healthcare system.

### Proposed paradigms and models for the prolonged rehabilitation of Ukraine's healthcare services

To ensure a comprehensive healthcare framework during its recovery, Ukraine can learn valuable lessons from other conflict-affected nations.

First, Ukraine may consider implementing healthcare initiatives to improve accessibility to medical services in remote areas and among vulnerable demographics. For instance, adopting a programme akin to Sierra Leone's Free Healthcare Initiative, launched in 2010, could prove beneficial [4]. This initiative aimed to improve access to critical healthcare, reduce maternal and child mortality rates, and provide complimentary medical services to vulnerable groups, including expectant mothers, lactating women, and children below the age of 5 [4]. In addition to such innovative healthcare initiatives, the introduction of standardized essential healthcare packages and surgical care, comparable to Afghanistan's Basic Package of Health Services, may significantly impact vaccination coverage, maternal health services, and emergency care in rural and isolated regions of Ukraine [5]. By adopting these initiatives, the nation can ensure equitable access to essential healthcare for marginalized groups and populations residing in geographically isolated communities.

The importance of revitalizing Ukraine's healthcare infrastructure cannot be overstated, as it not only facilitates healthcare access but also plays a critical role in postwar recovery, elevates public health preparedness, and contributes to economic prosperity. To this end, the nation might draw inspiration from Iraq's Health Sector Support Programme, an initiative focussed on

rehabilitating damaged healthcare facilities, strengthening primary healthcare centres, and enhancing the proficiency of medical personnel in the aftermath of the Iraq War [6]. Additionally, emulating Rwanda's Health Sector Strategic Plan could offer instructive guidance, wherein the emphasis on primary healthcare and community-based health insurance seeks to strengthen healthcare infrastructure [7]. Through the adoption of these measures, Ukraine can effectively reconstitute its healthcare system while promoting community engagement and empowerment.

Moreover, overcoming healthcare deficiencies resulting from the conflict stands as a paramount priority for Ukraine, as it lays the cornerstone for a more resilient and robust healthcare system. In pursuit of this objective, the nation could learn from Timor-Leste, where, alongside the restoration of healthcare infrastructure, trained medical experts were mobilized and essential medical supply chains were developed [8]. Additionally, the adoption of Bosnia and Herzegovina's Health Sector Reconstruction Project offers a promising route for modernizing Ukraine's healthcare system [9]. This transformative initiative focussed on infrastructure revitalization, procurement of cutting-edge medical equipment, and comprehensive capacity building for healthcare professionals [9]. By employing these strategic measures, Ukraine can significantly strengthen its healthcare system and improve the expertise and capabilities of its medical workforce.

Equally important is Ukraine's commitment to providing support to war survivors with disabilities, fulfilling its humanitarian obligations to its citizens while addressing the enduring consequences of war. Mirroring the successful initiative in El Salvador, the nation could establish a community-based rehabilitation programme encompassing a wide array of rehabilitation services, surgical interventions, and therapeutic modalities [10]. By doing so, the quality of life for those who have endured injuries and trauma during the conflict will be substantially improved [10]. Consequently, patients will be empowered to reclaim their independence and embark on the path to recovery, thereby fostering a collective sense of unity among civilians and propelling the country towards reconstruction.

By incorporating insights from these diverse initiatives and programs, Ukraine can adeptly navigate the intricacies of rebuilding its healthcare delivery system and advance towards providing essential and comprehensive healthcare for all its citizens in the aftermath of war.

## Conclusion

Amidst the challenges following the invasion, Ukraine has the opportunity to learn from successful healthcare initiatives in other war-torn nations. By emulating these models, the nation can improve healthcare access, infrastructure, and services. Creating an inclusive system that reaches vulnerable communities will expedite post-conflict recovery. Collaboration among stakeholders, data-driven decisions, and a commitment to innovation are critical for achieving these goals. Through resilience and transformation, Ukraine can strive for positive change and build a sustainable healthcare landscape for the future.

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