



Review

# Health Diplomacy as a Tool to Build Resilient Health Systems in Conflict Settings—A Case of Sudan

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Abstract: Attacks on health have become a significant concern for non-belligerents of war, including healthcare personnel and facilities, as witnessed in the ongoing Sudan conflict. About 1.5 billion people in fragile and conflict-affected settings (FCAS) have a heightened need for essential health services. Conflicts often lead to the disruption of the building blocks of health systems, a lack of access to health facilities, the failure of essential medical supply chains, the collapse of political, social and economic systems, the migration of health care workers, and upsurges in illness. While health indicators often decline in conflict, health can also bring peace and harmony among communities. An investment in building resilient health systems and health diplomacy is a neutral starting point for mitigating the repercussions of conflicts. The international commitment towards Sustainable Development Goals (SDGs) provides the impetus to emphasise the relationship between health and peace with the amalgamation of SDG 3, SDG 16, and SDG 17. The inspection of how health diplomacy should be used as a 'tool for peace' and not as leverage in conflict settings must be reiterated by the international community.

**Keywords:** health diplomacy; Sustainable Development Goals; peace; Sudan; fragile; conflict-affected countries; healthcare

#### 1.

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On 15 April 2023, Khartoum, the capital of Sudan, came into the headlines due to the uprising of an internal conflict within the military-run government. The clashes erupted between General Abdel Fattah al-Burhan of the Sudanese Armed Forces (SAF) and General Mohamed Hamdan Dagalo, also known as Hemedti of the Rapid Support Forces (RSF). Despite previously working together for the successful ousting of the former dictatorial president Omar al-Bashir in 2019 and the subsequent coup in 2021, the emergence of the power struggle between the two leaders is a consequence of the proposal to integrate the RSF into the military, with an ambiguity in the leadership [1–3].



The clash of generals has threatened civilians, with explosions reported in military buildings and Air Force headquarters close to residential areas, schools, and hospitals [4]. The attack has displaced 3 million people, with over 700,000 fleeing to neighbouring countries [5]. The Sudanese health minister stated that more than 3000 casualties and 6000 injuries have been reported, and almost 50 per cent of the hospitals in the capital are non-functional as the battle continues [6]. Attacks on health have become a major concern with regard to the safety of non-belligerents of war, such as medical personnel, aid providers, and facilities, being uncertain in the current conflict settings.

The threat and impact of a conflict's indiscriminate nature on people's well-being are multi-fold, with a dearth in the supply of essential goods and services to survive the volatile conditions. A functioning healthcare system that delivers health goods, services, and infrastructure is one of the critical elements that people require to support themselves. However, its importance in a conflict has made it a vulnerable point for belligerents to attack and leverage on it. The attacks on healthcare centres and professionals prevent critical supplies, including medicines, surgical equipment, and trained staff. The combined effect of poor public health and conflicts also deprives the effective functioning of other services. While such attacks have immediate ramifications in the form of a lack of availability of treatment for the victims of the attack, in the long run, the destroyed health infrastructure deprives people of good health and could compound into an economic downturn [7]. Thus, it has become imperative to understand how a resilient health system can be built that can withstand the negative externalities of a conflict. This becomes especially important in the case of fragile and conflict-affected settings where "over 80 per cent of major infectious diseases and epidemics occur" [8].

The need for resilient health systems to ensure the continuity of essential health services led to the formation of the World Health Organization's (WHO) health systems building block framework, designed to strengthen its constituents. The framework conceptualizes six building blocks for the health system, which are (i) service delivery; (ii) health workforce; (iii) information; (iv) medical products, vaccines, and technologies; (v) financing; and (vi) leadership and governance [9]. These blocks are expected to address concerns such as quality and safety, access, and the scope of health systems to improve efficiency and ensure health equity. They further create a common and shared understanding of the factors needed to build a resilient health system. However, the major hurdle for countries to accomplish this is the complex and volatile environment in which health systems function, especially in conflict settings.

Health diplomacy as an interplay between health and international relations has gained increased attention in recent years in both theory and practice. It involves global players positioning health concerns as a foreign policy priority and deliberating in high political endeavours (national and international security) [10]. The goals of health diplomacy primarily constitute enhancing health security, improving relations between states and other stakeholders in collective actions for improving health, and supporting the outcomes that intend to reduce poverty and inequity [11]. With the well-being of the people as a central element of health diplomacy, it can facilitate de-escalating tensions and enable the rebuilding of resilient health systems, which is essential for mitigating health crises in conflict settings [12]. These elements of health diplomacy make it an important contributor to the achievement of the specific Sustainable Development Goals (SDGs) related to health, peace, and partnership (SDG 3, 16, and 17).

This paper attempts to iterate on how health diplomacy has enabled the continuity of health services and improving health infrastructure in conflict settings in the past. We also deliberate on the challenges and way forward of utilizing health diplomacy in strengthening health systems in conflict settings. We conclude the paper by discussing potential actions that can be taken by the international community to mitigate the evolving health crisis in Sudan.

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# 2. Attack on Health in Conflict Settings

The functioning of an essential sector such as health is in jeopardy in a conflict region with belligerents attacking it as a part of war tactics. The attack on health in conflict settings can be majorly subdivided into five categories: the attack on (i) health facilities, (ii) health professionals and support staff, (iii) patients, (iv) medical transport, and (v) health facilities [13]. Attacks on health facilities mainly include damage to physical facilities such as clinics, hospitals, laboratories, and drugstores. The violence against healthcare professionals and support staff undertaking medical functions includes killing, kidnapping, and detention from performing their duties. During an attack, the patients and the wounded could also be targeted with the disruption of treatments and denial of medical assistance.

Further, the attacks directed towards medical transport, such as strikes on ambulances and trucks, aircrafts, or vessels ferrying medical supplies, have large repercussions. Violence against health also includes misusing health and medical facilities for storing arms or using these infrastructures as a shield against offensives. Such instances lead to the compromise of neutrality of these structures otherwise held [14,15]. Figure S1 in the Supplementary Materials depicts the distribution of attacks on health facilities, health transport, and health workers in conflict-affected states in 2022 [16]. Tables S1 and S2 in the Supplementary Materials provide the number of hospital beds (per 10,000 population) and nurses and midwifery personnel (per 10,000) that are available in these areas [17,18]. The data suggest that healthcare facilities and workers have been primary victims of the attack on health. There is also a low proportion of hospital beds and nurses due to the volatile and uncertain working environment in conflict settings. These inadequacies of health facilities and services have pushed these countries to become 'medical deserts' [19].

Kosovo witnessed a prolonged violence against health, where professionals were attacked before, during, and after the conflict. Before the beginning of the widespread attacks, Albanian doctors were said to be systematically tormented by the Serbs as their medical training was eliminated and, in some cases, they were subject to mass firings [20]. The war crimes associated with the conflicts also record the Serb policemen and soldiers disguising themselves as health professionals to create fear among ethnic Albanians. It was also observed that anti-aircraft weapons were installed in medical facilities while their basements were used as armouries. Even after the conflict ceased, the deep-rooted divide between ethnic Serbs and Albanians remained in Kosovo, where these populations continue to receive health care from practitioners from their respective ethnicities. The two groups of practitioners have little to no contact between them, with a constant fear of new tensions stemming [21].

Other examples also include Afghanistan, which has undergone several transitions due to the powerplay of multiple superpowers. In the past two decades, the central conflict was against terrorism, where heavily equipped and battle-trained soldiers from multiple countries as well as Afghan allies were up against several rebel groups such as the Taliban. In the ensuing war, the rebel groups used ambulances to attack the opposite camps and civilian sites in major cities, such as in the 2011 Kandahar bombings [22]. The protracted conflict against the elusive rebel fighters also adversely impacted the already damaged healthcare facilities. The presence of Taliban fighters within civilian society forced multiple raids on clinics with the hope of finding traces. The government and international allies also ordered the functioning healthcare staff to report on the Taliban's movements. However, this move was counterproductive, as doctors and medical staff were kidnapped to treat the wounded. During Hamid Karzai's government, multiple instances were reported where healthcare professionals were threatened and forced to shut their clinics [23]. This dented the effectiveness of using humanitarian assistance to win the legitimacy of the government among the Afghans.

The Democratic Republic of Congo (DRC) also accounts for the attack on health by armed groups to further their political agenda. The Masisi region witnessed government attacks on measles vaccination camps where the members of the rebel group, Democratic Forces for the Liberation of Rwanda, assembled. The government attacks were carried out

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despite permissions and security assurances taken by Médecins Sans Frontières (MSF), the camp's organiser. Following this, the region witnessed widespread violence, where entire villages were forcibly evacuated and set on fire [24]. This situation provides an example of how a health objective was used as bait to advance political and military goals.

Another example which helps to understand threats of attacks on healthcare in conflict is from Somalia. During the 2007 Ethiopian occupation of the city of Mogadishu, it was alleged that Ethiopia indulged in intentional damage to hospitals. The attacks were carried out under the pretext of these facilities treating insurgents [25]. The Ethiopian Army also placed roadblocks and conducted extensive checks restricting medical activities. However, interviews with the hospital staff later claimed that the Ethiopian officers wanted to use the hospitals as a vantage point [26].

Having been aware of the significant challenges of healthcare systems and workers, the international community has enacted multiple laws for their protection. According to the existing protection laws, medical personnel assigned exclusively to medical duties must be respected and protected as stated in Rule 28 of International Humanitarian Law (IHL), Article 24 of the Geneva Convention, and Article 15 of the Additional Protocols [27–29]. Medical units, including hospitals and related facilities, are to receive protection under all circumstances as per Article 19 of the Geneva Convention, Article 12 of Additional Protocol I, and Article 11 of Additional Protocol II [30–32]. Further, it requires the belligerents to ensure that medical units are not situated near any kind of offensives during a conflict.

However, hospital buildings have been used to store weapons and facilitate attacks, compromising healthcare neutrality. Such instances were reported in Palestine, where concerns arose about medical facilities being targeted due to alleged connections with armed activities seeking protection from military operations [33]. While there was an international condemnation criticising the Israel Defence Force (IDF) for their indiscriminate attacks, the officials on their part claimed that groups like Hamas purposefully chose civilian institutions for military operations as they provide a "shield" from the IDF [34]. These situations prompted discussions at the international level, expressing concern about the impact on healthcare access. A press release by the UN in 2014 on this issue stated that rockets and other weapons were being stored in schools and hospitals in Gaza [35]. Thus, the laws that intend to protect healthcare workers and units were challenged in such scenarios as the facilities were utilised beyond their humanitarian duties.

### 3. International Measures against Attack on Health

One of the major issues concerning attacks on health is that they tend to be unreported, which demands robust mechanisms and strategies to hold the perpetrators accountable. The Safeguarding Health in Conflict Coalition is one such organisation that has come up for monitoring threats and reporting attacks on health [36]. The 2012 World Health Assembly passed Resolution 65.20 in which the WHO was made the leader to collect data on attacks on healthcare in complex humanitarian emergencies. Hence, the WHO established the Attacks on Health Care initiative in 2012 to collect systematic evidence on attacks on health and promote practices for protecting healthcare from future attacks [37].

In 2016, the former president of the International Committee of the Red Cross (ICRC), Peter Maurer, voiced his concern about the 2400 attacks on healthcare personnel and facilities in 3 years spread across conflict regions such as Afghanistan, the Central African Republic, South Sudan, Syria, Ukraine, and Yemen [38]. The need for reforms in regulations for insulating healthcare conflict settings was also recognized by the UNSC in 2016, which unanimously adopted Resolution 2286, that strongly condemned attacks on wounded and sick medical personnel and facilities [39]. The council emphasized that all parties involved in the armed conflict must adhere to International Humanitarian Law (IHL) to facilitate medical personnel's safe and unrestricted passage. The Council urged its member states to conduct independent investigations on violations of IHL related to the protection of personnel engaged in medical duties. Further, complying to the domestic and international

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law to help reinforce preventive measures and ensure the accountability by the state was emphasized.

The adoption of the resolution provided the impetus to establish a Surveillance System for Attacks on Health (SSA) by the WHO in 2017. Despite these developments, since 2016, there have been a combined 4787 violent attacks on healthcare personnel, patients, hospitals, transport, and supplies, with 1150 deaths and 2873 injuries across 18 countries and territories [40] (Figure 1). According to a study report by the Syrian American Medical Society, Syria alone claimed that the rates of attacks after the resolution's passing have increased by 89 per cent [41]. Additionally, an issue of concern was that out of 168 documented attacks on healthcare between June and December of 2016, 164 were recorded to be committed by the Syrian government and its allies [42]. Thus, while the resolutions and regulations by the international community have been in place, giving the responsibility to member states to investigate violence against health has turned out to be ineffective.



**Figure 1.** Countries and territories with reported attacks on health workers and infrastructures (2016–2023). Source: Surveillance System for Attacks on Health Care (SSA) [40].

While non-governmental organizations (NGOs) and international societies are continuously involved in providing humanitarian aid and support in conflict settings, they must also examine the possibility of providing dedicated psychological support for the medical staff engaged in these areas. The trauma of war could adversely affect doctors and humanitarian support providers, especially if they belong to different countries or strata, making psychological support a dire need. The global health and humanitarian assistance stakeholders must play a significant role in setting the agenda and promoting norms through humanitarian diplomacy to safeguard healthcare workers' lives and prevent damage to healthcare settings [43].

#### 4. Healthcare under Threat—Sudan

Sudan has witnessed dramatic political changes in the past decade, from the splitting away of South Sudan as an independent country to the ousting of a three-decade-long dictatorship. Before 1989, the government oversaw healthcare in Sudan, which provided it free of cost. However, under former dictatorial president Omar Hassan Ahmad al-

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Bashir, the regime adopted a policy for privatizing healthcare. This policy was found to be inefficient, giving rise to corruption and fragmented financing resulting in the stagnation of the public healthcare system [44]. During this time, the out-of-pocket health expenditure that people had to bear was more than 70 per cent [45].

In 2019, when al-Bashir was ousted, the country's health system was described as inadequate to meet the country's health needs. Around seven million people faced mental and physical well-being-related issues, including around one million refugees and 1.5 million internally displaced citizens, highlighting that Sudan was amidst a humanitarian catastrophe [46]. The conditions prevailing in Sudan during the transition period after 2019 highlight the resource scarcity and economic instability, which were evident from the various indicators. It was found that only 43 per cent of health facilities had access to essential medicines. This number further decreased to 33 per cent in conflicted areas such as Darfur and South Kordofan [47]. Sudan also had a poor record in indicators such as maternal mortality ratio (270 per 100,000 live births) and infant mortality rates (40 per 1000 live births), which were among the highest in the world as of 2020 [48,49].

In addition to the long-run conflicts in regions like Darfur, intermittent famines resulted in the constant internal displacement of people to Khartoum and surrounding areas, leading to a massive challenge for access to healthcare. Sanitation and access to clean and safe drinking water have also been widely inadequate in the capital and elsewhere in the country. Due to the low groundwater levels, open water resources are the primary source, which poses a high risk of contamination. This is one of the primary reasons for the prevalence of diarrheal burden in Sudan [47,50,51]. Thus, community and household water supply improvements are important for preventing diseases and exacerbating the already fragile conditions due to the exposure to climate change [52]. Moreover, it was found that more than half of trained Sudanese doctors migrate to other countries, resulting in just 0.262 physicians per 1000 people (as of 2017) and 1.1 nurses and midwives per 1000 people (2018) [53,54]. Despite possessing 72 medical colleges, Sudan suffers from brain drain, inadequate staff retention, and the substantial emigration of the health care workforce [55].

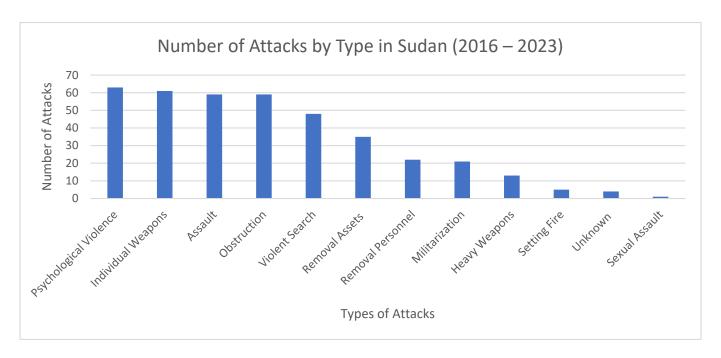
The country has witnessed multiple armed conflicts since its independence in 1956, mostly after 1989 when the coup d'état led by Colonel Omar al-Bashir overthrew the elected government [56]. Under his rule, Sudan has since witnessed some of the most blood-stained armed conflicts, such as the war in Darfur, where the Sudanese Government was allegedly involved in ethnic cleansing [57]. Between 1989 and 2022, the total number of deaths due to violence was estimated to be 98,508, of which 51,978 were caused by state-based actions, 23,970 by non-state violence, and 22,560 were one-sided acts [58]. The current conflict and the 'attack on health' exposes the vulnerabilities and difficulty in building a robust health system in a country that has indulged in numerous violent movements and uncertainties.

In the ongoing 2023 crisis, despite the capital and several regions reiterating the need to safeguard healthcare facilities from violent and armed attacks, there have been cases of intentional military strikes against health facilities and the looting and hijacking of ambulances, in addition to forceful occupation [59]. Furthermore, the International Federation of Red Cross and Red Crescent Societies (IFRC) has claimed that it is impossible to provide any kind of humanitarian assistance in the affected areas, especially around Khartoum [60]. As per the WHO, several hospitals face a shortage of medical supplies and associated life-saving commodities. This irregular violence towards the healthcare system could widen the pre-existing gap between the need and capacity for health-related services [61].

Since the adoption of Resolution 2286 in 2016, there have been 112 violent attacks on health, with the highest cases in a month reported in the April 2023 conflict in Sudan [40]. While inspecting the number of attacks, it is also imperative to understand the types of violence on health workers and patients (Figure 2). The status of the overlapping effects suggests that the instances of psychological violence, assault (without weapons), obstruction of healthcare delivery, individual weapon attacks (knives, bricks, guns, improvised

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explosive devices etc), and violent searches of healthcare personnel, facility or transport have been prominent types of violence.



**Figure 2.** Number of attacks by type in Sudan (2016–2023). Source: Surveillance System for Attacks on Health Care (SSA) [40].

The data provide the grim status of how the attack on healthcare has emerged as one of the sought tactics by parties in conflict settings and challenges the medical neutrality principle adopted from IHL [62]. Health facilities were previously deemed as one of the "safe zones" amidst conflict settings for civilians and military alike. However, the notion has evolved with the changing nature of warfare, such as attacking healthcare facilities for leveraging negotiation processes between the parties [63,64]. While military strikes have an immediate impact on components of health systems such as hospitals, medical transport, aid supplies, and personnel, it also affects other determinants such as supply chains, water resources, and electricity. This attack on infrastructure could interrupt the ability to deliver preventive and routine care for civilians and critical patients [65]. Hence, the failure to protect healthcare personnel and facilities might instil a fear of safety, leading to a mass migration that the international community would have to address [66].

# 5. Role of Health Diplomacy in Conflict Settings

Health, peace, and conflicts are interlinked aspects. Conflicts incite damage to combatants and civilians due to the disruption of essential supply chains and the breakdown of social order, which could lead to the collapse of health systems [67]. Hence, building a resilient health system is essential to tackle the repercussions of conflict settings and help to navigate volatile conditions. However, building such a health system in a conflict setting is challenging and would require diplomatic missions, such as assisting by sending healthcare professionals, mobilizing funds for healthcare infrastructural development, and capacity building at a local level [68]. Such diplomatic interventions using health paves the way for ceasefires and potential negotiations for peace between conflicted parties. Thus, health diplomacy is a key tool for improving health systems and peace.

The USA's actions of reparations in reconstructing the healthcare system of Afghanistan, which was adversely affected during the 'War on Terror', is one of the instances where health diplomacy was used as a tool to enable resilient health systems [69]. The USAID has been a connecting link for assisting since 2002, during which it aimed at enhancing

the Afghan healthcare system in areas like increasing the network of hospitals and treating communicable diseases. The assistance was primarily delivered by providing funds, delivering health systems, and monitoring services [70]. To improve the health outcomes of the Afghan population, the USAID formed a consortium of multiple stakeholders like NGOs, multilateral organisations, and the Afghan Ministry of Public Health (MoPH) [71]. The United States' mission to train healthcare professionals such as physicians, nurses, and laboratory technicians in states like Afghanistan, Iraq, and Syria is also a step towards health diplomacy in conflict settings [72].

Japan has also practised health diplomacy in conflict settings through its International Cooperation Agency, along with the United Nations Relief and Works Agency for Palestine Refugees in the Near East, in the Palestinian territories for Maternal, Newborn and Child Health Issues (MNCH) [73]. It also developed a first-of-its-kind Arabic Maternal and Child Handbook (MCH) and has expanded its scheme to help all Palestinian refugees in other neighbouring countries such as Lebanon, Jordan, and Syria [74].

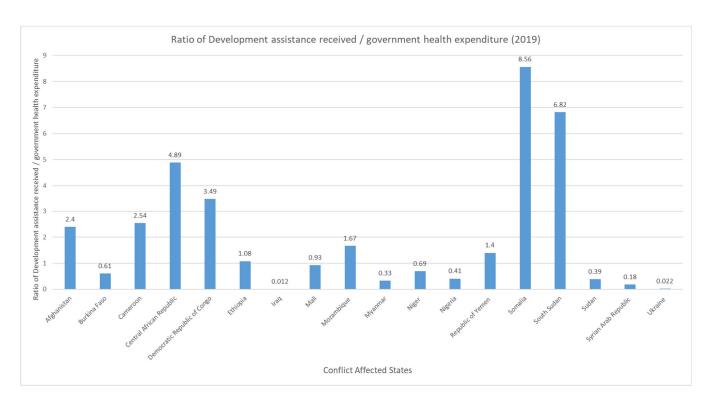
Türkiye began harmonising health aid activities with foreign policy in 1985. The Turkish Government lent a ten-million-dollar aid package to the African countries of Guinea, Sudan, Senegal, Mauritania, Guinea-Bissau, and Somalia. They also built a hospital in Sudan in 1993, which began a series of major roles in constructing the Sudanese health system [75]. It is still contributing through projects like the Nyala Turkish-Sudanese Teaching Hospital, which is an important milestone in the Darfur region, as its services are not just limited to locals but also to people from neighbouring countries [76,77].

While such initiatives of countries mostly provide humanitarian aid, they are still diplomatic missions that countries use to enhance their geopolitical presence and relations. For instance, the People's Republic of China delivered aid by dispatching CMTs to several of the former European colonies from the 1960s until 1978. Most of these medical teams operated in conflicted areas of Africa where access to medical care was difficult, and their primary focus was on preventive care [76,77]. However, China also ensured its interest in securing food and energy resources from Africa [78].

Another instance is Cuba sending its medical staff and medical diplomats for capacity-building assistance to around 70 countries. As part of their missions, these personnel were involved in recovery and rescue operations during natural disasters and disease outbreaks [79]. Cuba also set up one of the world's largest medical schools, the Latin American School of Medicine, which has an enrolment of students hailing from 110 countries [80]. These initiatives enabled Cuba to re-establish diplomatic ties with its Central American neighbours and expand its geopolitical influence. Thus, health diplomacy has become a collaborative tool that countries can use to reap the benefits of better health systems and improved diplomatic relations.

The growing links between health and foreign policy are evident from the development assistance and aid for health. The disparities related to health are viewed as concerns of national security with economic implications. The international community has recognized the importance of providing development assistance funds for maintaining a functioning healthcare system in a conflict setting and providing a helping hand to the non-belligerents. Figure 3 provides the ratio of the development assistance funds to conflict-ridden countries and government health expenditure in 2019. This ratio indicates the conflict-affected states' dependency on health development assistance funds. Countries like Somalia, South Sudan, and the Central African Republic (CAR) that have financial and political constraints for spending on health have received assistance larger than what their governments spent. In this manner, the international community has contributed to helping conflict-affected regions in enhancing their healthcare systems.

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**Figure 3.** The ratio of development assistance received/government health expenditure (2019). Source: Institute for Health Metrics and Evaluation [81].

In addition to nation-states, NGOs, coalitions of national governments, and international organizations have played a vital role in responding to attacks on health and practising health diplomacy. MSF, founded in France in 1971, is one of the foremost organisations working towards delivering emergency medical and humanitarian aid in conflict zones [82]. MSF is known for maintaining neutrality in conflicts by focusing on providing medical care by deploying doctors and other healthcare staff. Another organisation active in conflict zones is the International Committee of the Red Cross (ICRC), which focuses on humanitarian protection and assistance for victims of war and conflicts [83]. The organization primarily promotes IHL, facilitates operations, and creates awareness among war and conflict victims [84].

The WHO initiated the Global Health for Peace Initiative, which aims to build on global policies to make the health sector a fundamental contributor to peace and deliver a combined outcome of peace and health outcomes. The WHO, by using its legitimacy and neutrality, aims to create a system based on humanitarian principles, which could deliver an equity of services by overcoming all kinds of discrimination that are some of the root causes of triggering conflict. This health-for-peace approach has been implemented in Africa, where the programme focuses on building sustainable health systems. The WHO aims to achieve this through an adaptive approach focusing on the participation of all communities, thereby enabling a trust-building situation between civilians, healthcare staff, and external health intervention missions [85]. For instance, the WHO in Somalia uses the UN Peacebuilding funds to improve adolescents' psychosocial and mental health, as most are born and grow up in conflicts [86]. Similarly, in Cameroon, the WHO aims to reduce community violence by deploying skilled community health workers to improve the access to and quality of community health centres, focusing on mental health [87,88].

These health initiatives have contributed to peace by developing training modules for health facilities and capacity building, which, to an extent, have prevented youths from participating in activities that could drive them towards violence [89]. The initiatives employ the health-development-peace nexus, which contributes towards achieving the SDGs of health (SDG3), peace (SDG16), and strengthening partnerships (SDG17). Health

diplomacy can be used to strengthen public health systems, especially in conflict settings, which are vulnerable to shocks from conflicts, in addition to the disease burdens [90]. Conflict settings are prone to concerns such as high numbers of refugees and internal displacement, making their health systems fragile and susceptible to disease outbreaks. Therefore, tailored support is required by conflict-affected areas where health and social protection measures are placed to enhance the resilience of their health systems at the subnational and national levels.

## 6. Challenges and Way Forward for Health Diplomacy in Conflict Settings

Health diplomacy provides an avenue to develop intersectoral co-operation and raise health as not just a national issue but a global and transboundary concern [91]. The components related to government, such as its policies, interests, and relationship with other states, are determining factors of health as a policy outcome at the national, regional, and international levels [92]. Additionally, climate change, population increase and disasters, both natural and man-made, are complex issues that impact geopolitical factors, which in turn affect health [93]. Thus, there is a need for attention to the state's internal and external vulnerabilities while analysing the patterns of aid extended to the states in need.

The experiences of the COVID-19 pandemic highlighted the interplay between a state's health, security, and economic policies. During the pandemic, other issues, such as the superpower tussle, conflicts in Africa and the Middle East, and the debates on the re-emergence of the threat of weapons of mass destruction (WMD), increased the policy challenges [94,95]. Amidst this, a few states practised vaccine diplomacy and leveraged their geopolitical, geoeconomic, and vaccine manufacturing and distribution capacity by assisting various developing countries, including conflict-affected regions. India, China, and Russia were at the forefront of furthering such vaccine initiatives [96]. While India was regarded as the global vaccine hub, China could promote partnerships with over 20 developing states and marketize its vaccines to impact global health governance significantly [97]. However, despite such measures, vaccine inequity remained a cause of concern, with the Sub-Saharan African countries receiving 15 times fewer vaccines than the G20 countries [98]. Thus, vaccine diplomacy as a type of GHD initiative must address and promote equitable distribution.

The practice of health diplomacy must also be sensitive to the needs of the local population. Exclusionary access to health, either on ethnic, religious, or social grounds, must be avoided, as preferential treatment could lead to protests and, eventually, violence. Additionally, health diplomatic missions can only be successful if the beneficiaries are well informed and are convinced of the treatment programmes. For instance, the US launched the President's Emergency Plan for AIDS Relief (PEPfAR) to finance the treatment and prevention of HIV/AIDS in resource-limited and conflict-ridden countries. While the initiative proved to be successful, as it saved a record number of lives and improved maternal and child healthcare, it faced resistance due to funding and fiscal mismanagement [99]. Further, the programme faced a setback in Sub-Saharan Africa due to the suspicion of hidden agendas such as the controversial intervention of male circumcision [100,101]. Hence, while health diplomacy in various forms is crucial for bridging health and peace, it is important to deliberate its components, such as access to medicine, enhancing capacity, and healthily enabling resilient systems to avoid counter-reactions.

The threat emanating from health crises and conflicts demands a holistic approach towards building resilience in health systems directly linked to governance and the overall environment [102]. One of the possible policy avenues to counter the range of determinants is adopting an approach to Health in All Policies (HiAP), as policies in all sectors affect health outcomes, and vice versa [103]. The approach employs an inter-sectoral relationship by collaborating with all sectors of the economy to develop robust and healthy public policies [104]. For instance, the public–private partnership is one way to arrange the

transportation of critical medicine supplies and human resources, and build a shock-proof system that can be rebuilt quickly, even after suffering damages due to violence [105].

Additionally, while external support helps mitigate the emergency, the capacity building of care providers at the local level should be prioritised. International organisations can facilitate workshops for local healthcare staff to prepare them to plan and respond during a crisis [106]. This would ensure continuity in medical care even if foreign states end their missions. However, the success of this approach depends on the level of engagement with local communities and the development of their trust. A community-based approach has proved efficient in building resilient health systems in multiple West African countries during the Ebola outbreaks [107]. Thus, resilient health systems can be built by integrating cross-cutting actions such as improving health systems and emergency management to absorb and develop conceptual and operational resources and assistance to countries. Resilience is the need of the hour, especially in those states that are infested by conflicts, to ensure security and economic and political stability. Hence, GHD finds itself as one of the avenues that could help achieve the economic, health, and political outcomes focused on in the SDGs.

## 7. Conclusions and Future Directions

Peace and tranquillity are undoubtedly essential components for ensuring the health and welfare of a population. The amalgamation of SDG 3 (on attaining healthy lives and promoting well-being), SDG 16 (towards peace, justice, and building strong institutions), and SDG 17 (partnership for goals) is imperative to enable resilient health systems in conflict settings [108,109].

In the case of Sudan, a thorough analysis of the population distribution needs as well as existing healthcare facilities must be made to mitigate the health crisis. Building a resilient health system in Sudan to withstand future conflicts would require a push for development and humanitarian funding. However, Sudan's suspension from the African Union since the coup of 2019 has made it difficult for collective action to resolve its internal tensions and provide humanitarian aid. With the repercussions of the 2023 crisis being felt regionally, the WHO provided USD 2.4 million to Sudan's neighbouring countries for delivering health emergency responses and technical assistance to cope with the influx of Sudanese fleeing the violence, but this has been deemed inadequate [110]. As per the WHO, it is estimated that approximately USD 145 million would be required to address the crisis [111]. In such a scenario, health diplomacy could be used as a tool to enable and enhance partnerships and discussions among different stakeholders to provide resources. While working to respond to the current situation, the international partnership can also work towards enhancing the capacity of the local health infrastructure. The underlying paradigm of such a development should ensure an understanding of the intricacies of the local healthcare system, and socioeconomic and political underpinnings, to avoid an inadvertent collapse during future conflicts.

A few experiences can also be useful for Sudan from the ongoing Russia–Ukraine conflict, where the availability of well-trained healthcare staff and the involvement of communities at the local level played an essential role in ensuring the continuation of healthcare services [112]. Ukrainian NGOs accounted for more than half of the partners during the health assistance and helped to adapt the responses from international partners to the local context [113]. They partnered with international organisations such as UN agencies and Health Clusters to ensure the delivery of assistance. A platform was also provided by this partnership for training and practice for the local communities, enhancing their capacity. Such initiatives could be adapted in the case of Sudan despite the difference in the nature and intricacies of the conflict from the one in Ukraine.

Proposals for ceasefires, mediating dialogues between the battling parties, negotiating for the unimpeded provision of relief to civilians, and close co-ordination with embassies for the safety of international citizens and local institutions for civilians must be prioritized. However, this cannot be ensured just by influencing the fighting parties, but also needs to

consider all the stakeholders, including marginalised and deprived groups, to facilitate a lasting reform. The lack of commitment by states to laws of war jeopardises the efforts made by IHL, the Geneva Conventions, and the Additional Protocols committed to protecting healthcare personnel and facilities [114].

As the international community prepares solutions for the current issue, a systemic approach must also be formulated. Establishing a robust accountability mechanism for compliance with UN Resolution 2286 and data transparency are key aspects for global leaders to ensure resilient insulation against attacks on health. As such, states carry out investigations of such incidents, but an independent mechanism comprising states, international institutions, and NGOs can be facilitated for investigation, which also increases the credibility of the findings due to the involvement of multiple stakeholders. The SSA launched by the WHO has provided a platform for discovering attacks on health; however, the mechanism should be further extended with adequate co-ordination and customisation with local, national, and regional stakeholders.

Healthcare facilities face varying difficulties in conflict settings which could differ according to their region. The increasing trend of attacks on health indicates that it is being weaponised and used as a war tactic. Hospitals and healthcare facilities that were always considered a place for people to heal and feel protected have now been transformed into epicentres for either offensive or defensive strategies within conflicts. Thus, while the war continues in Sudan, a collective action plan and preparedness mechanisms must be made for the crisis at hand, as well as the future.

**Supplementary Materials:** The following supporting information can be downloaded at https://www.mdpi.com/article/10.3390/su151813625/s1, Figure S1: Distribution of attacks on health facilities, health transport, and health workers (2022); Table S1: Number of hospital beds (per 10,000 population) in conflict-affected states; Table S2: Number of nurses and midwifery personnel (per 10,000) in conflict-affected states.

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