

# Monitoring Attacks on Health Care as a Basis to Facilitate Accountability for Human Rights Violations

BENJAMIN MASON MEIER, HANNAH RICE, AND SHASHIKA BANDARA

## Abstract

Violence against health care systems is an assault on health and human rights. Despite the evolution of global standards to protect health workers and ensure the delivery of health care in times of conflict, attacks against health systems have continued throughout the world—violating humanitarian law, undermining human rights, and threatening public health. The persistence of such violence against health care, especially in humanitarian crises related to armed conflict, has prompted global institutions to develop systematic monitoring mechanisms in an effort to alleviate these harms, seeking to protect health workers from being harmed for their healing efforts. This article examines the development and implementation of the World Health Organization (WHO) Surveillance System of Attacks on Healthcare (SSA) as a systematic mechanism to collect and disseminate data concerning attacks on health care systems. Although the SSA provides a foundation for monitoring attacks in conflict zones, this research considers whether the SSA has collected the necessary data, categorized these data appropriately, and disseminated sufficient information to facilitate human rights accountability, analyzing the political, methodological, and institutional challenges faced by WHO. The article concludes that refinements to this monitoring mechanism are needed to strengthen the political prioritization, research methodology, and institutional implementation necessary to ensure accountability for violations of health and human rights.

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## Introduction

As armed conflict threatens nations throughout the world, violence has continued unabated against health care facilities and health workers, endangering health and human rights. Increased disregard for international law within humanitarian crises has made health care systems more vulnerable to attacks. From the aerial bombing of hospitals in Syria to the targeted killing of health workers in Afghanistan, health care is under attack in conflict zones. Despite decades of international legal statements to grant protection to medical care, both on and off the battlefield, assaults against health care systems, health workers, and patients persist—violating humanitarian law, undermining human rights, and threatening public health. These continuing attacks on health care in complex humanitarian emergencies have impacted the global response to COVID-19, raising challenges to controlling the pandemic amid rising conflicts. The persistence of attacks against health care has prompted an urgency in global health governance to facilitate accountability for these harms against health workers. Where attacks on health care hinder the global push to achieve universal health coverage (UHC), an initiative seen as central to the realization of the right to health, these attacks undermine the human rights foundation of peace and justice in the world. Seeking to document the nature and the extent of attacks on health care, the World Health Organization (WHO) developed the Surveillance System of Attacks on Healthcare (SSA), as mandated by its member states in the World Health Assembly, to monitor attacks against health care in complex humanitarian emergencies, collecting and disseminating needed data as a basis to lessen the violence.

This article examines the development and implementation of WHO's SSA as a systematic mechanism to monitor attacks on health care in complex humanitarian emergencies, drawing from the international humanitarian law literature, thematic analysis of the SSA interface, and informant interviews with key stakeholders to analyze how the SSA can support efforts to facilitate accountability for violations of health and human rights.

Beginning in the normative frameworks that have arisen to prohibit harm to health workers, the first part of this article chronicles the evolution of international humanitarian law to establish protections for health workers and ensure the delivery of health care services in times of conflict. Where these international legal standards have failed to prevent attacks on health care, the second part details the development of the WHO SSA as a global health governance mechanism to monitor these threats to health care systems in complex humanitarian emergencies. It is necessary to understand the structure, process, and effectiveness of the WHO SSA as a data monitoring platform and the use of SSA data by external stakeholders to facilitate human rights accountability. The third part examines the implementation of the SSA, with interviews across the humanitarian landscape providing a basis to understand the data collection and dissemination necessary to monitor attacks against health care as a health and human rights challenge. With the SSA facing limitations as a resource for stakeholders to facilitate accountability for attacks on health care, the fourth part analyzes the political, methodological, and institutional challenges facing the SSA, offering recommendations for strengthening SSA data collection, reporting, and dissemination. The article concludes that the SSA provides a foundation for monitoring attacks on health care, but refinements will be necessary to strengthen the political prioritization, research methodology, and institutional implementation needed to ensure accountability for violations of health and human rights through global health governance.

### Evolving policy efforts to prevent attacks against health care

Principles of *jus in bello*, or “law in war,” regulate the conduct of parties engaged in armed conflict, establishing the normative framework that forms the basis of “rules of engagement” to guide wartime decision-making.<sup>1</sup> *Jus in bello* maintains that before engaging in violence, soldiers must understand the critical distinction between combatants and noncombatants, considering the proportionality

between military action and civilian harm.<sup>2</sup> Although armed combatants actively contribute to the war—and in doing so, relinquish their rights not to be killed in the scope of combat—noncombatants do not, and as a result, the targeting of noncombatants has come to be seen as a war crime.

Illuminating the immorality of attacks on health care systems, health care workers providing care are considered under the *jus in bello* framework to be noncombatants, operating under a mandate of saving lives both on and off the battlefield. Given the recognition of medical operations as protected acts in wartime, requiring that those who contribute to or receive medical services be treated as noncombatants, health personnel hold a right to protection from arbitrary deprivation of life regardless of their proximity to the fighting.<sup>3</sup> The targeting of health operations in armed conflict is thus unjustified, with health care provided non-combatant status and humanitarian protections.<sup>4</sup> An attack on health care, whether intentional or borne of a failure to distinguish military and civilian objects, dismantles the critical distinction between those who are active combatants in a conflict and those who are not, exacerbates a cycle of violence that prevents the effective and safe delivery of health care services, and undermines health and human rights.

Violence against health care workers has come to be formally proscribed under international humanitarian law, with this longstanding global condemnation of attacks on medical volunteers and military medicine laying a legal foundation for modern efforts to protect health personnel in armed conflict. Beginning in the 19th century, international humanitarian law—shaped by the Geneva Conferences, two world wars, changes in technology, and advancements in ethical norms—has evolved to solidify a wide array of protections for health workers in times of conflict. These protections of health care systems under international humanitarian law, placing obligations on both state and nonstate combatants, have provided crucial support for human rights to promote public health.<sup>5</sup> Manifested in a series of conventions and protocols, these protections reflect international agreements

to codify ethical norms under international law and defend medical operations in wartime contexts.

### *Beginnings in Geneva*

The first initiative to protect health care in wartime began with Henry Dunant, a Swiss businessman, who sought to advocate for a neutral organization to care for wounded soldiers. After witnessing the battle of Solferino in Italy, during which he organized the local townspeople to care for wounded and suffering soldiers, Dunant founded the Committee of Five to protect both the wounded on the battlefield and those caring for them.<sup>6</sup> Leading in 1864 to the inaugural Geneva Conference, 16 states developed the Convention for the Amelioration of the Condition of the Wounded in Armies in the Field. This initial Geneva Convention delineated 10 articles to outline the protections granted to wounded soldiers and medical personnel and presented three recommendations. The second of these recommendations declared that

*in time of war the belligerent nations should proclaim the neutrality of ambulances and military hospitals, and that neutrality should likewise be recognized, fully and absolutely, in respect of official medical personnel, voluntary medical personnel, inhabitants of the country who go to the relief of the wounded, and the wounded themselves.*<sup>7</sup>

This recommendation served as an impetus for the broader movement to protect medical personnel during wartime.

In the decades that followed the inaugural Geneva Conference and adoption of the initial Geneva Convention, states further refined international humanitarian law to protect health workers in conflict zones. The Geneva Convention provided specific protections for health care operations, seeking neutrality for all military medical personnel and hospitals, which would be designated by the emblem of a red cross. The groundwork laid in these years galvanized the establishment of the International Committee of the Red Cross (ICRC), an independent international organization that would operate to ensure “humanitarian protection and assistance for victims of armed conflict and

other situations of violence.<sup>8</sup> The ICRC would seek a neutral role in armed conflicts—not only in providing essential medical services but also in promoting respect for international humanitarian law. The protections afforded to health workers under international humanitarian law would soon be broadened to include other voluntary aid societies and those providing care for prisoners of war.<sup>9</sup> These protections for health personnel would become crucially important as devastating wars challenged the world order.

### *Postwar policy: World Wars I and II*

World War I, the largest war the world had then known, produced 40 million casualties, 10 million of whom were civilians.<sup>10</sup> At the end of the war, there was a crucial need for a global institution to support the maintenance of peace, with states at the 1919 Paris Peace Conference developing the League of Nations to institutionalize international governance. As a basis for “collective security,” the Covenant of the League of Nations reflected international concern for the cataclysmic suffering of war.<sup>11</sup> Following from the establishment of the League of Nations, the 1929 Geneva Convention sought to provide more robust protections to prisoners of war, including explicit commitments regarding the protections granted to medical operations. The 1929 convention maintained that all prisoners of war should be given all relevant medical care, with the implication that all health care personnel should be permitted to safely carry out their impartial medical work, recognizing specifically “the humanitarian work which the International Red Cross Committee may perform” in wartime.<sup>12</sup>

Yet a mere 10 years later, the world witnessed another world war, and by the end of World War II, 15 million had been killed in battle, 25 million had been wounded, and 45 million civilians had lost their lives.<sup>13</sup> Recognizing that institutional efforts to prevent the atrocities of war were insufficient, states came together amidst the war to create in 1943 the United Nations Relief and Rehabilitation Administration to provide necessary wartime relief to vulnerable populations.<sup>14</sup> These wartime efforts of the Relief and Rehabilitation Administration

would lead in 1945 to the postwar establishment of the United Nations (UN) as an institutional basis “to save succeeding generations from the scourge of war.”<sup>15</sup>

In furthering international efforts to promote justice in war after the injustices of World War II, the development of the 1949 Geneva Conventions established the principal postwar system of international humanitarian law. These four Geneva Conventions each addressed a different aspect of war: (1) wounded and sick soldiers on land; (2) wounded, sick, and shipwrecked military personnel at sea; (3) prisoners of war; and (4) civilians, including those in occupied territory.<sup>16</sup> These new standards of international humanitarian law would help solidify prior efforts while enacting new rules to address weaknesses highlighted by the atrocities of the war.<sup>17</sup> Across the conventions, the protection of health care systems and workers in the context of war was codified with greater detail than ever before. Granting comprehensive protection to military medical units, operations, and personnel in all circumstances, the 1949 Convention for the Amelioration of the Condition of the Wounded and Sick strengthened protections for health workers by categorizing them firmly as noncombatants. Extended by the Convention for the Amelioration of the Condition of the Wounded and Sick in Armed Forces in the Field, states declared that “fixed establishments and mobile medical units of the Medical Service may in no circumstances be attacked, but shall at all times be respected and protected by the Parties to the conflict.”<sup>18</sup> With additional protections for the humanitarian activities of the ICRC and other impartial humanitarian aid societies, the postwar Geneva Conventions provided unprecedented safeguards to health workers and humanitarian organizations in times of war.<sup>19</sup>

### *Additional protocols*

Yet the divisions of the Cold War continued to highlight the limitations of these institutional efforts to protect health care systems during armed conflicts. Recognizing the collateral harms of Cold War conflicts, Additional Protocols I and II were adopted in 1977 to supplement the 1949 Geneva

Conventions, enhancing civilian protections and applying humanitarian law to civil wars.<sup>20</sup> To ensure that medical units and personnel would be protected, the 1977 protocols included protections for all medical transports as a means to provide access to adequate care during conflicts.<sup>21</sup> As military technology continued to advance in the late 20th century, so did the ability to attack targets more precisely, raising the possibility of reducing collateral damage to health systems. In response to these emerging strategies, Additional Protocol I focused on indiscriminate attacks, creating a need for more detailed protocols to require that warring parties distinguish between combatants and non-combatants, protecting health care facilities and workers. While these developments established legally binding prohibitions, none successfully facilitated accountability to prevent such violence, as states continued to lack the political will and institutional capability to enforce international law in armed conflict. Soldiers could be prosecuted under national and international law for war crimes and crimes against humanity; however, even with the establishment of the International Criminal Court, few have been tried or punished for violating these fundamental principles.<sup>22</sup> Looking to the development of new principles under the responsibility to protect (R2P), wherein the international community is seen as having a responsibility to hold state parties accountable if they fail to protect their citizens from crimes against humanity, these R2P obligations have faced obstacles in protecting health systems.<sup>23</sup> Humanitarian advocates have repeatedly raised the *jus in bello* framework to condemn attacks on health care, demanding that soldiers take due care to ensure that any foreseeable harm to noncombatants be as minimal as possible, yet these moral imperatives did not lead to policy reforms to prevent attacks on health care.<sup>24</sup>

As attacks on health care continued, repeatedly striking beyond the reach of international law, efforts to mitigate these attacks against health care systems began to take shape within global health institutions. Drawing attention to these attacks, an array of nongovernmental organizations (NGOs) demanded that WHO leverage its normative au-

thorities and research capabilities to address attacks on health care. WHO member states came to back these NGO demands, examining attacks against health care as part of the global health policy agenda and resolving that WHO should formulate a response.<sup>25</sup>

### WHO addresses the protection of health care in humanitarian emergencies

Established under a 2012 World Health Assembly resolution, the SSA seeks to institutionalize WHO monitoring in humanitarian crises related to armed conflict, using WHO's geographic reach and technical legitimacy to collect and disseminate data on attacks on health care. The World Health Assembly's efforts to prevent attacks against health care built on previous resolutions to protect health services in times of conflict—pushed forward by growing demands from WHO member states and NGO advocates. Civil society organizations came together in 2011 to request that the WHO Director-General convene experts to create a platform to monitor attacks against health care workers. This demand occurred alongside a World Health Assembly side event that sought to catalyze international debate about attacks on health care, discuss WHO's leadership role in preventing these attacks through data collection, and create partnerships across health ministries, NGOs, and other stakeholders.<sup>26</sup>

Responding to member state requests and highly publicized violence against health care workers during the Arab Spring protests, WHO Director-General Margaret Chan raised WHO's responsibility for addressing attacks on health care in her opening address to the 2011 World Health Assembly:

*We are extremely distressed by reports of assaults on health personnel and facilities in some of these conflict situations. We urge all parties to ensure the protection of health workers and health facilities in conflict situations, to enable them to provide care for the sick and injured.*<sup>27</sup>

In buttressing WHO efforts later that year, the ICRC's 2011 report *Health Care in Danger* examined

specific attacks against health care systems across 16 countries, seeking to determine the types of violence against health facilities, medical vehicles, and health personnel in countries experiencing armed conflict and other situations of widespread violence.<sup>28</sup> This ICRC study found that the prevalence of violence against health care operations was growing, with the rights of the wounded and sick violated by armed state and nonstate groups alike. While the ICRC report concluded that responding to these threats would require reforms of international humanitarian law, there remained no systematic data across countries to understand the nature of the threat and frame these proposed reforms.

With growing demands on WHO to collect data on these threats to health systems, WHO member states, international medical societies, and NGOs (led by the Safeguarding Health in Conflict Coalition (SHCC)) looked to the World Health Assembly to mandate that WHO assume a greater leadership role in monitoring attacks on health care during humanitarian emergencies. These proponents saw WHO as uniquely positioned at the forefront of global health governance, with the health cluster leadership, international political legitimacy, and cross-national data that would allow it to play a leading role in monitoring attacks against health care. Given the repercussions of these attacks on health care across the globe, the development of a global monitoring mechanism to collect and disseminate data on such attacks was seen as falling under WHO's constitutional mandate—to protect the integrity of health operations in conflict zones as a foundation to safeguard the human right to the highest attainable standard of health.

WHO member states began to develop a proposal for WHO to coordinate the systematic collection of data concerning attacks against health care. Introduced at the January 2012 meeting of the WHO Executive Board, Norway and the United States advocated for a World Health Assembly resolution to request that WHO “develop methods of systematic data collection and dissemination of attacks on health facilities and personnel in complex emergencies.”<sup>29</sup> From this initial proposal, state

delegates worked with SHCC to develop a draft resolution, recognizing previous UN Security Council declarations that found attacks on hospitals to be one of the six “grave violations” of the rights of children in armed conflict (calling for enhanced monitoring and reporting mechanisms on these attacks) and acknowledging complementary efforts to identify and monitor attacks on health care (including through the ICRC).<sup>30</sup> States sought to have WHO take a leadership role in systematically collecting and disseminating data to mitigate attacks on health care.

The World Health Assembly adopted Resolution 65.20 in May 2012, calling on the WHO Director-General to

*provide leadership at the global level in developing methods for systematic collection and dissemination of data on attacks on health facilities, health workers, health transports, and patients in complex humanitarian emergencies, in coordination with other relevant United Nations bodies, other relevant actors, and intergovernmental and nongovernmental organizations.*<sup>31</sup>

Recognizing the harm of attacks against health care systems, Resolution 65.20 drew on past World Health Assembly and UN General Assembly resolutions to call for “systematic data collection on attacks or lack of respect for patients and/or health workers, facilities and transports in complex humanitarian emergencies.”<sup>32</sup>

In implementing this World Health Assembly resolution, WHO began in the following year to devise a mechanism that would allow it to collect, analyze, and publicize data to monitor attacks on health care; yet, despite continuing pressure from advocates, the implementation of this WHO mandate moved slowly. Internal resistance to this unprecedented data collection mandate, along with methodological challenges inherent in designing such a comprehensive system, made the task daunting for the WHO Secretariat.<sup>33</sup> As the WHO Secretariat proceeded slowly in designing a monitoring methodology, the WHO Health Cluster for Northern Syria (a group of partner organizations that collectively respond to humanitarian emergencies within the region) began collecting and

reporting its own data on attacks on health care facilities and providers by the Assad regime.<sup>34</sup> These regional data collection efforts increased pressure for WHO Secretariat action, and in 2016, WHO released its first report on attacks on health care.<sup>35</sup> While this initial WHO report was compiled from secondary data sources, it raised an imperative for WHO to collect its own data to monitor attacks on health care.<sup>36</sup>

As WHO sought to develop its own methodology for monitoring attacks, it continued to engage with political initiatives to prevent attacks on health care. WHO supported the unanimous passage of UN Security Council Resolution 2286, which condemned violence against health care systems, demanded that all parties to armed conflict comply with human rights law and international humanitarian law, and called on the UN Secretary-General to engage in preventative measures, including through data collection and UN reporting.<sup>37</sup> Following the passage of this resolution, Geneva-based diplomatic missions formed a group known as Friends of 2286 to continue their advocacy to prevent attacks on health care, and WHO participated as an observer in their meetings, updating members on WHO's activities to monitor attacks.

WHO developed its methodology for data collection, analysis, and reporting through collaborative efforts between senior management, donors, academic consultants, relevant NGOs, country offices, and information technology support teams. To facilitate the development of the SSA methodology, WHO created a staff position within the emergency department to work with stakeholders and consultants in establishing its monitoring system. The establishment of WHO's monitoring mechanism would seek to build on the networks and expertise of other organizations—including Médecins Sans Frontières (MSF), ICRC, Physicians for Human Rights, and SHCC—that were already collecting select data on attacks against health care in armed conflict. Yet, as these organizations at the time either collected data from secondary sources or did not make their primary data public, WHO would seek to collect primary data concerning at-

tacks on health care across complex humanitarian emergencies and disseminate those data publicly. WHO monitoring was thus seen to be uniquely advantageous, providing comparative data across humanitarian emergencies and legitimacy among member states. Given the need for primary data collection, WHO worked closely with its country offices to ensure feasibility, technical capacity, and confidence in its reporting system. Following three location-based tests from March 2015 to March 2016 and an independent evaluation of its methodology, WHO established a data reporting and verification method that would meet the end goal of disseminating timely and reliable data.<sup>38</sup> In December 2017, five years after the passage of World Health Assembly Resolution 65.20, WHO officially launched the SSA, establishing a systematic mechanism to collect and disseminate data on attacks on health care.

## The Surveillance System of Attacks on Healthcare

Monitoring attacks on health care as a threat to public health, the SSA collects and disseminates data on attacks on health care systems in order to comprehend the nature, scope, and magnitude of attacks. These attacks on health care would be defined by WHO as “any act of verbal or physical violence or obstruction or threat of violence that interferes with the availability, access and delivery of curative and/or preventive health services during emergencies.”<sup>39</sup> WHO's commitment to collecting and disseminating these data in emergency affected countries and fragile settings reflects an effort to provide accurate data from primary sources concerning attacks on health care, clarify the extent of the attacks and the consequences for health care delivery and public health, and, through these monitoring efforts, create an evidence base that can support global efforts to prevent these attacks.<sup>40</sup> As reflected in Figure 1, the SSA seeks to collect data on attacks on health care through WHO country representatives, country-level health clusters, local NGOs, and other sources, utilizing WHO's global

network of information gathering and institutional partnerships to provide a systematic understanding of where attacks on health care are occurring and how these attacks are affecting health systems.<sup>41</sup> The use of these SSA data, identifying global and context-specific trends and patterns of violence, provide a foundation for a wide range of stakeholders to engage with violations of health and human rights. WHO disseminates SSA data publicly, allowing SSA data to be used as a basis for advocacy, risk reduction, and resilience measures so that health care is protected and health services are available in complex humanitarian emergencies.

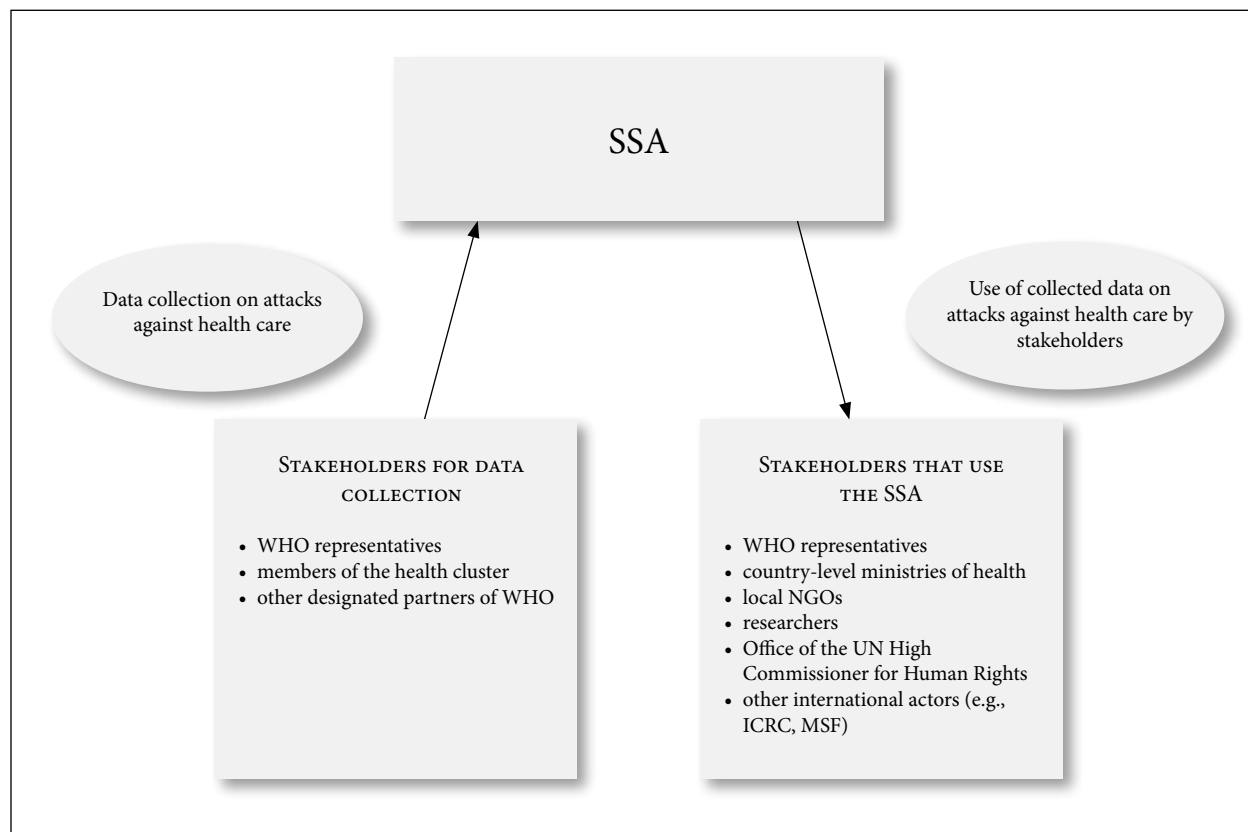
Through the collection and dissemination of data concerning attacks on health care, the SSA reflects a new mechanism for WHO to monitor such attacks, providing data that can facilitate international accountability for human rights violations.

### Data collection

The SSA is designed to collect extensive data about attacks on health care and categorize these data according to the reliability of the source, providing a clear, consistent, and complete picture of the nature and effects of attacks in complex humanitarian emergencies. With WHO adhering to a transparent methodology for data collection, WHO's approved partners (those with a WHO Application Directory Service account or a WHO specific Web-based Information Management System account) can complete the SSA's web-based reporting form to provide WHO with the following standardized data:

- description of the attack;
- description of immediate consequences to health service delivery;
- date of the attack and location (for example, name of town, facility, GPS coordinates);
- source of data (for example, identity or type of

FIGURE 1. Stakeholders and the processes of data collection and data dissemination by the SSA





source);

- health resources affected (for example, health facility, ambulance, health worker, patient);
- type of attack (for example, abduction, shooting, threat of violence);
- total deaths and injuries (by sex, age group, and type); and
- description of immediate follow-up actions to reestablish health services and support victims.<sup>42</sup>

(Although anyone can create an Application Directory Service account, only approved partners can provide reports to the SSA.)

Figure 2 shows the first section of the online

collection form, which allows partners to describe the circumstances and impact of the attack. (Sections on “data sources” and “certainty level” do not appear in the partner organization reporting form, as the relevant WHO Country Office is expected to complete those sections in assessing the reliability of the information.<sup>43</sup>)

In describing the attack, the SSA categorizes data based on the nature of the attack: type of attack, effects of the attack, and certainty of information about the attack. This systematic categorization of the collected data seeks to ensure that

FIGURE 2. Data collection form for SSA: Attack description section

The screenshot displays the 'SURVEILLANCE SYSTEM FOR ATTACKS ON HEALTH CARE (SSA) Administrator's Dashboard'. At the top, there is a blue header with the WHO logo and the text 'Report an attack'. Below the header, a light blue box contains instructions: 'Only fill out if safe and secure to do so (names, locations or other sensitive information will be kept confidential and secure)' and 'Please fill out the form as completely as possible.' The form is divided into two main sections: 'Personal Information' and 'Attack Description'. The 'Personal Information' section includes a checkbox for 'I wish to remain anonymous', fields for '\*Full Name', '\*Phone Number', and '\*Email', a dropdown for 'Affiliation/Organization', a dropdown for 'I am' with an 'Other' option, and a checkbox for 'I agree to be contacted for confirmation and/or further details'. The 'Attack Description' section features a large text area for '\* Description', a text area for 'Immediate Impact' with a small example text, and a list of 'Affected health resources' with dropdown menus for 'Health care Facilities', 'Health care Transport', 'Health care Personnel', 'Health care Supplies/Assets', 'Health care Warehouse/Storage', and 'Health care Patients'. An 'Other' option is also provided at the bottom of this section.

reports submitted to WHO are as comprehensive as possible, facilitating comparative analysis. The SSA first categorizes an attack as either direct or indirect and targeted or not targeted.<sup>44</sup> Any report that is determined to be either direct or targeted in nature is automatically labeled as an attack on health care, with indirect and non-targeted events reviewed by WHO on a case-by-case basis.<sup>45</sup> Under these broad categories, the SSA provides for 15 specific categories of attack types, including arrest, militarization of a civilian health care facility, removal of health care assets, and violence with heavy weapons.<sup>46</sup>

Through this standardized form—which collects the date, location, and nature of the attack, as well as health resources harmed—the SSA allows for a streamlined data collection process that can be implemented throughout the world, with reported information triggering WHO investigation and data collection.<sup>47</sup> The promise of the SSA is that all relevant data in complex humanitarian emergencies can be uniformly collected, allowing for comparisons over time and across countries.<sup>48</sup> Through the designation of an attack on health care focal point in each WHO Country Office (a position usually filled by the WHO incident manager, emergency manager, or health cluster coordinator), data from both primary and secondary sources can be investigated and harmonized through WHO staff with knowledge of the country context and then verified by WHO headquarters before publicly disseminating the data through the SSA.<sup>49</sup>

In verifying the reliability of the data, WHO categorizes the collected data based on the source of the information, assigning each reported attack a level of certainty according to an established classification system, as detailed in Table 1: rumor, possible, probable, or confirmed.<sup>50</sup> While the SSA seeks to make public any attacks on health care as quickly as possible, this authentication process seeks to ensure the accuracy of the data, and thus the reliability of the SSA. Only after a report and its classifications have been cleared by the WHO Country Office, the attacks on health care focal point, and the WHO representative is the report disseminated through the SSA dashboard.<sup>51</sup>

### Data dissemination

In publicly presenting the collected data on attacks on health care, the SSA dashboard interface, as seen in Figure 3, shares data on the number of attacks, the extent of death and injury, and the scope of countries and territories in which attacks have taken place.

While displaying aggregate data concerning attacks on health care, the SSA dashboard also provides a searchable database, with access to data on specific attacks, including categorized information on the country, date, and type of attack.<sup>52</sup> By focusing on both the direct casualties and the secondary effects of attacks (such as the impact on medical transport, supplies, and facilities), the SSA shares a more complete understanding of the public health

TABLE 1. Source-of-information categorizations under the SSA

Certainty-level category	Category description
Rumor	<ul style="list-style-type: none"> <li>• Social media post (Twitter or Facebook)</li> <li>• Hearsay</li> <li>• Form submission from anonymous source</li> </ul>
Possible	<ul style="list-style-type: none"> <li>• Media report from local or international news source</li> <li>• Communication from an organization not defined in the partner group that an attack has been made against them</li> </ul>
Probable	<ul style="list-style-type: none"> <li>• One eyewitness accounts of the attack as told to one or more SSA partner(s)</li> <li>• Two secondary accounts (not eyewitnesses) of the attack as told to one or more SSA partner(s)</li> </ul>
Confirmed	<ul style="list-style-type: none"> <li>• Communication from an SSA partner that an attack has been made against them</li> <li>• One eyewitness account by someone from the SSA partner group</li> <li>• Two eyewitness accounts of the attack as told to one or more SSA partner(s)</li> <li>• Types and sources of information that would be graded as “probable,” plus a photo, video, or satellite image of the attack or its aftermath, or an international media or police report that provides clear evidence of the attack</li> </ul>

impacts of attacks on health care.

The SSA thereby provides data to the UN and other stakeholders to use as official records to characterize the trends of attacks, promote evidence-based advocacy, and design strategies to reduce their prevalence in complex humanitarian emergencies.<sup>53</sup> Compared with complementary NGO databases, as seen in Table 2, the SSA provides rapid dissemination of data in the public domain in addition to periodic reports, using a transparent methodology that is publicly available and a standardized approach that allows for analysis over time and across countries.<sup>54</sup>

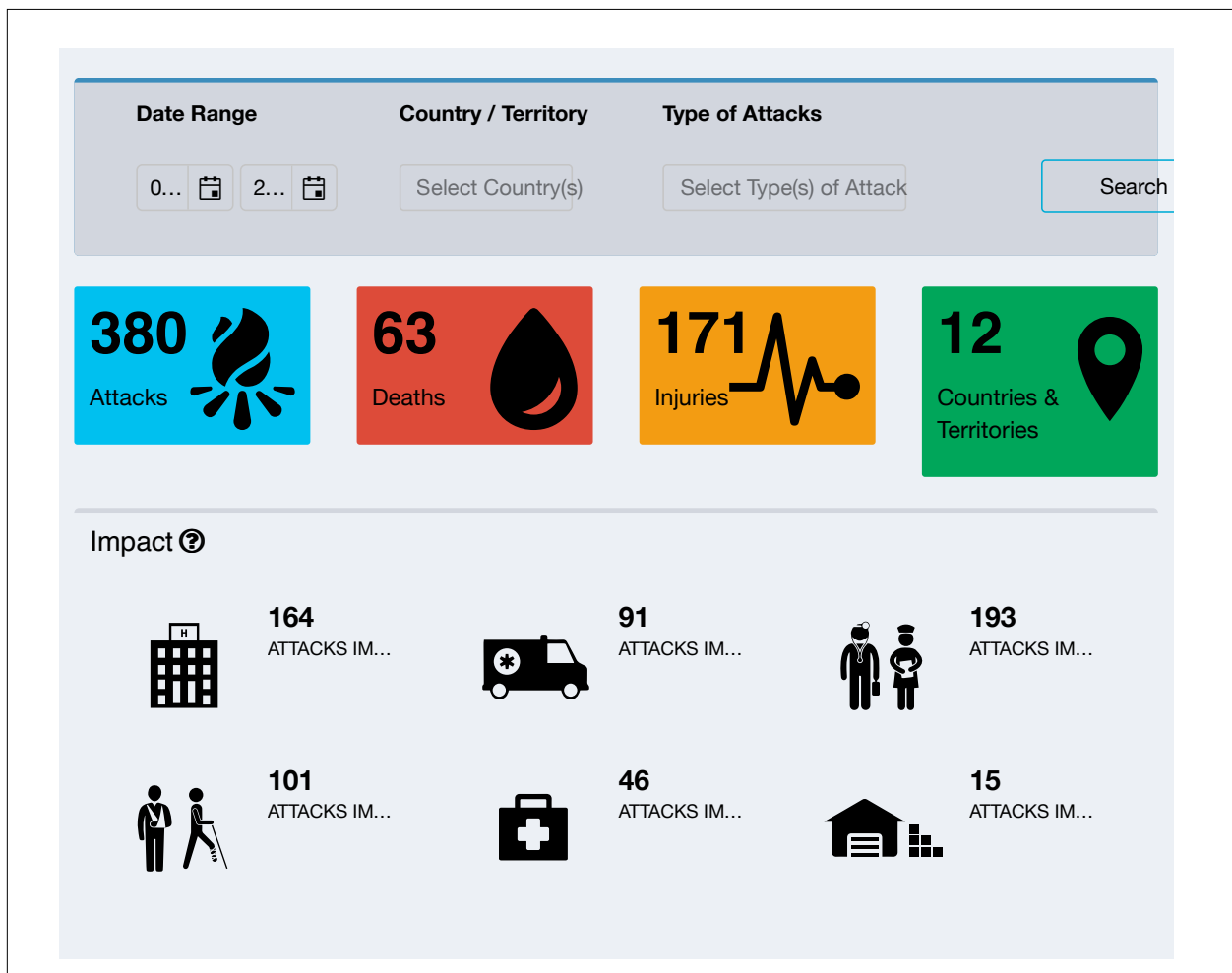
Where WHO does not make some details public within the SSA—citing security, verification, and safety reasons—Table 3 provides an overview of how data are categorized as either publicly

shareable or publicly non-shareable.<sup>55</sup> (WHO does not consistently collect or verify data that are not disseminated publicly under the SSA.) These limitations in disseminating details on the public platform can impact stakeholders in facilitating international accountability for attacks on health care.

### *International accountability*

The public dissemination of data on attacks on health care is crucial in facilitating international accountability through independent advocacy, public pressure, and global governance. Ensuring that SSA data are transparently collected and publicly disseminated allows NGOs, partnering states, and international organizations to implement risk reduction and health system resilience measures.

FIGURE 3. SSA dashboard interface



Data monitoring thus provides a path for human rights accountability to protect health care from attacks. International monitoring and review institutions have evolved to lay a foundation for human rights accountability in global health.<sup>56</sup> Where fact finding and awareness-raising have long been powerful tools of human rights advocacy, public health data can serve as indicators of human rights violations, enhancing the visibility, objectivity, and credibility of human rights claims.<sup>57</sup> Clarifying the nature of attacks on health care, SSA data can be used as a basis for additional investigation to substantiate violations of human rights and for political advocacy to mitigate health harms through policy reforms. SSA monitoring is already being used to support the political advocacy of UN bodies such as the UN Office for the Coordination of Humanitarian Affairs.<sup>58</sup> In supporting global governance under international humanitarian law, data collection and dissemination can apply pressure on perpetrators of attacks and prevent future

attacks. Yet, it remains unclear whether monitoring attacks on health care through the SSA has been successful in facilitating accountability for human rights violations.

### Facilitating accountability through monitoring

The SSA provides a foundation for monitoring attacks on health care, but refinements to this monitoring mechanism will be necessary for SSA data to be effective as a resource for stakeholders to facilitate human rights accountability. WHO continues to face barriers in collecting and disseminating necessary data, with political obstacles to collecting data at the country level, methodological challenges in reporting data from different sources, and institutional limitations in disseminating data to prevent attacks. Where the SSA is facing limitations in meeting WHO's objectives (with a precipitous drop in reported data in 2020 under-

TABLE 2. Comparison of the SSA with existing databases that monitor attacks on health care

	Data in the public domain	Event-based continuous updates	Transparency of methodology
ICRC	X	✓	X
MSF	X	✓	X
Physicians for Human Rights	X	✓	✓
Insecurity Insight / SHCC	✓	✓	✓
SSA	✓	✓	✓

Note: ✓ indicates availability of a feature and X indicates non-availability of a feature

TABLE 3. Criteria for deciding whether information is disseminated publicly via the SSA

Data that are made public	Data that are not made public
<ul style="list-style-type: none"> <li>• Country of attack</li> <li>• Date and time of attack</li> <li>• Health resources affected by the attack</li> <li>• Type of attack</li> <li>• Type of facility impacted</li> <li>• Aggregate-level data on death, injuries, and removal of personnel</li> <li>• Level of certainty</li> </ul>	<ul style="list-style-type: none"> <li>• Province and city/town of attack</li> <li>• Identities of source information</li> <li>• Type of source data (eyewitness or not)</li> <li>• GPS coordinates of reported attacks</li> <li>• Name of health facility and affiliation</li> <li>• Description of attack, circumstances, and the impact on health services</li> <li>• Disaggregated data by sex, age, and personnel type</li> <li>• Follow-up actions taken</li> </ul>

mining the system's credibility), refinements in collecting and disseminating SSA data can better clarify the nature and the extent of attacks on health care systems, examine the consequences for health care delivery and public health, analyze global and context-specific trends and patterns of violence, and provide an evidence base from which to facilitate accountability for attacks on health care. Through these political, methodological, and institutional refinements to the SSA, WHO can work to reform data collection and disseminate data impactfully to protect health care in complex humanitarian emergencies.

### *Political obstacles to collecting data*

Where the SSA is not seen as a political priority on the WHO agenda—leading to limited buy-in at the country level—reforms to integrate WHO country offices into the SSA, with resources to support not only data collection but also analysis of attacks, can address barriers to data collection, elevate the SSA on the country office agenda, and strengthen the capacity of SSA data as a resource to facilitate accountability for health and human rights. Country level buy-in is seen as limited due to both political and capacity constraints, with concerns that WHO country representatives must seek—above all else—to maintain effective working relationships with the ministry of health to promote other national health programs. Where SSA data collection may undermine national relationships, especially in countries suffering complex humanitarian emergencies, efforts to facilitate accountability for human rights violations may limit WHO diplomacy, threaten WHO staff safety, and weaken WHO health programming.

Thus, it will be crucial for the SSA to further integrate data collection into country level programming by providing high-level WHO support and dedicated data collection resources—highlighting the importance of the SSA as a public health priority and defending SSA data when member states challenge monitoring efforts. This high-level political support can support country office staff in the collection and categorization of relevant details not currently monitored under the SSA, including

details on the perpetrators (where ascertainable), types of weapons (for example, aerial bombing or tank attack), types of attacks (for example, criminal detention or kidnapping), and specific locations of attacks. Overcoming barriers in identifying perpetrators and weapons, the collection of more specific information concerning the type of attack would allow global and state partners to compare data meaningfully, utilizing these data to facilitate accountability.

### *Methodological challenges in reporting data*

WHO must additionally address the methodological limitations of the SSA, as the methodology neglects the details of attacks that must be reported in order for SSA data to become an effective resource in facilitating accountability for attacks against health care. These methodological gaps are generally acknowledged to include a lack of contextual data in event descriptions, lack of data harmonization with other monitoring efforts, and lack of independent evaluation to assess data accuracy. Collecting information about the context of attacks will be crucial for situating an attack within the political, economic, and social reality of the relevant region or country. Considering this context can allow the SSA to account for impacts on health care that stem from the mere threat of violence. Where the SSA disseminates data only on realized attacks, it is increasingly clear that health care facilities may preventatively cease operations due simply to the fear of an impending attack, with effects on the health care system that WHO must monitor to facilitate accountability.<sup>59</sup>

These methodological shortcomings require revision of the methodology or additional research efforts to monitor the contexts of attacks on health care, complemented by secondary data sources from organization partners and confirmed through independent assessments. Strengthening the credibility of WHO data reporting, WHO can look to harmonize its data with existing organizations (such as Insecurity Insight and coalitions such as SHCC) that already collect data related to attacks on health care—but often differ substantially from SSA data. Collaborative data sharing partnerships can

help WHO compare SSA data with other sources—understanding where methodological differences lead to reporting differences—while strengthening institutional partnerships for data collection and dissemination. To ensure the credibility of reported data, WHO can enlist an independent evaluation of SSA data and the data collection methodology, sharing recommendations publicly to support WHO and its partners in assessing the SSA's context specific and systemwide methodological weaknesses.

### *Institutional limitations in disseminating data*

Finally, in disseminating data impactfully to prevent attacks on health care, there is an institutional imperative in global health governance to support efforts to facilitate accountability. Attacks with impunity are increasingly observed in complex humanitarian emergencies, from Tigray to Gaza, necessitating international accountability that moves beyond monitoring attacks through the SSA to engage with the perpetrators of attacks on health care. Yet, with WHO finding that the SSA lacks both the mandate and the capacity to identify perpetrators, concluding that World Health Assembly directed WHO simply to “raise awareness” of attacks, WHO's refusal to identify responsible parties in attacks on health care undermines efforts to engage with those who attack health workers, weakening efforts to prevent future attacks.<sup>60</sup> In supporting advocacy to mitigate attacks on health care, from top-down UN resolutions to bottom-up civil society protests, WHO must analyze trends in the context of reported attacks, frame preventive measures, and support perpetrator engagement.

Facilitating accountability through global health governance, institutional coordination is needed to improve the visibility of the SSA within WHO and throughout the UN, analyze data to support engagement with perpetrators, and strengthen the SSA as an effective mechanism to safeguard health and human rights. While preventive measures are understandably context specific, further analyses of the SSA data can increase the visibility of existing challenges, provide data to support advocacy, and push the global community to

consider policy reforms to prevent future attacks. In galvanizing global action, WHO must further strengthen the SSA to assess the health impact of attacks and release statements to condemn these health impacts. Developing research based on the SSA, providing resources to conduct in-depth case studies of the context-specific impact of attacks on health care, will be crucial to WHO leadership in complex humanitarian emergencies and accountability efforts to protect health and human rights.

### Conclusion

There is international legitimacy in the data that WHO collects and disseminates through the SSA, but as WHO expands the implementation of the SSA in additional countries, it will be crucial that stakeholders build on its strengths in mitigating attacks on health care. Policy attention to attacks on health care has long followed a familiar pattern—rapid condemnation under international humanitarian law followed by extended neglect until another major attack occurs. In order to avoid such a reactive cycle of attention to health and human rights, the SSA must strengthen its monitoring to be effective as a resource to facilitate accountability. In confronting the threat of attacks against health care in complex humanitarian emergencies, WHO must address political obstacles, methodological challenges, and institutional limitations in SSA efforts to monitor the impact of attacks on health care, improving the effectiveness of the SSA as a mechanism to facilitate accountability for realizing health as a human right.

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