Methodology

This tenth report of the Safeguarding Health in Conflict Coalition (SHCC) covers 32 countries and territories and provides details on incidents involving threats and violence against health care in 16 countries and territories that experienced conflict in 2022. For these 16 countries, the 2022 report further provides information on the impact of violence on health care, including the impact on health workers, health care systems, and people's access to health care, based on multiple secondary sources.

To determine whether a country is considered to have experienced conflict in 2022, the report relied on the system of conflict determination adopted by the Uppsala Conflict Data Program (UCDP).[1] A country is included in the SHCC report if it is included on the UCDP list of one of the three types of conflict (including state-based armed conflict, non-state armed conflict, and one-sided violence),[2] and if Insecurity Insight identified at least one attack on health care perpetrated by a conflict actor, which for the purposes of this report is defined as a person affiliated with organized actors in conflict. For 16 countries that reported more than 15 incidents, a country chapter is included in the report. Incidents from these 16 countries are included in the counts, but neither the incidents nor the situation in the affected country is described in detail. Twelve of the countries and territories covered in factsheets in 2022 were included with country chapters in the 2021 report. For the 2022 report, Cameroon, Iran, Pakistan, and Ukraine were added, while Ethiopia, and Haiti do not have country chapters in 2022. Cameroon was included in the 2020 report, but not in that for 2021, and therefore the chapter on Cameroon covers two years (2021-2022).

The report uses an event-based approach to documenting attacks on health care, referred to as 'incidents' throughout the report. To prepare this report, event-based information from multiple sources was cross-checked and consolidated into a single dataset of recorded incidents that were coded using standard definitions. The full 2022 data cited in this report can be accessed via Attacks on Health Care in Countries in Conflict on Insecurity Insight's page on the Humanitarian Data Exchange (HDX). The data for the 16 countries included in this report is made available as individual datasets. The links are provided in the individual country profiles. For these 16 countries, the data is also available via the Humanitarian Data Exchange data grids for the relevant countries.

The report covers the impact of attacks on health care as far as available reports indicate. It cites secondary sources that usually used mixed-method approaches to summarize the known impacts of attacks on the delivery of and access to health care.

DEFINITION OF ATTACKS ON HEALTH CARE

This report follows the WHO's definition of an attack on health care: 'any act of verbal or physical violence, threat of violence or other psychological violence, or obstruction that interferes with the availability, access and delivery of curative and/or preventive health services.'

The report focuses on incidents of violence against health care in the context of armed conflict, non-state conflict, or one-sided violence, as defined by UCDP, while the WHO focuses on attacks during emergencies.

> In accordance with the WHO's definition, incidents of violence against health care can include bombings, explosions, looting, robberies, hijackings, shootings, gunfire, the forced closure of health facilities, the violent searching of health facilities, fire, arson, the military use of health facilities, the military takeover of health facilities, chemical attacks, cyber attacks, the abduction of health workers, the denial or delay of health services, assaults, forcing staff to act against their ethical principles, executions, torture, violent demonstrations, administrative harassment, obstruction, sexual violence, psychological violence, and threats of violence.

These categories have been included insofar as they were reported in sources. However, some forms of violence, such as psychological violence, blockages of access, or threats of violence, are rarely reported. We also record incidents of violence against patients in health facilities when references to the effects of violence on patients are included in descriptions of incidents.

DEFINITION OF CONFLICT

The SHCC report covers three types of conflict as defined by the UCDP for countries that reported at least one incident of violence against health care perpetrated by a conflict actor:[3]

- **State-based armed conflict** is defined as 'a contested incompatibility that concerns government and/or territory where the use of armed force between two parties, of which at least one is the government of a state, results in at least 25 battle-related deaths in one calendar year.'

- **Non-state conflict** is defined as 'The use of armed force between two organised armed groups, neither of which is the government of a state, which results in at least 25 battle-related deaths in a year.'

- **One-sided violence** is defined as 'The deliberate use of armed force by the government of a state or by a formally organised group against civilians which results in at least 25 deaths in a year.'

This report is limited to violence by conflict actors. Interpersonal violence and violence by patients against health care providers are not included in this report, even when they occurred in conflict-affected countries. Events are only included when (a) the perpetrator was a member of a party to a conflict, and (b) available evidence suggested that the incident occurred either in the context of a contested incompatibility of territory or as a one-sided act of violence by security forces included on the UCDP list of countries with more than 25 reported deaths from one-sided violence attributed to security forces or non-state armed actors.

CONCEPTUALIZATION OF THE IMPACT OF ATTACKS ON HEALTH CARE

The impact of incidents of violence against patients is far-reaching and affects health workers, the functioning of the relevant health system, patients' physical access to health care, and people's perceptions that influence choices around seeking health care. Attacks on health care affect health workers psychologically and physically, which frequently results in qualified staff leaving the profession or the area where attacks occurred. The damaging and destruction of physical health infrastructures affect the quality of care that can be provided. Damage can be direct when a health facility is damaged in an attack, or indirect as a consequence of damage to other infrastructure such as electricity or water supply, or the looting of medicines. The impact of individual violent events is spread over time and location, and it is often the cumulative impact of multiple incidents and their diverse effects that create the most concerning impacts that reduce the extent and quality of the care provided.

Insecurity and fear of health systems being the target of attacks also affect how and when people decide to seek medical help. Delays in accessing care can make treatment harder and thereby contribute to worse health outcomes. Various studies focus on different aspects of the impact of attacks on health care and cover different points in time, and the complex consequences of individual incidents remain limited in many cases.

Methodology

No single data-collection method can fully cover such wide-ranging impacts, and mixed-method approaches provide the best option.

INCLUSION OF INCIDENTS

To describe attacks on health care, the report includes only the incidents that met the inclusion criteria for UCDP-defined types of conflicts and conflict-related perpetrators. Based on this principle, we included the following types of incidents and details in the report dataset:

- incidents affecting health facilities, recording whether they were destroyed, damaged, looted, or occupied by armed individuals/groups;

- incidents affecting health workers, recording whether they were killed, kidnapped, injured, assaulted, arrested, threatened, or experienced sexual violence (when available, we recorded the number of affected patients, although we acknowledge the likely serious under-reporting of these figures);

- incidents affecting health care transport/vehicles, recording whether ambulances or other official health care vehicles were destroyed, damaged, hijacked/stolen, or stopped/delayed; and

- incidents recorded by the WHO Surveillance System for Attacks on Health Care (SSA) for the 10 countries included in the system, if the WHO confirmed the incidents.

Key definitions

Health worker: Refers to any person working in a professional or voluntary capacity in the provision of health services or who provides direct support to patients, including administrators, ambulance personnel, community health workers, dentists, doctors, government health officials, hospital staff, medical education staff, nurses, midwives, paramedics, physiotherapists, surgeons, vaccination workers, volunteers, or any other health-related personnel not named here.

Health worker affected: Refers to incidents in which at least one health worker was killed, injured, kidnapped, or arrested, or experienced sexual violence, threats, or harassment.

Health facility: Refers to any facility that provides direct health-related support to patients, including clinics, hospitals, laboratories, makeshift hospitals, medical education facilities, mobile clinics, pharmacies, warehouses, or any other health facility not named here.

Health facility affected: Refers to incidents in which at least one health facility was damaged, destroyed, or subjected to armed entry, military occupation, or looting.

Health transport/vehicle: Refers to any vehicle used to transport any injured or ill person or woman in labor to a health facility to receive medical care.

Health transport/vehicle affected: Refers to incidents in which at least one ambulance or other health transport/vehicle was damaged, destroyed, hijacked, or delayed with or without a person requiring medical assistance on board.

Methodology

SOURCES FOR REPORTED INCIDENTS OF ATTACKS ON HEALTH CARE

The aim of this report is to bring together known information on individual attacks on health care from multiple sources. Access to sources differs among countries, and each source has its own strengths and weaknesses. There are some differences in the definitions of what constitutes attacks on health care used by the different sources that were used to compile the SHCC dataset. Each source introduces unique reporting and selection biases, which are discussed below.

To identify incidents that meet the inclusion criteria, we used four distinct sources that provide a combination of media-reported incidents and incidents reported by partners and network organizations:

1. information included in Insecurity Insight's Attacks on Health Care Monthly News Briefs,[4] which provide a combination of media sources and publicly shared information from partner networks, such as the Aid Worker Security Database (AWSD)[5] for global data from international aid agencies, coordinating health programs; Airwars[6] and the Syrian Network for Human Rights (SNHR)[7] for data on Syria; the Civilian Impact Monitoring Project (CIMP)[8] for data on Yemen; the International Iranian Physicians and Healthcare[9] for data on Iran and databases such as that of the Armed Conflict Location & Event Data Project (ACLED);[10]

2. research conducted by a small team of SHCC members to identify additional incidents reported by UN agencies, the media, and other sources;

3. incidents affecting health care shared by the Conflict and Humanitarian Data Centre (CHDC) of the International NGO Safety Organisation (INSO) for 18 countries: Afghanistan, Burkina Faso, Cameroon, CAR, Colombia, DRC, Ethiopia, Iraq, Kenya, Mali, Mozambique, Myanmar, Niger, Nigeria, Somalia, South Sudan, Syria, and Ukraine (information from the CHDC represents nearly a fifth of the data gathered for this report).

4. information from the WHO SSA on 10 countries or territories: Armenia, Burkina Faso, the CAR, Libya, Myanmar, the oPt, South Sudan, Sudan, Ukraine, and Yemen (information from the SSA represents approximately 10% of the data gathered for this report).

SOURCES ON THE IMPACT OF ATTACKS ON HEALTH CARE

Mixed-method studies from a variety of bodies were included in the review of the impact of attacks on health care. These include:

- academic studies; and

- applied studies focusing on affected populations or security risk perceptions among health workers.

INCIDENT CODING PRINCIPLES

The general theory and principles of event-based coding were followed. Firstly, care was taken not to enter the same incident more than once. Secondly, the information in text-based event descriptions was turned into data by coding the 'six Ws': who did what to whom, where, when and with what weapon. The standard coding principles are set out in the SHCC Overview Data Codebook. Please see www.insecurityinsight.org/projects/healthcare/shcc for full details of SHCC coding and annexes.

Methodology

RESPONSIBLE DATA AND INFORMATION SHARING

The SHCC applies strict data responsibility principles to ensure safe, ethical, and effective data management. These principles are based on the IASC Operational Guidance on Data Responsibility in Humanitarian Action[11] and the work of the Data Responsibility Working Group (DRWG),[12] and center around the principles of data security, data privacy, and data use, taking into account that the SHCC's work has a responsibility to health workers, health systems, and humanitarian health care providers.

The key objectives are that:

- data is used to make more informed decisions to protect health workers and the health system;

- the privacy and security of the information related to people at risk is protected;

- data is shared and disseminated to improve stakeholders' understanding of how conflict affects the delivery of health care; and

- transparency in data sources contributes to the collective improvement of data and information.

The SHCC applies data ethics to identify solutions to data dilemmas when competing principles require it to take priority decisions guided by the principle of doing no harm. Based on these considerations, the SHCC reports the available information on the perpetrator of violence. Information on the perpetrator is not only important methodologically to determine if an incident is conflict-related but, most significantly, it provides key information required to develop preventive strategies and mitigation measures that reduce the incidence and impact of attacks and support accountability processes. Because we believe that the key objective of all data work has to be its usability to address harm, the SHCC considers the information related to perpetrators and the locations of incidents in countries to be of primary importance. Strict data security principles are applied to personally identifiable information and any information that links to people or organizations at risk from any potential repercussions from conflict parties.

INCLUSION AND CODING OF WHO SSA-REPORTED INCIDENTS

On January 15, 2023, the WHO SSA reported a total of 1,031 attacks on health care for 10 countries and territories for 2022. Information on 220 of these 1,031 incidents was included. A total of 811 attacks reported by the SSA could not be included because the lack of detail made it impossible to determine the nature of the incidents.[13] Any changes to the SSA system after that date are not reflected in the SHCC dataset, but may be noted in the country profiles.

We coded 220 SSA-reported incidents from the 10 countries and territories based on the information included on the online SSA dashboard. Since the SSA does not provide information on perpetrators, we assumed that all of the SSA-reported incidents we included involved conflict actors (rather than private individuals) and therefore fulfilled the SHCC inclusion criteria. The SSA also does not provide any information on location, except for the country where the incident occurred. The SSA-reported incidents could therefore not be included in the maps showing the affected regions or provinces in the individual country profiles.

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INCLUSION OF INCIDENTS FROM THE INSO'S CHDC

A total of 316 incidents from the CHDC that fulfilled the SHCC inclusion criteria were included for 18 countries: Afghanistan, Burkina Faso, Cameroon, CAR, Colombia, the DRC, Ethiopia, Iraq, Kenya, Mali, Mozambique, Myanmar, Niger, Nigeria, Somalia, South Sudan, Syria, and Ukraine.

LIMITATIONS OF THE RESEARCH

This report is based on a dataset of incidents of violence against health care that has been systematically compiled from a range of trusted sources and carefully coded. The figures presented in the report can be cited as the total number of incidents of attacks on health care in 2022 reported or identified by the SHCC. These numbers provide a minimum estimate of the damage to health care from violence and threats of violence that occurred in 2022. However, the severity of the problem is likely much greater, because many incidents probably go unreported and are thus not counted here. Moreover, differences in definitions and biases within individual sources suggest that the contexts that are identified are also not representative of the contexts of all incidents.

REPORTING AND SELECTION BIAS

The SHCC dataset suffers from 'reporting bias,' which is the technical term for selective reporting. The SHCC dataset aims to bring together available information from different sources on violence and threats of violence against health care. As a consequence, it suffers from limitations inherent in the information provided by contributors to the SHCC, which differs among the various data contributors. While the SHCC's process of data cleaning focuses exclusively on selecting incidents based on the inclusion criteria, the pool of information accessed by this process depends on the work done by those who first reported the incidents. Events may be selected or ignored for a range of reasons, including editorial choices, when the source is a media outlet; lack of knowledge, because the affected communities had no connection to the body compiling the information in the first place; and because of deliberate censorship, or disruption of the Internet in the country in question, or simple errors of omission. These biases mean that the SHCC's collection of incidents may not be complete or representative, and that only a selection of incidents are included in the first lists that are used to compile the final SHCC dataset. This dataset therefore only covers a fraction of the relevant evidence and covers incidents in some countries and some types of incidents more widely than others.

> **The reported numbers of incidents by country should not be compared to those of other countries without considering the factors that affect the flow of information.** For example, Russia's full-scale invasion of Ukraine attracted considerable attention, and highly skilled researchers were able to document many incidents without fear of reprisal from authorities in the parts of Ukraine that remained under Ukrainian government control. This resulted in a very high number of reported incidents. By comparison, activists in Iran, Myanmar, and other countries jeopardized their and other people's safety by publicly reporting incidents, which likely resulted in more incidents going unreported.

Methodology

For some countries, combining available information is challenging when various data collection efforts do not share data in a way that allows information to be cross-checked. Moreover, not all contributors provided access to their original sources and many details were lost in the process, affecting our ability to provide more accurate and consistent classification. This results in two important warnings.

ACCURACY OF INFORMATION AND DIFFERING DEFINITIONS

Some organizations record only certain types of incidents, e.g., those involving health facilities or those affecting international aid agencies, while the incident descriptions that are available may also contain errors. In addition, not all organizations that compile information on relevant incidents include all the details that would be necessary to systematically code all aspects of these incidents. In particular, information related to the perpetrator(s) and context of a particular incident is often missing or may be biased in the original source. Also, in some cases, especially those involving robberies and abductions, it is often difficult to ascertain from available information whether the act was committed by a party to the conflict or by criminals. We based our inclusion decisions on judgements about the most likely motivations.

> **The reported categories of the contexts in which incidents took place should not be read as describing the full range of particular incidents or how frequently they occur.** For example, the killings and kidnappings of doctors or bombings of hospitals are more likely to be captured by reporting systems than the harassment of health workers or looting of medical supplies. These incidents are therefore likely to occur more frequently than reports indicate.

> **Known reporting and selection biases in SHCC sources**
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> The dataset on which this report is based suffers from the limitations inherent in the contributors' data sources used to compile the dataset. Some data sources use media reports, while others collect and collate reports through a network of partners, direct observation, or the triangulation of sources. Many information providers use a combination of these methods. Seven possible reporting biases affect the flow of information:
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> 1. In some countries, the media frequently report a wide range of attacks on health care, while in others formal media outlets report hardly any incidents.
>
> 2. In some countries, citizen journalists who carry out their own documentation and investigations are key sources of information. Government-imposed shutdowns of the Internet can disrupt such information flows during specific time periods.
>
> 3. In some countries, there are very active networks of SHCC partner organizations that contribute information, while in others no such networks exist. Building up networks takes time and these networks are better developed in countries experiencing long-standing conflicts. Changes in personnel or funding shortfalls can disrupt information flows.
>
> 4. In some countries, numerous parallel data-collection processes exist that publish different numbers because of differences in geographic coverage or the ability to reach information providers. If the original data is not shared, it is impossible to cross-check for double reporting of the same events.

5. In some countries, data-collection initiatives may publish data in one year that leads to a sudden rise in reported incidents. If they do not continue this work in subsequent years, the numbers of reported incidents then drop.

6. Incidents occurring in the early stages of conflicts need to be found in a variety of sources until data-collection networks are established.

7. Some organizations do not share incidents in order to protect their independence and neutrality. In countries where such organizations are key health care providers, information flows can remain very limited.

1   Department of Peace and Conflict Research, Uppsala University. Uppsala Conflict Data Program. *https://ucdp.uu.se/* (accessed April 21, 2023).

2   *https://ucdp.uu.se/*. Because the 2021 UCDP country conflict list was not publicly available when this report was being written, we consulted UCDP staff via email to obtain information on the changes related to countries included in the UCDP list for 2022.

3   Department of Peace and Conflict Research, Uppsala University. UCDP Definitions. *https://www.pcr.uu.se/research/ucdp/definitions/*.

4   *http://insecurityinsight.org/projects/health care/monthlynewsbrief*.

5   *https://aidworkersecurity.org/*.

6   *https://airwars.org/*.

7   http://sn4hr.org/.

8   *https://civilianimpactmonitoring.org/*.

9   *https://iipha.org/*

10 *https://www.acleddata.com/*.

11 IASC Operational Guidance on Data Responsibility in Humanitarian Action | IASC (*interagencystandingcommittee.org*).

12 Data Responsibility Working Group (DRWG) | Topics | ReliefWeb.

13 The lack of detail in the 680 SSA-reported incidents from Ukraine made it too difficult to determine which of these incidents overlapped with the 781 Ukrainian incidents reported by SHCC members. Thus, the 680 SSA-reported incidents from Ukraine were not incorporated into the report.