Prevention and protection against attacks on health care
Good practices
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Good practices
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## Abbreviations

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Description</th>
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<tbody>
<tr>
<td>AAP</td>
<td>Accountability to Affected Populations</td>
</tr>
<tr>
<td>AHC</td>
<td>Attacks on Health Care initiative</td>
</tr>
<tr>
<td>CDC</td>
<td>United States Centers for Disease Control and Prevention</td>
</tr>
<tr>
<td>CERC</td>
<td>Crisis and emergency risk communication</td>
</tr>
<tr>
<td>CSSF</td>
<td>Conflict, Stability and Security Fund</td>
</tr>
<tr>
<td>DRC</td>
<td>Democratic Republic of the Congo</td>
</tr>
<tr>
<td>EWS</td>
<td>Early warning system(s)</td>
</tr>
<tr>
<td>FCV</td>
<td>Fragile, conflict-affected and vulnerable</td>
</tr>
<tr>
<td>ICRC</td>
<td>International Committee of the Red Cross</td>
</tr>
<tr>
<td>NCD</td>
<td>Noncommunicable disease</td>
</tr>
<tr>
<td>OCHA</td>
<td>United Nations Office for the Coordination of Humanitarian Affairs</td>
</tr>
<tr>
<td>PHC</td>
<td>Primary health care</td>
</tr>
<tr>
<td>SCD</td>
<td>Syrian Civil Defence</td>
</tr>
<tr>
<td>SSA</td>
<td>Surveillance System for Attacks on Health Care</td>
</tr>
<tr>
<td>TPA</td>
<td>Terrorism Prevention Act (Nigeria)</td>
</tr>
<tr>
<td>UN</td>
<td>United Nations</td>
</tr>
<tr>
<td>VWS</td>
<td>Visual warning system</td>
</tr>
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<td>WHO</td>
<td>World Health Organization</td>
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1 Introduction

In 2021, WHO’s Surveillance System for Attacks on Health Care (SSA) documented more than 836 attacks in 15 countries and territories. These attacks caused 279 deaths and 424 injuries of health care personnel and patients, yet the SSA provides only a snapshot of the attacks reported in 2021 in many different countries and contexts affected by complex humanitarian emergencies.

Attacks on health care have wider repercussions than on the persons directly involved. They deprive people of urgently needed care, often when they are at their most vulnerable and need it most. They also endanger health care providers, threatening their lives and well-being and forcing some to flee. Their years of education and professional development are denied to the populations they serve.

Although sparsely documented, there is no doubt that the suspension or closure of health services under attack affects millions of lives. Attacks on health care not only reduce access to health care, but also undermine entire health systems and long-term public health goals. In facilities that can remain partially functional, there may be a climate of fear, deterring yet more people from seeking life-saving care and raising fundamental questions about the risks that health care personnel must or should take if their service provision is not protected.

Fuelled by a series of World Health Assembly resolutions and the landmark United Nations Security Council Resolution 2286 adopted in 2016, relentless efforts are therefore required from WHO’s Secretariat, Member States, partners and other actors within and beyond the health sector to prevent and protect against such attacks.

For its part, WHO has introduced and maintains the SSA, and draws on its data to inform operations and advocate for intensified action among a broad spectrum of actors in order to ensure the provision of essential health services during emergencies in complex humanitarian emergencies.

WHO also documents evidence-based good practices to protect, prevent and mitigate against attacks on health care, in collaboration with WHO Country and Regional Offices, partners and other actors and stakeholders. As of December 2022, WHO has documented 7 context-specific examples of good practices for protecting, preventing and mitigating against attacks on health care.

1. Working with communities to prevent and protect against attacks;
2. Building up operational resilience for preventing and protecting against attacks on health care;
3. Preparing the ground for monitoring and documenting attacks in a politically sensitive environment;
4. Negotiating alternative ways to ensure safe access to health care while
operating under security and other constraints;

5. Measuring the impact of structural barriers to health care;

6. Building up a body of evidence on attacks through strengthening the comprehensiveness, relevance and utilization of SSA data;

7. Analysing SSA numbers over three years for advocacy purposes.

1.1 Selected definitions

Attack on health care

Defined by WHO as 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.⁵

Violence

Defined by WHO as intentional use of physical force or power, threatened or actual, against oneself, another person, or against a group or community, that either results in or has a high likelihood of resulting in injury, death, psychological harm, mal-development or deprivation.⁶

Possible objects of attacks

- Health facilities;
- Patients and communities;
- Health workers;
- Health transport.⁷

Health care personnel, units and transports fall within the International Humanitarian law (IHL) definition when they are “assigned exclusively to medical purposes by a competent authority of a party to the conflict”.

For the purposes of this document on collecting and sharing good practices for the prevention of and protection from attacks on health care, it is considered that personnel, units or transports can fall within the scope of the definition even if they have not been assigned by a party to a conflict.
Possible types of attacks

Possible attacks are categorized by WHO in the SSA\(^8\) as:

- Violence with heavy weapons;
- Violence with individual weapons;
- Obstruction to delivery of care;
- Psychological violence/threat of violence/intimidation;
- Militarization of health care assets;
- Assault (without weapons);
- Chemical agent;
- Removal of health care assets;
- Arson/“setting fire”;
- Sexual assault;
- Armed or violent search;
- Abduction/arrest/detention of health workers or patients.

Good practice

Defined during a WHO-led workshop held in April 2019\(^9\) as “practices that have shown evidence of effectiveness in improving health-service delivery when implemented in a specific real-life setting and are likely to be or could be replicable in other settings”.

1.2 Methodology for documenting good practices

1.2.1 Why seek to document and share?

Given that health care facilities, workers, health transport and patients are subjected to attacks all over the world, many health care actors are forced to develop concrete measures to prevent their occurrence, ensure protection and mitigate against the damage they cause.

Each measure is highly context-specific. Nonetheless, documenting and sharing such “good practices” is still helpful for the sector as a whole. It affords other actors an opportunity to acquire knowledge on lessons learned, to exchange ideas on adapting strategies, and to analyse how tailored, feasible and effective interventions can be implemented. This peer-to-peer interaction increases health sector resilience.
1.2.2 Why call them “good practices” as opposed to “best practices”?

Although the terms “best practices” and “good practices” are often used interchangeably,\textsuperscript{10} for the purposes of this exercise “good practices” is preferred.

This is because context specificities are paramount in the development of each practice to prevent and protect against attacks. Factors such as the political and social environment, local resources and capacities, infrastructure, prevailing attitudes to health care and other stakeholders’ support all wield critical influence over how any practice is shaped. In consequence, no one practice can be fully replicated elsewhere, and no fixed gold standards or universal states of perfection exist.

Similarly, when comparing a practice in one place to another practice elsewhere, it is rarely possible to call one “optimal” or consider its implementation “best”. The influencing factors are too numerous and too interlinked for such black and white conclusions to be drawn.

Nevertheless, it is possible to measure whether criteria have been met. There are implementation factors (feasibility, barriers, drivers) to evaluate and, while the details of implementation vary from place to place, the transferability of a practice based on its underlying purpose can also be assessed. It is therefore possible to assess whether a practice works in the real world, why it works, and fit could/should be developed elsewhere.

For the purposes of this exercise, a good practice is defined\textsuperscript{9} as a practice that has:

• shown evidence of effectiveness in preventing and protecting against attacks on health care when implemented in a specific real-life setting; and
• is likely to be replicated in other settings.

1.2.3 Ways to identify good practices

Identifying a good practice can be done two ways, namely:

1. base the assessment on a description of the practice’s achievements. In this case, a good practice is anything that works fully or partially and that can provide lessons learned.

2. assess the practice using specific criteria (see below) to assess the strengths and weaknesses of the practice as well as the successes and failures.
Figure 1. A conceptual Framework for planning and improving evidence-based practices

Figure 1 presents a continuum of evidence-based practices (emerging, promising, leading, best) consisting of two interrelated components: public health impact (effectiveness, reach, feasibility, sustainability, transferability) and quality of evidence (weak, moderate, strong, rigorous).

“When identifying good practices, “evidence” may be defined as the available body of facts or information indicating whether a belief or proposition is true or valid.”

Assessing practices in prevention and protection against attacks on health care can draw on a mixed approach to categorize a practice as good: a description of the practice achievements that provide lessons learned, and criteria that are met from an established list.
1.2.4 What do good practices consist of – scope

Figure 2. Scope for the identification and documentation of good practices as defined during a WHO-led workshop, April 2019

Figure 2 is explained as follows:

Focus

Prevent: stop it happening

Preventive efforts can invoke IHL and the principle of the sanctity of health care, with the former ostensibly acting as the protector of the latter. Drawing on the right to health care, health care as a common good, medical ethics and humanitarian principles, among other concepts, preventive action primarily affirms existing laws and rights, applying them to specific circumstances and strongly advocating for respect for health care.

Protect: it happens - reduce, mitigate

Pragmatic reduction and mitigation measures are taken on the assumption that standards and laws will inevitably be transgressed during conflicts and in settings marked by violence. Such action therefore presupposes the need constantly to
negotiate with both local communities and authorities for the acceptance of a specific role and place for health care. However, it is the parallel, concrete steps taken by each health care team, facility and host community to prevent, protect against and mitigate the consequences of attacks that secure staff, patients and the delivery of health care services.

Elements

Possible targets of attacks include:

- Health workers;
- Health facilities;
- Patients and communities;
- Health transport.

Health care personnel, units and transports fall within the IHL definition when they are “assigned exclusively to medical purposes by a competent authority of a party to the conflict”.

For the purposes of this exercise, WHO considers that personnel, units or transports can fall within the scope of the definition even if they have not been assigned by a party to a conflict.

Approaches

At all levels – global through to local – leveraging social, cultural and religious norms.

Type (categories of action)

- Operational – Reduction and mitigation – Making health care delivery safer:
  1. Building up preparedness, safety and resilience with “soft” measures (management) and “hard” measures (physical infrastructure);
  2. Identifying health care units, transport and personnel;
  3. Medical transport, emergency services.
- Advocacy (building on the raising of awareness);
- Training – Inclusion – Staff support (e.g. Through psychological and trauma support and other forms of support to ensure the protection of health care
personnel;

- Monitoring and documentation – Research and publication (measuring and understanding the violence, having tools for action and accountability).

Coordination is not a type of action in itself but is a tool required to support all types of action.

1.2.5 How to identify good practices

1.2.5.1 The criteria

Each good practice is compared to established criteria to ascertain how and why they are considered “good”. The methodology used is based on identifying the practices through the results of work performed and scoping them for their types, specificities and targets. Following a review of the criteria selected for relevant/comparable fields, it was decided that, for the purposes of this particular exercise, “good practices” should meet at least two of the following criteria:

1. Relevance (the practice must address the priority issues);
2. Effectiveness (the practice must work and achieve planned results that are measurable);
3. Efficiency (the practice must produce results within a reasonable level of resources and time);
4. Ethical soundness (the practice must respect the current rules of ethics for dealing with human populations);
5. Transferability (the practice could be – roughly – replicable elsewhere in the country, region or globally).

Also:

6. Impact (the practice must have a positive and tangible impact on the affected health care services);
7. Feasibility (this is extent to which the practice can be implemented);
8. Maintenance/sustainability/continuity (these refer to the extent to which the practice can be maintained and achieve desired results over a long period of time);
9. Involvement of partnerships (the practice must involve satisfactory
collaboration between several stakeholders);
10. Engagement/participation (the practice must involve the participation of the affected communities).

1.2.5.2 The selection

WHO documented 7 good practices to protect, prevent and mitigate against attacks on health care, in collaboration with WHO Country and Regional offices, partners and other actors and stakeholders.

The identification of the documented practices was initiated during a WHO workshop held in Geneva on 1-3 April 2019 which brought together WHO Health Emergency leads, Health Cluster coordinators, health partners and information managers from the African and Eastern Mediterranean regions. During the workshop, participants brainstormed possible good practices observed in their context and planned for the next steps in the identification and documentation of good practices at country level.

Consultations and interviews were subsequently conducted by an external consultant with WHO Country Offices and health partners where good practices had been identified. The external consultant extracted information to compare the proposed good practice with the established criteria based on the expertise of the WHO workforce and partners involved in protecting, preventing and mitigating against attacks on health care.

1.2.5.3 Limitations

As the documentation of these practices relied on consultations and interviews as the primary source of information to evaluate the results of work performed, there are several limitations that should be acknowledged. While these limitations may impact the generalizability of these documented examples of practices, they remain relevant in their ability to share knowledge on lessons learned, to promote the exchange of ideas on adapting strategies, and to support the analysis of how tailored, feasible and effective interventions can be implemented.

The approaches, implementation and results documented in this publication are limited to the perspectives and experiences of the individuals who participated in the consultations and interviews. Although factors influencing sharing of information or interpretation of events may affect the accuracy of the described practices, the external consultant mitigated biases through triangulation of information with different stakeholders involved where possible.

The good practices documented here solely describe the events that have led the practice being implemented, how it was implemented, the results observed, the lessons learned in relation to the practice and how it compares with the established
criteria. This publication does not suggest that the practices presented here can be fully replicated elsewhere, and does not establish a gold standard for replicating these practices.

1.3 Overview of good practices

The 7 examples of good practices in this publication provide insights into various practices and approaches employed to protect, prevent and mitigate against attacks on health care through monitoring, protection measures, and advocacy in complex humanitarian emergencies. Throughout the publication, the good practices highlight lessons learned, constraints faced, and the strategic flexibility required to protect and promote the protection of health care in complex humanitarian emergencies.

The efforts to this end documented in South Sudan capture the first steps towards monitoring and documenting attacks on health care through WHO’s Surveillance System for Attacks on Health Care (SSA). Two practices were documented in north-eastern Nigeria, where teams engaged with communities for the protection of health care and secured access arrangements in hard-to-reach areas. In the Syrian context, the practices document how operational teams adapted their provision of health care using an early warning system against potential attacks and other operational measures. In the occupied Palestinian territory, two practices detail the work of WHO teams to measure the impact of attacks on health care and strengthen the relevance, comprehensiveness and utilization of the SSA. The last practice in this publication provides an example to generate consolidated data and trend analysis to provide an evidence base for advocacy.
2 Preparing the ground for monitoring and documenting attacks on health care in a politically sensitive environment

The practice documented here captures the first phase of the efforts needed to monitor and document attacks on health care. It shows how teams went about populating the SSA by collecting data on attacks, raising awareness of the importance of data collection for shaping advocacy and mobilizing partners. The practice also points to the next steps required in the process and the various lessons learned. This good practice was drafted in collaboration with WHO’s team in South Sudan and other health actors operating in the country.

2.1 Details of the good practice

Focus: South Sudan

Aim: The practice aims to:

- explore the different data-collection, resourcing and political options for monitoring and documenting attacks on health care for incidents occurring in an aid-dependent, insecure and politically sensitive environment;
- explore the different options in a feasible and sustainable manner;
- explore the different options using a tool designed for this purpose (WHO’s Surveillance System for Attacks on Health Care, or SSA).

Timeline: The documentation of this practice took place between 2019 and March 2020.

2.1.1 Background

2.1.1.1 Recognizing the overlap between attacks and access

Attacks on health care are part of a larger issue – i.e. access to and availability of health care – and at times amount to a particularly dramatic and/or deadly barrier to access. The breadth of WHO’s definition of “attacks” reflects this (see the definition below). Moreover, efforts to monitor and document attacks inevitably overlap with wider monitoring and documentation of service provision and/or facility functionality.
2.1.1.2  A rising awareness of attacks on health care

Over the past decade, attacks on health care have drawn increased international attention. Various agencies, organizations and coalitions have launched initiatives with a threefold aim: 1) to raise and/or maintain awareness of these attacks; 2) to reduce their impact; and 3) ultimately to stop them happening. Such initiatives are therefore oriented towards both advocacy and operations.

Given the charged political and/or social nature of these attacks, the success of such initiatives lies in establishing the facts. The process of building up a robust body of evidence includes monitoring and documenting incidents, as well as conducting contextual and structural analyses.

In the past, it was difficult to produce countrywide incident overviews, and global overviews remained out of reach. The data required were not systematically collected in a single repository or made widely available to relevant stakeholders.

Ideally, tracking and reporting on attacks on health care should be an established part of the health information collected by local health authorities. However, as many attacks occur in fragile states or locations caught up in complex emergencies, this monitoring is not always routine as there are other priorities to deal with. Moreover, the political and/or social tensions around attacks can affect the willingness to collect and publish the data.

2.1.1.3  A tool to collect incidence data

In 2012 the Sixty-fifth World Health Assembly passed Resolution WHA65.20 on “WHO’s response, and role as the health cluster lead, in meeting the growing demands of health in humanitarian emergencies”. The resolution called on WHO’s 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 UN bodies, other relevant actors, and intergovernmental and nongovernmental organizations”.

Mandated for action accordingly, WHO set up an Attacks on Health Care (AHC) initiative with the SSA at its core. The SSA was launched in December 2017 following several iterations of different systems built and tested over a five-year period.

The system is comprehensive and globally inclusive; it provides independent monitoring, thereby collecting data that are accurate and bias-free. Its purpose is to systematically collect and make available data on attacks on health care, and their immediate impact on health care in countries facing emergencies.

The SSA relies on close cooperation with partners to secure a wide and inclusive
range of reporting contributors. It applies the same methodology across all countries – with context-specific adaptations as appropriate – to help address the incomplete documentation of attacks. The countries selected for SSA implementation are those identified as priority countries by WHO’s Health Emergencies Programme (WHE).\textsuperscript{16}

The SSA data collection categories are detailed in the methodology section of this publication. Further details on the methodology used by the SSA are available online.\textsuperscript{5} A number of key points should be noted. For instance:

\begin{enumerate}
\item The data collected are triangulated by data gathered from different actors on the ground insofar as the circumstances, access and availability of sources allow. Once data are entered, each reported attack is assigned a level of certainty by the WHO country team. Attack reports verified as “rumour” are not published.
\item As the data are made available in a public database,\textsuperscript{17} safeguarding the confidentiality of attack victims and data contributors is an overriding priority. Information that is personal or that can be used to identify victims is never collected. Personal data about partners is collected, because it is integral to the accuracy assessment, but is never shared publicly. Certain data points are always suppressed in the public database – e.g. identities of source information, names of affected health facilities and the specific location of the attack.
\item While discussions about attack reports will be held with local authorities whenever possible, the publication of data does not require a government’s prior consent.
\end{enumerate}

\subsection{2.1.1.4 Political sensitivities deterring efforts to report}

Various barriers to the take-up of the SSA have been explored through an evaluation of the system in 2019.\textsuperscript{18} This showed that it can take some time to convince all health partners of the operational value of monitoring and documenting attacks on health care.

This situation reflects the constant reconciliation needed between health care provision (in line with medical ethics, the right to health\textsuperscript{19} and, for some, the application of humanitarian principles\textsuperscript{20}) and working with and/or complementing governments’ own efforts to provide services (e.g. respecting the frameworks they use, addressing their issues and concerns).

Furthermore, authorities can be persuaded of the benefits of collaboration via the SSA because the system can throw light on state services under strain, which may be helpful for donor funding.

For each different context, this reconciliation and negotiation adopts different forms – as does the approach to monitoring and documenting attacks on health care. For
instance, the SSA serves to raise awareness – this is its aim. But populating the SSA with prior data collected on “barriers to health care provision and/or facility functionality” may, in some circumstances, prove to be a more amenable approach.

2.1.2 Implementation context: South Sudan

This section provides an overview of the context in South Sudan at the time of implementation and documentation of this practice.

South Sudan achieved independence in 2011 and became the world’s newest country. In December 2013, the country experienced a civil war, just two years after independence. Despite subsequent peace agreements, lasting peace is not guaranteed.

As for all sectors, the provision of health care in South Sudan leveraged external assistance and took place against a backdrop of instability. Some areas of the country remained sealed off from aid (since security is too compromised). Funding for these external activities was usually direct (from donors to specific organizations) rather than bilateral.

2.1.3 Selection/design

This practice:

- focuses on protection and prevention against attacks;
- is implemented by health care providers;
- affects health care providers, facilities, transport and patients at national and global levels. The monitoring and documenting that it aims to secure can: 1) guide operational decision-making on safe access/provision and mitigation measures on the ground; and 2) generate data to raise awareness and build up advocacy nationally and internationally in order to reduce attacks and gather support for rebuilding the infrastructure.

2.1.4 Approach

The practice requires inter-organization or interagency willingness to share information and liaise in order to form an improved understanding of – and answers to – the a number of questions. The below provides the questions that were relevant to this practice in the South Sudanese context at the time of implementation:
• What sort of attacks on health care are currently taking place in South Sudan, and how do they fit with WHO’s definition of the term?
• What is the value of raising awareness of such attacks – including whether mortality, injuries and/or infrastructural damage are low – within the emergency context of South Sudan, and what is the need to implement operational risk-reduction measures (prevention, protection, mitigation)?
• Where do the barriers lie to monitoring and documenting attacks?
• What sort of data collection has been conducted, and what negotiations underpin its collection and its acceptability to authorities?
• What possibilities exist for using these data to populate the SSA and what sources may exist to report directly to the SSA?
• What are the guiding principles that underlie the SSA (including geographical and reporting source confidentiality)?

This practice also requires an understanding that, ultimately, WHO and its partners will share information and resources in order to monitor and document attacks in a manner that supports the improved provision of feasible and sustainable health care in South Sudan, notably by avoiding: 1) additions to organizations’ already significant reporting burdens; 2) resource duplication; and 3) any tensions with local authorities.

2.1.5 Development of the practice

This section provides an overview of the events relating to this practice documented in South Sudan.

Discussions on populating the SSA with data from South Sudan began in late 2017 when members of WHO’s South Sudan team attended an SSA data-entry training workshop in Uganda. In December 2019, the AHC team from WHO’s Geneva headquarters conducted a mission in South Sudan to follow up on SSA implementation.

By the end of the documentation period in March 2020, the good practice was “emerging” with reference to Figure 1 in the methodology section.
2.2 Progress and results

2.2.1 Implementation of the practice

This section describes the implementation of the practice in South Sudan by the end of the documentation period.

2.2.1.1 First step

The AHC team from WHO’s headquarters in Geneva introduced the concept of the AHC initiative and the SSA in a presentation to partners at South Sudan’s bi-weekly health cluster meeting. The AHC team also learned about the extent of attacks on health care in South Sudan and partners’ interest in initiating the reporting of attacks. There was consensus among participants that many “attacks” occurred in the country but they largely involved the harassment of health care workers, looting and physical obstruction of access to health care. Mortality rates, injury numbers and/or cases of damage to infrastructure were low.

Nevertheless, WHO’s definition of “attacks” specifically incorporates these types of incidents as they also hinder the population’s access to health care. The partners agreed that reporting via the SSA would be useful in order to raise awareness of the issue and to support advocacy, especially in view of the general fatigue among donors for health care provision challenges in South Sudan. The discussions also highlighted the SSA’s operational use (risk reduction, mitigation, response planning).

2.2.1.2 Second step

The WHO headquarters team discussed the feasibility of implementing the SSA in South Sudan with the Organization’s country emergency and health cluster teams. Resourcing concerns were examined. During these discussions and an earlier health cluster meeting, the plethora of existing information and reporting systems in South Sudan was emphasized (some said the partners spent half of their time reporting). It was therefore agreed that, where possible, existing data should be fed into the SSA to alleviate any extra reporting burdens.21

Potentially interesting existing systems included:

- WHO’s health facility functionality database (although not all partners report on the “barriers” relating to attacks); and
- data collected by South Sudan’s Health Pooled Fund for its main donor, the
United Kingdom’s former Department for International Development (DFID). (DFID’s agreement was required for its data to populate the SSA. This was to be followed up by WHO’s health cluster team).

Although these two systems focused on different areas of health systems provision, both collected data on barriers to accessing health care. The latter system also collected information on security incidents experienced by health partners, which could be transferred to the SSA database and then followed up with relevant verification processes according to the SSA methodology.

This still required internal resourcing: even existing data sets needed to be validated by the local WHO team in line with the process set out in the SSA. To begin the process, the WHO country office agreed to:

- put “attacks reporting” (by whichever channel) as a standing topic on the agenda of health cluster meetings, with a fourfold goal – 1) continue to raise awareness; 2) ensure that low-intensity attacks do not become completely normalized; 3) ensure that the impacts of attacks on operations are actively addressed; and 4) build up familiarity with WHO’s definition of attacks and the use of the SSA; and
- continue reporting incidents of attacks on health care in the SSA (following initiation in 2020).

2.2.1.3 Third step

The WHO headquarters team held bilateral meetings with different partners, including the Health Pooled Fund, the United Nations High Commissioner for Refugees (on protection), the United Nations Office for the Coordination of Humanitarian Affairs (on access) and different sections of Médecins Sans Frontières. Discussions were also held with other WHO colleagues in South Sudan, including information management officers, officers of the Essential Programme on Immunization, and the Ebola Virus Disease preparedness team. Here too, discussions focused on “thinking outside the box” in order to channel existing data on attacks into the SSA if possible, or to create reports directly in the SSA if organizations’ priorities and resources permit.

2.2.1.4 Fourth step

The following recommendations were then issued:

- Monitoring and documenting of attacks on health care were to be placed as a standing item on the South Sudan health cluster agenda. This would include ongoing discussion of how attacks within this setting were covered by WHO’s definition of the term.
- SSA user training and refresher training were to be arranged.
• Donors and partners already collecting data on attacks were to be contacted to explore possibilities to reuse data.
• Other partners were to be followed up with regard to direct reporting possibilities.
• The WHO South Sudan team was to process the attack reports that were already in the SSA (this subsequently happened in 2020).
• A meeting was to be set up with the Ministry of Health.

These efforts were to continue until data collection systems were put in place and the SSA was populated with data on attacks in South Sudan.  

### 2.2.2 Practice criteria

Table 1. Practice criteria: preparing the ground for monitoring and documenting attacks on health care in a politically sensitive environment

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Relevance</td>
<td>Yes. Health care providers stated that attacks on health care did occur, and they should be monitored and publicly documented (currently not the case).</td>
</tr>
<tr>
<td>Effectiveness</td>
<td>By the end of the documentation period, partners seemed to be open to finding ways to make initiate monitoring and documentation.</td>
</tr>
<tr>
<td>Efficiency</td>
<td>By the end of the documentation period, this was difficult to assess.</td>
</tr>
<tr>
<td>Ethical soundness</td>
<td>Yes.</td>
</tr>
<tr>
<td>Transferability</td>
<td>Any politically sensitive context can undertake tailored ground-laying for populating the SSA with data on attacks.</td>
</tr>
<tr>
<td>Impact</td>
<td>By the end of the documentation period, discussions had been fruitful.</td>
</tr>
<tr>
<td>Maintenance/sustainability/</td>
<td>By the end of the documentation period, this remained to be assessed.</td>
</tr>
<tr>
<td>continuity</td>
<td></td>
</tr>
<tr>
<td>Involvement of partnerships</td>
<td>Yes, in initial discussions.</td>
</tr>
<tr>
<td>Engagement/participation</td>
<td>By the end of the documentation period, the health cluster and other partners were engaged in discussions on how to collect data on attacks.</td>
</tr>
</tbody>
</table>
2.2.3 Results as of March 2020

- WHO’s South Sudan team and its partners seem convinced of the value of monitoring and documenting attacks.
- There was interest among health care providers operating in South Sudan in monitoring and documenting attacks on health care, including those of “low intensity”.
- Discussions were underway on who could report, and how data are to be captured, without unnecessarily increasing partners’ reporting burdens and/or compromising feasibility and sustainability.
- Following general discussions and support from the leadership, attacks on health care have been reported on the SSA since 2020. The backlog of data prior to this initiation remains unreported because verification of these earlier incidents is not possible due to change in leadership and the passage of time.

Factors to consider

- Government-supported reporting already existed on “barriers to access” for health care.
- The SSA’s methodology reassures partners of the viability of using the SSA in South Sudan. Moreover, the SSA is an operational tool and not an accountability mechanism. It does not attribute attacks to anyone. This should facilitate its local uptake among partners and address the authorities’ concerns.
- The SSA does not need to capture all incidents or all relevant data in South Sudan. It is incident-based, and every incident it captures is important in itself. Overall data incompleteness does not diminish the gravity or legitimacy of the incidents recorded. This is helpful in a sensitive political context where there are also areas that are difficult (or even impossible) to reach.
- It is accepted that all outlooks and sensitivities must be taken on board at all levels, and must be addressed strategically with regard to the collection and publication of data. Regular discussion must take place to this effect.
- It takes time to overcome ongoing concerns about trust and SSA confidentiality.

2.2.4 Lessons learned

Key stakeholders in South Sudan were hesitant to document attacks on health care for various reasons, including sensitivities and lack of capacity. Consequently, efforts were made to find out why. As it transpired, the opinions of different political blocs diverged. Moreover, collaboration with the Ministry of Health on monitoring barriers to
health care (including attacks) has not always been smooth. The situation is therefore not as black and white as presented although, on digging deeper, it appears that solutions could be found.

Experience in South Sudan has served to reaffirm\textsuperscript{25} that partners need reassurance on the applicability of WHO’s definition of “attacks” in their context and on the SSA’s guiding principles in general, including confidentiality of reporting sources and geolocations of attacks.

**2.2.5 Applicability elsewhere**

Applicable to any country experiencing political sensitivities (for whatever reason) on the collection and publication of data on attacks on health care.
3 Working with communities

The practice documented here shows how teams in north-eastern Nigeria engaged communities in the protection of health care and how critical such engagement is for the delivery of services. The publication also describes the out-of-the-box approaches required, the constraints generated by less structured ways of working, and lessons learned as the practice developed. This good practice was drafted in collaboration with WHO’s team in north-eastern Nigeria and other health actors operating in the area.

3.1 Details of the good practice

Focus: North-eastern Nigeria

Aim: This practice aims to nurture ties with different communities to enable ownership of the health care delivered in their area and to encourage their involvement in preventing and protecting against attacks.

Timeline: The documentation of this practice started in 2019 and ended in early 2020.

3.1.1 Background

3.1.1.1 Community engagement at the core of humanitarian work

The importance of engaging directly with people affected by conflicts and violence is a recurrent theme in humanitarian action and development. Such engagement is commonly regarded as the primary axis on which to secure access and trust. United Nations (UN) Security Council resolutions, UN agency manuals, international conventions, codes of conduct, and countless frameworks, standards and guidelines enshrine community engagement within the humanitarian system. Notable examples include:

- principles 6 and 7 of the Code of Conduct of the International Red Cross and Red Crescent Movement and Non-Governmental Organizations in Disaster Relief identify participation as an essential foundation of people’s right to life with dignity;
- the United States Centers for Disease Control and Prevention (CDC) guideline on Crisis and emergency risk communication (CERC) helps officials to
navigate a discussion with people in the community before and during those times when community-level emergency actions must be taken; 27

- the Inter-Agency Standing Committee’s five core commitments on Accountability to Affected Populations (AAP), endorsed in 2011, state that leaders of humanitarian organizations will undertake to align leadership/governance, transparency, feedback/complaints, participation, design, monitoring and evaluation with the AAP. 28

3.1.1.2 Where it becomes complicated

Different organizations, however, accord different meanings to the word “community”. This obliges them to define the term with every use. In CERC, 9 “community” is defined as a group of people associated by a common tie or interest. Communities include:

- people directly affected by a crisis;
- family members of those directly affected by a crisis;
- first responders;
- local government entities;
- healthcare providers;
- community organizations;
- advocacy groups;
- colleges and universities;
- cultural organizations;
- local businesses; and
- the media.

Moreover, opinions differ on why community engagement needs to be secured.

**Instrumental rationales** 39 point to the increased effectiveness of humanitarian aid. Here “community engagement” is considered to help in gathering information and consequently in informing programme decisions and helping assess contexts in terms of protecting civilians or security conditions. Community engagement can also improve how needs are met (e.g. by improving targeting and timeliness); reduce costs, waste or inefficiencies; facilitate access to the crisis-affected area; and improve the security of humanitarian staff. Moreover, it can encourage communities to contribute labour or resources. Lastly, and somewhat cynically, community engagement tends to keep managers satisfied, meet donor requirements and improve an agency’s visibility and funding prospects.
Emancipatory rationales argue that agencies should support “community engagement” because it can give voice and agency to particular groups and can provide people with information so that they are able to take more informed decisions. It can also strengthen the capacity of local civil society organizations and governments. As such, community engagement can increase citizens’ expectations of, and demands for, accountability and can transform power structures and dynamics. Overall, it can therefore improve the sustainability of project interventions and give people greater control over their lives.

Despite these differences, there is agreement on the general thrust of most frameworks and guidelines. By and large, approaches emphasize two-way communication and offer tips on how to listen, interact, handle hostility, mitigate risk, “jump the hurdles”, manage feedback, use plain and appropriate language, manage translation, and be both culturally aware and “conflict-aware”. Rationales are largely theoretical (setting out protocols) but a few offer field illustrations. WHO’s own work in emergencies focuses on “social mobilization”, with parallel efforts in “health promotion”. The Organization places an important focus on how to communicate with communities effectively.

There is also concordance on certain viewpoints, such as drawing on universal values, the principle of humanity and other culturally or theologically relevant precepts. Influential figures in the community are seen to help local populations grasp the crucial role that health care and aid workers and services play. In addition, general agreement exists on the need to maintain regular engagement with members of the community, including armed groups, as opposed to reaching out to them purely during crisis. In other words, the process of securing community engagement is an ongoing investment and not a one-off event.

Yet, despite the many publications on the issue, the process for engaging with communities still remains unclear. The following elements below are accorded varying importance and end goals:

- partnerships;
- participation;
- accountability;
- two-way communication;
- consultation; and
- information provision.

3.1.1.3 The state of play

This discordance suggests that there are challenges in implementation, which no doubt explains the scarcity of hard data on the levels, quality and outcomes of efforts to engage with crisis-affected people. Similarly, there are few data on how individuals
respond to and engage with aid providers.

The relatively rare good practices that have been documented include:\(^{39}\)

- mandating teams to travel, talk, hold focus groups and run workshops; and
- launching local communications initiatives and creating affiliations with local groups (Some communities have provided resources and/or staff while others have staged community security patrols to protect health services).

There are also examples of organizations reducing their visibility when the “branding effect” generates local hostility (excessive use of logos, a proliferation of white four-by-four cars etc.). There are few publications on the successful employment of community engagement strategies during epidemics.\(^{40}\)

Conversely, a significant amount has been written on the sector-wide struggle to get communities engaged. The causes of this are varied but seem primarily to include:

- costs, drain on resources, a need for access, information and transparency;\(^{11}\)
- replicability and scalability;
- staff skill-sets falling short;\(^{41}\)
- a variety of institutional changes – including increased use of electronic communications and distance technologies, compliance with anti-terror legislation, and security and insurance concerns – resulting in a more risk-averse humanitarian aid community, with operations more centrally managed (leading to international humanitarian actors on the ground having less responsibility and being less able to engage with local communities effectively);\(^{11}\)
- fear of the negative (listening to communities may involve hearing critical feedback or having to deal with issues that humanitarian staff cannot control effectively);
- constraints generated by the use and abuse of power within communities, within humanitarian activities and within organizations; and
- public health concerns that do not always align with the health care choices that an individual would make, which may mean the latter’s opinion is not requested.

Additionally, while progress has been made in recent years, it seems that some organizations, health care workers and/or aid workers are unconvinced that the participation of affected people in humanitarian response activities can be anything other than tokenistic or even manipulative.\(^{11}\)

The major outbreaks of Ebola in Africa since 2014 illustrate how problematic this discordance can be. During the 2018–2020 Ebola epidemic in the Democratic Republic of the Congo (DRC), the divisions between the local population and health
care teams often derailed the response. Health care facilities and transport were attacked. Yet just two years earlier, the Ebola epidemic in West Africa (2014–2016) showed the critical importance of having the community on board.

Experience with Ebola outbreaks has shown that health care workers must listen to people and communicate with them effectively at times of high stress, making an attractive offer of health care that draws people into the response as opposed to chasing them from it, and empathizing with individuals’ varying priorities (Ebola is one of many diseases in lower-resourced, conflict-affected areas).

The response also needs to address the economics of the crisis at Individual level (i.e. the money flooding in for Ebola must be distributed at all levels) and build a response on health seeking behaviour and community dynamics (often, for instance, beyond the "official" health care approach). In the DRC, some of these lessons were applied and the response offered did have an effect. Overall, however, the DRC population’s viewpoints were often insufficiently considered, and the communities struggled to become valued and active players in halting the outbreak.

The literature shows that community engagement was left equally unsecured during the emergency response to the Rohingya crisis in 2018, and evidence suggests that many other, less-/non-documented examples exist.

### 3.1.1.4 Shifts in the landscape

The example of Ebola in the DRC also illustrates that, while normative “how to” discussions continue, the backdrop for community engagement is undergoing significant change.

It is becoming increasingly clear that, by virtue of increased connectivity and collective conversation (largely via social media), some communities no longer need to be “invited” to the table during an emergency. Rather, they demand to be there and sometimes take leadership of the response.

Moreover, research suggests that efforts to encourage community engagement on the basis of fixed ideas of how it should be done are often inappropriate because emergency situations vary widely.

Far from ready-made engagement tactics being effective – e.g. by systematically calling on chiefs, elders, women and young people – anthropologically-informed assessments suggest that engagement must be built on the (sometimes unclear) social dynamics between local populations, intermediaries and resource suppliers. In other words, the status of “boss” differs between communities. Consequently, successful negotiations and engagement depend on who can be trusted on what issues, who is a legitimate spokesperson for – and will be listened to by – the community, and an amorphous variety of moral and political rules.
This research therefore underscores the need for ongoing efforts to connect with people even when there is no crisis, however draining on resources this might be, in order to facilitate safer and more effective access when tensions rise.

3.1.2 Implementation context: north-eastern Nigeria

This section provides an overview of the context in north-eastern Nigeria at the time of implementation and documentation of this practice.

Figure 3. Attacks on health care recorded on WHO’s SSA for north-eastern Nigeria, 2019

3.1.2.1 General

In north-eastern Nigeria, fighting broke out between the government forces and armed opposition groups over a decade ago. By the end of 2019, an estimated 36,000 people had been killed in this area since the beginning of the conflict in 2009 and some 1.9 million people had been internally displaced.50

Over 80% of the displaced were in Borno State, with 1 million people hosted in Maiduguri – the state capital and the hub for north-eastern Nigeria’s humanitarian response. The fighting damaged two thirds of Borno State’s original health facilities and, in an area that is highly endemic for disease, further health threats were posed by unsafe water, inadequate hygiene and the vulnerabilities related to displacement and congested living conditions.51
3.1.2.2 Community engagement in humanitarian work

The UN Office for the Coordination of Humanitarian Affairs (OCHA) in north-eastern Nigeria was aware of the challenges that community engagement presents. OCHA’s two-year strategy and action plan\textsuperscript{52} for the area aimed to bring the barriers down. Based on providing accountability to affected populations (AAP),\textsuperscript{53} the plan rested on three main pillars, namely: two-way provision of information and communication, feedback and complaints mechanisms, and community participation. Recommendations were been issued to make it work.\textsuperscript{54}

WHO’s country team in north-eastern Nigeria were part of this plan. Moreover, WHO’s teams operating in the area (Hard-to-Reach/H2R and polio teams) had long experience of working with and through communities. In such security-compromised conditions WHO aimed to secure protection for both its own teams and the grassroots health care workers working with them.

3.1.3 Selection/design

This practice:

\begin{itemize}
  \item serves to prevent and protect against attacks;
  \item is carried out by health care providers (reaching out to communities) and by existing or potential patients and their communities (protecting the provision of health care); and
  \item enables the safe delivery of, and access to, health care for both these groups at local levels.
\end{itemize}

3.1.4 Approach

The practice requires contextual analyses to be conducted in order to identify:

\begin{itemize}
  \item the optimal and most legitimate interlocutors on this issue in each community;
  \item the map of all health care available, both officially and unofficially;
  \item the boundaries of engagement for teams;
  \item which prevention and protection messages about attacks on health care speak to people most effectively in each community;
  \item how to adopt a strategic approach to communication on community engagement with the relevant authorities.
\end{itemize}
The practice also relies on the capacity of operational staff to work with and beyond the “official” health care map and interlocutors in order to reach different communities. Health care providers need to grasp how community dynamics differ and how their messages can be formulated effectively. This calls for regular, consistent efforts to reach out to communities at times of stability as well as instability.

Lastly, the practice depends on being prioritized, resourced and supported by management, even when it calls for thinking and acting “out of the box”.

3.1.5 Development of the practice

The documentation of this practice started in 2019 and ended in early 2020. With reference to Figure 1 in the methodology section, the good practice was “promising” by the end of the documentation period in March 2020.

3.2 Progress and results

3.2.1 Implementation of the practice

This section describes the implementation of the practice in north-eastern Nigeria by the end of the documentation period.

Through its various programmes, the WHO country team approached some of its most active partners in north-eastern Nigeria to find out what measures had been introduced to better secure health facilities and health service provision locally. To do this, individual interviews and group discussions were conducted.

Several common elements were found. The first was an emphasis on the need to work with and through local communities, not only by informing them but also by involving them as an element of health care delivery. Several partners stressed the need to involve community leaders from the outset, starting from the decision on whether to set up a project in the area – i.e. where and how? Such involvement of the community fosters its ownership of health service delivery mechanisms and plays a critical role in safeguarding the health services which operate for the community’s benefit.

Many partners gave examples of community members acting as sentinels in front of health facilities, alerting health workers of a pending attack on the basis of local information, and even forming a human shield in front of a health facility to deter
potential attackers. In addition, some communities had provided disease-related data that helped to populate surveillance databases and alerted health care workers to potential outbreaks of infectious diseases.

It was noteworthy that the term “community” sometimes included not only civilians in the area but also civil governments and sometimes even military structures that influenced community activities. The reasons for this were many. Of particular note was the fact that it was often difficult to tell who belonged to which grouping – health care providers actively opted not to know who was who, as this lack of knowledge helped them to provide assistance to whoever needed it.

Local health authorities also confirmed that this was their preferred approach in order to ensure equal access to health care for all, regardless of their personal affiliations, and to adhere to health and medical ethics as far as possible.

3.2.2 Practice criteria

Table 2. Practice criteria: working with communities

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Relevance</td>
<td>Yes. It increased protection for health facilities, workers, transport and patients in a highly insecure environment subject to attacks.</td>
</tr>
<tr>
<td>Effectiveness</td>
<td>Yes. Health services were protected by communities.</td>
</tr>
<tr>
<td>Efficiency</td>
<td>Yes. Health facilities were protected by communities, but there was a caveat on the possible risks the communities run in offering this protection. There is a price to pay when things go wrong.</td>
</tr>
<tr>
<td>Ethical soundness</td>
<td>Created a possible risk for communities, with little back-up if things go wrong.</td>
</tr>
<tr>
<td>Transferability</td>
<td>Requires a roll-out that is tailored to each context and constantly adapted. The conceptual basis of this practice is transferable to any insecure environment.</td>
</tr>
<tr>
<td>Impact</td>
<td>Yes, in some instances.</td>
</tr>
<tr>
<td>Maintenance/sustainability/continuity</td>
<td>High maintenance: community/leadership legitimacy dynamics change and conflict settings can be volatile and fast-changing. May need constantly to renew interlocutors and restart negotiations. This needs to be understood and resourced from the outset, as opposed to letting the practice slip.</td>
</tr>
<tr>
<td>Involvement of partnerships</td>
<td>Yes, with communities (success depends on it).</td>
</tr>
<tr>
<td>Engagement/participation</td>
<td>Yes, by and from communities (success depends on it).</td>
</tr>
</tbody>
</table>
3.2.3 Results as of March 2020

Active engagement with the community, including civil authorities and military structures, helped to:

- engage communities and raise awareness and knowledge of the need for health care for all, regardless of personal affiliations;
- draw on the support of communities for enhanced security and safety of health care from attacks;
- Some communities came out to protect the facilities when there was a potential that they could be attacked.
- Communities acted as sources of early warning and alert for both potential outbreaks and imminent attacks.
- raise awareness and knowledge among all relevant stakeholders of international humanitarian law, the sanctity of health care and the need to protect health care from attacks – including military and local authorities.

Factors to consider

A non-structured way of working generates its own risks, such as:

- volatile situations require flexible approaches but this would be difficult where regular follow-up and tracking are required;
- ethical concerns such as exposing communities that may be opposed to the authorities and armed forces; and
- the possibility of being accused of disregarding national counter-terrorism laws.

3.2.4 Lessons learned

In these settings, teams need to look for creative solutions while taking account of the dilemmas at hand (humanitarian principles and if/how they serve operations in this setting, medical ethics, the right to health, ways to open up access). Otherwise, they risk losing access and not providing health care. The provision of health care is the only end-goal, so every path to secure it must be explored.

It is interesting to note that some persons consider that the delivery of health care is itself the best tool for securing protection for humanitarian health care workers – i.e. when they provide something useful and are seen to provide it, they are protected, unlike when they base their protection on theoretical, normative and/or legal frameworks.55
3.2.5  **Applicability elsewhere**

The practice could be applicable to:

- any country affected by conflict;
- countries engaged in conflict with active counter-terrorism laws and policies in place;
- Ebola-affected countries that have faced resistance from communities; and
- other epidemic-affected countries, depending on the epidemic – e.g. task-shifting in HIV, COVID-19 pandemic.
4 Building up operational resilience by adopting “soft” and “hard” measures

The two practices documented here show how operational teams adapted their provision of health care to keep both teams and patients safe and to protect access to health care services. The practices also illustrate the strategic flexibility needed to implement such steps, the successes and failures, and the lessons learned for the health sector in the process. These good practices were drafted in collaboration with WHO’s team covering the north-western area of the Syrian Arab Republic and other health actors operating in this area.

4.1 Details of the good practices

Good practices:

1. Implementing early warning systems (EWS).
2. Scaling facilities up and down along with other operational measures.

Focus: Syrian Arab Republic

Aim: The measures aim to boost infrastructural security, protect health care services and supply chains, and enhance the safety and well-being of health care staff and patients.

Timeline: The documentation of these practices took place between 2019 and early 2020.

4.1.1 Background

Violence can disrupt the provision of health care when it is needed most. Even an isolated attack can have serious consequences. If recurrent, acts of violence may lead to the departure of health care personnel and the closure of medical facilities, leaving people without access to health care. Entire communities can feel the impact.

Taking practical measures to enhance the security of health care workers, facilities, transport and supplies can help to ensure that patients are protected and receive quality medical care, and that health care personnel feel safe in their workplaces.
Many measures can be taken to achieve this. As described in WHO’s Safe Hospital Initiative\textsuperscript{56} and other relevant guidelines,\textsuperscript{57} protective measures are shaped by prior identification of a crisis scenario (all measures must be tailored to each situation), its possible impact on human resources and facilities, and the onsite capacity to develop the measures/practices needed to prevent, protect against or mitigate the damage.

Experience has shown that such measures must be taken systematically, even in calmer times. Adopting mitigation measures in a period of stability will go a long way towards ensuring that health care facilities remain operational in times of acute need.

The ICRC guide\textsuperscript{58} on Protecting health care provides key recommendations and examples of measures for ensuring the preparedness and safety of health care facilities. Chapter 4 outlines both preventive and reactive measures pertaining to the location, layout and protection of key infrastructure as well as measures for protecting resources. Some examples in this guide include using fire-resistant building materials and creating checklists for ensuring several days of self-sufficiency in supplies.

\textbf{4.1.2 Implementation context}

This section provides an overview of the context in the Syrian Arab Republic at the time of implementation and documentation of this practice.

By late 2018, 11.7 million people in the Syrian Arab Republic needed humanitarian assistance while an estimated 6.2 million remained internally displaced, living in camps, improvised shelters or with host families.\textsuperscript{59} The provision of health care had been significantly compromised during the war. As the conflict escalated, so did reported attacks on health care. Many health facilities were attacked\textsuperscript{60}, killing patients and medical staff and forcing others to flee. Between 2016 and 2019, 494 attacks on health care killed 470 patients and health workers in the Syrian Arab Republic.\textsuperscript{61}
4.2 Good practice No.1: Implementing early warning systems

4.2.1 Details of the good practice

4.2.1.1 Selection/design

This practice focuses on protecting against attacks. Created for and used by health care providers, Al Rased’s Sentry early warning system (EWS) for medical facilities applies to health care providers, facilities, transport and patients at local levels.

4.2.1.2 Approach

The practice requires:

- people/systems on the ground to collect information;
- power supply, Internet access and radio communications;
- technological expertise;
- funding and resources to implement and run the system.

The practice also requires health care staff to:

- trust the information generated by an EWS;
- formulate plans and hold drills so that all facility staff are prepared for action following an EWS alert (patient mobilization for evacuation, exits and routes, lists of essential items to take, temporary or permanent relocation etc.).

4.2.1.3 Development of the practice

This section provides an overview of the events that took place in the Syrian Arab Republic in relation to this good practice.

The EWS was conceived in 2014, developed in the last quarter of 2015 and went live in 2016 with further development since then. As of March 2020, the system also provided a visual warning system (VWS) installed in health care facilities.

At the time of documentation, discussions were underway to work with schools (similar visual warning systems), protection organizations and ambulances. By the end of
the documentation period in March 2020, the good practice was “leading” with reference to Figure 1 in the methodology section.

4.2.2 Progress and results

4.2.2.1 Implementation of the practice

This section describes the implementation of the practice in the Syria Arab Republic by the end of the documentation period in March 2020.

Since the beginning of the conflict, aircraft had been tracked in the Syrian Arab Republic via radio channels and flights observed with the naked eye. Alerts were issued via radio, social media and cloud-based instant messaging services, providing vital information for communities, although this system lacked adequate technology to be a real EWS. This led to the development of the Al Rased Sentry System for Medical Facilities.

Introduced in the Syrian Arab Republic in 2015, the Sentry system’s goal is to save lives, avert injury and reduce trauma for civilians living in the midst of an intense air campaign. It is a low-cost, locally-administrable knowledge system that uses an algorithm to predict the likely targets of observed aircraft and then uses these predictions to generate warnings that are sent to civilians and health care facilities some 7–10 minutes prior to a strike.

The Sentry system’s key components are:

- sensing (gathering data from remote sensors, trusted human observers and open media scraped by algorithms);
- preserving the data collected (using a trusted ledger to ensure there is no tampering);
- validating and analysing the information;
- sharing information with local stakeholders and civilians within seconds.

Notifications are received through physical air raid sirens, warning lights and social media in communities and medical facilities in the Syrian Arab Republic.

The initial intent of the EWS was to issue warnings as far in advance as possible on the basis of substantial information. Efforts initially concentrated on: 1) gathering the critical amount of information required; 2) conducting the necessary critical analysis; and 3) making an intelligent guess as to where the strike would be.

At this point the EWS was focusing on the lowest-hanging fruit – existing information channels (social media and active peer-to-peer networks in civilian populations) – in
the hope that alerts would be shared further via community mechanisms. However, as it transpired, not everyone could access social media sites because of problems with Internet connections.

The focus therefore expanded to air raid sirens, which served as community warning systems under the Syrian Civil Defence (SCD) and would achieve the greatest possible reach. Audible warning systems were electronic but manually controlled at the time – i.e. someone had to set them off by pushing a button, diverting personnel from needed prevention and mitigation measures. Consequently the Sentry system introduced activation via remote control for high confidence threats. After a great deal of resources were invested in this function, it provided an existential increase in reach.

Nevertheless, there are situations where loud sirens are inappropriate or undesirable – including in health care facilities. Moreover, health care providers needed more information than “something is coming” in order to prepare for mass casualties. A visual warning system was therefore introduced with yellow, red and blue lights (signalling “Attention: aircraft approaching”, “Warning: direct and immediate danger” and “Get ready: possible incoming casualties” respectively).

Health care providers could also use cloud-based instant messaging services and other forms of alerts. The EWS’ aim was “alert saturation” because experience has shown, via practices and perception surveys, that people tend to respond to the method they find the most useful for them. An application was also developed for the SCD to report strikes in real time; however, extracting people from rubble was not conducive to reporting, so a work-around was found. This tool automatically notifies health care facilities of a strike.

4.2.2.2 Practice criteria

Table 3. Practice criteria: implementing early warning systems

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Relevance</td>
<td>Yes</td>
</tr>
<tr>
<td>Effectiveness</td>
<td>Yes</td>
</tr>
<tr>
<td>Efficiency</td>
<td>Yes</td>
</tr>
<tr>
<td>Ethical soundness</td>
<td>Yes</td>
</tr>
<tr>
<td>Transferability</td>
<td>It depends. The EWS requires power, Internet, radio communications and people collecting information on the ground.</td>
</tr>
<tr>
<td>Impact</td>
<td>Yes</td>
</tr>
<tr>
<td>Maintenance/sustainability/continuity</td>
<td>This was a concern, although the cost is low.</td>
</tr>
<tr>
<td>Involvement of partnerships</td>
<td>Yes</td>
</tr>
<tr>
<td>Engagement/participation</td>
<td>Yes – its success relies on these.</td>
</tr>
</tbody>
</table>
4.2.2.3 Results as of March 2020

The efficacy of this EWS is measured through a set of holistic metrics: lives saved, injuries averted, system reach, system accuracy, civilian perceptions of the system, war crime accountability and so on. The most important of these is lives saved.

Different studies have been undertaken of internal and external impact and perception. While the methodology used varies, the studies have all generally flagged the system’s broad adoption and perceived usefulness.

There are some reservations and limitations, including power outages, concerns about maintenance and battery changes, and the inadequate coverage of sirens. Moreover, the reliability, accuracy and the relevance of warnings can always be improved. Additionally, a functioning EWS does not mean that evacuation of civilians from health care facilities is always achieved smoothly.

Nevertheless, Sentry seems to be regarded as the preeminent civilian and health facility EWS in the Syrian Arab Republic, and is perceived to be one of the most accurate, reliable and rapid sources of aerial attack warnings (Box 1). It can also be a key factor in reducing anxiety due to the threat of these attacks. User testimonials provide concrete instances of how Sentry has saved lives.

The developer of the EWS ran its own impact and perception studies. For example, working via a third-party Monitoring & Evaluation organization from May to September 2017, the developer conducted a survey of 1700 likely Sentry users and held 12 focus group discussions with civilians in Idlib, Hama and Homs. A first responders’ focus group was held in Istanbul. Some 86% responded that the warnings reduced anxiety about aerial attacks, 84% said it gave them enough time to respond to aerial attacks and 90% said that they continued to use Sentry after adopting it.

Factors to consider

The EWS:

- draws on the SCD as a resource (the SCD was strong in the Syrian Arab Republic and played an essential role in providing access to the system, its implementation, use and the preparation/roll-out of post-alert response);
- helped people to protect themselves, which drove adoption of the system;
- offers transparency and clarity on its limitations, on who supports it financially and who is involved (these factors have helped overcome initial scepticism);
- However, the system requires people on the ground. When a conflict escalates it becomes a major challenge.
- While the EWS proved fairly robust at operating in an unstable environment, it relies on electricity supplies and the Internet. If this infrastructure is no longer
available, it will struggle to adapt.

4.2.2.4 Lessons learned

- New ideas need to be constantly developed for different arrangements or population groups in order to reflect their particular circumstances/needs and to secure optimal reach.

- By introducing unity, organization and technological skills (in contrast to the confusion that has often been present in responses to humanitarian crises), this EWS can greatly increase the effectiveness of what has already been done. The EWS provides added value with a standardized approach (protocols, specific syntax, etc.). This standardization has been considered vital to building trust.

- It took some time for people to become used to civil defence teams in an EWS role (they are habitually involved in clearing streets, collecting building rubble, searching for survivors etc.).

4.2.2.5 Applicability elsewhere

EWS are needed in any country experiencing recurrent attacks on health care. The technology needs to be adapted to the situation and the type of attack.

The scope of such systems could potentially be expanded to a wider variety of violence and could help mitigate conflict in different phases.
4.3 Good practice No. 2: Scaling facilities up and down along with other operational measures

4.3.1 Details of the good practice

4.3.1.1 Selection/design

This practice focuses on protecting against attacks. Implemented by health care providers, it affects health care providers, facilities, transport and patients at local levels.

4.3.1.2 Approach

This practice requires:

- constant, relentless reassessment of the situation and risks, and forward-thinking about the prevention/mitigation measures to be taken;
- technical know-how to design and implement “hard” (infrastructure) measures;
- networking with partners so that protection and mitigation applies to all elements of health care provision, with backup available as far as the circumstances allow;
- a focus on “soft” approaches (training, evacuation drills and mental health support for staff who must implement/reimplement these measures during attacks);
- funding to design/redesign the measures and implement them (building materials, wiring, paint, other items), as well as for replacing facilities, equipment and supplies if they are lost.

4.3.1.3 Development of the practice

This section provides an overview of the events that took place in the Syrian Arab Republic in relation to this good practice.

Protection and mitigation measures were introduced soon after 2010, when violence with heavy weapons and other attacks on health care services began in opposition-held areas of the north-western Syrian Arab Republic. This context was remarkable for the number of attacks on health care and their occurrence. Protection and
mitigation measures were needed constantly. They were part of a toolkit used by health care teams daily in the north-western part of the Syrian Arab Republic in order to survive at work.

By the end of the documentation period in March 2020, the different elements of the good practice with reference to Figure 1 covered the whole range (emerging, promising, leading) as they were constantly being adapted to shifts in territorial control and the type of munitions used in the war in the Syrian Arab Republic.

4.3.2 Progress and results

4.3.2.1 Implementation of the practice

This section describes the implementation of the practice in the Syria Arab Republic by the end of the documentation period in March 2020.

Both private and public hospitals were attacked heavily during the conflict in the Syrian Arab Republic. They were therefore the main focus of protection and mitigation measures.

Building types, visibility and locations

In the conflict’s early stages, field hospitals struggled to withstand attacks. While walls crumbled and windows shattered, the main injuries were incurred not from the bombs themselves but from subsequent infrastructure collapse.

Health care teams therefore decided not to use all the space in their health facility. If there were five floors, they worked only on the ground floor. The higher floors were used to absorb the damage from the bombs, providing extra layers of protection. Glass windows were replaced with plastic, and wooden doors with aluminium.

False ceilings were removed as they collapsed too easily and plastic sheets were painted black to avoid light being reflected outside the building at night, which was when most attacks occurred. Health care facilities were referred to by codes, not names, to avoid exposure via radio chatter. Escape exits and routes were systematically established.

Before late 2012, there was no robust EWS in place and Internet coverage was unstable. Health care staff used walkie-talkies to communicate, with a shared channel for medical personnel and a general channel for all. Once fibre Internet became accessible from Turkey, the situation changed. People switched to cloud-based instant messaging services and exchanged information via specific groups and optimized communications.
In 2013, barrel bombs were introduced into the conflict. Whole buildings were destroyed as prior protection measures became inadequate. Health facilities were forced to move their services entirely underground. At this stage, a Plan B was devised: if an alert was received, all staff and patients were relocated to a preselected, alternative facility. Equipment was left behind. Discussions on the location of these “spare hospitals” took place via partner networks because interaction across the whole health sector was required.

In 2014, discussions began on the need to adopt a different approach to protect patients and staff. With donor support (from OCHA, WHO and others), engineers were brought in to design fortified underground hospitals. These structures offered improved protection for staff and patients but were located at some distance from the community because people feared that hospitals attracted attacks. Ambulances were consequently left more exposed as they came and went on the roads. Some vehicles were therefore hand-painted black and stripped of their lights to make them less visible. Cameras held up at the front served as guidance systems.

Eventually, further weapons were deployed that could destroy hospitals built into hillsides. Some health care workers have concluded that fortified hospitals were indeed good for protecting staff if they were evacuated in time. However, in an attack, everything else is destroyed – and the cost of building such a facility can be up to US$ 500 000. Moreover, centralized facilities needed a great deal of governance (200 or 300 beds are high maintenance) and evacuating such a structure in its entirety could take several days.

Consequently, facilities tended to be kept small in high-risk areas (with limited bed capacity and light equipment only). This amounted to adopting a quasi-mobile approach, reducing the evacuation time to one week when a facility came under threat.

It was a matter of time before locations were discovered. This meant that risk analyses and assessments had to be constantly and relentlessly undertaken and re-undertaken, and plans and protection/mitigation measures had to be reappraised.

**Power, stocks and supplies**

Health facilities depend on generators, which are also vulnerable to attacks. They were kept at a distance from the facility whenever possible (50 metres away), along with fuel and medical stocks. Ambulances were also kept at a distance, in a separate area. Larger warehouses were located at a bigger distance – near the Turkish border – with variable distribution rhythms. Some organizations preferred to have one month’s stocks in or near each facility, plus a buffer for emergencies. Other organizations kept lower stock levels depending on the intensity of the fighting.
Soft (management) measures

Where feasible, all staff – medical, paramedical and indirect – participated in mass casualty, triage and emergency response training, including how to manage with resource constraints and low technology. They also participated in evacuation drills and received broader security training, with new staff briefed on both. Security focal points and other relevant staff were further trained on how to recognize risks, deal with improvised explosive devices, recognize mines, conduct themselves appropriately at checkpoints and so on. Staff were given mental health and emotional support to sustain hope and find value in their work. Some organizations also considered these soft management measures as part of their “duty of care”.

Deconfliction

If a facility relocated, it could share its coordinates with OCHA so long as the onsite team agreed. However, while this information-sharing put the facility “on the map”, it did not protect it from attacks. By mid-February 2020, 53 facilities had been suspended since the start of the year because of attacks or shifts in territorial control.

Vehicle identification

Some organizations maintained logos on their vehicles. However, this was not a practice adopted by all because it offered little protection and, conversely, may have attracted attacks.

Medical practices while under attack

By the end of the documentation period, a robust body of literature was yet to be developed on what concrete adaptations to medical practices have been employed by health care workers under attack, either by choice (protection and mitigation measures) or necessity (making do with available resources). More studies are needed to detail the medical and logistical choices and challenges entailed in:

- conflict-related responses (particularly responding to mass casualties);
- targeted attack responses;
- besiegement responses (particularly mitigating severe resource constraints); and
- chronic risk responses.
4.3.2.2 Practice criteria

Table 3. Practice criteria: scaling facilities up and down along with other operational measures

<table>
<thead>
<tr>
<th>CRITERIA</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Relevance</td>
<td>Yes. It was vital for staff and patient survival and for the continuation of health care services.</td>
</tr>
<tr>
<td>Effectiveness</td>
<td>Varying</td>
</tr>
<tr>
<td>Efficiency</td>
<td>Varying</td>
</tr>
<tr>
<td>Ethical soundness</td>
<td>Yes</td>
</tr>
<tr>
<td>Transferability</td>
<td>Dependent on the context, but the basic concept of introducing protection measures must be transferred.</td>
</tr>
<tr>
<td>Impact</td>
<td>Variable, but largely yes.</td>
</tr>
<tr>
<td>Maintenance/sustainability/continuity</td>
<td>High maintenance, but no option in this context.</td>
</tr>
<tr>
<td>Involvement of partnerships</td>
<td>Yes. No organization can keep relocating without liaising with other partners, plus inter-organizational referral systems and resourcing back-up.</td>
</tr>
<tr>
<td>Engagement/participation</td>
<td>Massive: survival depends on it.</td>
</tr>
</tbody>
</table>

4.3.2.3 Results as of March 2020

While the preventive and protective reach of these measures could not generally be quantified, they had clearly been effective in protecting some health care services. When they were not, they were adjusted as fast and as far as possible.

Factors to consider

- Health care providers in the north-western Syrian Arab Republic had no choice but to keep using and developing such measures while the conflict persisted. It was a question of their daily survival.
- The ferocity of attacks could overcome all efforts that were made, eventually reducing capacity or motivation to keep health care services functioning at all.
- Limitations in sustainable funding for the health sector could have left health
care providers unable to protect themselves adequately.

- Power supplies or Internet infrastructure could have weakened or failed.
- Necessary materials could have become unavailable.

### 4.3.2.4 Lessons learned

- There are many possible approaches that can be adopted as opposed to one that is the “best”. The situation needs constant reassessment, and choices have to be made on where to focus – i.e. optimizing staff and patient safety or extending measures to equipment and facilities too.

- Experience points to the wisdom of setting up smaller, nimble facilities in high-risk areas. A large referral facility in a safer area is then needed, preferably on or near the border. Referral facilities can also focus on noncommunicable diseases (NCDs) and set up warning systems for NCD cases and other conditions. However, most people cannot afford transportation to such facilities so a robust referral system must be put into place – preferably centralized (as has been the case in the north-western part of the Syrian Arab Republic since 2018).

- Prior to 2015, health care providers put more emphasis on secondary care and trauma. As a consequence, primary health care (PHC) was neglected. Yet a solid PHC network covers more than 90% of people’s needs. US$ 1 million can cover either one secondary structure or 50 PHC clinics, so a choice has to be made. Moreover, outpatient services and PHC must be separated – which was not the case in the past (when even tertiary care was mixed in) and which meant that everything was lost when the facility was attacked. A system of separate services means that some health care levels can keep providing care.

### 4.3.2.5 Applicability elsewhere

Applicable in any country experiencing recurrent attacks on health care.
5 Negotiating alternative ways to ensure safe access to health care in hard-to-reach areas while operating under security and other constraints

The practice documented here shows the steps taken, and the messages communicated, to enable access to health care in heavily insecure areas while safeguarding health care teams and resources. It also sets out the limits of such efforts, their dependence on context, and the lessons learned as the practice developed. This good practice was drafted in collaboration with WHO’s team in Nigeria and other health actors operating in the country.

5.1 Details of the good practice

Focus: North-eastern Nigeria

Aim: The practice aims to explore agile means to ensure the safe provision of health care when access channels are reduced or cut by security issues and other constraints, including counter-terrorism laws.

Timeline: The documentation of this practice took place between 2019 and early 2020.

5.1.1 Background

5.1.1.1 The normative and legal frameworks underpinning the provision of health care

The most significant of these frameworks include:

The right to health. Enshrined in both WHO’s Constitution of 1946 and Article 12 of the International Covenant on Economic, Social and Cultural Rights of 1966 (as well as in other international and regional instruments), the right to health provides a valuable normative and legally binding framework for the provision of health care. It places an obligation on States Parties to guarantee the normative content of this right (as commented on by the UN Committee on Economic, Social and Cultural Rights) and to eliminate any discrimination that obstructs the provision of health care, safeguarding access and ensuring accountability. These obligations apply
In June and July 2018, IMPACT Initiatives (IMPACT) conducted a mixed-methods evaluation to identify the effectiveness of the Sentry system in order to inform donors and to provide data to inform ongoing implementation and performance of the EWS. A total of 610 individuals participated in structured surveys and focus group discussions. Three communities were selected by IMPACT and Hala Systems on the basis of their use of Sentry and the locations that had frequently suffered from aerial attacks. Two research questions were identified for the evaluation, each containing additional sub-questions.

**Research Question 1: What portion of the population is aware of the Sentry system?**

The results showed that only a small proportion (5.2%) of the assessed population was unaware of the Sentry system, while the majority (93.5%) was aware of the system. A total of 90.7% of survey respondents were either subscribed or knew one member of their household who was subscribed. Only 2.8% of respondents were aware but had not subscribed to the Sentry system. In all assessed areas, awareness of the Sentry system depended on word-of-mouth interactions (80.7%), although in one community a large percentage of users (55.7%) reported hearing of the system through community awareness training.

**Research Question 2: How do civilians access the Sentry system? What are the barriers to receiving warnings?**

The majority of Sentry system users received warnings via walkie-talkie radio telephones (84.1%), messaging (58.2%) and sirens (55.5%). In communities with fewer sirens, civilians most commonly used walkie-talkies and messaging applications. They reported jamming of signal frequency as a barrier to receiving warnings, followed by power outage or lack of charge for telephones and walkie-talkies.

Respondents who were aware of the system but not subscribed seem to have chosen to remain unsubscribed to reduce the stress and fear caused by warnings rather than because of any financial or physical barrier to subscription. In fact, less than 1% of the assessed population reported they did not subscribe due to their inability to purchase a telephone.
domestically, including in the administration of counter-terrorism, and remain binding in armed conflict.

**Medical ethics.** Adhered to by health care workers worldwide and reflecting social mores and culture, medical ethics are traditionally understood as a set of principles which apply to professional work and set limits on health care professionals’ freedom in decision-making. Inspired by an overarching concern for the best interests of the wounded and sick, medical ethics require health care personnel to use health care resources in the best way possible to benefit patients. While the ethics are the same in war and peace, the dilemmas health care workers can face differ, and their decisions may change even if the general principles underpinning them do not. Constant efforts are therefore required to secure alignment.

**International Humanitarian Law.** This set of rules aims, for humanitarian reasons, to limit the effects of armed conflict. It “protects persons who are not or are no longer participating in the hostilities and restricts the means and methods of warfare.” International Humanitarian Law has focused on the provision of neutral and impartial health care in armed conflicts since the first Geneva Convention (of 1864) for the Amelioration of the Condition of the Wounded in Armies in the Field. It affords specific protection from attack and harm to the people exclusively assigned to the performance of medical duties, with these duties carried out in accordance with medical ethics.

**Humanitarian principles.** These include:

- **humanity** – human suffering must always be addressed (thereby reflecting the purpose of humanitarian action, which is to protect life and health and ensure respect for human beings);
- **neutrality** – humanitarian actors must not take sides or be regarded as doing so in any shape or form or in any place (including in political, racial, religious or ideological controversies);
- **impartiality** – humanitarian action must be carried out purely on the basis of need and must not be influenced by nationality, race, gender, religious belief, class, political opinion or any other personal considerations or feelings;
- **operational independence** – humanitarian action must be autonomous from the political, economic, military or other agendas of any other actors that affect the areas in which the humanitarian action is carried out.

Humanitarian principles underpin the action of humanitarian nongovernmental organizations (NGOs) and other actors within the health sector, including WHO.

### 5.1.1.2 Limitations on access

Despite these frameworks, some areas remain cut off from aid. This can be because the terms used to constrain access are ill-defined. For example, as of 2023 there is
no internationally agreed definition of “terrorism”. There is some concurrence that possible elements of a definition would include:

- lethal or serious physical violence, including hostage-taking;
- aiming to spread terror; and
- compulsion to do or abstain from doing something.

However, this imprecision leaves health care workers confused as to what is prohibited and what is not when interacting with non-state armed groups and/or with the people in areas that such groups control. If the health careers’ work is seen to support these “terrorists”, the carers can also be criminalized. In the same vein, the raft of new counter-terrorism treaties, legislation, decrees and doctrines that have arisen around the world since the events of 11 September 2001 to prevent terrorist attacks and minimize their impact largely:

- do not explicitly forbid the provision of medical care to individuals considered as terrorists; and
- do not specify that such care is automatically “material support for terrorism”; but
- do not explicitly allow for the provision of medical care to banned groups.

As a result, the normative and legal frameworks underpinning the provision of health care are often unable to provide health care workers with recourse.

5.1.2 Implementation context: north-eastern Nigeria

This section describes the implementation of the practice in north-eastern Nigeria by the end of the documentation period in March 2020.

In north-eastern Nigeria, fighting broke out between the government forces and armed opposition groups over a decade ago. By the end of 2019, an estimated 36,000 people had been killed in this area since the beginning of the conflict in 2009 and some 1.9 million people had been internally displaced.

Of the latter, over 80% were in Borno State, with 1 million people hosted in Maiduguri, the State capital, which is the hub for north-eastern Nigeria’s humanitarian response. The fighting damaged two thirds of Borno State’s original health facilities and, in an area highly endemic for disease, further health threats are posed by unsafe water, inadequate hygiene and the vulnerabilities related to displacement and congested living conditions. The hostilities, threats, impassable roads and/or staff travel restrictions amounted to considerable constraints to accessing health care.

Non-state armed groups in north-eastern Nigeria posed a serious threat to civilians and national security. In 2011, the government introduced the Terrorism Prevention
Act (TPA) and its counter-terrorism regime is currently in place. Implementation of Nigeria’s counter-terrorism framework was supported, for instance, by the UN. In the absence of a globally agreed definition, the country defined “acts of terrorism” within its own context.

5.1.3 Selection/design

This practice:

• focuses on prevention against attacks on health care;
• is carried out by health care providers; and
• affects patients at local levels.

5.1.4 Approach

The practice requires an understanding of:

• the map of the area and population distribution;
• the boundaries of engagement for medical teams;
• who to negotiate with (key influencers and stakeholders);
• what health protection/prevention messages speak to people most in each local setting (i.e. how to persuade people to help, and how to build up an understanding that health is a common good);
• how to adopt a strategic approach to communicating about medical teams’ engagements with the relevant authorities;
• how practices align with the right to health, medical ethics, International Humanitarian Law and the application of humanitarian principles.

The practice further requires health care providers to draw on local knowledge and explore innovative, agile means to secure access arrangements when access channels are severely compromised or even cut. It also requires a readiness to communicate with any party encountered during the provision of health care in order to ensure safe access.

5.1.5 Development of the practice

The documentation of this practice took place between 2019 and early 2020. By the end of the documentation period in March 2020, the good practice was “promising”
with reference to Figure 1 in the methodology section.

5.2 Progress and results

5.2.1 Implementation of the practice

This section describes the implementation of the practice in the Syria Arab Republic by the end of the documentation period in March 2020.

Several measures were put in place in north-eastern Nigeria to take advantage of existing opportunities for contact with target audiences. The vaccinators took advantage of most of these opportunities by leveraging local circumstances, on the basis of their knowledge of the context and what they had learned from other settings.

Opportunities included setting up vaccination and triage points at busy crossroads. This allowed vaccinators and health care workers to encounter random groups of people, often of different ages.

Other measures were more formalized but drew on channels that are not often considered part of classic health services provision – including working with the military in remote locations. Providing security measures, members of the military were also trained to deliver vaccines to communities, thereby leveraging their ability to enter areas that were rarely accessible for civilian health workers.

This measure could have backfired, however, if the community had harboured an ingrained mistrust of military personnel. As such, this measure was implemented only with sound knowledge of the different communities and the military activities in the area.
5.2.2 Practice criteria

Table 4. Practice criteria: negotiating alternative ways to ensure safe access to health care in hard-to-reach areas while operating under security and other constraints

<table>
<thead>
<tr>
<th>CRITERIA</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Relevance</td>
<td>Yes, it increased protection for health facilities, workers, transport and patients in a highly insecure environment that were subject to attacks.</td>
</tr>
<tr>
<td>Effectiveness</td>
<td>Yes, health services were protected by the communities.</td>
</tr>
<tr>
<td>Efficiency</td>
<td>Yes, health facilities were protected by the communities, but there is a caveat because of the possible risks to community members offering this protection. There is a price when things go wrong.</td>
</tr>
<tr>
<td>Ethical soundness</td>
<td>Created a possible risk for communities, with little back-up if things went wrong.</td>
</tr>
<tr>
<td>Transferability</td>
<td>Requires a spontaneous approach that is tailored to each context and constantly adapted. However, the conceptual basis of this practice is transferable to any insecure environment</td>
</tr>
<tr>
<td>Impact</td>
<td>Yes, in some instances.</td>
</tr>
<tr>
<td>Maintenance/sustainability/continuity</td>
<td>High maintenance: community/leadership legitimacy dynamics change, and conflict settings can be both volatile and fast-changing. Interlocutors may need to be constantly renewed and negotiations restarted. This needs to be understood and resourced from the outset, as opposed to abandoning the practice.</td>
</tr>
<tr>
<td>Involvement of partnerships</td>
<td>Yes, with communities (success depends on it).</td>
</tr>
<tr>
<td>Engagement/participation</td>
<td>Yes, by/from communities (success depends on it).</td>
</tr>
</tbody>
</table>

5.2.3 Results as of March 2020

Despite the drawbacks (perceptions, selection adherence, fear of the military), this practice allowed health care to be delivered to areas that had not yet been reached by other programmes:

- There was increased vaccination coverage, especially in hard-to-reach areas.
- Basic health services were available in hard-to-reach areas.
- Surveillance data were received from hard-to-reach areas.
Community awareness was raised of the need for health services.

Factors to consider

- These measures leveraged both formal and informal opportunities to contact communities in hard-to-reach locations.
- This is a non-structured way of working which generates its own high risks.
- There was a risk to incur the displeasure of the authorities.
- There was a risk to compromise humanitarian principles, especially when working with the military. Where are the red lines for this practice?
- The practice is highly context-dependent, so predetermined templates and protocols will be of limited use. Approaches and choices need to keep in step with the shifting landscape and therefore require constant review (which is a drain on resources).
- The practice still results in imperfect operational reach.

5.2.4 Lessons learned

This type of practice would need to be defended, and the trade-off between access to and provision of health care (the right to health, medical ethics) and humanitarian principles (perceived compromise of neutrality, e.g. closeness to the military) should be assessed. The latter (closeness to the military) serves to enable the former (provision of health care), but the red lines shift with the context and therefore need to be constantly revisited and debated.

5.2.5 Applicability elsewhere

Applicable in any setting in which access to health care is reduced by security threats, and where the provision of health care and humanitarian aid is (or is potentially) interacting with counter-terrorism legislation.
6 Measuring the impact of structural barriers to health care - seen as an “attack on health care” under WHO’s definition of the term

The practice documented here shows the steps taken to measure the impact of attacks on health care in the occupied Palestinian territory in order to strengthen advocacy for the prevention of and protection against attacks, thereby protecting and promoting the right to health. This document also sets out the prerequisites and challenges of such a research exercise and points to the lessons learned. This good practice was drafted in collaboration with WHO’s team in the occupied Palestinian territory and other health actors operating in the area.

6.1 Details of the good practice

Focus: Occupied Palestinian territory

Aim: This practice aims to measure the impact of attacks on health care in order to strengthen advocacy for the prevention of and protection against attacks, thereby protecting and promoting the right to health.

Timeline: The documentation of this practice took place between 2019 and early 2020.

6.1.1 Background

WHO defines an “attack on health care” as any act of verbal or physical violence, threat of violence or other psychological violence, or obstruction that interferes with the availability, access and provision of curative and/or preventive health services.5

Various agencies, organizations and coalitions14 have launched initiatives with a threefold aim: to raise more awareness of these attacks, to reduce their impact, and ultimately to stop them. Their work is therefore oriented towards both advocacy and operations. Given the politically charged nature of attacks on health care, it is crucial that such efforts are evidence-based, drawing primarily on the following:
6.1.1.1 Monitoring and documenting incidents of attacks

Until recently, global data on attacks on health care were not systematically collected in a single repository or made widely available to relevant stakeholders. This prompted the Sixty-fifth World Health Assembly in 2012 to adopt Resolution WHA65.20 on “WHO’s response, and role as the health cluster lead, in meeting the growing demands of health in humanitarian emergencies”. WHO consequently introduced its Attacks on Health Care initiative,15 and launched its SSA in late 2017, following iterations of different systems built and tested over a five-year period. See section 2.1.1.3 for a detailed outline of the SSA tool.

6.1.1.2 Conducting contextual and structural analysis

Through data interpretation and use, contextual and structural analysis provide a richer view of barriers and vulnerabilities than incident monitoring alone. The structural analysis can also focus on specific aspects of WHO’s definition of “attacks” (e.g. “obstruction that interferes with the availability, access to and provision of health services”) by examining administrative and/or non-physical incidents or application of rules, as well as analysing the broader impact of violence on determinants of health.

6.1.1.3 Measuring the impact of attacks

For operational and advocacy measures to be effective in preventing and protecting against attacks, it is crucial to measure both impact of attacks on health care and their wider impact on the population’s health. However, this can prove challenging. Baseline data are often missing and efficient/effective research methodologies are generally not available. Calls are also being heard for a robust body of evidence on the impact that counter-terrorism measures can have on the provision of health care. Under WHO’s definition of the term, this impact could also be considered an attack.

6.1.2 Implementation context: the occupied Palestinian territory

This section describes the implementation of the practice in the occupied Palestinian territory by the end of the documentation period in March 2020.

Movement in and out of the West Bank, including east Jerusalem and the Gaza Strip since 1967, has been restricted. Moreover, the Gaza Strip has been placed under a heavy land, sea and air blockade since 2007,84 whereby the entry and exit of people,85 goods and services are very limited. Some 80% of Gaza’s population depended on humanitarian assistance for survival.86
As specialist health services had always been developed in major urban centres, particularly east Jerusalem, patients continued to depend on access to treatment and diagnostic services via referral out of the Gaza Strip. Referrals to the West Bank, including east Jerusalem, as well as to Israel or to Jordan via the West Bank, required Israeli permits to exit the Gaza Strip. In 2018, 39% of patient permit applications were either denied or delayed.

6.1.3 Selection/design

This practice:

- focuses on prevention against attacks by administrative barriers and denial of access;
- is implemented by health care providers (WHO country teams and the Ministry of Health);
- aims to assist patients living in the Gaza Strip and needing referral to Jerusalem for cancer treatment, as well as health care and humanitarian aid workers seeking to raise awareness of the issue among Member States and the international community (and ultimately to change the policies and practices of duty-bearers in the occupied Palestinian territory); and
- seeks to bring about change among persons responsible for provision of health care at national and global levels.

6.1.4 Approach

The practice requires the researchers to do the following:

- Ensure awareness of what data are already available for research in order to decide whether more data need to be collected (which can be a considerable task) or whether existing data sources are sufficient.
- Narrow the research focus via different iterations by asking:

  1. What is the impact to be measured? (In this example of the occupied Palestinian territory, the focus was mortality in cancer patients caught in a system requiring permits – i.e. a bureaucratic system that is outside the health system but affects health – that denies their referral to a higher level of care).

  2. What is the rationale behind the selection of this particular group? (In this example, cancer patients in the Gaza Strip had a particularly high need for referral out of the Gaza Strip, given the lack of radiotherapy and nuclear medicine facilities and chronic shortages in essential medicines that disproportionately affect cancer chemotherapy.)
According to the Palestinian Coordination and Liaison Office (the body that issues permits for exiting the area), \(8927\) (20%) of the \(44812\) patients applying for permits between 2008 and 2017 had a diagnosis of cancer. Permit applications for this group of patients accounted for \(56479\) (37%) of all \(153037\) patient permit applications during the period. Clinically, there was a high likelihood that barriers to accessing essential chemotherapy medicines and radiotherapy would have an impact on cancer patients’ mortality. For this reason, cancer patients were the focus of this research.

3. What is the indicator? (This example focused on the rates of mortality among cancer patients referred for a higher level of care via the permit system. For the rationale of the study, it was important to theorize on the basis of existing evidence that delays to accessing chemotherapy and/or radiotherapy could have a significant impact on mortality. The inclusion of patients referred for palliative rather than curative reasons, or for improving morbidity rather than mortality, would have distorted the true effect size of delays resulting from delayed processing of permits).

4. Does the research team have everything it needs to do the measurement? (In this example, the research team had the dates of permit applications and so could compare the survival of those who applied and were then delayed and denied with the survival of those who applied and who were subsequently approved. The team had to understand the potential implications of data that were not available and to understand where additional data might need to be collected, or further work carried out to build on the findings of the initial study).

- Aim for high-quality, robust research at the level of publication in a peer-reviewed journal.
- Bring together a multidisciplinary team from the fields of public health, statistics/epidemiology and human rights to understand the health impact of the policy in question and to contextualize that policy in discussions with regard to human rights implications.
- Understand that health is not delivered in a vacuum but is part of the sociopolitical context. The extent and resourcing of services, for instance, is determined politically, and the cancer mortality measured in this example is an observable outcome of what such political determinations produce. In consequence, this kind of research calls for both a public health analysis and the language of whichever normative framework is applied to address the broader issues at stake (in this example, human rights).

6.1.5 Development of the practice

This section provides an overview of the events that took place in the occupied
Palestinian territory pertaining to this good practice.

Conceptualization of the practice took place in early 2018. Data were processed in mid-2018 and results were available within a year. An abstract was submitted to The Lancet for a conference presentation in late 2018 and the full paper was submitted to journals at the end of July 2019.

The documentation of this good practice ended in March 2020, when the good practice was “leading” with reference to Figure 1 in the methodology section.93

6.2 Progress and results

6.2.1 Implementation of the practice

This section describes the implementation of the practice in the occupied Palestinian territory by the end of the documentation period in March 2020.

WHO’s team for the occupied Palestinian territory identified the need for the work and convened a research group that included senior support from WHO’s Regional Office for the Eastern Mediterranean, a professor of statistics and epidemiology and a human rights expert with experience of working in the occupied Palestinian territory. Once the data set had been compiled and cleaned, matching the data on permits and referrals with mortality data from the death registry, the research group convened a workshop for in-depth planning of the study methodology, the analytical approach and plans for writing-up and presentation of initial findings.

The research team drew on existing data collected from the Ministry of Health referrals unit. These data were then matched with permit applications received and archived by the Coordination and Liaison Office in the Gaza Strip. Compared to the latter, data from the former gave more information on reasons for referral. Previous phases of WHO’s Right to Health programme had invested in strengthening data on referrals and permits in order to strengthen evidence-based advocacy.

The research team then secured deaths data from the Gaza death registry which specifies the reason for death. Matches were made with encrypted patient numbers, with issues of confidentiality addressed. In total, the study matched 17,072 permit applications for 3,816 patients referred for chemotherapy and/or radiotherapy from 1 January 2008 to 31 December 2017 with referrals data for the same period and mortality data from 1 January 2008 to 30 June 2018.

WHO’s team for the occupied Palestinian territory then carried out separate survival analyses by period of first application (2008–2014, 2015–2017) in light of the limited
alternatives to access during these times. Primary analysis compared the survival of patients according to their first referral decision (approved versus denied/delayed) using the Kaplan-Meier method and Cox regression.

The final analytical approach to the data was decided by the research team after considerable debate and discussion about different options. The research study was completed by mid-2019.
### 6.2.2 Practice criteria

Table 5. Practice criteria: Measuring the impact of structural barriers to health care - seen as an “attack on health care” under WHO’s definition of the term

<table>
<thead>
<tr>
<th>CRITERIA</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Relevance</td>
<td>Highly relevant given the necessity to: 1) measure the impact of attacks on health care; and 2) measure the detrimental impact of counter-terrorism measures on the provision of health care, and the dearth of such studies as of 2023.</td>
</tr>
<tr>
<td>Effectiveness</td>
<td>Yes, for the research, except for the stated research limitations. Effectiveness on advocacy was difficult (arguably impossible) to measure and will be long-term endeavor.</td>
</tr>
<tr>
<td>Efficiency</td>
<td>Relatively resource-intense because of the research terrain. However, the cost of collecting the data was marginal because the data already existed.</td>
</tr>
<tr>
<td>Ethical soundness</td>
<td>Yes, approval was obtained from the Helsinki committee in Gaza.</td>
</tr>
<tr>
<td>Transferability</td>
<td>This study was conducted in a closed setting that is heavily bureaucratized, making this form of attack amenable to measurement. Such amenability will not exist for more random types of violence/attacks. The success of impact research in open settings lacking baseline data remains to be seen.</td>
</tr>
<tr>
<td>Impact</td>
<td>Yes, the study was successfully completed and impact demonstrated.</td>
</tr>
<tr>
<td>Maintenance/sustainability/continuity</td>
<td>The occupied Palestinian territory continued to make long-term investments in data systems, so it would continue to have a data set that can be used for analysis. This created potential for repetition and revisiting.</td>
</tr>
<tr>
<td>Involvement of partnerships</td>
<td>Yes, including the University of Eastern Piedmont, Novara, Italy, individual academics and human rights specialists and WHO’s Regional Office for the Eastern Mediterranean.</td>
</tr>
<tr>
<td>Engagement/participation</td>
<td>WHO’s team for the occupied Palestinian territory was closely engaged in this research, as well as in advocacy on attacks on health care in general. Support from WHO’s senior management in the team was vital to success.</td>
</tr>
</tbody>
</table>

### 6.2.3 Results as of March 2020

The research study was completed by mid-2019. It shows that mortality in patients who were unsuccessful in permit applications during 2015–2017 was significantly
higher than mortality among successful patients, with a hazard ratio of 1·45 (95% CI: 1·19-1·78, p<0.001), after adjusting for age, sex, type of procedure and type of cancer. There was no significant difference in mortality risk between the two groups in the period 2008–2014.

Barriers to patient access through denied/delayed permit applications had a significant impact on mortality in cancer patients applying for chemotherapy and/or radiotherapy in the period 2015–2017. The relative ease of alternative access to Egypt during 2008–2014 may have mitigated the health effects of movement restrictions due to permit denials/delays.

By the end of the documentation period in March 2020, the data had already been used to inform advocacy efforts, including the occupied Palestinian territory’s 2018 annual Right to health report and advocacy work planned for late 2020/2021 on cancer care.

Factors to consider

- This study’s success reflects WHO’s choice to invest in information systems in the occupied Palestinian territory over the past years. This has resulted in comprehensive systems for data collection and few internal inconsistencies when examining data quality.
- The study also reflects the heavily bureaucratized nature of life and movement in the occupied Palestinian territory where it was possible to follow patients for the time required in order to show the effect on survival of limited access to chemotherapy and radiotherapy.
- Moreover, the presence of a population registry in the Gaza Strip, and restrictions on movement, reduced potential loss to follow-up.
- Lastly, the study worked because advocacy is high on the agenda of the WHO team in the occupied Palestinian territory and senior management recognize the importance of this work through resourcing and support.
- Nonetheless, some forms of attack – especially in uncontrolled environments – are less amenable to measurement than structural barriers in a highly controlled, bureaucratic environment that leaves paper-trails.

Research limitations

- Mortality is a narrow outcome measure. The lack of availability of essential medicines and the lengthy and unpredictable process of applying for permits to access health care also have implications for patient morbidity, including pain control and mental health.
- There was a lack of some clinical information for risk adjustment, although higher approval for higher-risk patients meant this would tend to dilute any significant difference in mortality.
• Similarly, lack of information on specific cause of death – with assessment instead of all-cause mortality – would be expected to dilute any significant results due to non-differential misclassification.

• There was also a lack of information on whether the treatment reason for referral (chemotherapy and/ or radiotherapy) was in fact delivered. Again, non-provision of treatment to patients exiting the Gaza Strip would dilute the effect size – just as subsequent access to treatment within the Gaza Strip for unsuccessful permit applicants (e.g. through drug provision or the use of the referral system as a means of rationing existing stocks) would lead to crossover of exposed and non-exposed groups.

6.2.4 Lessons learned

• External, expert input – from academics, statisticians, human rights specialists and others – is critical in view of the difficulties in undertaking an impact study. WHO research generates interest, so it should be possible to find such input.

• Existing data need mapping, reviewing and using whenever possible, as this information increases feasibility immeasurably and reduces labour costs so long as what is available can answer the questions being asked.

• Research is an active undertaking, conducted by teams driven to this end. The teams therefore actively seek to identify research potential in their context (research questions do not formulate themselves or automatically emerge via operations) and dedicate time and resources to it.

• The ultimate aim of the research – to reduce and stop attacks – must inform the research and shape the research question.

• The overlap between this sort of study and more classic assessments of the impact of policies on health should be fostered, with expertise harnessed in both domains.

6.2.5 Applicability elsewhere

This good practice is needed wherever health care provision is reduced or denied by attacks, including attacks by structural barriers. This practice should ideally build on data-collection tools, structural analysis and past investment in health and non-health information systems that provide data applicable to the risk factor or that can be looked at from a health perspective. It is recognized, however, that such information is not always available, thus potentially rendering this practice challenging to establish and implement. However, a data set does not have to be perfect; much depends on how the research question is phrased.
7 Building up a body of evidence by strengthening the comprehensiveness, relevance and utilization of WHO’s Surveillance System for Attacks on Health Care data

The practice documented here shows the steps taken to analyse the existing monitoring and reporting of attacks and the ways in which the SSA was used in the Gaza Strip. It also highlights the need for additional data to be collected to complete the body of evidence needed for advocacy to prevent and protect health care against attacks. The practice illustrates the constraints on pursuing this goal in an environment in which attacks are normalized (and are little known due to gaps in past advocacy efforts) as well as the lessons learned during the process. This good practice was drafted in collaboration with WHO’s team in the occupied Palestinian territory and other health actors operating in the Gaza Strip.

7.1 Details of the good practice

Focus: Gaza Strip

Aim: This practice aims to strengthen the relevance, comprehensiveness and utilization of the SSA through critical evaluation, context analysis and the adoption of a specific approach (human rights or other) in order to support effective advocacy for preventing and protecting against attacks on health care and to improve needs assessments for protection and operational efforts.

Timeline: The documentation of this practice took place between 2019 and early 2020.

7.1.1 Background

7.1.1.1 General

Various agencies, organizations and coalitions have launched initiatives which have supported advocacy, protection and operational efforts, helping field teams to prevent and mitigate risk.
7.1.1.2 Surveillance System of Attacks on Health Care (SSA)

See section 2.1.1.3 for a detailed history and outline of the SSA tool.

The SSA is incident-based – i.e. it captures attacks that can be defined as happening at a specific time and place. The methodology used to this end is published online. The SSA does not assess and grade the varying impacts of the many types of attacks covered by WHO’s definition and reported to the system. All reported incidents are therefore published with equal weight – i.e. one incident is not presented as more grave than another (as with all data sets, it is assumed that users will generate this analysis).

7.1.2 Implementation context: Gaza Strip

This section describes the implementation of the practice in the Gaza Strip by the end of the documentation period in March 2020.

According to the United Nations (UN) Office for the Coordination of Humanitarian Affairs (OCHA), some 80% of the population living in the Gaza Strip depended on humanitarian assistance for survival in 2019. Movement in and out of the West Bank, including east Jerusalem and the Gaza Strip, is limited and the latter has been placed under a heavy land, sea and air blockade since 2007. The entry and exit of people, goods and services are restricted.

As specialist health services had always been developed in major urban centres, particularly east Jerusalem, patients continued to depend on access to treatment and diagnostic services via referral out of the Gaza Strip. Referrals to the West Bank, including east Jerusalem, as well as to Israel or to Jordan via the West Bank, required Israeli permits to exit the Gaza Strip. In 2018, 39% of patient permit applications were either denied or delayed.

There have been sporadic escalations of violence in the Gaza Strip, most significantly in 2008–2009, 2012 and 2014, during which patients and health services have been attacked. More than 20 months of mass demonstrations began in March 2018, known as Gaza’s Great March of Return (GGMR). Conflict-related trauma increased at the same time. Of the total number of attacks on health care recorded by WHO in the Gaza Strip from the start of demonstrations to the end of 2019, three health workers were killed and 845 injured (with 5% of the injuries caused by live ammunition).

These data were collected via the SSA. Prior to the system’s introduction in 2018, WHO’s advocacy programme in the occupied Palestinian territory was involved in attempts to build a comprehensive and publicly accessible monitoring system for attacks on health care.
The WHO team started implementing the SSA in January 2018, using the data collected along with other data and analysis on barriers to the right to health for Palestinians, with the aim of strengthening human rights-based advocacy efforts for protecting against and preventing attacks in the territory.

7.1.3 Selection/design

This practice focuses on prevention of and protection against attacks. It is applicable when the SSA is already in use and is being implemented by WHO country teams and their partners. The practice also:

- explores the extent and nature of attacks on health care in a particular location (contextualization), building on data collected in the SSA;
- explores perceptions of the extent to which monitoring of these attacks can contribute to respect for, and protection of, health care, and can reinforce the contributions that health care makes;
- strengthens the comprehensiveness of reporting, and the relevance and utilization of the SSA, through critical examination of data collected, including strengths and weaknesses;
- enhances a human rights-based approach and/or other approaches to preventing attacks on health care by examining root causes, bringing the voices of those affected to the forefront and providing platforms for health care workers to speak;
- builds an understanding of which tools are needed to complement the SSA in an advocacy toolbox and to link SSA data to information on other forms of attacks, with relevant (contextual and structural) analysis in order to strengthen advocacy efforts; and
- promotes the participation and accountability of WHO in implementing the SSA according to World Health Assembly Resolution WHA65.20 and identified objectives (i.e. principally to stop attacks on health care).

7.1.4 Approach

In general, this practice requires an interdisciplinary review of, and reflection on, the vulnerabilities of health care services in a particular location (contextualization) and corresponding protection and mitigation strategies. The practice also calls for discussion on data collection practices and priorities, actual or potential “blind spots”, approaches to implementation, advocacy framing and tools for data collection beyond the SSA.

The practice also requires a determination to:
7.1.4.1 Applying the definition of attacks

As a first step, teams need to understand and contextualize WHO’s definition of the term “attacks on health care”.

WHO defines an attack on health care as “any act of verbal or physical violence, threat of violence or other psychological violence, or obstruction that interferes with the availability, access and provision of curative and/or preventive health services”.

The breadth of this definition means that a wide range of incidents and situations can be considered as attacks on health care. However, WHO chose this scope deliberately in that the definition not only encapsulates the wide range of forms that attacks can take but also facilitates global analysis by incorporating these forms into multiple different contexts. Countering the tendency to focus uniquely on attacks in open conflicts that attract high media attention, the definition can also include:

- the gradual escalation of violence in conflicts or post-conflict situations;
- incidents in non-conflict settings;
- the instrumentalization of health systems during military and/or political stand-offs;
- administrative barriers that obstruct the provision of health services;
- and more.

In summary, the practice is multi-use, multi-setting and, as such, echoes the Geneva Conventions which also set out a wide range of interferences in the provision of health care. Moreover, this approach resonates with WHO’s sweeping global mandate and the broad scope of its work, including WHO’s constitutional commitment to upholding the right to the highest attainable standard of health for all.
7.1.4.2 Examining and understanding data collected via the SSA

Teams next need to analyse the SSA data collected for a given period, examining different variables – such as the number and type of attacks that occurred, the types of health care affected, the magnitude of the immediate impact of these incidents over time – in order to build up a context of attacks on health care by area/location and link this to the protective and operational measures needed and/or taken. The findings should be discussed with health partners to explore whether the numbers reflect the situation in relation to the breadth of WHO’s definition of attacks on health care.

7.1.4.3 Attacks not reported to the SSA

During these discussions it will become apparent that, although the SSA can capture a great many attacks on health care, it cannot capture all. This could lead to an underestimation of the total number of attacks.

It is important to note the following:

- Health workers may report only the attacks that result in physical injury or damage to health transport or facilities. (In this example from the occupied Palestinian territory, health care workers realized that they were affected by more attacks than those reported to their coordinators/team leaders. “I was exposed at least 14 times to attacks (using the WHO definition) without reporting them. Otherwise we wouldn’t have time to work” (focus group participant). The health workers pointed out the impracticality of reporting all incidents, such as gas inhalation which they considered a routine aspect of life.

Moreover:

- The discussions revealed that health care workers relativize their experiences of violence, leading to more under-reporting. (In this example, health care workers compared the incidents to worse situations in 2008, 2012 and 2014 when rockets exploded as they worked).
- Psychological violence is often not reported.
- Symbolic violence may also not be reported.
- Information on structural violence cannot be captured by the SSA. (In this example, structural violence permeated the context. For example, health care workers in Gaza have communication technology with limited capacity because of the economic and import constraints on the Gaza Strip. They lack personal protective equipment (PPE) which could save their lives, and they must stay 300 metres from the fence around Gaza, which leaves health workers caught between their humanitarian work of helping persons injured near the fence during demonstrations and the security constraints).
In the light of the data analysis, the different protective and operational measures taken or needed can then be reviewed.

Whatever the context, this approach will expose two issues that arise with the SSA:

- For reasons of feasibility, data collection has to focus on:
  - the most preoccupying attacks in any context; and
  - attacks that are amenable to being monitored (with the main constraints being lack of access to information and resources). As reporting is therefore partial, the data produced can be considered as “cherry-picking”.
- Capturing low-intensity attacks (e.g. non-physical attacks, barriers to access) in a manner accessible to all stakeholders can be challenging due to the modalities of data collection, political economies, normalization and the sheer practicalities of potentially high-volume reporting.

### 7.1.4.4 Considering other tools for building up evidence of attacks

As the preceding steps show, WHO’s broad definition of attacks calls for contextualization of data collected and defines data collection through one tool alone – i.e. the SSA. Teams therefore need to choose different evidence-building tools, merging their use into a coherent, clearly-framed advocacy strategy. Other tools can include the following:

**a. For structural barriers**

The WHO advocacy programme in the occupied Palestinian territory documents structural barriers to Palestinians’ right to health in its monthly Health access reports on the occupied Palestinian territory. This information is also captured (together with SSA data) in WHO’s annual Right to health reports. Similarly, WHO’s teams in Afghanistan, Libya, the Syrian Arab Republic and elsewhere publish analyses of health services, resource availability, access data and health bulletins.

**b. For impact**

For operational and advocacy measures to be effective in preventing and protecting against attacks, it is crucial to measure the impact of attacks on health care and their wider impact on the population’s health. This can prove to be challenging, especially since baseline data are missing. Nonetheless, WHO is currently defining the scope of its own operational research in this area. Concrete examples already exist and have been documented by WHO, including in this publication. For a more academic approach, several research institutions are engaged in developing methodologies which could complement the approach adopted by WHO and other operational partners.
7.1.5 Development of the practice

This section provides an overview of the events that took place in the occupied Palestinian territory pertaining to this good practice.

Before 2018, WHO’s advocacy programme in the occupied Palestinian territory had been involved in earlier attempts to build a comprehensive and publicly accessible monitoring system for attacks on health care. The SSA was then introduced in January 2018 and data collection began.

A mixed-methods study was conducted between August 2018 and March 2019, the findings of which informed the development of strategies for strengthening the protection of health care from 2019.

By the end of the documentation period in March 2020, the good practice was “leading” with reference to Figure 1 in the methodology section.
7.2 Progress and results

7.2.1 Implementation of the practice

Figure 4. The occupied Palestinian territory – attacks on health care during Gaza’s “Great March of Return”, 2018-2019

This section describes the implementation of the practice in the occupied Palestinian territory by the end of the documentation period in March 2020.

WHO’s advocacy programme team for the occupied Palestinian territory analysed GGMR data captured in the SSA between 30 March 2018 and 30 December 2019. Team members examined the number and type of attacks that occurred, the mechanisms of injury and the distribution of attacks by gender, time and location. They also analysed the correlation of health workers’ injuries and deaths with total injuries and deaths. The team then conducted interviews and held focus groups with affected partners to understand the comprehensiveness of the data, the nature and impact of the violence, and gaps in – and strategies for – protection.
The findings were subsequently shared at several workshops and briefings over the course of 2019. The findings were also included in the WHO’s annual Right to health publication for the occupied Palestinian territory.

Consultation with health workers affected by attacks provided a platform for active engagement with WHO, the Office of the United Nations High Commissioner for Human Rights and human rights partners to discuss how data collected could be used to complement other efforts to strengthen protection.

7.2.2 Practice criteria

Table 6. Practice criteria: building up a body of evidence by strengthening the comprehensiveness, relevance and utilization of WHO’s Surveillance System for Attacks on Health Care data

<table>
<thead>
<tr>
<th>CRITERIA</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Relevance</td>
<td>Yes.</td>
</tr>
<tr>
<td>Effectiveness</td>
<td>Yes.</td>
</tr>
<tr>
<td>Efficiency</td>
<td>Yes, although the choice of which tools to use and how to use them needed to reflect contextual changes and should be expected to be (more or less) efficient, and therefore be adapted over time.</td>
</tr>
<tr>
<td>Ethical soundness</td>
<td>Yes.</td>
</tr>
<tr>
<td>Transferability</td>
<td>Yes, this exercise needs to be carried out in all contexts.</td>
</tr>
<tr>
<td>Impact</td>
<td>Yes, it built up a strong evidence base.</td>
</tr>
<tr>
<td>Maintenance/sustainability/continuity</td>
<td>Yes, if prioritized and resources are made available.</td>
</tr>
<tr>
<td>Involvement of partnerships</td>
<td>Yes, it depends on it.</td>
</tr>
<tr>
<td>Engagement/participation</td>
<td>Yes, it depends on it.</td>
</tr>
</tbody>
</table>

7.2.3 Results as of March 2020

This section details the results of the mixed-methods study and subsequent advocacy. During the study conducted by WHO’s advocacy programme team for the occupied Palestinian territory, the SSA showed 567 confirmed incidents, with three health care workers killed, 845 health care workers injured, and 119 ambulances and vehicles and seven health facilities damaged. Of the injuries, 88% affected men, 5% were
live ammunition injuries, 18% were gas canister injuries and 64% were injuries resulting from gas inhalation. Injuries and deaths among health care workers correlated moderately ($R^2 = 0.54$) with, and accounted for 2.3% of, the total. Qualitative findings highlighted the incidental and structural nature of violence, the normalization and under-reporting of attacks, the need for improved coordination of protection for health care, and gaps in the availability of PPE which, nevertheless, was available to journalists during the GGMR.

This led to the conclusion that health care workers functioned at great personal risk during the GGMR. There was a need for systemic measures for better protection through training, monitoring, coordination mechanisms and other measures within broader protection strategies.

The study participants perceived that the main challenges to data collection through the SSA were normalization, under-reporting and higher levels of exposure to violence than were indicated by the SSA. These perceptions would seem to resonate with the chronic and complex nature of this conflict.

In general, implementing the SSA using a human rights-based approach and creating forums for critical reflection on how to utilize data ultimately served to promote engagement and provide a platform for those affected to discuss potential approaches to strengthening protection against, and prevention of, attacks. Discussions also highlighted operational needs for which resource mobilization efforts should be boosted. The exchanges pinpointed key gaps in WHO’s approach to preventing attacks up to that point – particularly regarding accountability, which is fundamental to a human rights-based approach. Through the exchanges it was re-stressed that advocacy is a longer-term strategic goal and the utility of the SSA must be considered in this light.110

Consequently, although advocacy may not generate immediate change, the very fact of monitoring leads to some form of accountability, which can explain some of the tense political dialogue that the SSA data can generate. Critical reflection on the breadth of definition of attacks also highlighted the suitability of the SSA for capturing certain forms of attack and the need for other forms of analysis or complementary research to understand such phenomena as psychological violence.

The publication of findings and the presentations to partners have proved important to improving the implementation of the SSA and the relevance of data collected in practice (Figure 4). The findings also provided the basis for development of a multidisciplinary strategy for strengthening protection.

**Factors to consider**

- The practice used existing efforts to collect data via the SSA in order to consider which attacks – according to the WHO definition – were being captured by this system and which were not, and why. This led to a consideration of the need for a more holistic approach to building up
advocacy efforts (as opposed to collecting data only on incidents) by drawing on contextual analysis and documentation on structural barriers and by using an approach that suited the issues (human rights-based and other).

- WHO’s advocacy team in the occupied Palestinian territory was sufficiently resourced and supported by senior management to conduct these reflections, accompanying its partners in clarifying the nature of attacks and barriers to health care, subsequently strengthening data collection and reporting tools, and using the evidence generated for advocacy. WHO also has the capacity and readiness to defend the data used.

- Nonetheless, as an incident-based monitoring tool, the SSA does not allow for capturing the context in which attacks occur or the “symbolic” or “structural” attacks that take place over time.

### 7.2.4 Lessons learned

While the SSA tool has given a good boost to the WHO’s overall advocacy efforts (since incident numbers have an impact), experience in the occupied Palestinian territory confirms that data collected through the SSA must be complemented by contextual analysis and an overview of structural barriers, and should be included in a carefully framed advocacy strategy (in this case, a human rights-based approach). When evidence on attacks is successfully accumulated, it is incumbent on WHO’s country, regional and headquarters teams to anticipate potential reactions to the published data and, when possible, to work with stakeholders and authorities prior to release in order to avoid or reduce tensions.

Such efforts upstream are also needed to persuade the authorities (if relevant) of the benefits of showing a health system under strain. These data can draw more support and ultimately render provision of health care more robust.

### 7.2.5 Applicability elsewhere

Given that all countries and territories have their specificities, this is a necessary exercise to conduct in any context where attacks on health care are taking place.

Moreover, countries and territories reporting only the kind of attacks that attract high media attention are encouraged to examine the full scope of WHO’s definition of “attacks” in order not to overlook unintentionally other types of attacks – including those that are non-physical and/or that are impediments to accessing health care.
8 Analysing SSA numbers over three years for advocacy purposes

The practice documented here shows the steps taken to generate consolidated data and trend analysis on attacks on health care at the global level in order to provide an evidence base for advocacy. The constraints on this exercise, its need for development at country level and the lessons learned during the process are also shared. This good practice was drafted in collaboration with WHO’s headquarters team in Geneva.

8.1 Details of the good practice

Focus: WHO headquarters in Geneva

Aim: This practice aims to generate consolidated data and trend analysis on attacks on health care to provide the evidence base from which to implement advocacy to stop attacks on health care.

Timeline: The process of documenting this practice took place from December 2021 to May 2022.

8.1.1 Background

8.1.1.1 General: WHO’s Attacks on Health Care initiative

Following a series of resolutions reinforcing WHO’s strong position against violence in health care settings, WHO launched its the AHC initiative in January 2017.

The AHC initiative operates on the premise that essential life-saving health services must be provided to emergency-affected populations unhindered by any form of violence or obstruction. The initiative aims to formalize and strengthen efforts to minimize any such disruptions while intensifying WHO’s collaboration with Member States and partners that have been key in raising the importance of this issue.111

To achieve these aims the AHC initiative adopts a three-pronged approach:

1. Develop a body of evidence to better understand the extent and nature of
the problem and its consequences on health care delivery (impact).

2. Increase commitment to action through strong advocacy to bring an end to attacks on health care, ensuring the right of all to health, the sanctity of health care in all circumstances, the delivery of health care unhindered by violence, and the application of International Humanitarian Law.

3. Develop and promote the implementation of good practices for the prevention of attacks and the mitigation of their consequences to health-service delivery, particularly through the actions of WHO’s country offices, Member States and other health actors in countries facing emergencies.

These actions also provide leverage for WHO to engage with this topic in a sustained manner with Member States and the health and humanitarian sectors, stimulating dialogue and action while raising awareness via publications, workshops and other events.112

8.1.1.2 Implementation context: using the SSA

See section 2.1.1.3 for a detailed history and outline of the SSA tool.

WHO works closely with partners to secure a wide range of contributors, while the countries selected for SSA implementation are in line with the WHO Health Emergencies Programme’s priority countries (Figure 6).113

WHO publishes the SSA data on a publicly accessible dashboard.\textsuperscript{114} This generation of data alone, however, serves a limited purpose. To be useful for advocacy goals, the data need to be analysed at all levels (global, regional and local).

Prior to the SSA’s development and during its first year online, analyses were conducted on a quarterly and yearly basis. Once the SSA was robustly installed, it was decided to conduct an SSA data analysis over a three-year period in order to provide a more comparative analysis over a longer period rather than over short periods which could skew the focus towards one-off events.

As of May 2022 when the documentation of this practice ended, SSA data analyses has been conducted primarily at the global level by the Attacks on Health Care (AHC) team in Geneva.

8.1.2 Selection/design

This practice focuses on the process of analysing data at global level for advocacy purposes and to spur efforts to conduct similar analyses at regional and local levels.

Conducted by WHO’s AHC team in Geneva, the practice aims to demonstrate to WHO regional and country offices, partners and universities/other bodies with research agendas that SSA data can be used for analysis in order to collect better information on attacks and subsequently conduct advocacy to safeguard health care workers, health care facilities and transport, and patients.

It also aims to underscore at what level the analysis must take place – e.g. at country level when conducted for operational purposes.

8.1.3 Approach

The part of this practice focusing on data analysis requires:

- time and patience, and an appetite for handling data;
- a solid understanding of the specificities of working with SSA data – i.e. what it shows and what it does not show;\textsuperscript{115}
- a basic understanding of data analysis (e.g. the effect of outliers);\textsuperscript{116}
- skills with MS Excel or other software to clean the data.

The part of this practice focusing on publishing a data story requires:

- a readiness to be creative and to attempt different approaches to analysing the data before deciding which works best to highlight a particular issue in
this particular analysis, using this particular data;

- a person with certain expertise/experience in handling data to review progress, decisions and results;
- an interest in how to communicate the data – i.e. which format to use for numbers (absolute, percentages etc.), what makes most sense for the reader, and which numbers have most impact;
- a budget for presentation (design company) if the analysis is to be published as a story.

### 8.1.4 Development of the practice

Work began in February 2021 and took five months to complete (analysis through to drafting the report). The story was published online in August 2021 and included a discussion of the results generated.

As of May 2022, efforts were continuing to accompany countries in the replication of the data story with a heightened focus on operational usefulness as well as advocacy.

With reference to Figure 1 in the methodology section, in December 2021 this practice was "promising".

### 8.2 Progress and results

#### 8.2.1 Implementation of the practice

This section describes the implementation of the practice by the end of the documentation period in May 2022.

Two people with different profiles were readied to conduct this practice:

1. The first had basic knowledge of data analysis and conducted the analysis.
2. The second had expert knowledge of research and data analysis and reviewed the first person’s analysis. In this instance, the second person was a research specialist in the AHC team and was available for involvement in this practice wherever the first person might be located – WHO headquarters, a WHO regional or country office, or elsewhere.
As a first step, a list was drawn up of the points of interest to be explored for a public analysis. Overall, the list followed the structure of the SSA (impact on health resources, number of injuries and deaths etc.), with data points added with an orientation on their use for communication (the visibility and impact of messages).

Given the sample sizes, a statistical analysis was not pursued.

The public information on all incidents of attacks was downloaded in Excel via the SSA dashboard and the data were cleaned so that the structure matched the analysis sought. This proved a time-consuming exercise that should be significantly facilitated by using the Excel template that has since been developed for country use. For this practice, the data set was modified as the analysis evolved. While data experts can visualize what data produce without plotting them visually, a less experienced analyst will want to experiment with different plotting methods.

At this juncture, the data “constraints” were addressed, as follows:

- The data were broken down over a specific timeline in order to underscore how context-specific the data are without going into an analysis of which events and dynamics caused the individual attacks (as this latter would require country-by-country contextual analysis, and analysis at country level).
- The outlying data had considerable influence on the global data (e.g. the occupied Palestinian territory reported intensively whereas Iraq’s reporting numbers were low). This influence needed to be measured via analysis conducted both with and without the outliers in order to examine the difference, with the conclusions serving to shape both the analysis and the explanations of what the data produced (e.g. emphasis on the fact that the global results were driven by a small number of countries – namely the occupied Palestinian territory and the Democratic Republic of the Congo).
- The outlying data were of interest in themselves and were duly analysed, with their fluctuations over time pinned to a broad analysis of changing contexts (for more detail, country-level analysis would be required).

Once the results were collected, their presentation became key as this “data story” is a communications product. WHO’s communications team was consulted for its inputs on drawing out messages with maximum visibility. Graphs and plots were then shared with a design company, again focusing on maximum visual impact – e.g. use of a graph with dots for incidents of attacks as opposed to a bar chart, in order to show amplitude more clearly. The design process took one month and was accelerated by the pre-completion of an analysis which helped the designers to sharpen the visual effects (e.g. colour codes, themes).

WHO’s communications team then developed a dissemination plan in collaboration with the AHC initiative team in Geneva. Visuals were developed for social media and key headquarters staff were briefed on the analysis – and on the numbers on the SSA dashboard in the event of questions (N.B. reporting to the SSA continued after the data analysis had stopped, so the dashboard showed higher incident numbers).
Dissemination was started in August 2021 via the WHO website, the AHC initiative’s monthly updates, associated networks (the community of concern of the Health Care in Danger project of the International Committee of the Red Cross (ICRC), a briefing to the media at the United Nations headquarters in Geneva, a social media campaign, presentations during WHO and health cluster workshops) and inclusion in reports to donors (with findings selected for relevancy).

8.2.2 Practice criteria

Table 7. Practice criteria: analysing SSA numbers over three years for advocacy purposes

<table>
<thead>
<tr>
<th>CRITERIA</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Relevance</td>
<td>Yes</td>
</tr>
<tr>
<td>Effectiveness</td>
<td>Somewhat (done at global level but not reproduced at other levels)</td>
</tr>
<tr>
<td>Efficiency</td>
<td>Challenging due to issues with Excel which should be fixed via the toolbox. Can also be time-consuming if there is a lack of experience with data analysis</td>
</tr>
<tr>
<td>Ethical soundness</td>
<td>Yes</td>
</tr>
<tr>
<td>Transferability</td>
<td>Yes (if the capacity is there)</td>
</tr>
<tr>
<td>Impact</td>
<td>Partial</td>
</tr>
<tr>
<td>Maintenance/sustainability/continuity</td>
<td>Resource-dependent</td>
</tr>
<tr>
<td>Involvement of partnerships</td>
<td>N/A</td>
</tr>
<tr>
<td>Engagement/participation</td>
<td>N/A</td>
</tr>
</tbody>
</table>

8.2.3 Results as of May 2022

The analysis was completed in June 2021, presenting a global overview of attacks on health care, the resources that they affected and their immediate impact on health workers and patients between 2018 and 2020. It was disseminated publicly in August 2021 and discussed in internal and external meetings, public events and WHO workshops on attacks on health care (Figure 7).

In summary, the results demonstrate that attacks on health care are highly context-dependent (Figure 7). The occurrence, nature and dynamics of attacks are closely related to changes in the operational context of the local health response. Such changes may include the emergence of new crises, intensification of conflicts,
ceasefires or the deterioration of community acceptance. In addition, changes in the operational contexts of individual fragile, conflict-affected and vulnerable (FCV) countries or territories where attacks are more prevalent play an important role in driving global patterns of attacks on health care. For this reason, it should be noted that the results of this analysis are not representative of country-level trends and only provide a global overview of all verified incidents reported through the SSA. However, this analysis can be replicated at country-level using the SSA dashboard’s data export function.

The key findings include:

- Health personnel are the most frequently affected health resource.
- Attacks on health care were associated with a higher proportion of deaths in 2020.
- Changing contexts are an important driver for differences in annual data.
- Reports of attacks on health care involving psychological violence, threats of violence or intimidations decreased in 2020.


**Factors to consider**

- this global-level analysis triggered the process of conducting analyses with SSA data; and
presented a starting point for WHO regional and country offices to conduct similar analyses at country level for both advocacy and operational purposes – a process which tends to be overlooked by SSA users (as revealed in workshops conducted by the AHC initiative in 2021 in WHO’s African and Eastern Mediterranean regions)

with regard to country-level advocacy, another documented good practice in the occupied Palestinian territory illustrates the uses of such analyses: see Building up a body of evidence on attacks on health care through strengthening the comprehensiveness, relevance and utilization of SSA data;

SSA analysis for operational use would contribute to the design of operationally-relevant prevention, protection and mitigation strategies, as well as better support programmes for affected health workers and patients (It should be noted that this kind of analysis cannot be undertaken at global level because it is too context-specific. Moreover, WHO country offices have access to more data than that published on the SSA dashboard); and

triggered dialogue and debate on attacks, ultimately raising levels of awareness internally and externally; and

fuelled other publications on this issue, again raising more awareness on attacks on health care

8.2.4 Lessons learned

Awareness of all constraints ("caveats") for each data point is required from the outset – including the systemic issues leading to variations in SSA reporting (individual or environmentally-driven reporting bias, tool uptake, trust issues etc.). This insight is available in WHO’s headquarters but its ongoing availability and sustainability will depend on continuation of resourcing at headquarters level.

WHO must learn to work with the SSA’s complexities, generating a common understanding across the three levels of the organization on the implications of the SSA for WHO and how the politicized dialogue and expectations generated by the SSA can be managed.

The decreasing SSA trends in 2019–2020 probably have multiple causes but are largely driven by contextual changes that are not amenable to intervention. While conducting analyses of global trends in attacks on health care may seem an important step for galvanizing the international community, the SSA data are nonetheless highly contextual.

It is possible to reduce the resourcing constraints (i.e. the need for someone to conduct the analysis) by using an Excel template that replicates the analysis across contexts. As of December 2022, the AHC initiative was in the process of developing a tool to this effect for country use.
8.2.5 Applicability elsewhere

This analysis needs to be conducted at country level in all countries reporting to the SSA, where it could be used both operationally and for advocacy. It could also be conducted at regional level for advocacy purposes.
Endnotes

1 Afghanistan, Burkina Faso, Central African Republic, Democratic Republic of the Congo, Libya, Mali, Myanmar, Nigeria, Somalia, Sudan, South Sudan, Syrian Arab Republic, Ukraine, Yemen, occupied Palestinian territories.


3 For instance, Forty-sixth World Health Assembly, Resolution WHA46.39 on “Health and medical services in times of armed conflict” (1993); Fifty-fifth World Health Assembly, Resolution WHA55.13 on “Protection of medical missions during armed conflict” (2002); Sixty-fourth World Health Assembly, Resolution WHA64.10 on “Strengthening national health emergency and disaster management capacities and the resilience of health systems” (2011); and Sixty-fifth World Health Assembly, Resolution WHA65.20 on “WHO’s response, and role as the health cluster lead, in meeting the growing demands of health in humanitarian emergencies” (2012).

4 Co-sponsored by more than 80 Member States, UN Security Council Resolution 2286 strongly condemns attacks and threats against the wounded and sick, health care and humanitarian personnel exclusively engaged in medical duties, their means of transport and equipment, as well as hospitals and other medical facilities. The resolution deplores the long-term consequences of such attacks for the civilian populations and health care systems of the countries concerned and demands that all parties to armed conflict comply fully with their obligations under international law, including international human rights law, as applicable, and international humanitarian law, in particular, their obligations under the Geneva Conventions of 1949 (Convention [I] for the Amelioration of the Condition of the Wounded and Sick in Armed Forces in the Field. Geneva, 12 August 1949; Convention [II] for the Amelioration of the Condition of Wounded, Sick and Shipwrecked Members of Armed Forces at Sea. Geneva, 12 August 1949; Convention [III) relative to the Treatment of Prisoners of War. Geneva, 12 August 1949; Convention [IV) relative to the Protection of Civilians in Time of War. Geneva, 12 August 1949), the two Additional Protocols of 1949 and 1977 (Protocol Additional to the Geneva Conventions of 12 August 1949, and relating to the Protection of Victims of International Armed Conflicts (Protocol I), 8 June 1977; Protocol Additional to the Geneva Conventions of 12 August 1949, and relating to the Protection of Victims of Non-International Armed Conflicts (Protocol II), 8 June 1977) and a third Protocol in 2005 (relating to the Adoption of an Additional Distinctive Emblem (Protocol III), 8 December 2005). It also demands that all parties to armed conflict facilitate safe and unimpeded passage for health care and humanitarian personnel.

5 WHO’s Surveillance System for Attacks on Health Care – Methodology V1.0 (https://www.who.int/publications/i/item/surveillance-system-for-attacks-on-health-care-(-ssa), accessed 20 January 2023).


The categories selected by WHO reflect the fact that WHO does not seek to identify perpetrators, nor to identify the type of weapon used. WHO’s Surveillance System for Attacks on Health Care – Methodology V1.0 (https://www.who.int/publications/i/item/surveillance-system-for-attacks-on-health-care-(ssq), accessed 20 January 2023) (ii) Other health-care actors, coalitions and researchers suggest different classifications.

This definition was agreed in a preliminary WHO workshop held in Geneva on 1-3 April 2019 which brought together WHO Health Emergency leads, Health Cluster coordinators, and information managers from the African and Eastern Mediterranean regions and partners to brainstorm on the scope for identifying and documenting good practices on protection of health care from attacks, and to plan for the next steps in this area of work at country level. The definition is based on the definition given by Ng E and de Colombani P in Framework for selecting best practices in public health: a systematic literature review


In similar evidence-gathering exercises, WHO has considered that good or best

14 Global initiatives include: the International Committee of the Red Cross (ICRC) Health Care in Danger project (launched in 2011); the MSF Medical Care Under Fire project (2013–2016); work by Physicians for Human Rights (founded in 1986) which has thrown a spotlight on attacks on health care in the Syrian Arab Republic and other places; and Safeguarding Health in Conflict (founded in 2012) which also highlights attacks on health care in the Syrian Arab Republic and other places.

15 An overview of the Attacks on Health Care initiative is available on WHO’s website. See: https://www.who.int/activities/stopping-attacks-on-health-care/ (accessed 16 September 2020).

16 This includes countries that have already required or are likely to require programming with WHO’s Health Emergencies Programme (WHE), and that may be experiencing a complex emergency or be considered as a “fragile state”. See the WHE overview on WHO’s website at: https://www.who.int/our-work/health-emergencies (accessed 8 July 2022).

17 In 2019, the SSA’s publicly accessible dashboard showed a total of 1032 incidents reported to the system between 1 January 2019 and 31 December 2019 by Afghanistan, Burkina Faso, Democratic Republic of the Congo, Libya, Mali, Nigeria, the occupied Palestinian territories, Sudan, Syrian Arab Republic and Yemen. These attacks resulted in 201 deaths of health workers and patients, and injuries to a further 634. See: https://extranet.who.int/ssa/Index.aspx (accessed 16 September 2020).


19 The right to health places an obligation on States Parties to guarantee the normative content of this right – as commented on in General Comment No. 14 (2000) of the UN Committee on Economic, Social and Cultural Rights on the normative content of Article 12 of the International Covenant on Economic,
Social and Cultural Rights of 1966. See: https://docstore.ohchr.org/SelfServices/FilesHandler.ashx?enc=4sIq6QSmiBEDzFEovLCuW1AVC1NkPsgUedPIF1vFPM-J2c7ey6PAz2qaqTzDjmC0y%2B91%2BsAtGDNzdEqA66uP2r0w%2F6vVBGTpvTSC-biOr4XVFtqQY65uTFbQRPWNDxL – in particular section I (accessed 6 July 2022). States Parties should thereby eliminate any discrimination that obstructs the provision of health care, safeguarding access and ensuring accountability. These obligations apply domestically, including in the administration of counter-terrorism measures, and remain binding in armed conflict. The right to health is enshrined in both WHO’s Constitution of 1948 and the International Covenant on Economic, Social and Cultural Rights of 1966, as well as in other international and regional instruments. See: https://apps.who.int/gb/bd/pdf_files/BD_49th-en.pdf and https://www.ohchr.org/en/professionalinterest/pages/cescr.aspx (both accessed 7 July 2022).


21 As revealed in an evaluation of the SSA conducted in December 2019, these latter are known to reduce the uptake of the SSA.

22 An evaluation of the SSA conducted in December 2019 confirmed that, while SSA data-entry tasks are not always time-consuming (especially if boosted by refresher training), resource shortfalls and alternative priorities can limit the system’s use.

23 South Sudan’s health teams initiated the monitoring and documentation of attacks on health care and started populating the SSA later in 2020.

24 The SSA’s methodology ensures complete confidentiality of partners’ identities and the geographical location of attacks. In South Sudan, reporting the latter means exposing the former so this confidentiality is required. See: https://www.who.int/publications/i/item/surveillance-system-for-attacks-on-health-care-(ssa) (accessed 16 September 2020).

25 This observation emerged in the evaluation of the SSA conducted in December 2019.


“Social mobilization” is defined by WHO as “the process of mobilizing all societal and personal influences with the aim of prompting individual and family action”. In this approach, individual and institutional allies are brought together to achieve a common objective (e.g. vaccination) or in outbreaks. In the latter case, individuals, households, communities, society and organizations should all consider, promote and maintain a range of control and preventive activities such as: early recognition of signs and symptoms; rapid search for treatment; compliance with the treatment protocol and prevention actions; and continuous surveillance of other members of the household until the outbreak is over. See: https://apps.who.int/iris/handle/10665/207577 (accessed 8 July 2022).

“Health promotion” is defined by WHO as enabling people to increase control over their own health. It covers a wide range of social and environmental interven-
tions that are designed to benefit and protect individual people’s health and quality of life by addressing and preventing the root causes of ill-health, not just focusing on treatment and cure. See: https://www.who.int/features/gg/health-promotion/en/, accessed 15 September 2020).


39 Examples are available from Red Cross societies in various settings. In: Community engagement and accountability: good practices from around the world. Geneva: International Committee of the Red Cross and International Federation of Red Cross and Red Crescent Societies; 2017.


41 Nourishing engagement calls for specific competences, attitudes and behaviours that are often missing (see Endnote 6 above), with the problem exacerbated by short-term assignments/turnover, competing priorities and institutional specialization and proceduralization. This latter is seen to override the out-of-the-box thinking and patience that effective engagement requires. WHO observes that “Huge amounts of money have been spent on communication campaigns to prevent and control diseases. The impact of many of these communication programmes, however, has not been clearly demonstrated, usually because of the divide between the people who design outbreak control interventions (e.g. epidemiologists, veterinarians and public health specialists) and those ‘communicating’ and ‘mobilizing’ communities.” Communication for behavioural impact (COMBI): a toolkit for behavioural and social communication in outbreak response (Endnote 23).


44 Baggio O, Camara CA, Prue C. Bringing community perspectives to decision-making


53 Accountability to affected people (AAP) is defined by OCHA as “a guiding principle and commitment that underpins all humanitarian or development work to use power responsibly by taking account of, giving account to, and being held to account by the people aid workers seek to assist. It is an ideal which can be
reached through the implementation of activities aimed at ensuring that communities are part of the decision-making process and that a transparent and open communication line is maintained between aid workers and affected communities. AAP is a core element of protection mainstreaming, is complementary to protection and is rooted in a rights-based approach where humanitarian agencies and donors are the duty-bearers. AAP supports the achievement of protection outcomes as it promotes inclusive, equitable and meaningful access to decision-making, programming and services”. See page 4 of Humanitarian Country Team Community Engagement Strategy and Action Plan for North-East Nigeria: Improving the effectiveness and accountability of the humanitarian response in Borno, Adamawa and Yobe States by repositioning conflict-affected women, children and men at the centre of decision-making, June 2018–June, 2020 (https://www.humanitarianresponse.info/sites/www.humanitarianresponse.info/files/documents/files/hct_community_engagement_strategy_for_northeast_nigeria.pdf, accessed 15 September 2020).

54 Conducted by Peer 2 Peer Support. For information, see: http://www.deliervaidbetter.org/missions/nigeria-peer-support-mission/ (accessed 15 September 2020).


56 As part of its Safe Hospitals Initiative, the expected outcomes for WHO’s comprehensive Safe Hospital Framework included safer, more resilient and better-prepared health facilities that are constructed more safely and are protected from violence so that they remain functional and provide health services during emergencies, disasters and other crises. Facilities can be assessed using: The Hospital Safety Index: guide for evaluators, second edition. Geneva: World Health Organization; 2015 (https://www.who.int/hac/techguidance/hospital_safety_index_evaluators.pdf, accessed 15 September 2020).


According to Mayday Rescue, in an analysis of community EWS in the Syrian Arab Republic (p.37), December 2018, this is largely due to two reasons: (1) most of the areas were reportedly not equipped with sufficient shelters and safe zones; and (2) most locations lacked a standardized evacuation strategy after the warning and civilians mainly seek protection through their own efforts such as digging holes in house walls. Hala Systems’ Impact Summary for Sentry the Syrian Arab Republic, August 2019. Presentation to the WHO-led Health Cluster meeting, Gaziantep, Turkey, September 2019.


Results shared via presentation “Al Rased ‘Sentry’ and Early Warning Systems for Medical Facilities” delivered to the Health Cluster, Gaziantep, Turkey, August 2019.

Donors are listed on the website. See: https://www.halasystems.com, accessed 15 September 2020.


General Comment n. 14 (2000) of the UN Committee on Economic, Social and Cultural Rights on the normative content of Article 12 of the International Covenant on Economic, Social and Cultural Rights of 1966. See: https://docstore.ohchr.org/SeelfServices/FilesHandler.ashx?enc=4siQ6QSmjBEDzFEovLCuW1AVC1NkPsgUed-PFIFvPMJ2c7ey6PAz2qaojTzDJmCDy%2B9f%2B8sAtGDNzdeeaA6uP2r0w%2F6sVBGT-pvTSCbiOr4XVFTqhQY65auTFbQRPWNDxL, in particular section I (accessed 6 July 2022).

This includes the patient’s right to accept or refuse treatment and the right to confidentiality of health-related information unless there is a real and imminent threat of harm to the patient or others, and this threat can be removed only by a breach of confidentiality.


This was further enshrined in the four Geneva Conventions of 1949 (conventions I–IV), the two Additional Protocols of 1949 and 1977, and Protocol III of 2005. (See Endnote 5 for further details.) The protection of medical services in war zones is also part of International Humanitarian Customary Rules and is reflected in domestic law and military codes of countries around the world. See this explanation by Médecins Sans Frontières in: Primer: protection of medical services under International Humanitarian Law; 2015 (https://www.msf.org/primer-protection-medical-services-under-international-humanitarian-law, accessed 23 January 2023).


It is important to be aware, however, that while humanitarian organizations relentlessly seek to apply humanitarian principles they are only ever applied up to a point. Compromises are required and perceptions of how far decisions reflect these principles in the first place also differ. See, for instance: 1) In the eyes of others. Médecins Sans Frontières; 2012 (https://www.msf.org/sites/default/files/msf-in-the-eyes-of-others.pdf, accessed 12 September 2020). 2) Brauman R. Oases of humanity and the realities of war: uses and misuses of International Humanitarian Law and Humanitarian Principles. Journal of Humanitarian Affairs. 2019;1(2) (https://www.manchesteropenhive.com/view/journals/jha/1/2/article-p43.xml, accessed 12 September 2020). This selection gives just a fraction of the NGO and international NGO (INGO) think tank fora and scholarly publications on this issue.


See: Ejeh EU, Bappah Al, Dankofa Y. The nature of terrorism and anti-terrorism laws in Nigeria. Nnamdi Azikiwe University Journal of International Law and Jurisprudence. 2019;10(2):186–92 (https://www.aiol.info/index.php/naujilli/article/view/183699, accessed 24 January 2023). The article states that Nigeria’s Terrorist Prevention Act (TPA) 2011 (as amended) carefully avoids the definition of terrorism as a concept. Rather, it defines “acts of terrorism”. Section 1(3) defines an “act of terrorism” as an act which is deliberately done with malice aforethought and which may seriously harm or damage a country or an international organization. Any act also amounts to terrorism when it is done deliberately with malice aforethought and is intended to unduly compel a government or inter-
national organization to perform or abstain from performing any act. A terrorist act is committed when done with the requisite intent; it seriously destabilizes or destroys the fundamental political, constitutional, economic or social structure of a country or international organization by intimidation or coercion. It also amounts to a terrorist act where it involves or causes an attack upon a person’s life that possibly results in serious bodily harm or death. Intimidating or coercing a government or international organization is a terrorist act where it involves or causes: the kidnapping of a person, or destruction of a government public facility, or private property, among others. This is particularly so where the act is likely to endanger human life or result in major economic loss. By section 2 (b) (I), which defines terrorism as acts which are done to unduly compel a government or international organization to perform or abstain from performing any act, the definition of terrorism is confined to non-state actors, thereby excluding state terrorism from the ambit of its definition.


88 Access to health care on a non-discriminatory basis is one of the core minimum obligations placed on States for fulfillment of the right to health. For instance, Office of the United Nations High Commissioner for Human Rights & WHO, Factsheet No. 31: The right to health, 2008. See: https://www.ohchr.org/Documents/Publications/Factsheet31.pdf (accessed 23 September 2020). Also International Covenant on Economic, Social and Cultural Rights (CESCR), General Comment No. 14: The right to the highest attainable standard of health (Article 12), 2000: paras 39–43. See: https://www.refworld.org/pdfid/4538838d0.pdf (accessed 23 September 2020). Duty-bearers for the right to health of Palestinians in the occupied Palestinian territory include Israel (as the occupying power in the West Bank and Gaza Strip) as well as the Palestinian Authority (the equitable provision of health care to the Palestinian population), Hamas (serving as de facto governing authority in the Gaza Strip, which has the responsibility to fulfil administrative governmental functions, such as running the health sector) and Egypt (humanitarian access through Rafah).

89 In 2018, monthly stock-taking by the Gaza Central Drug Store showed that, on average, 60% of essential medicines for cancer and haematology had less than a month’s supply remaining, compared to 46% of all essential medicines. See: Seventy-second World Health Assembly, May 2019, Provisional agenda item 14 on Health conditions in the occupied Palestinian territory, including east Jerusalem, and in the occupied Syrian Golan. Report by the Director-General. Docu
District Coordination and Liaison Offices, also known as District Coordination Offices, are Israeli-Palestinian military coordination offices established as part of the 1994 Gaza-Jericho Agreement between Israel and the Palestinian Authority. The offices aim to coordinate and monitor the movement of Palestinians in and out of, and within, the West Bank and the Gaza Strip. Since the Gaza-Jericho Agreement, the civilian population of the occupied Palestinian territory has been required to apply at their local office, working in tandem with the Israeli Civil Administration, for permits to enter Israel, or to move between Areas A, B and C in the West Bank.


Information on numbers of patient permit applications are also included in the annual statistics of the Palestinian Coordination and Liaison Office. Gaza, 2008-2017.

The study by Bouquet B, Barone-Adesi F, Lafi M, Quanstrom K, Riccardi F, Doctor H et al. “Comparative survival of cancer patients requiring Israeli permits to exit the Gaza Strip for health care: a retrospective cohort study from 2008 to 2017” was published on 2 June 2021.

For instance, in this example the research team initially considered measuring risk by looking at the whole referral history (e.g. out of 10 applications, 3 failed, giving a 0.7 success rate). Success rates would then be weighted. However, this was problematic because the survival rate for those making a lot of applications would be greater than those who only made a few – i.e. people making the higher number of applications were those who survived longer.


As reported by interview respondents during an evaluation of the SSA conducted in late 2019, this presentation of the data can generate confusion as well as tensions at political level and may also potentially fuel reductionist debate.


According to a publication by OCHA in 2018 – Gaza Strip: early warning indicators – Palestinians in Gaza experienced daily power outages of up to 20 hours on average, and they had access to only 72 litres of water per capita per day compared to the 100 litres per capita per day which is WHO’s minimum standard. See: Gaza Strip: early warning indicators – April 2018 (https://www.ochaopt.org/sites/default/files/early_warning_indicator_april_2018.pdf, accessed 23 September 2020).

Access to health care on a non-discriminatory basis is one of the core minimum obligations placed on States for fulfillment of the right to health. For instance, Office of the United Nations High Commissioner for Human Rights & WHO, Factsheet No. 31: The right to health, 2008. See: https://www.ohchr.org/Documents/Publications/Factsheet31.pdf (accessed 23 September 2020). Also International Covenant on Economic, Social and Cultural Rights (CESCR), General Comment No. 14: The right to the highest attainable standard of health (Article 12), 2000: paras 39–43. See: https://www.refworld.org/pdfid/4538838d0.pdf (accessed 23 September 2020). Duty-bearers for the right to health of Palestinians in the occupied Palestinian territory include Israel (as the occupying power in the West Bank and Gaza Strip) as well as the Palestinian Authority (the equitable provision of health care to the Palestinian population), Hamas (serving as de facto governing authority in the Gaza Strip, which has the responsibility to fulfil administrative governmental functions, such as running the health sector) and Egypt (humanitarian access through Rafah).


As reported by an interview respondent during an evaluation of the SSA conducted in 2019: “Attacks rarely start with a cluster bomb – this is the extreme. They usually start with an erosion of respect for the medical mission. So this broad definition shows the escalation, which helps work on prevention – which must be the SSA’s aim.”


As was observed during the politicized dialogue generated by the SSA’s publication of attacks, and as reported by interview respondents during an evaluation of the SSA conducted in late 2019.

For the monthly occupied Palestinian territory Health access reports, see: http://www.emro.who.int/pse/publications-who/monthly-referral-reports.html (accessed 26 September 2020).


Provided by the WHO Regional Office for the Eastern Mediterranean. See: http://www.emro.who.int/images/stories/palestine/documents/infographic-at-
As discussed during a workshop held in Gaza in July 2019 on “Protecting healthcare workshops in the West Bank and Gaza Strip”. In particular the International Committee of the Red Cross and Red Crescent through its Health Care in Danger (HCID) initiative and its “Community of Concern”, and Médecins Sans Frontiers through its Medical Care Under Fire project (2015–2018) and #NotATarget campaign.

For an explanation and further details, see: https://www.who.int/emergencies/situations (accessed 11 July 2022).

The dashboard is available on the WHO website at: http://ssa.who.int (accessed 27 February 2023).

For instance, instances of double-counting when measuring the impact on health facilities. Awareness is needed that this is not simply a number but “how many attacks affected those resources”.

An outlier is an observation that lies an abnormal distance from other values in a random sample from a population. In a sense, this definition leaves it to the analyst (or a consensus process) to decide what will be considered abnormal.

For instance, when downloading into Excel, the types of attacks were listed but all were in the same cell, with types of attacks separated only by a comma. These needed to be split into separate columns followed by a “yes” or “no” in the cell. These latter are then analysed.