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Key facts at a glance

From 45 qualitative interviews with subject matter experts and 720 quantitative interviews with women and men including: 213 interviews with health workers (57 physicians, 51 nurses, 32 surgeons, 12 pharmacists, 8 technical staff, 53 midwives, first responders and other health practitioners) and 507 interviews with members of the public living in Syria who sought medical care in 2017.

BOMBARDMENT / VIOLENCE

80%

of the public agreed that bombardments specifically targeted hospitals



2 in 3

(67%) of health workers said bombardments specifically targeted their facilities







43%

of people said they would only go to hospital if their lives depended on it



82%

of health workers said that bombardments reduced the capacity of their facility to below an acceptable standard



72%

of health workers agreed that access to medication and equipment had deteriorated significantly due to attacks in their area



IMPACT ON HEALTH WORKERS

1 in 6 surgeons in Syria worked 80-hour



86%

of the public agreed that medical staff risked their lives on a daily basis



38% of health

workers have received no formal training at all



IMPACT ON THE PUBLIC

91%

weeks

of people agreed that the lack of healthcare due to bombardment meant they cannot lead a normal life



1 in 4

people in Syria said that specialised care was not available in their area



52%

of women said they self-medicated, compared to only 23% of men



64%

of people said they paid for private healthcare



67%

of people said there were too many avoidable deaths in hospitals



1 Executive summary

The UK Department for International Development (DFID) requested the Syria Independent Monitoring (SIM) consortium to investigate efforts to protect healthcare facilities and workers in Syria from conflict risks, primarily targeted attacks. This report provides additional details to the existing body of evidence documenting the destruction of health facilities, the targeting of health workers and the subsequent deterioration of access to healthcare for Syrians. It also highlights coping mechanisms used by health practitioners and patients to escape risks and to continue providing or accessing healthcare. The report further offers insights into their opinions on solutions the international community should implement to better protect them, triangulated with the input of key international health experts outside of Syria.

1.1 Background

Since 2011, the Syrian conflict has led to the death of an estimated 400,000 people and the displacement of more than 13 million. Of these, approximately 1 million have migrated to Europe, and over 5.6 million are living as refugees in countries neighbouring Syria.¹ The deterioration of the humanitarian situation has involved the targeting of health workers and facilities, in direct violation of international humanitarian law (1949 Geneva Convention and its Additional Protocols). Between the beginning of the conflict and the end of 2017, 492 attacks on health facilities and the death of 847 medical personnel were documented,² while another 119 attacks were recorded between January and July 2018.³ Eastern Ghouta, Aleppo, Dar'a and Idleb have been the locations in Syria most affected.

The majority of attacks have been perpetrated by Russian and Syrian Government forces, using airstrikes, barrel-bombs and chemical weapons.⁴ The international response to these attacks has been marked by a political gridlock. UN Security Council resolution 2286, passed on 3 May 2016, condemned attacks on medical facilities and personnel in armed conflict. Following the resolution, the UN Secretary General issued detailed recommendations to ensure its implementation, including:

- Using means of diplomatic and other influence to prevent violations of international humanitarian law;
- Ensuring that armed actors adopt, review, revise and implement precautionary measures to ensure military operations do not endanger health facilities and practitioners;
- Support data collection, reporting, and analysis related to attacks on healthcare;
- Conduct investigations of alleged war crimes and violations of international humanitarian law;
- Prosecute perpetrators of war crimes.⁵

Other recommendations were also formulated by independent bodies, such as the Health Care in Danger project, initiated by the Red Cross and the Red Crescent.⁶ In August 2017, the World Health Organisation (WHO) announced the creation of a Surveillance System of Attacks

¹ UNHCR Population statistics, available online at: http://popstats.unhcr.org/en/resettlement http://www.pewresearch.org/fact-tank/2018/01/29/where-displaced-syrians-have-resettled/

² Physicians for Human Rights. 'Issue Brief: Attacks on health in Syria', February 2018.

 $^{3 \}qquad \text{WHO. 'Surveillance System for Attacks on Health Care (SSA)' https://publicspace.who.int/sites/ssa/SitePages/PublicDashboard.aspx}$

⁴ Human Rights Watch. 'Death by Chemicals: The Syrian Government's Widespread and Systematic Use of Chemical Weapons', 1 May 2017.

⁵ United Nations Security Council. 'Letter from the Secretary-General addressed to the President of the Security Council', 18 August 2016.

⁶ United Nations Security Council. 'UNSC Debate on Protection of Civilians', May 2017.

on Healthcare (SSA). The SSA was rolled out in 11 countries, including Syria, in January 2018.⁷ Yet, all these measures have been insufficient to reduce the number of attacks or to bring about accountability. The obstruction of China and Russia at the UN Security Council has been pointed as the main barrier to the conduct of independent investigations into reports of war crimes in Syria.⁸

1.2 Existing evidence base

The review of existing literature conducted as part of this research showed that there was relatively wide-ranging information on the targeting of health facilities in Syria and how this had affected access to healthcare. Yet, available evidence was specific to certain locations and specific times, and insufficiently linked to policy and programming action. Available literature stressed the importance of ongoing monitoring and reporting, at the same time as it highlighted the risks linked to underreporting. Given the constantly changing situation on the ground in 2017, there was a need for new and updated research, with the aim of generating a more robust, quantitative and national depiction of the issues specific to health workers in Syria.

This research contributes to advancing the knowledge base on the destruction of healthcare in Syria, and provides unique testimonies from the ground on how those most affected – patients and health workers – have responded to the risks and the dwindling availability of healthcare. More specifically, it:

- Builds up the quantitative dataset available on threats to health facilities and coping strategies in different environments;
- Documents changes in the way patients seek care, including vulnerable patients, such as pregnant women, those with chronic diseases or living with a disability, and elderly people;
- Conveys the views of affected Syrian patients and health workers on which protection strategies, supported by international donors, should be maximised to best help them;
- Spells out directions of effort to strengthen the resilience of the Syrian health system in front of remaining threats and facilitate its recovery post-conflict.

1.3 Findings

Security

This report confirms that health facilities and workers have been intentional, rather than collateral, war casualties:

- Attacks against health facilities and staff in Syria have been systematic and deliberate. Both health workers and patients testified that bombardments (which were the primary form of violence reported across the board) specifically targeted health facilities, including through the use of bunker-buster weapons intended to destroy fortified and underground facilities.
- Several key informants stated that **information sharing on the location of health facilities for humanitarian reasons had been exploited for military purposes.**
- More than one in ten health workers said that they had personally received threats and patients agreed that health workers were putting their lives at risk on a daily basis.
- Because health facilities were not safe, nearly half of the **patients said that they would only go to the hospital if their lives** depended on it.

⁷ Safeguarding Health in Conflict. Violence on the Front Line: Attacks on Health Care in 2017', May 2018.

⁸ Amnesty. 'UN: Russian veto equivalent to "green light for war crimes", 24 October 2017.

Access to healthcare

As suggested by the existing literature, the security situation has had a devastating impact on access to healthcare and on the lives of local communities:

- Access to medical supplies, qualified staff and specialised care is lacking in many parts
 of Syria due to the disruption of roads, the departure of many health workers, and the denial
 of humanitarian access.
- The working conditions of remaining medical staff are untenable, due to the growing number of patients needing intensive and long-term care due to war injuries, the spread of epidemics and poor nutrition combined with the depletion of trained medical professionals.
- Doctors often work in several facilities or wear different hats to meet demand. More than one in six surgeons work more than 80 hours a week and over a third of medical workers have received no formal training.
- Attacks, looting and displacement have led to a **loss or deterioration of medical equipment**, thus reducing the ability of health facilities to operate.
- Despite the attacks, the degraded facilities, the lack of equipment, and the missing supplies and medicine, **health workers show incredible resilience** working with little to no interruption and remaining committed to saving lives.
- Patients report a surprisingly high rate of satisfaction with the various aspects of healthcare received, possibly a testimony to the resilience of health workers.

Patients' coping mechanisms

All patients have been affected by the damage inflicted to the healthcare system, but vulnerable individuals have been harmed in particular:

- Because of the lack of safety when seeking healthcare, many patients prefer to avoid hospitals unless their lives depend on it. Instead, they resort to various types of second best alternatives, including self-medication, using low-quality black-market medical supplies or improvised home-made expedients, resorting to prohibitively expensive private care providers, or travelling across conflict lines or abroad when possible.
- Women are more likely to rely on self-medication, as a larger number of them consider hospitals too unsafe to visit in comparison with men.
- The conflict has taken a heavy toll on individuals suffering from chronic diseases or living with a disability, pregnant women, and elderly people, who are no longer able to access regular and specialised care and have become heavily dependent on personal support networks that have been weakened.

Protection

Significant efforts have been made by health professionals in Syria, often with the support of the Syrian diaspora, to protect health workers and facilities from the damage of war:

- Health facilities have been fortified or moved underground wherever the means were available, so as to protect the integrity of the facilities and the physical safety of health workers and to try and maintain the trust of patients.
- Security systems and procedures have been improved, including through training and

- the provision of **personal protective equipment (PPE)** to staff (e.g. masks, helmets, flak jackets). By the end of 2017, such equipment was being used by half of Syrian health workers.
- **Professional psychosocial support (PSS)** has helped health workers to cope with their stressful conditions, although the levels of, demand for, and satisfaction of health workers with PSS vary greatly geographically.
- In Idleb and SDF-controlled areas, local Health Directorates have put in place **coordination mechanisms to better allocate resources**.

1.4 Recommendations

Recommendations are addressed to donors, project implementers and other actors interested in protecting, preserving, and where possible, enhancing the capacity of Syrian health actors to fill some of the gaps in health service provision created by the war. They cover a combination of short and longer-term actions. Some actions recommended are meant to be anticipatory, i.e. they could be implemented in zones prone to conflict or at the outset of a future conflict, when escalation looks likely.

Donors should:

- 1. Increase funding for early warning systems for health facilities in areas at risk. Early warning systems exist in Syria which use digital platforms to track the flight trajectory of airplanes thought to be 'en route' to bomb facilities. Such systems are available and deployed in some, but not all hospitals in areas of high risk in Syria. Their installation should be accelerated in areas at risk where they are currently not present. In the longer-term, donors working in conflict zones, where such attacks on health systems occur, should: (i) proactively seek to fund systems of this nature; and (ii) encourage military counterparts to share information in due time with medical staff to spare medical facilities of the consequences of attacks. 10
- 2. Dedicate substantial funding to the reconstitution of the pool of trained healthcare professionals in Syria by: (i) funding more opportunities for remote education and training (telemedicine, distance learning, remote peer support networks); (ii) facilitating access to legal certification inside and outside of Syria; and (iii) ensuring that the remuneration of project-funded health professionals is sufficient to attract and retain them.
- 3. Help prevent the risk of punitive action against health professionals working in areas retaken by the Syrian Government. This includes: (i) using all possible diplomatic channels to convince the Government to exempt health professionals and students from the application of counter-terrorism Law No. 19¹¹, as well as from conscription; (ii) including a watch brief on risks against the security of health professionals in monitoring mandates of project-supported health facilities, whether this monitoring is carried out by the implementing agencies themselves or third-party monitors.

⁹ Such as 'Sentry' developed by Hala Systems and the Syrian Civil Defense (SCD). For more on this issue, see: https://www.newsdeeply.com/syria/articles/2017/10/12/how-syrian-civil-defense-is-alerting-civilians-of-potential-airstrikes or https://www.theguardian.com/world/2015/feb/27/us-military-warn-civilians-incoming-syria-air-strikes.

¹⁰ A similar recommendation is included in the recommendations formulated by the UN Secretary General in August 2016. See note 5.

¹¹ Counter-Terrorism Law No.19 (2012) has been used by the Syrian Government to justify widespread campaigns of arrests and detention of civilians and activists, including health workers.

- 4. Explore further options to directly support politically independent actors delivering health services at the local level, including local NGOs, local authorities and Health Directorates, in case regional health authorities can be proven sufficiently independent. Such support would include a combination of: (i) direct funding for operations; (ii) capacity-building and skills development in technical health specialties and administrative/financial management; (iii) in-depth monitoring, including technical and financial verification.
- 5. **Explore options to facilitate healthcare access in private clinics.** This could take the form of, e.g.: (i) agreements between UN agencies/INGOs and private healthcare providers to cover part of the costs of patients referred to them by public hospitals/INGO-sponsored health centres; or (ii) cash transfer programmes earmarking a specific component for healthcare for individuals with long term disabilities or chronic diseases.
- 6. Promote the development of and adherence to 'construction codes' in contracts for the building or reconstruction of new medical facilities that will offer a sufficient level of physical resilience to reduce the impact of future bombardments, as well as that of natural disasters. Enforcing such codes would require detailed technical and financial assessments to verify their appropriateness and cost.
- 7. Continue to support the development and maintenance of WHO's Surveillance System of Attacks on Healthcare (SSA) as a key tool to raise awareness worldwide on the gravity of the violations of international humanitarian law represented by attacks against health facilities and health workers, their repercussions on the delivery of healthcare, and to support accountability efforts.

Implementers (including CSOs, NGOs, INGOs, as well as Syrian medical authorities) and donors should:

- 8. Improve security and safety through enhanced training and equipment provision for medical staff and hospital personnel, particularly for first responders and mobile medical units. This should include the provision of situation-specific personal protective equipment (PPE) based on detailed needs assessments.
- 9. Take advantage of the marked interest of women to further their medical education through both training and practice to target promising and motivated females with specific on-site and remote training and mentoring programmes, including in specialised domains such as gynaecology or surgery, where a dire lack of doctors, especially females, is a serious obstacle to women's access to healthcare.
- 10. Facilitate health workers' access to psychosocial support (PSS) by: (i) ensuring that PSS is on offer to those who need it; (ii) undertaking outreach campaigns to broaden the awareness of health workers on the availability of PSS and its benefits; (iii) creating champions within communities to overcome cultural resistance to the use of PSS (such as leading doctors and, if possible, 'mukhtars', religious leaders or other trusted figures).



I don't recall any other conflict where healthcare and the health system was so systematically decimated.

KEY INFORMANT



2 Methodology and report structure

2.1 Methodology

The data in this report is based on mixed methods of information collection, including a literature review as well as qualitative and quantitative primary research.

Evidence review

The evidence review considered third-party literature on the deterioration of healthcare in Syria, in particular sources related to attacks on health facilities, coping mechanisms, and institutional and individual strategies to ensure continued access to healthcare despite the challenges. It was largely Internet-based and focused on English language materials from commercial, journalistic humanitarian implementers' sources, alongside academic literature. These were complemented by available statistics and figures.

The evidence review highlighted the need for new and updated research on the topic and it enabled the research team to identify existing knowledge gaps:

- There was a lack of reliable on-the-ground data. In particular, there was no robust, quantitative, depiction of the issues specific to health workers, especially at the national level;
- While sources on the provision of specialised health services existed, no quantitative data had been collected about nurses and community health workers (CHWs). Moreover, since not all specialities have been impacted similarly, more varied data was needed on specialised healthcare;
- Data on public opinion was not available beyond the anecdotal;

The findings of this study derive from 765 interviews:

213 interviews with health workers inside Syria, including:

57 physicians

51 nurses

32 surgeons

12 pharmacists

8 technical staff

(laboratory/sterilisation/x-ray) And 53 midwives, first responders and

other health practitioners

507 interviews with people living in Syria who sought medical care in the past

12 months, including:

257 men

250 women

24 interviews with vulnerable people inside living Syria:

6 people with chronic diseases

6 people with disabilities 6 pregnant women/

mothers of newborns

6 elderly people



21 interviews with Key Informant interviews (both inside and outside Syria), including:

9 senior health practitioners (members of local health authorities inside Syria)

12 policy influencers outside Syria, including academics, humanitarians and other experts



- The views of vulnerable groups (pregnant women, those with chronic diseases or living with a
- disability, etc.) had never been specifically considered, and their coping strategies were little known;
- The degree of availability of mitigating measures to reduce risks such as alternative procurement routes, different types of transport vehicles, or training - was not known; and
- Little was known of the viability and relevance of proposed strategies to prevent attacks and increase resilience in the eyes of those targeted by the attacks.

Many of the identified gaps were filled by field research. However, limitations remained in two main areas:

- Strategies which could mitigate the level of access to medical supplies could not be documented, e.g. the existence of alternative procurement routes or different types of transport vehicles to improve the availability of drugs or medical equipment; and
- Only some anecdotal data was collected on how different medical specialities have been affected by the conflict and the attacks on healthcare.

Field research

Primary data was collected in December 2017 in six governorates: Aleppo, Dar'a, Hama, Idleb, Homs and Rural Damascus, offering a blend of areas controlled by the Syrian Democratic Forces (SDF) and Opposition groups, and including areas besieged at the time, where conflict was the most active.

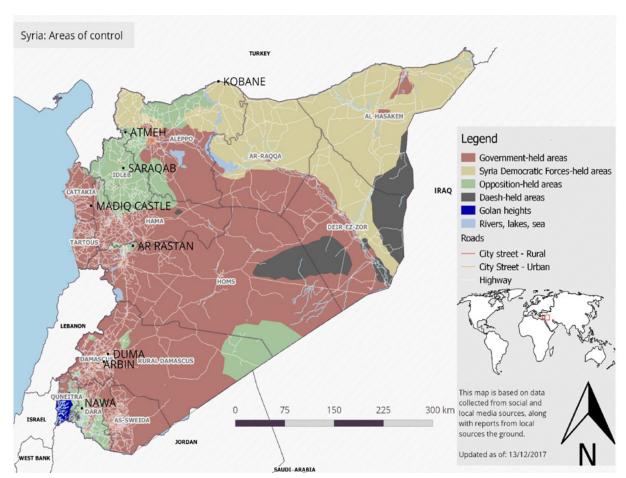


Figure 1 Locations surveyed and areas of control at the time of data collection

Data collection was comprised of two quantitative surveys. One included 507 members of the public aged 18 or older who had sought medical care in the previous 12 months and who lived within less than 15 km of a health facility. The other survey covered 213 health workers.

Qualitative research was also undertaken in order to provide a context to the quantitative findings and provide keys to their interpretation. A total of 21 in-depth interviews were carried out with two types of Key Informants. The first were senior health practitioners working for medical authorities inside Syria, mainly in Health Directorates. The second were 'Policy Influencers' from the humanitarian, medical and development fields with intimate knowledge of the Syrian conflict. Also conducted alongside the

surveys were 24 qualitative interviews of vulnerable individuals, comprising those living with a chronic disease or a disability, pregnant women and mothers of new-borns, and older people.

2.2 Report structure

The report is composed of four chapters covering four main themes: security, access, individual coping mechanisms, and institutional responses to improve access to healthcare.

In **Section 3, Security Conditions**, the scale of the violence and crime endured by health workers and populations living near health facilities is documented, including the direct targeting of health facilities.

In **Section 4, Access to Healthcare**, the impact of the conflict on the provision of, and access to, healthcare is explored.

In **Section 5, Coping Mechanisms**, measures and actions undertaken by Syrians to survive and, in the case of health practitioners, to continue saving lives, are examined.

Finally, in **Section 6**, **Institutional Responses**, the report assesses existing measures and presents opinions on proposed solutions to mitigate the impact of attacks and to try to prevent their occurrence.

Unless otherwise indicated, data cited covers the year 2017.



Targeting health care has become the norm in the Syrian conflict.

POLICY INFLUENCER

3 Security conditions

This section describes the scale of threats and attacks as reported by members of the public and health workers, how these differ by location and how both groups' attitudes have been impacted.

3.1 Overall findings

Nearly three-quarters (74%) of public respondents said that their community had been subjected to bombardment in 2017. Half said that 'shooting' had occurred and 40% mentioned 'plundering/looting/pillaging'. Finally, 18% recalled that 'kidnapping' had happened in their community.

Targeting of facilities

Experts interviewed confirmed existing research indicating that health facilities had been the target of attacks: Targeting healthcare has become the norm in the Syrian conflict,' one of them said. This was corroborated by two-thirds (67%) of health workers, who agreed that bombardments had targeted their facilities specifically. This is slightly fewer than the proportion of the public (80%) who said one or several facilities they knew had been targeted. This difference is likely explained by

I don't recall any other conflict where healthcare and the health system was so systematically decimated...
POLICY INFLUENCER

members of the public being asked about any and all facilities, but health workers only about the facility where they worked.

Some experts argued that the necessary sharing of the locations of facilities for humanitarian purposes had 'continuously led to increased targeting of hospitals'. In line with this, many policy influencers felt that the solution to the protection of healthcare facilities lay at the policy level, and not in implementing ground-level mitigation measures.

80%
of the public agreed that bombardments specifically targeted hospitals.

Across the board, bombardments were said to be the most damaging to the provision of healthcare. This was particularly the case due to the reported use of bunker-buster munitions.¹² 74% of health workers stated that bunker-buster munitions were being used and over a third (36%) said that they

were often used. They were said to be particularly common in Hama, Eastern Ghouta and Ain al Arab/ Kobane.¹³ Relatedly, a majority of the public surveyed (77%) said that de-escalation agreements had positively impacted the provision of healthcare. Far fewer agreed in areas which were still experiencing bombardment at the time of the research, such as Eastern Ghouta (45%).

said that bunker buster munitions were used against healthcare facilities in their area and 36% said they were **often** used.

¹² Wintour, P. 'Bunker-buster bomb reports may mark new stage in Russia's Syrian assault', 26 September 2016; Shaheen, K. "Hell itself: Aleppo reels from alleged use of bunker-buster bombs', *The Guardian*, 26 September 2016.

¹³ In Ain al Arab/Kobane, the use of bunker buster bombs is likely due to the US-led international coalition rather than to Russia and the Government, who rarely had an active role in the area.

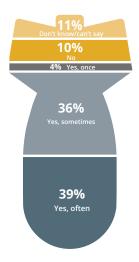
Bunker Busters

The use of 'bunker buster' bombs in Syria was widely reported by respondents.

Bunker-buster munitions, estimated up to 1,000 lb (453 kg) in weight, are designed to penetrate concrete structures and underground shelters by punching holes through concrete before detonating.

The use of bunker-busters such as the BETAB-500 and the KAB-500L has been primarily attributed to attacks by Russian air forces in civilian areas in Syria. In September 2016, representatives of the United Kingdom and the United States at the UN condemned the use of bunker-buster munitions in Opposition-controlled Eastern Aleppo, denouncing their destructive power.

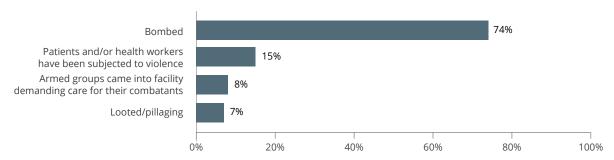
Figure 2 Use of bunker-buster munitions



Base: N=213 doctors and other health workers Q. Do you know if bunker busters munitions have been used against healthcare facilities in this area?

Although bombardment was the most common form of violence, health workers also reported other types of threats to medical facilities, such as armed groups coming into the facility (8%) or violent treatment of health staff or patients (15%).

Figure 3 Most frequent forms of violence against health facilities



Base: N=213 doctors and other health workers

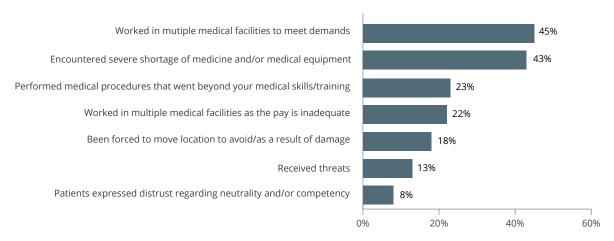
Q. During the past year, which of the following has happened to your facility/facilities?

Targeting of health staff

More than one in ten doctors (15%) said that their facilities had seen violence against personnel and patients in the past year.

A small but not insignificant percentage of health workers (13%) said they had received threats inside their facility. This average was very much skewed towards the town of Atmeh in western Aleppo, where 45% of health workers said they had been threatened; in all other towns surveyed this ranged from between 0% and 19%.

Figure 4 Challenges faced by health workers



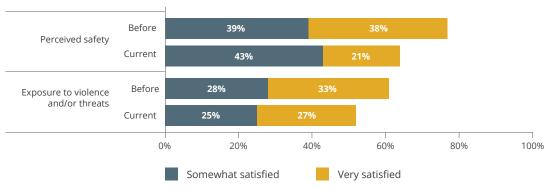
Base: N=213 doctors and other health workers

Q. During the past year, which of the following has happened to you personally?

Perception of safety

In spite of the targeting of facilities, over three-quarters of health workers agreed that they '[felt] sufficiently safe' at work. Given the wider information shown in this report about the extent of the violence, this may reflect the attitude of these individuals as much as the conditions on the ground. This was also the case of members of the public who reported relatively high levels of satisfaction with the safety at the facility they used (figure below).

Figure 5 Satisfaction with security conditions at the facility before and after the conflict

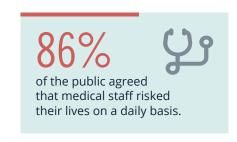


Base: N=507 members of the public

Q. Please can you tell me how satisfied you are with medical facilities these days on these aspects?

Exposure to violence and/or threats/Perceived safety/And how satisfied were you before the conflict began with those same aspects?

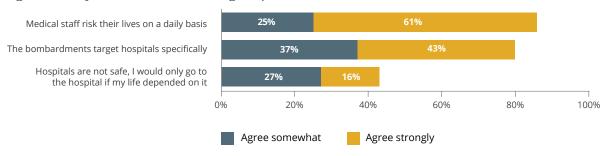
In qualitative interviews, vulnerable members of the public described how they had seen health workers being threatened, and how this had had a knock-on effect of inducing fear within the medical community. One male respondent in Homs explained that at the onset of the conflict 'the regime arrested a large number of medical staff, and other staff members were afraid to treat the wounded for fear of detention'.



The data shows that the public clearly has sympathy for the situation of medical workers. Nearly nine out of ten (86%) of respondents from the public agreed that health workers 'risk[ed] their lives on a daily basis', with most stating that they agreed strongly with this statement.

As a result of deteriorated security conditions, 43% of members of the public said that they would only go to the hospital 'if their lives depended on it'. In Duma this number rose to 50%, in Madiq Castle to 59% and in Saraqab to 62%. These three locations have been particularly targeted by Government airstrikes, despite de-escalation agreements.

Figure 6 Safety-related attitudes among the public



Base: N=507 members of the public

Q. How strongly do you agree with the following statements? The lack of healthcare due to bombardment means I cannot lead a normal life/The staff at the facility I go to are competent and experienced/Usually there is sufficient staff in our hospitals/There are too many avoidable deaths in our hospitals/I can get the medical care I need these days/Specialised care is available in my area

Several vulnerable individuals spoke of how their feelings of wellbeing and safety largely depended on whether or not shelling was occurring in their area and the distance they needed to travel to access healthcare. They also explained that their anxieties around seeking care were compounded by widespread

43% of the public said they would only go to hospitals if their lives depended on it.

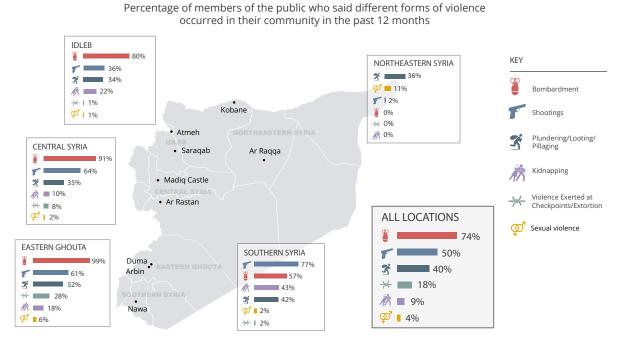
acknowledgement that hospitals and health facilities were specifically targeted by the Government with the support of Russian air forces. Policy influencers, representatives of local Health Directorates, patients and doctors all agreed that the only way to improve healthcare for good was to stop the bombing.

¹⁴ Section 5.2 of this report expands on how vulnerable people explained that they had to travel far in order to receive adequate care – putting themselves at even greater risk.

3.2 Exposure to violence by region and intensity of conflict

Despite similarities between security threats, respondents from the public and health workers underlined how these threats widely varied across the locations sampled. Respondents from the public faced different types of threats at the time when field work was carried out (December 2017):

Figure 7 Forms of violence experienced by location



Base: N=507 members of the public

Q. Which of the following has your community been subjected to in the past 12 months?

Violence was not only different in type but also in intensity. Three main categories of areas can be distinguished:

- Intense conflict areas (besieged areas at the time): these included Arbin and Duma, both located in Eastern Ghouta, as well as Ar Rastan in Northern Rural Homs;
- Active conflict areas (not besieged): these included Atmeh in Aleppo, Saraqab in Idleb, as well as Madiq Castle in Hama; and
- Areas where conflict had subsided at the time of data collection (post-airstrikes): these
 included Ain al Arab/Kobane and Nawa, where bombardments had mostly stopped, although
 terrorist attacks and ground clashes might still occur.

Findings regarding the impact on healthcare of the varying degrees of insecurity in each of these types of area are presented below.

Intense conflict areas (besieged areas¹⁵)

People in Eastern Ghouta and Ar Rastan had clearly endured the highest levels of physical threats from across the locations sampled. All (100%) of the 180 members of the public interviewed in

^{15 &#}x27;Ninth Quarterly Report on Besieged Areas in Syria', PAX and The Syria Institute, March 2018.

these areas said that their community had experienced 'bombardments'; most also reported 'shootings' (61% across Eastern Ghouta, 89% in Ar Rastan) and most had experienced 'plundering, looting or pillaging' (52% in both areas). These areas were also more subject to 'violence and extortion at checkpoints'. In total 28% of the public in Eastern Ghouta and 15% in Ar Rastan said that 'violence and extortion at checkpoints' had occurred in the past year.

The public in these locations were also particularly likely to state that health facilities had been deliberately targeted, with nearly everyone (95%) agreeing in Ar Rastan, and 77% in Eastern Ghouta. Health workers in Ar Rastan explained that the Government continued to bomb medical facilities 'in a systematic and severe way, arresting medical staff and using highly destructive missiles' almost daily, although the targeting in December 2017 had become less frequent than some time earlier.

Across all regions, over four out of five (84%) people thought that de-escalation agreements had had a positive impact. However, a lesser proportion in Eastern Ghouta and Ar Rastan understandably had faith in those agreements. Less than half (only 38%) of the public (and only 30% of health workers) did in Eastern Ghouta. Experts pointed out that in addition to aerial attacks, deprivation of healthcare took other forms in besieged areas, such as the blocking of delivery of international medical aid and stripping essential medical supplies from aid convoys.

Active conflict areas (not besieged)

While not as intense as in besieged areas, the level of threat remained high in non-besieged Opposition-controlled areas. The proportion of people in Saraqab who recalled kidnapping was the highest of all cities – 45% of the public reporting kidnappings in 2017. A total of 97% and 83% of the public reported airstrikes in Saraqab and Madiq Castle respectively, reflecting the widely reported ground clashes and airstrikes which have devastated infrastructure in the region.

While only an hour and a half away from Saraqab, Atmeh reported much lower levels

Sieges

Sieges have been used as a military tool by the Government since the beginning of the conflict.

Eastern Ghouta and Northern Rural Homs were besieged by Government forces between 2013 and 2017, and 2015 and 2018 respectively.

Overall, Northern Rural Homs, where Ar Rastan is located, enjoyed greater humanitarian access than Arbin and Duma, in Eastern Ghouta. It was therefore considered by OCHA as 'hard-to-reach', as it has often been associated with strict control of humanitarian access and intense violence.



Regime forces are targeting the medical field in a systematic and severe way, through bombing medical facilities, arresting medical staff and using highly destructive missiles which has led to the destruction of buildings and killed civilians.

MEMBER OF HEALTH DIRECTORATE, AR RASTAN

Active conflict areas

At the time of the survey, several of the locations visited were still areas of open conflict, experiencing irregular airstrikes and clashes between armed groups. Saraqab was controlled by Hayat Tahrir al Sham (HTS). The group had become the sole armed group in the governorate following the eviction of Ahrar Ash Sham in July 2017. The latter was still present in Hama, where Madiq Castle is located.

of bombardments (63%) and shootings (11%). There, 46% of the public disagreed that bombardments targeted hospitals. The relative safety of Atmeh may be explained by efforts made by Turkey to preserve the nearby Bab al Hawa border crossing in preparation for the Olive Branch

operation, both through negotiations with armed actors and by its presence on the ground.¹⁶

While agreements on de-escalation for the region do not seem to have stopped or even reduced violence in most places, a large majority of the public surveyed agreed that they had had a positive impact on the provision of healthcare (83% in Atmeh, 92% in Saraqab and 97% in Madiq Castle). One woman in Saraqab said: 'During the shelling we suffered from huge tensions due to displacement, fear and [the need to] secure healthcare; after the truce these tensions decreased, but still the lack of specialised doctors creates a huge difficulty for us.'

Areas where the conflict had subsided at the time of data collection

In these areas, public respondents did not report any 'bombardment' and very few instances of 'shootings'. Health workers were also optimistic, describing how facilities there were now in the reconstruction phase, supported by Kurdish forces.

However, 'plundering, looting and pillaging' were reported by 36% of public respondents. Kobane also reported higher rates of sexual violence in the previous 12 months than any other location visited (11%).

Despite the relative stability, up to 23% of the public surveyed said they were still unsure of the safety of the facilities. One farmer in Kobane explained that the threats continued even after the liberation of the city because of the risk of terrorist attacks and explosive devices left behind

While a massacre perpetrated by Daesh in June 2015 had obviously left a trauma in the community, respondents said that the city had not known any other attack since. One pharmacist also explained that security measures

Areas of decreased conflict

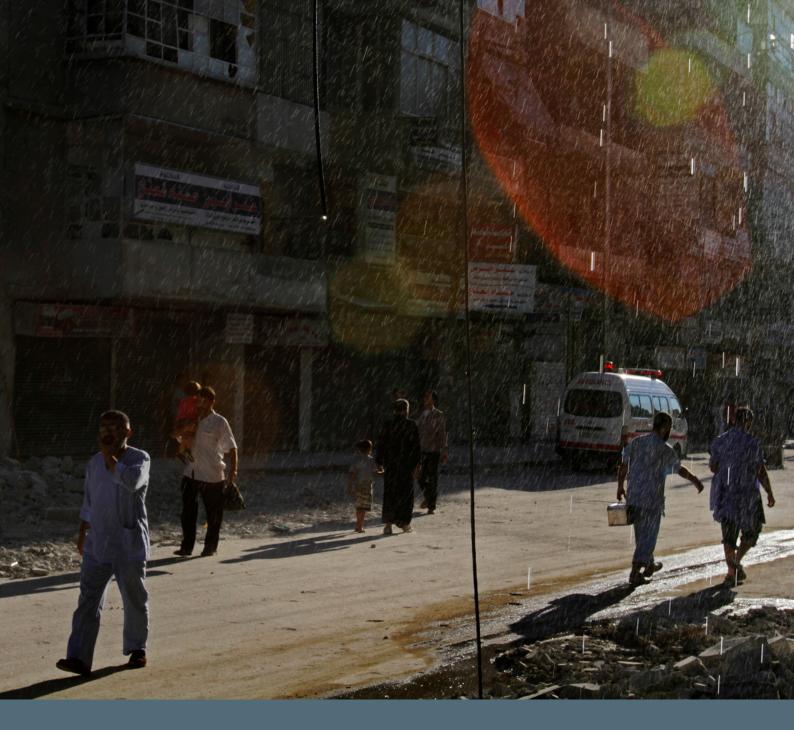
Dubbed the 'cradle of the revolution'. Dar'a and its governorate faced heavy bombardment and ground fighting until a de-escalation agreement between Russia, Jordan and the US was reached in September 2017. The agreement led to a sharp decrease in conflict between Government and opposition forces after a brief uptick in violence. However, between September 2017, and the time of data collection in December, violations of the ceasefire were reported by Free Syrian Army sources. In June 2018, conflict broke out again after the Government launched a large-scale offensive in eastern Dar'a, which led to the retaking of the area.

Daesh has also been a threat in Nawa, after gaining a foothold in Southern Syria in 2015. The group has conducted terror attacks and clashed with other armed groups during short-lived offensives, often with patients and health workers caught in the crossfire.

were taken to ensure the protection of health facilities: 'Now the Asayish [Kurdish police] works on protecting the health facilities and preventing weapons from entering the hospitals. It is very effective in the absence of advanced protection systems.'

In Nawa, doctors explained how a pause in violence from a ceasefire agreement had created the space for new forms of localised conflict. They described how Government attacks had been replaced by 'disagreements that occur in the community due to the presence of armed [Opposition] groups... Doctors have become vulnerable to being kidnapped, beaten, or threatened.' An otolaryngologist in Nawa added: 'We are no longer witnessing attacks and airstrikes by the regime, but the threats now come from clashes between armed groups.'

^{16 &#}x27;First Turkish military convoy enters Syria's Idlib', Reuters, 12 October 2017.



Starvation and lack of services are used as an important weapon of war - in particular when de-escalation zones hinder aerial strikes.

KEY INFORMANT

4 ACCESS TO HEALTHCARE

This section examines the levels of healthcare accessible in targeted areas and public satisfaction therewith. It also explores barriers to accessing care across the locations visited.

4.1 Satisfaction with healthcare

Access to healthcare across Syria has been severely impacted by the security situation. Qualitative, in-depth interviews with vulnerable members of the public pointed to severe shortages of adequate medicine, equipment and experienced doctors. This deterioration of public health was described by members of the public as a feature across most of Syria. Respondents also said that – as the toll of the war had grown on the country's infrastructure, resources and health system – the health situation has kept worsening. They described how Syrians faced a high risk of contracting diseases related to food scarcity, water-borne diseases, lack of access to drinkable water, injuries as a result of mines and improvised explosive devices (IEDs), as well as the toxicity associated with waste, biomedical waste and warfare equipment.

For example, in Nawa, a female respondent described how liver inflammation had become widespread in her community due to the consumption of unclean water and food. Another respondent said that people had begun to suffer from neurological diseases caused by chemical attacks. Meanwhile, the price of water and food items had continued to increase,

Before the conflict, everything was available, from specialised doctors, test labs, to x-ray centres, but now only emergency services are offered – you have to wait two hours to get eight minutes with a general doctor to explain your condition.

PREGNANT WOMAN IN DUMA, 33

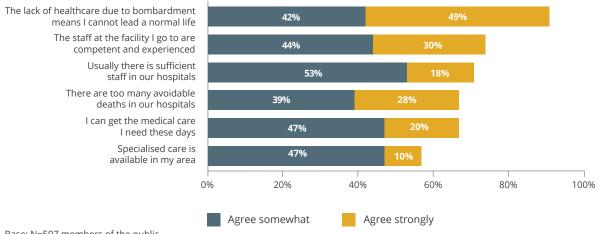
It [our current conditions] cannot be called living. There's insufficient medicines or food and every day I wish I would die. I need food, medicines and full medical treatment.

WOMAN WITH CHRONIC PAIN, DUMA

and vaccination campaigns had become impossible to implement, further worsening health conditions.

More than nine out of ten (91%) members of the public agreed that the 'lack of healthcare due to bombardment' meant they '[could] not lead a normal life'. One-third of respondents believed they '[could] not get the medical care they needed', and most (67%) believed that there were too many avoidable deaths. As a result, many said that hospitals were not safe and that they would only seek care there if their lives depended on it. In particular, 50% of women said so, compared to only 36% of men.

Figure 8 Public opinion on access to healthcare

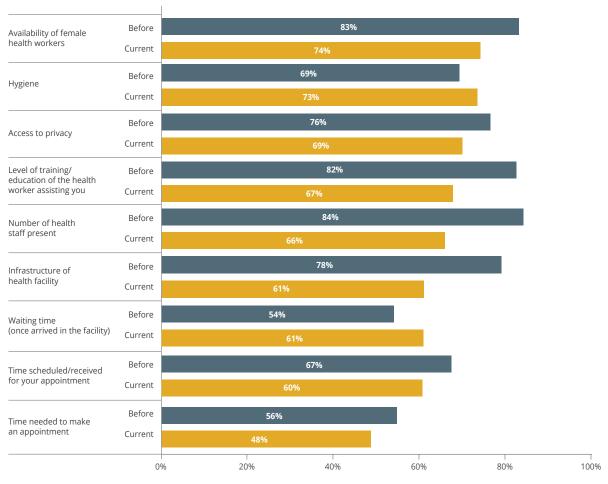


Base: N=507 members of the public

Q. How strongly do you agree with the following statements? The lack of healthcare due to bombardment means I cannot lead a normal life The staff at the facility I go to are competent and experienced Usually there is sufficient staff in our hospitals There are too many avoidable deaths in our hospitals/I can get the medical care I need these days Specialised care is available in my area

However, despite the scale of the conflict, the Syrian public has retained a relatively positive view of many aspects of the provision of healthcare. On most measures put to them, members of the public typically described themselves around 10-15% less satisfied with various aspects of health provision and supplies than before the war began (including the 'availability of required equipment', 'sufficient medication physicians and support staff', 'waiting times' and 'hygiene'). Most but not all retained faith in the skills of health workers: some three-quarters (74%) felt that the staff were 'competent and experienced'. Perhaps surprisingly given the context, only 13% of the public surveyed said they were currently dissatisfied with the level of safety in hospitals and health centres. This figure varied considerably across locations: in Ain al Arab/Kobane it rose to 23% and in Dar'a to 29%, while in Eastern Ghouta it reached 13.3% at a time when all facilities had migrated underground. Similarly, women's satisfaction with the availability of female health workers was reasonably high. Three-quarters of women surveyed (76%) were somewhat or very satisfied with such access. Patients were most dissatisfied with the 'time needed to make an appointment', and the 'state of the infrastructure', with about one-third of people reporting being dissatisfied with these aspects. They also expressed poor satisfaction with the duration of their consultation (60%). Meanwhile, the waiting time at the facility was more satisfactory than prior to the conflict (61%) but remained low.

Figure 9 Satisfaction with specific aspects of healthcare provision in comparison with prior to the conflict

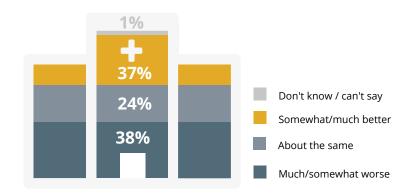


Base: N=507 members of the public

Q. Please can you tell me how satisfied you are with medical facilities these days on these aspects?

Further research would be necessary to fully understand the relatively high satisfaction rates. Plausible explanations may include the tempering of expectations and the scale of efforts made by the medical staff working in the face of harrowing circumstances.

Figure 10 Perceptions of the quality of healthcare now in comparison with prior to the conflict (overall)



People's perceptions of improvement and deterioration are almost equally spread, as depicted in the graph above. This might be explained by the regional differences in levels of care before and after the conflict (see graph below). In Idleb and north-eastern Syria, two rural and remote areas of Syria, levels of care were said to be better in 2017 than before the conflict began (64% and 33% respectively). Experts interviewed for this study discussed how, prior to the conflict, medical provision suffered from a lack of adequately trained doctors, corruption, and preferential treatment for physicians and medical facilities closer in proximity and political affiliation to Damascus: this reveals a history of marginalisation for certain communities such as Idleb and the north. During the conflict, however, these areas have received relatively more humanitarian support from the international community. On the contrary, in southern Syria and Eastern Ghouta, two urban and accessible areas prior to the conflict, there was a strong perception of worsening levels of care available. In Nawa, this dissatisfaction was also found to be linked to a perceived inferior access to affordable medicine and modern equipment.

-95% 5% Southern Svria Northeastern Syria -32% 22% -18% 49% Central Syria -17% 19% Idleb -54% 18% Eastern Ghouta -100% -80% -60% -40% -20% 0% 20% 40% 60% 80% 100% About the same Somewhat/much better Much/somewhat worse Base: N=507 members of the public

Figure 11 Perceptions of the quality of healthcare now in comparison with prior to the conflict (by location)

Q. How would you describe the level of care you receive now in comparison to before the conflict began?

4.2 Health facilities

Syrians surveyed typically sought care from more than one facility, making use of all those available in their areas. Over 2017, over half (53%) of those interviewed had sought care from hospitals, and around one-third from smaller medical facilities (34%), private medical centres (33%) and NGO health centres (31%). Less than one-fifth received care from pharmacies (16%). These figures varied greatly among locations. In Ain al Arab/Kobane, while 59% of people had sought care from hospitals, 62% had used private facilities (alternatively or in parallel). This seems to reflect the constraints imposed on humanitarian assistance by Turkey, which led to a significant decrease of access to free and quality healthcare. Accordingly, the public there expressed a strong level of dissatisfaction with the skills of health staff, with 21% stating they were dissatisfied with the latter's training and education. In Nawa, 58% of respondents sought care from a pharmacy in 2017, more than in any other area.

Some of this behaviour can be explained by the difference in availability of certain types of health facilities. Both quantitative surveys and qualitative interviews indicated that trauma centres and asthma centres were least available. Their presence in the community was reported by only 20% and 23% of health workers respectively. On the contrary, vaccination centres and PHCs were reported to

be present respectively in 85% and 83% of the communities visited.

However, even the presence of a type of facility did not guarantee that it was fully functioning. Health workers' responses indicated that the attacks and bombardments had had a devastating effect on the scope of healthcare: 82% of them agreed that bombardments had reduced the capacity of their facilities to below an acceptable standard and, for each of the six governorates, the mean average for this statement was at least 64%. However, these attacks had not prevented the continued delivery of care. Nearly two-thirds of health workers (67%) said that, after bombardment, work was suspended for less than a week or not at all.

4.3 Medicines and equipment

Difficulties in accessing medicine and equipment have been particularly common in hard-to-reach and besieged areas.

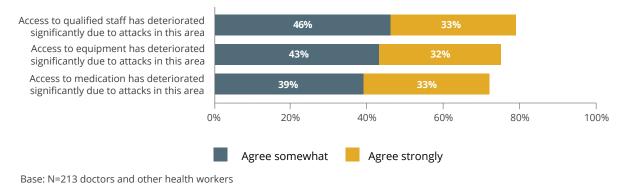
Many Key Informants explained that the deliberate deprivation of humanitarian assistance had been an important weapon of war for the Government. One respondent said: 'Common practice is to remove medical supplies from aid convoys whenever possible.' While some aid convoys of medicine, medical treatments and medical supplies did reach Eastern Ghouta and Northern Rural Homs as they were besieged or encircled, they had frequently been raided by Government forces; this deprived those in need of crucial supplies, including treatments for malnourished children and surgical equipment.¹⁷

We have started to manufacture our own serum and gauze. We are working on manufacturing yarns for surgical suture as well as plant-based drugs, but we lack funding.
SURGEON, DUMA

Health workers in the then besieged areas of Arbin and Duma in Eastern Ghouta were particularly likely to report chronic shortages. In Duma, the situation was critical: 88% of health workers said that they encountered severe shortages of medicine and 41% said medication was either 'never' or 'seldom' available.

The quantitative data in Figure 12 shows that the lack of medicines and equipment has remained a serious problem and not only in besieged areas. Some three-quarters of health workers overall agreed that access to equipment (75%), medication (72%) as well as qualified staff (79%) had deteriorated significantly due to the attacks.





¹⁷ Information also confirmed by 'Ninth Quarterly Report on Besieged Areas in Syria', PAX and The Syria Institute, March 2018.

Prostheses for amputees and wheelchairs for paralysed people were particularly scarce or very expensive. In Ar Rastan, a man explained: 'Not all medicines are available and, if they are, they are available at very expensive prices, same thing with the prostheses. Before the conflict, medical needs were met in a better way; installing prostheses was for free before, and there was a special office for disabled people, which you could use to get a job.'

Procurement difficulties have been a key barrier to obtaining medication and equipment, as Turkey and Jordan have exerted tight control over cross-border trade. A member of the Dar'a Health Directorate said that 'the issue of passing through Jordan for entering basic medical material [should be highlighted] to donor organisations and countries'. The situation in Nawa appeared to be particularly dire, as the proximity of Daesh had deterred many donors from procuring the required medical supplies there.

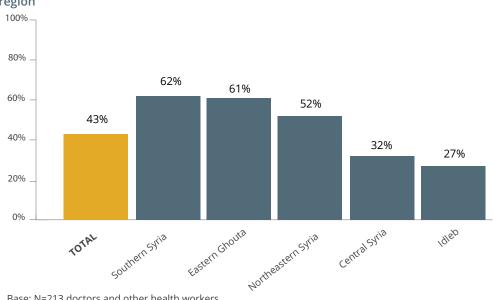


Figure 13 Experience of severe shortage of medicine and/or equipment among health workers per region

Base: N=213 doctors and other health workers

Q. During the past year, which of the following has happened to you personally? Encountered severe shortage of medicine and/or medical equipment

In the instances where medical equipment was available, it was often in serious need of maintenance or replacement. In Duma, a woman described how the equipment appeared not to have been replaced for years, and as a result, she believed test results could not be trusted. The ratio of damaged equipment that had not been replaced or repaired was found to be particularly high in Nawa, with 60% of health workers saying it was never replaced or fixed following bombardment.

It has also been shown that equipment has been constantly at risk of being destroyed, as bombardment often required health workers to move from place to place within their community. Nearly one-fifth of health workers (18%) said they had been forced to move location to avoid attacks or because of damage incurred during them. This was particularly common in Nawa and Eastern Ghouta, where almost half of them reported having had to move location, which had led to the loss of equipment.

A radiologist displaced from Idleb and living in Nawa explained: 'When Tal Shehab hospital was targeted by four barrel-bombs in Ramadan of 2016, and the work in the hospital stopped for a while, we had to move the entire medical staff to safe places, evacuate the patients from the hospital and leave a lot of equipment behind us.' According to Key Informants, this also happened at Al Quds Hospital at the end of the siege of Eastern Aleppo.

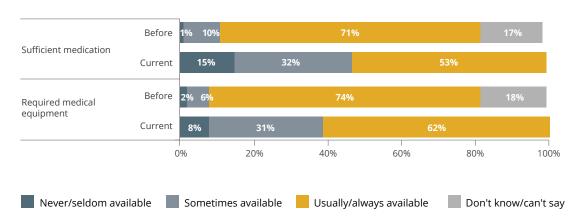


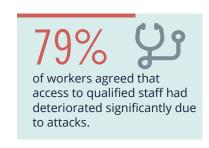
Figure 14 Perceived availability of medical supplies before and after the conflict among health workers

While nearly half (43%) of health workers said they had personally encountered severe shortages of medicine and/or medical equipment in the past year, 50–60% of them reported that sufficient medication and equipment were 'usually' or 'always' available. At the end of 2017, shortages were particularly severe in Arbin and Duma in Eastern Ghouta, where 40% of health workers said that the required equipment and medication were never or seldom available. In Ain al Arab/Kobane and Nawa, over half of them (55% and 62% respectively) also reported encountering severe shortages of medicine and/or equipment.

Approximately 20% of health workers interviewed said they did not know or could not say what the situation was like before the war, possibly reflecting a relatively high number of newcomers to the medical profession.

4.4 Medical staff

The shortage of qualified medical staff was confirmed by health workers. ¹⁸ Almost four out of five (79%) said that access to qualified staff had deteriorated significantly due to attacks in their area. Nevertheless, 60% of them said that physicians and support staff were 'usually' or 'always' available, as shown in the chart below.



An exception to this trend was in Ain al Arab/Kobane, where 90% of health workers reported that support staff were 'never' or 'seldom' available. This may be due to the displacement to nearby Turkey, compounding the scarcity of qualified staff prevailing there prior to the conflict. Health workers in Kobane also reported being underpaid, which may have driven some to

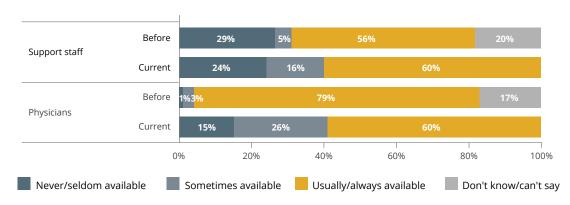
¹⁸ The UN Security Council has estimated that more than three-quarters of Syrian doctors fled between 2011 and 2017: United Nations Security Council. 'UNSC Debate on Protection of Civilians', May 2017.

stop practising medicine. This could possibly be linked to the SDF self-administration's practice of collecting a part of the salaries paid by donors in order to cover other financing needs.¹⁹

On the contrary, in Eastern Ghouta, despite the scale of destruction, 65% of health workers said that medical support staff were usually available and half of them said that physicians were as well. This somewhat positive finding may to some extent be explained by the timeline of the conflict. Eastern Ghouta, which became an Opposition stronghold early on in the conflict, was quickly put under siege and therefore did not witness large-scale displacement. As a result, many of the qualified medical staff already present in the area or who had come to Duma to support the Opposition remained in the besieged pocket.

In most places in Syria, beyond the immediate impact of the bombing, the crippling shortage of medical professionals and specialists has been caused by large-scale displacement. Moreover, the destruction of the medical education system has prevented many partly trained doctors from completing their curriculum and obtaining official certification. One expert explained that medical studies could still be pursued in Government-controlled areas and official certification obtained from the Ministry of Health. However, for medical students from Opposition-controlled areas, the risk of forced conscription or detention by Government military forces was too high to take a chance.

Figure 15 Perceived availability of support staff and physicians before and after the conflict among health workers



Base: N=213 doctors and other health workers

Q. Can you please rate the current availability of each of the following in your health facility?

The shortage of qualified staff has required many health workers to provide treatments for which they had never received formal training. While most health professionals interviewed (93%) said that they felt sufficiently trained for the procedures they were carrying out, nearly one-quarter (23%) conceded that they performed procedures that went beyond their medical skills or training. This was particularly common in Nawa, where the proportion rose to 62%. According to the findings from this

17% Syria work 80-hour weeks.

study, 38% of physicians and surgeons had less than two years of medical training.²⁰ Meanwhile, another 38% of all health workers had received no formal training at all.

¹⁹ A practice documented through other field data collection by the SIM Consortium.

²⁰ The minimum time needed to qualify as a physician in Syria is six years.

Another consequence of the lack of qualified health staff has been the increasingly difficult working conditions of medical personnel. The lack of training is compounded by long working hours and the need to work across multiple facilities, jeopardising the quality of treatment of patients and the mental health of physicians. Over a third (37%) of health workers reported working over 50 hours per week, with 26% working over 60 hours. Worse still, 13% of all health workers in Eastern Ghouta and 44% in Madiq Castle said that they worked over 80 hours per week. Senior doctors were particularly at risk: a third (34%) of all surgeons worked over 60 hours per week and 17% worked over 80 hours per week.

In terms of pay, 62% of health workers agreed they were sufficiently compensated for their work, while a quarter (25%) disagreed. In Eastern Ghouta, Ain al Arab/Kobane and Nawa, more than a third of them felt that they were not sufficiently paid. However, satisfaction levels were much higher in other areas: in Madiq Castle and Ar Rastan the vast majority of them – 96% and 84% respectively – agreed their remuneration was sufficient. However, one Key Informant outside Syria indicated that discrepancies existed among doctors' salaries with similar scopes of work and levels of experience.

Nevertheless, nearly all health workers interviewed (97%) said that they remained determined to continue working in targeted hospitals. When asked what drove them to do so, nine out of ten (91%) cited the 'desire to save lives' as their primary motivation. Almost three-quarters (72%) said that 'community support' motivated them, while the 'opportunity to learn new skills' was cited by over half (59%). Just over half (54%) said they were motivated by the opportunity to receive regular and adequate pay.

97% Ps of health workers said that they remained determined to continue working.

Deeper analysis on this issue pointed to two demographic differences. Firstly, for female health workers, the opportunity to learn new skills was especially motivating – 73% cited this as a reason to remain at work, versus 53% of their male colleagues. A clear majority of women (63%) were also interested in telemedicine and distance learning as a solution to the shortage of experienced staff, while this was true for only 45% of men – possibly because women saw fewer other options for direct onsite learning. Secondly, regular and adequate pay was noted as an incentive particularly among workers in NGO-funded facilities: twice the proportion of workers at NGO-funded facilities (60%) cited regular and adequate pay as a reason to remain at the facility compared to those working at private hospitals (29%).²¹

²¹ Interestingly, the SIM Consortium has made opposite findings during the monitoring of health facilities in some areas, whereby NGOs attributed their difficulty in hiring staff to their inability to offer sufficiently stable positions and competitive pay.

Want to help/save lives Community support The opportunity to learn and 59% develop new skills Regular and adequate pay 54% Formal promotion and recognition of their 42% contribution in a dangerous situation Religious values 36% Employment benefits such as food. accommodation, transport and free health care Good leadership and communication in the workplace Appreciation by supervisors Family ties Lack of better options/ employment opportunities Political values 10% Fear of travelling 60% 80% 100%

Figure 16 Motivations of health workers to remain at health facilities

Base: N=213 doctors and other health workers

Q. Which of the following encourage health workers to remain at this facility/hospital?

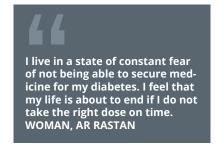
4.5 Specialised care

This section examines access to specialised care. Across the areas sampled, one-quarter of people (25%) said that specialised care was not available in their area. In Eastern Ghouta and Nawa, however, as many as half of the population said that such care was unavailable.

In February 2017, the Syria Assistance Coordination Unit (ACU) reported a severe shortage of vascular surgeons and orthopaedic surgeons, contributing to a significant number of amputations.²² During their long years of siege or encirclement of Eastern Ghouta and Northern Rural Homs, many health facilities there could only provide primary care (medical inspection and first-aid services), while long-term treatment was difficult and often impossible to access. The difficulties

caused to patients requiring ongoing attention (e.g. dialysis or

people in Syria said that specialised care was not available in their area.



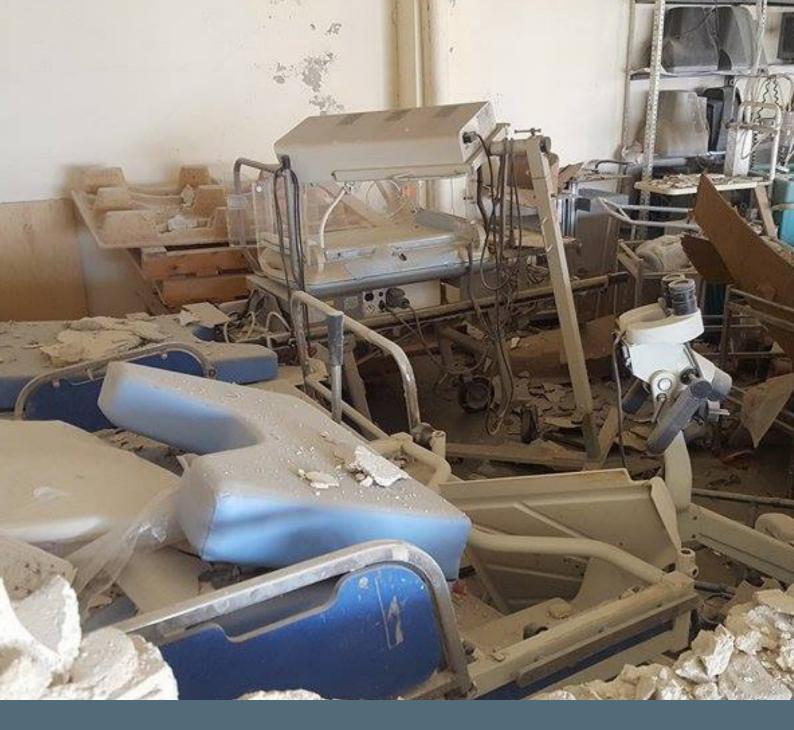
diabetes treatment) have been repeatedly documented by the field monitoring visits carried out by the SIM Consortium. The complex logistics of referring patients to specialised health facilities and the dangers of travelling between districts are yet another obstacle for patients requiring long term medical care.

Each of the 18 people with disabilities or chronic diseases interviewed for this study described how the scarcity of essential medicine and medical materials impacted their lives and the well-being of

²² ACU. 'DYNAMO, Syria Dynamic Monitoring Report – Issue 06', February 2017.

their families. Nearly all commented on the difficulty of accessing doctors with experience of treating their condition, and the subsequent need to see a range of doctors (each often with little experience) for multiple health conditions. Scarcity also affected pregnant woman. For example, one of them in Ar Rastan said that there was only one gynaecologist, no infant incubator, no x-ray or ultrasound device, and no other private clinic for pregnant women in her area.

Where specialised doctors were available, vulnerable people in need of care typically had to travel on dangerous routes to reach them, and waited for hours on arrival to be treated. A 34-year-old man living with polio, interviewed in Kobane, explained how he had to wait over four months for a physical therapy device from Turkey, whereas this device was very easy to obtain prior to the conflict. He described how access to physical therapy, and support for people with disabilities, were limited during the Daesh siege from September 2014 to March 2015. Reflecting on this experience, he had decided to contribute to the rehabilitation of healthcare provision after the siege had ended. He had done so by opening a physical therapy clinic for people with disabilities, in collaboration with benefactors in the community.



It cannot be called living. There's insufficient medicines or food and every day I wish I would die.

FEMALE PATIENT

5 COPING MECHANISMS

This section discusses the ways in which health workers and patients have had to adapt, in order to cope with the attacks and the general deterioration of the healthcare system in Syria.

of people said they paid for private care.

When asked about adaptation to the conditions of the conflict, surprisingly, most members of the public said that they still sought

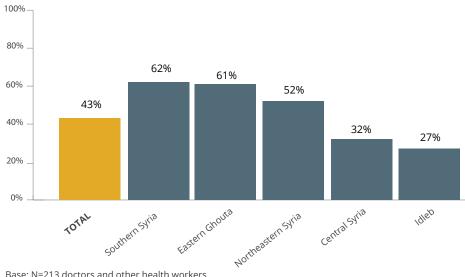
care in much the same way as before the war. Less than one-quarter (23%) said they sought care in a different manner.

Many, however, have had to cope with the deteriorating healthcare conditions by taking additional measures, such as seeking care abroad, self-medicating and paying for private care. In-depth interviews with people with special medical needs revealed that many had taken risks in order to obtain the necessary treatment, including making dangerous journeys to health facilities located elsewhere, rationing medication, and using home-made medical supplies to survive. Both patients and health professional are resorting to psychological support services (PSS), but yet in small numbers.

5.1 The use of private care

Almost two-thirds of people (64%) said they paid for private care as a direct result of the conflict. In Duma, Nawa and Saragab, a majority of them did. This number even rose to 90% in Ain al Arab/ Kobane and Madiq Castle.

Figure 17 Members of the public using private care (by location)



Base: N=213 doctors and other health workers

Q. During the past year, which of the following has happened to you personally? Encountered severe shortage of medicine and/or medical equipment

Qualitative interviews revealed how the lack of access to free healthcare had exacerbated the financial burden put on those in need. People with chronic diseases and disabilities in particular described their worsened financial conditions. Those who could not work or who relied on free services and assistance to support their families had to find alternative means. A few described how their children were sent to work to support their siblings, parents and grandparents.

Vulnerable respondents described how free medical centres supported by NGOs had provided them with crucial relief. In Ar Rastan, a man whose leg had been amputated after being injured by a mortar shell, received a medical assessment at no cost; half of the cost of his prostheses was covered by a charity. Similarly, one woman with rheumatism and chronic nerve inflammation living in Duma explained that a charity there had covered half the price of her medicines.

In some cases, however, the resort to private care seems to have been related to quality considerations. Some patients expressed concerns about free medication: one man aged 53 with rheumatism in Madiq Castle said that he bought drugs from private pharmacies instead of seeking them from free medical centres, as they were considered to be of better quality. Over the course of its monitoring activities, the SIM Consortium has found that the quality of medicine was a constant concern for patients, and that access to free medicine of good quality in health centres supported by donors was a source of relief for them.

5.2 Remote and distance care

Remote advice and telemedicine

The Syrian American Medical Society (SAMS) is using mobile and internet-based systems to mitigate the loss of direct access to healthcare in Syria. SAMS has successfully implemented e-surgery (Tele-ICU'). Local medical workers are connected via smartphones and a custom-developed app – linked with cameras, audio, video and a data transfer service – to remote professional surgical support in the USA and the UK. Overall, it is estimated that the Tele-ICU technology product has helped health professionals provide services to 12,000 patients in the country.

SAMS has also been working on introducing a distance learning application that works like an interactive textbook, but the project has faced major challenges. The main one has been to secure a reliable internet connection, particularly when an area was under siege. A second concern has been that remote consultations could be intercepted by Government or allied forces and used to target doctors and clinics. It has been widely reported that doctors in Government-held areas were forbidden from treating anyone living in Opposition-held or contentious areas, on penalty of imprisonment, torture or death. For instance, one woman with diabetes living in Duma who maintained contact with her doctor in Damascus via WhatsApp at the time when the area was under siege, indicated that the 'offence' could jeopardise the doctor's safety, should the Government discover their correspondence.

Travelling long distance

During interviews, vulnerable people in need of specialised care and medication who could not obtain medical treatment remotely (in particular those with chronic diseases or disabilities) explained how they had been forced to make long, costly and dangerous journeys to access specialist care. Often, these journeys were across military lines, into Government-held territory. A few vulnerable patients interviewed said they would no longer travel to these areas for fear of detention by the Government and had started to look for specialists nearby.

Care abroad had also been sought. Although the proportion of members of the public who had done so was only 15% overall, it was nearly three times higher in Nawa (43%) and stood at 25% in Saraqab. Travelling abroad was found to be particularly common among respondents with chronic diseases or with disabilities, and those seeking surgical operations. In Ain al Arab/Kobane, however, only 2%

of residents reported seeking care abroad, despite the city's location close to the Turkish border and the reported scarcity of health practitioners. This is likely explained by the conflictual relationships between Turkey and the SDF as well as the tight control exerted by the former on the border.

Many described the journey to seek care elsewhere as taking their lives into their own hands. For example, one woman in Ain al Arab/Kobane with liver cancer described that she travelled I usually work as a farmer, but I can't any more due to my rheumatism, so my children work the land and provide income for the family.

MAN, MADIQ CASTLE

to Damascus as regularly as she could to obtain treatment – when the roads were not cut off and she had enough money for the journey. She was surviving only on painkillers. A 23-year-old woman from Saraqab with cerebral ataxia was no longer able to travel to Government-held areas or Turkey to resume treatment or obtain medication; due to lack of treatment, she had started developing additional health problems, including an accelerated heartbeat and asthma.

5.3 Self-medication

The scarcity and cost of medication in Syria have forced many people to explore alternative solutions. In-depth interviews of vulnerable people with special or ongoing medical needs revealed how many were forced to purchase either expensive or low-quality medicine, or to improvise medical supplies, such as sterile bandages using towels or rags at home.

52% of women said they selfmedicated, compared to only 23% of men.

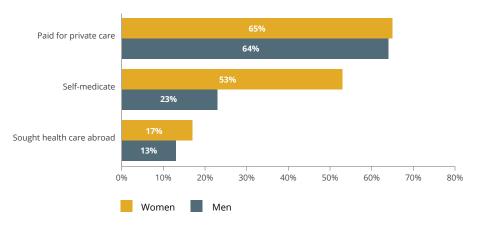
Self-medication and self-care, without consultation of a doctor, were also common. Over a third (38%) of members of the public said they self-medicated or self-treated, because they could not access a health facility. This proportion reached 43% in Eastern Ghouta and 66% in Nawa, while it was only 5% in Ain al Arab/Kobane.

Women were found to self-medicate more than men: 52% of women interviewed said they had done so, compared to only 23% of men.

A comparison of responses on self-medication and safety concerns regarding hospital access suggests that the two are correlated, i.e. those who said they self-medicated were also those who said that hospitals were not safe and that they would only go there if their lives depended on it. The proportion of the latter stood at 50% among women, whereas it was only 36% among men. This correlation would also explain for instance why a lesser proportion of people self-medicated in Ain al Arab/Kobane, as the lower levels of violence there made access to health facilities easier.

Variations by gender stood out only in relation to self-medication. On other markers, such as the likelihood to seek healthcare abroad or to pay for private care, the variation was not significant. Nor was it significant among age groups.

Figure 18 Coping strategies used by the public



Base: N=507 members of the public

Q. Which of the following have you had to do to because of the conflict?

Self-medicate/self-care because I could not access a health facility/Paid for private health care due to a lack of adequate care in public

5.4 Reliance on family networks

Most people with special medical needs interviewed for this study spoke of the importance of their family and friends in helping them to survive. A male respondent living with polio in Ain al Arab/Kobane described the difficulties that people with disabilities faced in reaching safe areas during a mass displacement in 2014: 'Due to the financial and psychological difficulties caused by the conflict, many disabled people were kicked out of their houses... Family and friends play an important role in making your disability a minor or a major one. The war separated family members and friends, which negatively affected the lives of people with disabilities.' Over time, widespread displacement has also left many elderly people without nearby family or friends to help them with treatment and to obtain medicine. As elderly care centres are hardly available anywhere, many vulnerable elderly individuals are left alone.

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help for me.

Friends and family used to help me take my medicine on time, but now most of my family members had to move outside of the country.
ELDERLY WOMAN, AR RASTAN

If it were not for family and

one of the attacks. They

friends, I would be dead. They took me by ambulance during

secure medicines and financial

PREGNANT WOMAN, DUMA

Many other vulnerable individuals have also looked to networks of family and friends for advice. Pregnant women interviewed

for this study in particular spoke of resorting to medical students, friends and neighbours for care, or looking for information on the internet and television. A pregnant woman in Ar Rastan was not able to access echocardiograms, prenatal vaccinations or any information about postnatal care, and said the only guidance she received on delivery was from her mother and from television.

5.5 Psychological support services (PSS)

Overall, the use of PSS appears to be limited both among health workers and patients. Yet, with unmanageable working conditions and heightened exposure to the trauma of war, health workers are particularly vulnerable to psychological distress. In some areas, health workers have been targeted, kidnapped, and tortured by armed groups. In many others, they run high personal risks on a daily basis. In addition to the violence, as reported above (section 4.4), they are over-extended and lack resources. Nearly half (45%) reported having to work in 'multiple medical facilities to meet demand'. Almost as many (43%) reported encountering 'severe shortage of medicine and/or medical equipment'.

Findings showed that opinions were divided among health workers as to whether they received adequate psychological support to help them cope with the stress: 40% said they did, while 41% disagreed. Again, the situation was specific to the location. In Eastern Ghouta, only 24% of health workers said they received adequate psychological support, against 71% in Idleb.

As regards members of the public themselves, the evidence points to far fewer of them accessing psychosocial support than apparently have access to it in threatened areas. Only 5% of all members of the public interviewed said they had sought treatment for war-related psychological trauma in the past year (2017). However, 45% of health workers consulted said that PSS centres were available.

It was not clear whether this discrepancy was due to a lack of awareness or cultural and social stigmas around mental health and psychological care. Variations across the locations visited were notable. For instance, up to 14% of respondents in Kobane said they had sought care for psychological trauma, although health workers did not report more availability than in other locations.



The most important thing is to stop the bombing.

MEMBER OF LOCAL HEALTH DIRECTORATE IN SARAQAB, IDLEB

6 INSTITUTIONAL RESPONSES

This section describes what actions have been initiated by organisations operating inside Syria to mitigate the impact of attacks on healthcare providers. It also presents the opinions of the public, health workers, and Key Informants inside and outside Syria. These opinions relate to what further efforts are needed and which initiatives should be amplified by international donors – at the political level and regarding allocation of resources – to reinforce the resilience of the Syrian healthcare system in the short term and in a longer-term perspective, given the shocks and erosion imposed by years of war.

6.1 Local protection responses

Underground facilities were the most commonly used protection tool: 79% of health workers reported they were being used at their facility, followed by fortified facilities (65%), coordination mechanisms (51%), safety and security training (49%), early warning systems (41%), telemedicine and distance learning (28%), and the use of irregularly obtained medicine (19%).

The use of specific protection or coping strategies appeared to depend on the context of the location. For instance, in 2017, all facilities visited in Eastern Ghouta were underground, in comparison with only half in Idleb. However, fortified facilities were more common (81%) in the latter.

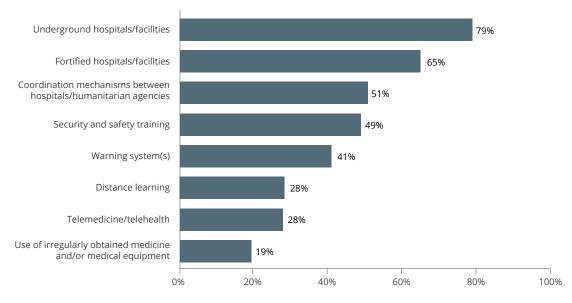


Figure 19 Strategies used by health facilities

Base: N=213 doctors and other health workers

 $Q.\ Which\ of\ the\ following\ coping\ mechanisms-if\ any-has\ your\ hospital/facility\ made\ use\ of?$

Commenting on their own experience (see Section 3), doctors and other health workers said that both initiatives to reinforce physical and intangible systems were welcomed. The vast majority (95%) of them saw underground facilities as very important or essential, and 93% said they thought the same about fortified hospitals. Protection and security training, as well as coordination mechanisms among health facilities, were also seen as key. One doctor in Ar Rastan said that early warning systems implemented by the Civil Defence, or White Helmets, had been some of the most successful security measures. A majority of health workers (68%) estimated that de-escalation agreements had had a

positive impact on the provision of healthcare. However, the response very much depended on their own recent experience (e.g. in Eastern Ghouta 61% disagreed).

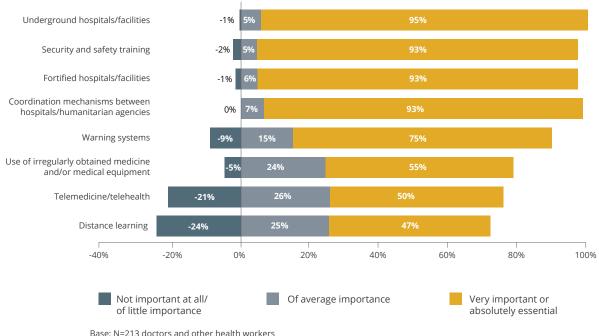


Figure 20 Perceived importance of various protection measures among health workers

Q. How important do you think each of these forms of protection would be in this community/facility?

More than 85% of the public surveyed felt that underground and fortified facilities were effective and safe. Most Key Informants from medical authorities agreed that they were important, both to protect facilities from attacks, and to reassure patients. One doctor working at the Health Directorate in Duma stated: The fortification and the establishment of underground hospitals are highly effective in protecting workers, patients and medical equipment.' Another respondent noted that underground hospitals were clearly more effective in providing protection than fortified hospitals in the case of direct targeting. Fortified hospitals, while less costly, were said to be only efficient when attacks happened in the vicinity of a facility, but not as much when it was directly hit. Support for underground hospitals, however, was not universal, as a woman in Eastern Ghouta explained: 'Most of the medical points now are underground, but I do not prefer them because they are still being targeted by regime shelling."

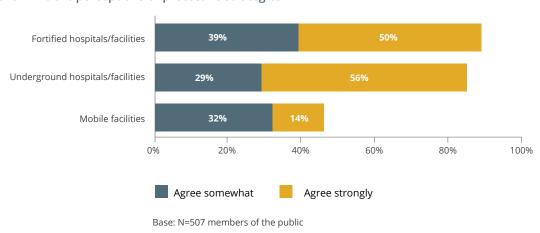


Figure 21 Public perceptions of protective strategies

Q. Please indicate whether you agree or disagree with the following statements: Underground

Efficiency of underground and fortified facilities

Policy influencers interviewed for this study helped to chart the evolution of coping mechanisms employed on the ground by health workers to mitigate the impact of bombardment. At the start of the conflict, hospitals were reportedly divided into smaller facilities scattered across several locations, to minimise loss. Limited measures were taken to insulate the building from bomb blasts, such as building extra floors, housing the most vulnerable patients in basements, installing plastic windows, sandbags, exit signs and cars around the perimeter. As the situation worsened, health authorities began moving parts of hospitals underground. During intense airstrikes campaigns, bombardment by Government forces escalated to such a degree that these measures were rendered ineffective, forcing facilities to dig deeper underground. Bunker-buster weapons have been used to penetrate facilities. One expert noted that these could penetrate up to six metres into concrete. As such, there is a consensus among experts that while underground and 'cave' hospitals are preferred, they are imperfect and expensive solutions.

In areas where ceasefires or de-escalation agreements have been successful, others questioned the need for funding hospital fortification or building underground. For example, a radiologist in Nawa said: 'If the ceasefire agreement continues, the issue of fortification and protection of the hospitals from airstrikes and the establishment of underground hospitals will no longer be important. What is more important is providing care and medical supplies.' Yet it is important to note that during the June 2018 Government offensive in Dar'a, where Nawa is located, health facilities were targeted once more.

While fortified and underground facilities were seen as viable solutions to the attacks, less than half of the members of the public interviewed for this survey (46%) felt that mobile facilities were an effective and safe alternative. However, these facilities were preferred by public respondents in rural areas, such as Idleb (67%), particularly in Atmeh (92%), as they improved security by reducing the distance of travel between patients and health providers.

In addition to fortifications and transfer underground, other measures taken by health facilities have included calling upon armed protection, improving security procedures, warning systems and training.

Armed protection has taken several forms. In Ain al Arab/Kobane, the Asayish (Kurdish police) were said to patrol the vicinities of health facilities to prevent weapons from being brought in. The co-chair of the Health Authority in Ain al Arab/Kobane also suggested installing cameras to improve security. In many areas, armed escorts have been used to protect ambulance services: one-fifth of health workers said they knew this was done in their area. This practice was more common in Dar'a (52%), Kobane (45%) and Atmeh (35%), perhaps due to the profile of armed groups in these areas. It was not the case in Eastern Ghouta, although other data collected by the SIM Consortium have shown that armed groups were sometimes used to guard convoys and warehouses containing food and NFI assistance.

Personal protective equipment (PPE) refers to equipment such as masks, gas masks, fireproof clothing, helmets, or gloves, which can protect from infection, the fall of debris and other forms of harm. Just over half of health workers (54%) said that they were familiar with their use. Among those interviewed, PPE was mostly used by first responders who often have to go to locations of attacks where they can be exposed to fire, chemical gases, and other such threats. Workers in private facilities were also more familiar with PPE than those in NGO/UN agency-managed facilities (74% versus 52%).

Early warning systems were said to be essential parts of protecting facilities from attacks. Such systems seek to monitor risks and allow information sharing among relevant actors, so that a response to a threat is deployed before the threat has been realised. They may include practices such as WhatsApp groups or procedures put in place by organisations to collect and share information about attacks. Health workers in Idleb were particularly convinced of their importance, with 90% saying they were very important or essential and 58% saying these systems were actually used at their facility. One pharmacist from the Health Directorate in Saraqab explained: 'If we know that there will be an attack or airstrike on us, we evacuate all patients to other medical points. A small number of health staff stays behind for about a month until we make sure that we will not be targeted.' In Eastern Ghouta, medical care warning systems were integrated within the security systems of the community at large. Sirens had reportedly been installed to warn the whole community during airstrikes and to allow them to seek cover underground.

Evacuation systems were another key aspect of ensuring protection and the continued provision of healthcare at the local level, through transfer to other facilities. In Duma, one doctor explained that workers at his facility were now better prepared in times of evacuation. They had for instance stopped using wireless communication networks and switched to only wired networks to prevent jamming during attacks and to ensure uninterrupted communication between facilities. One doctor in Nawa said the Civil Defence (White Helmets) had been a crucial actor to help improve preparedness in case of evacuation, by providing support and training to health workers. However, the lack of ambulances equipped with modern medical equipment was still a challenge at the time of data collection. The targeting of ambulances was said to have prevented safe medical evacuation.

6.2 International protection responses

While institutional responses have been set up on the ground, the international community, including donors and UN agencies, has made efforts to help protect health facilities and personnel from attacks and mitigate their impact.

The most important thing is to stop the bombing. MEMBER OF LOCAL HEALTH DIRECTORATE IN SARAQAB, IDLEB

Information sharing

Experts interviewed for this study explained the crucial role that coordination and information sharing among humanitarian health actors plays in allocating resources adequately and ensuring the provision of healthcare. However, some experts disagreed on the matter of information sharing. The main point of contention related to the sensitivity of sharing locations of health facilities. Most experts agreed that information provided to UN agencies on the locations of hospitals was regularly leaked to Russia and used for military purposes by Government forces. Some explained that, for this reason, information sharing was no longer an option. On 29 May 2018, the UN even launched an investigation into a number of attacks against medical facilities, after details of their location were shared with Russia.²³ Other experts interviewed for the study disagreed, arguing that increased information sharing, along with coordination, would improve the allocation of aid. One of them suggested that data on the location of facilities should be gathered and distributed by an independent organisation. Opinions were largely divided by the different levels of trust in international actors, particularly Russia, in ensuring the protection of health care.

^{23 &#}x27;UN Launches Attacks Probe on Syrian Hospitals as Part of Information Sharing with Moscow, Al Bawaba, 30 May 2018.

Support to medical staff

Respondents – including local Health Directorates, experts, and medical staff – emphasised the need to continue supporting health workers through training and adequate incentives.

Several experts noted the use of technology as a means to cope with the lack of experienced staff, and its important role in training doctors and providing expert advice. Both telemedicine and remote training were seen as particularly important, due to the depleted numbers of qualified staff and specialists. A statistically significant demographic difference was that female health workers placed more emphasis on the importance of telemedicine than their male counterparts (64% vs 45% respectively) and remote learning (52% vs 45%). A large number of women health workers also saw the opportunity to learn and develop new skills as an incentive to continue working (73%). This may reflect a sociological change common in wars, which paradoxically open the job market to women in a way that did not exist previously, as well as the fact that new technological developments open new options for learning for women who would have otherwise little freedom of movement to receive medical schooling.

Beyond the improvement of medical practices, other experts noted how training could play a role in security. Training could also help establish emergency protocols, such as for handling chemical attacks, as well as re-establishing health services post-attack.

Policy influencers spoke of the need to provide better incentives for doctors to remain in Syria – particularly better pay, which could help resolve the depletion of the number of qualified staff. Health authorities also recognised the importance of financial support and emphasised the need to continue supporting the livelihoods of health workers, stressing that their salaries should reflect their working conditions. Many of them also called for increased focus on PSS, both in level of access and in encouraging patients and health workers to seek it.

Anticipating likely short-term changes in territorial control, several experts further emphasised the need to protect health workers in a reconciliation scenario. They argued that many of those who worked in Opposition-controlled areas could face charges and be imprisoned or executed, if the Government were to re-establish its authority.

Support to local health actors

Local doctors agreed that coordination between local actors and international aid organisations had been weak throughout the conflict. Health Directorates served as the main administrative authority, working on facilitating communication, improving medical evacuation and referral systems, securing facilities, increasing aid coordination and centralising evidence collection. They were said to procure supplies for repairs and equipment, and to assist with the planning and implementation of hospital fortification. In Homs, the Health Directorate reportedly employed staff to monitor the workload of health workers and to provide periodic reports. Key Informants said that these ground initiatives, while crucial for the provision and protection of healthcare, lacked support from international donors. The Idleb Health Directorate in particular reportedly lost funding from GiZ in September 2017, for fear that funds might be diverted by HTS.

Most respondents from the public concurred that international support to health workers should continue and be increased to the extent possible. Several experts also thought that donor funding

should be made more flexible, to allow local actors to implement projects without facing unattainable requirements. For example, some criteria, such as demonstrating three years of experience, were said to be unrealistic in a country where organisations had to make do with any resource available and paper trails had been lost or destroyed. One expert expressed the view that funding should be directed to Syrian organisations, rather than to bureaucratic and resource-heavy international bodies such as UNICEF or UNHCR.



Policy influencers further insisted on the importance of the Syrian diaspora and on the important role it has played in harnessing international attention and aid relief efforts. Diaspora groups were important in sustaining local health organisations through the conflict and building their capacity for the future. One expert noted that 72 diaspora organisations were working in Syria. They played a key role in particular in ensuring the capacity-building of local actors.

6.3 Accountability-related solutions

Better (standardised) data collection

Key Informants inside Syria and outside experts explained that several organisations were working on monitoring violations of international humanitarian law and collecting evidence of attacks against health facilities. At the local level, Health Directorate representatives said dedicated committees reported on attacks after they had happened and assessed the damage. They also said that hospitals shared information with them regarding the attacks. Experts outside Syria also mentioned that dedicated civil society organisations had been formed to collect evidence of the violations of international humanitarian law. However, experts highlighted that organisations doing this work, such as the Syrian Centre for

As for the wages paid to medical staff, they are somewhat acceptable but must be improved to suit the living conditions.

DOCTOR, AR RASTAN

Policy Studies, were not receiving support and their data was not being sufficiently utilised. Instead, the international community has spearheaded initiatives of its own to ensure that investigations were conducted regarding war crimes and violations of international humanitarian law. As of August 2017, WHO has worked on creating a monitoring system to collect reports of violence against health facilities or personnel. This initiative was rolled out in 11 countries, including Syria in January 2018.²⁴

To improve these efforts, which experts regard as splintered, some experts called for standardisation and better coordination of evidence collection on attacks or threats on health facilities and health workers across civil society and the international community. Specifically, the lack of a standard definition of what constitutes an attack against healthcare was noted, as well as the different methodologies implemented in evidence collection.

Discrepancies in definitions are not necessarily problematic for general public information and awareness-raising, but they may be an issue for accountability mechanisms, as some of the data may not be accepted as evidence in court. One expert therefore called for legal organisations to be more involved in data collection and monitoring. One expert from an NGO stated: The missing link is

²⁴ Safeguarding Health in Conflict. Violence on the Front Line: Attacks on Health Care in 2017', May 2018.

communication between health people and legal bodies. We have been collecting data but we don't have evidence [that would stand up in an international court].' Other organisations were said to be committed to tracking human rights violations committed during the conflict, in preparation for international legal arbitration and transitional justice when the conflict was over. In Eastern Ghouta, the reported presence of a forensic medicine centre showed that local structures could be used by international donors to support accountability efforts in preparation for transitional justice.



International donors' operational strategies align with each other, but they do not align with our strategies in Eastern Ghouta, which created a state of chaos that we are currently working on to organise.

DOCTOR, DUMA

Political accountability

The Syrian public clearly favours enhanced efforts at the political level: 93% said that the international community should do more to help Syrians.

Most experts consulted for this study regretted that there was no enforcement mechanism to ensure accountability in international law, in spite of the detailed set of measures spelled out by the UN Secretary General following the adoption of Security Council resolution 2286.25 A number of respondents lamented in particular that the data collected on attacks against health facilities had not been utilised and opportunities to ensure accountability had not been used. According to one Health Directorate representative: There have been many conferences that could have paved the way for putting pressure on the regime to stop the bombing.' One expert even denounced the role of some UN agencies and donors, who chose to partner with the Government. They argued that this attitude had derailed the accountability process by allowing the Government to divert aid, deny it to some and circumvent international sanctions, while continuing to deliberately bomb health facilities in Opposition-controlled areas. As a result, this expert advised putting an end to humanitarian aid in Government-controlled areas or making this aid conditional on the end of attacks, as a means of pressure to obtain political compromises. This was a minority view, however. Considering that Government-controlled areas hosted an increasing share of the population, including many in dire need of assistance, most respondents did not favour such a solution. Instead, they insisted that accountability efforts were the best way forward and considered that the UN, despite its shortcomings, was the most capable institution to bring about change.

²⁵ See Executive Summary Background.

