Medical professionals are often on the front lines in conflict situations, propping up civilian communities suffering from violence, abuse, and deprivation. Nowhere has this been truer than in Syria. But in a context where the targeting of civilians has played such a prominent role in the prosecution of the war, medical professionals have all too often been violently prevented from carrying out their duties through persecution, torture, and killings.

As first responders, medical personnel also see up close the wounds and evidence of violence and torture in their patients. Persecution of medical professionals is often part of oppressive governments’ intentional strategies of silencing these powerful witnesses.
Russian allies are responsible for 90 percent of the deaths of medical personnel throughout the conflict. Responsibility for the remaining 10 percent lies with non-state armed groups, including ISIS, international coalition forces, Kurdish forces, or unidentified forces. The targeting of medical personnel is a violation of international humanitarian law (IHL), and those responsible must be held accountable. When medical workers are killed, the human toll is not just their lives, but also the exponential number of people who will suffer without treatment and the many lives that will be lost as a result.

At least 890 medical professionals have been killed in Syria from 2011 through December 2018.
PHR has assessed that at least 90% of medical personnel killings were committed by Syrian government forces and their Russian allies.
Throughout the conflict in Syria, the Syrian government has systematically targeted medical facilities and personnel, killing doctors, nurses, and others as they care for the sick and injured in hospitals, clinics, and in the field. Health professionals have also been arrested, disappeared, imprisoned, tortured, and executed – often for upholding their professional commitment to treat all patients, regardless of political affiliation. PHR has documented the deaths of 890 medical personnel from the start of the conflict in 2011 through December 2018.
the first four years, through shelling, aerial attacks, small arms fire, and the kidnapping and detention of medical workers that often resulted in death through torture or execution. In 2015 in Aleppo, it was reported that over 95 percent of the city’s doctors had fled, been detained, or been killed.

The dip in deaths of medical personnel after 2015 does not necessarily indicate a decrease in the intensity of the conflict, but rather likely reflects a decrease in the total number of medical professionals still in the country.

PHR recognizes that it cannot know of, let alone corroborate, all attacks on medical personnel. This is illustrated by the fact that the Syrian government continues to release lists of civilians who died in Syrian custody, pointing to the fact that there are potentially many more medical professionals who may have died in detention but whose deaths have not yet been made public.

The territorial gains of Syrian government forces since the spring of 2018 has meant a reduction in front lines, and fewer attacks on medical facilities. But even with the changing dynamics of the conflict, medical personnel continue to be targeted for a variety of reasons, including the perception that they are economically advantaged and can be held for ransom.

Aleppo, Idlib, and Rif Dimashq represent the governorates with the highest recorded death rates of medical personnel. Spikes in the number of medical personnel killed tend to coincide with major offensives against these governorates.
2016 it had declared the city “liberated.” The number of medical personnel killed there dropped from 29 in 2016 to five in 2017, to just one in 2018.

Similarly, in Rif Dimashq, the governorate surrounding Damascus, the Syrian government had been on the offensive since 2013. In April 2018, government forces regained full control over the suburb of eastern Ghouta after a brutal military campaign that killed 20 medical personnel in less than four months. Since then, the number of killed health workers has decreased.

In Idlib, the last rebel enclave in Syria, 62 medical personnel have been killed since 2012. The number increased significantly after 2014, when the Syrian government intensified its military action against various rebel groups who control the majority of Idlib’s countryside.

### The Numbers Don't Lie

- **264**
  - Of 890 medical personnel killed in the Syrian conflict, 264 were doctors

- **54%**
  - Of medical personnel were killed in aerial attacks or shelling

- **141**
  - Medical professionals were either kidnapped or detained, and subsequently killed

- **62%**
  - Of all killings took place between 2012 and 2014
PHR’s definition of “medical personnel” includes doctors, nurses, paramedics, pharmacists, dentists, veterinarians, lab technicians, and health professional students. They must be civilians to be included in our dataset, as medical workers engaged in combat lose protected status under IHL. As this graph shows, the most affected medical professionals are doctors and nurses, followed closely by paramedics. We chose to include nontraditional medical categories such as veterinarians, dentists, and students because we have received credible reports that these personnel often treat patients due to the lack of licensed physicians and nurses in many localities. The Syrian conflict forced many untrained and under-qualified civilians to step up and take on life-saving roles. The variety of medical professionals killed across the board points to the systematic destruction of the medical sector and the depletion of medical skills and services.
The largest causes of death of medical personnel are aerial bombardment, shelling, and small arms fire. These attacks can be deliberate or indiscriminate, both of which are violations of IHL when directed at medical facilities. As a result of such systematic attacks, many medical professionals died in the line of duty. Many others died after being detained and then tortured and executed. Due to restrictions in access and limited information, this number is likely to be larger and may continue to increase as families learn that their loved ones died in prisons. In addition, there are many medical professionals who are believed to be alive in detention facilities. These detentions, as well as the concealment of the fate of those who were killed, are gross violations of human rights and humanitarian law.
others have stayed behind, placing the lives of their patients ahead of their own. “The obstacles were everywhere,” said Dr. Rami Kalazi, a neurosurgeon who worked in eastern Aleppo city until the summer of 2016. “Massive bombardment everywhere, direct targeting of health facilities, a huge shortage of medical equipment and supplies, especially modern diagnostic devices, a demand for ambulances, a huge lack of medicines, a huge gap in medical experts, very few well-equipped ICUs, few beds in ICUs and wards – besides the enormous number of casualties. Could you imagine the circumstances that physicians in Syria are working under?”

Doctors in the Crosshairs

On March 22, 2011, government forces entered Daraa National Hospital, cleared it of non-essential staff, and positioned snipers on the roof. The snipers remained for two years, firing at the sick and wounded to ensure that only government supporters could enter the hospital. On April 8, a nurse trying to rescue an injured person was shot and killed by government forces in Daraa city. This was just the beginning of the government’s brutal and ongoing campaign of deliberate attacks on medical personnel and facilities as a weapon of war. Read more.
Learning Surgery as the Bombs Fall

In the Syrian government’s relentless assault on health care, nowhere was hit as hard as Aleppo. By the time the city fell to government forces in December 2016, more than two-thirds of the hospitals no longer functioned and roughly 95 percent of doctors had fled, been detained, or killed. Amidst this acute shortage of medical personnel, physicians had to learn to perform new operations on the spot. Dr. K, a dentist who was never trained in maxillofacial surgery, was the only doctor available one day to operate on a patient whose jaw was completely destroyed by a sniper shot. “I had to do deep sutures of the muscle, which was my first time, so I learned by doing that. I closed the patient and hoped that I had done a good job,” he said. Read more.

Timeline
the Syrian government is attacking medical facilities and targeting doctors for treating wounded civilians.

**Doctors in the Crosshairs**

PHR reports on how the Syrian government is using attacks on medical workers and facilities as a weapon of war. [Read more.](#)

**Stop Attacks on Doctors in Syria**

PHR stages a [Die-In](#) near the United Nations in New York to protest attacks on medical care in Syria.
Aleppo Abandoned

PHR’s report reveals that government attacks have devastated health care in Aleppo, where two thirds of hospitals have been put out of service and 95 percent of doctors have fled, been detained, or killed. Read more.

No Peace without Justice in Syria

On the fifth anniversary of the Syria conflict, PHR’s report demands accountability for the Syrian government for war crimes and crimes against humanity. Read more.
A Deadly Chemical Weapons Attack

CNN’s Christiane Amanpour interviews PHR after our experts identified a probable chemical weapons attack on the town Khan Sheikhoum which killed nearly 100 people, many of them children.

Honoring Courageous Syrian Doctors

At our annual gala, PHR honors Dr. Lena and Dr. Nour, Syrian physicians who have risked their lives to provide medical care in Syria and to document human rights abuses. Read more.
Portrait of a Syrian Town Under Siege

PHR's report shows the devastating toll of the Syrian government’s year-long siege of Madaya, which killed at least 86 people by starvation, disease, and traumatic injury, and left just two dentistry students and a veterinarian caring for the town’s 40,000 residents. Read more.

Access Denied

PHR’s report highlights how the Syrian government is deliberately and illegally stopping critical aid from reaching millions of people trapped in the country’s besieged and hard-to-reach places. Read more.
Conclusion

After eight years of death and destruction, the kinetic dynamics of the Syrian conflict are beginning to shift as the Syrian government regains territory. As of December 2018, approximately 12 million people across Syria required health assistance. Many of the health facilities impacted by the conflict remain non-functional. The flight, death, or continued detention of large numbers of health professionals only add to the crippled condition of Syria’s health care system. Addressing the impact of the targeting of health care must begin with justice and accountability for these documented violations of human rights and IHL. Justice must be delivered for medical personnel who were targeted and killed for upholding their civic and moral duty and for those who remain in detention or who have fled Syria and remain too afraid of reprisal to return to their homes and country.
PHR Methodology for Collection of Data on Attacks on Medical Personnel

PHR utilized open-source data and field sources to document the killing of medical personnel in Syria since March 2011. PHR drew primarily upon the Violations Documentation Center of Syria’s (VDC) English-language website, media accounts, and social media, corroborating and supplementing this information with data gathered from PHR’s network of physicians in and surrounding Syria. PHR chose to exclude from our data set any documented death identified as a “non-civilian” medical worker, as medical workers engaged in combat lose protected status under IHL.

PHR’s research team collected data from a wide variety of open sources, including United Nations, government, and local and international NGO reports; local, regional, and international news sources; journal articles; Facebook and blog posts; Twitter feeds; and YouTube videos. PHR also conducted interviews and received information and photographs from individuals and organizations involved in providing medical services in Syria and neighboring countries with refugee populations. PHR’s English- and Arabic-speaking analysts reviewed materials in both English and Arabic.

From March 2011 through December 2018, PHR corroborated 550 attacks on 348 separate medical facilities and documented the killing of 890 medical personnel. Check out our map of attacks on medical facilities in Syria.

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