



Anatomy of a Crisis

A Map of Attacks on Health Care in Syria

Findings as of June 2016

Attacks on Medical Facilities

- 382 attacks on 269 separate facilities between March 2011 and the end of June 2016
- 344 attacks were committed by Syrian government and allied forces (293 by Syrian government forces, 16 by Russian forces, 35 by either Russian or Syrian government forces), 25 by non-state armed groups (15 by opposition forces, eight by IS forces, and two by IS and opposition forces together), one by international coalition forces, 12 by unknown forces
- Indiscriminate barrel bombs, which were banned under UN Resolution 2139, were used on at least 74 occasions to attack hospitals.
- In May 2016, PHR documented eight attacks
 - Two were by Syrian government forces, one by either Russian or Syrian government forces, two by IS forces, two by opposition forces, and one by unknown forces
 - Two attacks were with barrel bombs, one by other aerial bombardment, two by shelling, one by suicide bombing, one by hand-held weapons in a raid, and one by unknown weaponry
- In June 2016, PHR documented nine attacks
 - Six were by either Russian or Syrian government forces, two were by Syrian government forces, and one by opposition forces
 - Five attacks were with traditional aerial weaponry, two with barrel bombs, one with cluster munitions, and one with mortar-fired rockets

Attacks on Medical Personnel

- 757 medical personnel were killed between March 2011 and the end of June 2016
- 703 of the killings were committed by Syrian government and allied forces (667 by Syrian government forces, one by Russian forces, and 35 by either Russian or Syrian government forces), 38 by non-state armed groups (24 by IS, 14 by opposition groups), one by Kurdish forces, 15 by unknown forces
- 53 percent of deaths were caused by shelling and bombing, 24 percent by shooting, 13 percent by torture, 8 percent by execution
- In May 2016, PHR documented deaths of 12 medical personnel
 - Eleven were killed by IS forces, one by opposition forces
 - At least ten were killed in the line of duty in a targeted attack on a hospital
 - Eleven were killed by bombing and one by shooting
- In June 2016, PHR documented deaths of seven medical personnel
 - Five were killed by either Russian or Syrian government forces and two by unknown forces
 - Five were killed in airstrikes and two by shootings

Analysis

PHR has mapped 382 attacks against 269 separate medical facilities in Syria since March 22, 2011. Each incident entry represents a single discrete attack upon a medical facility. Of the 382 attacks, PHR has documented that 344 attacks – 90 percent – were conducted by the Syrian government and allied forces (293 by Syrian government forces, 16 by Russian forces, and 35 by either Russian or Syrian government forces); 25 attacks were carried out by non-state armed groups (eight by the self-declared Islamic State [IS; also known as ISIS and ISIL], three by the Free Syrian Army [FSA], two by IS working with Jabhat al Nusra, two by the Syrian Islamic Liberation Front, one by the Ajnad al Sham Islamic Union, one by Jaish al Islam, and eight by unidentified anti-government forces); one by international coalition forces; and PHR was unable to attribute responsibility in 12 cases. PHR documented 16 attacks in October 2015 - the highest number of attacks in any month throughout the conflict. The second greatest number of attacks occurred May and June 2015, each with 14 attacks. 2015 is the worst year throughout the conflict for attacks on medical facilities, with 122 attacks documented. The second worst year was 2012 with 89 attacks.

The majority of attacks on medical facilities were targeted attacks, meaning that these locations were deliberately chosen for destruction, in violation of international humanitarian law (IHL). On 235 occasions, weapons that can be used discriminately to target a specific location – such as mortars, missiles, rockets, car bombs, guns, and arson – were used to attack hospitals. Sixty-four hospitals were hit multiple times, including Dar al-Shifa Hospital and Azaz National Hospital in Aleppo and Kafr Zita Specialty Hospital in Hama, which were repeatedly targeted until they were completely destroyed or forced to close. At least 51 of the different medical facilities that were attacked are located in isolated or sparsely populated areas, far from any other buildings, providing additional evidence of the intentional nature of these attacks. On one occasion, the Syrian government announced on the news that they had targeted a field hospital and killed a number of “terrorists,” including a physician.¹

Seventy-nine other attacks on 40 separate facilities were made in densely populated areas without taking the necessary precautions to protect and respect medical facilities, personnel, patients, or civilian life, as IHL mandates. At least 54 hospitals were destroyed or damaged by government forces in 75 separate attacks when indiscriminate weapons – such as barrel² and cluster bombs³ dropped from planes or helicopters – were used in civilian areas, in violation of the principle of distinction.⁴

Indiscriminate weapons typically cannot be aimed at specific targets and therefore do not distinguish between civilian or military targets. On at least three occasions where hospitals were attacked, schools, bakeries, and mosques were also destroyed in the immediate vicinity. The Syrian military is the sole user of barrel bombs in the conflict. PHR has no evidence that any effort was made to protect hospitals or medical facilities, and no advance warning of attacks was given to patients and medical personnel inside the hospitals, as IHL requires.

The Syrian government’s attack on the country’s health system has been as focused upon medical personnel as on facilities, supporting the argument that this tactic represents a widespread and systematic governmental policy. Since March 2011, at least 757 civilian medical personnel have reportedly been killed. Medical personnel killed while providing care have predominantly lost their lives during attacks upon medical facilities or while providing first aid in the field. For example, on February 15, 2016, either Syrian government or Russian forces launched airstrikes on an MSF-supported medical facility in Hamadiya, a small town south of Maarat al Numan in Idlib governorate. These airstrikes killed eight medical staff. Shortly after that attack, warplanes struck a hospital supported by the Syrian American Medical Society (SAMS) about three miles north - where casualties from the attack on the MSF-supported facility were taken. This attack killed a nurse.

Medical personnel have also been arrested, disappeared, imprisoned, tortured, or executed. In one case, Hasan Ahmad Azhari Mawalid, a fifth-year pharmacy student, died in his second month of detention on May 17, 2012. His family was only notified of his death a month later on June 11, 2012.⁶ Medical personnel are often arrested and sentenced to years in prison for carrying out their professional and ethical duties – equipping hospitals, treating patients, and conducting first-aid training in besieged areas.⁷ These arrested medical personnel have been tried in military field courts, secret courts that do not announce a ruling or allow defendants to have an attorney.⁸ It is a violation of international norms to try civilians in military courts. In addition, in most cases, many due process and fair trial protections are violated in these cases.

Among doctors, nurses, medics, pharmacists, ambulance workers, veterinarians, dentists, laboratory technicians, dentistry students, medical students, pharmacy students, and veterinary students, the highest percentage killed were doctors (32 percent), followed by nurses (23 percent) and medics (18 percent). Fifty-three percent of medical workers were killed by shelling and bombing and 24 percent by shooting. At least 150 health professionals have been executed or tortured to death by government forces since the start of the conflict. Rif Dimashq Governorate has been most affected, with 137 reported medical personnel deaths. Between 2012 and 2014, the total number of medical personnel killed each year has varied little, with 190, 180, and 177 deaths in 2012, 2013, and 2014 respectively. In 2015, PHR documented 107 deaths, a significant decrease from previous years. This change may be due to a decrease in the overall number of medical personnel remaining in Syria and development of techniques to better protect medical personnel during attacks.

PHR has found that government forces are overwhelmingly responsible for the deaths of medical personnel. Of the 757 deaths recorded, 703 - 93 percent - were committed by Syrian government and allied forces (667 by Syrian government forces, one by Russian forces, and 35 by either Russian or Syrian government forces), 38 by non-state armed groups (24 by IS, 14 by opposition groups), one by Kurdish forces, and 15 by unidentified forces. Despite the disproportionate number of violations committed by government forces, PHR remains vigilant in monitoring attacks on facilities and personnel by all parties to the conflict.

PHR will continue to update and map its findings each month.

Appendix: AAAS Satellite Imagery Analysis

The Geospatial Technologies and Human Rights Project of the American Association for the Advancement of Science (AAAS) analyzed high resolution satellite imagery to verify damage or destruction to medical facilities in cities across Syria: Aleppo, Douma, Homs, Idlib, and Tafas. Their analysis is included in the following report, ["Assessing the Status of Medical Facilities in Syria."](#)

AAAS provided imagery analysis of 10 additional attack sites, which PHR had little information on or no corroboration for in: Aleppo, Douma, Homs, Daraa, and al-Hassakeh. Their analysis is included in the following report, ["Assessing the Status of Medical Facilities in Syria: Addenda. 23 July, 2014."](#)

AAAS provided imagery analysis of 19 additional hospitals, which PHR had little information on or no corroboration for in: Aleppo, Daraa, Damascus, Hama, al Hassakeh, Idlib, and Rif Dimashq. Their analysis is included in the following report, ["Assessing the Status of Medical Facilities in Syria: Addenda 2. 5 December, 2014."](#)

¹ <http://sana.sy/ara/389/2014/01/26/ara/336/2014/01/31/525394.htm>

² A “barrel bomb” is a crude weapon made from a low-cost cylinder filled with explosives, shrapnel, or oil (which is then ignited) that is dropped from a helicopter or plane. Reports indicate that they vary in weight between 200 and 2,000 pounds, potentially even heavier. Barrel bombs are most commonly dropped from high altitudes, restricting the user’s ability to target with discrimination. In Syria, barrel bombs have proven very destructive, breaking into thousands of small fragments upon impact. <http://brown-moses.blogspot.co.uk/2013/12/syrias-barrel-bomb-technology-relative.html>

³ A “cluster bomb” is an illegal munition that is designed to disperse or release explosive munitions each weighing less than 20 kilograms. <http://www.clusterconvention.org/files/2011/01/Convention-ENG.pdf>

⁴ The principle of distinction in IHL requires military and armed groups to distinguish between civilians/civilian objects and military personnel/objects. It is never lawful to target civilians or civilian objects such as hospitals, schools, mosques. See Methodology section: [Legal Framework: A detailed summary of International Humanitarian Law \(IHL\) as applied to medical facilities and personnel.](#)

⁵ Union of Syrian Medical Relief Organizations (UOSSM), *Two Medical Volunteers Killed During Round Two of Polio Vaccination Campaign*, <http://www.uossm.org/index.php/two-medical-volunteers-killed-during-round-two-of-polio-vaccination-campaign/> (last visited July 22, 2014); Human Rights Council, Oral Update of the independent international commission of inquiry on the Syrian Arab Republic, Mar. 18 2014, <http://www.ohchr.org/Documents/HRBodies/HRCouncil/CoISyria/OralUpdate18March2014.pdf>; National Coalition of Syrian Revolution and Opposition Forces, *Local News: Assad Forces Kill Volunteers in Anti-Polio Campaign*, Syrian Coalition, Jan. 31, 2014, <http://en.etilaf.org/daily-newsletter/daily-newsletter-31-01-2014.html>.

⁶ PHR local source, information received Apr. 20, 2014, translated by PHR from Arabic into English, on file with PHR.

⁷ *Ibid.*

⁸ *Ibid.*; see also International Commission of Jurists, *Syrian human rights lawyer Mazen Darwish may face prosecution, death sentence before a military court*, Aug. 9 2012, <http://www.icj.org/syrian-human-rights-lawyer-mazen-darwish-may-face-prosecution-death-sentence-before-a-military-court/> (confirming persons brought before Military Field Courts have no right to defense).