

Physicians for  
Human Rights

Madaya: Portrait of a  
Syrian Town Under Siege

Syrian American  
Medical Society

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PHR

Physicians for  
Human Rights



## About PHR

For 30 years, Physicians for Human Rights (PHR) has used science and medicine to document and call attention to mass atrocities and severe human rights violations.

PHR is a global organization founded on the idea that health professionals, with their specialized skills, ethical duties, and credible voices, are uniquely positioned to stop human rights violations.

PHR's investigations and expertise are used to advocate for persecuted health workers and medical facilities under attack, prevent torture, document mass atrocities, and hold those who violate human rights accountable.

## About SAMS

The Syrian American Medical Society (SAMS) is a non-profit, non-political, professional and medical relief organization that provides humanitarian assistance to Syrians in need and represents thousands of Syrian American medical professionals in the United States.

Founded in 1998 as a professional society, SAMS has evolved to meet the growing needs and challenges of the medical crisis in Syria. Today, SAMS works on the front lines of crisis relief in Syria and neighboring countries to serve the medical needs of millions of Syrians, support doctors and medical professionals, and rebuild healthcare. From establishing field hospitals and training Syrian physicians to advocating at the highest levels of government, SAMS is working to alleviate suffering and save lives.

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*Cover: Children in the besieged town of Madaya in January 2016.*

*Photo: Syrian American Medical Society*

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# Executive Summary

In late spring 2016, 12-year-old Ola<sup>1</sup> died in Syria. Her death was not from barrel bombs, missiles, or mortar fire, but from starvation. She lived in Madaya, a small town controlled by opposition forces an hour's drive from Damascus that the Syrian government has besieged – trapping residents inside without access to supplies, food, or services outside the town – since July 2015, in violation of international humanitarian law.

During the government's siege, Madaya's 40,000 residents – roughly four times the town's original population – have been surrounded by landmines, checkpoints, and snipers, forced to survive on the meager supplies and services available inside the town's narrow boundaries. With inadequate food stores and medical care, they have suffered from starvation and malnutrition, and succumbed to disease, traumatic injury, and other life-threatening conditions.

In December 2015, after nearly six months of siege and only one humanitarian aid delivery that included expired food, reports from Madaya appeared in international news outlets, including graphic images of starving children and adults. This prompted a large-scale effort to deliver humanitarian aid and alleviate the impact of the siege in Madaya.

None of these efforts saved Ola. Of the four humanitarian aid deliveries to Madaya between January and April 2016, none included adequate food and medical supplies to alleviate advanced malnutrition and starvation for all of the town's residents. This is in large part because Syrian government officials only permitted the delivery of limited quantities and types of food and medicine and stripped out essential aid from convoys, including kits to treat severe acute childhood malnutrition. Government officials also did not respond to requests to evacuate Ola for urgent medical care, despite promises in a September 2015 agreement between warring parties to allow such evacuations.

Ola died on May 26, 2016, joining 85 other people who had perished from siege-related causes since the siege on Madaya began – 65 from malnutrition and starvation, 14 from landmines, six from snipers, and one from a chronic health condition.<sup>2</sup> Almost all 86 could have been saved if they had had access to food, medication, medical equipment, and medical treatment by specialized health workers. But there is grossly insufficient food, medicine, and medical equipment in Madaya and two dentistry students and a veterinarian are left to care for the town's 40,000 residents. The lives of Madaya's remaining residents hang in the balance, with hundreds suffering the untreated effects of malnutrition, chronic health conditions, infectious diseases, and traumatic injuries.



*Residents wait for the arrival of an aid convoy in the besieged town of Madaya on January 11, 2016.  
Photo: Stringer/AFP/Getty Images*

Ola's tragic story may be extreme, but it is not unique. Syrian government forces, and, to a lesser extent, non-state armed groups, have besieged cities and towns across the country since the start of the conflict in March 2011. They employ sieges to punish entire populations for their presumed support for a party to the conflict, and, in some cases, to increase their leverage over access of supplies to other besieged areas. As of May 2016, human rights organizations have documented that more than one million Syrians live under siege, the vast majority by Syrian government forces,<sup>3</sup> although UN OCHA puts the number of total besieged people much lower at 517,700.<sup>4</sup> The Syrian government and other besieging parties have denied deliveries of food, medicine, and other things indispensable to survival, subjecting entire populations to slow deaths by starvation and lack of health care. The UN Security Council has repeatedly demanded an end to all sieges in Syria, but these demands have been ignored.

Syrian government officials continue to impose bureaucratic processes for aid deliveries and medical evacuations, giving priority to political considerations rather than to ending deadly and unlawful sieges. UN humanitarian aid agencies have been forced to request individual authorization by the Syrian government for each aid convoy to each besieged location. While government authorities have occasionally approved these requests, more often they have restricted the quantity and type of food and medical aid allowed in, denied access to convoys outright, or prevented approved convoys from entering at local checkpoints.

Deaths will continue as long as sieges are in place. As of June 2016, no besieged town in Syria had received more UN humanitarian aid deliveries over the prior year than Madaya, which received monthly convoys between January and April of 2016. These deliveries, and sporadic humanitarian evacuations during the same time, have undoubtedly saved lives. However, these half-measures, lauded by the media and UN officials as progress toward ending the siege, have been far from sufficient to alleviate the immense suffering in Madaya.

Dr. Muhammad Darwish, who was a dentistry student when the conflict broke out and now is one of Madaya's few remaining health care providers, explains: "What we need in Madaya, and in all besieged areas in Syria, is to lift the siege once and for all. No more beating around the bush and allowing a few convoys in here and there that don't include medication and with aid that doesn't even meet the needs of a quarter of the population."<sup>5</sup>

Siege warfare and the willful denial of humanitarian aid – especially aid indispensable for survival – are illegal

under both the Geneva Conventions and customary international law. They constitute war crimes. Such acts are also crimes of collective punishment, itself a separate violation of international humanitarian law.

Physicians for Human Rights (PHR) and the Syrian American Medical Society (SAMS) demand that all warring parties in Syria immediately end their deliberate starvation of civilians and blocking of humanitarian aid. Members of the UN Security Council and the International Syria Support Group must demand and guarantee freedom of movement and unimpeded and constant access to all needed humanitarian aid and commercial access for Syria's besieged population, from food to medical supplies to life-saving services. World leaders must support humanitarian agencies in pursuing every means possible – including airdrops – to deliver life-saving aid and services to everyone in need. Each additional day under siege causes untold suffering to more than one million Syrians and brings them one day closer to death.

**The Syrian government and other besieging parties have denied deliveries of food, medicine, and other things indispensable to survival, subjecting entire populations to slow deaths by starvation and lack of health care.**

#### Madaya in Numbers



## Methodology

Physicians for Human Rights and the Syrian American Medical Society co-authored this report. Researchers at both organizations conducted semi-structured phone, Skype, and WhatsApp interviews with medical and relief staff currently working in Madaya or who recently left Madaya, as well as with former residents of the area. Interviews focused on access to health care, medical conditions in the town (starvation and malnutrition, chronic and acute illnesses, communicable diseases), humanitarian aid deliveries, medical evacuations, and the imposition of the siege. These interviews were supplemented with information gathered through online, open-source research in both Arabic and English. The list of deaths included in the Annex to the report was provided by health workers at Madaya's field hospital. Research was conducted from January to May 2016.



*The besieged town of Madaya.  
Photo: United Relief Organization in  
Madaya and Zabadani*

## Background: The Siege of Madaya and the “Four Towns” Agreement

Madaya is a small town less than an hour's drive northwest of Damascus. It is located in an agricultural valley with the Qalamoun Mountains to the east and the towns of Baqin and Zabadani to the north. Madaya and neighboring towns were vacation getaways for affluent Damascenes before the conflict because of their proximity to the city, cooler weather in the summer, and picturesque views. As a result, they did not have or need the infrastructure to be self-sufficient or the resources to sustain larger populations without support from outside the town.

When peaceful protests against Syrian President Bashar al-Assad's government broke out in March 2011, many of Madaya's residents joined in.<sup>6</sup> Government authorities responded to Madaya's protests as they did across the country: soldiers installed checkpoints surrounding the town, detained protesters, and subjected residents to artillery attacks, sniper fire, and raids on a nearly daily basis, punishing residents for their support of the revolution.<sup>7</sup> In January 2012, under the supervision of Arab League monitors, Syrian troops withdrew from Madaya and neighboring Zabadani to a perimeter about five miles away, leaving the towns surrounded and under control of opposition forces.<sup>8</sup> Sporadic attacks on the two towns continued for the next three years, with periods of violence followed by brief negotiated ceasefires, each of which was eventually broken by either Syrian government or opposition forces.

In June 2015, Syrian government forces increased aerial attacks on Madaya and Zabadani, primarily with barrel bombs.<sup>9</sup> On July 3, they launched a ground assault to take control of Zabadani, encircling the town with checkpoints and heavy weaponry, and displacing thousands of residents to Madaya, which had already absorbed thousands of neighboring towns' residents from previous displacements.<sup>10</sup> Eventually, the attack cut off movement between the two towns and left both besieged.<sup>11</sup> By late July 2015, approximately 40,000 people were living in Madaya – roughly four times the town's pre-war population – without access to resources, services, or goods outside the town's 12-square-kilometer area.<sup>12</sup> Throughout August 2015, the Syrian airforce launched repeated barrel bomb attacks on Madaya. On the ground, Syrian government and allied Hezbollah forces<sup>13</sup> tightened the siege around the town, displacing residents to an ever-smaller geographic area.<sup>14</sup>



The assault on Madaya and Zabadani prompted *Jaish al-Fateh* – a network of Islamist opposition groups – to launch retaliatory attacks on Foah and Kafraya, two government-controlled towns in Idlib governorate.<sup>15</sup> These attacks in July and August 2015 caused numerous civilian casualties among the towns' 16,500 residents, many of whom had been under siege by opposition forces since March 2015.<sup>16</sup>

On September 22, 2015, after months of intense fighting, including continued indiscriminate attacks on civilians, Syrian government authorities and opposition fighters agreed to a comprehensive ceasefire agreement covering the four towns: Madaya, Zabadani, Foah, and Kafraya. The agreement demanded an end to all attacks for a six-month period, delivery of humanitarian aid, and urgent medical evacuations for those in need. The ceasefire was also intended to facilitate the withdrawal of fighters and their families from Zabadani to opposition-controlled Idlib, the evacuation of up to 10,000 civilians from Foah and Kafraya, and the release of approximately 500 prisoners from Syrian government jails.<sup>17</sup> A central requirement of the ceasefire agreement was that all aid deliveries and medical evacuations had to occur simultaneously across the four towns: no town could receive a delivery if the others did not, and

nobody could be evacuated from one town if others were not concurrently evacuated from other towns.

Dr. Ammar Ghanem, a leader of the Syrian American Medical Society who is originally from Zabadani, explained that civilians in Madaya and Zabadani were upset by the tit-for-tat nature of this agreement. "It was very unfair to tie their fate to the fate of another besieged area in Syria." Civilians in these towns were also upset that the agreement "really only helped the armed groups and their families... People of Zabadani were not even present in the negotiation process."<sup>18</sup>

Since September 2015, however, despite the ceasefire, the siege on Madaya has intensified. Residents reported that in early 2016, Syrian government and Hezbollah forces placed approximately 6,000 additional landmines around the southern and eastern sides of the town in order to further imprison residents inside.<sup>19</sup> Such indiscriminate use of landmines in a populated civilian area violates international humanitarian law.<sup>20</sup> Authorities also continued to forcibly displace residents of surrounding towns, relocating 145 families from neighboring Zabadani to Madaya between October 2015 and January 2016. This population growth put additional stress on Madaya's already overstretched resources in terms of food and medical supplies.<sup>21</sup>



*Pro-government forces have trapped residents inside Madaya without access to supplies, food, or services from outside the town since July 2015.*

*Photo: Louai Bechara/AFP/Getty Images*

Despite overwhelming evidence that Madaya's residents had been trapped inside the town since July 2015, surrounded by checkpoints, snipers, and landmines without access to aid, commercial goods, or services, the UN Office for the Coordination of Humanitarian Affairs (OCHA) belatedly added Madaya to its list of besieged areas only in January 2016, after dozens of siege-related deaths were reported.<sup>22</sup> Only then did UN OCHA report that conditions in Madaya were consistent with its definition of a besieged area – “an area surrounded by armed actors with the sustained effect that humanitarian assistance cannot regularly enter, and civilians, the sick, and wounded cannot regularly exit the area.”<sup>23</sup>

#### Impact of the Siege on Access to Health Care

The siege on Madaya has severely impacted the town's already limited health care facilities and staff, who try to provide comprehensive care for a population roughly four times larger than it was before the war. As of May 2016, a veterinarian and two dentistry students were the three most advanced health professionals working as “doctors” in Madaya's field hospital, attempting to cover the medical needs of 40,000 residents.

The limitations to Madaya's pre-siege health care system were a direct reflection of its proximity to Damascus and small population. Madaya simply did not have the need for the health care infrastructure or personnel necessary to provide comprehensive health care services. Before the conflict, Madaya's residents visited a clinic inside the town for basic health care needs such as vaccinations and outpatient services. The clinic was staffed by two general practitioners, an obstetrician/gynecologist, a dermatologist, and four dentists.<sup>24</sup> Residents also visited physicians at their private practices in the town. For more advanced services, residents visited Jarjaniya Hospital a few miles north of Madaya. This hospital provided emergency services, general surgery, and obstetric and gynecological services, and was equipped with specialized clinics. For even more advanced health care – such as cancer treatment and eye surgeries – Madaya's residents would visit larger hospitals in Damascus.<sup>25</sup>

After the conflict broke out, many of Madaya's health workers fled in fear for their lives. By June 2015, when attacks on the town had reached the highest levels yet and many residents needed advanced care for their traumatic injuries, the town's only clinic had stopped functioning. Although it was only a short walk away, residents could no longer visit Jarjaniya Hospital, as checkpoints were stationed on the road there. The only medical facility left was a field hospital staffed by a nurse anesthetist, a veterinarian, and two dentistry students. The field hospital staff's capacity became even more limited

**“What do we expect two dentistry students, a veterinarian, and a field hospital to do for these cases, each one in need of specialized care? We are in an impossible situation.”<sup>26</sup>**

*Dr. Muhammad Darwish, a dentistry student and one of Madaya's few remaining health care providers*

after the nurse fled – at great risk to his life – in early 2016 after he received threats from Hezbollah.<sup>27</sup>

The remaining veterinarian and two dentistry students have had limited access to even some of the most basic medications, such as aspirin, antihistamines, and antibiotics.<sup>28</sup> Without sufficient supplies, medication, and equipment or advanced medical training, they lack the capacity to handle cases requiring specialized care. Dr. Darwish, one of the dentistry students, said he felt extremely helpless in the face of Madaya's acute needs.

To improve the quality of health care available in Madaya, the Syrian American Medical Society established a WhatsApp group in January 2016 to connect health workers inside Madaya with specialists in the United States. This group has diagnosed patients and guided health workers through specialized treatments over messages. It has been the most advanced version of a telemedicine program that Madaya has been able to implement, as security forces at checkpoints have not allowed cameras or medical equipment such as laboratory supplies and x-rays into the town.<sup>29</sup>

#### In Besieged Madaya, a Veterinarian Performs a Cesarean Section

Dr. Mohammad Yousef, a veterinarian originally from Madaya, is one of the few doctors left to care for all the health needs of the besieged town's 40,000 residents. He reflected on the challenges he faces: “We are constantly having to do things beyond our capabilities. We always say that we do not have the experience, but then the families of patients force us to treat their loved ones as best we can, with our limited abilities... The most difficult situation we were in was after the nurse anesthetist left the city. A pregnant woman about to give birth was unable to deliver normally. We tried to evacuate her to Damascus, but the government and Hezbollah refused. So we were put in the difficult situation of having to perform a C-section without a specialized physician. We had to make the family sign an agreement saying we are not liable if there were complications and the mother or infant died during the surgery. We were so afraid during the operation, but it was a success. We cried tears of joy and thanked God for allowing us to save the mother and her child.”

# Denial of Aid Deliveries and Consequences of Starvation

Even with alarming reports of malnutrition and starvation surfacing from Madaya in early 2016, UN aid agencies completed only five humanitarian aid deliveries to the town from the start of the ceasefire in September 2015 through the end of May 2016. While each delivery improved the quality and quantity of aid provided, the deliveries – most of which occurred between January and April 2016 – were grossly inadequate and did not meet the immense needs of Madaya's residents. Left to survive on their meager food stores, grass and other plants they could scavenge from nearby agricultural fields, and the food infrequently provided in UN aid deliveries, the predictable result was a continued deterioration of residents' health, resulting in the deaths of 65 residents from malnutrition and starvation.

The delivery of aid was encumbered at times by continued fighting. On October 2, 2015, the spokesperson for the UN secretary-general announced that after preparing to "immediately implement" the humanitarian provisions of the ceasefire agreement for the four towns, the UN was forced to suspend its intervention "due to the recent surge of military activities in the concerned areas."<sup>30</sup> However, even when convoys eventually reached Madaya, the content was insufficient for the number of residents, most often did not contain necessary aid for combating starvation, and at times was of substandard quality.

The UN carried out its first aid delivery on October 18, providing medical supplies, non-communicable diseases medication, reproductive health kits, food, nutritional supplies, and water, sanitation, and hygiene supplies. However, the deliveries were only sufficient to serve half of Madaya's residents.<sup>31</sup>

Worse still, some of that food had already gone bad by the time it reached Madaya. A nurse anesthetist working in Madaya's field hospital reported that up to 200 people were rushed to the hospital with abdominal pain, fever, vomiting, and diarrhea after eating the high energy biscuits included in the aid delivery which had expired the previous month and were reportedly moldy and rotten.<sup>32</sup> After residents reported receiving old biscuits, UN humanitarian aid officials confirmed that 320 boxes of expired high energy biscuits were included "as the result of an unfortunate human error during the landing process."<sup>33</sup> The UN agreed to replace the expired food

and deliver powdered milk for children, but the next delivery did not occur for more than two months.<sup>34</sup>

During this time, 41 people in Madaya died from starvation and malnutrition-related causes. According to documentation received from health workers in Madaya's field hospital, the vast majority of these people died between December 1, 2015 and January 10, 2016 – that is, well after UN aid workers had already accessed the town and diagnosed an urgent need for food aid and nutritional supplements for malnourished and starving residents.

In January 2016, after an international outcry over reports of severe malnutrition and starvation in Madaya, UN aid agencies carried out three aid deliveries on January 11, 14, and 18. According to the UN, these convoys provided food, medicine, medical supplies, nutritional supplies, water and sanitation supplies, non-food items such as blankets, and fuel sufficient for one month.<sup>35</sup> On January 15, a mobile Syrian Arab Red Crescent (SARC) clinic was also allowed to enter Madaya with two doctors and other medical staff in order to conduct screenings of almost 200 people.<sup>36</sup>

Despite the numerous convoys, the January deliveries again proved insufficient in quantity and quality and did not include adequate nutritional content. Residents reported that the medical aid included water purification tablets, personal hygiene kits, gauze, cotton swabs, sterilizers, fever and diarrhea medication for children, and some antibiotics, but that these supplies were only sufficient for approximately 30 percent of the population.<sup>37</sup> They also noted that the food aid consisted mainly of carbohydrates, beans, sugar, and cooking oil. Residents still lacked access to fruit, vegetables, animal protein, eggs, or dairy – all vital sources of nutrients and proteins for a malnourished population.



*A young man from Madaya who died from malnutrition in the spring of 2016.*

*Photo: Syrian American Medical Society*





*An aid convoy from the international Committee of the Red Cross waits outside Madaya on January 11, 2016.  
Photo: Louai Bechara/AFP/Getty Images*

The humanitarian team conducting the January operations reported “a significant deterioration in the humanitarian situation in Madaya since access was last permitted on 18 October 2015 linked to an acute scarcity of basic foodstuff in the town.”<sup>38</sup> Nutritionists with the International Committee of the Red Cross, UNICEF, and the World Health Organization performed random nutrition screenings to determine the scale of malnutrition, and SARC officials assessed an additional nearly 400 people at the town field hospital. Members of these teams reported many cases of malnutrition, both acute and severe.<sup>39</sup> Residents reported that despite the horrendous conditions UN health providers witnessed, the visiting health professionals primarily diagnosed patients, rather than treating them.<sup>40</sup>

In the four weeks following the January UN aid deliveries, 17 more people, all over the age of 15, died from starvation.<sup>41</sup> The aid delivery weeks earlier had arrived too late for them, as their conditions had deteriorated so much that specialized inpatient care would have been the only hope to save them. Madaya’s field hospital could not support that level of care. Moreover, the health care professionals left at the hospital did not have the training to provide such specialized care.

Despite the UN’s request for sustained and unfettered access for aid convoys to Madaya and surrounding towns, Syrian government authorities only approved the January convoys and their specific contents, forcing UN authorities to resubmit requests to deliver aid on February 4.<sup>42</sup>

The next UN humanitarian aid delivery, which arrived on February 17, was deliberately stripped of essential care by government authorities. While the convoy provided additional food and medical and nutritional supplies to

### The High Price of Besiegement

The shortage of food has led to extremely inflated prices for the little food available – prices many of Madaya’s residents have not been able to afford. According to sources in Madaya, by late December 2015, a kilogram of rice cost 32,000 Syrian Pounds (SP), or approximately US\$85. A kilogram of flour cost 35,000 SP (US\$92) and a kilogram of hummus cost 27,000 SP (US\$80). By early January, these prices had more than doubled: a kilogram of rice cost 80,000 SP (US\$205) and a kilogram of hummus cost 75,000 SP (US\$192). Nine hundred grams of baby milk cost 110,000 SP (US\$282). Following UN food deliveries between January and April, residents reported that prices for delivered food returned to normal levels. However, food not included in the convoys remained at exorbitant prices. As of June 3, sources inside Madaya reported that a kilogram of rice cost 1,000 SP (US\$2) and a kilogram of sugar was 2,000 SP (US\$4), but a kilogram of milk cost 32,000 SP (US\$70).

residents, authorities did not allow the inclusion of UNICEF inpatient stabilization kits to treat 200 children with severe acute malnutrition.<sup>43</sup> Two children died from severe acute malnutrition in the weeks after these stabilization kits were excluded: an eight-year-old boy on February 26 and a six-month-old girl on March 6.<sup>44</sup> Medical authorities in Madaya sent repeated requests to the UN and humanitarian organizations to evacuate the eight-year-old, but the evacuation was not granted.<sup>45</sup> Two more civilians starved to death during this time: a 57-year-old man on March 4 and a man of unknown age on March 10.<sup>46</sup>

Reports of malnutrition continued to spread. In late February, children with swollen stomachs and faces characteristic of kwashiorkor – a specific form of malnutrition caused by protein deficiency that results in edema, or swelling in the body due to excess fluid –



*An 8-year-old Madaya boy suffering from kwashiorkor, a form of malnutrition caused by protein deficiency.  
Photo: Syrian American Medical Society*

began appearing at the field hospital seeking care. On March 11, the Medical Authority in Madaya and Baqin reported they had seen around 200 cases of kwashiorkor in the past month. Health workers in Madaya requested that UN aid agencies deliver animal protein, eggs, and dairy to treat these cases, as well as vegetables and fruit to provide a more balanced diet.<sup>47</sup>

The subsequent UN humanitarian aid delivery on March 17 included virtually none of the requested food items. Each of the 7,800 food parcels were to contain five cans of tuna along with grains, beans, and other basic foodstuffs. However, local officials reported that, while the grains and beans were delivered, 3,000 parcels contained no tuna while 1,000 contained one can.<sup>48</sup> Thus, the town received 20,000 cans of tuna, each weighing 160 grams (5.6 ounces), providing each resident less than three ounces of tuna to last an entire month. No additional animal protein, eggs, vegetables, or fruit were delivered. The World Food Program, which provides food baskets for UN aid deliveries, said in March that “our food baskets do not include fresh fruits or dairy products due to the safety issues and the storage and the long times it takes to deliver food to the people in the besieged areas.”<sup>49</sup> UN OCHA further reported that Syrian government authorities removed surgical items, medicine, and medical supplies from the March convoy.<sup>50</sup>

The deadly toll of the siege continued. On April 4, an 18-year-old man died from starvation.<sup>51</sup> On April 10, a boy born just days earlier died due, in part, to poor maternal nutrition.<sup>52</sup>

On April 30, Jan Egeland, Special Advisor to the UN Special Envoy for Syria, reported that after “endless obstacles and problems” had delayed the next aid convoy two weeks from its original mid-April delivery date, Madaya had finally received an aid delivery with sufficient food stores to feed the town’s full population for one month.<sup>53</sup>

By early May 2016, medical sources in Madaya reported that most cases of kwashiorkor had been resolved. However, through the end of May, no additional aid deliveries reached Madaya, despite government authorities approving a May delivery.<sup>54</sup> Residents were again running out of food and on the brink of starvation.

UN officials did not offer any public explanation as to why their humanitarian agencies did not carry out the already approved aid delivery to Madaya in May. They also did not adequately explain why the aid delivered in earlier convoys was insufficient in both quantity and

quality. Without frequent and transparent reporting on the issues of aid deliveries to besieged areas, it is impossible for anyone outside the UN’s humanitarian aid network to assess who is responsible for these failures and make recommendations to ensure they stop happening.

In addition to the 65 people who died as a result of malnutrition and starvation in Madaya between November 2015 and the end of May 2016, countless others have suffered the effects of malnutrition.<sup>55</sup> Medical authorities have reported children with symptoms and signs of osteoporosis, which include bone pain, difficulty walking, fractures in the long bones of the skeleton and spine, curvature of the spine, and/or height loss. These conditions are known to develop in children with insufficient calories, calcium, and vitamin D and also produce adverse health conditions in adulthood.<sup>56</sup> The malnutrition Madaya’s residents have suffered may also lead to adverse health outcomes in the future, such as stunted growth, poor mental development, behavior abnormalities, insulin resistance, and hypertension.<sup>57</sup>



*This 12-year-old girl died from malnutrition in Madaya in May 2016 after repeated appeals for permission to evacuate her from the besieged town were ignored. Photo: Syrian American Medical Society*

# Denial of Humanitarian Evacuations and Preventable Deaths

The combination of a devastatingly limited medical staff, one poorly equipped and supplied field hospital in Madaya, and the inflexible political arrangement of the “Four Towns” agreement has proved deadly for the town’s residents. The “Four Towns” agreement required UN agencies to support and oversee evacuation of civilians, including those needing urgent medical care, from Madaya, Zabadani, Foah, and Kafraya,<sup>58</sup> but it stipulated that an equal number of humanitarian evacuations must occur from all four towns, regardless of the specific needs in each town.<sup>59</sup> This requirement, which effectively ties the fate of civilians in Madaya and Zabadani to the fate of others in Foah and Kafraya, has prevented UN agencies from carrying out urgently needed and otherwise feasible humanitarian evacuations, as international humanitarian law requires. Without access to adequate care inside the town, residents have died.

The first humanitarian evacuation from Madaya occurred in January 2016 and was restricted to 10 people, despite UN officials having identified hundreds of residents in need of urgent medical care.<sup>60</sup> Since January, a few dozen residents have been evacuated on “one way tickets,” knowing they cannot return to their family, friends, or homes after receiving care.<sup>61</sup> Local sources reported that SARC authorities evacuated four people from Madaya on February 10: three women requiring caesarian sections and one elderly man.<sup>62</sup> The next evacuation occurred on March 31, when UN authorities evacuated three individuals requiring urgent medical care from Madaya and Zabadani along with seven accompanying family members. Two medical cases and ten family members were simultaneously evacuated from Foah and Kafraya.<sup>63</sup>

Hundreds more people with urgent unmet medical needs remained trapped inside Madaya, unable to receive care, and with repeated petitions for evacuations denied. While the town’s health workers have worked with the Syrian Arab Red Crescent and other humanitarian organizations to identify patients in need of evacuation, both residents and health workers have reported that some evacuations lacked transparency, as SARC officials gave no explanations for why certain individuals requiring urgent care were left behind.<sup>64</sup>

The denial of humanitarian evacuations has resulted in the preventable deaths of civilians. On March 29, 2016, three young boys were playing near a landmine on the outskirts of Madaya, approximately 150 meters from a Hezbollah checkpoint. Thinking that the landmine was possibly a toy or food, the boys picked it up. A man saw the boys holding the landmine and shouted out to warn them. Frightened, the boys dropped the landmine and it exploded. One boy was killed instantly. The second boy suffered severe injuries to his legs that would require amputations. The third boy suffered shrapnel injuries to his head and abdomen requiring surgical intervention. When the two injured boys arrived at the field hospital in Madaya, the medical staff requested an urgent medical evacuation so they could get the lifesaving care they needed. However, SARC officials said that they could not evacuate the two boys, ages six and seven, because nobody from Foah or Kafraya needed medical evacuations. Both boys died within a day. All three boys were buried in the same grave.<sup>65</sup>

On April 20, the UN and partner organizations carried out a mass humanitarian evacuation from the four towns, transporting 80 people needing urgent medical care and 435 accompanying family members to other areas in Idlib and Damascus. From Madaya, 40 people requiring urgent care and 200 accompanying family members were permitted to leave.<sup>66</sup>

However, this mass evacuation again did not come close to meeting the needs of Madaya’s residents. Health professionals reported that 100 more individuals – including patients with congenital defects, neurological and optical injuries, and cardiac, renal, and liver conditions – remained in Madaya in need of urgent care.<sup>67</sup> No additional evacuations from Madaya occurred through the end of May 2016, despite requests from Madaya’s health workers. Twelve-year-old Ola was yet another casualty of the siege, dying from starvation on May 26. Medical authorities in Madaya had repeatedly requested a humanitarian evacuation for Ola since February 2016, but their requests went unanswered.<sup>68</sup>

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**Medical authorities in Madaya had repeatedly requested a humanitarian evacuation for Ola since February 2016, but their requests went unanswered... Ola died on May 26, 2016, joining 85 other people who had perished from siege-related causes since the siege on Madaya began.**



# Increased Health Care Needs Due to the Siege

The siege has increased death and suffering in Madaya by inflicting acute traumatic injuries from landmines and sniper fire, aggravating chronic illnesses by impeding access to sufficient medicines and medical care, and heightening the risk of the spread of disease.

## Traumatic Injuries

Despite the ceasefire, residents continue to suffer from traumatic injuries from landmines and snipers surrounding the town, without access to the advanced medical care required to treat their wounds. A number have died as a result.

As food supplies dwindled and Madaya's residents faced the likely prospect of starving to death alongside their family and neighbors, residents began braving the labyrinth of landmines and snipers encircling the town in an attempt to flee or search for food. From November 2015 until the January 11, 2016 UN aid delivery, 10 residents were killed by landmines and five by snipers while trying to escape.<sup>69</sup> On December 27, a 26-year-old man was shot and killed by snipers while collecting grass to eat.<sup>70</sup>

Ten-year-old Ghaith<sup>71</sup> was injured by a landmine in January 2016.<sup>72</sup> As Dr. Darwish, a dentistry student and one of the few health professionals left in Madaya, was preparing to amputate the boy's foot, which had been seriously wounded in the explosion, he asked the boy why he was so close to a checkpoint where there were landmines. Ghaith replied: "I wanted to get food for my family."<sup>73</sup>

In theory, patients sustaining injuries due to the siege should be included in the humanitarian evacuations authorized under the ceasefire. However, in practice, that has not happened with any urgency. For example, in March 2015, 26-year-old Ibrahim was headed to the mosque for Friday prayers when he was shot in the abdomen by a sniper. Madaya's health workers were able to perform emergency surgery, but did not have the equipment or training to fully repair the damage to

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**As Dr. Darwish, a dentistry student and one of the few health professionals left in Madaya, was preparing to amputate the boy's foot, which had been seriously wounded in the explosion, he asked the boy why he was so close to a checkpoint where there were landmines. Ghaith replied: "I wanted to get food for my family."<sup>74</sup>**



*A boy in the besieged town of Madaya collecting grass to eat  
Photo: Local Revolutionary Council of Madaya*

his gastrointestinal tract. As a result, he was left with a gaping hole in his lower abdomen exposing his large intestines, and a poorly fitting colostomy bag.<sup>75</sup> Ibrahim was bedridden for at least six weeks after his surgery, suffering from severe inflammation and painful spasms. He was forced to use expired anti-inflammatory medication and use each colostomy bag – meant to be changed every week – for at least a month. Ibrahim lived with excruciating pain and in need of advanced surgery for 13 months.<sup>76</sup> Three humanitarian evacuations were carried out from Madaya during that time, with no explanation as to why he was not included. Finally, in late April 2016, SARC included Ibrahim in the mass evacuation, and he was transported to Idlib.<sup>77</sup>

### Chronic and Acute Illnesses

A severe dearth of medication and medical equipment has exacerbated chronic and non-conflict-related acute health conditions in Madaya's residents, who have access to almost no medications. New health complications with far-reaching long-term effects are likely to develop as a result of the siege-induced malnutrition and stress.

In March 2016, Dr. Darwish sent UN authorities a list of 211 medications needed in Madaya.<sup>78</sup> The list included blood thinners, blood sugar regulators and insulin, and a variety of medications for chronic kidney and liver conditions. When the field hospital received deliveries of medicine, however, Dr. Darwish says that they did not include the medications for heart disease, hypertension, diabetes, or liver and kidney diseases that he had requested.<sup>79</sup>

With no advanced medical equipment such as electrocardiograms (EKGs), dialysis machines, computed tomography (CT) scanners, and magnetic resonance imaging (MRI) machines, residents have continued to suffer the sometimes lethal consequences of undiagnosed and untreated illnesses. Ruwaida,<sup>80</sup> a 46-year-old woman suffering from end-stage kidney disease, had no access to dialysis and died of renal failure on March 15, 2016.<sup>81</sup>

### Communicable and Infectious Diseases

The siege on Madaya has had a severe impact on key determinants of health such as access to clean water and adequate sanitation. This, in conjunction with lack of access to standard vaccination and medication, has blocked the town's ability to prevent the spread of infectious diseases. In April 2016, residents reported that 2,000 children had not received vaccinations in almost a year, and 650 children, including infants under six months old, had never received any vaccinations.<sup>82</sup> They also reported seeing patients with symptoms consistent with tuberculosis, measles, and typhus fever

and feared mass outbreaks of these conditions, which they would have no way of treating or controlling.

After repeated appeals from Madaya's health workers to UN officials, SARC was finally permitted to conduct a three-day vaccination campaign in Madaya in late April 2016, providing routine vaccinations to approximately 2,500 children under the age of five.<sup>83</sup> These vaccinations were the first to be conducted in the town since May 2015, despite medical authorities' repeated requests to SARC and other global relief authorities for vaccinations.<sup>84</sup>

Health workers in Madaya also reported seeing patients suffering from foodborne and waterborne diseases such as brucellosis and hepatitis A.<sup>85</sup> Brucellosis is a disease caused by bacteria that can be transmitted from animals to humans through contaminated food or direct contact. Hepatitis A, which can be prevented with vaccinations, is spread through food or contaminated water. Poor sanitation is associated with both of these diseases.

As of May 2016, these outbreaks were contained, but the longer the siege continues, the greater the risk of a mass outbreak. An infectious disease from contaminated food or water could spread rapidly throughout the town. With residents unable to leave or access basic public health necessities and already facing perilous health conditions, such an outbreak would be disastrous.

## Illegality of the Siege on Madaya

The death and suffering that has occurred in Madaya as a result of the siege exemplifies exactly why siege warfare against civilian populations is illegal and can amount to a war crime. The imposition of sieges that endanger civilian lives by depriving a population of goods essential to survival is prohibited under international humanitarian law. The Geneva Conventions prohibit starvation of civilians as a method of warfare by demanding "protection of objects indispensable to the survival of the civilian population."<sup>86</sup> Customary international humanitarian law similarly prohibits starvation of a civilian population as a method of warfare and prohibits parties from attacking objects indispensable to the survival of the civilian population, denying or deliberately impeding access of humanitarian aid intended for civilians in need, and restricting freedom of movement of humanitarian relief personnel. Willfully impeding aid in an attempt to starve civilians as a method of warfare is a war crime.<sup>87</sup>

The siege on Madaya also constitutes a form of collective punishment – a well-established violation of international humanitarian law, which prohibits the imposition of penalties on an entire population. The Hague Convention of 1899 states in Article 50: “No general penalty, pecuniary or otherwise, can be inflicted on the population on account of the acts of individuals for which it cannot be regarded as collectively responsible.”<sup>88</sup> The Fourth Geneva Convention relative to the Protection of Civilian Persons in Time of War explicitly prohibits collective punishment in Article 33, stating: “No protected person may be punished for an offence he or she has not personally committed. Collective penalties and likewise all measures of intimidation or of terrorism are prohibited.”<sup>89</sup> Both additional protocols to the Geneva Conventions and customary international humanitarian law similarly prohibit collective punishment of civilians. Collective punishment of civilians constitutes a war crime.<sup>90</sup>

Customary international humanitarian law restricts the use of landmines. While their use is not prohibited under international law and Syria is not a party to the Ottawa Convention on Anti-Personnel Mines, customary international law states that parties to a conflict cannot use landmines in ways that amount to indiscriminate attacks.<sup>91</sup> Encircling a town populated by 40,000 civilians with thousands of landmines certainly constitutes indiscriminate use of such weapons and thus is a violation of international humanitarian law.

The UN Security Council has passed six resolutions since February 2014 demanding adherence to these international laws in Syria.<sup>92</sup> Each resolution calls upon all parties to “immediately lift the sieges of populated places” and demands that “all parties allow the delivery of humanitarian assistance, including medical assistance, cease depriving civilians of food and medicine indispensable to their survival, and enable the rapid, safe and unhindered evacuation of all civilians who wish to leave.”<sup>93</sup>

UN Secretary-General Ban Ki-moon has backed the Security Council’s demands, calling the lack of access to besieged areas across Syria “utterly unconscionable” and reiterating that “the use of starvation as a weapon of war is a war crime.”<sup>94</sup> Yet parties to the conflict – in particular the Syrian government – continue to flout these laws and resolutions as the UN Security Council and world leaders look on, unwilling to enforce statements and norms they have unanimously agreed upon.

## Conclusion

After reports of malnutrition and starvation put Madaya in the international spotlight in late 2015, Syrian government authorities finally granted access to some UN aid convoys. These deliveries provided residents desperately needed food and medical supplies, improved conditions inside the town, and saved lives. However, they occurred infrequently, and Syrian authorities continued to delay deliveries with bureaucracy and to strip convoys of essential goods, leaving Madaya’s residents to suffer the lasting consequences of starvation, untreated illness, and a deteriorating health infrastructure, including lack of access to clean water and adequate sanitation.

The “Four Towns” agreement has been largely successful at curbing violence in Madaya, Zabadani, Foah, and Kafraya.<sup>95</sup> However, it has done little to lift the sieges imposed on each town and thus has allowed deaths from traumatic injuries and lack of food and health care – all a direct result of the conflict – to continue. Madaya remains surrounded by approximately 65 checkpoints with military personnel, snipers, and heavy weaponry. In between the town’s residents and these checkpoints lie approximately 12,000 landmines, trenches, and dirt mounds, each of which play a part in ensuring that none of the 40,000 residents can get into or out of Madaya’s 12-square-kilometer area without risking their life.<sup>96</sup>

In early January 2016, world leaders praised the Syrian government’s decision to allow food and medical aid into Madaya as “progress.” Setting aside the fact that the besiegement of Madaya constitutes a war crime and that international law does not require the UN to seek permission from a warring party in order to deliver humanitarian aid to civilians, the announced “progress” has been limited.

In the following five months, residents continued to suffer, with dozens dying from malnutrition, treatable health conditions, landmines, and sniper fire without sufficient access to food stores, health care, and other vital necessities. Lives could have been saved with rapid humanitarian evacuations from the town, as is stipulated under the September 2015 ceasefire agreement, but its bureaucratic and inflexible measures have proved lethal. Civilians in Madaya needing urgent evacuations have remained trapped and have died because nobody in Foah or Kafraya required an evacuation.



In short, the inadequate and politically entangled aid response to the illegal besiegement of Madaya has caused people to die because of poor nutrition and lack of access to health care less than an hour's drive from the filled food warehouses and well-equipped hospitals with qualified doctors in Damascus.

As this portrait of Madaya illustrates, aid deliveries are sorely inadequate in alleviating conditions imposed by sieges. People living in these areas will continue to die as long as the warring parties impose sieges, leaving entire populations with insufficient food, health care, and other vital services. Applauding individual aid deliveries and commending the “progress” of allowing basic food and medical supplies to be delivered to civilians imprisoned in towns across Syria overlooks the horrendous conditions and resultant deaths that continue in these areas. World leaders must demand an end to the sieges. Anything less leaves the lives of Madaya’s 40,000 residents and one million other besieged Syrians in peril.

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**“No more beating around the bush and allowing a few convoys in here and there that don’t include medication and with aid that doesn’t even meet the needs of a quarter of the population... What we need in Madaya, and in all besieged areas in Syria, is to lift the siege once and for all.”**

- *Dr. Muhammad Darwish, a dentistry student and one of Madaya’s few remaining health care providers*



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*An aid convoy from the Syrian Arab Red Crescent enters Madaya on January 14, 2016.*

*Photo: Louai Beshara/AFP/Getty Images*

# Recommendations

**Physicians for Human Rights (PHR) and the Syrian American Medical Society (SAMS) appeal for immediate implementation of the following steps:**

**To the Syrian government and other parties to the conflict imposing sieges:**

- Lift all sieges and allow freedom of movement for all civilians, including medical personnel, in, out, and across all towns.
- Grant immediate, unhindered, and sustained humanitarian access by both UN and non-governmental humanitarian agencies as well as commercial access to all besieged and hard-to-reach areas in order to provide supplies and services to all people in need across Syria through the most direct routes.
- Allow and facilitate medical evacuations for all in need, with a priority for those most in need in besieged and hard-to-reach areas.

**To the Syrian government:**

- Remove all procedural and other bureaucratic delays that continue to hamper the delivery of lifesaving aid, including the tit-for-tat requirements of the “Four Towns” agreement.
- Immediately desist denying or stripping out any requested aid – especially food and medical aid (medicines, medical equipment, medical supplies, and medical technology) – at any stage in the approval and delivery process, whether in approving requests, granting facilitation letters, loading aid convoys, or allowing aid convoys to pass through checkpoints.

**Additionally, PHR and SAMS appeal for immediate implementation of the following measures until the above recommendations are fully implemented. These measures are not sufficient to fully alleviate the starvation and other detrimental health conditions imposed on one million Syrians under siege, but they can provide short-term relief that will save lives.**

**To the UN Security Council:**

- Pass a resolution authorizing humanitarian agencies to carry out humanitarian air drops, air bridges, and air lifts as needed to ensure all Syrians receive sufficient food, medical, and all other vital aid. This must go hand-in-hand with ongoing pressure to end the sieges.
- Require UN OCHA to provide a daily public status update on all aid deliveries. This status update should include planned deliveries and their contents; denied deliveries, their contents, and reasons for denial; supplies stripped from convoys in transit; and completed deliveries, including details of the type of aid provided and the number of beneficiaries.

**To UN OCHA:**

- Change the aid delivery request process to ensure that no party to this conflict, including the Syrian government, can dictate what aid is allowed where and when. In particular, stop requesting approval from the Syrian government to deliver specific types and amounts of aid to specific besieged and hard-to-reach areas in one-off convoys. Instead, as is mandated for cross-border aid deliveries under UN Security Council Resolutions 2165, 2191, and 2258, carry out cross-line humanitarian aid deliveries with notification to the Syrian authorities, with no request for an approval of the delivery or its contents.
- Improve assessments of besieged populations across Syria to better reflect needs on the ground, and use these assessments to improve aid deliveries. Specifically, ensure transparency in the criteria for determining which areas are besieged and ensure consistent application of such criteria. Furthermore, develop relationships with medical and humanitarian workers in all besieged areas and train them to conduct accurate population counts and needs assessments. Ensure that all aid deliveries to besieged areas provide quality aid (not near, at, or past its expiration date) sufficient to meet the entire population's needs, as identified by residents, across all priority sectors (food, medical, hygiene, and non-food items).

**PHR and SAMS further demand immediate implementation of the following recommendations, which will address the longer-lasting effects of siege and promote justice and accountability.**

**To all parties to the conflict:**

- Cease all attacks that violate international law, especially attacks on besieged civilian populations with aerial bombardment and sniper fire.

**To the Syrian government:**

- Halt Syrian government and allied forces' illegal placement of landmines across Syria. Furthermore, allow the UN Mine Action Services (UNMAS) to clear landmines across the country, and especially around besieged areas.

**To the international community:**

- Ensure justice and accountability for the unlawful imposition of sieges and other humanitarian law violations committed by all parties to the conflict. Given the failure of the UN Security Council to refer the situation in Syria to the International Criminal Court, the international community must support other credible justice initiatives, including the creation of an ad-hoc or special court and the prosecution of appropriate cases under universal jurisdiction.

## Annex: List of Deaths

Name*	Age Category**	Cause of Death	Date of Death
<b>Claudia</b>	Adult	Sniper	11/11/2015
<b>Abouda</b>	Adult	Malnutrition/Starvation	11/13/2015
<b>Jameela</b>	Unknown	Malnutrition/Starvation	11/24/2015
<b>Daughter of the Izz Family</b>	Infant	Malnutrition/Starvation	12/1/2015
<b>Izza</b>	Unknown	Malnutrition/Starvation	12/1/2015
<b>Muhammad J.</b>	Adult	Landmine	12/1/2015
<b>Muhammad A.</b>	Adult	Landmine	12/1/2015
<b>Daughter of the N. family</b>	Infant	Malnutrition/Starvation	12/2/2015
<b>Fadi</b>	Teenager	Landmine	12/7/2015
<b>Emad</b>	Unknown	Landmine	12/7/2015
<b>Daughter of the D. family</b>	Infant	Malnutrition/Starvation	12/8/2015
<b>Omar</b>	Adult	Landmine	12/12/2015
<b>Nour</b>	Unknown	Sniper	12/13/2015
<b>Ali</b>	Unknown	Malnutrition/Starvation	12/15/2015
<b>Sara</b>	Adult	Malnutrition/Starvation	12/16/2015
<b>Ali</b>	Adult	Malnutrition/Starvation	12/17/2015
<b>Nour</b>	Unknown	Malnutrition/Starvation	12/17/2015
<b>Hafith</b>	Adult	Malnutrition/Starvation	12/18/2015
<b>Mahmoud</b>	Adult	Malnutrition/Starvation	12/19/2015
<b>Ali</b>	Adult	Malnutrition/Starvation	12/20/2015
<b>Ali</b>	Adult	Malnutrition/Starvation	12/22/2015
<b>Saleh</b>	Adult	Malnutrition/Starvation	12/22/2015
<b>Muhammad</b>	Young Adult	Malnutrition/Starvation	12/22/2015
<b>Wa'el</b>	Young Adult	Landmine	12/24/2015
<b>Jehad</b>	Young Adult	Landmine	12/24/2015
<b>Muhammad</b>	Adult	Malnutrition/Starvation	12/24/2015
<b>Daughter of N. family</b>	Newborn	Malnutrition/Starvation	12/24/2015
<b>As'ad</b>	Young Adult	Landmine	12/25/2015
<b>Ali</b>	Adult	Malnutrition/Starvation	12/25/2015
<b>Abdo</b>	Adult	Malnutrition/Starvation	12/25/2015
<b>Muhammad</b>	Elderly	Malnutrition/Starvation	12/25/2015
<b>Daughter of Adil</b>	Newborn	Malnutrition/Starvation	12/26/2015
<b>Ali</b>	Adult	Landmine	12/26/2015
<b>Baha'</b>	Adult	Landmine	12/26/2015
<b>Najah</b>	Unknown	Malnutrition/Starvation	12/26/2015
<b>Daughter of Susan</b>	Newborn	Malnutrition/Starvation	12/27/2015
<b>Muhammad</b>	Adult	Malnutrition/Starvation	12/27/2015
<b>Rafat</b>	Adult	Sniper	12/27/2015
<b>Abdulla</b>	Young Adult	Malnutrition/Starvation	12/27/2015
<b>Muhammad G.</b>	Adult	Malnutrition/Starvation	12/28/2015



<b>Muhammad A.</b>	Adult	Malnutrition/Starvation	12/28/2015
<b>Layla</b>	Adult	Malnutrition/Starvation	12/28/2015
<b>Jameel</b>	Adult	Malnutrition/Starvation	12/29/2015
<b>Malik</b>	Teenager	Malnutrition/Starvation	1/1/2016
<b>Khadeejah</b>	Elderly	Malnutrition/Starvation	1/2/2016
<b>Ziyad</b>	Adult	Sniper	1/3/2016
<b>Ahmad</b>	Adult	Malnutrition/Starvation	1/3/2016
<b>Amal</b>	Adult	Sniper	1/3/2016
<b>Rahf</b>	Child	Sniper	1/3/2016
<b>Suleyman</b>	Adult	Malnutrition/Starvation	1/5/2016
<b>Ahmad</b>	Adult	Malnutrition/Starvation	1/5/2016
<b>Abdelkareem</b>	Child	Malnutrition/Starvation	1/6/2016
<b>Mamdooah</b>	Elderly	Malnutrition/Starvation	1/6/2016
<b>Diya b</b>	Adult	Malnutrition/Starvation	1/6/2016
<b>Mustafa</b>	Adult	Malnutrition/Starvation	1/7/2016
<b>Waleed</b>	Adult	Malnutrition/Starvation	1/10/2016
<b>Subhia</b>	Elderly	Malnutrition/Starvation	1/10/2016
<b>Ali</b>	Adult	Malnutrition/Starvation	1/13/2016
<b>Muhammad</b>	Elderly	Malnutrition/Starvation	1/13/2016
<b>Muhammad</b>	Teenager	Malnutrition/Starvation	1/14/2016
<b>Bassam</b>	Adult	Malnutrition/Starvation	1/15/2016
<b>Saleem</b>	Adult	Malnutrition/Starvation	1/15/2016
<b>Muhammad</b>	Elderly	Malnutrition/Starvation	1/15/2016
<b>Abdullah</b>	Adult	Malnutrition/Starvation	1/16/2016
<b>Hassan</b>	Young Adult	Malnutrition/Starvation	1/20/2016
<b>Maryam</b>	Elderly	Malnutrition/Starvation	1/20/2016
<b>Sameer</b>	Adult	Malnutrition/Starvation	1/21/2016
<b>Radwan</b>	Adult	Malnutrition/Starvation	1/21/2016
<b>Yassin</b>	Adult	Malnutrition/Starvation	1/23/2016
<b>Lemm'a</b>	Adult	Malnutrition/Starvation	1/25/2016
<b>Ahmad</b>	Elderly	Malnutrition/Starvation	1/26/2016
<b>Muhammad</b>	Adult	Malnutrition/Starvation	1/27/2016
<b>Khaloud</b>	Adult	Malnutrition/Starvation	1/27/2016
<b>Khadeejah</b>	Adult	Malnutrition/Starvation	2/4/2016
<b>Muhammad</b>	Child	Malnutrition/Starvation	2/26/2016
<b>Abdelmae'een</b>	Adult	Malnutrition/Starvation	3/4/2016
<b>Renad</b>	Infant	Malnutrition/Starvation	3/6/2016
<b>Ahmad</b>	Unknown	Malnutrition/Starvation	3/10/2016
<b>Ruwaida</b>	Adult	Chronic condition and lack of care	3/15/2016
<b>Yousif</b>	Child	Landmine	3/29/2016
<b>Muhammad</b>	Child	Landmine	3/29/2016
<b>Ali</b>	Child	Landmine	3/29/2016

<b>Muhammad</b>	Young Adult	Malnutrition/Starvation	4/4/2016
<b>Burooj</b>	Newborn	Malnutrition/Starvation	4/10/2016
<b>Hussein</b>	Young Adult	Landmine	5/25/2016
<b>Ola</b>	Child	Malnutrition/Starvation	5/26/2016

\*Full names are withheld for security reasons

\*\*Age Categories are defined as:

<b>Age Category</b>	<b>Age Range</b>
Newborn	Less than one month old
Infant	One month - one year old
Young Child	2 - 5 years old
Child	6 - 12 years old
Teenager	13 - 19 years old
Young Adult	20 - 24 years old
Adult	25 - 64 years old
Elderly	65 years or older

# Endnotes

<sup>1</sup> Full name is withheld for security reasons.

<sup>2</sup> See the Annex for a full list of those who died under siege in Madaya through May 2016.

<sup>3</sup> Siege Watch, *Second Quarterly Report on besieged areas in Syria*, May 2016, [http://siegewatch.org/wp-content/uploads/2015/10/PAX\\_TSI\\_REPORT\\_Syria\\_Siege\\_FINALweb.pdf](http://siegewatch.org/wp-content/uploads/2015/10/PAX_TSI_REPORT_Syria_Siege_FINALweb.pdf).

<sup>4</sup> United Nations Security Council, "Implementation of Security Council resolutions 2139 (2014), 2165 (2014), 2191 (2014) and 2258 (2015)," May 19, 2016, [http://www.un.org/en/ga/search/view\\_doc.asp?symbol=S/2016/460](http://www.un.org/en/ga/search/view_doc.asp?symbol=S/2016/460).

<sup>5</sup> Dr. Darwish, WhatsApp correspondence with Physicians for Human Rights and the Syrian American Medical Society, May 15, 2016.

<sup>6</sup> Enough Silence, "The people want the fall of the regime in Madaya, Syria. Only freedom," YouTube video, 1:00, Posted March 20, 2011, <https://www.youtube.com/watch?v=L1fR3aYV4dQ>.

<sup>7</sup> United Nations General Assembly, "Report of the United Nations High Commissioner for Human Rights on the situation of human rights in the Syrian Arab Republic," September 15, 2011, [http://www.ohchr.org/Documents/countries/SY/Syria\\_Report\\_2011-08-17.pdf](http://www.ohchr.org/Documents/countries/SY/Syria_Report_2011-08-17.pdf).

<sup>8</sup> Liz Sly, "Syria's Zabadani is 'liberated,' but for how long?," *The Washington Post*, January 21, 2012, [https://www.washingtonpost.com/world/middle\\_east/syrias-zabadani-liberated-but-for-how-long/2012/01/21/gIQA0MhDYGO\\_story.html](https://www.washingtonpost.com/world/middle_east/syrias-zabadani-liberated-but-for-how-long/2012/01/21/gIQA0MhDYGO_story.html).

<sup>9</sup> Barrel bombs are a crude, low-cost weapon made by filling empty barrels or cylinders with explosives, shrapnel, nails, and oil. They are dropped from helicopters and explode into thousands of pieces upon impact, resulting in an enormous blast radius that can decimate an entire city block. Due to their indiscriminate nature, the use of barrel bombs in civilian-populated areas constitutes a war crime.

<sup>10</sup> Syrian American Medical Society, *Madaya: Starvation Under Siege*, January 2016, <https://www.sams-usa.net/foundation/index.php/component/content/article/2-uncategorised/244-madaya-starvation-under-siege>.

<sup>11</sup> Suleiman al-Khalidi, "Syrian army, Hezbollah advance in city near Lebanese border," *Reuters*, July 15, 2015, <http://www.reuters.com/article/us-mideast-crisis-syria-idUSKCN0PP1U720150715>; United Nations Security Council, "Report of the Secretary-General on the implementation of Security Council resolutions 2139 (2014), 2165 (2014) and 2191 (2014)," July 23, 2015, [http://www.un.org/en/ga/search/view\\_doc.asp?symbol=S/2015/561](http://www.un.org/en/ga/search/view_doc.asp?symbol=S/2015/561); "Syria conflict: 'Unprecedented' assault on Zabadani," *BBC News*, July 22, 2015, <http://www.bbc.com/news/world-middle-east-33624215>; United Nations Security Council, "Report of the Secretary-General on the implementation of

Security Council resolutions 2139 (2014), 2165 (2014) and 2191 (2014)," September 10, 2015, [http://www.un.org/en/ga/search/view\\_doc.asp?symbol=S/2015/698](http://www.un.org/en/ga/search/view_doc.asp?symbol=S/2015/698).

<sup>12</sup> "Radio Free Syria," Facebook post, July 30, 2015, <https://www.facebook.com/RadioFreeSyria/photos/a.382885705129976.91927.363889943696219/879156445502897/>.

<sup>13</sup> Allied with the Syrian government, Lebanon's Hezbollah forces have been fighting on the ground in Syria since the start of the conflict and have played a large part in enforcing the siege around Madaya and Zabadani, largely due to the towns' proximity to Lebanon.

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<sup>19</sup> Dr. Darwish, WhatsApp correspondence with the Syrian American Medical Society, June 3, 2016.

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