

World Health Organization  
Syrian Arab Republic

# ANNUAL REPORT 2017



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Credit: WHO Syria

## FOREWORD

Seven years into the conflict, Syria's catastrophic conflict has driven almost 12 million people from their homes and created the largest refugee crisis in recent history. Approximately 400 000 people have died, over six million have been displaced inside Syria, and over five million have left the country altogether. For the past five years, WHO has classified Syria as a grade 3 emergency – the highest level according to WHO's Emergency Response Framework (ERF). The duration and severity of the conflict make Syria the longest major emergency the Organization has had to tackle since the ERF was introduced in 2013.

The effects of war are long-lasting. Many who survive chemical attacks, mortar explosions, bombings and gunshot wounds suffer life-changing injuries that persist long after the horrifying images have disappeared from television screens and news headlines. Prolonged exposure to horrific acts of violence has left many people susceptible to profound distress. Children are particularly vulnerable; many of them have known nothing but conflict, displacement, distress, hunger and despair.

The sheer numbers of people in need are overwhelming. A staggering two thirds of the population are living in extreme poverty. More than one third have no access to safe water. Rates of acute malnutrition in children under five years of age are growing, leading to potentially lifelong health problems. Over 13 million people require humanitarian assistance. After years of conflict, Syria's economic collapse has led to a descending spiral where people are increasingly unable to meet even their most basic needs.

More than half the country's health care facilities have been damaged or destroyed. As a result, tens of thousands of children and adults injured in the conflict may die unnecessarily or be permanently disabled. People with chronic diseases may die because they are unable to obtain basic medicines that would be readily affordable and available in normal times. Pregnant women are unable to obtain

emergency obstetric care, putting their lives and those of their unborn babies at risk. Many people are forced to travel long distances to reach hospitals; some die before they can reach help. The breakdown of water supply networks leaves many people at risk of potentially deadly diseases such as acute watery diarrhoea and even cholera.

The year 2017 saw an escalation of the conflict in north-east Syria, but brought glimmers of hope in other areas. Ceasefire agreements were reached in four locations, and thousands of people in besieged areas were allowed to leave under local agreements. However, in many other parts of the country, the situation was as grim as ever. Hundreds of thousands of people in East Ghouta have remained under siege since 2013. In late December 2017, some critically ill patients were allowed to leave East Ghouta for medical treatment, but for others the authorization came too late. Over 400 000 people in Syria remain confined to besieged areas, where they are not allowed to leave and humanitarian assistance is rarely permitted to enter.

In late December 2017, the United Nations Security Council renewed Resolution 2165, which authorizes cross-border and cross-conflict-line humanitarian access to Syria for another twelve months. The new resolution (2393) authorizes UN humanitarian agencies and their partners to continue to deliver aid to Syria through border crossings in Iraq, Jordan and Turkey. Until a political solution is found, WHO's main office in Damascus and its hubs in Gaziantep (Turkey) and Amman (Jordan) will continue to work with partners to bring humanitarian health assistance to the people of Syria by all means possible.

Elizabeth Hoff



# 1. SITUATION IN 2017

## Overview

North-east Syria, much of which was under the control of the Islamic State of Iraq and the Levant (ISIL), was the focus of intense fighting in 2017. Health care services in all three north-eastern governorates<sup>1</sup> were severely disrupted, leaving civilians caught up in the conflict more vulnerable than ever. Hundreds of thousands of people were displaced, many of them more than once, as they sought to escape shifting battle lines.

Following the start of the offensive to recapture Ar-Raqqa city from ISIL in June 2017, tens of thousands of civilians fled. Up to 15 000 civilians remained trapped in the city in increasingly desperate conditions. The city was retaken in October 2017, but it had been utterly devastated. Its main hospital had been destroyed in an airstrike, and all other hospitals had been forced to shut down due to military activity in the area. Thousands of civilians in the neighbouring governorate of Deir-ez-Zor were displaced following intensified military operations. In early September, government forces finally broke ISIL's three-year siege on parts of Deir Ez-Zor city, but it too lay in ruins.

The acute insecurity caused by the fighting meant that most areas in north-east Syria were off-limits to humanitarian agencies. Nonetheless, a WHO team managed to travel to rural areas in Ar-Raqqa and Al-Hasakeh governorates in July to assess the situation

at first hand. The team's mission was to identify the hospitals and health care facilities to which patients could be referred, and explore ways of setting up triage mechanisms and evacuation routes for wounded patients. Alarmingly, it found that there was only one trauma stabilization point in the whole of Ar-Raqqa governorate. (Trauma stabilization points are essential because they give patients rapid access to life-saving first aid and advanced resuscitation techniques. Once stabilized, patients can then be transferred to other medical facilities for treatment.)

By the end of the year access to north-east Syria had improved but the situation remained extremely challenging due to the continuing shortage of functioning health care facilities and the overall insecurity. As 2017 drew to a close, over 80 000 internally displaced people (IDPs) were living in makeshift camps and spontaneous settlements in bitterly cold conditions, with access to only rudimentary health care.

In the south of the country, 50 000 people, 80% of whom were women and children, remained trapped between Syria and Jordan following a decision by the Jordanian authorities to close the border. Humanitarian access to this area remains very limited, and reports indicate very high rates of diarrhoeal disease among children and increasing rates of common infections.

<sup>1</sup> Ar-Raqqa, Al-Hasakeh and Deir-ez-Zor.



IDPs in a makeshift settlement in Al Malha area, Ar-Raqqa governorate.

Credit: WHO Syria

## The health impact of the crisis

At the end of 2017, more than half the country's hospitals, clinics and primary health care (PHC) centres were only partially functioning or had been damaged beyond repair. Millions of people had no access to health care or had to travel long distances to obtain it. Many hospitals were working at minimum capacity in extraordinarily difficult conditions, with frequent electricity cuts, dwindling fuel supplies, broken equipment and extreme shortages of medicines and medical staff. International sanctions on Syria meant that critical spare parts could not be imported to maintain or repair essential medical equipment. Patients resorted to sleeping in hospital corridors and stairwells because there were not enough beds for them.

Referral services for trauma care, emergency obstetric care and surgical services were wholly

inadequate. Frequent attacks on hospitals and clinics severely limited patients' ability to obtain any kind of health care. Many patients were too fearful to make the journey. The collapse of water supplies and sanitation networks also had a dramatic impact on health. Growing levels of extreme poverty further exacerbated the situation, and many people were forced to choose between paying for health care or buying other necessities such as food and clean water.

In 2017, WHO shipped medicines, supplies and equipment to almost 1300 hospitals and health care centres throughout Syria, providing a lifeline to many ill and wounded civilians. Page 36 of this report describes WHO's work maintaining the medical supply chain.

## Disease outbreaks

In 2017, measles outbreaks affecting thousands of children were reported in all 14 governorates of Syria<sup>2</sup>. An outbreak of circulating vaccine-derived poliovirus was detected in March 2017, but rapidly contained.

WHO, UNICEF, the Syrian Arab Red Crescent (SARC) and local health authorities conducted several mass emergency vaccination campaigns to safeguard Syria's children. WHO supported two national measles vaccination campaigns that reached almost 4.8 million children.

Access to north-east Syria was extremely difficult in the first half of the year. Despite these constraints, WHO and its partners managed to vaccinate over 315 000 children in rural Deir-ez-Zor against polio during a national vaccination campaign in March 2017. They also reached over 45 000 children in one area of conflict-torn Ar-Raqqa governorate. Page 30 of this report describes these vaccination campaigns in more detail.

### Leishmaniasis

Cutaneous leishmaniasis, caused by the bite of certain sandflies, is a growing health problem in Syria. The disease is associated with population displacements and poor sanitation. Sandflies are attracted to crowded areas because they provide a good source of blood-meals. Overcrowded IDP camps with rudimentary living conditions and poor sanitary facilities provide ideal conditions in which sandflies can breed and prey on humans.

Cutaneous leishmaniasis usually produces disfiguring ulcers on exposed parts of the body such as the face, arms and legs. Patients may have a large number of lesions that can cause serious deformities. WHO has ordered 100 000 vials of meglumine antimoniate to treat leishmaniasis and has supported the establishment of a medical post in Ain Issa camp (Ar-Raqqa governorate) to treat leishmaniasis patients. WHO also procured 56 000 insecticide-treated bed nets, an effective preventive measure, for distribution to households in the most affected areas, and supported the treatment of around 41 000 leishmaniasis patients.



A child with leishmaniasis in rural Hama.

Credit: WHO

<sup>2</sup> Thousands of children were clinically diagnosed as having measles; 733 cases were confirmed through laboratory tests (compared with only 85 confirmed cases in 2016).

## Access to besieged and hard-to-reach areas

Over 400 000 people in areas that have been besieged since 2013 continue to have very little access to the basic necessities of life. With few exceptions, civilians cannot leave these areas, and humanitarian aid workers cannot enter. Another 2.5 million people who live in hard-to-reach areas<sup>[1]</sup> are denied regular access to life-saving humanitarian assistance including health care.

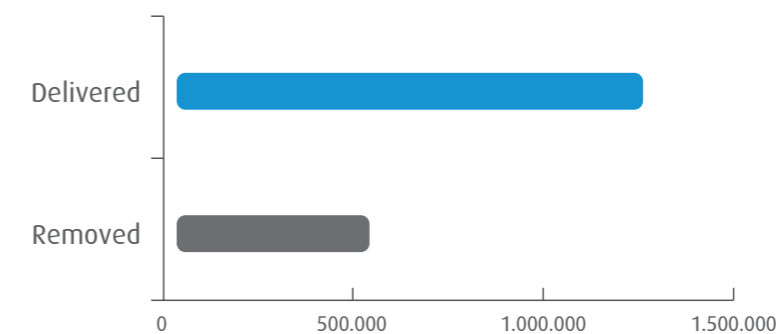
Much of the territory controlled by ISIL in 2016 was retaken by government forces in 2017, but access to the remaining areas continues to be extremely difficult. In 2017, WHO was able to implement limited

vaccination campaigns in these areas after prolonged negotiations with health authorities, but the situation remains precarious and unpredictable.

### Inter-agency convoys to besieged and hard-to-reach areas

The number of humanitarian convoys authorized to enter besieged and hard-to-reach areas decreased sharply (from 69 in 2016 to 41 in 2017). Even when convoys were authorized, government forces routinely removed life-saving medical items such as anaesthetics and trauma supplies.

Treatments delivered versus treatments removed from inter-agency convoys in 2017



For example, in August 2017, WHO loaded 12 tons of medicines and medical supplies on an inter-agency convoy destined for the besieged town of Douma; this was the first inter-agency convoy authorized to enter the town in over three months. Government forces removed ten tons of WHO supplies<sup>3</sup>, allowing only two tons to be delivered.

<sup>[1]</sup> The UN defines hard-to-reach areas in Syria as those that are not regularly accessible to humanitarian actors due to access constraints (for example, because there is active conflict in the area).

<sup>3</sup> Supplies removed by military forces are immediately restituted to WHO, which returns them to its warehouses. WHO can then deploy the supplies to other locations based on needs.



### Medical evacuations from besieged areas

Throughout 2017, WHO continued its efforts to secure life-saving health care for critically ill patients in besieged areas, especially East Ghouta which has been under siege since 2013. WHO advocated for three basic elements to be put in place: (1) sustained access to all besieged areas; (2) a system to evacuate critically ill patients; and (3) better protection of health care facilities and staff inside East Ghouta. Page 24 of this report describes WHO's advocacy efforts on behalf of the people of East Ghouta.

### The "Whole of Syria" approach

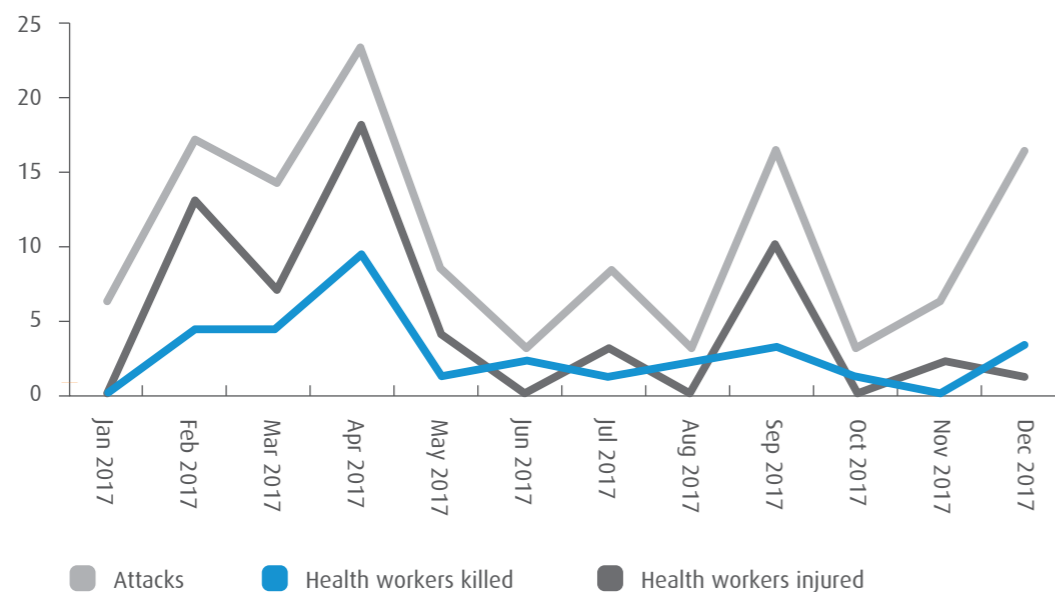
Under the "Whole of Syria" approach, WHO's main office in Damascus and its hubs in Amman (Jordan) and Gaziantep (Turkey) worked to bring humanitarian assistance to people in all parts of Syria. WHO's hub in Amman worked with partners in south Syria, and the hub in Gaziantep was responsible for the parts of north-west Syria that could not be reached from Damascus. Page 44 of this report describes the work of each office.

## Attacks on health care

WHO defines attacks on health care as any act of verbal or physical violence that obstructs or threatens to interfere with the availability and delivery of health care services during emergencies, and/or with patients' access to health care. Attacks can include bombings, looting, robbery, hijacking, shooting, the forced closure or military takeover of facilities and the abduction of health care workers.

The targeted destruction of health care facilities in Syria is unprecedented. In the first half of 2017, there was a 25% increase in attacks against health care facilities compared with the same period in 2016. By the end of the year 123 attacks against health care facilities and ambulances had been verified. A total of 88 health care workers were killed or injured in these attacks.

Monitoring violence against health care - Syria 2017



These attacks have an immediate impact on hospitals and the patients they serve. For example, shortly after the chemical attack on the town of Khan Sheikhoun in April 2017, the only nearby functioning hospital was shelled and forced to close temporarily, depriving civilians caught up in the attack of emergency health care.

In September 2017, three hospitals and several ambulances in Idlib governorate were hit by airstrikes within a few hours of each other, killing one health care worker and severely injuring another. All three hospitals suffered significant structural damage and were forced to close. These facilities, which had been serving approximately 16 000 people per month, are no longer functional. Two paramedics in Hama governorate were killed when two ambulances came

under fire. In December 2017, there were 16 separate attacks against health care facilities.

WHO has repeatedly and forcefully condemned attacks on health care. On 19 September 2017, it released another statement<sup>4</sup> condemning the attacks in Idlib and Hama governorates and calling on all parties to the conflict to protect civilians and civilian infrastructure as required under international humanitarian law.

The dangers faced by humanitarian workers were the theme of World Humanitarian Day on 19 August 2017 (#NotATarget). Dozens of health care workers in Syria held "I am not a target" signs to underscore the issue of attacks on hospitals, clinics and staff.



A pharmacist in north-west Syria participates in the #NotATarget campaign. When WHO's office in Gaziantep asked its health partners in north-west Syria for photos, it received a strong response.

Credit: Health Cluster, Gaziantep

<sup>4</sup> <http://www.who.int/mediacentre/news/statements/2017/attacks-hospitals-Syria/en/>.

## WORLD HUMANITARIAN DAY 2017



Ibtisam Salam Alaik works at Al-Zebdeyeh PHC centre in Aleppo, where she has been vaccinating children for over 15 years. When the fighting in one area of the city meant it was too dangerous to remain, she moved to other parts of the city to continue her work. Ibtisam says that vaccination services have picked up since the fighting ceased in Aleppo. "People are bringing their children to be vaccinated again", she says. "The whole point is to feel safe."

Credit: WHO



Delivering vaccines in Syria's conflict zones is highly dangerous, as Hasan Kassar knows all too well. "At the height of the conflict in Aleppo, we did our best to deliver vaccines to eastern Aleppo. Unfortunately, it simply wasn't possible because the fighting was so intense and because parties on the ground wouldn't let us in. Health care workers including me came under fire on more than one occasion."

Credit: WHO

Maher Hamzeh Abdul Kader has worked for Syria's national emergency services for 22 years. In 2015, he was shot in the back twice while distributing blood bags in East Ghouta. "Luckily, I survived", said Maher. "I've had several operations over the past five months, but I'm back doing what I want to do: helping ill and injured fellow Syrians."

Credit: WHO





## Chemical attacks

Chemical attacks on innocent civilians are among the most extreme examples of the callous disregard for human suffering that characterizes the Syrian conflict. In April 2017, at least 83 people died and hundreds more were injured following a horrific chemical attack on the town of Khan Sheikoun in Idlib governorate. Many of the victims were children who suffocated in their sleep. Shortly after receiving scores of injured patients, the only functioning hospital in the area was shelled and forced to close temporarily. Dozens of victims were transferred to hospitals in Turkey for emergency treatment, and some of them later died. The Organization for the Prohibition of Chemical Weapons subsequently determined that the victims had been exposed to sarin or a sarin-like substance. Sarin is banned by international law. It causes asphyxia, and most people exposed to it die rapidly and painfully. It was the first time that nerve agents had been used in Syria since a sarin attack in 2013 that killed hundreds of people in Ghouta,

near Damascus. Both attacks drew widespread international condemnation.

WHO immediately deployed stocks of atropine – the most commonly used antidote to combat the effects of nerve gases such as sarin – from its warehouse in Idlib. The only way additional humanitarian aid could reach Idlib was through the UN's cross-border shipments from south-eastern Turkey. WHO and partners dispatched medical supplies and personal protective equipment from Turkey and pre-positioned additional supplies in warehouses on both sides of the border, ready for release in case of further attacks. WHO experts in Turkey worked with health care staff in Idlib to provide round-the-clock guidance on the diagnosis and treatment of patients. Health care staff previously trained by WHO on treating the victims of exposure to chemical weapons were mobilized to help care for the hundreds of people who fell ill following the attack.



Health workers in northern Syria are trained on managing the victims of chemical exposure.

Credit: WHO Gaziantep



## 2. WHO IN ACTION

### January

IDPs begin returning to shattered East Aleppo.

WHO launches health sector recovery plan for the city.

WHO-Gaziantep delivers 75 tons of supplies to Idlib governorate.

### February

Almost 560 000 children in northern Syria are vaccinated against polio.

WHO-Gaziantep trains 2730 people on vaccination techniques.

Full rehabilitation of the emergency department of Al Muasat hospital is completed.

### March

Deworming campaign targeting 1.8 million children is launched with support from WHO.

WHO-Gaziantep donates five mobile clinics to health partners in northern Syria.

Almost 2.5 million children are vaccinated against polio. Vaccination teams manage to reach one part of conflict-torn Ar-Raqqa governorate for the first time in two years.

### April

Deadly chemical attack in Idlib governorate leaves at least 83 people dead. WHO deploys experts and releases emergency stocks of atropine.

WHO publishes the results of a rapid assessment on the status of cancer care services.

WHO-Gaziantep delivers 62 tons of medicines and supplies to Idlib governorate.

### May

Almost 1.8 million children are vaccinated in the first round of the national measles vaccination campaign.

WHO-Gaziantep trains more than 200 staff in north-west Syria and besieged areas on managing noncommunicable diseases.

WHO and partners submit a detailed plan to evacuate all critically ill patients from East Ghouta.

### June

Offensive to retake Ar-Raqqa city results in heavy civilian casualties and displacements.

WHO delivers 8 tons of supplies to Hama governorate to support IDPs from Ar-Raqqa.

WHO-Gaziantep trains 120 health care staff in northern Syria on treating the victims of chemical exposure.

### July

WHO-Gaziantep launches an integrated PHC network in northern Syria.

A WHO team visits Ar-Raqqa governorate to assess the situation and propose referral services and evacuation routes for injured civilians.

WHO appeals for funds for the emergency health response in Ar-Raqqa.

### August

Almost 260 000 children in Deir-ez-Zor and Ar-Raqqa are vaccinated against polio.

WHO delivers 5 tons of medicines, supplies and equipment to Deir-ez-Zor governorate and 66 tons to Idlib governorate.

WHO-Gaziantep trains 280 first responders in northern Syria on treating the victims of chemical exposure.

### September

WHO assesses the availability and accessibility of specialized trauma care for wounded and critically ill patients in Deir-ez-Zor governorate.

Almost 3 million children are vaccinated in the second round of the national measles campaign.

Inter-agency convoy including 13 tons of WHO supplies reaches Deir-ez-Zor by road for the first time in three years.

First PHC centre rehabilitated with WHO support re-opens in east Aleppo.

### October

Almost 2.3 million children, including 144 000 in Ar-Raqqa, are vaccinated against polio.

Water supplies and purification systems in two main referral hospitals are fully rehabilitated with WHO support.

WHO expands health care services in north-east Syria through support to 10 mobile teams and 11 medical points in seven IDP shelters.

### November

Over 425 000 children in hard-to-reach areas are vaccinated against polio.

WHO-Gaziantep delivers 90 tons of supplies to Idlib governorate.

### December

The UN Security Council adopts resolution 2393 renewing authorization for cross-border, cross-line humanitarian access to Syria.

First medical evacuations from besieged East Ghouta begin.

A school mental health programme is launched for the first time in Syria.

WHO delivers over 5 tons of medicines, supplies and equipment to Al Tabqa hospital in Ar-Raqqa.



## 2017 AT A GLANCE

Over **14 million** treatments were delivered across Syria, of which almost 3 million were delivered through cross-border operations.

**1294** health care facilities across the country received regular deliveries of life-saving medicines and supplies.

Almost **2.5 million** children were vaccinated against polio\*.

**2.4 million** children were vaccinated through cross-border activities\*.

Over **two thirds** of besieged areas were reached with humanitarian health assistance.

Almost **700** pieces of medical equipment were donated to hospitals and clinics for laboratory, anaesthesiology, diagnostic and surgical services.

Almost **4.8 million** children were vaccinated against measles\*.

**Six** PHC centres were rehabilitated.

Emergency department of Al-Muasat referral hospital in Damascus was fully rehabilitated.

**1670** sentinel sites across the country reported to WHO's disease early warning and response system.

**743 000** children were screened for malnutrition at 586 WHO-supported nutrition surveillance centres.

Water supply and purification systems were fully rehabilitated in two main referral hospitals in Damascus.

**One** hospital in Ar-Raqqa governorate was re-equipped.

Almost **27 000** health care staff were trained on a wide range of topics.

**650** unsafe sources of drinking water were tested, and mitigation measures were taken.

\* The appendix at the end of this report gives more details concerning the different vaccination campaigns implemented in 2017.



## Leading the health response

WHO continued to lead the health sector<sup>5</sup> and oversee the overall health response in 2017. It convened regular meetings with health partners to plan, implement, monitor and adapt operations based on evolving needs.

On behalf of health partners, WHO led the development of a health sector recovery plan for east Aleppo, a medical evacuation plan for East Ghouta, and a contingency plan to respond to potential chemical attacks in north-east Syria. WHO also led health sector planning for the response in north-east Syria, paving the way with two detailed assessments of the health situation in the three north-eastern governorates.

### North-east Syria

In 2017, hundreds of thousands of people fled their homes as government and allied forces began an offensive to recapture large swathes of territory in north-east Syria. Thousands of civilians in the besieged cities of Ar-Raqqa and Deir-ez-Zor were trapped in desperate conditions, with very little access to food, water and health care.

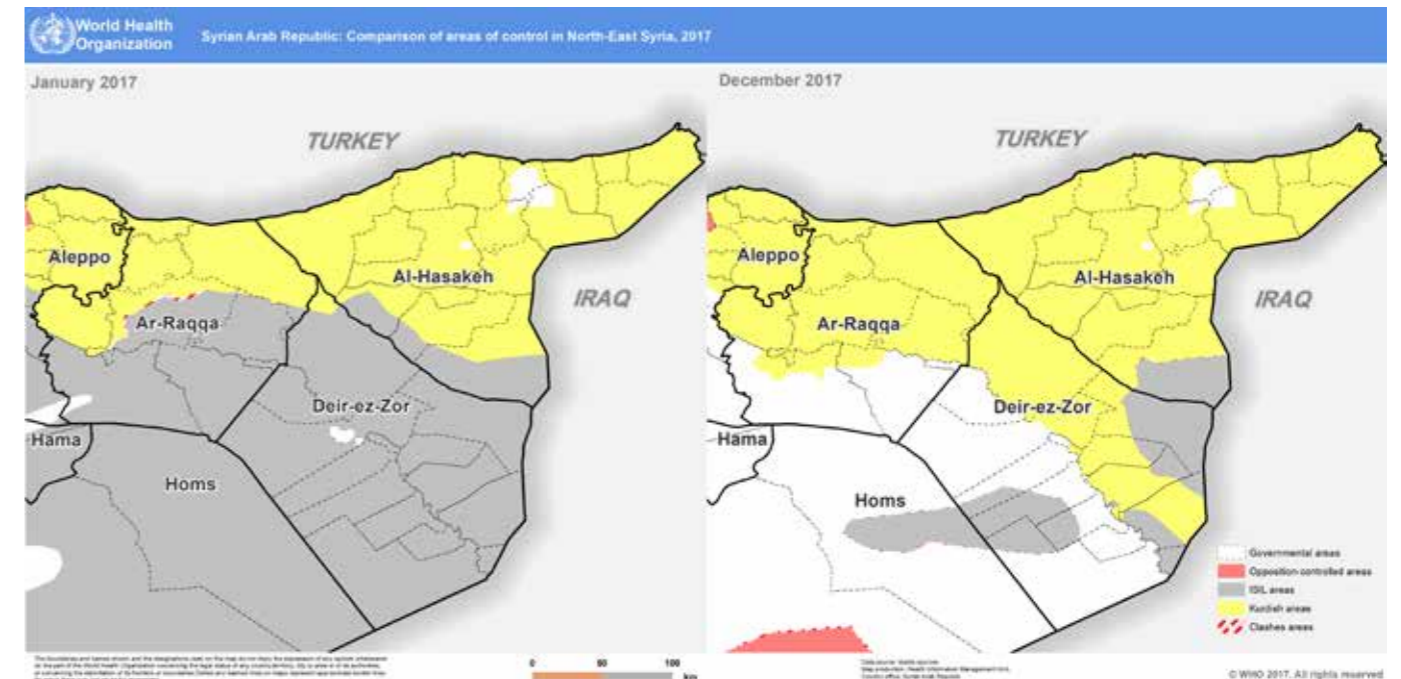
In July 2017, despite the insecurity, a WHO team managed to travel to north-east Syria to assess health care facilities in Ar-Raqqa and Al-Hasakeh governorates and explore ways of setting up referral services and evacuation routes for injured and critically ill patients. The team found that there were

The Organization is facilitating the development of health sector planning for post-conflict transition and early recovery in Syria and is working with the Ministry of Health (MOH) on a strategy to restore health care services in newly accessible areas in the country.

WHO speaks on behalf of all of its health sector partners when advocating at the highest diplomatic levels for unhindered access to all parts of Syria. It provides regular updates on the health situation in besieged areas to the Humanitarian Task Force, whose mandate is to facilitate access to besieged areas to deliver humanitarian assistance.

very few health partners operating in the region and that most health care services had been severely disrupted. Patients faced travel times of more than four hours to reach the few health care facilities that were still functioning. The lack of ambulances meant that many patients had to be transported to hospitals by private car, and many of them did not survive the journey. Security concerns led some NGOs to position their health care facilities at safe distances from combat scenes, but this meant that they were outside the two-hour limit to receive patients for life-saving treatment. A second assessment carried out by WHO and partners in September found the situation in Deir-ez-Zor governorate was equally bleak<sup>6</sup>.

<sup>5</sup> WHO's office in Damascus works with 25 health partners. Its hubs in Gaziantep and Amman work with around 70 and 26 partners respectively.



WHO's response strategy – developed in collaboration with its health partners – focused on identifying and strengthening the health care facilities that were still functioning, deploying mobile clinics to boost capacity, and dispatching all available medicines and supplies to the area. Many people displaced by the fighting sought refuge in Al-Tabqa, north-west of Ar-Raqqa city. WHO donated over five tons of medical equipment, emergency medicines and supplies to Al-Tabqa's recently rehabilitated main hospital to help it handle the huge caseload of IDPs. Since the hospital reopened its doors in September 2017, it has treated more than 3400 patients, two thirds of whom were women and children. WHO supported 10 mobile teams and 11 static medical points providing health care services in Ar-Raqqa, and donated another 38 tons of medicines, supplies and equipment to support health care facilities in the governorate.

## Medicines, supplies and equipment donated by WHO to north Syria:

**43 tons** to Ar-Raqqa

**25 tons** to Deir-ez-Zor

**133 tons** to Al-Hasakeh

**200 tons** to Idlib

<sup>6</sup> Result of a meeting held in Damascus. Security constraints meant that WHO could not travel to Deir-ez-Zor to assess the situation at first hand.





WHO staff carry out a spot-check on the WHO-supported medical point in Al Areesha camp, north-east Syria.

Credit: WHO

WHO dispatched over 25 tons of medical equipment, medicines and supplies to hospitals in Deir-ez-Zor governorate, and sent another 133 tons to Al-Hasakeh governorate to support health care services for the large numbers of IDPs who had come from Ar-Raqqa and Deir-ez-Zor. In addition, to prepare for the possibility of chemical attacks, WHO is pre-positioning supplies of atropine in hospitals in Qamishli, and has supported the establishment of decontamination units in these hospitals.

Although much of north-east Syria is no longer under the control of ISIL, civilians remain extremely vulnerable to injuries due to landmines, booby traps and other explosive remnants of war. Over 80 000 IDPs are living in overcrowded camps where they are exposed to the harsh winter, with limited access to drinking water, latrines or individual shelters. WHO will shortly begin a detailed assessment of the conditions in the camps and the main health needs of their inhabitants. Based on the findings of the assessment, WHO will work with all health partners to improve the quality and equitable distribution of health care and referral services, matching services to needs.

### North-west Syria

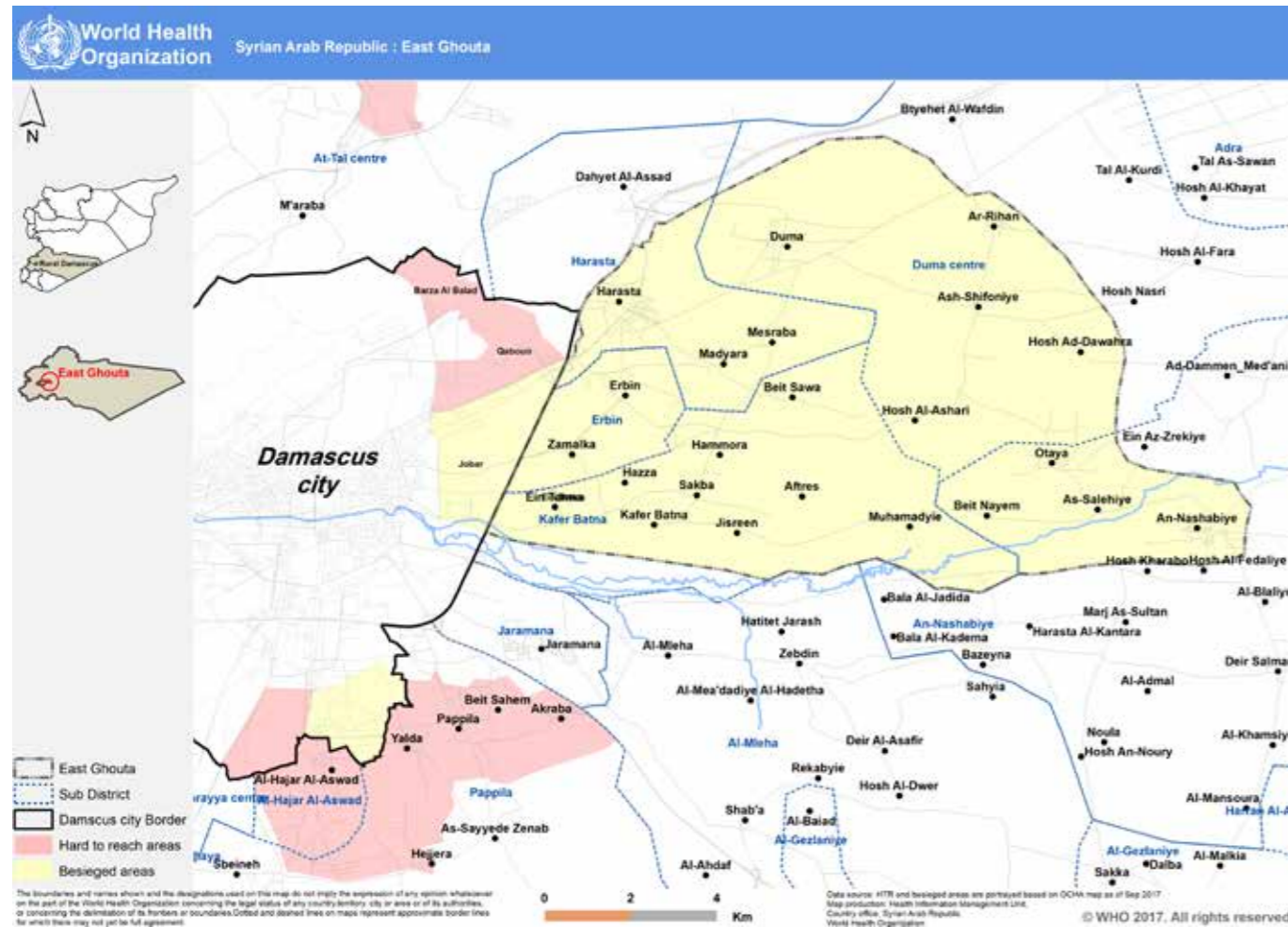
The intense fighting and airstrikes in the north-west governorate of Idlib damaged many health care facilities and disrupted referral services and supply chains. At the same time, IDPs continued to flood into the governorate to escape the violence in neighbouring Ar-Raqqa and Deir-ez-Zor. By the end of September 2017, Idlib was hosting more than 200 000 IDPs. WHO's hub in Gaziantep sent regular shipments of medicines and supplies to health care facilities in Idlib to help them manage the huge influx of new patients. By the end of 2017, it had delivered more than 200 tons of supplies to over 100 health care facilities in Idlib governorate, helping to keep them afloat and allowing them to provide emergency health care to thousands of patients.

To help address the gaps in health care services, WHO's hub in Gaziantep launched a model PHC network in Idlib governorate. The network links 10 PHC centres (including mobile units), each of which has different skill levels and capacities. The network will allow each centre to consult physicians in other centres and refer patients more easily for treatment. Effective use of this new resource could result in as much as a 30% increase in patient consultations through the network.

To mitigate the acute shortage of health care staff in north-west Syria, WHO-Gaziantep trained health care workers on the management of noncommunicable diseases (NCDs). More than 200 health care staff in 12 besieged areas and 50 staff in other locations updated their knowledge of how to diagnose and treat conditions including diabetes, epilepsy and asthma.



## East Ghouta



Most of the remaining besieged towns in Syria are in East Ghouta, an area near Damascus that is home to around 400 000 people. Although East Ghouta is one of four 'de-escalation' zones that were created in 2017 in an attempt to reduce the violence, it remains under siege. Humanitarian access to East Ghouta was severely curtailed throughout 2017, increasing the suffering of hundreds of thousands of innocent civilians. According to UNICEF, almost 12% of children in East Ghouta are suffering from acute malnutrition – the highest rate recorded anywhere in Syria since the crisis began<sup>7</sup>.

Dozens of people in East Ghouta, including several children, died in 2017 because they were unable to obtain medical care in time – care that was readily available in neighbouring Damascus. The continuing siege meant that WHO was unable to respond to a measles outbreak that was said to have affected more than 100 children.

WHO led intensive advocacy efforts to obtain government approval to deliver humanitarian supplies to East Ghouta. In July 2017, WHO managed to send 36 tons of supplies (enough for 150 000 medical treatments) to the towns of Kafr Batna and

Duma. In total, only 69 tons of medical supplies and equipment were delivered to East Ghouta in 2017 – a fraction of what was needed.

In 2017, WHO submitted 12 separate requests to the Ministry of Foreign Affairs, seeking its authorization to evacuate around 500 critically ill patients (most of whom had life-threatening diseases such as cancer and cardiovascular disease) from East Ghouta. All 12 requests went unanswered. In May 2017, WHO and partners<sup>8</sup> submitted a detailed plan to evacuate all

critically ill patients from East Ghouta. This also went unanswered.

In close collaboration with the Office of the Special Envoy for Syria and the Humanitarian Task Force, WHO continued to advocate for the urgent medical evacuation of patients from East Ghouta. In late December, the SARC evacuated 29 patients who were transferred to hospitals in Damascus that had been identified in the evacuation plan prepared by WHO earlier in the year.

## Responding to disease outbreaks

In Syria, millions of IDPs are living in rudimentary conditions in overcrowded camps, with very limited access to clean drinking water and proper sanitation. Their health has been compromised by poor diet, extreme stress following exposure to violence, lack of access to health care, and the loss of homes and livelihoods. Vaccination rates have plummeted, and malnutrition is rising across the country. All of these factors greatly increase the risk of disease outbreaks.

Detecting cases of epidemic-prone diseases as soon as possible is key to preventing their further spread. WHO's office in Damascus launched the disease Early Warning and Response System (EWARS) in Syria in 2012. EWARS is activated whenever an existing national disease surveillance system is disrupted (for example, when a country is hit by a natural disaster or faces a prolonged emergency). This simplified surveillance system focuses on nine epidemic-prone

communicable diseases<sup>9</sup>. The timely detection and reporting of these diseases allows WHO and the Syrian MOH to respond quickly, averting their further spread and saving lives.

WHO's hub in Gaziantep manages a separate system, known as EWARNS. EWARNS covers more than 9.5 million people in 11 governorates, representing over half of Syria's territory. It makes effective use of available resources by integrating existing disease surveillance systems to ensure the flow of data across different health system levels. EWARNS focuses on 11 priority diseases<sup>10</sup>.

A total of 1163 health care facilities report to EWARS in Damascus and another 507 in northern Syria report to EWARNS. Together, these two systems have allowed WHO to monitor and rapidly respond to disease outbreaks and alerts across the country.

<sup>8</sup> The International Committee of the Red Cross, the United Nations Office for the Coordination of Humanitarian Affairs, and the SARC. The plan was submitted by the UN Resident/Humanitarian Coordinator in Syria on behalf of WHO and its health partners.

<sup>9</sup> Acute diarrhoea, bloody diarrhoea, acute watery diarrhoea, acute jaundice syndrome, influenza-like illness; severe acute respiratory infection, acute flaccid paralysis, suspected measles, suspected meningitis.

<sup>10</sup> As above plus cutaneous leishmaniasis and suspected typhoid fever. EWARNS also monitors unusual clusters of deaths and other health events.

<sup>7</sup> <https://reliefweb.int/report/syrian-arab-republic/intense-violence-syria-s-east-ghouta-shutters-schools-deprives-children>.



## HOW EWARS WORKS

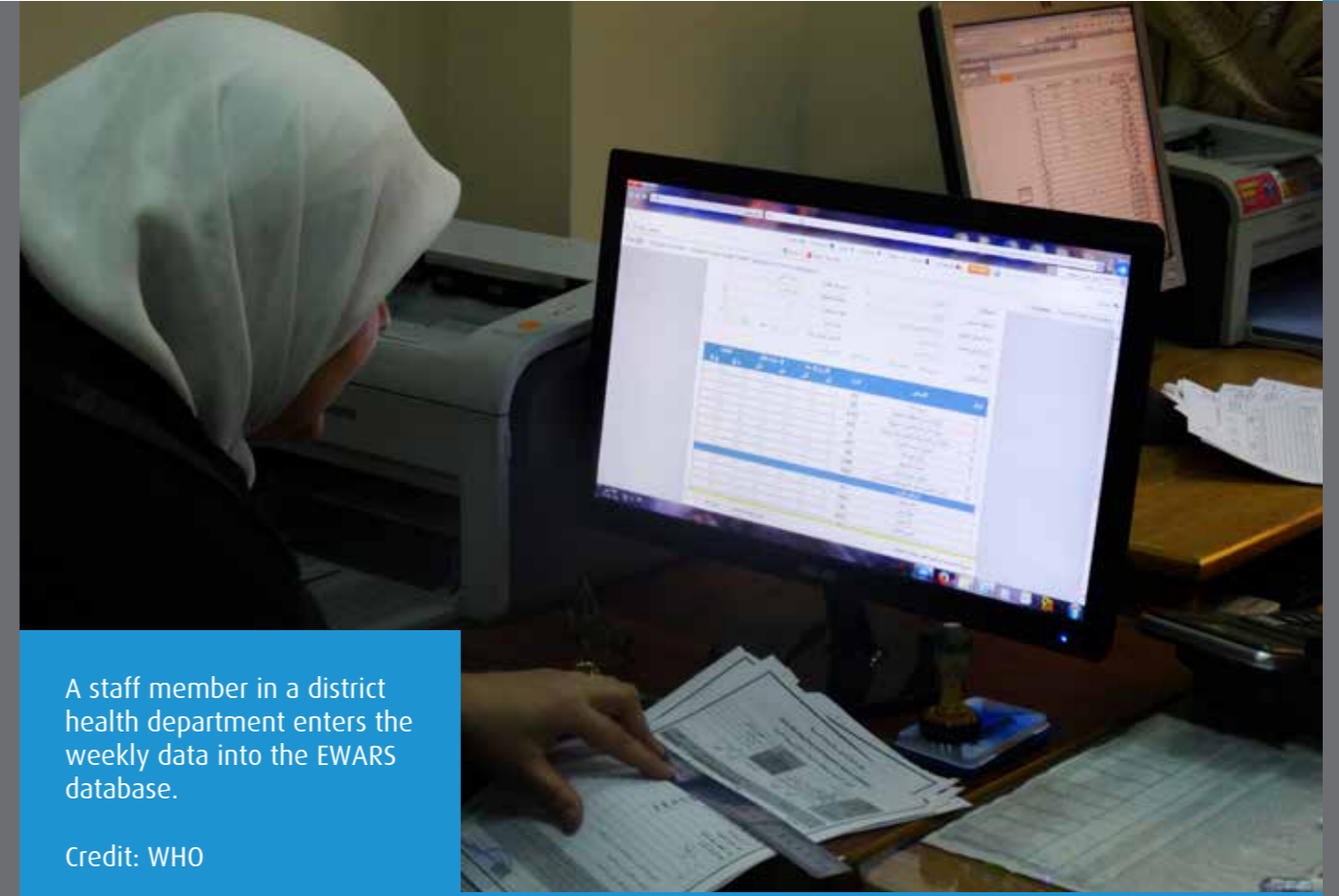
Staff in health care facilities are trained to complete EWARS reporting forms, and are given the tools they need (e.g., laptop computers, mobile phones, and standard case definitions for the diseases under surveillance).



A physician in Zuheir Hobbi PHC centre, Damascus completes the EWARS reporting form.

Credit: WHO

Each week, EWARS focal points in health care facilities send their forms to district health departments, where staff enter them into the EWARS database.

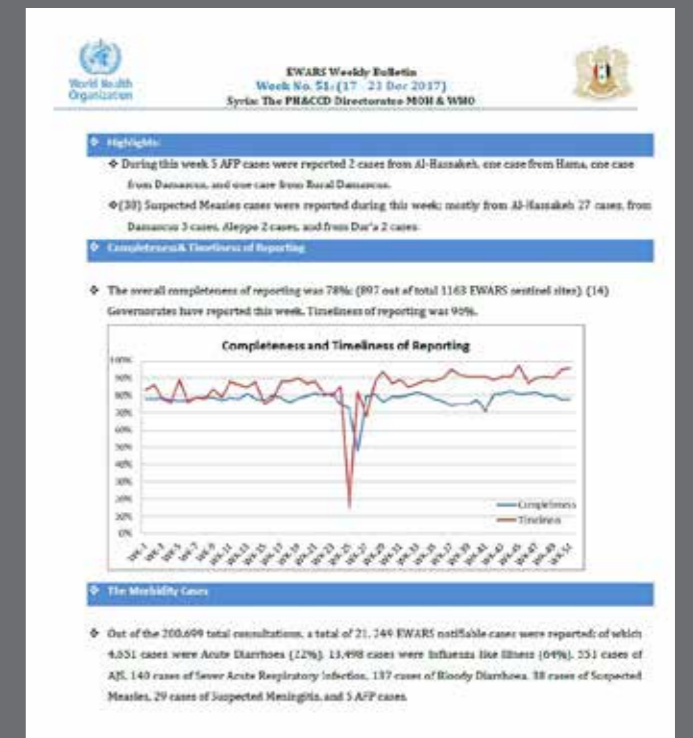


A staff member in a district health department enters the weekly data into the EWARS database.

Credit: WHO

Department of health epidemiologists in each governorate are responsible for analysing the weekly data for their governorate and submitting their analyses to the MOH in Damascus. MOH and WHO epidemiologists analyse the data from all governorates and publish the results in a bulletin that is shared with all partners and posted on WHO's web site.

<http://www.emro.who.int/syr/ewars-workshops/ewars-bulletins-2017.html>







An epidemiologist in Damascus analyses the weekly data for Damascus governorate.

Credit: WHO

WHO and MOH rapid response teams immediately investigate any suspected cases of measles, acute flaccid paralysis and acute watery diarrhoea. All three of these diseases are highly contagious and have the potential to spread rapidly among children. Investigation teams are also dispatched immediately whenever the weekly rate of the other diseases under surveillance doubles within three weeks. The teams collect samples from patients and send them to the nearest reference laboratory for testing.

Laboratory technicians in Damascus test blood samples for measles.

Credit: WHO



If the presence of disease is confirmed, the teams do contact tracing (i.e., identifying, assessing and managing people who have been exposed to the disease to prevent its onward transmission). Depending on the severity of an outbreak, the MOH and WHO may decide to organize a nationwide vaccination campaign to stem its further spread.

Since the beginning of the crisis, EWARS and EWARNS have allowed WHO and partners to rapidly detect and respond to hepatitis A, typhoid fever, leishmaniasis, polio and measles across Syria and on the borders of neighbouring countries. WHO has coordinated the rapid response to these outbreaks – for example, through emergency measles and polio vaccination campaigns – in collaboration with central and local health authorities, the SARC, and NGO partners. These efforts have potentially saved thousands of lives and avoided the spread of disease across borders.

## In 2017, WHO and health authorities:

- Investigated 86% of relevant disease alerts across the country (93% for EWARS and 79% for EWARNS).
- Trained over 2200 health care workers on EWARS/N.
- Expanded the number of health care facilities reporting to EWARS/N from 1618 (in 2016) to 1670 in 2017.
- Deployed 70 rapid response teams.
- Published 52 EWARS bulletins.



## Emergency vaccination campaigns

Vaccination remains one of the most cost-effective public health interventions against diseases such as measles, which remains a leading cause of death among young children, and polio, a crippling and potentially fatal childhood illness. Mass vaccination campaigns are challenging, since they involve vaccinating large populations over short periods of time. They are especially complicated to manage in settings where access may be compromised or where populations are constantly on the move.

In Syria, emergency vaccination campaigns are implemented by the health authorities with the support of UNICEF, WHO and the SARC. UNICEF is responsible for procuring vaccines and for media and communications. WHO is responsible for the operational aspects of vaccination campaigns: assessing risks, identifying areas of implementation, preparing micro-plans, training and supervising vaccinators, and supporting post-campaign independent monitoring. The SARC delivers the vaccines to areas where health authorities have limited access.

### Polio

In March 2017, a new case of polio was confirmed in Deir-ez-Zor governorate in north-east Syria. Unlike an earlier outbreak in 2013 that was caused by a wild strain of the polio virus, this new outbreak was caused by a virus derived from the polio vaccine itself (see insert for more information). Between March and mid-September, 74 cases of circulating vaccine-derived poliovirus type 2 (cVDPV2) disease were confirmed in Syria (71 cases from Deir-ez-Zor governorate and 3 cases from Raqqa and Homs governorates). All infected children developed paralytic disease. In late August, under the International Health Regulations (2005), WHO's emergency committee issued temporary recommendations for the Syrian Arab Republic as a "state infected with cVDPV2 with potential risk of international spread".

Thanks to close collaboration and coordinated advocacy, WHO, UNICEF, the SARC and other partners managed to conduct two mass immunization campaigns in Deir-ez-Zor and Ar-Raqqa governorates.

WHO worked with local physicians and community leaders, who were able to convince their communities that vaccination was the only way to stop the virus from spreading and paralysing more children.

WHO adopted innovative approaches to increase the effectiveness and reach of the vaccination campaigns. The time and place of each campaign were advertised widely in mosques, IDP camps and local shops. Cards with information on the vaccination places, dates and times were bundled into thousands of bags of pita bread that Syrians picked up every day at their local bakeries. On street corners, social mobilization teams handed out information brochures and took questions from the public. A local ice cream factory was engaged to assist with the daily freezing and refreezing of ice packs for vaccine cold boxes. To

maximize individual and community protection, children were given both inactivated and oral polio vaccine in the second round of each campaign. No new cases of cVDPV2 have been reported since mid-September 2017.

### Measles

All governorates reported cases of measles in 2017. To stem the growing number of cases, WHO supported a national vaccination campaign that was implemented in two phases. Almost 4.8 million children were vaccinated against measles in the course of these two campaigns.

The appendix at the end of this report gives more details concerning the different vaccination campaigns implemented in 2017.

## Vaccine-derived poliovirus

Oral polio vaccine (OPV) contains attenuated (weakened) vaccine viruses that activate the body's immune response. When a child is immunized with OPV, the vaccine virus replicates in the intestines, thereby causing immunity to develop in the person vaccinated. The vaccine virus is also excreted, and the excreted virus can infect people who have not been vaccinated. As a result, they too develop protective immunity (often called herd immunity).

Under ordinary circumstances, when population vaccine coverage rates are high, cases of paralytic disease caused by vaccine-derived polioviruses are

extremely rare. However, when vaccination coverage rates are low, population immunity is also low. In these settings, the vaccine virus can spread between under-immunized individuals, and over time it can mutate into a virulent form that can cause paralytic disease. Hence, the risk is not so much due to the vaccine itself; it is due to low vaccination coverage. The only way to stop the transmission of the virulent vaccine-derived poliovirus is with an immunization campaign. This restores high levels of population immunity and the mutant virus is no longer able to survive. The outbreak then comes to a close.



Children in a PHC centre in Damascus receive oral polio vaccine.

Credit: WHO



## EMERGENCY VACCINATION CAMPAIGNS

WHO, UNICEF, the SARC and other partners are working with the MOH to implement mass emergency vaccination campaigns to respond to outbreaks of diseases such as polio and measles.

WHO meticulously plans each campaign to ensure that no detail is overlooked. The aim is always to vaccinate as many children as possible and stop the outbreak in its tracks. In the weeks leading up to each campaign, social mobilizers fan out into the community to explain how vaccination saves lives and spread the word about where and when children can be vaccinated.



WHO health partners in north-west Syria add information cards to bread bundles. Each card shows the date and location of a polio vaccination campaign, so that parents who pick up bread from their local bakeries will know where to bring their children to be vaccinated.

Credit: Syria Immunization Group

Before each vaccination campaign begins, WHO briefs campaign staff on the target population, the presence of specific population groups in the area, and any access constraints. WHO trains vaccination teams on maintaining the cold chain, safe injection techniques and how to enter information in the vaccination reporting forms and compile the data at the end of each day. Teams are also trained to collect empty vaccine vials and use safety boxes for syringes and needles.



WHO trains vaccination teams and volunteers on safe injection techniques and the importance of the vaccine cold chain.

Credit: WHO

Vaccines are sensitive biological products that must be kept within recommended temperature ranges from the point of manufacture to the point of administration. Vaccine potency – its ability to adequately protect vaccinated patients – can decrease when the vaccine is exposed to temperatures outside the recommended range. Once lost, vaccine potency cannot be regained.

Vaccines are packed in insulated containers before being transported to the vaccination sites. Heat-sensitive monitors are attached to each container, allowing vaccination teams to evaluate the cumulative heat exposure of the vaccines. If the colour changes, this indicates the vaccines have been exposed to excessive heat and they are discarded.

Credit: WHO



The success of each vaccination campaign depends on the concerted efforts of vaccinators, monitors, drivers, social mobilizers, community leaders, and parents who bring their children to be vaccinated.

Parents bring their children to be vaccinated at a PHC centre in Ar-Raqqa governorate.

Credit: WHO







Vaccinators ink the little finger of each vaccinated child.

Credit: WHO



After receiving polio vaccine, a Syrian child shows her vaccination certificate.

Credit: Syria Immunization Group



The vaccination team registers information on each child vaccinated. The results are tallied at the end of each day.

Credit: WHO

## Supporting health care services

Since the beginning of the conflict, WHO has focused on procuring medicines, supplies and equipment to maintain critical services in Syria. In 2017, WHO donated trauma care treatments, surgical supplies and kits, medicines to treat chronic diseases, equipment for operating theatres and intensive care units, and prosthetic devices<sup>11</sup> to hospitals and health care facilities. It trained more than 1200 health care staff on basic PHC, donated medicines and supplies to support PHC centres, and procured 13 ambulances to strengthen referral services. WHO rehabilitated six PHC centres in four governorates<sup>12</sup> and fully refurbished and re-equipped the emergency department at Al-Muasat hospital, one of the main referral hospitals in Damascus. As more areas in Syria become accessible, WHO will work with health authorities and health sector partners to support the long and difficult process of rebuilding the health care system.



<sup>11</sup> Trauma is a leading cause of morbidity and mortality in Syria, with 30% of trauma cases resulting in disabilities requiring long-term rehabilitative care.

<sup>12</sup> As-Sweida, Lattakia, Quneitra and Tartous.



## Maintaining the medical supply chain

The collapse of Syria's pharmaceutical industry has had a devastating impact on the lives of ordinary citizens. Previously, 90% of Syria's medicines and medical supplies were produced domestically. Since the crisis began, the price of medicines has risen substantially, leaving them beyond the reach of most people. Maintaining the medical supply chain and ensuring that hospitals and health care facilities have uninterrupted supplies of essential medicines is one of WHO's core functions.

In 2017, WHO shipped medicines, supplies and equipment to 1294 hospitals and health care centres throughout Syria, providing a lifeline to many ill and wounded civilians. WHO bulk purchases most medicines and supplies to obtain the best possible price, and applies strict safeguards to ensure that medicines and pharmaceutical products meet acceptable standards. Medicines and emergency medical kits are stored in WHO warehouses in five

locations<sup>13</sup> in Syria, ready to be deployed when needs arise.

WHO's supply tracking system monitors the distribution of medicines, supplies and equipment to health care facilities. In collaboration with implementing partners and the MOH, WHO records the end use of the supplies and the number of beneficiaries reached. Using warehouse and distribution reports, WHO is able to verify that supplies reach targeted health care facilities. Reports of patient consultations from health care facilities that receive WHO supplies are used to estimate the number of beneficiaries served.

WHO focal points throughout the country regularly visit health care facilities and mobile clinics to report on health needs and current stocks of priority medicines. Based on these reports, WHO ships essential medicines directly to the hospitals and health care centres identified.



WHO staff prepare a cross-border delivery to northern Syria.

Credit: WHO Gaziantep

## Tracking health resources and needs

The availability of up-to-date information on the status of health care services in Syria is essential to allow WHO and health partners to analyse the evolving health situation and direct humanitarian assistance to where it is most needed. WHO's

Health Resources Availability Mapping System (HeRAMS) tracks the status of functionality, accessibility, infrastructure and staffing levels of hospitals and health care facilities throughout Syria.

WHO logisticians at its Lattakia warehouse load emergency supplies onto trucks. The supplies will be transferred to a humanitarian cargo plane bound for Qamishli.

Credit: WHO



WHO staff in Qamishli offload and inspect the supplies before distributing them to hospitals and health care centres.

Credit: WHO

Syria is slowly rebuilding its pharmaceutical factories, although production levels remain low due to shortages of staff and raw materials. WHO is working with the MOH to assess the quality and capacity of domestically-produced medicines to ensure that they meet international standards.

<sup>13</sup> Aleppo, Damascus, Homs, Lattakia and Qamishli.



## Water, sanitation and hygiene

Water and sanitation systems gradually deteriorate during prolonged emergencies. Due to insecurity, pumps and latrines may be inaccessible and fall into disrepair. When water is scarce, people cannot wash, increasing the risk of disease transmission. Without adequate supplies of clean water, hospitals cannot sterilize surgical instruments or bathe patients. When sudden mass displacements leave people without access to clean water and proper sanitation, many are forced to collect water from lakes or rivers, where it is already contaminated, greatly increasing the risk of waterborne diseases.

In 2017, WHO supported the rehabilitation of water supply systems in five hospitals in Aleppo, Damascus and Qamishli. This included drilling and equipping wells, donating water softeners and additional water storage space, and installing water purification units for dialysis machines. In collaboration with UNICEF and UNHCR, WHO inspected over 90 water storage tanks in IDP camps in north-east Syria and over 600 groundwater wells used for drinking water supplies in Aleppo governorate. UNICEF and WHO distributed water purification tablets to camp residents and host communities to control the spread of waterborne diseases. Over 200 000 people had access to clean water as a result of these efforts.

## Malnutrition: a growing problem

Malnutrition among children and infants has risen sharply as a direct consequence of the crisis. In 2017, almost 19 000 of the 743 000 children screened for malnutrition in 586 WHO-supported nutrition surveillance centres were found to be suffering from severe acute malnutrition. Over 1000 of these children had to be referred for in-patient care in stabilization centres - a 30% increase compared with 2016.

WHO is working closely with the Nutrition sector to identify and treat malnourished children as early as possible and refer them for specialized treatment when needed. WHO is helping to strengthen the national nutrition surveillance system and has supported the establishment of 17 nutrition stabilization centres to treat children with severe acute malnutrition with medical complications.



Drinking water (tested by WHO) is delivered to IDPs in Al Areesha camp, north-east Syria.

Credit: WHO

## Mental health

WHO estimates that one in 30 people in Syria is suffering from a severe mental health condition, and at least one is suffering from a mild to moderate mental health condition as a result of prolonged exposure to violence. Children, whose parents may themselves be grappling with the trauma of war, are especially vulnerable. WHO is supporting the establishment of a mental health programme in Syrian schools. The programme aims to train all those involved in education - teachers, administrators, nurses, social workers and school counsellors - on basic mental health and psychosocial interventions for schoolchildren. WHO plans to train around 500 staff working in 150 schools by the end of 2018. Approximately 20 000 children will benefit directly from this programme in 2018, and another 100 000 will benefit indirectly.

The Organization is also supporting the integration of mental health services into PHC and community

centres across the country. Over 400 health care facilities in Syria are now providing mental health and psychosocial support services.

In 2017, WHO's hub in Gaziantep, Turkey rolled out the Mental Health Gap Action Programme in north-west Syria and trained more than 250 health care workers and mental health professionals. Thanks to this training, they are now able to detect and manage mental health conditions and provide psychological first-aid in PHC centres.

Health professionals and humanitarian workers are themselves not immune to stress and burn-out following their prolonged exposure to traumatic events. WHO's office in Gaziantep has developed a training course on self-care for health and humanitarian workers, and has launched a hotline to provide psychosocial support.

## Working with partners

### Other UN agencies

WHO works closely with other UN humanitarian agencies to plan and implement the health response. Close coordination with other sectors maximizes the use of scarce resources, and helps avoid duplication and overlap. For example, in 2017 WHO worked closely with UNICEF and UNHCR to monitor the quality of water in IDP camps and implement immediate

mitigation measures when required, thus preventing the spread of waterborne diseases. Thanks to this close collaboration, the number of suspected cases of Hepatitis A, attributable to contaminated water, inadequate sanitation or poor hygiene practices, decreased from 28 740 in 2016 to 21 353 in 2017.

WHO and UNICEF water engineers show the results of their test of the quality of water in a storage tank in Al Hol Camp, north-east Syria.

Credit: WHO



### NGOs

WHO works with a network of 83 health NGOs<sup>14</sup> that provide health care services in Syria, especially in besieged and hard-to-reach locations that remain off-limits to international agencies. In many areas, NGO-operated mobile clinics are often the only health service available. Mobile teams can be deployed where they are most needed - for example, to informal settlements and new IDP camps - to treat people who would otherwise have no access to any form of health care. Working through its NGO partners, WHO was able to provide essential health and nutrition services to over 2.7 million people in 2017.

WHO is preparing a strategy outlining how Syria can make the best possible use of its many skilled health NGOs and ensure they are all working in a consistent manner, to the same standards, to deliver health care to patients. The final strategy - developed in collaboration with NGOs - will be released in 2018. WHO has also contracted an outside organization to assess the relevance, effectiveness, efficiency and sustainability of its NGO partners<sup>15</sup>. The assessment tool was pilot-tested in late 2017, and will be fully launched in 2018.



A child is examined in a WHO-supported health centre in Aleppo.

Credit: WHO

<sup>14</sup> WHO's office in Damascus works with 68 health NGOs. WHO's hubs in Gaziantep and Amman work with 13 and 2 NGOs respectively.

<sup>15</sup> Based on the criteria for acceptable performance developed by the Organization for Economic Cooperation and Development (OECD)'s Development Assistance Committee (DAC). OECD/DAC's criteria are widely used for aid evaluation purposes.



## WAFAA'S STORY: ONE YEAR ON

In our annual report for 2016, we told the story of nine-year old Wafaa, who was badly burned when her house in east Aleppo was hit by a huge explosion. Wafaa's burns were so severe that her eyelids fused together. Her mouth was so badly injured that she was unable to close her lips. In early 2017, surgeons in Damascus carried out preliminary surgery on her eyes so that she could blink again. Surgery on her mouth allowed her to swallow without dribbling.

One year on, thanks to generous contributions from anonymous donors, Wafaa is getting the additional help she needs. In early January 2018, she and her mother Duaa travelled to Rome, where over the next year highly specialized surgeons in the Ospedale Pediatrico Bambino Gesù will begin the long and painful process of cosmetic reconstruction.

Thus far, the surgeons in Rome have treated the contractures on Wafaa's hand and leg. In February they will begin reconstructing her lips and eyelids.



Duaa and Wafaa: a mother and her child.

Credit: Ospedale Pediatrico Bambino Gesù

The innocence and spirit of this little girl have touched the lives of everyone who has met her. The president of the hospital, Mariella Enoc, says "Wafaa's burn scars are very visible, but believe me, when you talk to her, the way she smiles and the way her eyes light up make you forget her scars completely."

Wafaa is learning Italian and has made friends with many of the children at her hospital. She still cries sometimes when she remembers how other children in Aleppo were scared of her, not realizing that beneath the injuries was the playmate they once knew. And she misses her brothers and sisters terribly. "When I come back to Syria, I will be beautiful, and my friends will play with me again", she says. "And I will teach them Italian."



Wafaa embraces her interpreter at the Bambino Gesù paediatric hospital in Rome.

Credit: Ospedale Pediatrico Bambino Gesù

## 3. THE WHOLE OF SYRIA APPROACH

### Inside Syria

In Damascus, WHO leads the health sector response and coordinates around 25 health sector partners. The office has more than 70 staff including public health specialists, water and sanitation engineers, logisticians and support staff. Damascus focuses on the following areas:

1. Leadership: Whole of Syria joint strategic planning, implementation, monitoring and reporting.
2. Advocacy: advocate with the highest levels of government for sustained access to all parts of the country to deliver humanitarian aid.
3. Health diplomacy: support the work of the International Syria Support Group and the Office of the Special Envoy for Syria.
4. Information: coordinate the collection, analysis and dissemination of information on health risks, needs and gaps across Syria.
5. Resource mobilization: raise funds to support WHO's work in Syria.
6. Strategic communication: publish quarterly donor updates; present WHO's work in Syria in international fora.
7. Technical expertise: provide technical advice to partners; ensure that critical gaps in the emergency response are filled.

WHO's four sub-offices in Aleppo, Hasakeh, Homs and Lattakia work closely with WHO's network of focal points throughout the country to monitor the health response and report back to Damascus on emerging needs.

### Gaziantep, Turkey

WHO's field office in Gaziantep, a Turkish city near the Syrian border, has served as an operational hub since 2013. It coordinates around 70 health cluster partners working in opposition-controlled areas in north-west Syria. The office has around 20 staff. It collects and analyses information on health needs and gaps to support the emergency response, and documents attacks on health care to support WHO's advocacy efforts. Public health officers in Gaziantep provide support and guidance to NGO partners delivering health care services in north-west Syria, deliver medicines and medical supplies to health care facilities in Syria through cross-border operations, train health care workers and provide technical support for mass vaccination campaigns for children in north-west Syria as well as in besieged and hard-to-reach areas. In 2017, to mitigate the acute shortage of health care staff in north-west Syria, WHO-Gaziantep trained over 200 health care staff in besieged areas and another 50 staff in other locations on the management of NCDs, including diagnosing and treating diabetes, hypertension, respiratory disease, mental health disorders and other topics.

A total of 507 health care facilities report to the disease early warning and response network (EWARN) managed by Gaziantep. EWARN covers more than 9.5 million people in 11 governorates that together account for half of Syria's territory. In 2017, the office trained more than 700 health care workers on how to rapidly detect and manage epidemic-prone diseases.

### Amman, Jordan

WHO's hub in Amman hub leads and coordinates health partners working in opposition-controlled areas in southern Syria. WHO Amman co-leads and convenes regular meetings of the health sector working group comprising 26 UN agencies, national and international NGOs, donors and local health authorities. It also leads three working groups (one on mental health and psychosocial support, one on community health workers, and one on quality and remote monitoring).

WHO's health sector partners in Amman provide direct support to 45 PHC centres and field hospitals, with support adapted to meet shifting conflict lines and according to the availability of funds. A "Health Services and Population Status" task force has recently been established to report on the health situation in southern Syria, based on a core set of 6-7 morbidity indicators. The task force aims to better document the health services being supported/provided by cross-border agencies in southern Syria and provide justification for these services to be either continued or handed over to local authorities. The task force issued its first report in January 2018.

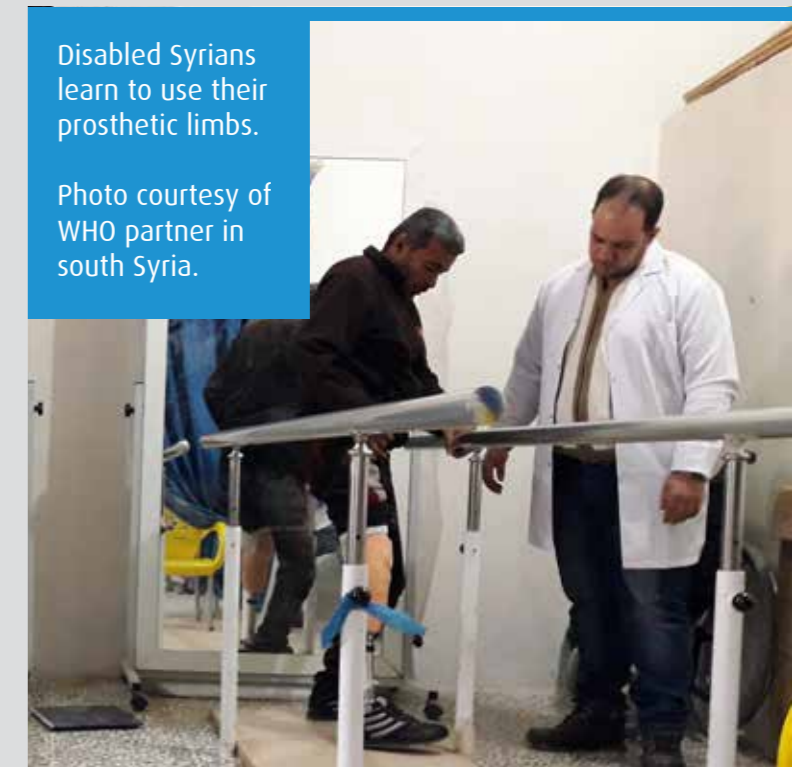
War-related injuries are the first cause of morbidity and mortality in Syria. Around 30% of wounded Syrians are permanently disabled as a result of their injuries. WHO-Amman has partnered with NGOs to scale up rehabilitation services for injured and disabled Syrians. NGO partners collaborate with an extensive network of facilities in both northern and southern Syria. Facilities supported by these NGOs receive materials, equipment and training related to the production of prostheses. As of the end of 2017, NGO partners were providing trauma care services to approximately 2700 patients and physical rehabilitation services to nearly 800 patients with disabilities. In October 2017, the Amman health sector launched a working group on rehabilitation

with a view to improving the functional outcomes for people in Syria living with injuries and disabilities.

In 2017, the Amman office delivered essential medicines and supplies, including surgical supply kits and anti-venom to treat snake and scorpion bites, to health care facilities in southern Syria. It also facilitated cross-border convoys (a total of 60 trucks crossed from Jordan into Syria in 2017). Lastly, WHO's technical team in Amman organized a series of remote and face-to-face trainings on NCD care and mental health and psychosocial support. Twelve health coordinators from international NGOs were trained on managing NCDs in PHC centres and on remote supervision techniques. Another 14 Syrian health care professionals were trained on preventing and managing NCDs.

Disabled Syrians learn to use their prosthetic limbs.

Photo courtesy of WHO partner in south Syria.







Children playing in Deir  
Hassan camp, northern Syria.

Credit: WHO Gaziantep



## 4. FUNDS RECEIVED IN 2017

Under the Humanitarian Response Plan for 2017, WHO appealed for US\$ 163 748 100 to implement the activities outlined in this report. As of the end of 2017, it had received just under 50% of the funds required.

| Donor  | Amount received (US\$) |
|--|------------------------|
| China  | 500 000                |
| European Commission Directorate-General for European Civil Protection and Humanitarian Aid Operations (ECHO) | 2 116 924              |
| Japan  | 13 436 979             |
| Japan (in Partnership with UNDP)   | 43 967                 |
| Kuwait   | 1 000 000              |
| Lithuania  | 21 231                 |
| Norway   | 9 946 365              |
| Qatar Charity  | 2 000 000              |
| United Kingdom Department for International Development (DFID)   | 27 900 096             |
| United Nations Office for the Coordination of Humanitarian Affairs – Syria Humanitarian Fund                 | 4 672 327              |
| United States Agency for International Development, Office of U.S. Foreign Disaster Assistance (US OFDA)     | 17 500 000             |
| WHO Contingency Fund for Emergencies   | 312 440                |
| <b>Total</b>   | <b>79 450 329</b>      |

## 5. PRIORITIES AND FUNDING REQUIREMENTS FOR 2018

| Sector                              | N° | Project title   | Funds requested by WHO office/hub (in US\$) |                      |                     |                       |
|-------------------------------------|----|---|---|----------------------|---------------------|-----------------------|
|                                     |    |   | Damascus                                    | Gaziantep            | Amman               | Total (US\$)          |
| HEALTH                              | 1  | Strengthen trauma care/mass casualty management and physical rehabilitation   | 11,517,000                                  | 7,789,925            | 2,199,200           | 21,506,125            |
|                                     | 2  | Improve sustainable and quality secondary health care, obstetric care and referral services across the country  | 43,120,000                                  | 6,453,989            | 0                   | 49,573,989            |
|                                     | 3  | Sustain and improve delivery of primary health care services addressing chronic diseases & child & maternal health services   | 16,218,000                                  | 7,122,513            | 750,000             | 24,090,513            |
|                                     | 4  | Scale up the national and sub-national immunization programme and polio eradication activities  | 5,755,000                                   | 16,155,796           | 0                   | 21,910,796            |
|                                     | 5  | Reinforce national and sub-national surveillance systems for the early detection, prevention and control of potential epidemic-prone diseases in Syria                        | 4,922,000                                   | 1,160,326            | 0                   | 6,082,326             |
|                                     | 6  | Enhance mental health and psychosocial support services   | 4,395,000                                   | 3,466,551            | 170,000             | 8,031,551             |
|                                     | 7  | Strengthen health information systems for emergency response and resilience   | 2,637,500                                   | 674,219              | 0                   | 3,311,719             |
|                                     | 8  | Reinforce inter- and intra-hub health sector coordination for effective health response in Syria  | 1,952,000                                   | 519,000              | 260,000             | 2,731,000             |
| <b>Total for health projects</b>    |    |   | <b>90,516,500</b>                           | <b>43,342,318</b>    | <b>3,379,200</b>    | <b>137,238,018</b>    |
| NUTRITION                           | 9  | Strengthen the prevention and early detection of malnutrition in children under five years of age, and referral for treatment of severe acute malnutrition with complications | 1,144,000                                   | 68,000               | 0                   | 1,212,000             |
| <b>Total for nutrition projects</b> |    |   | <b>1,144,000</b>                            | <b>6,800</b>         | <b>0</b>            | <b>1,212,000</b>      |
| WASH                                | 10 | Establish water quality monitoring and integrated medical waste management systems in areas of returnees and IDP camps  | 3,940,000                                   | 159,143              | 0                   | 4,099,143             |
| <b>Total for WASH projects</b>      |    |   | <b>3,940,000</b>                            | <b>159,143</b>       | <b>0</b>            | <b>4,099,143</b>      |
| <b>TOTAL</b>                        |    |   | <b>\$ 95,600,500</b>                        | <b>\$ 43,569,461</b> | <b>\$ 3,379,200</b> | <b>\$ 142,549,161</b> |
| <b>Percentage by office/hub</b>     |    |   | <b>67.1%</b>                                | <b>30.5%</b>         | <b>2.4%</b>         |                       |



## Acknowledgements

WHO relies almost entirely on voluntary contributions to fund its humanitarian operations in Syria. It thanks the many donors who contributed to its work in 2017. Without their assistance and support, WHO would have been unable to fulfil its humanitarian mission.

We express our sincere gratitude to the many health partners in Syria with whom the Organization worked side by side in 2017.

We salute the bravery and commitment of all WHO staff in Syria - the drivers, logisticians, pharmacists, public health officers, EWARS focal points and many others - who worked to deliver humanitarian aid to people throughout Syria.

We thank the Syrian Ministry of Health and the Ministry of Higher Education for their cooperation.

Lastly, we thank Syria's courageous and selfless health care workers, the unsung heroes of this conflict. Working in harrowing conditions, under the constant threat of bombardment, many of them have been killed while others put their own lives at risk on a daily basis to help their fellow Syrians. In 2017, 58 health care staff in Syria were injured and 30 were killed in the course of duty. Let us remember these sobering facts as we move into 2018.

## APPENDIX: VACCINATION CAMPAIGNS IN 2017

| Governorate                 | Type of campaign            | Month of campaign      | Implementing partners | Age group  | N° of children targeted | N° of children vaccinated | Coverage rate | Comments   |
|-----------------------------|-----------------------------|------------------------|-----------------------|------------|-------------------------|---------------------------|---------------|--|
| Idleb, Aleppo, Homs, Hama   | bOPV Round 1                | February 2017          | UOSSM, PAC, QRCS      | Under 5    | 613 563                 | 559 011                   | 91%           |  |
| All accessible governorates | bOPV                        | March 2017             | MOH, SARC, UNICEF     | Under 5    | 2 738 323               | 2 491 804                 | 91%           | The whole of Tal Abyad district in Ar-Raqqa governorate was covered for the first time in two years (over 45 000 children vaccinated). However, the rest of Ar-Raqqa remained inaccessible. The campaign also reached 315 516 children in rural Deir-ez-Zor. |
| Idleb, Aleppo, Homs, Hama   | bOPV Round 2                | April 2017             | UOSSM, PAC, QRCS      | Under 5    | 627 096                 | 659 481                   | 105.8%        |  |
| All accessible governorates | bOPV Round 2                | 18-27 April 2017       | MOH, SARC, UNICEF     | Under 5    | 2 738 323               | 2 416 760                 | 88%           | Campaign conducted in all governorates except Ar-Raqqa and Idleb (same reasons as above).  |
| All accessible governorates | Polio                       | 18-27 April 2017       | MOH, SARC, UNICEF     | Under 5    | 2 738 323               | 2 416 760                 | 88%           | Campaign conducted in all governorates except Ar-Raqqa and Idleb (same reasons as above).  |
| All accessible governorates | Measles Round 1             | 21-25 May 2017         | MOH, SARC, UNICEF     | Under 5    | 2 466 354               | 1 779 459                 | 72%           | Campaign conducted in all governorates except Ar-Raqqa and Idleb (same reasons as above).  |
| Deir-ez-Zor                 | mOPV2 <sup>16</sup> Round 1 | 22-26 July 2017        | MOH, SARC, UNICEF     | Under 5    | 328 000                 | 259 958                   | 79%           |  |
| Ar-Raqqa governorate        | mOPV2 Round 1               | 12-17 August 2017      | MOH, SARC, UNICEF     | Under 5    | 120 000                 | 103 720                   | 86%           |  |
| Deir-ez-Zor                 | mOPV2 Round 2               | 22-31 August 2017      | MOH, SARC, UNICEF     | Under 5    | 328 000                 | 255 559                   | 77%           |  |
| All accessible governorates | Measles Round 2             | 17-26 September 2017   | MOH, SARC, UNICEF     | 6-12 years | 3 628 770               | 2 978 998                 | 82%           | Campaign conducted in schools in all governorates except Ar-Raqqa and Idleb (same reasons as above).   |
| Idleb, Aleppo, Hama         | IPV                         | September-October 2017 | UOSSM, PAC, QRCS      | Under 5    | 226 455                 | 225 681                   | 99.7%         |  |
| Ar-Raqqa                    | mOPV2 Round 2               | 7-12 October 2017      | MOH, SARC, UNICEF     | Under 5    | 150 000                 | 144 414                   | 96%           |  |

<sup>16</sup> Monovalent oral polio vaccine type 2

| Governorate  | Type of campaign                                       | Month of campaign      | Implementing partners | Age group | N° of children targeted | N° of children vaccinated | Coverage rate | Comments  |
|--|--|------------------------|-----------------------|-----------|-------------------------|---------------------------|---------------|---|
| All accessible governorates                            | Polio  | 8-12 October 2017      | MOH, SARC, UNICEF     | Under 5   | 2 738 323               | 2 136 759                 | 78%           | Campaign conducted in all governorates except Idleb (refusal of local authorities), Deir-ez-Zor (insecurity), Ar-Raqqa (the second round of the mOPV2 campaign was given priority), and hard-to-reach areas in rural Damascus including East Ghouta, Alhajar Alaswad, Harmon, and Bit Jan (insecurity). |
| Sub-national: hard to reach areas in most governorates | Sub-national immunization days with bOPV <sup>17</sup> | 19-23 November 2017    | MOH, SARC, UNICEF     | Under 5   | 925 609                 | 425 817                   | 46%           | Children aged 2-23 months also reached with supplementary IPV <sup>18</sup> , particularly in areas with large IDP populations in Aleppo, districts of Damascus, accessible areas of Deir-ez-Zor city, Homs, and Rural Damascus   |
| Idleb, Aleppo  | bOPV Round 3   | November-December 2017 | UOSSM, PAC, QRCS      | Under 5   | 641 967                 | 727 083                   | 113%          |   |

UOSSM: Union of Medical Care and Relief Organizations

PAC: Physicians Across Continents

QRCS: Qatar Red Crescent Society

<sup>17</sup> Bivalent oral polio vaccine

<sup>18</sup> Inactivated polio vaccine



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Front and back cover:  
"A child plays in Ein Essa camp,  
north-east Syria"

Credit: Lindsay MACKENZIE

