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World Health Organization
Syrian Arab Republic



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Ambulances donated by WHO to the Syrian Arab Red Crescent.

WHO

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FOREWORD



In 2018, the rapidly evolving situation in Syria required WHO to intervene in many different geographic locations. We responded to simultaneous health emergencies in eastern Ghouta, northern rural Homs, south-west, north-east and north-west Syria.

Our focal points across the country were our eyes and ears. Working under difficult and often dangerous circumstances, they assessed each situation and worked closely with our office in Damascus, our

hubs in Gaziantep and Amman and our cross-border partners in north-east Syria to plan and implement interventions targeting those most in need.

We monitored almost 1100 hospitals and primary health care (PHC) centres throughout the country and delivered medicines and supplies to where they were needed most. Almost 100 hospitals received essential medical equipment in 2018.

Regular health assessments underpin everything we do. They allow us to implement transparent, impartial and timely interventions that are grounded in science and based on demonstrated needs. They focus our response on substantive matters and reduce the scope for political considerations. This past year we assessed the health situation in IDP camps in the northeast and the status of trauma care services in Ar-Raqqa city and surrounding areas. The health cluster in Amman, led by WHO, produced the first comprehensive picture of health care services in southern Syria. Our hub in Gaziantep examined the treatment options for growing numbers of patients with tuberculosis in north-west Syria. These are just some examples – there were many more.

We responded to outbreaks of acute diarrhoea and typhoid fever in the north and hepatitis A in the south. In response to measles outbreaks across the country, we worked closely with partners to vaccinate children at points of entry in IDP camps, through routine immunization services and during national immunization days. An outbreak of circulating vaccine-derived poliovirus type 2, first detected in 2017, was successfully controlled thanks to strong coordination between our offices in Damascus, Amman and Gaziantep, with close support from our regional and headquarters offices. We worked with government agencies and partners to test water quality throughout the country and make sure that hospitals had safe water supplies. We expanded our nutrition activities. Over 800 nutritional surveillance units in health care facilities screened children for malnutrition and referred them for specialized treatment when necessary. We successfully launched a school-based mental health programme and continued to train non-specialist health professionals in PHC centres on basic interventions to help patients in distress.

WHO continues to be the authoritative voice on the health situation in Syria. On behalf of all partners, we appealed for an end to attacks on health care and called for the guaranteed medical evacuation of critically ill patients and their families from besieged and hard-to-reach areas. In November, we briefed the UN Security Council in New York on the impact of the crisis on Syria's health care system and set out the minimum steps to be taken to improve the lives of millions of vulnerable people.

Primary health care is the backbone of the health response in Syria and the theme of this year's annual report. Strong collaboration with our NGO partners ensured that millions of Syrians, especially those in besieged and hard-to-reach areas, continued to receive basic health care through mobile teams and clinics.

Over the past seven years, we have trained tens of thousands of health care providers throughout Syria. An evaluation of the effectiveness of our training programme is underway. We are assessing the quality of our NGO partners and continuing to train them and other health care providers to help ensure that they are able to provide quality care to some of the most vulnerable people in Syria.

Over the last year I travelled throughout the country to meet and talk with ordinary Syrians, many of whom have lost everything. Their dignity and resilience in the face of so much suffering is a testament to their courage and spirit. I also met many health care staff working in cities, towns and villages throughout Syria. Seeing at first hand the difference that they are making in the lives of their fellow Syrians has been one of the most humbling and moving experiences of my life.

Elizabeth Adly

SITUATION IN 2018

Overview

Millions of innocent civilians continued to bear the brunt of the Syrian conflict. In 2018, approximately 1.5 million people were newly displaced by hostilities in many areas including eastern Ghouta, the south and north-west, northern rural Homs and eastern Deir- ez-Zor. Overall, more than 13 million people in Syria need humanitarian assistance, 5.2 million acutely so. At least 6.2 million people have been displaced, many of them more than once. Two thirds of Syrians are living under the poverty line.

Political instability persisted. By the end of June, the Syrian government had ended its longstanding sieges and regained control of several areas formerly controlled by non-state armed groups. Conversely, Syrian non-state armed groups and Turkish military forces took control of most of Afrin district in Aleppo governorate, resulting in the collapse of the local health system and the displacement of 167 000 people.

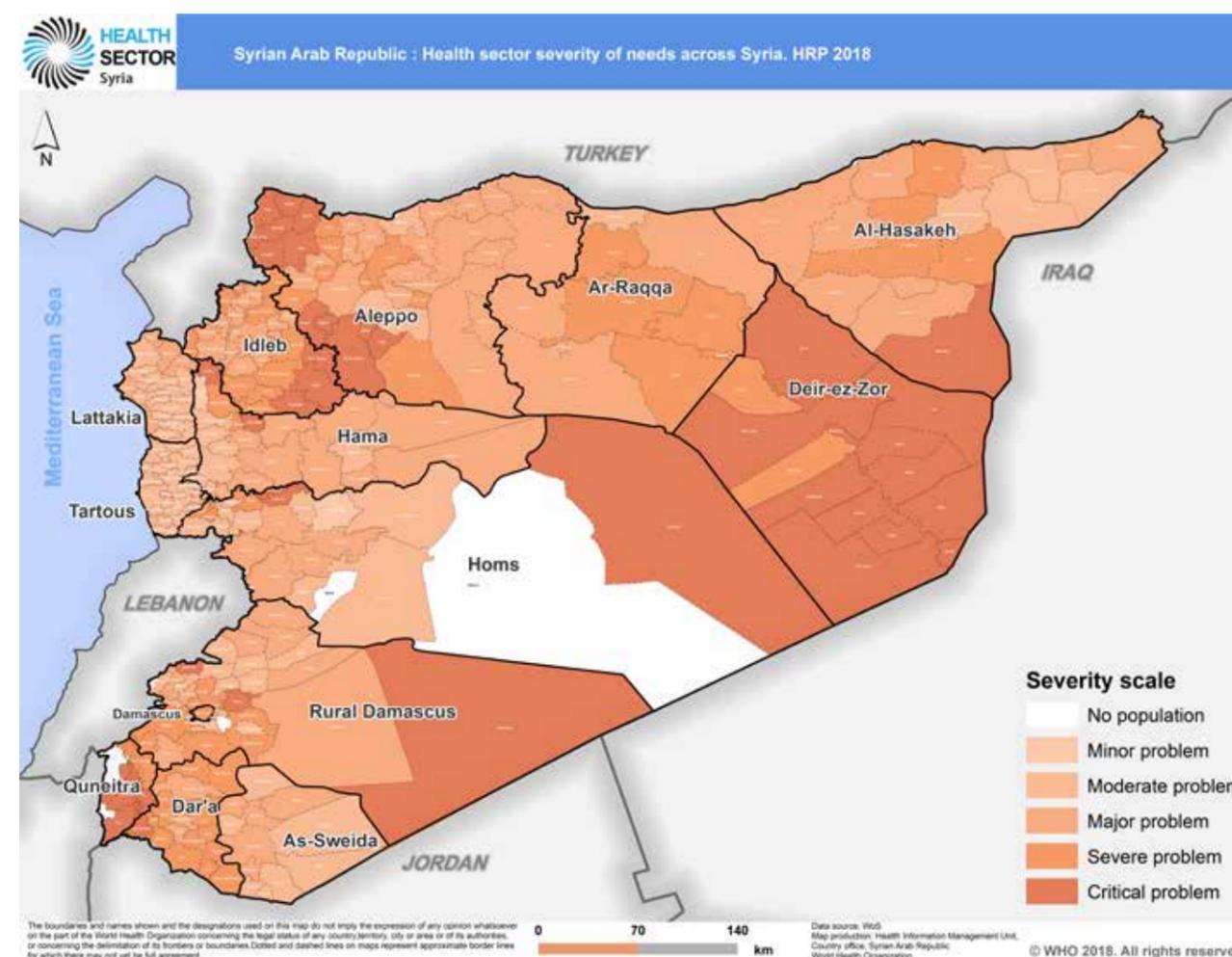
Changes in political control led to further waves of displacement to and within north-west Syria. Tens of thousands of internally displaced people (IDPs) from eastern Ghouta, northern rural Homs and southern Hama were forcibly evacuated to Idleb governorate. The population of Idleb has doubled since 2011 and most IDPs there have very limited access to health care and other services.

There were outbreaks of measles, leishmaniasis and acute bloody diarrhoea, fuelled by displacement, hostilities and poor living conditions. Vaccination coverage rates remained low despite mass immunization campaigns and routine vaccination

activities to curb the spread of diseases such as vaccine-derived polio and measles. Shortages of safe drinking water, due in part to the deliberate targeting of water networks, left up to 35% of the population relying on alternative and often unsafe water sources¹.

The operating environment in Syria continued to be demanding. WHO and other humanitarian agencies faced significant challenges to delivering assistance because of heavy fighting, the widespread presence of improvised explosive devices, and delays in obtaining authorization to enter many areas. In December 2018, the United Nations Security Council reiterated its grave concern over hindrances to the delivery of humanitarian assistance. It called on all parties to allow the safe, unimpeded and sustained passage of humanitarian convoys to all parts of Syria and renewed its earlier resolution (2165) authorizing the delivery of humanitarian aid from the neighbouring countries of Iraq, Jordan and Turkey².

In 2018, WHO and the United Nations shifted from a response by geographical location to one based on a detailed assessment of the severity of needs in all 270 sub-districts in Syria³. While this has allowed for a more targeted delivery of assistance, it cannot be used as the only measure for determining health interventions. WHO has continued to work in areas with relatively low severity of need⁴ in order to vaccinate children and raise vaccination coverage rates across the country. It also continues to support referral hospitals located in areas of low severity because they provide essential services to people from nearby areas still caught up in the conflict.



It is clear that humanitarian needs will continue throughout Syria for some time, regardless of who is in charge. Two thirds of people in need of humanitarian assistance currently live in areas under the control of the government, with the remainder in areas controlled by non-state armed groups and other forces.

¹ Syria HNO, 2017, <https://hno-syria.org/data/downloads/en/full.pdf>.

² UN Security Council Resolution 2449 of 13 December 2018.

³ Severity scales are used by humanitarian agencies to estimate the severity of needs at sub-district level. The severity scale, set out in the Humanitarian Response Plan for 2018, is derived from a range of data sources that yield information on 1) accessibility to health care, 2) number of people affected, 3) humanitarian access, 4) the availability of health resources and services, and 5) the impact of the conflict on health and morbidity.

⁴ The severity of needs in different geographic locations in Syria are based on a scale from 0 to 6. Areas ranked between 4 and 6 are classified as being in acute and immediate need of humanitarian assistance.

The impact of the crisis on health care delivery

The continuing conflict and waves of displacement placed a massive strain on the health system. In 2018, fewer than half of the previously existing public health care facilities were fully functioning. Fighting continued in many areas; mobile medical teams were unable to reach patients and patients were unable to reach hospitals and PHC centres. The situation was compounded by attacks on health care facilities and personnel that deprived tens of thousands of Syrians of health care at the time they needed it most.

There were severe shortages of medical specialists, medicines and supplies, especially in rural and historically deprived areas and those that were formerly besieged or hard to reach. In many parts of the country, medical supply chains functioned only sporadically, leading to widespread shortages of medicines to treat common diseases. Although public health care facilities were supposed to provide medicines free of charge, many patients were forced to buy them in private pharmacies because they were not available otherwise.

For people wounded in the conflict, the outlook was grim. In many hospitals, essential equipment was broken and could not be repaired, partly because international sanctions prevented the importation

of critical spare parts. There were acute shortages of reconstructive surgery and other services to treat badly burned patients. Emergency surgery for trauma patients was often delayed because supplies and equipment were lacking. Thousands of wounded Syrians had no access to physical rehabilitation services. Approximately 15% of Syrians have suffered disabilities as a result of the conflict, and almost half of them are likely to have lifelong impairments that will require specialist support long after the hostilities have ended.

Widespread bombing and shelling have wounded hundreds of thousands, but the disruption of the health care system has been equally devastating for millions of Syrians who are living with one or more chronic diseases. WHO estimates that approximately 12% of Syrians have diabetes and around 20% suffer from high blood pressure⁵. Left untreated, these diseases can lead to serious complications such as heart attacks and kidney failure. There were widespread shortages of medicines and specialist services to treat patients with cancer, renal failure and other serious illnesses. Untold numbers of people in Syria have died because they could no longer obtain the life-saving medicines and treatments they once took for granted.

⁵ <https://www.who.int/nmh/publications/ncd-profiles-2018/en/>.



The WHO team views the badly damaged TB hospital in Aleppo.

WHO

Disease outbreaks

In 2018, there were outbreaks of acute bloody diarrhoea, typhoid fever and hepatitis A. These diseases are almost always the result of unclean water and poor sanitation and they disproportionately affect the poorest and most vulnerable.

The number of cases of measles doubled compared with 2017. Rates of cutaneous leishmaniasis, which is endemic in north-west Syria, rose sharply, highlighting Syrians' increasing vulnerability to communicable diseases. Rates of tuberculosis (TB) are estimated to be on the rise (15.8 per 100 000 people in 2017 compared with 13 per 100 000 people in 2013). Because the national TB surveillance system has been badly disrupted, the real number might be much higher.

There were also success stories. WHO and the health authorities managed to stem an outbreak of vaccine-derived poliovirus that began in 2017. Cases of vaccine-derived poliovirus are a warning sign. They occur when vaccination rates are dangerously low. WHO and UNICEF are working to strengthen routine vaccination services in PHC centres and support mass vaccination campaigns in newly accessible areas. Sustained efforts will be required to protect the country's children against measles, polio and other vaccine-preventable diseases.

Page 50 of this report describes WHO's response to disease outbreaks in greater detail.

Access to people in need

In 2018, the number of people living in hard-to-reach areas dropped from almost 3 million to just over 1.1 million. Moreover, for the first time in over five years, no areas in Syria were classified as besieged by the UN. This led to improved access to several parts of the country to deliver humanitarian aid. However, ongoing hostilities, the widespread presence of explosive remnants of war and bureaucratic obstacles continued to hamper operations.

WHO's efforts focused on reaching people in areas where political control had changed and where health needs were severe. In many of these areas, people had suffered for years under siege, had been subjected to intense military activity, or had seen no resumption of basic services since changes in control.

Inter-agency convoys

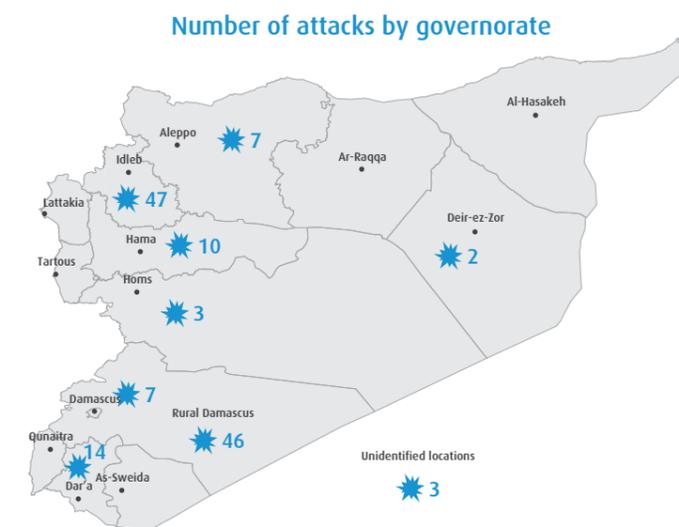
The number of inter-agency convoys inside Syria dropped sharply (17 in 2018 compared with 41 in 2017) as more areas came under government control. At the request of the government, WHO and its UN partners delivered supplies to these locations through their regular programmes rather than through inter-agency convoys.

UN Security Council Resolution 2165 (2014) authorizing the UN and partners to deliver humanitarian aid to people throughout Syria from neighbouring countries provided a lifeline to millions of Syrians. WHO's cross-border operations from Iraq, Jordan and Turkey were crucial to delivering humanitarian assistance to people who could not be reached from Damascus. WHO's hub in Gaziantep accounted for approximately 43% of the total volume of medical supplies delivered by WHO in 2018.

Throughout the year, WHO advocated on behalf of all its health partners for the free passage of medicines, equipment, supplies and personnel to all parts of Syria and the safe passage of critically ill and wounded patients to health care facilities outside conflict zones.

Attacks on health care

WHO uses the Organization's new online system – the global Surveillance System for Attacks on Health Care (SSA) – to track attacks on health care facilities and personnel in Syria. The SSA uses a standardized methodology to allow it to identify global and context-specific trends and allow comparisons between regions and contexts. There were 139 confirmed attacks on health care in Syria in 2018. Syria accounted for the second-highest number of attacks worldwide, second only to the occupied Palestine Territories.



Kafr Nubbol Hospital in north-west Syria after it was damaged in the hostilities.

WHO Gaziantep

⁶ <https://publicspace.who.int/sites/ssa/SitePages/PublicDashboard.aspx>.

139 Total Attacks

101 Killed
Of whom
17 were health care providers
11 were patients

189 Injured
Of whom
44 were health care providers
41 were patients

Impact of attacks

43 attacks
affected personnel

14 attacks
affected patients

42 attacks
affected supplies

112 attacks
affected health facilities

12 attacks
affected warehouses

19 attacks
affected transport

In June 2018, the Al-Ehsan hospital and the E. Ghariyeh blood bank in Dar'a were badly damaged by airstrikes and forced to close. The airstrikes killed one health care worker and injured two others. Until then, the hospital had been providing 8300 consultations each month and the blood bank had been providing 480 units of blood each month to health care facilities throughout southern Syria. The airstrikes essentially wiped out the entire blood supply for all areas in southern Syria that were under the control of non-state armed groups.

In north-west Syria, there were nine separate reports of kidnappings of health care staff. The real number may be much higher; many incidents likely

go unreported so as not to jeopardize the safety of hostages and their families.

The consequences of every attack on a hospital or PHC centre are immediate and devastating. Hospitals are forced to suspend their services, putting the lives of their patients at risk. The psychological toll on staff and patients is enormous. Each attack is a major violation of international humanitarian law and an affront to the universal right to health care. In Syria, these attacks continue unabated despite universal outrage and condemnation. Tens of thousands of Syrians injured in the conflict have died or suffered lifelong disabilities because they were unable to obtain timely medical assistance.

Reported use of chemical weapons

In early April, reports emerged concerning the new use of chemical weapons in the town of Douma in eastern Ghouta. The signs and symptoms reported to WHO were consistent with exposure to toxic chemicals. At the time of writing, the incident is still under investigation by the Organization for the Prohibition of Chemical Weapons (OPCW).

On 24 November 2018, WHO received unconfirmed reports of patients arriving in health care facilities in Aleppo with symptoms consistent with exposure to chemical agents. At approximately the same time, the United Nations Department of Safety and Security office in Syria reported unconfirmed information that several areas of Aleppo city had been shelled with rounds of mortar fire that included an unknown type of gas. According to unconfirmed reports, dozens of patients were admitted to Aleppo's two public hospitals. WHO activated its emergency procedures and immediately distributed supplies requested by the hospitals and the Syrian Arab Red Crescent (SARC). All 122 victims of these attacks were discharged from the hospitals the following day. This incident is also under investigation by the OPCW.

WHO has been helping the country prepare for the management of chemical events since 2012. It has trained more than 900 health care workers (including 265 clinicians in Aleppo and 80 in Idlib) on immediate decontamination, referral, triage and treatment measures. WHO maintains strategic stocks of protective equipment for health care workers and kits of medicines that are distributed to hospitals and medical points that undergo training. The Organization has issued clinical management protocols, distributed personal protective equipment to hospitals and health care facilities, and raised Syrians' awareness of how to protect themselves against exposure and when to seek treatment. WHO's hub in Gaziantep has recently trained 160 first responders in northern Syria on basic measures to respond to the victims of exposure to toxic chemical agents. To help manage Syrian patients evacuated to Turkey, WHO has also trained Turkish medical rescue teams in areas bordering Syria.

WHO reiterates the United Nations Secretary-General's statement that any confirmed use of such weapons, by any party to the conflict and under any circumstances, is abhorrent and a clear violation of international law.



Participants at a training course on preparedness for chemical events practise putting on personal protective equipment.

WHO Gaziantep

Joint contingency and preparedness planning

WHO contributed to UN and health partners' preparedness and response plans that focused on locations where changes in political control or access status were likely to significantly affect humanitarian needs. All WHO offices and hubs in Syria worked closely to coordinate response plans with each other and with other health partners.

WHO's hub in Gaziantep continually updated its contingency plans in preparation for potential large-scale military operations in north-west Syria. It identified 21 hospitals in potentially volatile areas that could respond to mass casualty events, including

chemical incidents. Over 250 first responders and other health care staff in this region were trained on managing trauma patients.

In March 2018, in anticipation of increased conflict in southern Syria, WHO's hub in Amman convened a planning workshop with health cluster partners, security experts and local authorities. The group identified areas where hostilities were likely to be concentrated and where pre-positioned supplies would be critical for treating wounded or displaced people.

Main geographic areas of response

Eastern Ghouta

In early 2018, up to 400 000 people in eastern Ghouta were subjected to heavy bombardments and ground attacks that led to increasing civilian casualties. Almost 100 000 people fled the area, and tens of thousands sought refuge in eight shelters in Rural Damascus. WHO supported health care services for these IDPs, many of whom had serious health problems following years of living under siege. The Organization delivered 74 tonnes of health supplies, visited all shelters regularly to assess health needs, established disease surveillance, supported the delivery of life-saving health care and identified and filled gaps in services. Thirty-four mobile teams supported by WHO provided nutritional screening services and referred 18 severely malnourished children for specialized

treatment. NGOs supported by WHO provided almost 409 000 consultations. More than 4200 people were referred to public hospitals and over 55 000 children were vaccinated against polio and other childhood diseases. Community workers and mobile teams provided basic psychological interventions to almost 34 000 people.

A degree of stability has returned to eastern Ghouta, but health needs are still immense and growing. Thousands of people are returning to areas that were previously densely populated but have been largely destroyed. The recovery of severely disrupted health care services in eastern Ghouta will require short- and long-term support from WHO.



IDPs from eastern Ghouta wait to be seen by health care staff at the SARC medical point in Dweir camp, Rural Damascus. This medical point is supported by WHO.

WHO

South-west Syria

In June 2018, heavy and sustained air and ground offensives in southern Syria killed dozens of civilians including children and injured hundreds of others. By the end of the month, up to 325 000 people had reportedly fled their homes and villages. Tens of thousands of IDPs gathered at the closed border crossing between Jordan and Syria. WHO and other UN agencies and partners worked with the Jordanian authorities to support the coordination of medical consultations and patient referrals to hospitals in Jordan. WHO donated emergency health supplies to the Jordanian Royal Medical Services to support the increasing caseload of wounded patients.

In Dar'a, several hospitals and health care centres were damaged and forced to close. Cross-border aid convoys from Jordan were temporarily suspended due to the intensive bombardment. WHO's office in Damascus and its hub in Amman worked closely on the emergency response, in coordination with local health authorities. WHO distributed over 70 tonnes of medicines and supplies to health care facilities in

south-west Syria and supported NGOs that provided more than 97 000 PHC consultations through fixed clinics and mobile teams.

In early July 2018, cross-border access from Amman to Syria was blocked after the Government of Syria regained control of the border. As a result, WHO's hub in Amman ceased its cross-border support and transferred operations to WHO's main office in Damascus.

Although families displaced during the hostilities are gradually returning to their homes, the relative calm has not reduced their need for health assistance and services. However, badly damaged health care facilities and severe shortages of health care professionals, compounded by bureaucratic delays, have limited the ability of the health sector to address health needs. Revitalizing health care facilities and reintegrating and training health care staff remain key priorities for WHO.



WHO's shipment of medical supplies to southern Syria is made ready for delivery.

WHO

Rukban

Around 40 000 people, mostly women and children, remained stranded in dire conditions in Rukban settlement close to the Jordanian border. Only very basic health care was available, and the only free-of-charge facility had no electricity, running water or official medical supplies. There were no doctors in the camp (health care services were provided by nurses and midwives), and morbidity and mortality rates were reported to be high.

People in Rukban were able to obtain health care services at the UN clinic in the militarized zone on the Jordanian side of the border, after first being screened and transported by the Jordanian armed forces. The clinic provided paediatric, immunization, reproductive health and adult health care services. Patients requiring specialized or emergency care were transferred to hospitals in Jordan. However, for security reasons, the clinic did not provide round-the-clock services and its activities were suspended when deemed necessary by the Jordanian authorities.

Direct access by the UN to the Rukban population from Jordan remained prohibited. In early November, an inter-agency and SARC convoy managed to reach people in Rukban for the first time in over nine months. WHO delivered over three tonnes of medicines and medical supplies (enough for 31 601 treatments) to health personnel in the camp and assessed the health situation and health needs. In late December, the UN's Emergency Relief Coordinator briefed the UN Security Council on the situation in Rukban and asked for its support to obtain secure access to the settlement and rapid approval for the next humanitarian convoy.

The residents of Rukban wanted to leave the settlement. The UN urged that they be allowed to leave voluntarily, in dignity and security, with guarantees for their safe return to their places of relocation.



A UN and SARC convoy arrives at Rukban camp.

WHO

Northern Rural Homs

The predominantly agricultural area of northern rural Homs was besieged for several years until a ceasefire agreement was reached in May 2018. Following the change in political control, responsibility for northern rural Homs was transferred from WHO's hub in Gaziantep to its office in Damascus.

Over 30 000 people left for Idleb governorate as part of the ceasefire agreement, but the more than 18 000 people who remained had very little access to health care services. Years of living under siege with limited access to food and health care had led to

high rates of malnutrition and deaths from untreated life-threatening diseases such as cancer. Thousands of children had not been vaccinated for several years. WHO supported the operating costs of health care services provided by mobile medical teams and clinics. By the end of the year, around 14 000 children had been vaccinated against routine childhood illnesses, 14 PHC centres had partially reopened and the disease surveillance system had been reactivated. Access to northern rural Homs improved in late 2018 following the government's agreement to grant UN staff blanket access to the area.

North-west Syria

Almost 4 million people in north-west Syria live in areas⁷ controlled by non-state armed groups. The security situation remained highly precarious in 2018 and the continuing hostilities in many locations cut off humanitarian access to people in need. High-intensity shelling and airstrikes damaged hospitals and PHC centres and disrupted referral systems and medical supply chains. Attacks on health care facilities rose significantly compared with 2017. There were widespread shortages of medicines and supplies and severe shortages of specialized health care services to treat diseases such as cancer, leishmaniasis and kidney disease.

Hundreds of thousands of new IDPs arrived in Idleb governorate following changes of political control in other parts of the country. IDPs accounted for half of Idleb's population. Many had suffered conflict-related injuries that required hospitalization, placing a further strain on severely overstretched health care facilities in the governorate.

Idleb was by no means a safe haven for the hundreds of thousands of people evacuated from besieged areas. The governorate remained on the edge of a humanitarian disaster. Most IDPs were living in dire conditions with very limited access to health care, water and sanitation and other basic services. Regular airstrikes, growing levels of crime, kidnappings and inter-factional fighting continued to hamper humanitarian access.

Throughout the year, WHO's hub in Gaziantep supported the operating costs of 38 primary and secondary health care facilities, 185 mobile teams and 54 mobile clinics and ambulances. Gaziantep delivered 497 tonnes of medical supplies to the areas where health needs were greatest and supported 1.8 million PHC consultations and the treatment of more than 88 800 trauma patients. Gaziantep also supported partners through the provision of technical expertise and training.

⁷ Parts of Idleb, western Aleppo, northern Hama and eastern Lattakia.

In preparation for a possible large-scale offensive and to mitigate potentially difficult cross-border access during military operations, WHO and health partners scaled up preparedness and contingency planning for north-west Syria. The plans included provisions for potentially high numbers of trauma patients in the event of major hostilities and the possible use of chemical weapons. In the autumn of 2018, Gaziantep delivered its largest-ever cross-border shipment of

emergency medicines and supplies to north-west Syria. A total of 104 tonnes of supplies were delivered to 180 health care facilities.

In September 2018, Russia and Turkey announced the creation of a demilitarized zone, but no further details of the agreement emerged. The UN Secretary-General warned of the dire humanitarian consequences of a further escalation of violence.

In September 2018, WHO's hub in Gaziantep delivered its largest-ever shipment to north-west Syria.

WHO Gaziantep



Afrin district

In March 2018, following almost two months of military operations, Syrian non-state armed groups and Turkish military forces took control of Afrin district in western Aleppo governorate, resulting in the displacement of at least 167 000 people and the severe disruption of the health system. Most PHC centres ceased to operate, and only one of the four hospitals in Afrin city remained open during the hostilities.

Most people were displaced to the neighbouring areas of Fafin, Nabul, Taal Refaat and Zahraa. WHO supported the operational costs of six mobile teams and two fixed health care facilities providing

integrated PHC and mental health services in areas of displacement. The Organization delivered trauma kits, intravenous fluids, antibiotics and other medicines to the SARC, NGO partners and the Directorate of Health of Aleppo.

By the end of 2018, basic health care services had been re-established in Afrin district. In some areas, a system was put in place to refer patients who needed specialized medical treatment. For example, patients with kidney disease were being referred to haemodialysis centres in Azaz, Jarablus, Nabul and Taal Refaat.



IDPs queue up to be treated at WHO-supported mobile clinics in Afrin.

WHO

North-east Syria

Health care services in the three governorates of north-east Syria⁸ were almost non-existent and health needs were high. Although Ar-Raqqa city remained highly dangerous and littered with the explosive remnants of war, none of its public hospitals was adequately staffed and equipped to treat trauma patients. Very few health partners were operating inside the city or in the entire governorate. To compound the challenges, all three governorates operated under different governments that did not recognize the Ministry of Health (MOH) and vice versa.

In four IDP camps assessed by WHO, two thirds of households were struggling with mental health problems. The measles vaccine coverage rate was not high enough to ensure herd immunity⁹. There were shortages of medicines to treat chronic diseases, and referral services were extremely limited. Even when patients were referred, most hospitals had very little capacity to treat them.

In 2018, WHO delivered over 245 tonnes of medical equipment and supplies (enough to address the health needs of more than 200 000 people) to north-east Syria through the Al-Yarubiyah border crossing in Iraq. The supplies, transported in nine separate cross-border convoys, were delivered to eight international NGOs working in the northeast. WHO also supported an international NGO that was providing PHC and emergency referral services in Ar-Raqqa city. In 2018, this NGO provided health care to over 10 000 people.

WHO's office in Damascus initiated a comprehensive programme to restore basic health care and routine immunization services throughout the northeast. However, due to the fraught political situation, it encountered significant delays in obtaining approval to initiate activities and deliver medicines and

supplies. The situation remained highly volatile. In late 2018, thousands of people in Deir-ez-Zor were displaced following military operations against the Islamic State of Iraq and the Levant. In December 2018, WHO updated its contingency plans in preparation for possible Turkish military incursions into north-east Syria. WHO anticipated that any such incursion would have a dramatic effect on the already highly compromised health care services in the area and might require a shift in operations from WHO's office in Damascus to its hub in Gaziantep.



A WHO team carries out a field visit to Ein-Issa camp in Ar-Raqqa.

WHO

⁸ Al-Hasakeh, Ar-Raqqa and Deir-ez-Zor.

⁹ Nearly 90% of reported cases of measles in Q2, 2018 were from north-east Syria.

2018 AT A GLANCE



Almost **10 million** treatments were delivered across Syria, of which 4.3 million were delivered through cross-border operations.



1909 tons of health supplies were delivered within Syria, of which 909 tons were delivered through cross-border operations.



58 besieged and hard-to-reach areas received regular deliveries from within Syria.



3.5 million outpatient consultations were supported.



575 986 trauma patients were supported.



430 273 mental health and psychosocial support interventions were provided.



75 mobile medical teams were rolled out.



75 NGO implementing partners were supported.



2.6 million children were vaccinated against polio.



2.6 million children were vaccinated against measles.



Four PHC centres and one TB centre were rehabilitated.



Nine hospitals in north-west Syria underwent minor rehabilitation.



1553 sentinel sites across Syria reported to WHO's disease early warning and response system.



30 865 health care staff were trained on a wide range of topics.



2386 unsafe sources of drinking water were tested and mitigation measures were taken.



917 943 children were screened for malnutrition.



Water supply and purification systems were strengthened in five hospitals.

WHO'S HEALTH RESPONSE

This year's annual report is structured around the health objectives set out in the joint Humanitarian Response Plan for Syria¹⁰ for 2018. WHO contributes to five objectives (three for health, one for nutrition and one for water, sanitation and hygiene).

Health objective 1: Provide life-saving and life-sustaining humanitarian health assistance

PHC services

Over the course of 2018, more than 137 000 refugees returned to Syria, and this trend looks set to continue and increase. The rehabilitation of PHC services, water and sanitation networks and other basic infrastructure will be increasingly important as hundreds of thousands of people begin returning to their homes and villages. Good PHC services improve the health status of the people they serve, provide preventive care and health education, and alleviate the burden of disease. At their heart, they are about caring for people rather than simply treating specific diseases or conditions.

While PHC centres meet most of an individual's health needs over the course of his or her life, they are also the entry point to refer patients for secondary and tertiary health care. Maintaining PHC services is

Mobile teams

WHO supported approximately 75 mobile teams that provided PHC services throughout Syria, particularly in hard-to-reach areas. In 2018, these teams provided more than 600 000 consultations. Page 49 of this report describes the work of mobile teams in more detail.

therefore critical to ensure that patients can obtain specialist health care when needed.

In 2018, WHO monitored stocks in over 1200 PHC centres and delivered medicines, supplies and medical equipment to facilities throughout the country. The Organization trained thousands of PHC staff and supported follow-up on-the-job supervision. PHC centres supported by WHO provided over 3.5 million consultations.

NGOs throughout Syria have stepped in to provide essential PHC services, especially in besieged and hard-to-reach areas. WHO works with a network of 75 national health NGOs and supports them through providing training opportunities and technical advice and delivering medicines and supplies. Page 48 of this report describes how WHO has trained its NGO partners and monitored their work.



A WHO-supported mobile mental health clinic in Saraqeb, Idleb governorate.

WHO Gaziantep

Essential package of health care services

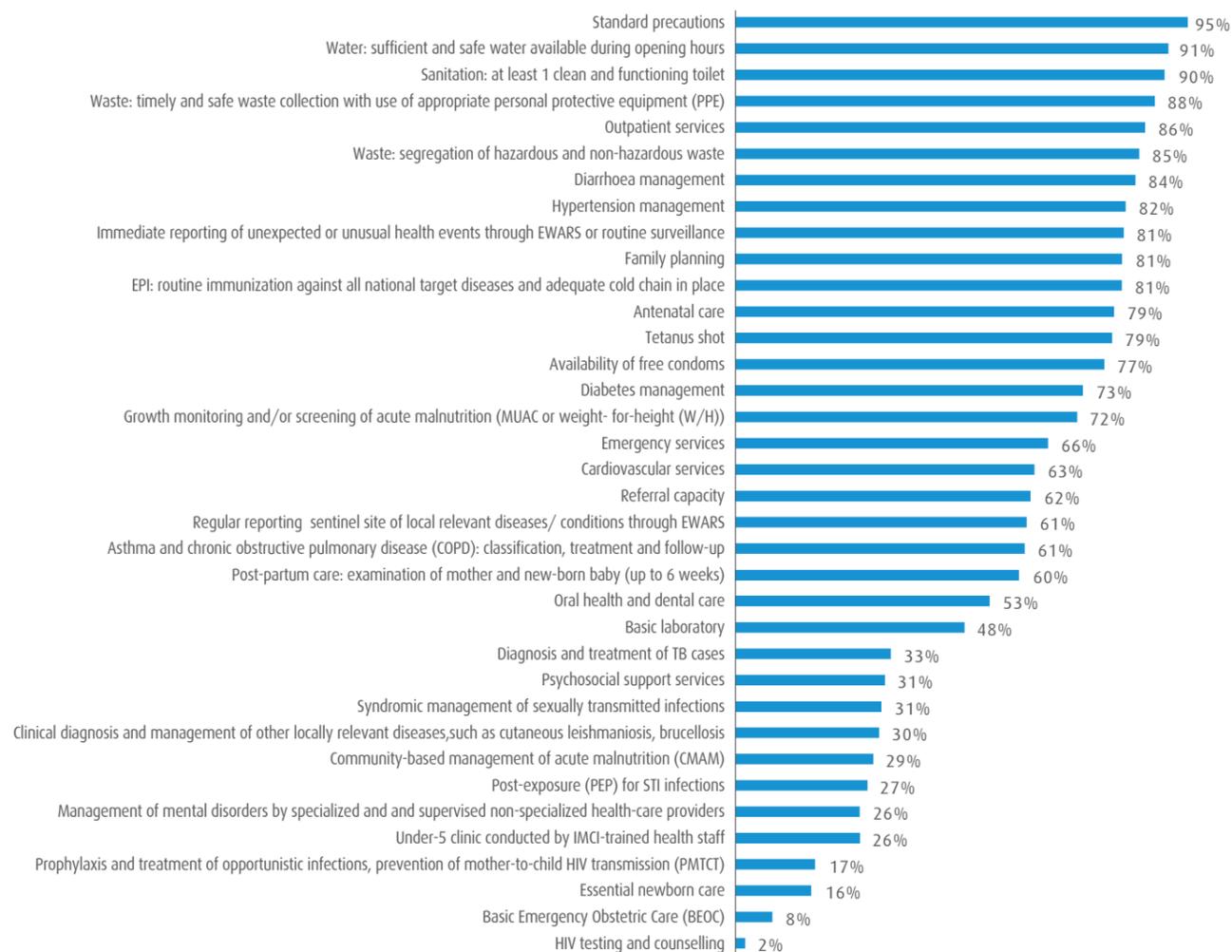
In 2018, more than half of functioning PHC centres in Syria provided all services in the essential package of health care services developed by the Syrian MOH. The package describes the services, staff, medicines, equipment and supplies that should be available in all centres.

WHO's hub in Gaziantep has introduced a similar package of essential health care services for north-west Syria. Approximately half of PHC centres provided the full range of services. Most of them provided nutritional screening services and treatment for communicable and noncommunicable diseases, but other services were lacking. One of the main challenges was the lack of reliable long-term funding to support the sustainability of services.

Main components of the essential package of health care services in Syria

- General clinical services including oral health and dental care
- Child health: vaccination, under-5 clinic, management of diarrhoea
- Nutrition: screening, management of acute malnutrition
- Communicable diseases: diagnosis and treatment of TB and other locally relevant diseases
- Noncommunicable diseases: asthma, chronic obstructive pulmonary disease, cardiovascular disease, hypertension, diabetes
- Sexual and reproductive health: maternal and newborn health, sexually transmitted infections, HIV/AIDS
- Mental health care
- Emergency trauma care
- Referral services

¹⁰ <https://reliefweb.int/report/syrian-arab-republic/2018-syrian-arab-republic-humanitarian-response-plan-january-december>



WHO's hub in Gaziantep coordinated and supported a network of 38 PHC centres that adopted common standards to strengthen the quality of care and increase health care coverage. This experience led to the creation of a larger referral network of 62 primary and secondary health care structures, with technical and operational support provided by WHO. The network allowed patients to be rapidly referred for diagnosis and treatment in other participating health

care facilities. By the end of 2018, 4400 patients were being referred through the network each month. Coordination among the centres makes better use of limited resources by reducing overlaps and duplication in services. To mitigate severe shortages of health care staff and ease the pressure on health care professionals, some tasks formerly handled by physicians were transferred to support staff.

Types of PHC services

Routine immunization

Over 1300 vaccination centres supported by 195 mobile teams and 94 outreach teams provided routine vaccination services throughout Syria. Mobile teams vaccinated children in schools, IDP camps, collective shelters and high-risk areas. WHO supported mass vaccination campaigns, local campaigns and national immunization weeks. It focused on vaccinating children in areas of northern Syria where access improved in 2018. However, vaccination coverage rates in these areas remain dangerously low; in some areas of Deir-ez-Zor governorate, the coverage rate for diphtheria, tetanus and polio was as low as 8% as of October 2018.

In 2018, the number of vaccination centres supported by WHO's hub in Gaziantep rose from 54 to 94. The new centres are located in Afrin (where vaccination centres were forced to close following military operations in early 2018) and areas with high population densities. As of the end of 2018, up to 26 700 children under one year of age were being vaccinated with Penta vaccine¹¹ each month.

Gaziantep also supported supplementary polio and measles vaccination campaigns that aimed to reach at least 80% vaccination coverage in each district of north-west Syria.

Gaziantep collaborates closely with the Syrian Immunization Group, a consortium of NGOs implementing immunization activities in north-west Syria. WHO provided technical guidance for vaccination activities, supported the operational costs of 35 vaccination centres and trained and deployed over 4900 field workers to support vaccination campaigns.

WHO helped strengthen Syria's national polio programme by improving surveillance, training health care workers and supporting the establishment of a system to collect sewage water and test it for poliovirus. The system was launched in January 2018 in two governorates; by the end of the year it had expanded to cover 10 out of 14 governorates. WHO also upgraded the national polio laboratory in Damascus.



Children in Ar-Raqqa display their inked fingers to show they have been vaccinated.

WHO

¹¹ The vaccine protects children against five diseases: diphtheria, pertussis, tetanus, hepatitis B and Haemophilus influenzae type b.

WHO's hub in Gaziantep has established a surveillance system to better detect wild and vaccine-derived poliovirus. Samples from people suspected of having the disease are collected in north-west Syria and sent to Turkey's national polio laboratory in Ankara for diagnosis. In 2018, 1624 samples were sent to the laboratory in Ankara; all tested negative for the disease.

By the end of 2018, approximately 2.6 million children in Syria had been vaccinated against polio. Oral polio vaccine needs to be administered many times to be fully effective. The number of doses it takes to immunize a child depends entirely on the child's health and nutritional status, and how many other viruses s/he has been exposed to. Children who are

not fully immunized are still at risk from polio. This emphasizes the need for all children to be vaccinated during every round of national immunization days.

By the end of 2018, WHO estimated that vaccination coverage rates had risen by 4% compared with the end of 2017. While this indicates that WHO's efforts are meeting with some success, the increase is not enough to ensure herd immunity. Continued efforts will be required to help ensure that every last child is immunized against measles and polio.

Appendix 1 at the end of this report gives more details concerning the vaccination campaigns supported by WHO in 2018.

Vaccination teams from the Syria Immunization Group arrive at a town in north-west Syria to vaccinate children under five years of age against polio.

WHO Gaziantep



Maternal and newborn health

In 2018, WHO's office in Damascus supported 25 PHC centres that provided services for the integrated management of childhood illnesses. WHO's hub in Gaziantep supported the running costs of 11 PHC centres providing these services in north-west Syria.

WHO launched a new initiative to improve newborn care at home. The initiative was implemented in 35 villages in ten governorates.

CARING FOR THE NEWBORN AT HOME

Childbirth is often filled with uncertainty, especially for women living in conflict-affected or insecure environments. WHO has launched a new programme to help Syrian mothers manage this life-changing event during pregnancy and after birth. The "caring for the newborn at home" initiative guides all mothers on the steps they and their families can take to ensure their newborn children have a healthy start in life.

Under the new programme, WHO-trained community health workers make home visits to help mothers during pregnancy and after childbirth. To begin with, the programme is being introduced in areas that are newly reconciled, or where there is limited access to health care. It aims to reach 10 000 beneficiaries per year.

"Although pregnant women normally receive antenatal care, the equally important period following birth is sometimes neglected", said Elizabeth Hoff, the WHO Representative in Syria. "Syria is one of the first countries in the Region to implement this WHO programme."

Fathyah, from Homs governorate, says that she is very happy to be part of the programme. "Unlike during my previous pregnancies, health care workers have been visiting me at home to help me take care of my baby", she said. "I've learned so much, including how important it is to begin breastfeeding within half an hour of birth. For the first time since the conflict began, I feel that there are people who really care about me and my family", she added.

"This training will help educate Syrian mothers and eliminate potentially harmful practices", said Fatima, a community health worker from Homs governorate. "After years of turmoil affecting access to health care for pregnant women and mothers, a programme like this is needed more than ever."



A community health worker visits a new mother at home.

WHO

Mental health

Rates of mental health disorders in Syria are increasing¹², but mental health services continue to be in short supply. In north-west Syria, just over a fifth of PHC clinics are able to offer basic mental health care. Only two hospitals in north-west Syria provide services for patients with severe mental health disorders.

WHO is supporting the integration of mental health and psychosocial support (MHPSS) services into PHC centres across the country by training health care and community workers and providing follow-up supervision. Training is based on WHO's Mental Health Gap Action Programme (mh-GAP), which aims to increase the availability of mental health services in low- and middle-income countries. Training courses include considerations of gender equality and counselling for victims of gender-based violence. In March 2018, 12 physicians working in southern Syria travelled to Jordan to attend a training workshop on mh-GAP. Seventy health care professionals in north-west Syria completed an intensive six-month mh-GAP training course. In total, 3465 health care workers throughout Syria were trained on different aspects of mental health care in 2018.

The stigma surrounding mental illness means that many people are reluctant to seek help. In 2018, WHO hosted a series of meetings with senior officials in the Syrian ministries of health and education, other UN agencies and national NGOs to mobilize efforts to eliminate the stigma of mental illness and increase patients' access to care. WHO's training programmes and advocacy efforts have also helped dispel misconceptions about mental health disorders. This has resulted in changing attitudes towards mental health patients and their families and helped reduce the abuse and discrimination often suffered by these patients.

Currently more than 520 PHC and secondary health facilities and community centres in Syria are providing mental health services. Psychiatric wards are now in operation in three general hospitals in Damascus, Hama and Lattakia that were previously rehabilitated by WHO. WHO's hub in Gaziantep is supporting acute mental health services in Sarmada hospital in Idleb. Gaziantep is also collaborating with hospital-based psychiatrists in northern Aleppo who are treating patients with severe mental health conditions. An increasing number of mobile teams supported by WHO include personnel trained in providing mental health care.

¹² WHO estimates that one in 30 people in Syria is suffering from a severe mental health condition and at least one in five is suffering from a mild to moderate mental health condition as a result of prolonged exposure to violence.

Mental health care in the community

Community mental health services are easily accessible, lessen social exclusion, and are cost-effective. Talking through problems and feelings with trained psychosocial workers helps alleviate distress and staves off more serious mental health disorders. WHO is training and supporting staff in community centres and mobile teams on basic mental health interventions such as psychological first aid, family and group counselling, and first-line support for survivors of gender-based violence. In 2018, WHO supported five family well-being community centres in Aleppo, Al-Hasakeh and Homs governorates and plans to establish at least 15 new community centres in 2019.

A training curriculum for community health workers, developed by WHO's hub in Gaziantep, includes a component on mental health. A total of 221 psychosocial workers were trained and are now able to identify patients in need in the community and refer them to specialized mental health services.

In 2018, WHO supported 32 NGO mental health mobile teams working in areas such as eastern Ghouta and south and north-west Syria that were the focus of intense fighting. WHO's hub in Gaziantep is also supporting four mobile clinics that are providing mental health care for patients in Idleb and northern Aleppo. WHO-supported community centres and mobile teams provided almost 84 000 MHPSS interventions to people suffering from mental health problems.

School mental health programme

The school mental health programme (SMHP), launched in 2018, aims to train teachers, counsellors and social workers in schools and community centres on how to detect and help children suffering from mental health disorders and refer them for specialist care when necessary. A total of 25 counsellors from different governorates attended training-of-trainers

workshops. They have since gone on to train 843 teachers and counsellors in 37 training courses held in different governorates. WHO has contracted specialized MHPSS professionals to provide on-the-job training and supervision to new trainees. Currently more than 650 schools and community centres in 11 governorates are implementing the SMHP.

Noncommunicable diseases

According to the Syrian MOH, noncommunicable diseases (NCDs) account for 45% of all deaths in Syria¹³. Although the national NCD database tracks only the number of patients with diabetes and cancer, the MOH plans to expand it to include all other NCDs. WHO has supported the development of a system to monitor the quality of services in PHC centres, using standard indicators for NCDs and other health interventions. The project is being pilot-tested and will be refined and expanded following the result of the initial roll-out.

In 2018, WHO delivered 174 NCD kits to all governorates. The kits contain medicines and medical devices to manage the most common NCDs including

hypertension and cardiac conditions, diabetes and endocrine disorders, chronic respiratory diseases, and mental health and neurological conditions. In total, the kits provided sufficient medicines and medical devices to treat 435 000 NCD patients for up to one year.

In early 2018, WHO's hub in Amman launched a project to improve the quality of NCD care in four health care facilities in southern Syria. Amman delivered medicines and supplies that enabled the centres to provide more than 10 000 consultations, including for 232 mental health patients. WHO's hub in Gaziantep introduced a pilot project to improve NCD care in nine health care facilities in north-west Syria.

Gender-based violence

In Syria, MHPSS services have been the entry point for helping the victims of gender-based violence (GBV). Through its MHPSS training courses, WHO has trained more than 200 gynaecologists and 140 community psychosocial support workers on basic psychological interventions for GBV survivors. Five community well-being centres in Aleppo and Homs are providing psychological support to people who have been exposed to GBV.

Despite the above, services to treat GBV survivors remain scarce. Syria is one of six countries selected to pilot a WHO project to strengthen the health sector response to GBV. The project aims to better integrate GBV projects into WHO's work by training WHO staff, ensuring the availability of staff and supplies to support GBV services, and improving coordination among health sector partners. WHO will begin implementing the project in early 2019.

¹³ https://www.who.int/nmh/countries/2018/syr_en.pdf?ua=1

Mandala community centre in the city of Aleppo opened in 2017. Since then, it has become a busy and popular hub for local residents, providing a mix of services that include reproductive health care, vocational training and mental health counselling, including sessions tailored for survivors of gender-based violence. These services are offered at the centre, through community visits and by mobile teams working at IDP sites. Community visits help ensure that elderly people are not isolated and that they and their carers obtain the health care and emotional support they need.

The centre promotes a holistic approach to helping community members deal with traumatic experiences. Three psychologists and three physicians in the centre's walk-in clinic provide MPHSS and reproductive health services. A family-friendly space allows parents to bring their children and interact with other families.

The centre also offers vocational training, including hairdressing, make up and cookery classes that are designed to empower community residents and help them find new meaning in their lives. They are encouraged to undergo counselling at the same time. An eight-session counselling course helps them come to terms with what they have lived through. Over the course of two months, they learn how to share

their experiences, deal with grief and trauma, and minimize or tolerate stress.

Dr Nabil Samarji, a mental health specialist based in WHO's sub-office in Aleppo, says that being able to share and talk through traumatic experiences is a powerful healing tool. He has trained the centre staff on MHPSS and keeps in regular contact with them through on-site visits and online coaching.



Cookery classes at Mandala community centre.

WHO

"People like coming here. They feel empowered", said Dr Samarji. "This centre is a model of its kind. We can learn a lot from its holistic approach and how it has been a force for good in the community. When people first come here, you observe how they are withdrawn and afraid. In a relatively short space of time, they become engaged in what they are doing. You see how they interact with other people. The difference is noticeable."

WHO has delivered medicines and other supplies and equipment to the centre, trained its staff on mental health interventions and provided advice and supervision. In 2018, the centre provided 1270 vocational services and 3822 mental health consultations, including many to women who were survivors of gender-based violence. More than 3000 reproductive health consultations were provided at the centre and through mobile teams.



Counselling sessions at the centre.

WHO

Reproductive health care

Sexual and reproductive health services are a critical entry point to reach women and girls and help them exercise their rights to reproductive health care. The availability of local female health staff facilitates the access of women and girls to these services and opens the possibility for them to be referred to other health and psychosocial services including those for the survivors of gender-based violence. However, female health professionals in Syria are severely underrepresented. A recent WHO assessment in southern Syria found that fewer than half of obstetricians and gynaecologists were female and that women accounted for only 18% of the overall health workforce¹⁴.

WHO supported the development of a national plan to set strategic directions and actions to improve reproductive and maternal health care in Syria over the next five years. It trained approximately 500 health care workers in nine governorates on reproductive health care and supported the development of reproductive health care guidelines for health care workers and information booklets for communities. NGOs supported by WHO delivered 1485 children by normal delivery and 2242 by Caesarean section.

In 2018, WHO's hub in Gaziantep delivered reproductive health medicines and supplies and 10 kits to support reproductive health and obstetric and newborn care in 19 health care facilities. The supplies were sufficient to cover 16 640 treatment courses.

Community care

Community health workers play an important role in remote and rural areas where access to health care is extremely limited. They explain the basic preventive measures that community members can take to protect their health, and they identify patients who need to be referred for specialist treatment. In north-

west Syria, where the distribution of PHC centres is highly uneven¹⁵ and the number of doctors, nurses and midwives is well below international standards¹⁶, 243 health workers trained by WHO provided these services in their communities.

Referral systems

In 2018, WHO's office in Damascus strengthened referral services by improving diagnostic capacities in PHC centres to minimize the need for unnecessary referrals. WHO donated 36 ambulances and eight mobile clinics to support referral services across the country.

In north-west Syria, patients who required secondary or tertiary care were referred through a network

of 62 PHC centres that was established to improve coordination and support continuity of care for patients. Referrals were supported through seven mobile clinics, nine ambulances and 15 non-emergency vehicles. In collaboration with other partners in north-west Syria, WHO also supported 50 ambulances to improve referrals during mass casualty events.

¹⁴ Health Services and Population Status Report: Southern Syria, March 2018.

¹⁵ 107 of 271 sub-districts have no fully functioning PHC centres.

¹⁶ 2.45 health staff per 1000 population compared with minimum standards of 4.45 per 1000 population.

A day in the life of a PHC centre



Fardous PHC centre in December 2016, after it had been destroyed.

WHO



Fardous PHC centre in March 2017 after extensive rehabilitation by local health authorities.

WHO

Fardous PHC centre is located in a bustling, popular neighbourhood in Eastern Aleppo. The area was badly damaged in the fighting of 2016 and the PHC centre was destroyed. Since the end of the conflict in Aleppo, almost 50 000 people have returned to Fardous to begin rebuilding their lives and their communities.

In March 2017, the centre re-opened following extensive rehabilitation. Its team of 23 staff including seven doctors and eight nurses and midwives offers a full range of PHC services and sees around 300 patients per day. WHO has trained team members on vaccination techniques, nutritional screening and basic mental health interventions, and regularly delivers medicines and other supplies to keep the centre running.

The day begins

By the time the centre opens at 9 a.m., a queue of patients has already formed.

Amina is bringing her children to be vaccinated. She has come because she has heard that some children in the city have fallen seriously ill with measles and that the disease can be prevented through vaccination. The team vaccinates her children and also screens them for malnutrition.



The vaccination team at work.

WHO

42-year old Abo Ahmad has to be helped in by two relatives. He has a high fever and severe abdominal pain. The medical team suspects that Abo is suffering from acute appendicitis and calls an ambulance to take him to the nearest hospital.

Om Abdo, a mother of five children, comes seeking family planning advice. She already has five children, and her last two deliveries were by Caesarean section. Her female physician implants an intrauterine device and explains how to take care of it. She asks Om Abdo to come back the following week for a check-up.

70-year old Hajeh Siham is next in line. She suffers from severe arthritis and diabetes. Her doctor checks her glucose levels and prescribes diabetes medicines that she can collect from the centre's pharmacy.

Seven-year old Mahmoud comes to complete his course of injections to treat his leishmaniasis. He is happy that the painful lesion on his face has finally disappeared.

The team painstakingly maintains paper records so that each patient can be tracked and receive follow-up care. New IDPs arrive every day, others leave, and there is a constant flow of new patients. This high patient turnover is challenging.

Seven-year old Mahmoud is delighted that the painful leishmaniasis lesion on his face has finally disappeared.

WHO



There is a steady stream of patients throughout the day. Most people have fairly minor ailments but some have more serious illnesses. By the time the clinic closes at 3 p.m., the team has seen almost 300 patients.

Many patients are still waiting. The team checks to be sure that none of them is seriously ill and asks everyone to return the following day. The team knows the following morning it will find another queue of people waiting to be seen.



The centre's ambulance staff.

WHO

For 83-year old Hussein, the PHC centre is his only hope. He has high blood pressure and cardiovascular disease. All other PHC centres in the vicinity have been destroyed or forced to close, and he cannot

afford the cost of treatment in private clinics. Thanks to the centre and the supplies donated by WHO, Hussein receives regular check-ups and obtains the medicines he needs to keep him healthy.



Hussein and his wife outside the centre.

WHO

The clinic staff has seen many changes over the past seven years. Before the conflict began, people came to be treated for common illnesses. Now, the team regularly sees patients suffering from diseases such as malnutrition that were previously unheard of. There has been a huge increase in the number of patients with depression, disabilities and conflict-related injuries. Many people are sleeping in the ruins of their homes, where they are bitten by sandflies. This has led to a dramatic increase in leishmaniasis. The clinic is setting up a designated leishmaniasis unit

to treat the growing numbers of patients with the disease. WHO has donated leishmaniasis medicines and bednets.

The clinic staff work at a relentless pace. They know that without them, their patients would have no access to health care. Mustafa, one of the doctors at the centre, said "Seeing the happiness on Mahmoud's face when he is cured of leishmaniasis, and being able to save the lives of patients like Abo Ahmad, makes every day worthwhile."

A patient waits to receive medicines free of charge from the centre's pharmacy.

WHO



Hospitals and secondary health care facilities

Just over half of hospitals in Syria were fully functioning in 2018. A quarter were working at minimum capacity and had severe shortages of staff, medicines and supplies, and the remainder were closed altogether. Hospitals in Dar'a, Idleb, north-east Syria and Quneitra were some of the worst affected.

In 2018, WHO's office in Damascus delivered over 1.9 million treatment courses to support surgical, intensive care, haemodialysis and cancer services. It delivered 110 pieces of medical equipment including CT scanners, incubators, ventilators, basic X-ray equipment and haemodialysis machines to over 60 hospitals. WHO supported neonatal resuscitation programmes in 34 hospitals in Syria.

Major gaps in secondary health care persisted in north-west Syria. Shortages were particularly severe in areas near the Turkish border in Idleb, rural western Aleppo and Afrin. Hospitals lacked specialized services for patients with cancer and kidney disease. There were not enough beds in intensive care units and those that were available were taken up by trauma patients. Equipment to support orthopaedic and reconstructive surgery was outdated or malfunctioning and there were shortages of other materials such as external fixtures and plates. Centres treating patients with kidney disease had severe shortages of supplies to

support haemodialysis sessions. Only two hospitals were providing in-patient care for mental health patients.

In 2018, WHO's hub in Gaziantep delivered trauma and surgical supplies (enough to cover 290 000 treatment courses) and other medicines and supplies to hospitals in north-west Syria. Gaziantep supported three facilities with operational costs throughout 2018 to ensure key facilities were providing services. It also supported the running costs of the maternity and paediatric hospital in Harem city, close to the Turkish border. Harem is an area of high displacement and a crossroads for many different populations. The hospital provides 1200 outpatient consultations, 40 deliveries and 50 surgeries per month for a catchment population of over 800 000 people.

At the end of March 2018, following the withdrawal of a health partner from Dar'a in southern Syria, WHO stepped in as the provider of last resort to support the only operational blood bank in all of areas of southern Syria controlled by non-state armed groups, thereby ensuring access to safe blood and blood products for trauma, emergency and routine surgery. Between April and June, WHO supplied more than 1000 units of blood to health care facilities in Dar'a and Quneitra. In July 2018, the area came under the control of the Syrian government.

Fifty-five-year-old Um Mohammad from Ar-Raqqa governorate was diagnosed with breast cancer two years ago. There are no public hospitals in the whole of Ar-Raqqa governorate that can provide the treatment she needs, so she has had to travel every two weeks to the National Hospital in the neighbouring governorate of Hama for chemotherapy. The journey takes eight hours each way.

A tearful Um Mohammad said that the constant travel, on top of her illness, had left her exhausted. "I have been travelling to Hama for almost two years now; I am on the verge of physical and financial collapse." Each trip costs Um Mohammad 10 000 Syrian pounds (the equivalent of US\$ 23), a small fortune considering that two thirds of the population is living on less than \$2 a day. "I am trying to get by and borrowing money from friends and neighbours, but they are all suffering too, and have no money to spare."

Um Muhammad is one of hundreds of thousands of Syrian patients who have been badly affected by the conflict. "Syria's disrupted health system has led to a public health catastrophe. Over half the country's hospitals are closed, and those that remain open are working under severe pressure", said Ms Elizabeth Hoff, the WHO Representative in Syria. "People, especially those in rural and conflict-affected areas, are obliged to travel long distances to obtain health care. Many of them simply cannot afford to make the journey. In the absence of health care services, chronic diseases such as diabetes and hypertension - health conditions that would be treatable in normal times - have become deadly."

Hama National Hospital is one of many hospitals that WHO is supporting through training staff and delivering medicines, supplies and equipment to maintain essential services. However, it is operating under severe and increasing pressure. It is the only public hospital that is providing specialized health care in the whole of Hama governorate. Two other public hospitals in the governorate have been destroyed

and forced to close, and its five other hospitals are providing only limited services. The destruction of health care facilities in neighbouring governorates has exacerbated the situation. The hospital regularly admits patients from Al-Hasakeh, Ar-Raqqa and Deir-ez-Zor governorates. Its emergency department alone receives 800 patients each day.

Ms Hoff said that WHO would continue to support the hospital as much as possible. "Rehabilitating the badly damaged National Hospital in Ar-Raqqa will be costly and time-consuming. In the meantime, Hama National Hospital provides the only hope for so many people."

Um Mohammad expressed her deep gratitude to the doctors and nurses at the hospital. "They have been amazing", she said. "They've supported me and taken care of me. When I needed to talk, they listened. I will never forget what they have done for me."



The WHO Representative visits a cancer patient at Hama National hospital.

WHO

Trauma care

Good outcomes for injured patients require long-term personalized follow up which is extremely challenging in times of war. In north-west Syria, only 45 out of 377 functioning health care facilities were providing physical rehabilitation services. WHO's hubs in Amman and Gaziantep provided material and financial support to a health partner managing nine physical rehabilitation facilities (four in southern and five in northern Syria¹⁷). By the end of 2018, this partner had assisted over 15 270 patients including more than 3200 children. However, this covered only a fraction of needs.

WHO's office in Damascus delivered 145 pieces of medical equipment to strengthen hospitals' surgical and trauma care services as well as medicines and supplies to treat over 470 000 trauma patients. It also delivered prosthetic materials for more than 350 artificial limbs to two physical rehabilitation centres in Damascus and Homs and supported the costs of physiotherapy sessions. These two centres receive patients from all over the country. Over 7600 patients were supported with assistive devices, artificial limbs and physiotherapy sessions, and 4170 health care workers were trained on trauma care, first aid and basic life support. WHO also rehabilitated a damaged public physiotherapy centre in Homs.



Participants at a trauma care training workshop in north-west Syria practise airway clearance techniques.

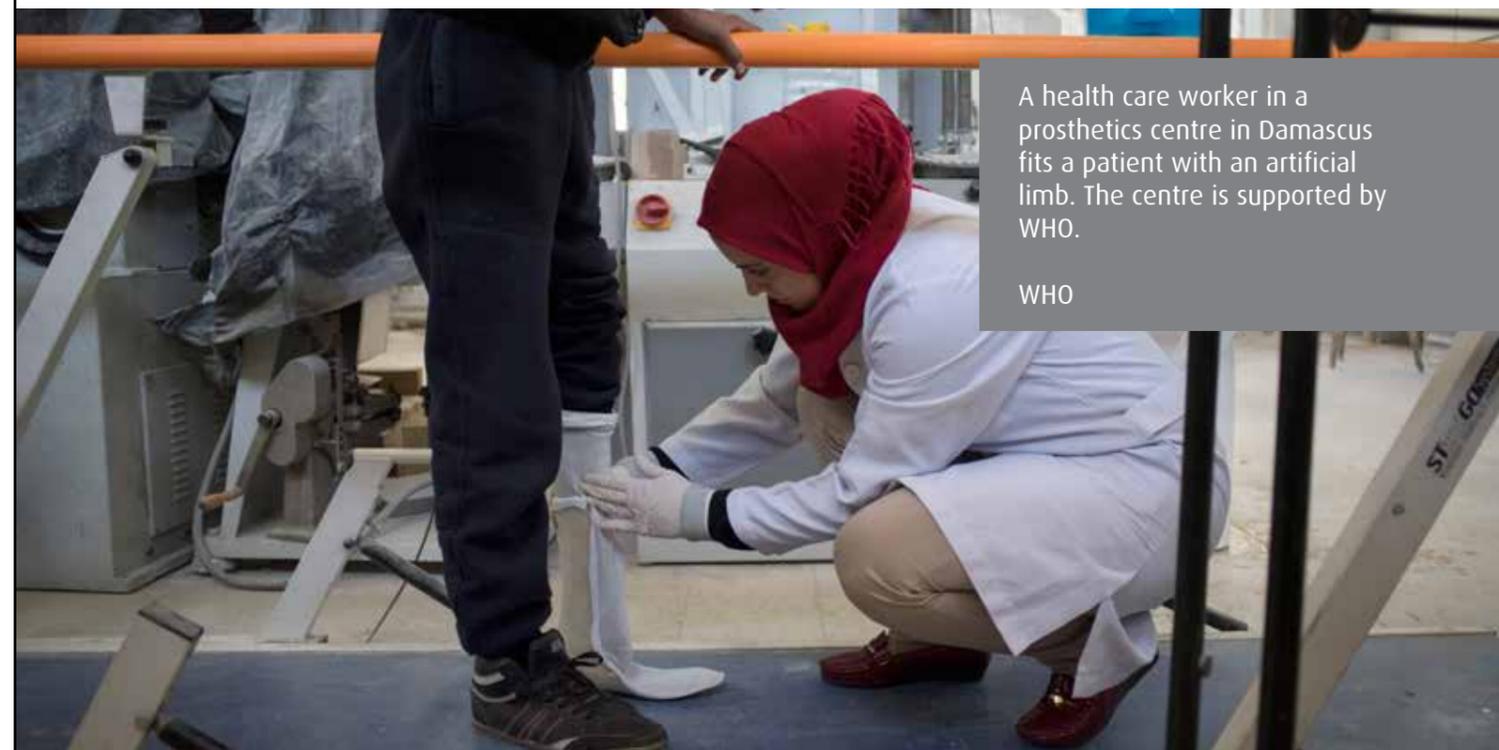
WHO Gaziantep

¹⁷ Support for the four facilities in southern Syria was suspended at the end of June after the Government of Syria regained control of the area.

In September 2018, WHO assessed the status of trauma care services in Ar-Raqqa city and surrounding areas. The lack of trauma care services in the city was a critical concern because of the high risk of trauma injuries due to the presence of tens of thousands of landmines and other explosive remnants of war. The assessment team found that there were no public hospitals in Ar-Raqqa city that were able to perform emergency life-saving surgery on trauma patients before transferring them to more advanced facilities. Two private hospitals had adequate facilities, but most trauma patients could not afford the cost of treatment. Based on the recommendations of the report, WHO delivered emergency equipment and supplies to strengthen the public hospital in Al-Tabqa (within two hours' driving distance of Ar-Raqqa city). WHO also signed an agreement with Al-Hekma private hospital (Al-Hasakeh governorate)

to cover the costs of patients admitted for trauma and emergency care. As of the end of 2018, WHO was in the process of negotiating a similar agreement with Al-Teb Al-Hadeeth private hospital in Ar-Raqqa city. WHO also delivered 11 blood bank refrigerators to hospitals in the northeast.

Under a collaborative agreement between WHO and the Bambino Gesù paediatric hospital in Rome, a team of physicians from the hospital in Rome visited Syria twice in 2018 to train their counterparts from university hospitals in Damascus and Aleppo on the latest techniques in laparoscopy, interventional radiography, paediatric catheterization and paediatric intensive care. A team of Syrian specialists subsequently visited Bambino Gesù hospital in Rome to observe these techniques at first hand. They have returned to train other specialists in their hospitals.



A health care worker in a prosthetics centre in Damascus fits a patient with an artificial limb. The centre is supported by WHO.

WHO

Health objective 2: Strengthen health sector coordination and health information systems

Damascus

WHO's office in Damascus co-leads a network of 100 health sector partners¹⁸. It leads strategic planning, health advocacy and information management efforts on behalf of the whole health sector. It also provides technical advice to partners and ensures that critical gaps in the emergency response are filled.

In 2018, Damascus worked closely with all health sector partners to expand health care services to newly accessible areas and other locations

where health needs were high. To prepare for the shift from a response based on geographical location to one based on severity of needs, health partners completed approximately 50 health needs assessments in different parts of the country. WHO led work on health sector monitoring, evaluation and accountability, and coordinated the development of joint contingency and preparedness plans for disease outbreaks and changing conflict dynamics.

Gaziantep, Turkey

WHO's hub in Gaziantep leads over 100 health cluster partners, 50 of which are implementing operations in north-west Syria. The health cluster has established technical working groups on reproductive health (led by UNFPA), advocacy and communications, mental health, trauma and rehabilitation. In 2018, Gaziantep

conducted several health needs assessments and mapping exercises. It also coordinated the health response to mass population displacements from southern Idlib and eastern Ghouta and the restructuring of health care services in Afrin.

Amman, Jordan

WHO's hub in Amman leads 25 health sector partners comprising five UN agencies, 13 international and seven local NGOs. It also co-leads three working groups (one on mental health and psychosocial support, one on community health workers and one on quality and remote monitoring).

Amman is responsible for maintaining information on the activities of all health sector partners (who does what, where and when, or the 4Ws). The data are used to monitor progress and plan and coordinate overall health sector operations. In 2018, it produced regular snapshots of health sector activities and progress towards the health objectives set out in the Humanitarian Response Plan for 2018.

In July 2018, cross-border health sector members in Amman completed a survey assessing the effectiveness of health sector coordination. The survey results, published in October 2018, showed that 12 of 13 measures were rated good or satisfactory and just one was rated unsatisfactory. The findings highlighted the need for a dedicated information management officer and better information-sharing protocols. Partners also wanted the health cluster to play a stronger role in setting norms for health care service delivery and standards of care. The WHO hub in Amman shared the survey results with other WHO hubs working on the Syria response.

Information management

WHO uses two main tools to monitor the health situation in Syria.

WHO's Health Resources and Services Availability Monitoring System (HeRAMS) tracks the functionality, accessibility, infrastructure, services and staffing levels of hospitals and health care facilities throughout Syria. WHO uses this information to strengthen health care facilities in the areas shown to be in greatest need. In 2018, all of Syria's 111 public hospitals and almost all of its 1810 PHC centres reported to HeRAMS on a regular basis.

WHO's emergency disease surveillance systems (EWARS, managed by Damascus and EWARN,

supported by Gaziantep) are key to detecting cases of epidemic-prone diseases and halting their spread. Over 1550 sentinel sites report to EWARS/N. Together, these two systems have allowed WHO to monitor and rapidly respond to disease outbreaks and alerts across the country. Since the crisis began, WHO has trained tens of thousands of health care workers on disease surveillance and reporting, outbreak investigation and response, laboratory diagnosis, infection control and the case management of communicable diseases. This has helped alleviate the impact of badly disrupted health care services and has allowed WHO and partners to detect and respond to disease outbreaks, preventing their further spread.

¹⁸ 2 Syrian line ministries, 7 UN agencies, 2 sectors, 2 national societies, 8 international and 79 national NGOs. Nine other agencies attend meetings as observers.

Health assessments

Health assessments are crucial to underpin WHO's work in Syria and ensure that its humanitarian interventions are transparent, impartial and based on demonstrated needs. In 2018, WHO completed the following major assessments:

- A study of patients' views and experiences of cancer care in 16 specialized health care facilities in Syria. Preliminary findings of the study showed that the level of services provided in the oncology facilities was considered generally average (by 45% of surveyed patients) or good (46%). Similarly, emotional support provided was also deemed to be average (36% of patients) or good (31.4%), though a significant percentage still encountered weak (14%) or very weak (9%) support. Of significant concern, the majority of patients (56%) reported that medicines were not fully available, resulting in disruption of care and a potentially negative impact on health outcomes.
- A comprehensive assessment (derived from secondary data) of the status of health services and populations in areas of southern Syria that could be reached via cross-border activities from Jordan. The assessment, carried out by WHO's hub in Amman, covered the period from late 2017 to early 2018. It found that although communicable

disease accounted for only 1% of morbidities among patients seeking health care, both health professionals and community members cited communicable diseases as one of their main health concerns. Health data showed that typhoid fever, watery diarrhoea and respiratory infections were serious threats across the south. The review also revealed that the number of reported cases of suspected measles from Dar'a and Quneitra in 2017 was six times greater than the number reported in 2016. Based on the findings of the assessment, the health sector's subsequent work plan focused on strengthening PHC, referral pathways and disease surveillance and response.

- An assessment of the status of trauma care services in Ar-Raqqa city and surrounding areas. Page 41 of this report describes the findings of this report in greater detail.
- An assessment of the health situation in four IDP camps in north-east Syria. The assessment found that two thirds of households were struggling with mental health problems and one third had at least one member who suffered from a chronic illness but had limited access to treatment. The measles vaccine coverage rate was not high enough to ensure herd immunity. Referral services in the camps were severely limited and



A WHO team assesses the health situation in Al Hol camp in north-east Syria.

WHO

most public hospitals had no capacity to treat referred patients. WHO has taken several steps to address these findings, including training additional health care workers on mh-GAP. As a result of this training, the number of IPDs who received mental health counselling doubled from 3385 in 2017 to over 7700 in 2018. WHO also established a registry of patients with NCDs that links them to health care facilities with the capacity to treat them. Children in all four camps were vaccinated against measles in 2018. WHO has strengthened the referral system by establishing standard timeframes within which referrals must be completed. It has also signed agreements with hospitals to cover the costs of treating patients referred from the camps.

- An assessment of health needs in Afrin, where changes in political control in 2018 led to the collapse of the local health system and the displacement of 167 000 people. The assessment, conducted by WHO's hub in Gaziantep, found that there were very few functioning PHC centres and secondary health care facilities, and very limited health care options for patients with tuberculosis or leishmaniasis. Vaccination rates were low and there were no facilities for patients with disabilities or mental health problems. Referral services were piecemeal and hampered by lengthy clearance procedures, and there were very few ambulances to transport patients to the nearest hospitals in Aleppo. WHO is addressing the assessment's findings by strengthening PHC centres and mobile clinics and re-establishing routine immunization centres.
- An assessment of the incidence of TB in north-west Syria and the treatment options for TB patients. See page 54 of this report for more information.
- A comprehensive assessment of the availability and readiness of all services in PHC centres across Syria. The Service Readiness and Availability Assessment (SARA) is conducted jointly by WHO

and the MOH every two years. The findings of the 2018 survey will be used to support better planning and monitoring, as well as strengthen the national health information system.

Appendix 2 contains a list of assessments conducted and/or assessment reports published in 2018.

WHO also developed the following assessment tools:

- A tool to assess the health situation in IDP camps. The tool has three components: 1) a household questionnaire (to assess the health status of households); 2) a health care facility questionnaire (to assess the range and quality of services) and 3) an exit interview (to ascertain patients' levels of satisfaction with services provided). The tool was pilot-tested in four IDP camps in north-east Syria and subsequently refined. WHO will use the tool to assess the health situation in other areas that have been heavily affected by the conflict.
- A tool specifically developed to assess the health situation in shelters in eastern Ghouta after government forces regained control of the area. WHO assessed 1) the health situation at community level (main causes of morbidity) and 2) the services available in the health care facilities supporting the shelter residents. It used the findings to fill gaps in the emergency response and ensure that its interventions were meeting identified needs.
- A tool to monitor patients' and health care providers' satisfaction with the assistance delivered by WHO. The tool comprises two components: 1) interviews with managers and staff of health care facilities and 2) patient satisfaction interviews (at least three patients per facility to be interviewed). WHO will use the findings to further refine its assistance (e.g., by changing the types of medicines delivered and conducting additional training courses for staff in health care facilities supported by the Organization).



Biomedical engineers attend a training course on maintaining medical equipment in Syrian hospitals.

WHO

Health objective 3: Improve health system capacity for support of continuity of care and strengthen resilience and response to IDP movements and disease outbreaks

Training

Around two thirds of skilled medical staff have left Syria since the crisis began. WHO has trained hundreds of thousands of health care workers to keep basic health services afloat. These efforts have helped ensure that millions of people areas continued to have access to basic health care. In 2018, WHO trained 30 865 health care workers on topics including infection control,

disease surveillance, mh-GAP, trauma care and mass casualty management.

WHO has initiated a comprehensive evaluation of its training programme. Phase 1 (desk review) was completed in late 2018. Phase 2 (interviews and field evaluation) will be launched in early 2019.

Working with NGOs

National NGOs continued to be WHO's implementing partners¹⁹. Working in insecure, hard-to-reach areas that were inaccessible to UN agencies, they filled gaps created by the disruption of national health care services. By doing so, they ensured that millions of Syrians continued to have access to basic health care. For example, in April 2018, NGO teams and mobile

clinics were the first to arrive in areas of displacement around eastern Ghouta, where they provided round-the-clock services for more than 50 000 IDPs. NGOs also provided essential health care services in south, north-east and north-west Syria, all of which saw massive waves of displacement in 2018.

Given the extent of damage to the public health system, the need for national health NGOs will not end with the return of peace to Syria. WHO/Syria's five-year strategy (2018-2022), sets out how the Organization plans to support NGOs during the conflict and beyond. Developed in consultation with NGOs, this strategy describes how WHO will monitor and assess NGOs' performance and support them through continuous professional training. Accompanying guidelines provide NGOs with the guidance they need to transform their strategies into annual plans and establish mechanisms they can use to improve their performance. WHO will use the data it gathers to show national authorities the value of its NGO partners and advocate for their continued financial support.

WHO has hired an external organization to carry out third party monitoring of the health care services provided by its NGO partners, as well as their financial and project management capacities. Thus far, 22 NGOs in seven governorates have been assessed. Based on the results of these evaluations, WHO is hiring a second external organization to help build NGOs' capacity by addressing compliance issues and recommending actions to address identified weaknesses and gaps.

Mobile clinics

Mobile clinics are literally a lifeline in areas that are remote or hard to reach, or where health care facilities have been destroyed. They are the only source of health care for many people. Mobile teams can go where they are needed and respond swiftly to changing conditions on the ground. They are equipped with separate rooms for examinations and medical procedures, enabling health care services, especially for women and girls, to be provided in privacy and dignity and with respect for cultural sensitivities.

In 2018, WHO donated eight mobile clinics to underserved areas in Aleppo, Dar'a, north-east Syria,

northern rural Homs and Rural Damascus. WHO's hub in Gaziantep supported approximately 16 mobile clinics per month, including four dedicated to mental health. In response to massive population movements in the northwest, WHO's health partners deployed mobile clinics at Qalaat Al Madiq, the main arrival site for IDPs from other parts of Syria. Mobile teams carried out basic health checks, provided mental health first aid and vaccinated children and screened them for malnutrition. Ill and wounded patients were referred to hospitals and clinics in the area. WHO mapped underserved areas, coordinated the deployment of mobile clinics and delivered medicines and supplies.

¹⁹ WHO's office in Damascus works with 52 health NGOs. Its hubs in Gaziantep and Amman work with 19 and four NGOs respectively.

Disease outbreaks and other communicable diseases

More than 6 million IDPs in Syria are living in overcrowded temporary settlements that lack adequate water, sanitation and health care. Another 1.1 million people in hard-to-reach areas have only limited access to basic services. Millions of children who have been displaced or who live in besieged or hard-to-reach areas have not been vaccinated. In many areas of the country, vaccination teams have not been able to reach children for several years. All of these factors have created conditions that allow for the rapid spread of disease.

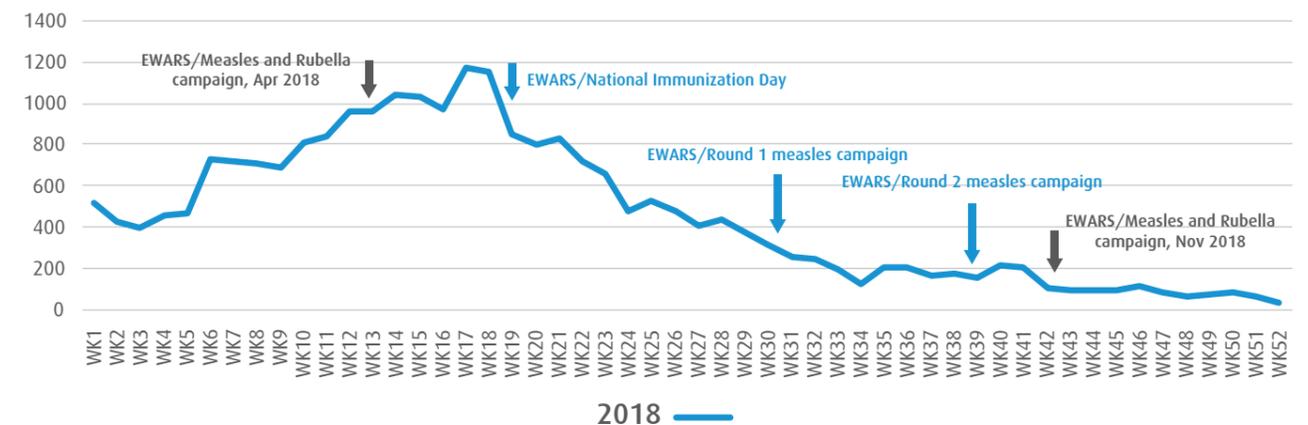
In 2018, there were outbreaks of acute bloody diarrhoea (in Deir-ez-Zor governorate), typhoid fever (in Al-Hasakeh) and hepatitis A (in Aleppo and Dar'a governorates). Rates of cutaneous leishmaniasis, a disease which is endemic in Syria, rose sharply. These diseases are almost always the result of unclean water and poor sanitation. In addition, several outbreaks of measles across the country reflected low vaccination coverage rates among children.

Measles

A total of 24 004 suspected cases of measles were reported in 2018, of which 1530 were laboratory-confirmed. This represents an increase of 104 % compared with the previous year. Most cases were from the northern governorates, where health care services have been severely disrupted. WHO supported a national vaccination campaign that was implemented in two phases. Over 2.6 million children were vaccinated against measles in the course of this campaign, which, in addition to targeting areas under government control, reached areas in south and north-east Syria that were under the control of non-state armed groups. WHO's hub in Gaziantep supported

two measles campaigns in north-west Syria. Over 1.6 million children were vaccinated in the course of these campaigns. WHO also supported vaccination activities in IDP camps and during national immunization week. The National Immunization Technical Advisory Group introduced an extra dose of measles vaccine at the age of seven months in addition to the two recommended doses of measles, mumps and rubella vaccine at 12 and 18 months. Perhaps as a result, the number of laboratory-confirmed measles cases fell sharply, from 1090 in the first few months of 2018 to 71 in the second half of the year.

Trend analysis of suspected measles cases in 2018
(data taken from EWARS/N)



Circulating vaccine-derived poliovirus type 2

In March 2017, an outbreak of vaccine-derived poliovirus type 2 (cVDPV2) disease emphasized the dangers of disrupted immunization services. (Cases of vaccine-derived polio are rare and occur when vaccination coverage rates are low; if a population is fully immunized, it will be protected against both vaccine-derived and wild poliovirus disease.) The cVDPV2 outbreak occurred close to the border with Iraq and in an area with continuous population movements; it raised fears that the virus would spread into neighbouring countries. The Emergency Committee of the International Health Regulations

(IHR) issued temporary recommendations to help prevent the further spread of the disease.

WHO led efforts to halt the spread of the virus. In October 2018, WHO's Outbreak Assessment team concluded that the transmission of cVDPV2 had been interrupted. No new cases of cVDPV2 disease have been reported since September 2017, but Syrian children are vulnerable to re-infection²⁰. Syria remains subject to the temporary recommendations issued by the emergency committee of the IHR.

²⁰ <http://polioeradication.org/polio-today/polio-now/public-health-emergency-status/>.

Acute bloody diarrhoea

In May 2018, health partners reported outbreaks of acute bloody diarrhoea in two locations in Deir-ez-Zor governorate. Access to these highly insecure areas has been extremely difficult for the past several years, leading to a serious deterioration in basic infrastructure including the water supply network. As of 30 September 2018, 784 people had fallen ill and 12 had died.

WHO and UNICEF conducted a joint field mission to the affected areas. Laboratory tests indicated that *E. coli* infection was the predominant cause of the outbreak. An analysis of water samples taken from the nearby Euphrates river showed *E. coli* levels above accepted standards. The team found that many people were swimming in the river or using river water for washing, drinking and cooking. To stem the immediate outbreak, the team distributed more

than 572 000 chlorine tablets to 35 860 households. WHO distributed approximately 145 000 cubic metres of water to around 70 000 people in 13 villages in the most affected areas. (One cubic metre of water is enough to cover the daily needs of one family.) WHO and UNICEF organized community meetings to brief residents about the importance of washing hands thoroughly with soap and water, treating household water through chlorination, boiling and sieving, and immediately treating sick children with oral rehydration salts. WHO and UNICEF are expanding these water safety measures to neighbouring areas. As a longer-term measure, both agencies are working jointly to chlorinate drinking water sources, tankers and reservoirs in the main outbreak areas and other villages along the Euphrates valley. The number of cases had declined to seasonal standards by the middle of July.

Typhoid

Between 1 March and 9 June 2018, 1219 suspected cases of typhoid fever in Al Hol camp, Al-Hasakeh governorate were reported to the disease surveillance system (EWARS/N). WHO delivered medicines to hospitals in the area to help them treat patients admitted with the disease. WHO and partners distributed soap and water purification sachets to households and explained the simple measures they could take to reduce the risk of the disease. All water tankers in the camp were sterilized and jerry cans were discarded and replaced. By early April 2018 the number of cases had dropped sharply, in large part due to effective control and response measures.

In August 2018, a separate outbreak of typhoid fever was detected in Areesha camp, Al-Hasakeh governorate. WHO delivered supplies and medicines to the camp and supported an awareness-raising campaign that was conducted by four health education teams. The teams visited five other IDP camps in the governorate to brief residents about the basic measures they could take to prevent waterborne diseases.

Cutaneous leishmaniasis

Rates of cutaneous leishmaniasis rose sharply in 2018 (71 484 cases from January to November 2018 compared with 52 223 for the whole of 2017). Almost all cases were reported from the six northern governorates²¹, where the disease is endemic. The increase can be attributed to continuous population movements, disrupted control programmes and the poor shelter and sanitation in camps. (Many people are forced to sleep on the ground, where they come into direct contact with the sandfly that causes leishmaniasis.) The lack of funding for vector control measures, compounded by a worldwide shortage of medicines to treat leishmaniasis, has exacerbated the problem and led to a rise in the incidence of the disease.

In 2018, WHO delivered 170 000 vials of meglumine antimoniate (a treatment for leishmaniasis) and 63 000 bed nets to Syria's north-eastern governorates. WHO also donated 15 000 vials of meglumine antimoniate and related supplies to an international NGO that works to combat leishmaniasis in Syria.



Bed nets procured by WHO are distributed in Aleppo.

WHO

Hepatitis A

In late August 2018, cases of suspected hepatitis A in rural areas of Dar'a governorate were detected through EWARS/N. Over the next three months, 958 cases were reported, of which six were laboratory confirmed. The Directorate of Health delivered chlorine tablets in the affected areas and supported health awareness campaigns. By the end of the year, there had been a significant decrease in the number of reported cases. WHO and UNICEF are monitoring the quality of drinking water in the area and supporting the cleaning and chlorination of drinking water sources.

A separate outbreak of hepatitis A in northern rural Aleppo affected mostly schoolchildren under the age of 15. Between July and November, 660 suspected cases were reported of which 12 were laboratory confirmed. An analysis of the water in wells, tanks and reservoirs in the area showed that seven out of 15 sources tested were contaminated, including two in schools. WHO distributed information brochures on how to prevent hepatitis A and prepared recommendations on the basic measures to be taken to maintain clean water supplies. These included cleaning all wells and regularly chlorinating water sources. The information gathered by WHO was shared with colleagues from the Water, Sanitation and Hygiene sector for immediate action.

²¹ Aleppo, Al-Hasakeh, Ar-Raqqa, Deir-ez-Zor, Hama, Idlib.

Tuberculosis

Rate of tuberculosis (TB) in Syria are estimated to be on the rise (15.8 per 100 000 people in 2017 compared with 13 per 100 000 people in 2013). In July 2018, the national control programme in Damascus and health partners in north-west Syria reported that 3264 patients had registered for TB treatment; this suggests that the notification rate is 18 per 100 000 people.

Since the crisis began, almost half of Syria's TB centres have closed, and those that remain open do not always provide the full range of services. The national system for notifying new cases of TB has collapsed in some areas; Aleppo governorate, which used to account for the highest number of TB patients in Syria, has reported very few new cases since the crisis began. Similarly, little information on the status of TB is available in the north-eastern governorates.

In collaboration with the MOH and with financial support by the Global Fund to Fight AIDS, Tuberculosis and Malaria, WHO conducted active case finding for TB in 13 governorates. Over a 47-day period in August and September, 177 teams visited 38 136 families (two thirds of whom were displaced or refugees) and took sputum samples from 583 people suspected of having the disease. When samples tested positive for TB, the diagnosis was confirmed by chest X-ray. Among 846 individuals suspected of having TB²², 96 were confirmed. Although this finding was based on surveillance of specific population groups, it suggested that the incidence rate for TB could be as high as 50 per 100 000 population. All patients diagnosed with TB were immediately enrolled in treatment programmes.

WHO has developed TB recommendations for the MOH. They include deploying teams with mobile X-ray machines to screen all vulnerable populations, especially in areas of displacement, and improving TB indicators to help identify those at increased risk of catching the disease. The government is gradually re-establishing TB services; ten out of 14 national TB centres are now open and fully functioning.

In July 2018, health partners in north-west Syria reported that 605 patients had registered for TB treatment. Based on current TB rates in Syria, the real number of people with TB is likely to be much higher. Because evidence shows that for every undiagnosed TB case about 10-15 persons can acquire the disease, urgent action is required to increase detection rates and provide treatment.

An assessment of the status of TB care in north-west Syria carried out by Gaziantep showed there were severe shortages of TB drugs, use of expired drugs, weak lab tests (no single centre was able to perform TB cultures) and lack of qualified staff. In response, WHO's hub in Gaziantep prepared a strategy to tackle TB in northern Syria. The strategy establishes a system to secure a sustainable supply of medicines for TB patients, complemented by increased medical supervision to limit treatment non-compliance and reduce the risk of developing multi-drug resistance. Gaziantep is assessing the quality of care in TB treatment centres in northern Syria and has procured sufficient quantities of TB drugs to treat all known TB patients.

²² The teams did not collect sputum samples from all 846 individuals. For example, it is difficult to collect sputum samples from children and so the diagnosis is made based on clinical symptoms and X-rays.

HIV/AIDS

Population displacement, overcrowded households, unprotected sex and unsafe blood transfusion and surgical procedures all increase the risk of HIV. In collaboration with the International Organization for Migration and the MOH, and with financial support by the Global Fund to Fight AIDS, Tuberculosis and Malaria, WHO is working to strengthen HIV prevention among most-at-risk populations in Syria. In 2018, WHO supported the active case finding of patients with HIV/AIDS in 13 governorates. Fifty teams visited 15 000 families (over half of whom were displaced) over a 30-day period. Out of a total of 14 352 HIV rapid tests performed, three were positive and were

confirmed by laboratory diagnosis of blood samples. All three patients confirmed as having the disease were immediately enrolled in treatment programmes.

Based on this experience, WHO developed a set of recommendations. They include a continuation of active case finding in all areas and the development of indicators to help identify those who are at greater risk of HIV infection. In the meantime, the national HIV control programme will use the initial findings to develop a plan to control the further spread of HIV by improving HIV detection rates and implementing effective control measures.

Rehabilitation

WHO supported the rehabilitation of two PHC centres in Aleppo and one PHC centre in Rural Damascus²³. The reopening of the centres in Aleppo comes at a crucial time. People who fled the city at the height of the conflict are slowly returning to their homes, and the demand for health care is steadily increasing. Between them, the two centres will serve a caseload of more than 27 000 people who will benefit from comprehensive, free-of-charge health care services.

The third centre in Rural Damascus serves more than 3800 patients.

WHO also supported the minor rehabilitation of Jib Al-Jandali PHC and physiotherapy centre in Homs. The centre provides physiotherapy for amputees, patients with artificial limbs and other people with movement difficulties. It has a caseload of approximately 50 000 patients.

²³ Khaled Ben Al Waleed PHC centre in north-west Aleppo, Al-Ma'asaraniyeh PHC centre in east Aleppo and Moadamyat Al Sham PHC centre in Rural Damascus.



Tuberculosis centre in Aleppo before and after its rehabilitation by WHO.

WHO

WHO also supported the rehabilitation of a TB treatment centre in Aleppo. This centre was selected as a priority because TB rates in Syria are growing and because the governorate has traditionally accounted for the highest number of TB cases in the country.

Rehabilitation work on the emergency department of the Paediatric Hospital in Damascus continues and is scheduled to be completed by May 2019.

WHO's hub in Gaziantep supported the minor rehabilitation and equipping of nine secondary health care facilities in north-west Syria. These facilities cover a catchment population of approximately 800 000 people.

WHO has prepared a list of the health care facilities to be rehabilitated in 2019, based on the information generated by HeRAMS and the severity of needs in under-served areas. The number of health care facilities rehabilitated will depend on the availability of funds.

Nutrition objective: Improve equitable access to quality life-saving curative nutrition services

WHO's nutrition programme, launched in 2014, has continued to expand. A total of 755 PHC centres and 48 private clinics in 13 governorates²⁴ are now offering nutritional surveillance services for children under five years of age. In 2018, they screened 917 943 children for malnutrition; those who were severely malnourished were referred for specialized treatment in outpatient therapeutic centres supported by UNICEF and WFP. A total of 906 malnourished children with medical complications were referred in 2018, compared with 1023 for 2017. This decrease can be partly attributed to better screening and preventive measures such as the Infant and Young Child Feeding Programme and the Baby-Friendly Hospital Initiative. All nutritional surveillance and stabilization centres are now reporting through the national nutritional surveillance system. WHO delivered equipment and supplies, including new and improved therapeutic treatments, to support 33 stabilization centres.

WHO is also supporting the nutritional screening of children in IDP camps in Aleppo, Dar'a, Homs, Rural Damascus and north-east Syria. A total of 186 000 children were screened, of whom 6000 were found to be severely malnourished and referred for treatment.

Global acute malnutrition rates remained more or less stable compared with 2017, and mortality rates for hospitalized children decreased (2.4% in 2018 compared to 2.6 in 2017), due in part to the implementation of updated WHO guidelines on managing hospital patients.

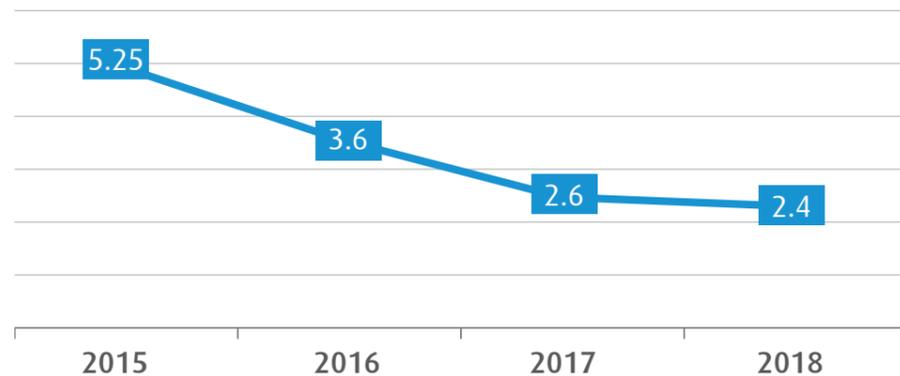


A WHO staff member screens a child for malnutrition by measuring his mid-upper arm circumference.

WHO

²⁴ Nutritional screening was expanded to Ar-Raqqa and Deir-ez-Zor governorates in 2018.

Global Acute Malnutrition Rates 2015 - 2018



Infant and young child feeding programme

The infant and young child feeding programme (IYCF), jointly developed by WHO and UNICEF, aims to create an environment that will enable mothers, families and other caregivers to make informed choices about optimal feeding practices for infants and young children. The IYCF emphasizes the importance of breastfeeding as the preventive intervention with potentially the single largest impact on reducing

child mortality. In emergencies, the implementation of the IYCF is critical to ensure child survival and development.

In 2018, 592 health care workers were trained on IYCF. WHO estimates that they will go on to provide counselling to approximately 162 000 people per year.

Baby-friendly hospital initiative

The Baby-friendly hospital initiative (BFHI) was launched by WHO and UNICEF in 1991. The BFHI is a global effort to implement practices that protect, promote and support breastfeeding. In 2018, WHO and UNICEF issued new guidance on promoting breastfeeding in maternity hospitals and other health care facilities.

In 2018, staff in 38 hospitals in Syria were trained on the BFHI. WHO estimates that they will go on to counsel approximately 50 000 new mothers per year.

Water, sanitation and hygiene (WASH) objective: Support water, sanitation and sewage systems

Adequate supplies of clean water are essential to maintain health and reduce the risk of epidemics, especially in overcrowded settings such as IDP camps. Water is essential for cooking, drinking and cleaning. If people do not have adequate supplies of clean water, they will obtain it from sources that are likely to be contaminated. In the first six months of 2018, WHO assessed the quality of water in Aleppo, Homs, north-west and north-east Syria and Rural Damascus. A total of 1865 ground wells, 521 reservoirs and over 190 jerry cans were tested. WHO worked with national authorities and partners to disinfect polluted water and make it safe to use.

The key to preventing diseases from unclean water is to ensure that water is of a high quality when consumed, not just after treatment or at water distribution points. In 2018, working in close

collaboration with national authorities, WASH sector partners and local communities, WHO procured over 600 000 chlorine tablets for distribution to households and chlorinated approximately 200 000 cubic metres of water in 22 000 water tankers that were used to supply villages and IDP camps in north-east Syria. One cubic metre of water is enough to cover the needs of one family per day.

WHO also works to improve water and sanitation facilities in hospitals to protect the health of patients and medical staff. This includes measures to ensure the safe disposal of medical waste. In the first six months of 2018, WHO strengthened the water supply systems of five hospitals in Aleppo, Damascus and Deir-ez-Zor and provided 450 bins to store and transport medical waste in hospitals in Aleppo.



Five-year-old Nada, displaced from eastern Ghouta, hugs her bottle of clean water.

WHO

MANAGING WHO'S OPERATIONS

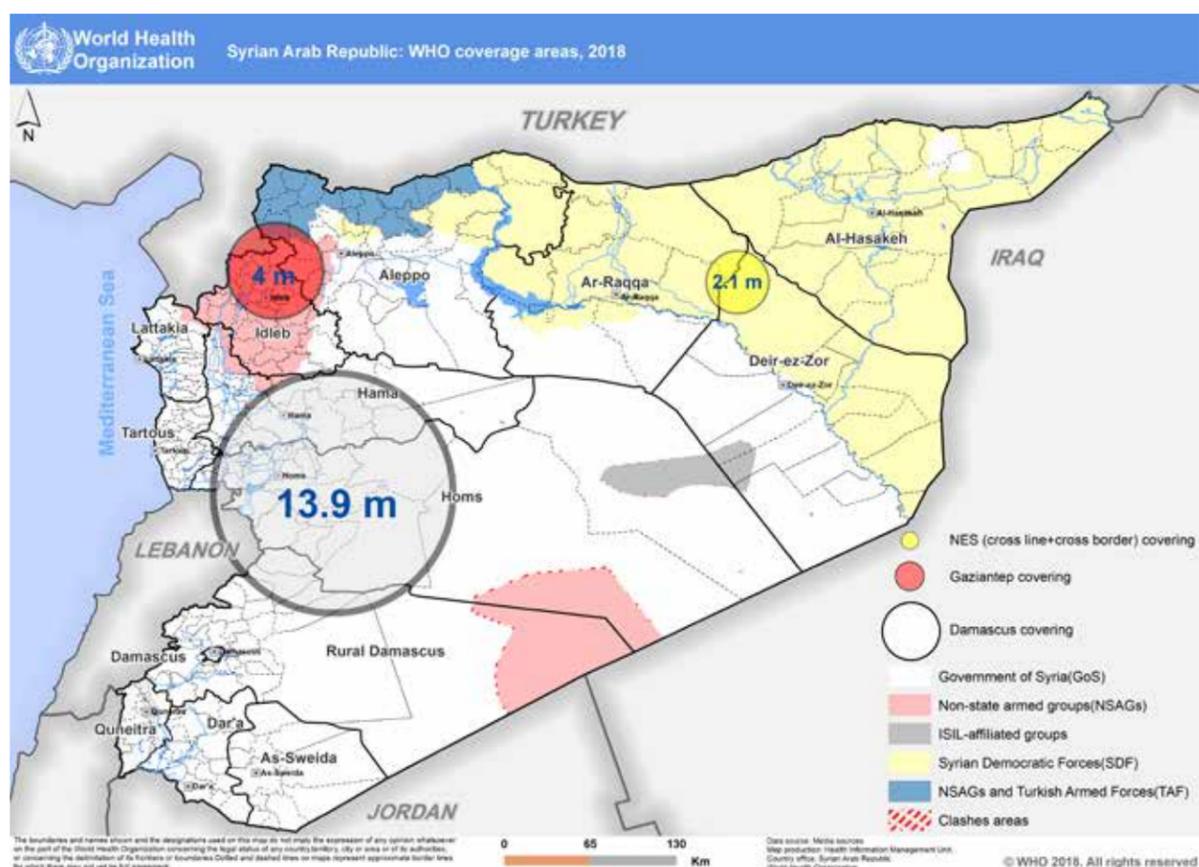
Whole-of-Syria internal coordination

The “Whole-of-Syria” (WoS) approach allows humanitarian agencies to deliver cross-border assistance from neighbouring countries to people in parts of Syria that are not accessible from Damascus. WHO’s main office in Damascus and its hubs in Gaziantep (Turkey) and Amman (Jordan) work under a common WoS framework, with operational adjustments as the situation evolves.

Given the complexity and fast-evolving nature of the Syrian conflict, close coordination among the WoS offices and hubs is essential. Staff from all three offices meet regularly to review and adapt operations, conduct strategic planning and ensure an integrated approach based on a common understanding of

WHO’s aims and objectives. Senior staff from WHO’s headquarters and its regional office in Cairo also attend these meetings.

Following changes in political control in 2018, WHO’s operations in southern Syria and northern rural Homs, managed by Amman and Gaziantep respectively, were transferred to its office in Damascus. Conversely, Damascus handed over responsibility for some areas of north-west Syria to WHO’s hub in Gaziantep. Damascus is now responsible for an area covering approximately 13.9 million people, while Gaziantep is responsible for an area covering approximately 4 million people.



Monitoring and evaluation

WHO continues to improve its monitoring capacity. It issues monthly reports documenting progress measured against almost 70 key performance indicators. Other monthly reports include a “Who Does What, Where and When” (4Ws) report for the health cluster and a report documenting attacks on health care in Syria. All WoS hubs contribute to WHO’s global database documenting attacks on health care. WHO also issues epidemiological bulletins derived from aggregated EWARS/N data and regular reports on the status of health care facilities across Syria.

Throughout the year, WHO focal points undertook monitoring visits, including in hard-to-reach areas. These visits allowed WHO to evaluate local needs and target its interventions accordingly. Focal points in most governorates monitored the use of equipment delivered by WHO through follow-up visits to hospitals, obtaining feedback from both patients (to find out if they benefited from the equipment) and health care staff (to obtain their views on the quality of the equipment). The focal points also visited health care facilities each month to collect HeRAMS data and train health care staff on how to complete HeRAMS questionnaires.

WHO’s office in Damascus has hired an external organization to conduct third party monitoring of the Organization’s NGO partners in Syria. Thus far, the third party monitor has assessed the financial and technical capacity of 22 NGOs in seven governorates. WHO’s monitoring and evaluation officer works closely with the third party monitor to track the status of each assessed NGO and ensure the findings are addressed on a timely basis.

WHO focal points assessed the quality of active case finding for TB and HIV/AIDS. They accompanied MOH case finding teams and completed assessment questionnaires that were prepared by WHO’s office in Damascus. The completed questionnaires were analysed by staff in Damascus and the findings were shared with the MOH.

WHO’s NGO partners submitted detailed monthly reports listing the number of patients treated and the services provided. WHO cross-checked this information through site visits to NGO facilities and phone calls to beneficiaries, asking them to confirm that they had received the services and to assess their quality.

WHO’s hub in Gaziantep hired an external organization to monitor and assess its medical supply chain. The initial findings showed that many WHO warehouses were short-staffed and lacked proper temperature control mechanisms. Only two out of 41 had secure storage for psychotropic substances. There were shortages of essential medicines in many PHC centres and hospitals. Based on these findings, Gaziantep prepared guidelines for the management of pharmaceutical products, as well as standard operating procedures for eight separate steps in the supply chain. Gaziantep plans to strengthen monitoring, supervision and training activities to improve the supply chain.

Promoting gender equity

WHO includes gender and age in its data collection activities because women, girls, boys and men differ in their needs for health care services in IDP camps and other settings. WHO's national NGO partners are required to provide data disaggregated by gender and age in their reports to WHO. Given the male/female imbalance among health care workers in Syria, WHO advocates for the inclusion of female health workers in mobile teams, clinics and community centres in order to improve the access of women and girls to health care services.

WHO monitors patient and health care provider satisfaction with health care services by allowing them to report on any gender discrimination they have encountered. This helps to ensure a gender perspective on the quality of services delivered. WHO encourages female staff to attend training workshops by providing special incentives; for example, WHO pays for the travel of an accompanying family

member so that women do not have to travel alone.

WHO is a member of the UN country team's network on the prevention of sexual exploitation and abuse (PSEA). The network is developing a common approach to integrating PSEA considerations in all planning and programming, including developing community-based mechanisms to report on PSEA.

All of WHO's implementing partners are required to sign a code of conduct that includes PSEA provisions. Agreements signed with partners include a clause obliging them to take measures to prevent and respond to any violations of the code of conduct by its employees and other persons who perform services under the agreement. Implementing partners are also required to promptly report confirmed or suspected violations of WHO's policies including its code of ethics and professional conduct and its policy on whistleblowing and protection against retaliation.

Procurement trends

The procurement and delivery of medicines, supplies and medical equipment continued to be a major part of WHO's operations. In 2018, these activities accounted for USD 28.8 million, or 40% of WHO's overall expenditures. Medicines and supplies are stored in WHO warehouses in six locations (five in Syria and one in Turkey), ready to be deployed as needs arise.

Procurement is based on Syria's Essential Medicines List (EML), which is updated at the beginning of each year. WHO, the MOH and the Ministry of Higher Education jointly determine the items to be included in the list based on a review of consumption patterns and morbidity trends over the preceding year.

Medicines are prioritized for procurement whenever funds become available. The EML also includes essential equipment whose procurement is based on a review of hospitals' needs. Information generated by HeRAMS provides the basis for this review.

WHO has expanded the storage capacity and range of stocks in its Dubai warehouse. Emergency kits and supplies stored in Dubai can now be sent to Syria within as little as four weeks.

Lengthy procurement delays have been greatly shortened by establishing long-term agreements between WHO and several newly approved suppliers. WHO is now able to place orders directly with these

suppliers, obviating the need for time-consuming bidding procedures. However, to be eligible to supply goods for Syria, suppliers must be both approved by WHO and registered with the MOH. WHO is working to solve this problem by identifying additional suppliers that can receive WHO approval and by having its existing and potential suppliers approved by the MOH. Both processes remain slow and cumbersome.

The Organization continues to require the prior approval of the MOH to withdraw supplies from WHO warehouses and deliver them to PHC centres and hospitals throughout Syria. The lengthy process to obtain these approvals is now the most important factor hampering WHO's supply chain.

To reflect the increasing prevalence of NCDs worldwide, WHO has recently developed standard kits to treat patients with NCDs. These kits are designed to meet initial primary health care needs in

emergencies. Each kit contains enough medicines and medical devices to treat 10 000 NCD patients for three months. WHO procured 177 kits for its operations in Syria in 2018 (174 were delivered, three remain in WHO warehouses)²⁵.

The dire conditions in Idlib governorate have meant that tens of thousands of IDPs have been sleeping on the ground. In response, for the first time ever WHO's hub in Gaziantep procured anti-venoms to treat snake and scorpion bites. Conditions in Idlib governorate also led to increasing rates of leishmaniasis. However, there is a worldwide shortage of medicines to treat this disease, and WHO was unable to procure sufficient quantities of anti-leishmaniasis treatments. TB medicines in north-west Syria were of low quality, highlighting the need for these medicines to be procured by WHO. WHO also encountered delays in procuring pneumococcal, anti-rabies and flu vaccines, largely because of global shortages of these vaccines.

Value for money

WHO's value for money approach is built around economy, efficiency, effectiveness, equity and ethics. The Organization bulk purchases most medicines and supplies to ensure the best possible price and applies strict safeguards to ensure that medicines and pharmaceutical products meet acceptable standards. In Syria, it monitors all equipment, supplies and services delivered to verify that medicines reach intended beneficiaries and that equipment and services provided are of high quality. Its NGO partners are selected based on a comprehensive review of their proven capacity to deliver in difficult environments. WHO has invested heavily in training its NGO partners. Health NGOs will be essential for the foreseeable future as the country gradually stabilizes and begins the long process of rebuilding its health system.

WHO focuses on reaching the people who are demonstrably most in need, based on an analysis of the severity of the health situation and health needs in all 270 sub-districts of Syria. Lastly, WHO's emergency operations in Syria are based on the four humanitarian principles of humanity, neutrality, impartiality and independence.

A review of WHO's value for money strategy in Syria showed that 75% of assessed interventions demonstrated high impact against low investment, leading to better health outcomes for beneficiaries. Seven WoS staff (three from Damascus, two from Gaziantep and two from Amman) were trained on WHO's value for money approach in 2018.

²⁵ Enough to treat 442 500 NCD patients for one year.

LOOKING AHEAD

The percentage of people who live in areas under government control is likely to increase in 2019. Regardless of who is in control, humanitarian needs will remain acute throughout the country. WHO will continue to apply the four humanitarian principles of humanity, neutrality, impartiality and independence during the emergency and recovery phases. We will:

- Strengthen our evidence-based approach and focus our response on areas where the severity scale is 3 and above.
- Prioritize the geographic areas that have been hit hardest by the war as well as those that were disadvantaged before the crisis.
- Support health policies that are non-discriminatory and that target the most urgent needs of the population, e.g., those with lifelong disabilities as a result of the conflict.
- Advocate for the sanctity of health care facilities, patients and health workers, and take account of human rights and protection issues when delivering assistance.
- Engage at the community level to help ensure that civil society has a say in the rebuilding of the health system.
- Continue to deliver assistance in a transparent, equitable, non-discriminatory, respectful, dignified and non-politicized manner.

As stability returns to certain locations, we will work to support the resilience of health care services in these areas. To allow us to do this, some basic conditions have to be met:

- We need sustained access to hard-to-reach areas to assess health care services and people's health needs, and help rebuild basic services.
- We need guarantees for the safe passage of critically ill and wounded patients to medical facilities outside conflict zones.
- Health care facilities, their patients and their staff must be protected and made safe from attacks.
- We need faster, more efficient approvals from national and local authorities to allow us to deliver health supplies to people in all parts of Syria, based on transparent, impartial assessments of needs.

On behalf of our health partners, we will continue to advocate at the highest diplomatic levels for solutions that will allow us to overcome the above constraints.

In 2019, as we support the country's efforts to begin the long process of rehabilitating the health care system, the support of our humanitarian donors will be needed more than ever.

FUNDS RECEIVED IN 2018

Under the Humanitarian Response Plan for 2018, WHO appealed for US\$ 141 549 161 to implement the activities outlined in this report. As of the end of 2018, it had received just over 52% of the funds required.

Donor	Amount received (US\$)
European Commission Directorate-General for European Civil Protection and Humanitarian Aid Operations (ECHO)	12 887 354
France	983 191
Italy	493 827
Japan	15 782 246
Norway	8 666 313
Sweden	3 953 909
UK Aid	15 529 484
United Nations Office for the Coordination of Humanitarian Affairs – Syria Humanitarian Fund	1 196 763
United States Agency for International Development, Office of U.S Foreign Disaster Assistance (US OFDA)	14 500 000
Total	73 993 087

PRIORITIES AND FUNDING REQUIREMENTS FOR 2019

Sector	N	Project title	Funds requested by WHO office/hub (in US\$)			
			Damascus	Gaziantep	Iraq	Total (US\$)
HEALTH	1	Strengthen trauma care/mass casualty management and physical rehabilitation services	15,920,500	6,460,000	875,000	23,255,500
	2	Enhance access to secondary health care and referral services	41,925,550	8,540,000	0	50,465,550
	3	Improve access to primary health care services	19,286,000	9,720,000	2,820,000	31,826,000
	4	Strengthen the Expanded Programme on Immunization across the country	4,800,000	6,620,000	0	11,420,000
	5	Reinforce surveillance systems for the early detection, prevention and control of potential epidemic-prone diseases and outbreak response in Syria	4,922,000	2,985,000	0	7,907,000
	6	Enhance the mental health programme in Syria	3,595,000	2,665,000	0	6,260,000
	7	Strengthen health information systems for evidence-based emergency response and resilience	3,630,900	645,000	0	4,275,900
	8	Reinforce inter- and intra-hub health sector coordination for effective health response	2,450,000	950,000	0	3,400,000
Total for health projects			96,529,950	38,585,000	3,695,000	138,809,950
NUTRITION	9	Enhance the prevention and early detection of malnutrition in children under five and referral for treatment of complicated cases of SAM	1,045,000	60,000	0	1,105,000
Total for nutrition projects			1,045,000	60,000	0	1,105,000
WASH	10	Establish water quality monitoring in areas of returnees and IDP camps	1,000,000	0	0	1,000,000
Total for WASH projects			1,000,000	0	0	1,000,000
TOTAL			98,574,950	38,645,000	3,695,000	140,914,950

The above figures are provisional and subject to change.

ACKNOWLEDGEMENTS

Our work in Syria would not have been possible without the continued generous support of our humanitarian donors.

It would not have been possible without the strong collaboration of our health partners, including our sister UN agencies and international health NGOs.

It would not have been possible without the devoted efforts of the Syrian Arab Red Crescent and more than 50 national health NGOs working in Syria.

It would not have been possible without the energy and commitment of WHO staff in Syria, Amman and Gaziantep who pulled together on the emergency response.

Most of all, it would not have been possible without the dedicated health care workers throughout Syria, who continued to save countless lives while putting their own at risk on a daily basis. In 2018, 17 health care staff were killed and 44 were injured in the course of carrying out their daily duties.



Little girl in Ar-Raqqa, north-east Syria.

WHO

APPENDIX 1:

Vaccination campaigns implemented in 2018

Governorate	Type of campaign	Month of campaign	Implementing partners	Age group targeted	N° of children targeted	N° of children vaccinated	Coverage rate	Comments
Al-Hasakeh, Ar-Raqqqa, Deir-ez-Zor + parts of Aleppo and Homs	mOPV2 (OBR)	January 2018		0-59 months	609,703	665,736	109%	
Al-Hasakeh	mOPV2 (OBR)	February 2018		0-59 months	1,465	1,456	100%	Localized campaign targeting only drop-out children from January campaign
Damascus, Aleppo, Al-Hasakeh, Rural Damascus	IPV (OBR)	February 2018		2-23 months	327,355	238,945	73%	Afrin, Jerablus and Atareb were not accessible due to active hostilities.
Aleppo (Ein Arab)	IPV (OBR)	February 2018		2-23 months	5,222	5,427	104%	
Ar-Raqqqa (Ein Eisa camp)	IPV (OBR)	March 2018		2-23 months	1,534	1,458	95%	
Ar-Raqqqa (Tal Abyad district and Ar-Raqqqa city)	IPV (OBR)	March 2018		2-23 months	10,100	3,339	33%	WHO had limited access due to political differences between the MOH and the Kurdish health authorities.
Idleb	OPV	March 2018	SIG	< 5 years	419,165	409,256	98%	
Aleppo	OPV	March 2018	SIG	< 5 years	279,677	261,047	93%	
Hama	OPV	March 2018	SIG	< 5 years	28,346	32,193	114%	
All governorates	bOPV	March 2018		0-59 months	2,791,082	2,675,303	96%	
Aleppo, Al-Hasakeh, Ar-Raqqqa, Damascus, Deir-ez-Zor, Rural Damascus	bOPV IPV	April 2018		0-59 months (bOPV) 2-23 months (IPV)	803,629	929,599	116%	80,198 children vaccinated with IPV
Aleppo (Ein Arab), Al-Hasakeh, Deir-ez-Zor, Rural Damascus (eastern Ghouta)	Measles campaign	April 2018		7-59 months	540,910	425,019	79%	

Governorate	Type of campaign	Month of campaign	Implementing partners	Age group targeted	N° of children targeted	N° of children vaccinated	Coverage rate	Comments
Idleb	MR	April 2018	SIG	6-59 months	377,252	326,772	87%	
Aleppo	MR	April 2018	SIG	6-59 months	251,707	198,727	79%	
Homs	OPV	April 2018	SIG	< 5 years	37,362	37,138	99%	
Hama	MR	April 2018	SIG	6-59 months	25,510	15,762	62%	
Idleb	OPV	May 2018	SIG	< 5 years	426,490	451,373	106%	
Aleppo	OPV	May 2018	SIG	< 5 years	276,711	304,668	110%	
Hama	OPV	May 2018	SIG	< 5 years	15,776	25,084	159%	
Aleppo, Al-Hasakeh, Ar-Raqqqa, Deir-ez-Zor, Hama, Homs, Rural Damascus	Measles	July 2018		7-71 months	1,323,471	1,142,817	86%	
Aleppo, Al-Hasakeh, Ar-Raqqqa, Damascus, Deir-ez-Zor, Hama, Homs	Measles	September 2018		6-12 years	1,452,293	1,439,848	99%	
Aleppo (Afrin)	OPV	September 2018	SIG	< 5 years	35,300	38,145	108%	
All governorates	bOPV	October 2018		0-59 months	2,79,1082	2,319,714	83%	
All governorates	bOPV	November 2018		0-59 months (bOPV) 2-23 months (IPV)	921,809	549,104	60%	348,549 (72%) children vaccinated with IPV.
Idleb	MR	November 2018	SIG	5-15 years	728,151	574,532	79%	
Aleppo	MR	November 2018	SIG	5-15 years	589,534	497,201	84%	
Hama	MR	November 2018	SIG	5-15 years	31,982	28,192	88%	
Idleb	OPV	December 2018	SIG	< 5 years	451,147	490,317	109%	
Aleppo	OPV	December 2018	SIG	< 5 years	344,271	366,742	107%	
Hama	OPV	December 2018	SIG	< 5 years	19,824	26,091	132%	

mOPV2 Monovalent oral polio vaccine type 2
SIG Syria Immunization Group
OPV Oral polio vaccine
bOPV Bivalent oral polio vaccine

IPV Inactivated polio vaccine
MR Measles and rubella
OBR Outbreak Response

APPENDIX 2:

Health assessments conducted/assessment reports published in 2018

#	Leading Organization(s)	Participating Organization(s)	Assessment Title	Status	"Location(s) Governorate/ District/ Sub District"	Assessment Report Availability *
1	WHO	WHO, MoH, MoHE	Assessment of cancer patients' experience and perspectives on cancer care	Completed	Across Syria	Not yet issued
2	WHO	WHO, MoH, MoHE	National cancer registry	Ongoing	Across Syria	Not yet issued
3	WHO	WHO	Health profile monitoring in hard-to-reach and besieged areas	Ongoing	Across Syria	Available on request
4	WHO	WHO, MoH	National Health Information System in public PHC centres	Ongoing	Across Syria	Available on request
5	WHO	WHO, MoH, MoHE	National Health Information System in public hospitals	Ongoing	Across Syria	Available on request
6	WHO	WHO, MoH, MoHE	Mortality and morbidity - Civil Registry Vital Statistics	Ongoing	Across Syria	Available on request
7	WHO	WHO, MoH	Assessment of online disease surveillance system	Ongoing	Across Syria	Available on request
8	WHO	WHO, MoH, MoHE	Health Resources and Services Availability Monitoring System (HeRAMS)	Ongoing	Across Syria	Available on request
9	WHO	WHO, MoH	Early warning and response system (EWARS)	Ongoing	Across Syria	Available on request
10	WHO	WHO, MoH, MoHE	Service availability and readiness assessment (SARA)	Ongoing	Across Syria	Available on request
11	WHO	WHO, UNDP, UNICEF, WFP, UNFPA, CBS	Multi-purpose social demographic survey	Ongoing	Across Syria	Available on request
12	WHO	WHO	Public health assessment in north-east Syria	Completed	North-east Syria	Available on request
13	WHO	WHO	Monitoring of technical performance of national NGOs as implementing partners	Ongoing	Across Syria	Available on request
14	WHO	WHO, MoH	Analysis and review of Essential Medicines List 2018, including medical equipment	Completed	Across Syria	Available on request
15	WHO	WHO	Assessment of national drug information management system	Ongoing	Across Syria	Available on request
16	WHO	WHO, MoH	Assessment of polio surveillance in the country	Ongoing	Across Syria	Available on request
17	WHO	WHO	Independent assessment of post-polio campaign	Ongoing	Across Syria	Available on request
18	WHO	WHO, MoH	Assessment/supervisory visits on implementation of polio campaigns	Ongoing	Across Syria	Available on request

#	Leading Organization(s)	Participating Organization(s)	Assessment Title	Status	"Location(s) Governorate/ District/ Sub District"	Assessment Report Availability *
19	WHO	WHO	Assessment of national register for people with disabilities	Ongoing	Across Syria	Available on request
20	WHO	WHO, MoE	Assessment of school mental health programme	Ongoing	Across Syria	Available on request
21	WHO	WHO, MoH	Mental Health GAP evaluation	Ongoing	Across Syria	Available on request
22	WHO	WHO	Assessment of health situation in IDP shelters in Eastern Ghouta	Completed	Rural Damascus	Available on request
23	WHO	WHO, UNICEF, UNFPA	Rapid health needs assessment in Ar-Raqqa city	Completed	Ar-Raqqa	Available on request
24	WHO	WHO	Violence against health care	Ongoing	Across Syria	Available on request
25	WHO	WHO	Health sector assessment at community level for newly accessible areas in eastern Ghouta, Homs, north-east Syria, Dar'a	Completed	Across Syria	Available on request
26	WHO	WHO	Status of leishmaniasis	Completed	Al-Hasakeh	Available on request
27	WHO	WHO	Review of TB national control programme	Completed	Across Syria	Available on request
28	WHO	WHO, MoH	Screening for TB among vulnerable populations in hard-to-reach areas and IDP settlements	Completed	Across Syria	Available on request
29	WHO	WHO, MoH	Screening for HIV among vulnerable populations in hard-to-reach areas and IDP settlements	Ongoing	Across Syria	Available on request
30	WHO	WHO	Health care situation and trauma management capacity in Ar-Raqqa city and surrounding areas	Completed	Ar-Raqqa city and surrounding areas	Available on request
31	WHO	UNICEF	6 months cVDPV2 polio outbreak response assessment	Completed	Syrian governorates	Restricted distribution
32	WHO	UNICEF	12 months cVDPV2 polio outbreak response assessment	Completed	Syrian governorates	Restricted distribution
33	WHO	WHO	Gender-based violence	Completed	Across Syria	Available on request
34	WHO	WHO	Health national NGOs' strategy for engagement in the health sector: a guide for sustainable capacity building, retention and performance management	Completed	Across Syria	Available on request

#	Leading Organization(s)	Participating Organization(s)	Assessment Title	Status	"Location(s) Governorate/ District/ Sub District"	Assessment Report Availability *
35	WHO	WHO	Health national NGOs' engagement in the health sector: a guide for planning, monitoring and evaluation for continuous performance improvement	Completed	Across Syria	Available on request
36	WHO	WHO	Health national NGO' engagement in the health sector: a guide for quality assurance and continuous improvement	Completed	Across Syria	Available on request
37	WHO	WHO	Health situation in IDP camps in north-east Syria	Completed	North-east Syria	Available on request
38	WHO	WHO	Assessment of the effectiveness of WHO supported training programmes in Syria, including for national NGO partners (Phase 1)	Ongoing	Across Syria	Available on request
39	WHO	WHO	Assessment of the effectiveness of WHO supported training programmes in Syria, including for national NGO partners (Phase 2)	Ongoing	Across Syria	Available on request
40	WHO	WHO	Assessment of the effectiveness and efficiency of WHO-Syria training programmes (Phase 2)	Ongoing	Across Syria	Available on request

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Front and back cover:
Children in Al Hol camp, north-east Syria.

WHO