World Health Organization
Syrian Arab Republic

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FROM PREPAREDNESS TO VACCINATION

WHO SYRIA - SPECIAL COVID-19 REPORT

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Cover photograph: WHO supports children and parents overcome anxiety caused by COVID-19 through a tailored campaigned named ‘My Hero is You’

ABBREVIATIONS

AMR	Antimicrobial Resistance
CPHL	Central Public Health Laboratory
DOH	Directorate of Health
EBS	Event-Based Surveillance
EOC	Emergency Operation Centre
EWARS	Early Warning Alert and Response System
GISRS	Global Influenza Surveillance and Response System
GOS	Government of Syria
HAI	Health care-Associated Infections
HERAMS	Health Resources and Services Availability Monitoring System
IASC	Interagency Standing Committee
IAR	Intra-Action Review
IBS	Indicator-Based Surveillance
ICU	Intensive Care Unit
IHR	International Health Regulations (2005)
ILI	Influenza-Like Illness
ILO	International Labor Organization
IPC	Infection Prevention and Control
JEE	Joint External Evaluation
MOH	Ministry of Health
MOHE	Ministry of Higher Education
MOE	Ministry of Education
MOD	Ministry of Defence
MOI	Ministry of Information
MOLAE	Ministry of Local Administration and Environment
MOSAL	Ministry of Social Affairs and Labour
NGO	Non-Governmental Organization
PPE	Personal Protective Equipment
POE	Point of Entry
RCCE	Risk Communication and Community Engagement
RRT	Rapid Response Team
SDGS	Sustainable Development Goals
T4D	Technology for Development
TOT	Training of Trainers
UHC	Universal Health Coverage
UNCT	United Nations Country Team
UNDP	United Nations Development Programme
UNFPA	United Nations Population Fund
UNHCR	United Nations High Commissioner for Refugees
UNICEF	United Nations Children's Fund
UNMAS	United Nations Mine Action Service
UNOCHA	United Nations Office for the Coordination of Humanitarian Affairs
SARC	Syrian Arab Red Crescent
SARI	Severe Acute Respiratory Infection
SARS-COV-2	Severe Acute Respiratory Syndrome Coronavirus 2
SOP	Standard Operating Procedures
WASH	Water, Sanitation and Hygiene
WCO	WHO Country Office
WFP	World Food Programme
WHO	World Health Organization

FOREWORD

Dr Akjemal Magtymova, Head of Mission and WHO Representative in Syria

The impact of the COVID-19 pandemic on wealthy countries with stable health care systems in place was massive and front-page news globally throughout most of 2020. The impact of the pandemic on war-torn Syria, where fewer than 50% of hospitals were fully functioning, half the health care workforce had left and challenges to availability of and access to health services continue, has been utterly devastating. The country is currently experiencing its fourth wave of the coronavirus since the first case was detected back in March 2020. With the number of cases spiking at their highest rate since and less than 3% of the population vaccinated, the outlook remains bleak.

Delivering health care in a country in a protracted state of humanitarian emergency requires more than capacity building, resources and supplies. It demands diplomacy and strategic thinking to navigate complex dynamics. Fragmented governance arrangements in place across the country involve multiple internal and external actors and call for adaptability and a willingness to negotiate and renegotiate, even in spaces where the demand and need for health services and supplies are urgent and evident. WHO works towards "the attainment by all people of the highest possible level of health". Striving to achieve this goal demands careful balance and tactful discretion, guided by the UN principles of humanity, neutrality, independence and impartiality. Our processes and achievements are complex and plentiful and rely on ongoing support and buy in. As the global authority on health and part of an organization founded to protect fundamental human rights, we are duty bound to serve the most vulnerable and promote access to health care for all. We are grateful that our donors continue to support our mandate and our efforts.

Acknowledging that the humanitarian crisis is likely to continue into the foreseeable future, WHO not only seeks to address the threat of the current and future pandemics but also mobilizes substantial resources to support essential health systems and services. The organization strives tirelessly to build on existing efforts and harness opportunities to implement a response geared toward achieving sustainable development gains and increasing the resilience of Syria's health system within its fragile, conflict-affected and violent context.

The Syrian context is like no other. To ensure the provision of much needed structural rehabilitation, capacity building and equitable health service delivery, WHO engages and coordinates with different UN agencies, line ministries, health service facilities, multisectoral partners, INGOs, local NGOs and local authorities. This is, to say the least, very challenging. Each relevant actor on the ground has its own mandate, modus operandi and, given the high-risk environment, restrictions; WHO included. Ensuring access, optimizing the allocation of scarce resources and minimizing duplication demands mass collaboration at the local, national and international levels, and we are grateful to our donors, associates and partners that have supported and facilitated our work, particularly across the different phases of the ongoing COVID-19 pandemic.

As the virus continues to spread and mutate, threatening the health of thousands of lives across Syria, the humanitarian and economic crises in the country continue to worsen, denying more and more people access to medicines, medical supplies and basic and emergency health services. WHO has shouldered the burden, providing critical lifesaving medicines for patients with diabetes, kidney failure and cancer, and stands ready to strengthen partnerships and re-double efforts to stop COVID-19 transmission and protect the health and well-being of the Syrian people.

Throughout 2020 and 2021, WHO Syria continued to spearhead collective COVID-19 response efforts and to work on the front lines to prevent, detect and respond to epidemic-prone diseases, to maintain basic health services and to provide routine vaccination for children. As a result of these dedicated efforts, not a single outbreak of vaccine preventable disease was reported across Syria last year. Similarly, we aim to facilitate widespread adoption and administration of the COVID-19 vaccine in the hope that it will enable us to reduce mortality and hospitalization and to prevent transmission of the virus that has blighted an already depleted health care system.

While the cost of vaccines is covered by the COVAX initiative, funding gaps to cover COVID-19 response pillars as well as the cost of vaccine administration remain a key challenge. As the battle against the pandemic continues, the cost of the COVID-19 response in Syria is increasing due to the cost of vaccination, case management, laboratory supplies and testing. As of 30 September 2021, WHO received less than 22% of funding requirements for the COVID-19 response and COVAX vaccination operations. Funding of other response pillars, such as surveillance, laboratories, case management and ports of entry, remain severely underfunded though essential for timely epidemiological intelligence and direct reduction of excess morbidity and mortality. Exploring different approaches with donors is now a matter of urgency as increased funding will be critical to enabling demand generation and successful vaccination of a wide cross-section of the Syrian population, as well as enhancing laboratory and case management capacity and reinvigorating already exhausted national capacities through the development of more efficient, systematic and sustainable operational mechanisms.

Dr Akjemal Magtymova
September 2021, Damascus, Syria

AN EPIDEMIOLOGICAL OVERVIEW

As of 30 September 2021, 135 774 cases of COVID-19 had been confirmed across the Whole of Syria, resulting in 4 432 associated deaths. The table overleaf presents data for various indicators being monitored in each of Syria's 14 governorates. The figures are interconnected and no one figure can be assessed in isolation. A high number of cases may reflect a high transmission rate but may also reflect a high rate of testing, as is the case for Aleppo where, by 18 September 2021, an average of 3 616 tests had been conducted per 100 000 people, far higher than the national average of 1 929. Aleppo, Al-Hasakeh and Idleb have the highest testing rates in the country. They also have the highest number of machines and labs nationwide, bar Damascus. As-Sweida has the highest positivity rate but a lower case to population ratio (attack rate) than six other governorates, suggesting that testing is only being conducted on people with symptoms or already hospitalized.

The development and adaptation of a robust and equitable response strategy demands an understanding of the distribution and determinants of COVID-19 across Syria. Data has, since the first quarter of 2020, been collected and shared by the Ministry of Health (MoH) and collated and reviewed by WHO CO. According to this data, Syria has thus far experienced four waves of outbreak.

The first surge of cases came in August 2020, when the number reported per day peaked at 105. After an initial decline, numbers began to steadily rise until a second wave peaked, in December 2020, at 169 cases per day. A significant decline in rates in January and February 2021 was followed by a third wave that lasted between mid-March and late April 2021 and peaked at 172 cases per day, and a fourth wave that began in September 2021. Initially however, different governorates experienced their first peaks at different times. Cases per day in Aleppo first peaked in September 2020, in As-Sweida and Homs in December 2020 and in Hama in January 2021.

Sequencing of twenty samples in April 2021 revealed that 60% of cases of COVID-19 at the time were caused by the variant known as Alpha (B.1.1.7), which was first detected in the United Kingdom. It is up to 50% more transmittable than the initial SARS-CoV-2 that emerged in Wuhan in December 2019. The variant known as Beta (B.1.351), first detected in South Africa, was responsible for 16% of confirmed cases, while the one known as Eta (B.1.525), which was first detected in Nigeria, was responsible for 8%. The latest surge of COVID-19 cases in September 2021 may be linked to the Delta variant, first detected in India, which was identified in NWS in the last week of August 2021 as well as in the neighbouring countries of Lebanon, Iraq, Iran, and Jordan.

While quantitative data is a valuable tool in the development of strategic responses, it does not tell a complete picture on its own. Knowledge and an understanding of the local contexts and factors that influence behaviour in different settings is equally essential. WHO benefits from the expertise and insights of professionals experienced within the Syria context and NGO partners with longstanding ties to communities across the country. The knowledge they share helps WHO develop a more coherent and comprehensive overview of the impact of COVID-19 in Syria and of the variables to be considered within an equitable national response.

By the time the first case was reported in Syria, on 22 March 2020, testing of suspected cases and contacts had already begun, on 17 February, with an initial capacity of 30 tests per day. A testing strategy, established in March 2020 in line with WHO guidelines, initially targeted:

a. patients with acute respiratory illness (that is, fever and at least one sign or symptom of respiratory disease, for example, cough or shortness of breath) AND with no other etiology that fully explains the clinical presentation AND a history of travel to or residence in a country, area or territory that has reported local transmission of COVID-19 disease during the 14 days prior to symptom onset.

b. patients with any acute respiratory illness AND who have been a contact of a confirmed or probable case of COVID-19 disease during the 14 days prior to the onset of symptoms.

c. patients with severe acute respiratory infection (that is, fever and at least one sign or symptom of respiratory disease, for example, cough or shortness breath) AND who require hospitalization AND who have no other etiology that fully explains the clinical presentation.

Due to this initial strategy, the number of suspected cases and tests required remained low while, in tandem, authorities prioritized returnees for testing and contact tracing. By the end of June 2020, the COVID-19 positivity ratio was 3,87% (358 positive cases among 9 246 samples tested).

The testing strategy was reviewed in September 2020 and endorsed in November 2020. It targeted:

a. patients suspected of contracting COVID-19 who meet the standard case definition and were reported by PHCs and hospital outpatient clinics.

b. all likely cases as per the established COVID-19 probable case definition including contacts (in home or facility quarantine) who develop symptoms.

c. travellers (in home or facility quarantine) who develop symptoms.

d. health care and laboratory workers who have been exposed and develop symptoms.

e. deceased adults whose death is otherwise unexplained and was preceded by respiratory distress.

Over time, with limited resources due to interruptions in the availability of lab supplies, MoH prioritized testing of patients who presented with symptoms at hospital to avoid suspension of COVID-19 lab confirmation. This may explain the high testing positivity rates across all governorates. Moreover, having observed the potential consequences of a positive result, fewer people were willing to be tested. Those consequences included long hospital isolation, increasingly with poor quality of care, and potential loss of work and income, leading to economic costs for individuals already struggling with the repercussions of a decade-long conflict.

REPORTED NUMBERS OF CASES, DEATHS, TESTING RATE, POSITIVITY RATE, ATTACK RATE AND CASE FATALITY RATE PER GOVERNORATE ACROSS THE WHOLE OF SYRIA

(22 MARCH 2020 – 18 SEPTEMBER 2021)

GOVERNORATE	#TEST	TEST/100,000	POSITIVE	POSITIVITY %	ATTACK RATE	#DEATHS	CFR
ALEPPO	**150,803**	**3,616**	**31,510**	**20.89%**	**755.5**	**872**	2.77%
AL-HASAKEH	**42,164**	**3,634**	**16,228**	**38.49%**	**1,398.6**	543	3.35%
AR-RAQQA	14,912	1,942	5,479	36.74%	713.5	98	1.79%
AS-SWEIDA	1,926	507	1,407	**73.05%**	370.1	91	6.47%
DAMASCUS	**26,408**	1,443	6,645	25.16%	363.2	**695**	**10.46%**
DAR'A	3,668	353	1,489	40.59%	143.5	68	4.57%
DEIR-EZ-ZOR	3,946	506	1,517	38.44%	194.7	114	7.51%
HAMA	3,755	279	1,450	38.62%	107.8	57	3.93%
HOMS	5,299	349	3,391	**63.99%**	223.1	302	8.91%
IDLEB	**115,927**	**4,101**	35,834	30.91%	**1,267.6**	**569**	**1.59%**
LATTAKIA	23,747	1,864	4,801	20.22%	376.8	239	4.98%
QUNEITRA	2,008	1,773	560	27.89%	494.5	30	5.36%
RURAL DAMASCUS	10,988	362	2,990	27.21%	98.6	39	1.30%
TARTOUS	3,133	332	2,048	**65.37%**	217.1	212	**10.35%**
TOTAL	**408,684**	**1,929**	**115,349**	**28.2%**	**545.0**	**3,929**	**3.41%**

DAILY DISTRIBUTION OF CONFIRMED CASES OF COVID-19 AND ASSOCIATED DEATHS IN SYRIA
(22 MARCH 2020 – 18 SEPTEMBER 2021)

A WHOLE OF SYRIA APPROACH

Syria is a country fractured by war. The fracture lines are both visible and invisible. Some are internal and are daily reminders to the country's millions of displaced people that their suffering is not over. Some are present externally, resulting in panicked visits to understaffed medical centres. Some run across buildings, among them hospitals, of which 43% nationwide were significantly damaged by the end of 2020. Others are political in nature, challenging communication, coordination and delivery of essential medical supplies.

Despite these rifts, Syria is one country and its people, across all ages and regions, are suffering after over a decade of war. WHO has, since the start and throughout the pandemic, endeavoured to ensure delivery of health services equitably throughout the country through a Whole of Syria (WoS) approach. The approach cannot be uniform across regions, due to marked differences in vulnerabilities, resources, and accessibility, but it aims always to be equitable and inclusive.

The approach has also had to be adaptable, reacting to changes on the ground in various parts of the country. Only two months before the first case of COVID-19 was confirmed in Syria, UN Security Council Resolution 2139, which had been in effect since 2014 and enabled WHO to support populations in NES using a cross-border approach from Iraq, was not renewed. This meant

that WHO had to adapt its strategy and operations to support the millions of people in NES from its base in Damascus. The Organization benefited from and maintained its hub in Quamishli, building valuable communication and coordination with health partners on the ground. WHO was able to guarantee and support the delivery of COVAX vaccines to NES when they became available through diplomacy and a health first approach.

Many organizations, WHO included, were concerned when a UNSC Resolution that enables cross border support to vulnerable populations in north-west Syria was up for renewal in July 2021. No health authority exists in NWS and WHO has supported a cluster of local and international NGOs through its Gaziantep hub since the Resolution was first passed in 2014. In 2021, the cluster included 94 working groups and task forces, all of which were relieved when the Resolution was renewed.

The WHO Damascus office leads the health sector in Syria, which comprises over 70 members including national authorities, national and international NGOs, and observers, and led the COVID-19 response throughout 2020, while the WHO Whole of Syria Health Cluster in Amman Jordan leads health cluster coordination at the Whole of Syria (WoS) level, consolidating data on disease surveillance and response to ensure equitable nationwide coverage.

Receiving and reviewing requests by the Ministry of Health; identifying and supporting suitable NGO partners in areas outside its authority; ensuring access to areas controlled by other political and armed forces; and avoiding duplication of activities and waste of resources through coordination with a multitude of parties is complex. It is however essential, to ensure the delivery of much needed health capacity and services throughout the whole of Syria. This has been made possible through the dedication and skill of WHO staff and partners working from offices throughout the country and affiliated hubs in neighbouring countries.

STRATEGIES TO RESPOND TO COVID-19

The Organization produced guidance for planning interventions against several pillars at the global level, which was then adapted and translated at the regional and national levels to tailor it to specific contexts, including fragile, vulnerable, and conflict-affected settings.

Such a collaborative approach is critical in times of crises as it enables the exchange of lessons learned on a global scale. Errors made in one country need not be made in others. This is particularly valuable when all the world's countries are experiencing the same challenges but at different times and speeds.

The global framework was produced by interdisciplinary teams based on decades of experience in emergency health settings. The 11 priority pillars for which WHO Syria offers guidance and has assisted in the development of related national and subnational action plans are listed below and explored further in the following pages. WHO leads in nine of the pillars, co-leads in RCCE (pillar 2) and cooperates closely to ensure logistics (pillar 8) are well managed.

01. COORDINATION, PLANNING, FINANCING AND MONITORING

A pandemic response in a conflict environment demands the engagement of relevant ministries, authorities and organisations to ensure all people are protected within a coordinated COVID-19 response.

02. RISK COMMUNICATION, COMMUNITY ENGAGEMENT AND INFODEMIC MANAGEMENT

Communicating to a fatigued and mistrusting public in a clear, considerate and transparent manner is critical to community engagement and cooperation.

03. SURVEILLANCE, EPIDEMIOLOGIC INVESTIGATION AND CONTACT TRACING

Robust COVID-19 surveillance data is essential in calibrating appropriate, proportionate and equitable public health measures.

04. POINTS OF ENTRY, INTERNATIONAL TRAVEL AND TRANSPORT

Supporting surveillance and risk communication activities at points of entry helps reduce the risk of transmission by travellers.

05. LABORATORIES AND DIAGNOSTICS

Preparing laboratory capacity and surge plans is essential to enabling large-scale nationwide testing for COVID-19.

06. INFECTION PREVENTION AND CONTROL, AND PROTECTION OF HEALTH WORKFORCE

Guiding health facilities in particular and communities in general in practices that help prevent infection is key to curbing transmission among health workers and the public.

07. CASE MANAGEMENT, CLINICAL OPERATIONS AND THERAPEUTICS

Preparations for an influx of COVID-19 patients must be complemented by triage systems to allow for prioritization of cases, while special attention must be given to the most vulnerable populations.

08. OPERATIONAL SUPPORT AND LOGISTICS, AND SUPPLY CHAIN

Equitable delivery of much needed supplies across a geographically and politically divided landscape with damaged facilities, multiple camps and staff shortages demands special logistical arrangements and operations.

09. STRENGTHENING ESSENTIAL HEALTH SERVICES AND SYSTEM

Difficult decisions must be made to balance care for COVID-19 patients against the need to maintain other health services without overwhelming the health system to the point of collapse.

10. COVID-19 VACCINATION

Supply, allocation, promotion and delivery of vaccines throughout the disparate and disconnected regions of Syria is a WHO priority.

11. RESEARCH, INNOVATION, EVIDENCE

Operational research on vaccine delivery, acceptance and performance, and the use of digital tools, helps enhance vaccine roll out.

WHO supports medical teams in the governorate of Rural Damascus to raise awareness about COVID-19, public health and social measures and to generate vaccine demand

PILLAR ONE

COORDINATION, PLANNING, FINANCING AND MONITORING

From the onset of the pandemic in early 2020, WHO has engaged, met, advised and collaborated closely with the Ministry of Health, at which an Emergency Committee was established at the outset, to ensure coordinated management of COVID-19 preparedness and response at the national and subnational levels. Support has been provided in a range of technical areas and pillars through a COVID-19 task force led by the World Health Organization, which has been conducting technical meetings with MoH officials on a weekly basis.

WHO Syria combined the knowledge and skill of its national and international staff with the expertise of specialists at the WHO Eastern Mediterranean Regional Office and WHO HQ to ensure development and delivery of an effective technical response. The Organization also assumed an incident management function within the UN Syria Crisis Coordination Committee (CCC), a mechanism comprised of nine UN entities accredited in Syria to develop an effective, flexible and equitable response plan tailored to the needs of Syria and its people.

The CCC was established in March 2020 to enhance emergency preparedness and response measures and provide sustained programme delivery throughout the pandemic. Based on best practices for emergency management, as operationalized through the Incident Management System (IMS), the CCC is chaired by the Humanitarian Coordinator and includes WHO, OCHA, WFP, UNHCR, UNICEF, UNFPA, UNDP, UNDSS and RCO among its members. The CCC initially convened every day throughout 2020 and in early 2021, and now meets on a weekly basis. As incident manager and lead technical agency, WHO has hosted and attended planning, coordination and technical meetings across the country, among them an intra-action review of the COVID-19 response, held in December 2020, which concluded that all collective endeavours must be elevated to build on existing efforts and harness opportunities to implement a response geared towards achieving sustainable gains.

As lead of the national Health Sector, which comprises over 70 members, including national authorities and national and international NGOs, WHO Syria has been hosting bi-weekly meetings to steer, coordinate and monitor the COVID-19 response throughout 2020 and into 2021 and continues to hold national and sub-national level meetings with increased frequency in response to the pandemic and to support the response and delivery of health care to those in need.

WHO has throughout the pandemic been leading strategic planning, information management and health advocacy efforts and technical meetings on behalf of the entire health sector, mobilizing all resources and technical staff to engage in the COVID-19 response; overseeing and providing recommendations for transmission scenarios; developing contingency plans based on three hospital occupancy scenarios; advising non-health authorities; and coordinating the development of joint preparedness and response plans for displacements and disease outbreaks. Rapid information sharing with government officials and partners has been recognized as a priority throughout.

WHO's coordination role has also been evident in health issues that intersect with COVID-19, such as mental health, on which the pandemic had a significant impact. WHO chaired a technical working group on mental health and psychosocial support services that has been responsible for adapting, translating and disseminating relevant global guidelines and conducting capacity building activities.

The Organization has engaged and supported a range of health partners and local health authorities on the ground in north-west and north-east Syria. At the same time, the WHO office in Amman (Jordan) leads health cluster coordination at the Whole of Syria (WoS) level, offering consolidated data on disease surveillance and response. The focus of the WoS humanitarian health response and coordination has since early 2020 been dominated by COVID-19 preparedness and response. The cluster supported the creation of a COVID-19 resources Dropbox for all Syria hubs and clusters and provided continuous technical and coordination support to hubs developing response plans. The cluster also provided backstopping support to the north-west cross-border COVID-19 response and ensured information was shared regularly between stakeholders in the response in NWS. WHO also held bi-weekly operational calls that engaged INGOs active within the Health Forum for north-east Syria to address the COVID-19 response at the many camps in the region.

As WoS Health Cluster lead agency, WHO Syria has led efforts to integrate and deliver the COVID-19 response through the Global Humanitarian Response Plan, an initiative launched by the UN in March 2020 to address the immediate humanitarian consequences of the pandemic in areas identified for targeted technical and operational support. Syria was among the 54 countries first identified as needing special assistance.

To strengthen and enhance the response across all sectors in Syria, WHO has also been supporting coordination between health and non-health ministries; providing advisory support to non-health authorities in adapting internal coordination structures and modalities during the COVID-19 response; and actively engaging with the intersectoral coordination group in Damascus that is led by OCHA. Four meetings (two in each of 2020 and 2021) organized in collaboration with MoH brought together heads of relevant directorates from the Ministry of Health, representatives of other key ministries, such as those of education and higher education, and other national partners and UN agencies involved in the COVID-19 response, in a bid to strengthen coordination between national and international partners in light of the need to scale up vaccination activities.

With so many organizations, committees and working groups engaged in the implementation of the COVID-19 response plan, accountability is essential and has been managed through a monthly response monitoring framework that incorporates measurements and mechanisms, such as 4Ws and KPIs.

WHO has also developed several information products to facilitate dissemination of data and activities related to the COVID-19 response among partners and through various forums*. They include frequently released morbidity and mortality summaries; humanitarian updates; monthly monitoring reports of the response by the health sector; bi-weekly situation reports; and monthly epidemiological updates on vaccination efforts and uptake.

In addition to coordinating efforts to implement and communicate the COVID-19 response across multiple agencies, ministries and NGOs, WHO Syria also took on the duty of care for UN staff, humanitarian workers and their dependents in Syria, and has provided expertise in the development of documents outlining recommendations related to the UN clinic, referral mechanisms, medical evacuation and COVID-19 vaccination.

WHO supplies and provides training on the use of PPEs

* These include the UN Country Team meetings; Humanitarian Coordination Team meetings; Security Management Team meetings; COVID-19 Crisis Coordination Committee (CCC) meetings; Syria Programme Management Team; Syria Operations Management Team; Syria Risk Management Working Group; Syria United Nations Communication Group; Syria Gender Working Group; Syria Youth Task Force; Syria Prevention of Sexual Exploitation and Abuse; Inter-Sector Coordination meetings; Health Sector Coordination meetings; Sub-National Health Sector Coordination meetings; Syria SDGs Task Force; Syria Accountability to Affected Populations Working Group

RISK COMMUNICATION, COMMUNITY ENGAGEMENT AND INFODEMIC MANAGEMENT

It is critical to communicate to the public what is known about COVID-19, what is unknown, what is being done and actions to be taken, on a regular basis. Swift acknowledgement of the threat of the pandemic, the development of an RCCE plan integrated within Syria's national preparedness and response strategy, and the development of appropriate, targeted and multiple channels of communication (such as the Ministry of Health website and trusted social media outlets) are key examples of the results of continued WHO advocacy with the Syrian health and media leadership.

While UNICEF has been leading the RCCE pillar within the COVID-19 response in Syria, WHO has spearheaded the technical pillar of the RCCE response, supporting communication, engagement and outreach efforts through technical expertise and mobilization of its network of health partners. Media and health communication capacity building, evidence generation, message development, social media campaigns, rumour management and collaboration with the Ministry of Information have all been essential components to ensure effective, consistent and impactful communication and engagement with people in Syria. A media campaign that ran between March and October 2020 reached 12.4 million people nationwide. In parallel, community engagement initiatives supported by WHO mobilized trusted community group leaders and local networks and ensured ongoing engagement with public health and community networks, media, NGOs, schools, local governments and other sectors such as health care, education, business, travel and food/agriculture to actively engage 800 000 people in the COVID-19 response. In the north-west of the country, 41 health and non-health partner organizations were mobilized to support RCCE activities, reaching 900 communities and IDP settlements in 32 sub districts of Aleppo and Idlib.

WHO medical professionals have developed engaging awareness raising packages that have been delivered to students, teachers, health workers, journalists, community leaders and health sector influencers to promote the use of PPE and practice of public health and social measures and, more recently, uptake of vaccines.

In addition to promoting healthy hygiene practices, awareness campaigns and informative workplace aids produced under the RCCE pillar of the COVID-19 response have mainstreamed mental health messages, GBV prevention, stress-coping mechanisms and basic health services such as first-line support. They have also been designed to combat stigma related not only to COVID-19 but also to GBV and mental health that prevent health-seeking behaviour. Such interventions were staged in schools, homes, community health settings, IDP camps and camp-like settings, and with neighbourhood and community groups.

Moreover, multiple programmatic activities, through TB mobile clinics for example, have integrated COVID-19 messaging into awareness-raising campaigns, enhancing reach through efficient use of limited resources. Given the high rate of smoking in Syria and its adverse effect on the severity of COVID-19 symptoms and its transmission, pandemic related messages were also featured heavily in a campaign launched on World No Tobacco Day.

Effective communication consists of responsive, empathic, transparent, timely and accurate messaging in local languages delivered through trusted channels of communication including community-based networks and key influencers. RCCE efforts have supported the mobilization and engagement of grassroots influencers and renowned doctors and organisations through capacity building online and in-person training workshops aimed at enhancing authority and trust.

Given the diversity and disparity of target groups in Syria, messaging needed to be developed in different languages and styles and delivered across different mediums as not all are accessible to everyone. Children were targeted through the participatory production and use of a colouring book and an Arabic puppet theatre performance based on the storybook 'My Hero is You' produced by the Inter-Agency Standing Committee, highlighting the value blending international expertise with local knowledge and insights.

As with all pillars and interventions, WHO and partners faced multiple challenges across the different phases of the preparation and implementation of RCCE initiatives. Though WHO is perceived as the authority on health worldwide, it has faced multiple attacks during the pandemic. Its credibility was particularly scrutinized in NES following UN agencies' loss of cross-border access to the region in January 2020. Although WHO maintained its support to health services through the Damascus office and Quamishli suboffice, political divisions across regions led to undermining scepticism around the role of the agency in NES, which ultimately had a negative impact on the implementation of RCCE activities in north-east Syria. These challenges did not however curtail the work of the RCCE team, which developed and shared a comprehensive communications toolkit of key messages, traditional and digital mass media resources, and printed materials that were reshared and utilized by partners and other health providers nationwide. WHO also supported a joint community rapid assessment of people's knowledge of COVID-19 preventive measures in north-east Syria, which utilized online COVID-19 quizzes, ensured online interaction with audiences and enabled tracking of false information through social media.

Ensuring compliance with public health and social measures, such as mask wearing and social distancing, and vaccination have also proved challenging. WHO continues to engage with the Ministries of Education and Information, as well as the media, to promote understanding of the value of such behaviour to public health nationwide.

More can and must be done however to communicate with and reassure the public. Low uptake of the COVID-19 vaccine in Syria highlights several gaps that must be urgently addressed in order to increase vaccine acceptance and avoid additional burden on the overloaded and weakened health care systems. Specific challenges hindering access to information and vaccine acceptance across the different segments of the Syrian population need to be identified, understood and addressed. Sustainable and effective COVID-19 vaccination results can only be addressed through a solid understanding of and proper response to community beliefs, concerns and expectations regarding the perception of risk and trust in vaccine effectiveness. RCCE planning and implementation must be fed and driven by social and behavioural insights and need to be translated into strategies adapted to the national, subnational and local levels.

PILLAR THREE

SURVEILLANCE, EPIDEMIOLOGIC INVESTIGATION AND CONTACT TRACING

WHO delivers capacity building workshops for lab technicians at the Central Public Health Laboratory (CPHL) in Damascus

A rigorous and nationwide surveillance system has enabled identification and documentation of the mode of transmission in 100% of reported cases of COVID-19 in GoS controlled regions of Syria, which stood 30 519 on 21 September 2021. Of all cases, 92.7% (28 307) were through community transmission, 6.6% (2 043) through cluster transmission (contact with confirmed cases) and 0.5% (169) were imported cases.

The first confirmed case of COVID-19 in Syria, reported on 22 March 2020, was in a woman who had travelled into the country while infected. Cases among travellers were in high concentration in late May 2020 but slowed down over the year, with the last imported case recorded in February 2021.

As robust COVID-19 surveillance data is essential to calibrate appropriate and proportionate public health measures, the focus of the COVID-19 task force in the weeks leading up to the first confirmed case was the expansion of the existing national disease surveillance system, a single national body responsible for tracking and tracing communicable diseases with cells in each governorate that coordinate daily. The system is facilitated by the Early Warning Alert and Response System (EWARS) as well as rapid response teams (RRTs) that include lab technicians and health workers who visit health facilities to investigate suspected cases that have been reported to ensure no case is missed.

WHO had long been supporting Syria's surveillance system and enhanced its support in response to the pandemic, integrating COVID-19 specific data and formats into the system and facilitating the launch of 150 new EWARS sites in nine governorates (mostly in remote areas), taking the number of EWARS sentinel sites to 1 359. Areas in north-east Syria are however still not comprehensively covered by the surveillance system and continuous support is presently required for all activities (surveillance, response, supervision, and training) in NES, where challenges are compounded by a high turnover of trained staff, difficulties in logistics and communication and insufficient funds to secure some medicines and vaccines. Expansion in the region is a priority.

Overall, however, the system is effective and, through sustained WHO support for EWARS, reporting is now at 89%. Physical expansion of the surveillance system has been complemented by financial support for investigative visits and capacity building of surveillance and RRT officers across Syria. By the end of 2020, 507 RRT personnel had received training on case definition, reporting, case investigation, specimen collection and referral pathways and 537 health workers had been trained to report suspected cases of COVID-19 through EWARS reporting sites.

Promotion of active case finding extended to schools, through a collaboration between WHO and the Ministries of Health and Education and the Directorate of School Health, and through weekly visits to 125 hospitals nationwide, facilitated through the standard operating procedures produced by WHO.

To enhance communication and collaboration, WHO also facilitated the development of an electronic interface for an online system into which data is entered centrally by the COVID-19 response team at ministry level in a bid to mitigate delays in reporting resulting from the use of handwritten paper-based formats that have been delivered by hand, fax or electronic imaging. The online system was piloted at two hospitals in Damascus. COVID-19 data is also shared in both Arabic and English on two online dashboards supported by WHO, presenting information on quarantine, isolation hospitals, and laboratories.

WHO also supported the establishment of a COVID-19 surveillance and epidemiological reporting system in north-west Syria and Gaziantep to ensure testing and contact tracing. Daily collection and reporting of testing and case data was done electronically using WHO's real-time platforms and ongoing training in the use of these packages was provided throughout 2020. Community health workers and social workers in NWS were among those trained in tracing mechanisms, taking on new responsibilities and skills during the pandemic. The Organization's financial and technical support of the system helped ensure diligence in testing and contact tracing in the vulnerable region. The innovative evolution of the system and associated services will benefit health service delivery in the region beyond the COVID-19 pandemic.

Data collected through the various WHO-supported surveillance mechanisms nationwide are assessed by WHO-trained technical analysts three times a week in a bid to detect variants of the virus. By June 2021, the South African and UK variants had been detected in Syria, and by August the Delta variant was detected in NWS.

SYRIA BUILDS INFLUENZA SENTINEL SURVEILLANCE SYSTEM DESPITE MULTIPLE CRISES

Despite many challenges created by the ongoing conflict and the COVID-19 pandemic, Syria successfully built a sentinel influenza surveillance system in 2021, utilizing resources from Pandemic Influenza Preparedness partnership contribution (PIP PC) and the COVID-19 response, and has adopted the integrated surveillance approach to enhance detection and monitoring of influenza viruses and SARS-CoV-2.

The protracted conflict and humanitarian crisis in Syria, combined with the challenges brought on by the COVID-19 pandemic and its economic impact, have severely affected the country's health system and increased the risk of potential infectious disease outbreaks. Concerns about the spread of infectious diseases and respiratory viruses, following the emergence of influenza viruses with the potential to reach pandemic proportions, spotlighted the need to strengthen the influenza surveillance system.

An influenza surveillance system was first established in Syria in 2009 in response to the H1N1 pandemic. Reporting within the system was ad-hoc and not methodical. During 2020 and 2021, and as part of the Partnership Contribution Implementation Plan of 2020-2021, Syria systematically built a sentinel surveillance system by strengthening laboratory and surveillance capacity, enabling the country to actively participate in the Global Influenza Surveillance and Response System (GISRS). Syria concurrently developed and endorsed the national pandemic influenza preparedness plan to enhance preparedness for an influenza pandemic.

The development of the surveillance system took place over three phases. The first involved diagnostic capacity building to ensure accurate and reliable detection of influenza viruses through real-time PCR testing at two new peripheral laboratories (one located in each of the governorates of Aleppo and Rural Damascus), taking the total number of labs able to test for influenza to three. The third, the National Influenza Centre (NIC), completed the WHO External Quality Assessment Project (EQAP) test, achieving a perfect score of 100%. WHO support in ensuring availability of diagnostic tests and supplies through PIP support has enabled influenza laboratories to dramatically increase the number of specimens tested, up from 141 and 514 in 2019 and 2020 respectively to 1 150, to date, in 2021. Thirty of the samples tested this year, taken from patients with acute respiratory infections in line with WHO Severe Acute Respiratory Infection (SARI) case definitions, came back positive for influenza H3.

The second development phase focused on the establishment of sentinel SARI surveillance at four public hospitals in the heavily populated governorates of Damascus (Iben Al-Nafis and Damascus Hospital), Rural Damascus (Qatana Hospital) and Aleppo (Zahi Azrak Hospital). Syria overcame many challenges to effectively utilize resources from PIP PC and the COVID-19 response to successfully establish a sentinel influenza surveillance system and adopt an integrated surveillance approach, enabling enhanced detection and monitoring of influenza viruses and SARS-CoV2. The four hospitals at which the sentinel system was established were chosen based on several criteria, including geographic location, existing testing for influenza, availability of specialists and lab and surveillance capacity.

The third phase involved the endorsement of the National Pandemic Influenza Preparedness Plan, developed by the newly established Syrian National Influenza Committee under the leadership of the Ministry of Health, with the support of WHO and the engagement of other government sectors. The plan is based on current WHO guidance on pandemic influenza preparedness, encompasses all aspects of pandemic preparedness, adopts the whole-of-government and whole-of-society approaches towards preparedness and response, adopts the One Health approach, and includes a list of recommendations for improvement.

PILLAR FOUR

POINTS OF ENTRY, INTERNATIONAL TRAVEL AND TRANSPORT

There are 16 designated points of entry (PoE) in Syria: four airports, in Damascus, Aleppo, Qamishli and Lattakia; four seaports, one in Lattakia and three in Tartous; and eight ground crossings, with Lebanon, Turkey, Jordan and Iraq. According to a joint external evaluation (JEE) self-assessment conducted in September 2019, the national PoE core capacity score was 2 out of 5, indicating "limited capacity" under International Health Regulations (2005).

With the first case of COVID-19 reported in the region in January 2020, WHO Syria turned its attention to supporting the MoH in monitoring travellers to reduce the spread of imported cases through early detection and isolation of suspected cases, as well as infection prevention, at each of Syria's 16 designated points PoEs. The monitoring of incoming travellers at PoEs was initiated on 30 January 2020. A national entry screening protocol was put in place as part of the national preparedness and response plan to COVID-19. These entry measures were determined along with the national preparedness and response plan during the first workshop on COVID-19 held with WHO and MoH in collaboration with MoHE and MoE on 2-3 February 2020. All PoEs were subsequently closed on 23 March 2020, the day after the first confirmed case of COVID-19 was detected in Syria following cooperation with the network of national focal points for International Health Regulations (2005).

During their closure, WHO supported MoH efforts to enhance preparedness at PoEs. During the first quarter of 2020, the Organization provided IEC materials, developed passenger locator cards and distributed medical supplies, including PPEs, infrared thermometers and a thermal scanner. Great efforts were also made to ensure safe quarantine for those exposed to confirmed cases or with risk factors. In early February 2020, with plans afoot to repatriate Syrian students studying in Wuhan, China, where the novel coronavirus first broke out, protective measures had to be taken to prevent the returning students from importing or transmitting the virus to others in Syria upon their arrival. WHO supported Syrian authorities on quarantine measures to protect and manage the 29 students by providing medical equipment and PPEs. Repatriation flights continued to fly into Syria to the end of April 2020 from Kuwait, Moscow, Sudan and other countries. Quarantine sites were set up with the support of UN agencies at the Dweir IDP centre, airport hotels and university dormitories to ensure proper quarantine procedures were carried out. As of July 2021, seven quarantine centres had been established with 520 beds across seven governorates (Hama, Tartous, Lattakia, Quneitra, Ar-Raqqa, Deir-ez-Zor, and Idleb).

WHO and MoH conducted a first assessment of PoEs between July 2020 and September 2021 using the WHO tool for the assessment of core capacities at PoEs. Based on the findings and recommendations, WHO worked with MoH to build minimum core capacity at PoEs in line with IHR (2005), ensuring access to medical services for travellers, transport of ill travellers and space for interviews. A training programme for PoE officers and clinical staff was launched in March 2020 to ensure the proper adherence to entry measures and handling of ill travellers. More than 350 staff members received training throughout 2020 and 2021. MOH and WHO ensured that at least three clinical staff members and one ambulance were stationed at each PoE and initiated the establishment of medical points at PoEs. By the end of 2021, once the inception of medical points at the three ground crossings of Judeidet Yabous in Rural Damascus, Jousiya in Homs and Abu Kamal in Deir-ez-Zor are complete, all PoEs in Syria will be equipped with medical points.

The management of PoEs is a cross-cutting endeavour that requires multi-sectoral collaboration at different levels. As such other ministries, such as those of Transport and Interior, were also engaged, as WHO supported the MoH in improving coordination mechanisms and division of labour among ministries at national and subnational levels. Coordination meetings have been held with PoE focal points from different governorates since June 2020, facilitating frequent reassessment of risks, gaps and best practices. There are still areas that can be improved, such as PoE surveillance systems and cross-border collaboration. However, all measures taken and supported by WHO at Syria's PoEs throughout 2020 and 2021 have enhanced their core capacity in the long-term, even beyond the current pandemic.

WHO supports the rehabilitation, equipment and provision of supplies at points of entry across Syria

PILLAR FIVE

LABORATORIES AND DIAGNOSTICS

Countries worldwide were urged to prepare laboratory capacity to manage large-scale testing for COVID-19, either domestically or through arrangements with international reference laboratories. With limited national capacity and no national policy, Syria intended to send samples to referral labs abroad. It was a political challenge, but an agreement was struck with a lab in the UK. Couriers however refused to facilitate transfers and as such the only option was to enhance the national capacity of labs in Syria. More recent workshops have focused on the efficacy and use of rapid diagnostic tests, which WHO has also been supplying.

As clusters of cases began to emerge, designated COVID-19 labs were established through the refurbishment of previously neglected spaces. The first was at the Central Public Health Laboratory in Damascus, which was rehabilitated and equipped with air-conditioners, refrigerators and a generator so that it may serve as a designated COVID-19 laboratory compliant with proper safety measures.

Laboratories in Syria are located in traditionally underfunded areas and as such the rehabilitation of these spaces will prove beneficial well beyond the pandemic. Capacity at labs in NES, for example, was so weak at the start of the pandemic that samples had to be sent to Damascus and results would be days old before received.

Capacity nationwide was however soon enhanced through a series of workshops and the provision of equipment testing kits and supplies. By December 2020, national testing capacity was expanded to an average of 575 tests per day (200/day in Damascus, 150/day in Aleppo, 75-100/day in Lattakia, 50-75/day in Homs and 50-75/day in Rural Damascus). By July 2021, a total of 17 COVID-19 testing laboratories were functioning nationwide: eight within public health centres in GoS controlled areas; one at the Quamishli National Hospital, run by MoH; three in the rest of NES, under the management of the Self-Authority; and five in NWS, run by NGOs.

As of September 2021, WHO had supported the Ministry of Health launch nine public health laboratories across seven governorates (Damascus, Rural Damascus, Aleppo, Lattakia, Homs, Hama, and Al-Hasakeh) through the provision of 12 PCR machines, including one GeneXpert machine, biosafety cabinets and other related equipment and devices, as well as the delivery of training to more than 350 laboratory technicians. WHO aims to support the establishment of an additional four labs in other governorates.

The Organization also helped establish the first PCR-equipped laboratory in NWS in January 2020. By July 2021, the five labs in the north-west – run by local NGOs contracted by WHO – had collectively carried out over 155 000 tests, which at that point equated to more than half the tests carried out throughout the country.

WHO supports the provision of supplies and capacity building at testing laboratories nationwide

WHO has been supporting rapid response teams (RRT) in the collection and transport of specimens to labs, however insufficient testing and surveillance capacity and the limited availability of trained health workers prevented MoH from deploying more than 507 RRTs in 2020 in areas under its jurisdiction. Embargoes also limited the supply of testing kits, and a lock-down between March and May 2020 made travel to testing centres challenging, to say the least.

By the end of 2020, only 728 in every 100 000 persons had been tested, well below the average of 5 200 (one per thousand per week) recommended by WHO. By September 2021, however, the accumulative testing rate in Syria had gone up to 1 929 nationwide, with some governorates, such as Al-Hasakeh, Aleppo and Idleb, boasting higher testing rates (3 634, 3 616 and 4 101 respectively).

On average, by September 2021, more than one in four (28.2%) samples have tested positive. In some governorates however the positivity rate is significantly higher (e.g. As-Sweida: 73.1%, Tartous: 65.4%, Homs: 64%). These figures are far higher than the 3-12% outlined in WHO guidelines and highlight the lack of testing capacity for comprehensive surveillance. It would appear that, in most governorates, tests are performed predominantly on hospitalized patients. Given that fewer than 20% of cases require hospitalisation, upon experiencing severe symptoms such as extreme chest pain, the data is likely not indicative of the actual prevalence of the virus in some regions.

As a result, the extent of transmission in Syria is unclear, though epidemiological interpretation and analysis remain ongoing based on available data. What has been very clear however is the lack of capacity at hospitals during the peaks of the four waves thus far experienced in the country.

PILLAR SIX

INFECTION PREVENTION AND CONTROL, AND PROTECTION OF HEALTH WORKFORCE

Once an outbreak is expected or has been detected, the priorities are to prepare for treatment of infected patients while preventing transmission to staff, patients, and visitors, and to prevent the spread of the virus in public, private and community settings.

Limited functionality at hospitals and PHCs in Syria means that space for treatment of infected patients is limited. This impacts the ability of medical staff to comprehensively follow safety measures intended to limit transmission. To mitigate this risk, WHO supplied over five million IPC/PPE items to health facilities nationwide in 2020 alone. These included surgical masks, protective goggles and gowns, surgical gloves, alcohol-based hand rub solutions, coveralls, and head coverings.

The provision of safe water, proper medical waste management, and environmental cleaning infrastructure are also essential components of infection prevention and control (IPC). So too is clarification of and adherence to precautions and guidelines and the availability of trained health care workers.

WHO maintained its support of essential programmes, for example in water safety and waste management, throughout the pandemic; developed national IPC protocols, adapted existing IPC and waste management guidelines, and produced protocols for safe return to schools; and trained thousands of health workers, lab technicians and school health workers nationwide.

In 2020 alone, over 4 000 health care and frontline workers active at 22 isolation hospitals, 16 university hospitals, public health laboratories, and facilities run by health partners in areas under the jurisdiction of the MoH, including health partners covering camps for IDPs in north-east Syria, received training in: patient safety protocols to prevent hospital-acquired infections; IPC measures and waste management; quality control; rational use of medicines; pharmaceutical control; COVID-19 response, with focus on epidemiological analysis; IPC guidelines; use of PPE; and case management for SARI in those suspected of contracting COVID-19.

To support schools, five ToT sessions were conducted for 172 school doctors based on national protocols for safe return. They in turn trained 13 200 school health workers in handling suspected cases, RCCE for the promotion of hygiene, and use of PPE. Additional support was offered during national exam periods to ensure safety measures were adhered to.

Training sessions were also supported in north-west Syria. Following an assessment of IPC and triage in the region, a WHO implementing partner conducted ToT sessions for 2 657 health workers at 310 health facilities, including 42 COVID-19 designated facilities. WHO has, throughout the pandemic, continued to provide IPC technical support, on-the-job training, and coaching and monitoring at health facilities nationwide.

Some factors that impact transmission are beyond the direct control of medical practitioners and authorities. In Syria, these include: the desire and/or need for people to congregate during, for example, religious festivities or the national election of May 2021; limited space and access to health care and preventative information in hard-to-reach and cramped settings, such as camps; and the prevalence of shisha smoking in the country. To address the latter, WHO ran a campaign on World No-Tobacco Day, 31 May 2021, to highlight the negative health impacts of smoking in general and during a pandemic in particular.

Aware of the special needs and challenges faced by IDPs, WHO paid special attention to camps and informal settlements throughout the stages of the pandemic, delivering PPEs, establishing mobile clinics and running awareness sessions. The Organization also took care to mainstream IPC at long-term care facilities, such as those housing mental health patients and the elderly.

It is however highly challenging to implement all IPC measures in certain areas. For example, NES suffers from chronic water shortages and in certain camps and camp-like settings WASH facilities are limited and water is delivered in substandard quantities of 40 L/person/day in summer and 30 L in winter.

WHO delivers capacity building workshops for lab technicians at the Central Public Health Laboratory (CPHL) in Damascus

PILLAR SEVEN

CASE MANAGEMENT, CLINICAL OPERATIONS AND THERAPEUTICS

A lack of water, sanitation, hygiene infrastructure, and qualified health care professionals has exacerbated the impact of COVID-19 in Syria, increasing not only the risk of transmission but also the severity of symptoms and, in all likelihood, the fatality rate. All people in war-torn Syria are essentially high-risk, and those with pre-existing conditions, of which there are many, are even more so.

Intensive care units at hospitals in Syria are not well equipped to treat infectious diseases in general, let alone at the capacity required to respond to the COVID-19 pandemic. The main challenges are the insufficient number of ventilators and lack of high flow oxygen supplements at designated isolation hospitals, as well as a shortage of needed medicines and difficulties securing those medicines globally and locally. Another key challenge is the capacity of hospital and ICU beds, which has been less than adequate in responding to the flow of patients, demanding the repurposing of facilities and staff. With occupancy rates of both hospital beds and ICU beds high, capacity to accept new cases requiring admission has been limited due to the insufficient number of beds at designated isolation facilities. Inappropriate triage of suspected and confirmed COVID-19 cases at health facilities has also affected the management of admission, overwhelming an already fragile national health system. In September 2021, the occupancy rate of ICU beds in the six governorates of Damascus, Rural Damascus, Lattakia, Tartous, Aleppo and As-Sweida reached 100%, while the rate in other governorates was 80-90%.

WHO has supported expansion and enhancement of case management capacity through several avenues since the start of the pandemic, including the establishment of: 151 designated isolation facilities across the country since March 2020; an emergency operating room in Damascus in September 2020; and a hospital in Al-Fayhah Sports City in Damascus, in December 2020, that was equipped with 120 beds with lifesaving and oxygen delivery supplies and an ambulance to support referral of critical cases.

WHO is currently supporting MoH in the construction of four temporary emergency COVID-19 hospitals with a capacity to serve more than 380 patients in the governorates of Damascus, Rural Damascus, and Aleppo. Installation of medical devices and equipment at Dummar Hospital in Damascus and Harasta hospital in Rural Damascus is also underway and will soon be finalized.

WHO has also supported the establishment of two COVID-19 designated hospitals in NWS, equipped with 142 ICU beds, 310 ward beds, 138 ventilators, nine oxygen generators, 74 concentrators and 253 cylinders, and worked with local partners to establish three community treatment centres comprising 150 beds, in a bid to support the prevention of transmission and the treatment of mild cases in north-west Syria, a region where no central health authority exists and in which most people live in IDP camps and cannot self-isolate.

The Organization has supported other select public health facilities nationwide by enhancing oxygen supplies and ambulance services through the delivery of 40 ambulances to MOH, in a bid to strengthen the provision of emergency health services in the country and strengthen the referral system.

In addition to supporting the rehabilitation of spaces and the delivery and installation of equipment, the Organization has been offering ongoing support to an interministerial technical committee to ensure technical guidelines for case management, prevention and discharge criteria, among other procedures, are reviewed and updated regularly.

WHO supports practical training for COVID-19 case management at emergency and isolation centres

WHO has also been supporting the delivery of lifesaving medicines and supplied more than 6 million treatments of secondary and tertiary level care throughout 2020 and 2021. Capacity building is another priority area. WHO training workshops on case management, for example, were attended by 2 000 health workers, while training on reproductive health during the pandemic was delivered to 630 midwives. Capacity building workshops on other topics – such as the management of patients with burns or admitted to ICU – were adapted to the COVID-19 context and delivered to thousands of health professionals, including doctors, nurses and technicians, nationwide.

Despite the technical, logistic, and material support given by WHO, challenges remain. An assessment of needs in north-east Syria conducted in March 2021 revealed that, considering available resources, WHO can only cover 40% of needs. While partners were encouraged to contribute to cover the gap, the Organization supported them, and health facilities, by providing 12% more XL supplies than the previous year. WHO is also able to increase pharmaceutical support to NES subject to availability of additional funds and implementation of exemptions to sanctions that negatively impact the quality and timely import of pharmaceuticals into Syria. With these challenges and efforts in mind, many WHO interventions are designed to include facets, such as capacity building and renovation, that offer sustainable support and strengthen the health sector in the long term.

PILLAR EIGHT

OPERATIONAL SUPPORT AND LOGISTICS, AND SUPPLY CHAIN

The effect of sanctions on suppliers in the context of global market deficits, the devaluation of the Syrian pound and cash flow challenges have severely affected WHO operations in Syria and caused extensive delays in the provision of services and the supply of medicines, pharmaceuticals and medical equipment. This has adversely impacted diagnostic capacity and continues to challenge efforts to rehabilitate the national health care system. Procurement has been extensively delayed, particularly of items needed for the COVID-19 response, and yet WHO continues to make every effort to meet the high demand for life-saving medicines, medical supplies and equipment in Syria.

Among the ongoing logistical challenges is the need for multiple approvals and a lack of access, particularly in the north-east, where frequent clashes result in trucks being held up at the outskirts of their destination, sometimes for days. Another challenge is presented by the significant cost of airlifting vaccines into NES through Quamishli airport. Transport over land would take 16 hours and is not viable as a result of checkpoints, security constrains and the need for special vaccine storage and transportation conditions.

WHO Syria received the first shipment of COVID-19 vaccines through the COVAX mechanism in April 2021

STOCKPILING AND DISTRIBUTION IN NORTH-WEST SYRIA

A COVID-19 stockpiling task force was established in north-west Syria, in a bid to mobilize WHO, other UN Agencies and health cluster partners to improve the availability of PPE, IPC materials, diagnostics, equipment and essential medicines. WHO also developed a new system to facilitate monitoring of PPE and IPC stock in the region, to help estimate needs, identify gaps and coordinate responses, and was responsible for the delivery of 128 truckloads containing more than 1 200 metric tonnes of medicines, supplies and equipment in 2020 alone.

Concerned that the UN resolution facilitating WHO support of north-west Syria through the border with Turkey would not be renewed upon or before its expiration on 10 July 2021, the WHO Gaziantep office prepositioned warehouses inside Syria to ensure that support for NGOs delivering health services to vulnerable populations in NWS - 33% of which are completely reliant on WHO - did not end abruptly. Throughout June and July, WHO Gaziantep sent over 95 truckloads of supplies with a value of US$ 10.1 million. They included insulin, PPE, infusions, IPC materials, medical equipment, essential medicines, COVID-19 diagnostic kits, NCD kits, trauma and surgical kits, and interagency emergency health kits.

PILLAR NINE

STRENGTHENING ESSENTIAL HEALTH SERVICES & SYSTEMS

When health systems are overwhelmed, both direct mortality from an outbreak and indirect mortality from vaccine-preventable and treatable conditions increase dramatically. With Syria's health system already weak, the COVID-19 response had to ensure a balance between the demands of responding directly to the threat and strategic planning and coordinated action to maintain essential health service delivery, to mitigate the risk of system collapse.

Trend analysis of HeRAMS data indicates clear and severe disruptions to health services. Those most impacted at PHCs related to immunization, reproductive health and non-communicable diseases, while at hospitals the normal delivery of care as well as elective surgeries and outpatient and inpatient care were most affected. Analysis of 4W data also highlights sharp declines in the number of outpatient consultations supported by WHO. Diversion of capacity at large hospitals towards COVID-19 treatment played a major role in the disruption of these health services. As of September 2021, the MoH had devoted 151 treatment centres and seven quarantine centres to the COVID-19 response.

Effective screening, triage and referral are essential to maintaining balance, all of which are also supported by WHO through material resources and training in a bid to minimize risk. Even a temporary interruption to basic health care services, such as routine immunization, can lead to secondary health crises such as outbreaks of vaccine-preventable diseases.

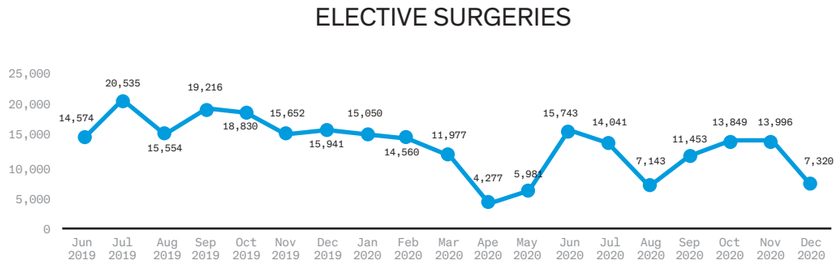
Though plans for mass immunization drives in March 2020 were contracted for fear of exposing children and service providers to unwanted risk, EPI routine fixed vaccination sites continued to operate, with special emphasis on physical distancing for staff and the use of infection prevention and control measures supported by the provision of PPE, delivered by WHO with the financial support of GAVI.

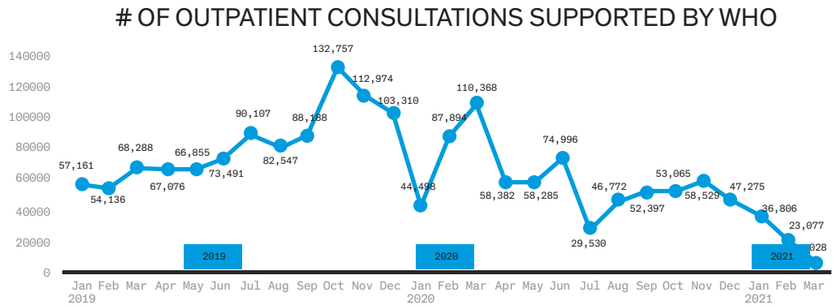
Though EPI coverage decreased due to the pandemic, priority was maintained for the vaccination of deprived and high-risk individuals, who were accessed through mobile clinics. Once lockdown measures eased, MoH ran a series of training workshops, two polio campaigns, and two National Immunization Weeks for the delivery of multi-antigen vaccines. During one of the five-day campaigns, held in June 2020 and supported by WHO and UNICEF, health workers reviewed the vaccination status of almost 900 000 children and vaccinated almost 80 000. The second campaign, held in November 2020, included a review of over 925 000 children and the vaccination of almost 65 000.

Training is key to improving the quality of EPI services. WHO supported the delivery of induction and refresher training workshops for vaccinators in all governorates as well as training in surveillance of vaccine preventable diseases, in a bid to boost early detection and response. WHO also supported the re-establishment of EPI services in north-west Syria and, following initial suspension of activities due to COVID-19, increased the number of active vaccination centres to 93 by the end of 2020, up from five in March 2017.

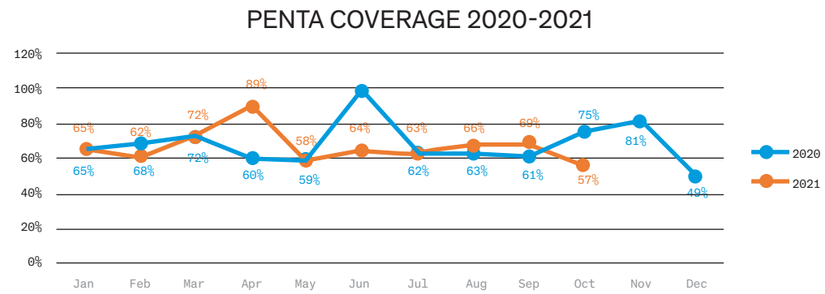
Optimization and protection of health workers, particularly in Syria where they

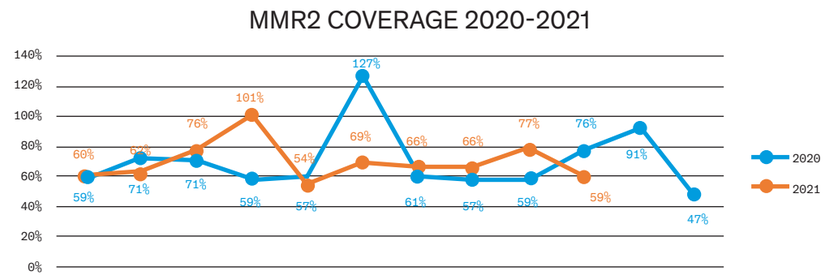
DIVERSION OF CAPACITIES TOWARDS THE COVID-19 RESPONSE HAD A CLEAR AND SIGNIFICANT IMPACT ON THE PROVISION OF ELECTIVE SURGERIES AND OUTPATIENT CONSULTATIONS, AMONG OTHER HEALTH SERVICES





WHILE COVERAGE OF PENTA 3 AND MMR2 VACCINES SLOWED DOWN IN 2020, THEY STEADILY PICKED UP IN 2021 WITH THE SUPPORT OF WHO





WHO supports the national immunization team during the implementation process of the polio vaccination campaign in Lattakia governorate

are in short supply, has also been paramount. COVID-19 treatment facilities were established at the end of a decade in which the number of medical professionals in the country had halved, further straining the capacity of human resources. WHO prioritized health workers for distribution of PPE and, later, vaccines, and has been offering assistance in the form of financial incentives and capacity building workshops.

Health care professionals across Syria continued to receive WHO-supported training throughout the pandemic: a total of 30 794 throughout 2020 and 11 008 during the first half of 2021. Priorities and modules offered shifted throughout the year, depending on need and in line with the COVID-19 response. Special workshops were offered, integrating the COVID-19 response into training in specialized fields. For example, in 2020, 630 midwives in 12 governorates received training related to the provision of reproductive health services during the pandemic, while another series of three training-of-trainers workshops focused on new nutrition protocols in place within the context of COVID-19. Ensuring mental health is well recognized has also been an imperative part of emergency response, and as such MH concerns were mainstreamed into COVID-19 response training received by over 8 500 humanitarian personnel since the start of the pandemic.

Security concerns and lack of access to hard-to-reach areas, a lack of MoH technical expertise, and a high turnover of medical staff made delivery of training by WHO and partners more challenging. Initiatives aimed at mitigating these challenges included the recruitment of highly qualified trainers, the delivery of ToT workshops at central level, and the delivery of more workshops online using digital platforms.

Just as COVID-19 related concerns and processes were integrated into training workshops, so too were they integrated into existing health programmes. For example, essential health packages distributed to families in NWS were adapted to include PPE and other supplies required as part of the COVID-19 response. Similarly, programmes designed specifically to address the pandemic ensured that essential health needs were incorporated to support distribution of medicines and other supplies to those in need. Such an integrated approach is essential, given that the pandemic has forced partners to repurpose funding intended for regular programming, and many have depleted all available resources.

While the pandemic has highlighted the impact of communicable diseases, non-communicable diseases remain the cause of most deaths. Since the start of the pandemic, people in north-west Syria who suffer from NCDs have been significantly more vulnerable to severe illness or death from COVID-19. This increased risk has been compounded by a general disruption of services for the prevention and treatment of NCDs. Investment in prevention, early diagnosis, screening, treatment and rehabilitation of NCDs in the north-west has been particularly dire. In a bid to support overstretched health facilities in the region during the pandemic, WHO provided approximately US$ 1.2 million in funding for the provision of emergency NCD kits.

The Organization has also supported the delivery of increased mental health services. In response to the challenges imposed by COVID-19 related lockdowns and curfews, WHO launched a pilot project in Aleppo, in partnership with Ibn Khaldoun Mental Health Hospital, through which 1 550 mental health services were delivered in patients' homes while curfews were in place. They included MH consultations, family psychosocial support and psychotropic drugs.

An analysis of the 4Ws indicators collected every month by the Health Cluster highlights the growing need for MHPSS services and the importance of maintaining support for them. 78 831 consultations were delivered in NWS between January and June 2021, up 57.3% (from 45 196) compared to the same period the previous year. WHO continues to provide support to all 169 facilities in north-west Syria, facilitating delivery of MHPSS services in 74 communities and 29 sub-districts through the provision of technical support and regular supplies of medication.

The Organization has also provided training to 2 413 PHC doctors, nurses and field supervisors in response to increasing rates of suicide; created a suicide prevention manual adapted to COVID-19; and provided mhGAP training to 602 key health workers across the region who are now suicide prevention helpers. In addition to maintaining support to mental health clinics, non-specialized health facilities, mobile clinics and a hotline, WHO has, as of August 2020, been supporting online MHPSS counselling services for COVID-19 patients and frontline workers in NWS. The service catered to 515 beneficiaries in 2020, despite the presence of only 16 psychologists in the region.

PILLAR TEN

VACCINATION

Syria is one of the 92 countries eligible for COVID-19 vaccines under the Advanced Market Commitment of the COVAX initiative, a partnership between WHO, CEPI and GAVI. The platform aims to support equitable access to vaccines for countries worldwide as part of the global response to the pandemic.

Three elements are crucial to the success of a public health vaccination intervention: vaccine supply, vaccine demand and capacity to vaccinate.

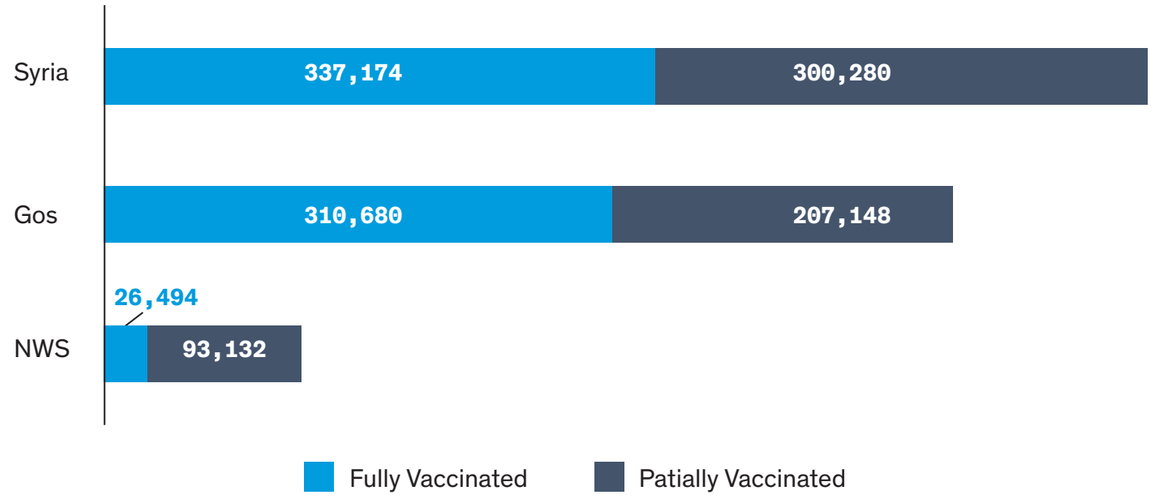
While the national capacity was enhanced to enable vaccinate of 20% of the population by the end of 2021, as per the National Deployment and Vaccination Plan (NDVP), the supply of vaccines to Syria has unfortunately been slow. The first vaccines delivered through COVAX were received on 21 April 2021. By September 2021, the country had received a total of 1 851 320 doses, enough to vaccinate only 5.1 % of the population. Of the doses delivered, 54% were through COVAX and 46% through bilateral agreements. COVAX has committed to delivering more vaccines but the quantity will not be enough to meet the national vaccination target for 2021.

By 30 September, a total of 337 174 people (only 1.6% of the population) were fully vaccinated while an additional 300 280 people (only 1.5% of the population) had received a first dose. Taking care not to waste scarce resources, vaccine wastage in Syria was reported at less than 1%, far lower than the internationally permitted average of up to 10%.

Vaccination activities began in April 2021 and remain ongoing, using all available vaccines. To enhance demand, two national campaigns supported by WHO and UNICEF were conducted in GoS controlled areas in May and September.

By end of September, 835 917 vaccine doses had been administered nationwide: 689 797 in GoS controlled areas and 146 120 in NWS. Based on projected deliveries, only 14.6% of the total population will be fully vaccinated by the end of the year, and only if doses are received in time for them to be administered. Delays in deliveries of anticipated batches cause logistic and communication challenges for WHO supported teams administering the vaccine and are among the priority needs to be addressed in the coming months.

VACCINATION ROLLOUT UPDATE

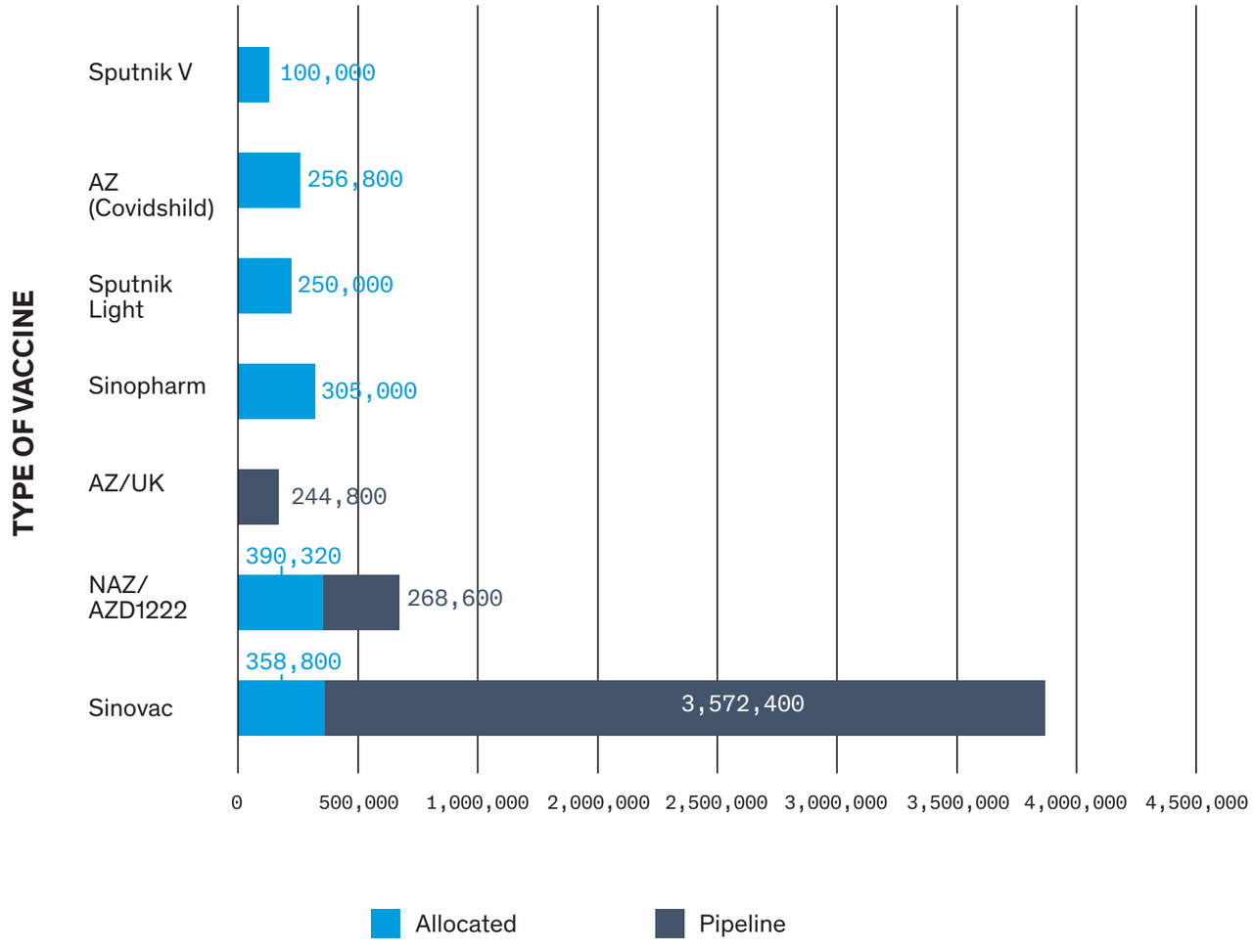


Different strategies were employed in NWS and GoS controlled areas. The strategic objective pursued by the consortium in NWS aimed at using all available doses to inoculate as many people as possible with a first dose, in the hope that a second batch would be received within the time frame required for delivery of a second dose. The consortium made up of WHO, UNICEF and the Syria Immunization Group, equipped each of 93 existing immunization centres with a vaccination team, servicing 495 health facilities (285 in Idleb and 210 in Aleppo). The COVAX vaccination campaign was launched on 1 May with the participation of two teams (one in Idleb and one in Aleppo), with more teams added incrementally thereafter. Health workers, social workers and people over 60 with comorbidities were prioritized for vaccination and, by 4 July, 66% (35 021) of the 53 800 vaccines allocated to NWS had been administered. Of those vaccinated, 17 953 were health and social workers, of which 19% are female. By 23 October; a total of 154 021 people had received at least one dose of the vaccine, 50 340 of whom received two. To date, 3.58% of the population is vaccinated.

The strategy pursued by the Ministry of Health (MoH), under the authority of the Government of Syria (GoS), differed. MoH launched a nationwide campaign on 17 May that included north-east Syria, predominantly controlled by the Kurdish Self-Administration, and sought to administer half the vaccine doses by mid-June and half as second doses to the same people before the vaccines expired on 24 August. First dose delivery was complete in GoS controlled areas by 17 June, with 90 060 people fully vaccinated and 32 663 partially vaccinated, of them 20 863 health workers and 101 860 people aged 55+ and/or with comorbidities. The campaign concluded in NES on 23 June, by which time 11 012 people had received a first dose of the vaccine, among them people living and/or working in camps, including: 2 222 health care workers, and 8 790 people aged 55+ and/or with comorbidities.

VACCINES ADMINISTERED AND DELIVERED ACROSS SYRIA BY TYPE

Sinopharm and Sputnik vaccines were delivered through bilateral agreements while all others were / are to be delivered through the CVOAX mechanism.



COVID-19 VACCINATION IN NORTH-EAST SYRIA

GoS controls less than 5% of the territories in north-east Syria (NES), which comprises most of the governorate of Al-Hasakeh, most parts of Ar-Raqqa and Deir-ez-Zor governorates east of the Euphrates river, and some territory in the north of Aleppo governorate. The MoH campaign did however include the delivery of 17 500 doses to Quamishli airport on 3 May; 13 320 allocated for use in the governorate of Al-Hasakeh and 4 180 for Deir-ez-Zor. A separate consignment of 6 200 doses was delivered overland to the governorate of Ar-Raqqa, of which 1 000 were allocated to areas west of the river, controlled by GoS, while the rest were delivered to the east by 6 June.

The allocation of doses for NES was calculated based on an objective to ensure the provision of two doses for each of the estimated population of 8 960 health workers, the intended target group for the first batch. Uptake of the vaccine among health workers was however far lower than expected and so the target group was expanded to include the elderly and people with comorbidities to ensure all doses were used before their expiry date.

TIMELINE

Phase one of the vaccination campaign in NES, which WHO advocated for and supported the planning of, began on 18 May and concluded on 23 June, by which time half available vaccines had been administered as first doses.

Vaccination rollout began at two fixed sites in Al-Hasakeh on 18 May before expanding on 23 May to include a mix of fixed and mobile vaccination teams deployed to target all health workers throughout the governorate irrespective of their affiliation to facilities run by the government of Syria or the Self-Administration. As of 23 June, 6 885 people in Al-Hasakeh had received a first dose. They include 1 058 health workers and 5 630 people aged 55+ and/or people with comorbidities.

Vaccination in the east of Deir-ez-Zor governorate began on 1 June. Twelve fixed teams were deployed to vaccinate health care workers in various areas controlled by the Self-Administration. Several mobile vaccination teams were also deployed. Administration of first doses in the area ended on 13 June, by which time 2 091 people had been vaccinated in eastern Deir-ez-Zor, including 811 health workers and 1 280 people aged 55+ and/or with comorbidities.

The vaccination drive in the east of Ar-Raqqa governorate began on 7 June. Eight fixed vaccination teams were deployed in areas controlled by the Self-Administration. As of 23 June, 2 233 people had been vaccinated, including 353 health care workers and 1 880 people aged 55+ and/or those with comorbidities. Of those vaccinated, 483 were living in camps or informal settlements.

Additional batches of vaccines were delivered to north-east Syria in August. A second batch consisted of 11 232 doses, which were administered by September 2021. In total, 25 627 people have received a first dose and 8 430 have received two doses using the first and second batches of vaccines delivered to NES through the COVAX mechanism. A third batch, consisting of 12 800 doses, is currently being administered in the three governorates.

CHALLENGES

Communication with and coordination between different health authorities in north-east Syria presented several challenges both leading up to and during the vaccination campaign. WHO's role in facilitating negotiations and supporting operational and technical elements of the campaign was essential to its success. The Organization was well placed as facilitator and coordinator, given its history of health cluster management in the country and its experience supporting the longstanding national immunization campaign that protects tens of thousands of children each year and ensured no outbreak of vaccine preventable diseases in Syria in 2020.

Planning for the vaccination campaign in NES was however disjointed and a lack of coordination between all stakeholders hindered risk communication and community engagement efforts. Early media and outreach initiatives may have helped address rumours and misinformation that led to low uptake of the vaccine - which is voluntary - particularly among health workers. Given that COVID-19 is caused by a virus of which much is yet to be known, all vaccines are still on trial, though approved for emergency use. The pandemic has clearly resulted in a global emergency that is even more acute in fragile conflict-affected countries like Syria.

Though 90% of the approximately 90 million doses distributed worldwide through the COVAX initiative are AstraZeneca vaccines, the brand has struggled to combat rumours of inefficacy and side-effects in countries worldwide, with Syria no exception. To address concerns, particularly among

health workers, WHO sent experienced and engaged medical professionals to health facilities and camps across the region in a bid to encourage community leaders in health care to support and promote uptake of the vaccine. As more people were vaccinated without experiencing serious side-effects, trust in the campaign and demand for the vaccine grew.

Trust however remains a challenge, particularly between health workers and organisations affiliated with or governed by the Self-Authority and organisations based out of Damascus. This is perhaps understandable given the conflict and associated politics, but WHO maintains that health must never be undermined or used as a political tool and can in fact help bring about peace. WHO advocated to ensure that camps were prioritized during the campaign and though access to the most vulnerable people living in Al Hol, Areesheh, Roj and other informal camps was often hindered due to political grievances and security concerns, the Organization continued to support mobile teams returning day after day seeking to ensure protection of those most at risk of contracting, transmitting and suffering from COVID-19.

Despite MoH postponing a planned promotional campaign due to the limited supply of vaccines, WHO messaging on the importance of vaccination was echoed in posters, through syndicates and key influencers, at gatherings and workshops for community leaders and media professionals, and by partners within the health cluster providing ongoing medical services to the millions living in NES.

Alongside promotional activities, WHO continued to support the administration of vaccines. A paper-based registration system was negotiated to replace an electronic one, to alleviate apprehension over privacy. Similarly, WHO addressed security concerns by advocating for and supporting the establishment of a vaccination site at the Hasakeh National Hospital, controlled by the Self-Authority, where ultimately only few medical professionals took the jab. Detailed accounts of doses administered, needed to ensure equitable distribution and follow up for second doses, were maintained while allowing for minimal personal data to be shared. Meanwhile, continued WHO support of vaccination teams helped ensure proper protocols were followed.

GAPS AND NEEDS

Despite significant efforts and achievements by WHO and partners in surveillance, enhancement of laboratory and testing capacity, rehabilitation, provision of supplies, capacity building and communication, current needs and gaps in the COVID-19 response remain vast across all pillars. Capacity remains low, as does vaccine supply and uptake, limiting the health sector's ability to respond to the pandemic while maintaining the provision of the many other health care services needed by a population still reeling from a decade long conflict.

The budget lines outlined below reflect an assessment of ongoing needs and will enable WHO to continue providing support and enhance the COVID-19 response in Syria through the 11 pillars.

COVID-19 – STRATEGIC PREPAREDNESS AND RESPONSE PLAN (SPRP 2022)

#	PILLAR/PRIORITY AREA	BUDGET	WHO SYRIA DAMASCUS - NES	WHO TURKEY GAZIANTEP
P1	Leadership, coordination, planning, and monitoring	277 173	257 173	20 000
P2	Risk communication and community engagement	1 402 953	822 953	580 000
P3	Surveillance, case investigation and contact tracing	1 037 789	637 789	400 000
P4	Travel, trade and points of entry	4 396 386	3 796 386	600 000
P5	Diagnostics and testing	29 084 531	23 084 531	6 000 000
P6	Infection prevention and control	3 747 194	3 377 194	370 000
P7	Case management and therapeutics	24 454 290	23 466 210	988 080
P8	Operational support and logistics	3 028 691	1 028 691	2 000 000
P9	Essential health systems and services	5 390 903	390 903	5 000 000
P10	Vaccination	28 358 470	15 318 082	13 040 388
P11	Research, innovation and evidence	236 599	236 599	
	TOTAL	**101 414 978**	**72 416 510**	**28 998 468**

World Health Organization
Syrian Arab Republic