Health Sector
Strategic Preparedness and Response Plan for COVID-19

Revised 2021
Syrian Arab Republic

(AS OF 16 FEBRUARY 2021)
It is a living document that should be referred to and updated on a regular basis as required.

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List of Abbreviations

AEFI	Adverse Events Following Immunization
AMR	Antimicrobial Resistance
BSL-2	Bio-Safety Level - 2
CFR	Case Fatality Rate
CPHL	Central Public Health Laboratory
DCP	Disease Commodity Package
DHIS	District Health Information System
DOH	Directorate of Health
EHS	Essential Health Services
EMR	Eastern Mediterranean Region
EWARS	Early Warning Alert and Response System
GAVI	Global Alliance for Vaccines and Immunization
GoS	Government of Syria
HAI	Hospital Acquired Infections
IASC	Inter-Agency Standing Committee
ICU	Intensive Care Unit
IEC	Information, Education and Communication
IgM	Immuno-globin M
IgG	Immuno-globin G
IHR (2005)	International Health Regulations (2005)
INGO	International Non-Governmental Organization
IPC	Infection Prevention and Control
ISC	Inter-Sector Coordination
MOH	Ministry of Health
MOHE	Ministry of Higher Education
MOI	Ministry of Information
NDVP	National Deployment Vaccination Plan
NES	Northeast Syria
NWS	North West Syria
PHL	Public Health Lab
POE	Point of Entry
PPE	Personal Protective Equipment
RADT	Rapid Antigen Test
RRT	Rapid Response Team
SARI	Severe Acute Respiratory Infection
UNCT	United Nations Country Team
SOP	Standard Operation Procedures
UNFPA	United Nations Population Fund
UNICEF	United Nations Children's Fund
UNOCHA	United Nations Office for the Coordination of Humanitarian Affairs
UNRWA	United Nations Relief and Works Agency for Palestine Refugees
WHO	World Health Organization

Background

1. Global Situation on COVID-19 Outbreak[1]

On 7 January 2020, the Chinese authorities identified a new type of coronavirus (novel coronavirus, 2019-nCoV) from a cluster of pneumonia cases in Wuhan City, Hubei Province. 2019-nCoV is a new strain of coronavirus, which had not been previously identified in humans. **On 30 January 2020**, the Director-General of the World Health Organization (WHO) declared the COVID-19 outbreak a Public Health Emergency of international concern. Between 31 December 2019 and 16 February 2021, a total of 108 822 960 confirmed cases of COVID-19, including 2 403 641 associated deaths (CFR 2.2%), have been reported globally. The number of global new cases reported has continued to fall, with 2.7 million new cases last week, a 16% decline of over 500 000 fewer new cases compared to the previous week. The number of new deaths reported also fell, with 81 000 new deaths reported last week, a 10% decline as compared to the previous week. A total of five out of six WHO regions reported a double-digit percentage decline in new cases (Table 1), with only the Eastern Mediterranean Region showing a 7% rise. Europe and the Americas continue to see the greatest drops in absolute numbers of cases. Meanwhile, the number of new deaths declined in all regions.

Table 1: Newly reported and cumulative COVID-19 confirmed cases and deaths, by WHO Region, as of 14 Feb 2021

WHO Region	New cases in last 7 days (%)	Change in new cases in last 7 days *	Cumulative cases (%)	New deaths in last 7 days (%)	Change in new deaths in last 7 days *	Cumulative deaths (%)
Americas	1 315 480 (48%)	-16%	48 228 712 (45%)	44 385 (55%)	-2%	1 136 906 (48%)
Europe	968 943 (36%)	-18%	36 575 529 (34%)	28 404 (35%)	-19%	812 410 (34%)
South-East Asia	154 414 (6%)	-13%	13 188 211 (12%)	2 340 (3%)	-9%	202 607 (8%)
Eastern Mediterranean	170 445 (6%)	7%	5 998 998 (6%)	2 519 (3%)	-9%	139 468 (6%)
Africa	68 115 (2%)	-20%	2 723 431 (3%)	2 558 (3%)	-21%	68 294 (3%)
Western Pacific	49 577 (2%)	-20%	1 531 366 (1%)	1 134 (1%)	-13%	27 019 (1%)
Global	**2 726 974 (100%)**	**-16%**	**108 246 992 (100%)**	**81 340 (100%)**	**-10%**	**2 386 717 (100%)**

**Percent change in the number of newly confirmed cases/deaths in past seven days, compared to seven days prior. Regional percentages rounded to the nearest whole number, global totals may not equal 100%.*

2. Regional and Syrian situation on COVID-19 outbreak[2]

The first confirmed case of COVID-19 in the Eastern Mediterranean Region (EMR) was reported in UAE on 29 January 2020. Since the reporting of the two confirmed COVID-19 death cases were reported in Qom City in Iran on 19 February 2020, other cases began being reported in countries in the EMR. As of 16 February 2021, 6 047 981 COVID-19 cases have been confirmed in countries of the region (among 22 EMR countries) with 140 127 associated deaths.

[1] World Health Organization. COVID-19 Weekly Epidemiological Update

[2] World Health Organization. WHO Eastern Mediterranean Regional Office Public COVID-19 Dashboard

As of 16 February 2021, the number of reported cases in Syria has reached 14 951 including 984 deaths. Between 19 February 2020 and 16 February 2021 more than 80 000 cases were tested for COVID-19 including travelers. The national capacity for preparedness and response is considered at level 2 out of 5 (based on IHR annual report 2019, where 5 is the highest capacity. This indicates a limited capacity that requires technical and operational support.

The local transmission in the community has become very high for the following reasons:

1) There has been a surge of cases in neighboring countries, including those that share borders with Syria, such as Iraq, Lebanon and Jordan.
2) The failure to detect COVID-19 cases is due to; weak community participation, limited laboratory capacity, inability to conduct laboratory testing for all reported suspected cases, and the overload of work on available surveillance teams at the grass-root level.
3) There is a limited national capacity for contact tracing and case management due to the fragile health system with limited availability of medical equipment and health facilities, especially in rural and hard-to-reach areas.
4) Vulnerable populations reside across the country, such as IDPs and refugees, mainly Palestinians, who are more susceptible to disease due to limited access to health care and deteriorating living conditions. Although a ceasefire agreement has been in place, the risk of hostilities is still present in Northwest Syria, which increases the vulnerability among the population to any infectious disease.
5) Community uptake of precautionary measures and health-seeking behavior to prevent COVID-19 has remained low such as mask-wearing and physical distancing. This can be attributed to the financial cost associated with an adequate practice of preventive measures, lack of social and financial support during quarantine and isolation, and stigma among the community.

Goal and Objectives

The overall goal of the plan is to reduce morbidity and mortality resulting from COVID-19 among the population of Syria by scaling up the country's preparedness and response operations. It includes; strengthening readiness to rapidly identify, diagnose and treat cases; identifying and following-up of contacts; ensuring infection prevention and control measures in healthcare settings; implementing health measures for travelers; increasing awareness, knowledge and understanding; promoting adaption and continued practice of positive prevention and health-seeking behaviors in the population through risk communication and community engagement; and ensuring continuity of essential health care and vaccination among high-risk groups (health care workers, elderly people above 55 years of age and people with co-morbidities.

1. Specific objectives

The proposed plan aims to achieve the following objectives:

1) Identify, isolate and care for patients early, including providing optimized care for infected patients;
2) limit human-to-human transmission, including reducing secondary infections among close contacts and health care workers;
3) communicate the critical risk of infection when not practicing key prevention and health-seeking behaviors at the family- and community-level to provide information to increase awareness, knowledge and understanding to the communities while countering misinformation.
4) enhance coordination among national and sub-national levels and across key sectors;
5) ensure timely response in the event of reported cases;
6) ensure continuity of essential health care services and systems; and
7) roll out of COVID-19 vaccines for high-priority groups.

2. Expected outcomes

Expected outcomes of the plan include:

1) country coordination mechanisms to deliver strategic, technical, and operational support are established or activated;

2) health measures for travelers at points of entry are implemented, and the safety of travelers is ensured;
3) epidemic intelligence is enhanced through real-time surveillance systems for rapid detection of suspected cases and verification of COVID-19 as well as comprehensive and rapid contact tracing;
4) national capacity of COVID-19 laboratory diagnosis is strengthened for timely confirmation and management of large-scale testing in the country; including the rapid test for schools and other gathering institutions.
5) infection prevention and control in healthcare facilities is ensured to protect health care workers from infection by COVID-19 and amplification of events in healthcare facilities;
6) national capacity of case management for COVID-19 is improved to mitigate the impact and prevent the spread of an outbreak across the country;
7) awareness is raised, knowledge is established, understanding is increased and people can practice key prevention and health-seeking behaviors through risk communication and community engagement on response, prevention, stigma, fear, …etc. at the family and community level.
8) operational support and logistics are enhanced;
9) continuity of essential health care services is ensured; including reproductive health care and maternal services; and
10) COVID-19 vaccine deployment plan is finalized and submitted and the high priority groups are vaccinated.

Pillars of the Plan

1. Pillar 1: Coordination, Planning, Financing and Monitoring

COVID-19 is a crisis that touches every aspect of every society, and our collective response must continue to encompass that broad range of needs and requirements on the national scale. Effective coordination, planning, and monitoring at the national and subnational levels ensure that those needs and requirements are met as efficiently and as comprehensively as possible with resources at our disposal.

WHO as a Health Cluster Agency leads the efforts to integrate and deliver the public health response to COVID-19 through this plan, providing coordination and operational support in partnership with more than 50 national and international partners, to implement the plan and maintain the essential health services.

1.1. Leadership

Government:

The government is the natural leader for overall coordination and risk communication efforts. National public health emergency management mechanisms are activated with the engagement of relevant ministries, such as the Ministry of Health, Ministry of Information, Ministry of Higher Education, Ministry of Tourism, Ministry of Local Administration and Social Affairs, Ministry of Finance, Ministry of Defense, Ministry of Interior, …etc., to provide coordinated management of COVID-19 preparedness and response.

UN:

Under the IASC, humanitarian system-wide scale-up activation for infectious disease events protocols and the existence of the Humanitarian Country Team; UN contributions and support is coordinated by the UN Resident / Humanitarian Coordinator along with Head of Mission and WHO Representative as overall technical lead, supported by the WHO Incident Manager, with the formation of the Crisis Coordination Committee.

1.2. Coordination

Government:

The Ministry of Health (MOH) established an Emergency Operations Center with working committees for thematic areas. The committees developed guidance and training materials that were posted online and on the MOH webpage. An Emergency Committee established at the Ministry of Health meets daily, while the Inter-Ministerial committee meets weekly to monitor the preparedness and response. The Emergency

Committee at Directorates of Health (DOH) in the governorates also exists to extend the roles and responsibilities of the MOH to the local level.

Activated UN Coordination Structures in Syria and roles:

- **UN Coordination:** Central UN coordination (Crisis Coordination Committee) is established and stationed in Damascus with five hub-level coordination structures established in Aleppo, Lattakia, Homs, Al-Qamishli and Deir-Ez-Zor. The five hubs enable UN agency dedicated presence throughout Syria and are responsible, not only for hosting the localized inter-sector and sector coordination bodies but also to mobilize agency response.
- **Inter-Sector**: inter-sector coordination platforms, led by OCHA, are established at central and hub levels and are utilized to ensure a cross-sectoral response.
- **Health Sector:** The health sector coordination structure exists at the national level and also in five hubs. The main function of the health sector is to coordinate humanitarian efforts and ensure coordinated action for COVID-19 Preparedness and Response by the health actors. The health sector is engaged with other sectors (WASH, Nutrition, Education, Protection, …etc.).

Non-GoS Controlled Areas:

- Coordination at various levels is carried out through Turkey Cross-Border and NES Forum architecture. Both fora have developed their respective COVID-19 Preparedness and Response Plans and are responsible to ensure coordinated action.
- Whole of Syria Health Cluster lead provides bridging functions between and across hubs where required, ensuring harmonized messaging and aligned approaches to COVID-19 Preparedness and Response.

Other Coordination Structures:

- **NGOs**: INGOs and local NGOs have hub-level and regional bodies which serve to enable the effective operations of their NGO members and advocate on behalf of the populations they serve. These entities serve a key awareness and advocacy role – raising the profile of COVID-19 preparedness and response needs and challenges.
- **Donors**: a variety of donor affiliations exist regionally and at the hub level. Donors play a key role in providing resources to support the COVID -19 Preparedness and Response Plans.

1.3. Actions taken in 2020:

- Enhanced the frequency of health sector coordination meetings
- Conducted national risk assessment as required
- Activated national emergency response committee
- Activated WHO incident management team and conducted daily or weekly meetings
- Activated RCCE Coordination Group (national level) and RCCE Working Group-North East Syria (sub-national level)
- Developed the health sector Preparedness and Response Plan for COVID-19 and contributed to the UNCT plan
- Developed the UN staff safety plan
- Activated the multi-sectoral (ISC) and inter-hub coordination mechanism to support preparedness and response
- Engaged with national authorities and key partners to develop an operational plan with estimated cost requirements
- Set up the IHR committee room
- Established metrics, monitoring and evaluation systems to assess the effectiveness and impact of planned interventions
- Updated partners and UN agencies on the situation and operational update daily
- Organized coordination meeting (MOH, government officials)
- Engaged with local donors and existing programmes to mobilize/ allocate resources and capacities to implement the operational plan

- Monitored the implementation of the plan based on key performance indicators and produced monthly infographics
- Conducted intra -action reviews following IHR (2005) in Damascus for three days

1.4. Priority actions in 2021

- Ensure continuity of coordination mechanisms and sharing of updated information with health partners and other stakeholders
- Ensure regular engagement with the Ministry of Health and other national authorities
- Ensure coordination for COVID-19 vaccines deployment involving all stakeholders
- Ensure continuation of risk communication and community engagement as an integral part of health sector coordination mechanisms
- Continue monitoring the COVID-19 response monthly using agreed metrics
- Establish a research coordination committee/mechanism to facilitate pharmaceutical and non-pharmaceutical research related to COVID-19
- Survey to measure the impact of COVID 19 prevention measures on humanitarian operations for the health sector
- Use COVID-19 pandemic to learn from / test existing plans, systems and lesson-learning exercises to inform future preparedness and response activities

2. Pillar 2: Risk Communication, Community Engagement, and Infodemics Management

Risk communication and community engagement (RCCE) is a critical aspect of public health intervention. It is important to transmit accurate information on COVID-19 to the public and call the public to practice prevention and health-seeking behaviors. All RCCE interventions such as preparedness and response activities should be evidence-driven, strategic, systemic leading to the participation of communities, service providers and decision-makers. RCCE activities, hence, should be informed by the consultative process to get community feedback and response to listen to their concerns and find out solutions, identify rumors, disinformation and misinformation as well as infodemics to reduce the risk of infection at the family and community level

Changes in preparedness and response interventions should be announced and explained ahead of time and developed based on community perspectives.

Responsive, empathic, transparent and consistent messaging in a local language through trusted channels of communication, community-based social networks and partnerships, including key influencers, as well as building capacity and capability of local entities and service providers is essential to establish authority and trust.

2.1. Actions taken in 2020

- Developed and implemented a national risk-communication and community engagement plan for COVID-19, including interventions at the national and sub-national levels.
- Conducted a Public Opinion Survey in 11 out of 14 Governorates, with findings indicating relatively low levels of knowledge, attitudes and practices around COVID-19: transmission through air droplets via an infected person (60%); self-perceived risk of infection (31-35%); prevention behaviors including physical/social distancing (40-51-57%), hand-washing/hygiene (60-66-69%), wearing a face mask (50%).
- Conducted coordination meetings with national authorities and other stakeholders including WHO and UNICEF on the risk communication strategy and activities
- WHO and UNICEF organized a media briefing meeting with the MOH
- Implemented a public information campaign involving local influencers (community leaders, religious leaders, health workers, community volunteers) and networks (women's groups, youth groups, business groups, traditional healers, …etc.).

- Promoted flourishing community engagement activities. Around 800 000 people were engaged with existing public health and community-based networks, local NGOs, schools, and local governments through community dialogues and activities with key influencers from religious platforms, community leaders, adolescent and youth networks.
- Developed and rolled out RCCE training focusing on awareness-raising, social mobilization and community participation. As a result, over 5 000 people including health care providers, school personnel, health educators and journalists were trained.
- Conducted a workshop on risk communication for MOI, MOE MOH media specialists and health educators
- Engaged with existing public health and community-based networks, media, local NGOs, schools, local governments and other sectors such as healthcare service providers, education sector, business, travel and food/agriculture sectors using a consistent mechanism of communication.
- Established a large scale community engagement for social and behavioral change to ensure prevention of gender inequalities, risks of gender-based violence, as well as sexual exploitation and abuse as a social impact of the pandemic

2.2. Priority Actions in 2021

- Revise and adapt the RCCE plan to implement relevant and applicable interventions to reduce the vulnerability and build the resilience of communities at the national and sub-national levels focusing on sustaining/strengthening prevention and health-seeking behaviors against COVID-19 infection while deploying COVID-19 vaccines with demand generation and communication.
- Continue to strengthen and improve RCCE coordination mechanisms (inter-agency and inter-ministerial) at the national and sub-national levels, focusing on harmonization and complementarity.
- Revise and adapt RCCE approaches and tools, including message development to ensure the interventions are evidence-based, strategic, systemic, gender transformative and culturally-traditionally-religious specific leading to adoption and maintenance of the COVID-19 preventive practices to reduce the risk of infection.
- Strengthen and improve the use of community feedback mechanisms, including real-time monitoring such as regular behavioral surveillance assessments at the facility level and rumor tracking at the community level, as well as social media monitoring, community perceptions, knowledge, attitude and practice surveys.
- Strengthen capacity and capability of RCCE implementing partners, including traditional media and social/digital media.
- Strengthen RCCE reporting mechanisms to ensure age, gender, education disaggregated data is well reflected and informs documentation of best practices and lessons learned at the national and sub-national levels.
- Develop monthly fact sheets on RCCE to demonstrate process and progress achieved and shared with MOH and other stakeholders.
- Establish processes for timely dissemination of credible information, messages and materials through appropriate communication channels to all stakeholders, including public, authorities and decision makers
- Document and disseminate lessons learned to inform future preparedness and response activities
- Build capacity of the media and community radio programme producers and reporters on developing and disseminating programmes using standardized message packages in close coordination with UNICEF
- Develop and publish COVID-19 risk communication materials in various languages/dialects for IDPs, refugees, migrants and refugees
- Communicate collected data on epidemiology and other relevant risk factors to partners and provide necessary health intelligence

3. Pillar 3: Surveillance, Epidemiological Investigation, Contact Tracing, Isolation and Adjustment of Public Health and Social Measures

Disease surveillance and the public health capacities to identify, isolate and treat cases, as well as trace and quarantine contacts, are the backbones of the COVID-19 response and the keys to controlling transmission in the absence of a widely available vaccine. Stopping the spread of SARS-CoV-2 means ensuring that all cases are promptly and effectively isolated and receive appropriate care and that close contacts of all cases are rapidly identified so that they can be quarantined and medically monitored for the 14-day maximum incubation period of the virus.

Due to the prolonged humanitarian crisis in Syria, national routine surveillance has been disrupted. Currently, the early warning alert and response system (EWARS) is the only timely surveillance system for communicable diseases. Severe acute respiratory infection cases have been reported through 1 250 EWARS sentinel sites in 14 governorates.

The Ministry of Health is providing oversight for all COVID-19 surveillance systems in coordination with CPHL. The following surveillance mechanisms are utilized for COVID-19:

a) ***Screening at points of entry (POE):*** *Screening of passengers for signs and symptoms suggestive of COVID-19 is being conducted at all 10 POEs including air, sea and land ports.*

b) ***Sentinel surveillance****: existing sentinel surveillance systems for influenza are being used to monitor COVID-19, which are the National Influenza Surveillance Syria (NISS) and Hospital-Based Influenza Surveillance (HBIS) platforms. Respiratory tract samples are being collected for influenza-like illness (ILI) and severe acute respiratory illness (SARI) from 2 sentinel hospitals of NISB and HBIS platforms under the National Influenza Center, CPHL, MOH.*

c) ***Disease Early Warning and Response (EWARS):*** *the MOH and WHO established nationwide monitoring of symptoms suggestive of COVID-19 in the general population. The daily reports helped to indicate the distribution of probable cases throughout the country.*

d) ***Laboratory Testing Data:*** *The number of laboratory-confirmed COVID-19 cases is also helping to monitor the disease progression. However, there are several limitations in relying on the number of confirmed cases only as the number of tests done is very low and there are chances that tests are not equitably available across all geographic locations and among all populations.*

Case Definition:

1. **Suspect Case**
   a. A person who has an acute onset of fever and cough, **or** acute onset of any three or more of the following signs or symptoms; fever, cough, loss of smell or loss of taste, dyspnea, general weakness/fatigue, headache, myalgia, sore throat, chills, diarrhea, altered mental status, skin rash, and conjunctivitis.
   b. A patient with severe acute respiratory illness (SARI: acute respiratory infection with history of fever or measured fever of ≥ 38 C°; and cough; with onset within the last 10 days; and requires hospitalization)

2. **Probable Case:**
   a. A patient who meets the clinical criteria above **and** is a contact with a probable or confirmed case, or belongs to a cluster with at least one confirmed case
   b. A suspect case with chest imaging showing findings suggestive of COVID-19 disease
      - Typical chest imaging findings suggestive of COVID-19 Death, not otherwise explained, in an adult with respiratory distress preceding death AND was a contact of a probable or confirmed case or belonged to a cluster with at least one confirmed case.

3. **Confirmed Case:**
   A person with laboratory confirmation of COVID-19 cases infection (PCR test), irrespective of clinical signs and symptoms.

Definition of Contact

A contact is a person who experienced any one of the following exposures during the **2 days before and the 14 days after the onset** of symptoms of a probable or confirmed case:

1. Face-to-face contact with a probable or confirmed case within 1 meter and for at least 15 minutes;
2. Direct physical contact with a probable or confirmed case;
3. Providing direct care without proper personal protective equipment (PPE) for COVID-19 patients.

3.1. Actions taken in 2020

- Disseminated case definition in line with WHO guidance and investigation protocols to healthcare workers (public and private sectors) and other actors
- Activated active case finding and event-based surveillance for influenza-like illness (ILI), and severe acute respiratory infection (SARI)
- Ensured a reporting mechanism (SMS, calls, emails,) is in place for timely sharing of information across the different administrative levels
- Enhanced existing surveillance systems to enable monitoring of COVID-19 transmission and adapted tools and protocols for contact tracing and monitoring of COVID-19
- Collected daily information relevant to COVID-19 through social media, local newspapers, community (event-based surveillance)
- Ensured timely notification using the WHO Interim Case Reporting Form for 2019 Novel Coronavirus (COVID-19) of confirmed and probable cases, and sharing of information with WHO, within 24 hours of identification
- Conducted training of surveillance officers in all the governorates on surveillance and laboratory
- Conducted training workshop for health workers on case detection/investigation (reporting form)/contact tracing in the MOH and DOH
- Conducted training workshop for RRTs on early detection, case investigation and sample collection
- Trained and equipped rapid-response teams

3.2. Priority actions in 2021

- Maintain surveillance system that is geographically representative across age, gender, vulnerability and levels of risk
- Strengthen community-based syndromic surveillance by empowering communities to monitor and report cases with symptoms suggestive of COVID-19, such as telephone hotlines (including an active cell phone surveillance)
- Expand the ILI and SARI sentinel surveillance systems to capture COVID-19 cases
- Triangulate data from different surveillance platforms to provide a comprehensive picture of COVID-19 progression in the country
- Update case definitions for probable and confirmed cases based on available data based on WHO case definitions, continuously review and update case definitions (if required) based on surveillance data
- Maintain fast data analysis and reporting to detect new cases and clusters and to respond to these as soon as possible
- Establish daily monitoring of COVID-19 deaths in the hospitals and identify ways to capture COVID-19 deaths occurring in the community
- Maintain weekly epidemiological reports and disseminate to all levels and international partners
- Actively monitor and report disease trends, impacts, population case fatality ratio, high-risk groups (pregnant women, immunocompromised) and children

- Introduce new technologies including RADTs which might as well prove to be useful additions to the surveillance toolkit
- Conduct serological surveillance to determine how widespread a virus has been in a population by looking for antibodies to the virus in blood samples from the general population
- Develop an electronic platform for surveillance of COVID-19 surveillance based on DHIS 2 including a laboratory module
- Support transport of samples to reference laboratories for identification of variants
- Strengthen the capacity of the Rapid Response Teams (RRTs) and surveillance staff, both at governorate and central levels, especially on contact tracing and monitoring at the grass-root level
- Expand the COVID-19 surveillance within the primary health care (PHC) facilities (initially for the 226 category C) for immediate reporting of suspected cases at the health center level
- Document lessons learned to inform future preparedness and response activities

4. Pillar 4: Points of Entry, International Travel and Transport, and Mass Gathering

There are 15 designated points of entry in the country; in Damascus, Rural Damascus, Aleppo, Homs, Tartous, Dara', Deir-ez-Zor, Lattakia, and Al-Qamishli governorates. Only 12 of these points are currently functioning.

The detection and management of ill travelers suspected of COVID-19 infection at international airports, ports and ground crossings include the following measures:

1) Detection of ill travelers;
2) Interview of ill travelers for COVID-19;
3) Reporting of alerts of ill travelers with suspected COVID-19 infection and
4) Isolation, initial case management and referral of ill travelers with suspected COVID-19 infection.

Currently, travelers were required to present the negative PCR test results for COVID-19 which was performed within 96 hours of entry. In addition, they are screened for signs and symptoms suggestive of COVID-19 through self-declaration health forms, visual observation for respiratory-illness like symptoms, body temperature recording through a thermal scanner (metallic archway or handheld infrared digital thermometer), and information collection (e.g., contact history) at health desks located in POEs. For those who do not have valid testing results, they are sent to the designated quarantine facilities for a 14-day quarantine.

Efforts and resources at points of entry (POEs) should focus on supporting surveillance and risk communication activities for safe travel measures.

4.1. Actions taken in 2020

- MOH imposed entry measurement at POEs followed by the development of SOPs, such as screening, quarantine and risk communication activities from the early phase of the preparedness. Passenger location cards for ground-crossing and airports were developed to follow-up on travelers during quarantine.
- Equipped POEs with thermal scanners and trained personnel to conduct entry screening of travelers.
- Made engineering physical modifications in two airports in Damascus and Aleppo to ensure physical distancing and avoid gathering.
- At least, three trained healthcare personnel have been stationed in medical points at all POEs with ambulances or on-call.
- Established health desks at POEs to monitor the health condition of travelers and validate the test certificates for incoming travelers.
- Developed printed materials and banners with information on COVID-19 symptoms and disseminated them to POE including precautionary measures, contact information of hotlines/ hospitals, etc.
- Conducted assessments of the core capacities of POE required for IHR at nine /9/ POEs by the end of 2020.

- Enhanced the coordination mechanism at the national and sub-national levels. Moreover, a multi-sectoral coordination mechanism has been initiated with the Ministry of Health, Ministry of Interior, and Ministry of Transportation.
- Identified referral health facilities for isolation of suspected cases detected at POE and ensured a mechanism for safe transportation of suspected cases to designated hospitals, including the availability of adequate ambulance services.
- Provided one GeneXpert with 100 cartridges at Jdaydet Yabous ground-crossing for those who cannot afford to test.
- Established an IHR committee room at MOH premises to facilitate data collection, information sharing, and coordination for IHR implementation.

4.2. Priority actions in 2021

- Complete the assessment of core capacities at POE in all designated POEs in the country
- Establish medical points at POE with proper IPC measures, such as handwashing facilities and necessary supplies to provide basic healthcare service for ill travelers, investigate and isolate suspected COVID-19 cases at POE, and refer the suspected cases to health facilities
- Establish an electronic information system connected to the national surveillance system to monitor travelers, detect the suspected cases promptly, and follow up during the quarantine period
- Continue monitoring and screening of travelers at POE and ensure availability of all equipment/proper infrastructure (e.g., paper forms; health desks; thermal scanners, protective equipment) for the screeners
- Ensure consistent availability of supplies such as PPEs, disinfectants at POEs, etc.
- Develop updated IEC materials to raise awareness of precautionary measures during travel and health-seeking behaviors, as well as launch an online travel advisory to disseminate necessary information for travelers.
- Regularly monitor and evaluate the effectiveness of readiness and response measures at points of entry, and adjust readiness and response plans as appropriate
- Develop a national contingency plan for POE with an all-hazard approach
- Ensure training of healthcare providers and other personnel on entry screening, maintaining infection prevention and control measures, data recording and follow-up
- Ensure mechanisms for disinfecting vehicles (aircrafts, ships, trains, buses, …etc.), as well as for disinfecting luggage, cargoes, containers, parcels, and goods
- Ensure regular follow-up with passengers maintaining 5-day mandatory home quarantine through cellphone-based surveillance to ensure proper adherence to quarantine
- Conduct a risk assessment of mass gathering events to facilitate the adoption of evidence-based decision-making processes to holding, postponing or adapting sports, religious, entertainment and other events
- Enhance multi-sectoral collaboration including cross-border collaboration with neighboring countries (Iraq, Jordan and Lebanon)
- Establish laboratory capacity on arrival at POE with a high volume for travelers

5. Pillar 5: Laboratories and Diagnostics

Diagnostic laboratory testing is a cornerstone in the management of the COVID-19 pandemic. Confirmatory testing also enables the disease to be tracked in the community, and for clusters of cases to be identified.

Currently, real-time quantitative Reverse Transcriptase Polymerase Chain Reaction (qRT-PCR) testing is the most common form of laboratory testing for COVID-19 in the country. Currently, there are; one Central Public Health Laboratory in Damascus, as well as public health laboratories in Homs, Lattakia, Aleppo, Rural Damascus and Al-Hasakeh carrying out COVID-19 tests within the public health system. Approximately 575 tests are being conducted each day with a capacity of testing 100-200 cases per day in each laboratory.

From February 2020 till the end of January 2021, a total of 55 877 tests were conducted (319.3 tests per 100,000 population), with a positivity rate of 25%.

To provide timely PCR results for COVID-19 in low-resourced settings, health partners donated two GeneXpert machines to the MOH. One machine was equipped at Jdaydet Yabous ground-crossing (Syrian-Lebanese border) and the other one at the Qamishli National Hospital in Al-Hasakeh.

The laboratory diagnosis is being conducted according to the Standard Operating Procedures (SOP) developed by technical stakeholders following national and international guidelines. Also, the national laboratory strategy is in the process of finalization.

In 2021, it will be important to increase the decentralized testing capacity at the sub-national level and integrate it into strengthened active and sentinel surveillance systems for other respiratory pathogens, such as influenza.

5.1. Actions taken in 2020

- Expanded COVID-19 testing facilities from one at CPHL to six public health laboratories with PCR and two with GeneXpert machines, as well as 12 private laboratories
- Supported the MOH in developing standard operating procedures (SOPs) of specimen collection, management, and transportation to ensure specimen collection, management, and referral network and procedures are functional
- Disseminated standard operating procedures for COVID-19 to all the governorates
- Established COVID-19 laboratory in CPHL by rehabilitating a whole floor of CPHL, fixing laboratory devices and equipment
- Supported the operational cost of sample collection and shipping to CPHL
- Supported CPHL on surge staff (incentives for laboratory technicians) working in CPHL
- Conducted training workshops on sample collection
- Conducted training workshops for laboratory technicians on laboratory diagnosis and biosafety measures
- Provided laboratory devices, testing kits for COVID-19, laboratory supplies, and consumables.
- Identified hazards and performed a biosafety risk assessment at participating laboratory; used appropriate biosafety measures to mitigate risks

5.2. Priority actions in 2021

- Decentralize laboratory testing capacity at the sub-national level by establishing one laboratory in each governorate, ensuring good laboratory practices and biological safety
- Assess laboratory capacity for all PHL at the governorate level to evaluate if it can be converted to BSL-2 COVID-19 testing facilities with qRT-PCR
- Procure PCR machines including GeneXpert along with necessary laboratory supplies to equip laboratories for COVID-19 testing to increase the testing
- Establish collaboration/partnership with other public (MOHE) and private providers on COVID-19 testing to maximize the available resources in the country and to expand the access to testing
- Identify and train adequate human resources for conducting COVID-19 tests
- Ensure consistent availability of testing kits, PPEs and associated consumables and develop plans that consider procurement lead time
- Ensure proper waste disposal from COVID-19 laboratories
- Introduce serological testing (IgM and IgG) for the targeted population
- Introduce rapid antigen detection tests (RADTs) to study community transmission to support surveillance activities
- Support transport of samples to reference laboratories for diagnosis of variants
- Involve private sector institutions to carry out COVID-19 confirmation tests

- Accelerate the development of an electronic information system for laboratories, which links with all patient data from surveillance facility sites and laboratories to one software platform to streamline and systematize the information management related to COVID-19, and monitoring test rates on time.

6. Pillar 6: Infection Prevention and Control, and Protection of the Health Workforce

Infection prevention and control (IPC) measures are one of the most effective weapons to combat the spread of COVID-19, in the absence of medical measures. Infection Prevention and Control (IPC) measures in health-care settings are of central importance to the safety of patients, health-care workers, and the environment, and to the management of communicable disease threats to the local community.

The IPC measures required for controlling COVID-19 are as follows: appropriate screening and triage for early recognition of suspected cases; applying standard precautions for all patients; precaution measures for droplet transmission with appropriate use of PPE and hand hygiene; trained healthcare workers; and the adequate provision of safe water, proper healthcare waste management, environmental cleaning infrastructure and services across all parts of a facility.

Due to the fragile health system in the country, Infection prevention and control (IPC) capacity needs to be enhanced. Based on the evidence of human-to-human transmission, including within health care facilities, IPC practices in communities and health facilities should be reviewed and enhanced to prepare for treatment of patients with COVID-19, and prevent transmission to staff, all patients/visitors and in the community.

There has been a continuing need to secure and sustain the supply of those items for IPC as the COVID-19 outbreak continues. Also, supply management has been challenging due to the global shortage of IPC items, which has resulted in higher prices and longer delivery times.

6.1. Actions taken in 2020

- Developed the national IPC protocols for COVID-19 on case management and prevention of COVID-19 measures in health facilities
- Ensured compliance of IPC measures at; the first point of care of patients (usually primary care or outpatient clinics in hospitals) and triage, early recognition, standard precautions, isolation capacity and referral procedures
- Shared WHO Guidance on IPC with all partners
- Implemented SOPs for monitoring of healthcare personnel exposed to confirmed cases of COVID-19 for respiratory illness
- Developed a national plan to manage PPE supply (stockpile, distribution). Procured and provided PPEs to health workers and laboratory technicians. A total of 5 million IPC/PPE items were provided to healthcare facilities in all governorates as well as prepositioned in the MOH central warehouse
- Disseminated guidance on the rational use of PPEs and screening and triage at healthcare facilities
- Conducted training on IPC and engaged trained staff to implement IPC activities. A total of 3 776 healthcare workers across 13 governorates received training from April through December 2020.
- Maintained COVID-19 prevention and control measures in school settings, five train-the-trainer sessions were conducted for 155 school doctors based on the national protocols for safe return to school
- trained 13 200 school health personnel (non-medical staff), during the ensuing cascade training, on safety and security, risk communication for hygiene practices and healthcare-seeking behaviors, as well as rational use of PPE in 13 governorates
- Recorded and reported all cases of healthcare-associated infections
- Disseminated IPC guidance for home and community care providers

6.2. Priority actions in 2021

- Assess health facilities as per WHO standards for compliance with IPC standards
- Develop, disseminate IPC materials with pictorial and flowchart for healthcare workers and patients to be displayed in the health facilities
- Ensure consistent availability of PPE to various categories of healthcare providers
- Set up a mechanism to monitor the effective implementation of IPC measures as per national guidelines to reduce hospital-acquired infection (HAI) and AMR
- Strengthen coordination among national and sub-national stakeholders under the MOH in primary to tertiary-level health facilities for an integrated approach in strengthening COVID-19 emergency responses for implementation of IPC
- Build capacity of health workforce on IPC at all levels of care and enhance the capacity of frontline clinical and non-clinical staff on IPC
- Reorganize the facility for triage aligned with the national guideline on COVID-19 and ensure IPC compliance and practice at the first point of care, and protect non-COVID-19 patients from possible infection in health care facilities
- Ensure the critical infection prevention measures such as wearing masks, physical distancing, provision of handwashing facilities, for care seekers visiting the health facilities through innovative strategies
- Establish Negative Pressure (ICU/Isolation) rooms to prevent transmission of the COVID-19 virus to medical staff
- Develop an Innovative medical waste plan for targeted health facilities
- Assess WASH situation of the health facilities
- Implement recommended protocols for hand hygiene, personal protective equipment, environmental cleaning, and waste management
- Improve/expand WASH facilities in health facilities ensuring a continuous and adequate supply of running water and soap, and ensure chlorination points at water source as per protocol
- Monitor IPC and WASH implementation using available Infection Prevention and Control Assessment Tools
- Implement waste management as per national standards, including color-coded bins, and in collaboration with relevant programme
- Ensure an adequate and consistent supply of necessary logistics including garbage bags, bins, gloves, boots, disinfectants, dead body disposal bags, etc.
- Ensure adherence to necessary precautions (develop/update national guidelines) for everyone attending a patient who died of clinical or epidemiological history compatible with COVID-19

7. Pillar 7: Case Management, Clinical Operations, and Therapeutics

There are no specific medications approved to treat COVID-19, and only supportive care is available. Effective case management saves lives, and it is therefore essential that WHO and partners continue to support the country to;

1) ensure that they have access to state of the art, continually updated multidisciplinary guidance on all aspects of clinical care and emergency clinical facilities, and access to the training and education resources to translate the guidelines into practice; and
2) ensure that they have access to the necessary quality assured equipment and supplies to provide quality care.

Due to the prolonged crisis, the capacity of case management is poor, with a shortage of trained staff and a high turnover rate. Currently, only 56 public hospitals (50 %) are fully functioning in the country.

Syria has confirmed community transmission of COVID-19. While most people with COVID-19 develop only a mild illness, approximately 15% develop a severe disease that requires hospitalization and oxygen support,

and 5% require admission to an ICU. Current management of COVID-19 consists of supportive care, including invasive and noninvasive oxygen support and adjunct therapy with recommended drugs.

Hospitals have been designated at different levels for isolation and case management. However, the preparedness of the facilities to manage streams of patients is suboptimal. Availability of high flow medical oxygen in the designated isolation hospitals (as well as other public hospitals) is insufficient. The existing ICUs' capacity does not meet the need nor the standards for infectious diseases including COVID-19. All hospitals need to expand their liquid medical oxygen systems and establish an infectious disease department during the crisis that needs to cope with the huge burden of existing infectious diseases and future infectious disease threats.

Healthcare facilities should prepare for large increases in the number of suspected cases of COVID-19. Staff should be familiar with the suspected COVID-19 case definition, and able to deliver the appropriate care pathway. Patients with, or at risk of, severe illness should be given priority over mild cases. A high volume of cases will put staff, facilities and supplies under pressure. Guidance should be made available on how to manage mild cases in self-isolation, when appropriate. Special considerations and programmes should be implemented for vulnerable populations (elderly, patients with chronic diseases, pregnant and lactating women, and children) and those living in high-risk settings such as areas of active hostilities, IDP camps, collective centers and informal settlements, overburdened hosting communities, and locations without reliable access to water, sanitation, shelter and health services.

7.1. Actions taken in 2020

- Mapped the availability of health care facilities with ICU and isolation rooms
- Identified Intensive Care Unit capacity and designated isolation centers
- Ensured that guidance is made available for the self-care of patients with mild COVID-19 symptoms, including guidance on when referral to healthcare facilities is recommended
- Developed and disseminated various guidelines on Case Management and ICU Management
- Rehabilitated ICU and isolation rooms
- Trained doctors and nurses
- Supported the MOH in the establishment of an emergency operation room within the Ministry of Health premises in collaboration with the Ministry of Higher Education and SARC to streamline the movement of ambulances and to manage the health information regarding COVID-19 in the country
- Ensured IPC compliance at hospitals and isolation rooms
- Disseminated regularly updated information, trained and refreshed health workers in the management of severe acute respiratory infections and COVID-19-specific protocols based on international standards and WHO clinical guidance, including set up triage and screening areas at all hospitals
- Ensured accurate information is provided to women of reproductive age and pregnant women on infection precautions, potential risks and how to seek timely medical care
- Supported the MOH in establishing dedicated and equipped teams and ambulances to transport suspected and confirmed cases, and referral mechanisms for severe cases with comorbidity
- Ensured comprehensive medical, nutritional, mental and psycho-social care for those with COVID-19
- Procured and provided medical equipment/supplies (portable x-ray, oxygen concentrators, ventilators) and medical waste management tools

7.2. Priority actions in 2021

- Carry out training to address any skills and performance deficits
- Evaluate implementation and effectiveness of case management procedures and protocols (including for pregnant women, children, immunocompromised), and regularly disseminate updated guidance and/or address implementation gaps as necessary
- Establish a screening and triage system in all health facilities for patients with suspected and confirmed COVID-19 cases at the first point of contact with the health care system and through digital platforms
- Develop, update, and disseminate the triage SOP for suspected COVID-19 cases

- Equip triage areas with the necessary equipment (portable X-Ray)
- Develop and update guidelines, SOPs and training modules on clinical management and provide appropriate training to health professionals and support staff on case management including ICUs
- Ensure adequate oxygen supply, including high flow medical oxygen with appropriate training and mentoring as per the level of the health system, with oxygen concentrators, liquid oxygen, oxygen generators and oxygen cylinders, with required accessories for oxygen supply
- Equip ambulances for COVID-19 case management and IPC as per national protocols
- Ensure comprehensive clinical, nutritional, and psychosocial patient care and institutionalize quality improvement initiative including mentoring and death review of COVID-19 cases
- Ensure psychosocial support for health workers managing COVID-19 patients
- Collect and utilize data about COVID-19 treatment facilities on a regular basis
- Ensure adherence to isolation protocols in case of home management of mild cases
- Ensure adequate supply of pharmaceuticals and other consumables, and functional supply chain system
- Ensure women's and girls' choices and rights to sexual and reproductive health is respected regardless of their COVID-19 status, including access to contraception, emergency contraception, safe abortion to the full extent of the law and post-abortion care.
- Develop guidelines and applications for telemedicine practitioners
- Designate and prepare public, private, and alternate facilities to strengthen in-patient care and surge capacity with clinical and support staff
- Establish makeshift/field hospitals, if needed
- Provide training to health care/ambulatory teams in the management of COVID-19 cases
- Provide training and capacity-building to clinicians, co-medicals and nurses in the management of COVID-19
- Facilitate implementation of international/WHO protocols for research and clinical trials, where opportunities exist

8. Pillar 8: Operational Support and Logistics, and Supply Chains

The breakdown of normal market functioning for essential response commodities posed a huge challenge for the effective implementation of response pillars at the national level in the first few months of the response. Clinical care, infection prevention and control, laboratory testing, and safeguarding of essential health services - all depend to a large extent on access to personal protective equipment, laboratory equipment and supplies, and essential medicines and equipment. The market fluctuation, closure of borders, sanctions and US dollar exchange rates have affected the supply chain and operations.

The vaccine deployment is likely to present a substantial additional challenge due to the requirements for a seamless cold chain from a production facility to a point of administration in the country.

8.1. Actions taken in 2020

- Mapped available resources and supply systems in the health sector in the country
- Conducted in-country inventory review of supplies based on WHO's; **a)** Disease Commodity Package (DCP) and **b)** COVID-19 patient kit (Online COVID-19 Supplies Tracking System)
- Reviewed supply chain control and management system (stockpiling, storage, security, transportation and distribution arrangements) for medical and other essential supplies, in coordination with the logistics cluster
- Reviewed procurement processes (including importation and customs) for medical and other essential supplies, and encouraged local sourcing to ensure sustainability
- Assessed the capacity of the local market to meet the increased demand for medical and other essential supplies

8.2. Priority actions in 2021

- Maintain the supply chain system
- Conduct orientation of health partners on the use of COVID 19 Supply Portal, in coordination with the logistics sector
- Encourage the health sector to request supplies through the purpose-built COVID-19 Supply Portal, which is available within the COVID-19 Partners' Portal
- Advocate with donors for continuous support to the supply system to ensure availability of PPEs and IPC material all over the country.

9. Pillar 9: Maintaining Essential Health Services and Systems

COVID-19 has presented all countries and health systems with the challenging increase in demand for care caused by COVID-19. Added to this increased demand, the response to the virus has often entailed limitations on movement, reduced staffing, and lowered capacity at health care facilities.

These factors have the potential to severely disrupt the delivery of health care for all non-COVID-19 conditions. Rapidly increasing numbers of COVID-19 cases and hospital admissions result in shortages of health workers in general and particularly in certain specialties, such as intensive care unit (ICU) physicians and nurses, infectious diseases specialists and pulmonologists. Maintaining essential health services must also be a priority at this time, as even the most robust health systems are struggling due to the impact of COVID-19.

Despite the COVID-19 pandemic and the control measures in Syria, essential services at the primary and secondary levels continue to be provided. The pandemic has led to some disruption of Essential Health Services (EHS) in Syria, particularly during the lockdown in March-May 2020.

WHO and health partners will continue to closely monitor the impact of the pandemic on essential health services and strengthen health systems based on an all-hazards risk management approach.

9.1. Actions taken in 2020

- WHO and health partners, in collaboration with the MOH, continued to support the maintenance of essential health services and systems
- WHO conducted a study to measure the impact of COVID-19 on the delivery of essential health care services
- UN agencies supported local NGOs to provide health services to vulnerable communities and in-camps through mobile medical teams and fixed health points
- UN agencies provided medical kits and essential drugs to treat vulnerable groups (children, pregnant women, and elderly people) through MOH and local NGOs.
- WHO and UNICEF supported the routine immunization programme and supplementary immunization activities against polio and the catch-up campaign for all antigens.

9.2. Priority actions in 2021

- WHO and health partners will continue the support of MOH and local NGOs to maintain essential health services and systems.
- Monitor delivery of essential health services on monthly basis through 4Ws and MOH reports
- Increase home-based, outreach and community-based activities (MOH and private)
- Additional (catching up) activities (e.g. immunization week, multi-antigen campaign attached to Polio, etc.)
- Use of remote service delivery (telemedicine)
- Ensure strict IPC measures at health facilities and by the mobile medical teams
- Increase use of digital health (e.g. WhatsApp hotline, remote medical consultation, etc.)
- Support MOH and local NGOs with medical kits, equipment and essential drugs.

10.Pillar 10: Vaccination

Safe and effective vaccines for COVID-19 will be powerful tools to control the COVID-19 pandemic. Since January 2020, WHO worked with international partners to coordinate and accelerate the research and development, manufacturing, and regulatory evaluation of vaccines at a scale that has never been attempted before. Throughout 2020, WHO rapidly developed guidelines and worked intensively with countries to strengthen readiness for COVID-19 vaccines.

10.1. Actions taken in 2020

- Established Coordination Framework: National Coordination Committee, COVID-19 Technical Advisory Group and ICC Inter-Agency Coordination Committee
- Established taskforces: 10 sub-committees were formed as the technical part of the cTAG committee (WHO and UNICEF focal points are included).
- Conducted national readiness assessment: 1st update was submitted by End-November 2020. 2nd update was submitted on 14 January 2021, and 3rd update was endorsed by the MOH on 20 January 2021.
- **Part A** of the COVID-19 Vaccine Application document was signed by the Minister of Health and sent to GAVI on 15 December 2020. On 27 January 2021, the Syrian Prime Minister declared the Government's approval of the vaccine initiative through the COVAX facility. **Part B** was signed on 3 February and sent to GAVI.
- **Development of the National Deployment Vaccination Plan (NDVP):** Deployed 2 trained WHO consultants (international, national) who are finalizing the NDVP together with ICC and sub-committees.

10.2. Priority action in 2021

- Deploy WHO and UNICEF consultants to support MOH
- Develop and finalize the National Deployment Vaccination Plan
- Finalize the developments of guidelines, protocols, checklists, and reporting forms for printing.
- Conduct nationwide cold chain inventory
- Finalize micro-planning for vaccine introduction
- Plan roll-out of training of vaccination teams, supervisors, etc.
- Finalize pre-registration automated platform and reporting mechanism to report on vaccinations and AEFI cases.
- Firm up the needed operational cost, cost of vaccine supplies and sources of funds.
- Set a timeline for all planned activities for vaccine introduction.
- Vaccinate prioritized population groups

Monitoring and Reporting

The plan will be monitored regularly to assess the ongoing actions based on the selected indicators aligned with WHO Monitoring and Evaluation Framework. Selected key performance indicators will be used to monitor and evaluate the implementation of planned activities /actions and respective outputs, as well as to assess the overall performance of the Preparedness and Response Plan.

The health sector developed an online COVID-19 supplies tracking system showing supplies planned, procured, distributed and in the pipeline. The online system is updated on weekly basis and is available at Supplies Tracking Dashboard.

Annexes

1. Annex 1: Response Monitoring Framework

Annex I: Response Monitoring Framework (Jan to December 2021)

Pillar I: Coordination and planning		Indicators	Baseline	Target	Responsible	Means of Verification/Source
Outcome	Timely information sharing, minimizing duplication, maximizing complementarities in COVID 19 preparedness and response by all health actors					
Outputs	• National and hub health sector coordination mechanisms engage in efficient and effective planning; identify and prioritizeneeds and address critical gaps	• # of Health sector coordination meetings with COVID 19 as an agenda item and actions points • # of COVID-19 Syria Morbidity and Mortality Reports produced and disseminated • # of times COVID-19 response plan is reviewed and revised • Finalization of national vaccine deployment plan	• 3 • 5 • 1 • 0	• 24 • 12 • 2 • 1	• WHO/Health sector coordinators • WHO • WHO/HCC/health partners • WHO/UNICEF/MOH	• Minutes of health sector coordination meeting minutes • COVID 19 Morbidity and mortality summary reports • Updated operational response plan • NVDP

Pillar 2: Risk communication and community engagement		Indicators	Baseline	Target	Responsible	Means of Verification/Source
Outputs	• Improved knowledge of individuals, communities and the public on COVID-19	• # of COVID-19 RCCE plans revised and adapted • # of people reached through SMS messages, radio announcements and TV advertisements sent and issued • # of implementing partners trained • # of women, girls, men and boys participating in awareness raising sessions	• 1 • 12,000,000 • NA 255,480	• 2 • 18,000,000 • 30 • 400,000	• RCCE WG • Health Sector • Health Sector • Health Sector	• RCCE revised plan • Partner reports / MoH • Monthly factsheets

Pillar 3: Surveillance, Contact tracing, isolation and quarantine		Indicators	Baseline	Target	Responsible	Means of Verification/Source
Outputs	• All reported cases investigated including contact tracing and confirmed cases treated.	• # of RRT team members- trained on COVID-19 in all governorates • % of rumors and alerts investigated within 72 hours of receipt • % of samples from suspect cases collected and transported within 48 to 96 hours • % of suspected COVID 19 cases reported through surveillance system and investigated within 24-48 hours. • % of contacts traced	• 507 • 64% • NA • NA • NA	• 850 • 80% • 80% • 80% • 50%	• Health sector • Health sector • Health sector • Health sector • Health sector	• MoH & WHO reports • RRT reports • CPHL report • Reports • RRT reports

Annex I: Response Monitoring Framework (Jan to December 2021) - (cont'd)

Pillar 4: Point of Entry		Indicators	Baseline	Target	Responsible	Means of Verification/Source
Outputs	• Points of entries are fully equipped with screening equipment and IEC material	• % of arrivals at PoEs monitored and screened • # of PoEs equipped with appropriate levels of staffing, PPE and other necessary COVID-19 supplies, including ambulances • # of border/immigration officers trained at PoE on screening measures • # of POEs assessed	• 80% • 13 • NA • 9	• 90% • 15 • 45 • 15	• Health sector • Health sector • Health sector • MOH/WHO	• PoE records, supervision & monitoring reports • Training reports Assessment reports

Pillar 5: Laboratory and Diagnostics		Indicators	Baseline	Target	Responsible	Means of Verification/Source
Outputs	• All suspected COVID-19 cases and all contacts are tested for COVID-19 and results released in a timely and complete fashion • Laboratory capacity is upgraded and expanded to all governorates	• # of laboratories established to test COVID-19 • # of laboratory tests conducted and % of results reported within 24-48 hours (turn-around-time being time from receiving samples to releasing results) • # of laboratory technicians trained on PCR, bio-safety, technical procedures and reportingformats	• 6 • 60,000 • 56	• 14 • 150,000 | 90%) • 100	• Health sector • Health sector • Health sector	• Functional laboratories • Laboratory report, supervision and monitoring report • Attendance sheets, training report

Pillar 6: Infection Prevention & Control		Indicators	Baseline	Target	Responsible	Means of Verification/Source
Outputs	• Prevention or reduction of transmission of COVID-19 virus to health care workers, patients/visitors and communities through systematic application of IPC practices relevant to specific settings.	• # of health workers trained on IPC • # of PPE distributed among health workers • # of quarantine and isolation centers adapted for COVID-19 compliance	• 4300 • 18,000,000 • 53	• 6000 • 30,000,000 • 58	• Health Sector • Health Sector • Health Sector	• Training reports Log and distribution report COVID 19 supply tracking system • MOH reports/dashboard

Annex I: Response Monitoring Framework (Jan to December 2021) - (cont'd)

Pillar 7: Case Management		Indicators	Baseline	Target	Responsible	Means of Verification/Source
Outputs	• Increased survival rate among patients from COVID-19 and reduced case fatality rate (CFR)	• # of health workers trained on case management • # of isolation centers established at governorate level and equipped with life-saving essentials such as ventilators, oxygenators and monitors • # of humanitarian personnel trained on MHPSS • # of non-COVID-19 health facilities (mobile medical units including medical teams and ambulances) supported in order to continue providinghealth services • # of people supported in isolation centers	• 3320 • 22 • 6400 • 240 • NA	• 5000 • 26 • 8000 • 600 • 20 % of confirmed cases	• Health sector • Health sector • Health sector • Health sector • Health sector	• MoH & WHO • MoH & WHO • Attendance sheet, training report • MoH & WHO, 4WS MOH reports, dashboards

Pillar 8: Operational Support and Logistics, and Supply Chains		Indicators	Baseline	Target	Responsible	Means of Verification/Source
Outputs	• Efficient response to COVID-19 pandemic with interrupted supply chain and critical functions identified and supported (i.e. telecommunications/internet, financial resources, transportation, essential workforce, procurement, etc.)	• Volume of COVID-19 related cargo received into common storage • Mt of COVID-19 related cargo transported	• NA • NA	• 100% • 100 mt	• Health • Health	• Log reports •

Pillar 9: Maintaining essential health care and system		Indicators	Baseline	Target	Responsible	Means of Verification/Source
Outputs	• Continued and un-interrupted delivery of essential health care services	• # of health facilities supported to deliver essential health care • # of kits delivered to MoH and national NGOs	• 228	• 300 • 1000	• Health sector • Health sector	• MoH & UN agencies reports • UN agencies reports
Pillar 10 Vaccination		**Indicators**	**Baseline**	**Target**	**Responsible**	**Means of Verification/Source**
Outputs	• Identified high risk groups (20%) of the population) vaccinated by Dec 2021	• # of people from high risk group vaccinated	• 0	• 20% of the population	• MOH, WHO and UNICEF	• Vaccination reports

2. Annex 2: Funds required by health sector partners (in US$)

Pillar	WHO	UNICEF	UNHCR	UNRWA	UNFPA	SARC	Medair	Al Tamayouz	IMC
Coordination and Planning	617,000				30,000				
Risk Communication and community engagement	1,028,110	1,720,000	200,000		50,000			250,000	
Surveillance , contact tracing, isolation and quaratine	1,905,620		200,000						
Travel and Point of Entry	1,336,270		700,000						
Laboratory and Diagnostics	14,839,000	250,000	170,000	300,000					
Infection prevention and control	6,629,000	2,500,000	600,000		500,000	1,000,000	82060	300,000	520,000
Case Management	8,775,000	250,000	1,900,000		200,000		165,000	200,000	
Operational Support and Logistics	1,660,000	1,000,000		65,800	300,000		277101		
Maintaining essential health services and systems	12,200,000	8,000,000	900,000	1,000,000	8,200,000			200,000	
Vaccination	28,843,941	3,000,000				500,000	200,000		
Total Requirement (US$)	77,833,941	16,720,000	4,670,000	1,365,800	9,280,000	1,500,000	724,161	950,000	520,000

Annex 3: Contact information of health sector partners on COVID-19

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