Critical preparedness, readiness and response actions for COVID-19

Interim guidance

27 May 2021

World Health Organization

Key points

- Countries should continue to take all necessary public health and social measures to slow further spread of SARS-CoV-2, to prevent infections, especially in people vulnerable to severe disease or death, and avoid having their health systems overwhelmed.
- Variants of SARS-CoV-2 are circulating, some with increased transmissibility. However, the preparedness, readiness and response actions that are needed remain the same.
- Countries should administer COVID-19 vaccines according to their National Deployment and Vaccination Plans.
- Countries should be able to deliver the COVID-19 care pathway for patients, including life-saving therapies of corticosteroids and oxygen for those with severe disease, regardless of transmission scenario.
- There are seven transmission scenarios for COVID-19: no cases, sporadic cases, clusters of cases and four levels of community transmission. Countries should assess the transmission scenarios at sub-national levels.
- Countries should respond to all transmission scenarios while including communities in decision making processes to enhance adherence to public health and social measures
- Prioritization of resources for each technical area will depend on which transmission scenario(s) a country is facing, as well as the response capacity.
- There is still much to understand about COVID-19 and its impact in different contexts. Preparedness, readiness and response actions will continue to be driven by rapidly accumulating scientific and public health knowledge.

Introduction

This document is an update to the interim guidance entitled 'Critical preparedness, readiness and response actions for COVID-19', originally published on 22 March 2020 and last updated on 5 November 2020. This version provides updated guidance on contact tracing, laboratory testing, infection prevention and control, public health and social measures and health services, in the context of COVID-19 vaccination implementation. The full list of WHO technical guidance documents available for COVID-19 has also been updated.

This document outlines critical preparedness, readiness and response actions that are necessary, depending on the SARS-CoV-2 transmission scenario. Where possible, the transmission scenario should be assessed at the lowest administrative level (e.g., province, state, district, community) within each country.

Background

Since January 2020, the scientific knowledge on SARS-CoV-2 (the virus that causes COVID-19), how it spreads, and the public health, economic and social impacts of the COVID-19 pandemic have continued to evolve. Many countries continue to demonstrate that SARS-CoV-2 transmission can be controlled. Variants of SARS-CoV-2 have been detected, including four which have been defined as variants of concern. However, the preparedness, readiness and response actions that are needed remain the same. These actions have saved lives and provided countries with more time to enhance emergency response systems; to increase capacity to detect cases and care for patients; to ensure hospitals have the necessary staff, supplies, including structures and systems, to ensure treatment for COVID-19 and non-COVID-19 conditions.

On 31 December 2020, WHO issued the first emergency use listing (EUL) of a COVID-19 vaccine. Since then, five more vaccines have received EUL. Vaccines and vaccination are now part of the global response for COVID-19, and the Strategic Advisory Group of Experts on Immunization recommends the prioritisation of vaccination for high-risk individuals. While vaccination plans are being implemented, countries should continue to take all necessary public health and social measures (PHSM) to slow further spread, to avoid having their health systems overwhelmed and to prevent infections, especially among older persons and those with chronic conditions who are at higher risk of severe outcomes and death.

The overarching aim of the Strategic Preparedness and Response Plan for COVID-19 continues to be to suppress transmission of SARS-CoV-2 and prevent associated illness and death. In February 2021, the SPRP was updated to include vaccination into the global response. The 2021 global strategic objectives are:

- **Suppress transmission** through rollout of equitable COVID-19 vaccines and vaccination, through the implementation of recommended effective and evidence-based public health and social measures, and infection prevention and control measures, including detecting and testing suspected cases; investigating clusters of cases; tracing contacts;

supported quarantine of contacts; isolating probable and confirmed cases; implementing measures to protect high-risk groups.

- **Reduce exposure** by enabling communities to adopt risk-reducing behaviours and practice infection prevention and control, including avoiding crowds and maintaining physical distance from others; practicing proper hand hygiene; through at the appropriate times; the correct and rational use of masks; and improving indoor ventilation.
- **Empower communities** to lead or be part of the response decision-making process by reinforcing risk communication and community engagement approaches that can reinforce local solutions, increase trust and social cohesion, and ultimately a reduction in the negative impacts of COVID-19.
- **Counter misinformation and disinformation** by managing the infodemic, communicating with, engaging, and empowering communities, while also enriching the information eco-system online and offline through relevant, actionable and localized guidance that communicates, and by communicating risks and science for specific target populations, as needed.
- **Protect the vulnerable through vaccination**, ensuring vaccine deployment readiness in all countries and all populations, by communicating, implementing, and monitoring COVID-19 vaccination campaigns, by engaging health workers, and by building vaccine acceptance and demand based on priority groups, taking into account gender and equity perspectives to leave no one behind.
- **Reduce mortality and morbidity from all causes** by ensuring that patients with COVID-19 are diagnosed early and given quality care and treated in a COVID-19 Care pathway with access to corticosteroids and oxygen for patients with severe disease; that health systems can surge to maintain and meet the increasing demand for both COVID-19 care and other essential health services; that core health systems are strengthened; that demand-side barriers to care are addressed; and by ensuring that all priority groups in every country are vaccinated.
- **Accelerate equitable access** to new COVID-19 tools including vaccines, diagnostics and therapeutics, and support safe and rational allocation and implementation in all countries.

This update recognises that all countries have increased their level of preparedness, alert and response to implement national COVID-19 plans, and that there is no one-size-fits-all approach to managing cases and outbreaks of COVID-19. As such, each country should continually assess its risk and rapidly implement the necessary measures at the appropriate scale to reduce both SARS-CoV-2 transmission, COVID-19 morbidity and mortality, as well as the broader economic, public and social impacts.

Scenarios

The transmission scenarios defined by WHO are outlined in Table 1: no (active) cases (including both zero transmission and the absence of detected and reported cases), imported/ sporadic cases, clusters of cases and community transmission. The community transmission (CT) classification is now divided into four levels, from low incidence (CT1) to very high incidence (CT4).

This is described in further detail in Considerations in adjusting public health and social measures in the context of COVID-19. Further explanation of these categories and when to adjust public health and social measures can also be found in WHO guidance Public health criteria to adjust public health and social measures in the context of COVID-19 and Considerations for implementing a risk-based approach to international travel in the context of COVID-19.

Table 1: Definition of the categories for transmission classification

Category name	**Definition** *Countries/territories/areas with:*
No (active) cases	No new cases detected for at least 28 days (two times the maximum incubation period), in the presence of a robust* surveillance system. This implies a near-zero risk of infection for the general population.
Imported / Sporadic cases	Cases detected in the past 14 days are all imported, sporadic (e.g. laboratory acquired or zoonotic) or are all linked to imported/sporadic cases, and there are no clear signals of further locally acquired transmission. This implies minimal risk of infection for the general population.
Clusters of cases	Cases detected in the past 14 days are predominantly limited to well-defined clusters that are not directly linked to imported cases, but which are all linked by time, geographic location **and** common exposures. It is assumed that there are a number of unidentified cases in the area. This implies a low risk of infection to others in the wider community if exposure to these clusters is avoided.

Category name	**Definition** *Countries/territories/areas with:*
Community transmission – level 1 (CT1)	**Low incidence** of locally acquired, widely dispersed cases detected in the past 14 days, with many of the cases not linked to specific clusters; transmission may be focused in certain population sub-groups. Low risk of infection for the general population.
Community transmission – level 2 (CT2)	**Moderate incidence** of locally acquired, widely dispersed cases detected in the past 14 days; transmission less focused in certain population sub-groups. Moderate risk of infection for the general population.
Community transmission – level 3 (CT3)	**High incidence** of locally acquired, widely dispersed cases in the past 14 days; transmission widespread and not focused in population sub-groups. High risk of infection for the general population.
Community transmission – level 4 (CT4)	**Very high incidence** of locally acquired, widely dispersed cases in the past 14 days. Very high risk of infection for the general population.

* Note that in situations where COVID-19 surveillance is not robust, a lack of identified cases should not be interpreted as an absence of transmission.

Countries could experience one or more of these scenarios at the sub-national level and should define the transmission scenario and response actions at the lowest administrative level. Transmission scenarios may also move in both directions, such that "No cases" includes both never having had a COVID-19 case and having no active cases.

Countries should prepare to be able to respond to all transmission scenarios, following the framework laid out in the Strategic Preparedness and Response Plan for COVID-19. Prioritization of resources for each technical area will depend on which transmission scenario(s) a country is managing.

There is still much to understand about COVID-19 and its impact in different contexts. Preparedness, readiness and response actions will continue to be driven by rapidly accumulating scientific and public health knowledge. Table 2 describes the preparedness, readiness and response actions for COVID-19 for each transmission scenario. Hyperlinks to WHO technical guidance are provided. All technical guidance for WHO can be found on the WHO website.

Table 2. Critical preparedness, readiness and response actions for each transmission scenario for COVID-19

	No Cases	Sporadic Cases	Clusters of Cases	Community Transmission
Transmission scenario	No reported cases.	One or more cases, imported or locally detected, without evidence of local transmission.	Cases limited to well-defined clusters, related by time, geographic location and common exposures	Outbreaks with the inability to relate confirmed cases through chains of transmission for a large number of cases, or by increasing positive tests through sentinel samples (routine systematic testing of respiratory samples from established laboratories.
Aim	Suppress transmission and prevent spread.	Suppress transmission and prevent spread.	Suppress transmission and prevent spread.	Suppress transmission, reduce case numbers, end community outbreaks.
Priority areas of work				
Emergency response mechanisms	Activate emergency response mechanisms. Review and maintain emergency response mechanisms.	Scale up emergency response mechanisms.	Scale up emergency response mechanisms.	Scale up emergency response mechanisms.
Risk communication and community engagement (RCCE) and infodemic management	Engage the public through RCCE and ensure people and communities participate in sharing trustworthy information, lead community actions and nurture trust in public health and social measures, through two-way communication. - Establish/revise RCCE working group - Assess situation and develop detailed RCCE plan, including resources, clear roles and responsibilities - Assess RCCE capacity and prepare training - Prepare risk perception assessment (formative research) - Prepare feedback loop mechanism - Set up monitoring system - Address rumours and misinformation with trustworthy information and facts shared through trusted channels and sources	Engage the public through RCCE and ensure people and communities participate in sharing trustworthy information, lead community actions and nurture trust in public health and social measures, through two-way communication. - Assess and revise RCCE plan according to situation with RCCE working group. - Provide training for surge staff - Engage communities as needed, with a focus on enhancing community dialogue and trust - Assess initial risk perception assessment (formative research) - Implement feedback loop mechanism - Monitor process	Engage the public through RCCE and ensure people and communities participate in sharing trustworthy information, lead community actions and nurture trust in public health and social measures, through two-way communication. - Assess and revise RCCE plan according to situation with RCCE working group. - Reinforce community-led activities to motivate individual and social responsibility to slow down transmission, alleviate stretched health systems and protect the most vulnerable - Provide training for surge staff - Engage communities as needed, with a focus on enhancing community dialogue and trust	Engage the public through RCCE and ensure people and communities participate in sharing trustworthy information, lead community actions and nurture trust in public health and social measures, through two-way communication. - Assess and revise RCCE plan according to situation with RCCE working group - Reinforce community-led activities to motivate individual and social responsibility to slow down transmission, alleviate stretched health systems and protect the most vulnerable - Continue risk perception assessment (formative research) - Implement feedback loop mechanism

	No Cases	Sporadic Cases	Clusters of Cases	Community Transmission
	- Engage people and communities in designing strategies on how to take up and sustain the recommended individual and public health and social measures, including vaccination. - Ready communities for introduction of vaccines, treatments and tests. - Build resilience within communities to prepare for a shift in case scenarios and to ward off complacency of public health and social measures.	- Address rumours and misinformation with trustworthy information and facts shared through trusted channels and sources - Engage people and communities in designing strategies on how to take up and sustain the recommended individual and public health and social measures, including vaccination. - Ready communities for introduction of vaccines, treatments and tests. - Build resilience within communities to prepare for a shift in case scenarios and to ward off complacency of public health and social measures.	- Assess initial risk perception assessment (formative research) - Implement feedback loop mechanism - Monitor process to guide implementation of RCCE plan - Address rumours and misinformation with trustworthy information and facts shared through trusted channels and sources; amplify information and support from trusted community leaders and influencers including though trusted media - Engage people and communities in designing strategies on how to take up and sustain the recommended individual and public health and social measures, including vaccination. - Ready communities for introduction of vaccines, treatments and tests. - Build resilience within communities to prepare for a shift in case scenarios and to ward off complacency of public health and social measures.	- Engage communities as needed, with a focus on enhancing community dialogue and trust - Monitor process to guide implementation of RCCE plan - Address rumours and misinformation with trustworthy information and facts shared through trusted channels and sources; amplify information and support from trusted community leaders and influencers including though trusted media - Engage people and communities in designing strategies on how to take up and sustain the recommended individual and public health and social measures, including vaccination. - Ready communities for introduction of vaccines, treatments and tests. - Build resilience within communities to prepare for a shift in case scenarios and to ward off complacency of public health and social measures.
Surveillance	Actively test for COVID-19 among suspected cases; rapid isolation of cases. Implement testing for COVID-19 using existing community-based surveillance, respiratory disease surveillance systems, hospital-based surveillance, event-based surveillance and investigation of clusters. Include variants of concern in surveillance capacities, including sequencing where available. Implement or maintain enhanced surveillance for residential facilities and for vulnerable groups.	Actively test for COVID-19 among suspected cases; rapid isolation of cases. Implement COVID-19 surveillance using existing community-based surveillance, respiratory disease surveillance systems, hospital-based surveillance, event-based surveillance and investigation of clusters. Include variants of concern in surveillance capacities, including sequencing where available. Implement enhanced surveillance for residential facilities and for vulnerable groups.	Actively test for COVID-19 among suspected cases; rapid isolation of cases. Expand COVID-19 surveillance using existing community-based surveillance, respiratory disease surveillance systems, hospital-based surveillance, event-based surveillance and investigation of clusters. Include variants of concern in surveillance capacities, including sequencing where available. Implement enhanced surveillance for residential facilities and for vulnerable groups.	Actively test for COVID-19 among suspected cases; where possible, especially in newly infected areas; rapid isolation of cases and apply self-initiated isolation for symptomatic individuals. Adapt existing surveillance systems to monitor disease activity. Continue event-based surveillance and investigation of clusters. Include variants of concern in surveillance capacities, including sequencing where available. Implement enhanced surveillance for residential facilities and for vulnerable groups.

	No Cases	Sporadic Cases	Clusters of Cases	Community Transmission
	Develop national strategy for genomic surveillance for SARS-CoV-2 variants.	Where possible, track vaccination status of infected individuals in order to contribute to awareness of vaccine effectiveness Develop national strategy for genomic surveillance for SARS-CoV-2 variants.	Where possible, track vaccination status of infected individuals in order to contribute to awareness of vaccine effectiveness Develop national strategy for genomic surveillance for SARS-CoV-2 variants.	Where possible, track vaccination status of infected individuals in order to contribute to awareness of vaccine effectiveness Implement genomic surveillance for SARS-CoV-2 variants.
Contact tracing and management	Prepare for surge in contact tracing needs.	Conduct contact tracing and monitoring; quarantine of contacts.	Conduct contact tracing, monitoring; quarantine of contacts. Conduct cluster investigations.	Conduct contact tracing and monitoring where possible; quarantine of contacts. Conduct cluster investigations. Contact tracing capacity may be stretched and should therefore prioritize the identification and investigation of clusters, high risk settings and those at risk of severe disease.
Public health and social measures (PHSM)	Prepare to adjust public health and social measures based on an analysis of the level of transmission, the capacity of the health system to respond and other contextual factors. Ensure that basic risk mitigation measures in relation to international travel are in place (such as travel advice, self-monitoring for international travellers, and environmental controls and public health and social measures at points of entry and on board conveyances). Conduct systematic and regular risk assessments to inform the introduction, adjustment or discontinuation of supplementary measures (such as screening, testing and quarantine of international travellers) for all travel routes. Advise against the use of COVID-19 vaccination as a condition for travellers to enter or exit the country, or to attend gatherings.	Adjust public health and social measures based on an analysis of the level of local transmission, the capacity of the health system to respond and other contextual factors. Ensure that basic risk mitigation measures in relation to international travel are in place (such as travel advice, self-monitoring for international travellers, and environmental controls and public health and social measures at points of entry and on board conveyances). Conduct systematic and regular risk assessments to inform the introduction, adjustment or discontinuation of supplementary measures (such as screening, testing and quarantine of international travellers) for all travel routes. Advise against the use of COVID-19 vaccination as a condition for travellers to enter or exit the country, or to attend gatherings.	Adjust public health and social measures based on an analysis of the level of local transmission, the capacity of the health system to respond and other contextual factors. Ensure that basic risk mitigation measures in relation to international travel are in place (such as travel advice, self-monitoring for international travellers, and environmental controls and public health and social measures at points of entry and on board conveyances). Conduct systematic and regular risk assessments to inform the introduction, adjustment or discontinuation of supplementary measures (such as screening, testing and quarantine of international travellers) for all travel routes. Advise against the use of COVID-19 vaccination as a condition for travellers to enter or exit the country, or to attend gatherings.	Adjust public health and social measures based on an analysis of the level of local transmission, the capacity of the health system to respond and other contextual factors. Ensure that basic risk mitigation measures in relation to international travel are in place (such as travel advice, self-monitoring for international travellers, and environmental controls and public health and social measures at points of entry and on board conveyances). Conduct systematic and regular risk assessments to inform the introduction, adjustment or discontinuation of supplementary measures (such as screening, testing and quarantine of international travellers) for all travel routes. Advise against the use of COVID-19 vaccination as a condition for travellers to enter or exit the country, or to attend gatherings.

	No Cases	Sporadic Cases	Clusters of Cases	Community Transmission
	Any decision to restrict, modify, postpone, cancel, or proceed with holding a mass gathering should be based on a rigorous risk-assessment exercise, tailored to the event, positioned within the context of the public health and social measures (PHSMs) implemented in the hosting country or area where the event is planned.	No gatherings should occur unless the basic precautionary measures are observed. Any decision to restrict, modify, postpone, cancel, or proceed with holding a mass gathering should be based on a rigorous risk-assessment exercise, tailored to the event, positioned within the context of the public health and social measures (PHSMs) implemented in the hosting country or area where the event is planned.	No gatherings should occur unless the basic precautionary measures are observed. Any decision to restrict, modify, postpone, cancel, or proceed with holding a mass gathering should be based on a rigorous risk-assessment exercise, tailored to the event, positioned within the context of the public health and social measures (PHSMs) implemented in the hosting country or area where the event is planned.	No gatherings should occur unless the basic precautionary measures are observed. Any decision to restrict, modify, postpone, cancel, or proceed with holding a mass gathering should be based on a rigorous risk-assessment exercise, tailored to the event. In case of high or very high risk, postponing or cancelling an event should always be considered, positioned within the context of the public health and social measures (PHSMs) implemented in the hosting country or area where the event is planned.
Infection prevention and control (IPC) – health care setting	Identify national and facility level IPC focal points. (Re)train staff in IPC and clinical management specifically for COVID-19. Implement IPC strategies and measures to prevent or control transmission in health care settings. Use appropriate personal protective equipment (PPE) by health workers providing direct care to patients with COVID-19. Develop plan to forecast essential supply needs and a strategic allocation plan for severe shortages if disruption in PPE supply is anticipated. Prepare strategies for detecting, preventing and managing SARS-CoV-2 infections among health workers.	Identify national and facility level IPC focal points. (Re)train staff in IPC and clinical management specifically for COVID-19. Implement IPC strategies and measures to prevent or control transmission in health care settings. Use appropriate PPE by health care workers providing direct care to patients with COVID-19. Implement essential supply forecasting and strategic planning for severe shortages if disruption in PPE supply is anticipated or experienced. Implement guidance on mask use for health facilities. Implement strategies for detecting, preventing and managing SARS-CoV-2 infections among health workers.	Identify national and facility level IPC focal points. (Re)train staff in IPC and clinical management specifically for COVID-19. Implement IPC strategies and measures to prevent or control transmission in health care settings. Use appropriate PPE by health care workers providing direct care to patients with COVID-19. Implement essential supply forecasting and strategic planning for severe shortages if disruption in PPE supply is anticipated or experienced. Implement guidance on mask use for health facilities. Consider universal masking in health care facilities at this level. Implement strategies for detecting, preventing and managing SARS-CoV-2 infections among health workers.	Identify national and facility level IPC focal points. Retrain staff in IPC and clinical management specifically for COVID-19. Reinforce IPC strategies and measures to prevent or control transmission in health care settings. Use of appropriate PPE by health workers providing direct care to patients with COVID-19. Implement essential supplies forecasting and strategic planning for severe shortages if disruption in PPE supply is anticipated or experienced. Implement guidance on mask use for health facilities. Consider universal masking in health care facilities at this level. Implement strategies for detecting, preventing and managing SARS-CoV-2 infections among health workers.

	No Cases	Sporadic Cases	Clusters of Cases	Community Transmission
	Prepare for surge in health care facility needs, including respiratory support, IPC, IPC and PPE supplies, screening of health workers for infection and mental health support for health workers. Implement environmental and engineering controls, including adequate ventilation and environmental cleaning.	Prepare for surge in health care facility needs, including respiratory support, IPC, IPC and PPE supplies, screening of health workers for infection and mental health support for health workers. Implement environmental and engineering controls, including adequate ventilation and environmental cleaning.	Prepare for surge in health care facility needs, including respiratory support, IPC, IPC and PPE supplies, screening of health workers for infection and mental health support for health workers. Implement environmental and engineering controls, including adequate ventilation and environmental cleaning.	Implement health facilities surge plans, including respiratory support, IPC, IPC and PPE supplies, screening of health workers for infection and mental health support for health workers. Implement environmental and engineering controls, including adequate ventilation and environmental cleaning.
Infection prevention and control (IPC) – community settings	Anyone with symptoms suggestive of COVID-19 and those caring for sick persons at home should use medical masks and be mindful of other IPC recommendations such as environmental cleaning and ventilation.	Anyone with symptoms suggestive of COVID-19 and those caring for sick patients at home should use medical masks and be mindful of other IPC recommendations such as environmental cleaning and ventilation. Maintain physical distancing of at least 1 meter, wear a mask when physical distance of at least 1 meter cannot be maintained. Encourage outdoor activities over indoor activities, where possible. Perform frequent hand hygiene with alcohol-based hand sanitizer or soap and water. Ensure adequate ventilation in indoor settings. Avoid three C settings: **Crowded** places with many people nearby; **close-contact** settings, especially where people have close-range conversations; and **confined** and enclosed spaces with poor ventilation. Increase access to outdoor air through natural ventilation.	Anyone with symptoms suggestive of COVID-19 and those caring for sick patients at home should use medical masks and be mindful of other IPC recommendations such as environmental cleaning and ventilation Maintain physical distancing of at least 1 meter, wear a mask when physical distance of at least 1 meter cannot be maintained. Encourage outdoor activities over indoor activities, where possible. Encourage the use of medical masks by individuals/people with higher risk of severe complications from COVID-19 (people aged >60 years and/or with comorbid conditions); use of fabric mask for the general public where physical distancing of at least 1 m cannot be achieved, or if indoors where ventilation cannot be assessed or is known to be poor. Encourage the use of fabric mask for households, in indoor settings, when there is visitor who is not a member of the household.	Anyone with symptoms suggestive of COVID-19 and those caring for sick patients at home should use medical masks and be mindful of other IPC recommendations such as environmental cleaning and ventilation. Maintain physical distancing of at least 1 meter, wear a mask when physical distance of at least 1 meter cannot be maintained. Encourage outdoor activities over indoor activities, where possible. Encourage the use of medical masks by individuals/people with higher risk of severe complications from COVID-19 (people aged >60 years and/or with comorbid conditions); use of fabric mask for the general public where physical distancing of at least 1 m cannot be achieved, or if indoors where ventilation cannot be assessed or is known to be poor. Encourage outdoor activities over indoor activities, where possible. Encourage the use of fabric mask for households, in indoor settings, when there is visitor who is not a member of the household.

	No Cases	Sporadic Cases	Clusters of Cases	Community Transmission
			Ensure adequate ventilation in indoor settings. Perform frequent hand hygiene with alcohol-based hand sanitizer or soap and water. Avoid three C settings: **Crowded** places with many people nearby; **close-contact** settings, especially where people have close-range conversations; and **confined** and enclosed spaces with poor ventilation. Increase access to outdoor air through natural ventilation.	Ensure adequate ventilation in indoor settings. Perform frequent hand hygiene with alcohol-based hand sanitizer or soap and water. Avoid three C settings: **Crowded** places with many people nearby; **close-contact** settings, especially where people have close-range conversations; and **confined** and enclosed spaces with poor ventilation. Increase access to outdoor air through natural ventilation.
Laboratory and diagnostics	Test according to the national strategy, using available and approved diagnostic tests. Nucleic acid amplification testing (NAAT), for example RT-PCR, is the reference method for detection of active SARS-CoV-2 infections.[1] Identify facilities at national or international laboratories for referral of positive specimens for sequencing.	Test according to the national strategy, using available and approved diagnostic tests. Nucleic acid amplification testing (NAAT), for example RT-PCR, is the reference method for detection of active SARS-CoV-2 infections.[1] Genomic sequencing of SARS-CoV-2 should be used to detect and monitor SARS-CoV-2 variants. At least a subset of representative, quality and timely NAAT positive samples should be sequenced at national facilities or at international reference laboratories. The following additional cases can be prioritized for further characterization through sequencing: - Infection in previously infected individuals - Infection in previously vaccinated individuals - Diagnostic test failure or target drop out	Test according to the national strategy, using available and approved diagnostic tests. Nucleic acid amplification testing (NAAT), for example RT-PCR, is the reference method for detection of active SARS-CoV-2 infections.[1] Genomic sequencing of SARS-CoV-2 should be used to detect and monitor SARS-CoV-2 variants. At least a subset of representative, quality and timely NAAT positive samples should be sequenced at national facilities or at international reference laboratories. The following additional cases can be prioritized for further characterization through sequencing: - Infection in previously infected individuals - Infection in previously vaccinated individuals - Diagnostic test failure or target drop out	Test according to the national strategy, using available and approved diagnostic tests. Nucleic acid amplification testing (NAAT), for example RT-PCR, is the reference method for detection of active SARS-CoV-2 infections.[1] If diagnostic capacity is insufficient, implement prioritized testing and measures that can reduce spread (e.g. isolation), including priority testing with Ag-RDTs or (wherever possible) with RT-PCR of: - people who are at risk of developing severe disease and vulnerable populations, who will require hospitalization and advanced care for COVID-19 - health workers (including emergency services and non-clinical staff) regardless of whether they are a contact of a confirmed case (to protect health workers and reduce the risk of nosocomial transmission)

	No Cases	Sporadic Cases	Clusters of Cases	Community Transmission
		- Individuals with prolonged viral replication and shedding All genetic sequence data should be shared by uploading to a publicly accessible database.	- Individuals with prolonged viral replication and shedding All genetic sequence data should be shared by uploading to a publicly accessible database.	- the first symptomatic individuals in a closed setting (e.g. schools, long term living facilities, prisons, hospitals) or fragile settings (e.g. humanitarian operations, refugee/migrant camp and non-camp settings) to quickly identify outbreaks and ensure containment measures Genomic sequencing of SARS-CoV-2 should be used to detect and monitor SARS-CoV-2 variants in areas of widespread transmission. At least a subset of representative, quality and timely NAAT positive samples should be sequenced at national facilities or at international reference laboratories. The following additional cases can be prioritized for further characterization through sequencing: - Infection in previously infected individuals - Infection in previously vaccinated individuals - Diagnostic test failure or target drop out - Individuals with prolonged viral replication and shedding Sequence a subset of representative, quality and timely NAAT positive samples from sentinel surveillance sites. All genetic sequence data should be shared by uploading to a publicly accessible database.

	No Cases	Sporadic Cases	Clusters of Cases	Community Transmission
Case management strategy	Set up or maintain screening and triage protocols at all points of access to the health system. Prepare to treat COVID-19 affected patients, this includes patients that may go on to develop Post COVID-19 condition. Set up or maintain COVID-19 hotline and referral system; ready hospitals for potential surge. Ensure supply chain management system in place for therapeutics (i.e. corticosteroids), oxygen supply and availability. Ensure national guidelines are adapted on regular basis to align with WHO Living Guidances. Ensure health workers are trained in clinical management, this includes clinical and technical staff. Ensure structures for caring for COVID-19 patients adhere to guidance available on design and ventilation.	Screen and triage patients at all points of access to the health system. Care for all suspected and confirmed patients according to disease severity and acute care need. Care for all suspected and confirmed patients that go on to develop Post COVID-19 condition. Ready hospitals for surge; ready communities for surge, including by setting up community facilities for isolation of mild/moderate cases; establish protocol for home isolation. Ensure supply chain management system in place for therapeutics (i.e. corticosteroids), oxygen supply and availability. Ensure national guidelines are adapted on regular basis to align with WHO Living Guidances. Ensure health workers are trained in clinical management, this includes clinical and technical staff. Ensure structures for caring for COVID-19 patients adhere to guidance available on design and ventilation.	Screen and triage patients at all points of access to the health system. Care for all suspected and confirmed patients according to disease severity and acute care needs. Care for all suspected and confirmed patients that go on to develop Post COVID-19 condition Activate surge plans for health facilities, activate community facilities; activate protocols for home isolation. Ensure supply chain management system in place for therapeutics (i.e. corticosteroids), oxygen supply and availability. Ensure national guidelines are adapted on regular basis to align with WHO Living Guidances. Ensure health workers are trained in clinical management, this includes clinical and technical staff. Ensure structures for caring for COVID-19 patients adhere to guidance available on design and ventilation.	Screen and triage patients at all points of access to the health system. Care for all suspected and confirmed patients according to disease severity and acute care needs. Care for all suspected and confirmed patients that go on to develop Post COVID-19 condition Activate and continue to scale up surge plans for health facilities, community facilities and home care, including enhancement of COVID-19 referral system. Ensure supply chain management system in place for therapeutics (i.e. corticosteroids), oxygen supply and availability. Ensure national guidelines are adapted on regular basis to align with WHO Living Guidances. Ensure health workers are trained in clinical management, this includes clinical and technical staff. Ensure structures for caring for COVID-19 patients adhere to guidance available on design and ventilation.
Case management recommendations by case severity and risk factors	Test suspect COVID-19 cases according to the diagnostic strategy. For mild and moderate cases with no risk factors, there are three options for care and isolation: - Health facilities, if resources allow - Community facilities (i.e. stadiums, gymnasiums, hotels) with access to rapid health advice (i.e., adjacent COVID-19 designated health post, telemedicine) - Self-isolation at home according to WHO guidance with consideration of alternative delivery platforms such as telemedicine or community outreach teams. For moderate cases with risk factors, and all severe/critical cases: hospitalization (in-patient treatment), with appropriate isolation/cohorting. The decision of location should be made on a case-by-case basis and will depend on the clinical presentation, requirement for supportive care, potential risk factors for severe disease and conditions at home, including the presence of vulnerable persons in the household.			

	No Cases	Sporadic Cases	Clusters of Cases	Community Transmission
Health services	Maintain all health services. Prepare or review health system capacity and surge strategies. Designate an essential health services (EHS) focal point to the national COVID-19 incident management team (IMT). Generate a country-specific list of core EHS and map to (HR and material) resource needs. Establish triggers or thresholds for phased reallocation of capacity and dynamic adaptation of services as the pandemic evolves. Establish or review mechanisms to monitor the ongoing delivery of EHS. Initiate rapid trainings to expand health worker capacity in key areas (including screening triage and emergency care). Maintain and reinforce surveillance for vaccine-preventable diseases; develop or review strategies for delivering immunization services.	Maintain all health services, with strategic shifts in service delivery to limit transmission (e.g. limiting facility-based encounters where appropriate, modifying patient flow for safety). Implement health system capacity and surge strategies. Generate and complete a country-specific list of core EHS and map to (HR and material) resource needs. Evaluate readiness to shift to priority EHS. Establish mechanisms of coordination and communication among the IMT and service providers. Ensure that 24-hour acute care services are available at all first-level hospital emergency (or similar) units and ensure public awareness. Conduct rapid capacity assessments (HR and material resources). Suspend user fees at the point of care for EHS for all patients. Maintain and reinforce surveillance for vaccine-preventable diseases; implement strategies for delivering immunization services.	Maintain all health services, with strategic shifts in service delivery to limit transmission (e.g. limiting facility-based encounters where appropriate, modifying patient flow for safety). Enhance health system capacity and surge strategies. Prepare to initiate strategic shifts for prioritization. Implement protocols for targeted referral and counter-referral pathways. Schedule appointments, limit visitors and create unidirectional patient and staff flow to ensure sufficient distancing. Implement tools and information systems to support teleconsultations. Coordinate additional funding for health workers to ensure timely payment of salaries, overtime, sick leave and incentive or hazard pay. Maintain and reinforce surveillance for vaccine-preventable diseases; implement strategies for delivering immunization services.	Maintain all health services as possible. In CT4, or whenever service capacity is overwhelmed, implement strategic shifts to prioritize EHS. Intensify health system capacity and surge strategies. Continue to monitor delivery of EHS at community and facility level, identify barriers to access and anticipate restoring suspended services based on changing needs. Establish weekly reporting from major distribution points on critical products that may be at risk of shortages. Coordinating primary care support, adjust hospital admission and discharge protocols as appropriate to limit duration of inpatient stays. Document adaptive responses implemented during the pandemic phase that should be considered for longer-term integration into health system operations. Maintain surveillance for vaccine-preventable diseases; implement strategies for delivering immunization services.
Societal response	Develop all-of-society and business continuity plans. Review and update all-of-society and business continuity plans as evidence becomes available.	Implement all-of-society plans, repurpose government and ready business continuity plans.	Implement all-of-society plans, repurpose government, business continuity and community services plans.	Implement all-of-society plans, repurpose government, business continuity and community services plans.

	No Cases	Sporadic Cases	Clusters of Cases	Community Transmission
Vaccine introduction	Operationalize COVID-19 National Deployment and Vaccination Plan Identify and plan a national vaccine access/procurement approach (e.g. COVAX Facility, bilateral purchase agreement, procurement through UN agency, self-procurement), ensuring access to vaccines, ancillary supplies, and Personal Protective Equipment (PPE). Train health workers for safe COVID-19 vaccination delivery Support the adoption of efficient and expedited regulatory pathways for approval and regulatory oversight of COVID-19 vaccines including risk-based pharmacovigilance and post marketing surveillance of products. Assess required logistical procedures, as well as dry storage and cold chain capacity and infrastructure needs at all levels with regards to the COVID-19 vaccines characteristics and develop a plan to fill the identified supply and logistics gaps. Ensure a vaccination monitoring and safety monitoring systems exists and coordinating committee is in place. Include COVID-19 vaccine programme costs (vaccine, operating costs, human resources and capital costs) in government budgetary and/or planning documents approved by the appropriate authority; Identify funding gaps in operational costs and if needed apply to multilateral back funding and in-country donor funding.	Operationalize COVID-19 National Deployment and Vaccination Plan Identify and plan a national vaccine access/procurement approach (e.g. COVAX Facility, bilateral purchase agreement, procurement through UN agency, self-procurement), ensuring access to vaccines, ancillary supplies, and Personal Protective Equipment (PPE). Train health workers for safe COVID-19 vaccination delivery Support the adoption of efficient and expedited regulatory pathways for approval and regulatory oversight of COVID-19 vaccines including risk-based pharmacovigilance and post marketing surveillance of products. 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Include COVID-19 vaccine programme costs (vaccine, operating costs, human resources and capital costs) in government, budgetary and/or planning documents approved by the appropriate authority; Identify funding gaps in operational costs and if needed apply to multilateral back funding and in-country donor funding.

WHO Technical Guidance for COVID-19

Country-level coordination, planning, and monitoring

- COVID-19 Partners Platform based on Operational Planning Guidance
- Training modules: Operational Planning Guidelines and COVID-19 Partners Platform
- National capacities review tool for a novel coronavirus

Critical preparedness, readiness and response actions for COVID-19

- Responding to community spread of COVID-19
- Overview of Public Health and Social Measures in the context of COVID-19
- Considerations for implementing and adjusting public health and social measures in the context of COVID-19
  - Considerations for public health and social measures in the workplace in the context of COVID-19
  - Considerations for school-related public health measures in the context of COVID-19
  - Considerations for mass gatherings in the context of COVID-19
- Considerations for implementing a risk-based approach to international travel in the context of COVID-19
- Preparedness for cyclones, tropical storms, tornadoes, floods and earthquakes during the COVID-19 pandemic
- Investing in and building longer-term health emergency preparedness during the COVID-19 pandemic
- Practical actions in cities to strengthen preparedness for the COVID-19 pandemic and beyond
- Guidance for conducting a country COVID-19 intra-action review (IAR)
- Strategic Advisory Group of Experts on Immunization (SAGE): COVID-19 vaccines technical documents
- Emergency use listing for COVID-19
- Guidance on developing a national deployment and vaccination plan for COVID-19 vaccines

Surveillance, rapid response teams, and case investigation

- Public health surveillance for COVID-19
  - COVID-19 Case definition
  - Global surveillance of COVID-19: WHO process for reporting aggregated data
- Considerations in the investigation of cases and clusters of COVID-19
- Considerations for quarantine of contacts of COVID-19 cases
- Surveillance strategies for COVID-19 human infection
- Contact tracing in the context of COVID-19
  - Digital tools for COVID-19 contact tracing
  - Ethical considerations to guide the use of digital proximity tracking technologies for COVID-19 contact tracing
- Operational considerations for COVID-19 surveillance using GISRS
- Medical certification, ICD mortality coding, and reporting mortality associated with COVID-19

Guidance for national laboratories

- Diagnostic testing for SARS-CoV-2
- Laboratory testing strategy recommendations for COVID-19
- Laboratory biosafety related to coronavirus disease (COVID-19)
- Guidance for laboratories shipping specimens to WHO reference laboratories that provide confirmatory testing for COVID-19 virus
- Antigen-detection in the diagnosis of SARS-CoV-2 infection using rapid immunoassays
- SARS-CoV-2 antigen-detecting rapid diagnostic tests: an implementation guide
- COVID-19 Target product profiles for priority diagnostics to support response to the COVID-19 pandemic
- Laboratory assessment tool for laboratories implementing SARS-CoV-2 testing
- SARS-CoV-2 genomic sequencing for public health goals: interim guidance
- Genomic sequencing of SARS-CoV-2: a guide to implementation for maximum impact on public health
- Operational considerations to expedite genomic sequencing component of GISRS surveillance of SARS-CoV-2

Clinical care for COVID-19 patients

- Clinical management of COVID-19
- Therapeutics and COVID-19
- Drugs to Prevent COVID-19
- Clinical care of severe acute respiratory infections – Tool kit
- Home care for patients with suspected or confirmed COVID-19 and management of their contacts
- Operational considerations for case management of COVID-19 in health facility and community
- Severe Acute Respiratory Infections Treatment Centre
- Recommendations: Prehospital Emergency Medical Services (EMS) COVID-19
- Use of chest imaging in COVID-19
- Maintaining a safe and adequate blood supply during the pandemic outbreak of coronavirus disease (COVID-19)
- Global COVID-19 Clinical Characterization Case Record Form
  - Rapid core case report form
  - Pregnancy case report form
  - Case Report Form for suspected cases of multisystem inflammatory syndrome (MIS) in children and adolescents temporally related to COVID-19
  -Post COVID-19 case report form

Infection Prevention and Control for COVID-19

- Infection prevention and control during health care when COVID-19 is suspected or confirmed
- Rational use of personal protective equipment for coronavirus disease (COVID-19) and considerations during severe shortages
- Advice on the use of masks in the context of COVID-19
- Advice on the use of masks for children in the community in the context of COVID-19
- Considerations for quarantine of contacts of COVID-19 cases
- Water, sanitation, hygiene and waste management for COVID-19
- Infection prevention and control for the safe management of a dead body in the context of COVID-19

- Infection prevention and control for long-term care facilities in the context of COVID-19Infection prevention and control for long-term care facilities in the context of COVID-19
- Cleaning and disinfection of environmental surfaces in the context of COVID-19
- Surveillance protocol for SARS-CoV-2 infection among health workers
- Prevention, identification and management of health worker infection in the context of COVID-19
- Health workers exposure risk assessment and management in the context of COVID-19 virus
- Home care for patients with suspected novel coronavirus (nCoV) infection presenting with mild symptoms and management of contacts
- Aide-memoire: Infection prevention and control (IPC) principles and procedures for COVID-19 vaccination activities

Essential resources planning

- COVID-19 Essential Supplies Forecasting Tool
- FAQ: COVID-19 Essential Supplies Forecasting Tool (COVID-19 ESFT)
- Adapt Surge Planning Support Tool
- Health Workforce Estimator
- Reagent calculator for portal
- List of priority medical devices for COVID-19 case management
- Technical specifications for invasive and non-invasive ventilators for COVID-19
- Oxygen sources and distribution for COVID-19 treatment centres
- Technical specifications for Pressure Swing Adsorption (PSA) Oxygen Plants

Essential health services

- Maintaining essential health services: operational guidance for the COVID-19 context
- Community-based health care, including outreach and campaigns, in the context of the COVID-19 pandemic
- Harmonized health service capacity assessments in the context of the COVID-19 pandemic
  - Rapid hospital readiness checklist
  - Biomedical equipment for COVID-19 case management - inventory tool
  - Diagnostics, therapeutics, vaccine readiness, and other health products for COVID-19
  - Ensuring a safe environment for patients and staff in COVID-19 health-care facilities
  - Infection prevention and control health-care facility response for COVID-19
  - Continuity of essential health services: Facility assessment tool
- Recommendations to Member States to improve hand hygiene practices to help prevent the transmission of the COVID-19 virus
- Guiding principles for immunization activities during the COVID-19 pandemic
  - FAQ: Immunization in the context of COVID-19 pandemic
- Framework for decision-making: implementation of mass vaccination campaigns in the context of COVID-19
- Preventing and managing COVID-19 across long-term care services: Policy brief
  - Preventing and managing COVID-19 across long-term care services: Web annex
- Considerations for implementing mass treatment, active case-finding and population-based surveys for neglected tropical diseases in the context of the COVID-19 pandemic
- Considerations for the provision of essential oral health services in the context of COVID-19

Risk communication and community engagement

- Risk communication and community engagement Toolkit
- 10 Steps to community readiness – what countries should do to prepare communities for a COIVD-19 vaccine, treatment or new test
- COVID-19 Global Risk Communication and Community Engagement Strategy
- Risk communication and community engagement readiness and response to coronavirus disease (COVID-19)
- Mental health considerations during COVID-19 outbreak
- COVID-19 risk communication package for healthcare facilities
- A guide to preventing and addressing social stigma associated with COVID-19

Guidance for COVID-19 in schools, workplaces and institutions

- Key messages and actions for COVID-19 prevention and control in schools
- IASC: COVID-19 prevention and control in schools
- Getting your workplace ready for COVID-19
- COVID-19 and Food Safety: Guidance for competent authorities responsible for national food safety control systems
- COVID-19 and food safety: Guidance for food businesses
- Operational considerations for COVID-19 management in the accommodation sector
- Preparedness, prevention and control of COVID-19 in prisons and other places of detention
- Rights, roles and responsibilities of health workers, including key considerations for occupational safety and health

Humanitarian operations, camps and other fragile settings

- IASC: Scaling-up COVID-19 Outbreak in Readiness and Response Operations in Camps and Camp-like Settings (jointly developed by IFRC, IOM, UNHCR and WHO)
- Preparedness, prevention and control of coronavirus disease (COVID-19) for refugees and migrants in non-camp settings
- Public health and social measures for COVID-19 preparedness and response in low capacity and humanitarian settings
- Preparedness for cyclones, tropical storms, tornadoes, floods and earthquakes during the COVID-19 pandemic

Operational support and logistics

- Disease commodity package

Travel, points of entry and border health

- Considerations for implementing a risk-based approach to international travel in the context of COVID-19
- Management of ill travellers at Points of Entry – international airports, seaports and ground crossings – in the context of COVID-19 outbreak
- Operational considerations for managing COVID-19 cases/outbreak on board ships
- Operational considerations for managing COVID-19 cases or outbreak in aviation
- Controlling the spread of COVID-19 at ground crossings
- Promoting public health measures in response to COVID-19 on cargo ships and fishing vessels
- Interim position paper: considerations regarding proof of COVID-19 vaccination for international travellers

Mass gatherings

- Key planning recommendations for Mass Gatherings in the context of the current COVID-19 outbreak
- Mass gatherings COVID-19 risk assessment
  - Risk assessment tool
  - Decision tree
  - Considerations for risk assessment for sports federations/sports event organizers
  - Risk assessment tool for sports events
- Practical considerations and recommendations for religious leaders and faith-based communities in the context of COVID-19
  - Risk assessment tool
  - Decision tree
- Safe Ramadan practices in the context of the COVID-19
- Safe Eid al Adha practices in the context of COVID-19

Reducing animal-human transmission of emerging pathogens

- Origin of SARS-CoV-2
- Recommendations to reduce risk of transmission of emerging pathogens from animals to humans in live animal markets or animal product markets

Early investigation protocols (the Unity Studies)

- The First Few X (FFX) Cases and contact investigation protocol for COVID-19 infection
- Household transmission investigation protocol for COVID-19 infection
- Prospective cohort protocol for assessment of potential risk factors for COVID-19 infection among health care workers in a health care setting
- Case-control protocol for assessment of potential risk factors for COVID-19 infection among health care workers in a health care setting
- Population-based age-stratified seroepidemiological investigation protocol for COVID-19 virus infection
- Surface sampling of coronavirus disease COVID-19 virus: A practical "how to" protocol for health care and public health professionals

Online training courses available for COVID-19

- Introduction to COVID-19
- eProtect Respiratory Infections
- Critical Care for Severe Acute Respiratory Infections
- WHO Medical emergency checklist
- Severe Acute Respiratory Infection (SARI) treatment facility design
- Resuscitation area designation tool
- Infection Prevention and Control for COVID-19
  - Infection Prevention and Control core components and multimodal strategies
  - Standard precautions: Hand hygiene
  - Standard precautions: Waste management
  - Standard precautions: Environmental cleaning and disinfection
  - Standard precautions: Injection safety and needle-stick injury management
  - Decontamination and sterilization of medical devices
  - How to put on and remove personal protective equipment
- Country preparedness and response planning
- Mass gatherings risk assessment training
- Occupational health and safety for health workers in the context of COVID-19
- Long-term care facilities in the context of COVID-19
- Controlling the spread of COVID-19 at ground crossings
- Operational considerations for managing COVID-19 cases and outbreaks in aviation
- Operational considerations for managing COVID-19 cases and outbreaks on board ships
- Management of ill travellers at point of entry in the context of the COVID-19 outbreak

WHO continues to monitor the situation closely for any changes that may affect this interim guidance. Should any factors change, WHO will issue a further update. Otherwise, this interim guidance document will expire 2 years after the date of publication

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