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# 2019 NOVEL CORONAVIRUS (2019-nCoV ) STRATEGIC PREPAREDNESS AND RESPONSE PLAN FOR THE SOUTH-EAST ASIA REGION

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World Health  
Organization  
REGIONAL OFFICE FOR South-East Asia





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# SITUATION ASSESSMENT



## Epidemiological overview

On 31 December 2019, the WHO China Country Office was informed of cases of pneumonia unknown etiology detected in Wuhan City, Hubei Province of China. On 7 January 2020 a new type of coronavirus, 2019-nCoV was detected from an outbreak in Wuhan city, Hubei province, China.

Between 31 December 2019 and 3 February 2020, twenty-four countries have reported a total of 17 391 laboratory confirmed cases infected with 2019-nCoV, including 361 deaths. Majority of the cases (99%) are reported from China (17 238 confirmed cases from China, and 304 deaths). Confirmed cases (153 ) also reported from: Japan (20), Thailand (19), Singapore (18), Republic of Korea (15), Australia (12), United States of America (11), Germany (10), Malaysia (8), Viet Nam (8), France (6), United Arab Emirates (5), Canada (4), India (3), Italy (2), Russian Federation (2), United Kingdom of Great Britain and Northern Ireland (2), Philippines (2), Nepal (1), Sri Lanka (1), Spain (1), Sweden (1), Cambodia (1), Finland (1).

Current estimates of the incubation period of the virus is 14 days or less (current estimates suggest average is 7 days, ranging from 2-10 days), with an average of 5 days. Detailed epidemiological information from more people infected is needed to determine the infectious period of 2019-nCoV, in particular whether transmission can and to the extent it may occur from “asymptomatic” or mildly symptomatic individuals or prior to symptoms onset.

Among the globally reported 2019-nCoV cases, 16% have been severe, and 2.2% of case fatality rate. Amongst the cases reported outside of China, clinical disease appears to be predominantly mild to moderate, although further investigation and follow-up is needed to make a robust assessment of this. One death has been reported from the Philippines, among cases identified outside of China.

Human-to-human transmission has been documented in health care settings and family clusters, mostly in China. Receptor binding analysis of the virus to human cells and the exponential growth of the number of cases in China pose the threat of possible sustained human to human transmission; however, because of limited epidemiological data, the extent, to which such transmission might lead to a sustained epidemic remains unclear.





Among cases reported outside of China, the majority of the cases have travel history from Wuhan, Hubei province or other provinces in China or are close contacts with a confirmed case. While the zoonotic source of 2019-nCoV remains unknown, it is clear that the growing outbreak is no longer linked only to the Huanan seafood market in Wuhan as many of the new cases reported have not visited the Huanan market.

## 1.1 Distribution of 2019-nCoV as of 10 February 2020

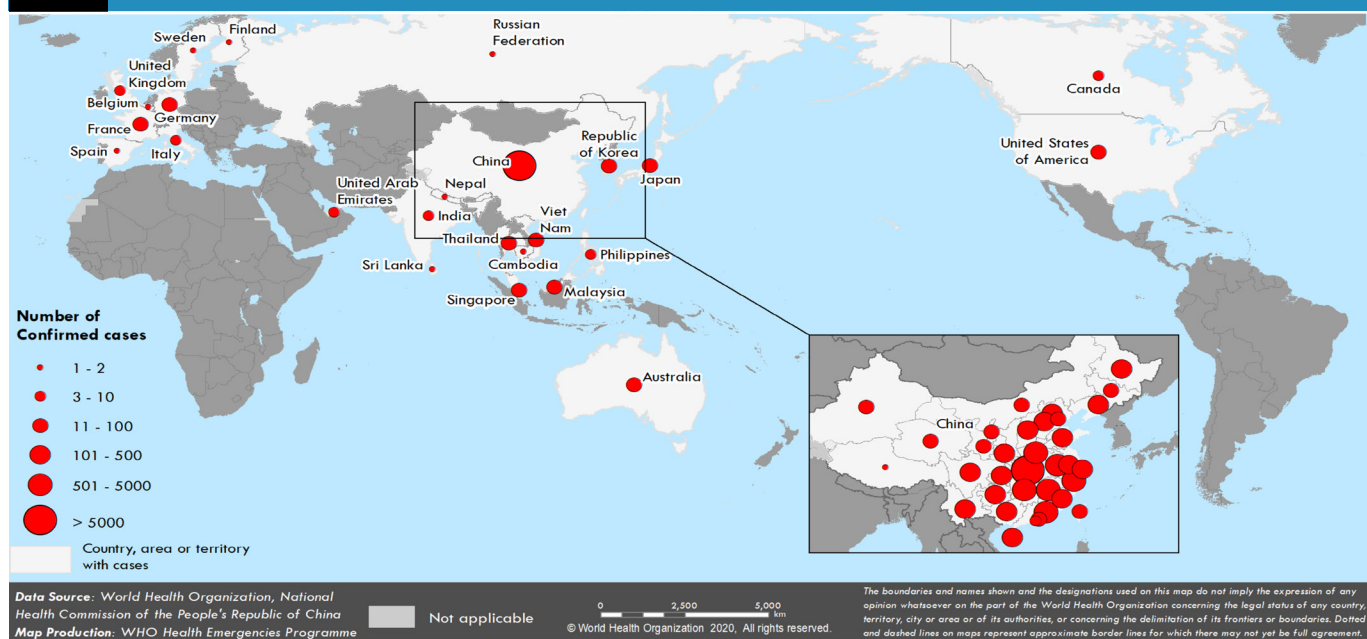


Photo credit: WHO / Gary Hampton



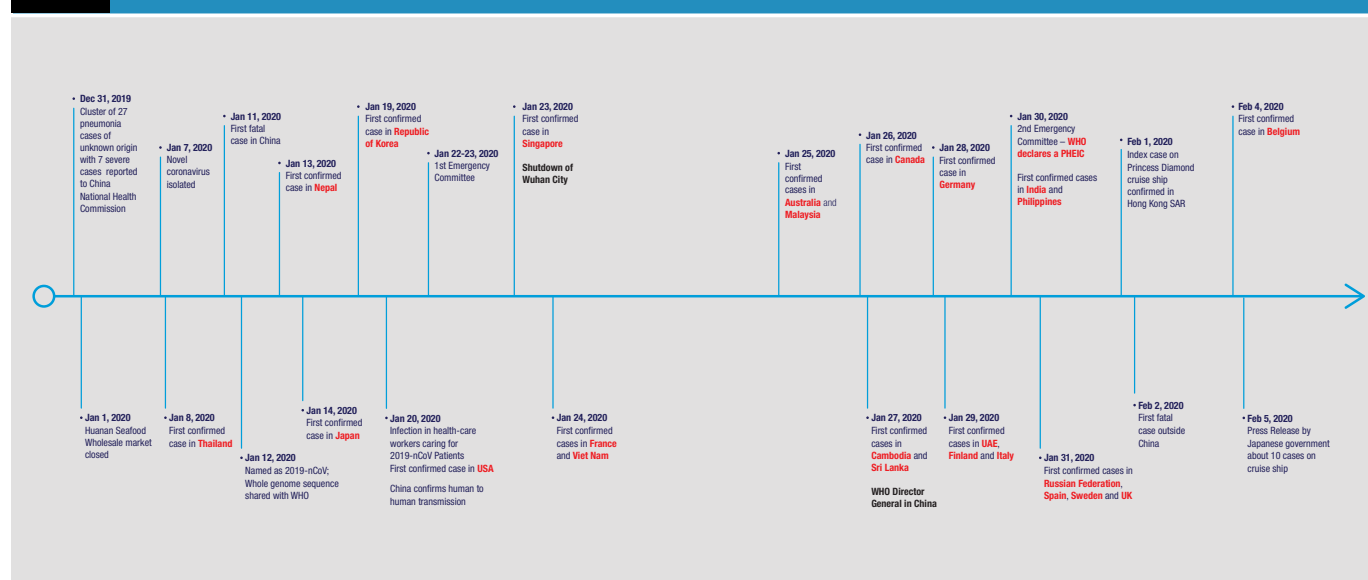
## International response

At the global and regional level, WHO has activated an incident management system (IMS) together with technical and operational partners. Technical support is being provided to countries through regional and country offices. Existing coordination mechanisms of global expert networks and partnerships have been activated to provide a comprehensive technical package of interim guidance for 2019-nCoV materials, which is updated regularly as the outbreak evolves. Critical epidemiological updates have been collected, verified and shared with countries and partners through EIS, Disease Outbreak News, External SitReps, and the WHO website. Public health risk communication and advice for international travel and trade is being provided through various traditional and social media channels.

In China, as of 23 January 2020, the National Health Commission revised protection standards and specifications for medical workers and strengthened prevention and control measures against 2019-nCoV in hospitals. Citizens have been encouraged to reconsider the timing of overseas travel and measures have been introduced to try to stop the spread of the disease across the country. National authorities are conducting active case finding in all provinces, and the search for additional cases has been expanded within and outside of Wuhan.

In other countries with imported cases or a high risk of imported cases, a range of measures have been undertaken, including updated guidance and risk communication to enable possible cases to be rapidly identified, diagnosed and managed. Diagnostic tests and reference materials will be made available through global laboratory networks. Advice has been provided to travellers arriving in other countries from China.

### 1.2 Evolution of the 2019-nCoV outbreak (31 December 2019 – 10 February 2020)





## Risk assessment

WHO assesses the risk to be very high for China, high at the regional level, and high at the global level. WHO considers the overall risk for China to be Very High due to:

1. Increased number of new cases reported, and the likelihood that there are a considerable number of cases not yet reported;
2. Clear evidence of human-to-human transmission;
3. Rapid spread of the virus in China from Wuhan to 31 provincial level administrative divisions and major cities like Beijing and Shanghai;
4. The source of the outbreak not yet been identified;
5. WHO does not yet have enough data from China to assess critical features of this outbreak, such as clinical severity of cases, risk factors for severe illness, and impact on health care system;
6. The "Spring Festival"/ "Lunar New Year" holiday, the country's biggest population movement and also World's largest annual human migration, could facilitate spread of the outbreak.

At Regional and Global levels, the overall risk is assessed as High due to:

1. A high level of concern of additional international spread;
2. Spread of cases to 16 other countries and human to human transmission in at least 3 other countries (Germany, Japan, Vietnam);
3. A large number of travellers into and out of China, connecting China to all parts of the world
4. WHO has received only limited information about the cases and contacts in countries outside China, leaving many uncertainties regarding the epidemiology of international spread;
5. Challenge to diagnose cases due to non-specific symptoms and possibility of co-circulation of other respiratory pathogens (e.g. influenza, RSV) hence potential of undetected transmission;
6. Delays in confirmation due to limited testing capacity;
7. Many countries are reporting alerts/signals related to 2019-nCoV ;
8. In contrast to China, as of 29 January, the disease among cases diagnosed outside of China have been mild to moderate.



## Recommendations of the International Health Regulations (2005) emergency committee

The WHO Director General has declared on 30 January 2020 that the outbreak of novel coronavirus (2019-nCoV ) is a global public health emergency based on the recommendations of the International Health Regulations (2005) Emergency Committee.





## Advice to all countries

- It is expected that further international exportation of cases may appear in any country. Thus, all countries should be prepared for containment, including active surveillance, early detection, isolation and case management, contact tracing and prevention of onward spread of 2019-nCoV infection and to share full data with WHO. Technical advice is available on the WHO website.
- Countries are reminded that they are legally required to share information with WHO under the IHR.
- Any detection of 2019-nCoV in an animal (including information about the species, diagnostic tests, and relevant epidemiological information) should be reported to the World Organization for Animal Health (OIE) as an emerging disease.
- Countries should place particular emphasis on reducing human infection, prevention of secondary transmission and international spread, and contributing to the international response through multi-sectoral communication and collaboration and active participation in increasing knowledge on the virus and the disease, as well as advancing research.
- The Committee does not recommend any travel or trade restriction based on the current information available.
- Countries must inform WHO about travel measures taken, as required by the IHR. Countries are cautioned against actions that promote stigma or discrimination, in line with the principles of Article 3 of the IHR.
- The Committee asked the Director-General to provide further advice on these matters and, if necessary, to make new case-by-case recommendations, in view of this rapidly evolving situation.



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Photo credit: WHO



# RESPONSE STRATEGY

The overall goal of the regional response strategy is to interrupt the transmission of the virus from one person to another in countries with community transmission, to prevent further exportation of cases, and to prevent further transmission from exported cases. A second goal is to prepare countries to mitigate the impact should community transmission occur.

The strategic objectives for this phase of the response are to:

- Limit human-to-human transmission, including reducing secondary infections among close contacts and health care workers, preventing transmission amplification events and preventing further international spread;
- Identify, isolate and care for patients early, including providing optimized care for infected patients;
- Communicate critical risk and event information to all communities and counter misinformation;
- Minimize social and economic impact through multi-sectoral partnerships.

This can be achieved by:

- a. Rapidly establishing international coordination for strategic, technical, and operational support leveraging existing mechanisms and partnership.
- b. Scaling up country readiness and response operations including the rapid identification, diagnosis and management of cases, identification and follow up of contacts when feasible (with priority given to high-risk settings such as healthcare facilities), infection prevention and control in healthcare settings, implementation of health measures for travellers, and awareness raising in the population through risk communication and community engagement.

The response strategy is based on several planning assumptions. Owing to the considerable uncertainty surrounding the extent of the outbreak within China, the transmissibility of the virus, and the clinical spectrum of the disease, it will be necessary to regularly update these assumptions as gaps in our knowledge of the disease are filled.

The current response plan assumes that human-to-human transmission takes place, and that it may be amplified in specific settings, including healthcare facilities. We also assume that human-to-human transmission is widespread within Wuhan, and possibly other population centres in China.





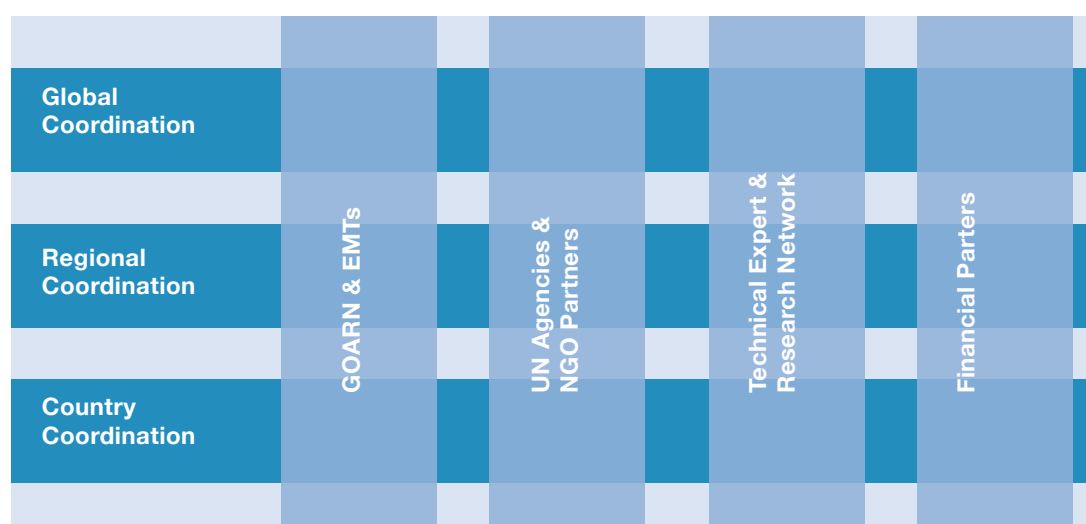
It is expected that cases will continue to be imported to other countries while the outbreak continues in China. While the response emphasis will be to rapidly identify and isolate imported cases, there is a risk of clusters of cases caused by localized community transmission outside China. In some cases, countries may require operational assistance to strengthen their capacity to detect and respond to these imported cases. However, there remain significant uncertainties around the potential for more widespread transmission outside China, and it will therefore be necessary to have contingency plans in place to mitigate the challenges this would present.

On 10 January 2020, WHO published a range of advice and technical guidance for all countries on how they can prepare for 2019-nCoV cases, including how to identify and monitor sick people, test appropriate samples, treat patients, prevent onward spread and control transmission in health care facilities, maintain the right supplies, and communicate with the public about 2019-nCoV and the disease it causes. Guidance was developed with input from a global network of partners from affected countries and partners with expertise in laboratory, clinical management, infection, prevention and control, mathematical modelling, risk communication and community engagement. A global network of laboratories and specialists is working with WHO to analyze 2019-nCoV full genome sequences as they become available.

Global, regional and national partners and expert networks will continue to be essential to develop and refine all guidance and recommendations related to 2019-nCoV, to ensure our understanding of the disease, and virus, rapidly grows.

To ensure all countries and partners can scale effective and prioritized response measures, a global nCoV partnership mechanism is being established by the Secretariat of the WHO under the mandate of the International Health Regulations (2005).

This will enable collaboration between countries and with Secretariat as well as engaging all sectors, all disciplines, in all aspects of alert, readiness, response to respond to the outbreak and prepare health systems.





At the global level the Director-General of WHO has convened the IHR Emergency Committee and the Scientific Technical Advisory Group to advise and provide recommendations on the evolving situation. A principals group of key technical and operational agencies will also be established.

The regional readiness and response will require the unprecedented coordination of multilateral, multinational, multisectoral and multi-institutional technical capacities to implement and support strong national, regional and global response strategies. Global and regional coordination will help us address the direct impact of the new corona virus, the broader impact on health systems and particularly delivery of services and support in fragile and conflict affected countries, and to hard-to-reach communities.

Many countries have preparedness and response plans that should be the basis of immediate and urgent activities. Urgent response planning with partners is critical for the rapid containment of any imported cases and in order to strengthen the resilience of health systems in a health emergency.

As the scale of the outbreak grows to include new countries and regions and the range of response activities increases, additional coordination mechanisms will be required. These mechanisms will need to cover a range of international and national response activities, including UN Agencies and Cluster mechanisms, International Organizations, partners and networks in the Global Outbreak Alert and Response Network (GOARN), Emergency Medical Teams, and national and international NGOs, regional networks and initiatives, and research partners involved in the development of diagnostics, vaccines, and therapeutics. WHO will work closely with the Interagency Standing Committee (IASC) and the UN Office for the Coordination of Humanitarian Affairs (OCHA) to ensure coordination mechanisms are interoperable.

To ensure effective coordination of international partners and stakeholders at global level, WHO is establishing integrated incident management teams at the global, regional and country level, as required. These teams are in regular communication between incident managers at different levels, and close operational coordination with national governments, partners across all sectors and services at all levels.

At the country level, WHO will support national response efforts to increase surveillance and implementation of public health response measure through the UN country team, Health Cluster, and GOARN partner networks and implement infection prevention and control, clinical management, community engagement/risk communication and health and social protections systems strengthening activities as required.



## Country risk/vulnerability mapping

With the onset of the 2019-nCoV , WHO Health Emergencies Programme (WHE) South-East Asia Regional Office, conducted a rapid assessment of the National Capacities on readiness for the 2019-nCoV outbreak among the countries of the Region. The WHE Focal Points in consultation with the national counterparts, completed the assessment template developed by WHO/ HQ.

Based on self-assessment by countries, gaps and challenges have been identified on the national laboratory capacity and IPC practices. The other area with important gaps was in the area of adequacy of available logistics (PPE, transport media and lab reagents).

The urgent need for refresher training on the following areas were well noted from the information collected.

- Contact tracing
- Surveillance data analysis
- Case management and patient transportation
- Risk communication
- Specimen collection and transport
- Disinfection and hazardous waste management
- Donning and doffing PPE

This response plan focuses on countries at high risk of cases of 2019-nCoV and that are highly vulnerable, on account of few resources and low capacities for detection and response. Multisectoral action will be intensified as more information on country capacity becomes available.

Countries will be mapped according to their vulnerability. Countries at high risk for imported cases and possible community transmission and that also have the lowest capacities will be prioritized for technical and operational support.

Likewise, it is expected that countries at high risk with high capacities will be able to activate their response plans without the need for international support and, in some cases, to support other, vulnerable countries.



## Strategic areas of engagement and support

Based on the identified gaps in the self-assessment by Member states and the key priorities identified by WHO to meet the strategic objectives, WHO will focus capacity building and operational support on the following 9 areas:





1. Surveillance, case investigation and rapid response
2. Points of Entry (PoE)
3. Case management
4. Laboratory support
5. Infection prevention and control (IPC)
6. Logistics, procurement and supply management
7. Risk communication and community engagement
8. Regional and country level coordination
9. Technical expertise

## 1. Surveillance, case investigation and rapid response

- Support Member States in establishing active case finding at POEs thru entry screening and self-reporting of passengers from affected areas
- Enhance existing surveillance systems (eg, Severe Acute Respiratory Infection)
- Operationalize teams for contact tracing and monitoring
- Enhance event-based surveillance through communication and instructions to all health professionals for detection of cases according to national case definition
- Monitor trends of the disease where human to human and/or zoonotic transmission occurs and provide epidemiological information to guide response measures
- Train, equip and prepare rapid response teams for case investigation
- Prepare and disseminate case investigation protocols and supplies
- Investigate cases and establish chains of transmission
- Adopt international/WHO protocols for special studies to investigate additional epidemiological, virologic and clinical characteristics including severity and transmissibility parameters



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## **2. Points of entry (POE)**

- Activate a contingency plan at points of entry
- Disseminate latest disease information, equip and train staff in appropriate actions to manage ill passengers
- Prepare rapid health assessment/isolation facilities to manage ill passengers and to safely transport them to designated hospitals
- Establish mechanisms and procedures for communicating information on ill travelers between relevant stakeholders and authorities
- Establish mechanisms and procedures for communicating information about the disease to travelers including self-reporting
- Provide guidelines and standard operating procedures for screening, triage, disinfection of all means of transports and quarantine facility

## **3. Case management**

- Support countries to ensure health service continuity (facilities, personnel, medicines, supplies, medical devices), and surge plans
- Develop and roll-out training modules based on guidelines on clinical management of severe acute respiratory illness (SARI) in suspected/confirmed novel Coronavirus (nCoV)
- Support countries in designating referral facilities for care of patients with nCoV and map existing public/private health facilities and referral systems and care/capacities for surge; including supplies for case management and infection control
- Training primary level staff for monitoring mild patients and contacts who may be managed at home and timely referral for diagnosis and treatment in the event their symptoms worsen
- Establish and maintain the nCoV clinical database platform to inform public health clinical operations
- Support Member States in ensuring hospital readiness and surge capacity ensuring availability of equipment and medical supplies for managing SARI patients as per the national guidelines in alignment with WHO guidelines
- Support Member States in establishment of discharge criteria to ensure viral clearance to reduce the human-to-human transmission from inadequately cleared viruses among clinically well patients
- Establish and train medical teams to carry out safe and respectful burials.

## **4. Laboratory support**

- Identify and equip laboratories for testing
- Develop and disseminate guidelines for specimen collection, packaging and transportation for 2019-nCoV
- Develop surge plans to manage increased demand for testing
- Facilitate specimen referral mechanism to WHO identified 2019-nCoV international reference laboratory



- Ensure quality assurance through Global EQAP and external referral testing
- Ensure optimal biosafety and biosecurity practices through online refresher trainings and assessments

## **5. Infection prevention and control**

- Support Member States to review and update as required national guidelines on infection prevention and control in health facilities to ensure alignment with WHO IPC guidance on 2019-nCoV and roll out of refresher training
- An IPC programme at national and facility level with a dedicated and trained team or at least an IPC focal point should be in place
- Undertake risk assessment of IPC capacity at the all levels of healthcare system (includes availability of triage and appropriately ventilated isolation rooms); define referral pathway in collaboration with case management capacity
- Ensure IPC compliance with basic IPC principles at first point of care of patients (usually primary care): triage, early recognition, standard precautions, isolation capacity and referral procedures
- Establish, train and implement protocols in all identified health care facilities
- Plan for IPC in community management of cases in the event of widespread transmission of cases
- Identify IPC surge capacity (numbers and competence)
- Provide supplies needed to implement recommended protocols (e.g. hand hygiene resources, personnel protective equipment - PPE, environmental cleaning, and waste management,)
- Ensure protocol in place for assessing and managing HCWs with risk exposure to nCoV

## **6. Logistics, procurement and supply management**

- Support countries to undertake needs and gaps assessment based on the assessment of available inventory supplies at country office and government supplies
- Support countries undertaking readiness measures and provide field level operational support for logistical capacity
- Support countries in improving the logistics operations through common services in the main areas of the country
- Set up regional and country level (where possible and required) supply coordination capacity to centralize information, monitor demand and prioritize distribution.
- Establish mechanisms and procedures for proposing requests, validating and processing through IMST at different levels for distribution/procurement Establish a contact list of all focal points responsible for emergency logistics and procurement in response to nCoV outbreak
- Ensure minimum standards of emergency supplies are supported as part of initial support for prepositioning at national levels
- Strengthen responsive health logistics supply chain and limit shortages of essential supplies to support country needs
- Prepare procurement mechanism and storage space for emergency supply management





## **7. Risk communication and community engagement**

- Develop disease specific risk communication and community engagement strategies, aligned with global Risk Communication and Community Engagement (RCCE) guidance
- Coordinate and implement strategies with relevant governmental and non-governmental networks, partner agencies, civil society and community representatives
- Identify and establish ongoing networks of trusted key influencers in communities such as local leadership, school systems, faith-based organizations, women's networks, alternative health care providers, pharmacies and village community organizations
- Develop mechanisms for rapid clearance and timely communication of key messages
- Identify and train teams for risk communication and community engagement for surge as needed
- Train media on principles of risk communication, and their role in an outbreak
- Establish a system of listening to public concerns and ensure sharing of timely and accurate information that are responsive to those through all appropriate means to reach the different types of audiences
- Establish systems to listen, detect and pro-actively and rapidly respond to misinformation through multiple, multi-way channels, including hotlines, talk-shows, mid-media, social media, face to face engagement with the community

## **8. Regional and country-level coordination**

- National HEOCs to be activated for strategic coordination mechanism to monitor implementation of response operations as incident management system (IMS) interlinking sub-national HEOCs
- At the country level, support national response efforts to increase surveillance and implementation of public health response measures through the UN country team, Health Cluster, EMTs and GOARN partner networks
- Ensure effective coordination of international partners and stakeholders at global level
- Apply existing public health emergency preparedness and response plans
- Brief and prepare existing national emergency response committee/s
- Engage decision-makers and politicians
- Develop plans for essential service continuity and recovery operations
- Conduct risk assessments to inform response actions
- Establish procedures to share data and risk assessment findings with national and international stakeholders



## 9. Technical expertise

- Contingency planning for 2019-nCoV
- Capacity building on health care waste management
- Support developing guidelines/SoPs for safe handling of dead bodies, operationalize and train medical teams to carry out safe and respectful burials
- Mental health and psychosocial support
  - Plan for a community awareness programme to prepare people and mitigate the impact of community transmission
  - Community based programme for providing psycho-social support for the families of deaths and those recovered with complications.
  - Train the PHC workers and establish a network of counsellors and a plan for contacting them in an event of need
- Support Member States on development of business continuity plans for health facilities in the case of widespread community transmission

**Table 2.1** Key performance indicators

Indicator	Target	Notes/Justification/Questions
<b>General</b>		
Number of suspected and confirmed cases and deaths	N/A	Essential descriptive epidemiology to estimate magnitude of outbreak.
Number of new affected countries	N/A	Easy to measure, it gives a sense of the magnitude of the event, speed of spread, impact of containment efforts. Need stratification for date of first case confirmation.
Case Fatality Ratio	<10%	Helps us learn more about the disease, see if there are differences in case fatality ratios between different groups of countries (e.g. HIC vs LMIC, early vs late introduction of virus, other metrics on health systems)
% of cases who are health care workers	TBD	This measure can be useful to strengthen IPC over time. utilize platforms for data sharing.



# RESOURCE REQUIREMENTS

**Table 3.1** Resource Requirements

Key Intervention	Amount ( USD)
1. Surveillance, case investigation and rapid response	\$470,000
2. Points of entry (POE)	\$450,000
3. Case management	\$800,000
4. Laboratory support	\$610,000
5. Infection prevention and control	\$470,000
6. Logistics, procurement and supply management	\$1,570,000
7. Risk communication and community engagement	\$330,000
8. Regional and country level coordination	\$460,000
9. Technical expertise	\$350,000
<b>TOTAL</b>	<b>\$5,510,000</b>



