

- **IPC:** Reduce human-to-human transmission in health facilities through re-organization of health services
- **Surveillance:** Support early detection of COVID-19 cases through existing surveillance systems to inform and improve analysis and decision-making.
- Laboratory: Ensure laboratory capacity to detect COVID-19 cases with necessary tests and reagents, and to scale up capacity as more cases are detected in this region.
- Case Management: Improve local health system capacity and protect healthcare workers to safely detect and deliver healthcare services.
- Risk Communication: Dissemination of risk communication information to populations and to travelers

PAHO/WHO Appeal US \$94,841,055

Estimated funding requirement to implement priority public health measures in support of countries in the Region of the Americas to prepare for and respond to COVID-19. The estimate will be adjusted as the situation evolves.

Situation Summary

Daily regional updates are made on PAHO/WHO's COVID-19 website (https://bit.ly/39qia6q).

Following the initial outbreak of a novel Coronavirus (COVID-19) in Wuhan City, Hubei Province of China, rapid community, regional and international spread has occurred with an exponentially growing number of cases and deaths worldwide. As of 25 March 2020, 423,510 cases have been confirmed from almost all countries in the world. On 30 January 2020, the Director-General (DG) of WHO declared the COVID-19 outbreak a public health emergency of international concern (PHEIC) under the International Health Regulations (IHR) (2005) following advice from the Emergency Committee. The outbreak was characterized as a pandemic by the DG on 12 March 2020, with calls for countries to take urgent and aggressive action.

EPIDEMIOLOGICAL UPDATE

As of 25 March 2020

GLOBAL

- 423,510 confirmed cases
- 18,597 deaths
- 196 countries/territories

REGION OF THE AMERICAS

- 70,877 confirmed cases
- 977 deaths
- 48 countries/territories

The United States of America account for over 80% of the cases reported from the Region.

Disease Transmission: The virus has been identified in environmental samples from a live animal market in Wuhan City, China, and some human cases have been epidemiologically linked to this market. Increasing evidence point to links with other similar known coronaviruses circulating in bats. Epidemiological evidence shows that COVID-19 can also be transmitted from one individual to another. During previous outbreaks due to other coronaviruses, including Middle East respiratory syndrome coronavirus (MERS-CoV) and the Severe Acute Respiratory Syndrome coronavirus (SARS-CoV), human-tohuman transmission most commonly occurred through droplets, personal contact, and contaminated objects (fomites). The modes of transmission of SARS-CoV-2 (the virus which causes COVID-19 disease) are likely to be similar.

Disease Severity: Current information suggests that the virus can cause mild, flu-like symptoms as well as more severe disease. Patients have a range of symptoms: fever (83-98%), cough (68%) and shortness of breath (19-35%). Based on current data, 81% of cases seem to have mild disease, about 14% appear to progress to severe disease, and some 5% are

critical. Based on the data in other countries, countries of the Americas can expect a similar proportion of severe cases requiring advance supportive care, mainly in intensive care units (ICUs). Risk factors for severe disease are older age and comorbidities. The virus that causes COVID-19 can infect people of all ages, but the risk of severe disease gradually increases with age starting from around 40 years. Evidence to date suggest that two groups of people are at a higher risk of getting severe COVID-19 disease. These are older people (that is people over 60 years old); and those with underlying medical conditions (such as cardiovascular disease, diabetes, chronic respiratory disease, and cancer).

Public health measures: In an effort to control the spread of the outbreak, 37 of the 52 countries/territories in the Region have enacted restrictions on international travel since 14 March. Complete border closures have been announced from 25 countries, blocking international travel entirely. Other national measures which have been instituted vary from total lockdown (closure of all businesses except for essential services), nighttime curfew, to recommendations to restrict unessential travel.

Needs Assessment in the Region of the Americas

COVID-19 has spread widely in the Region of the Americas after rapid dissemination of the virus in China and subsequent introductions to other countries that resulted in community transmission. The first case in Latin America and the Caribbean was reported in Brazil on 26 February 2020 and has since spread to 48 countries and territories in the Region of the Americas in just one month.

PAHO/WHO has established incident management system teams both regionally and in countries, to share technical guidance and support countries in developing and implementing their national readiness and response plans. Countries are currently in various stages of producing their COVID-19 operational readiness and response plans, based upon influenza pandemic preparedness plans and State Parties Annual Reports (country self-assessment of IHR capacities). This will help countries identify gaps and needs which may evolve as the epidemiological situation changes in their countries. Preliminary needs have been already been identified in the Region:

Surveillance

As the spectrum of clinical manifestations includes mild disease and given the global recommendation to detect early and isolate all suspect cases, surveillance activities in the Region will have to ramp up significatively to respond to the imminent flare-ups. National and regional capacities need to be brought up to scale quickly to train, implement and supervise active observation of isolated cases and contact tracing of all contacts. In some countries of the Region, there is only one

person in charge of disease surveillance, especially in small countries. Significant work will also be needed to collect and analyze surveillance data, including supporting the establishment of situation rooms within the Ministries of Health. It is vital that such capacities can be brought to scale because they would otherwise have a detrimental impact on the maintenance of the surveillance for other epidemic-prone diseases, such as influenza, yellow fever, dengue and Zika.



Figure 1: PAHO/WHO facilitated a workshop in Mexico City, Mexico, to strengthen capacity in risk communication during public health emergencies for the Directorates General for Health Promotion in the Ministry of Health of Mexico, a few days before the first case was confirmed in the country. Photo credit: PAHO/WHO. February 2020

Laboratory

There has been an established and strong influenza laboratory surveillance network in the region of the Americas as demonstrated by the presence of 29 National Influenza Centers in 32 countries with molecular platforms regularly evaluated by the WHO Global Influenza Surveillance and Response System. Building upon their strengths in influenza detection and surveillance, PAHO/WHO has trained the NICs in the region, several national public health laboratories, and Caribbean Public Health (CARPHA) laboratory recommended protocol to detect SARS-CoV-2 and confirm COVID-19 cases. As a result, almost all countries in the region either have national capacity or access to an international reference laboratory for differential diagnosis or confirmation of unusual respiratory diseases, including COVID-19.

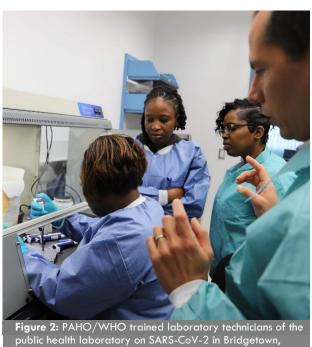
Unlike surveillance of influenza or other respiratory viruses, which is based on sentinel sites and selective testing of a limited number of samples, COVID-19 surveillance requires testing a large number of suspect cases. This amount calls for an increased number of trained personnel required in national and subnational laboratories. Other challenges include ensuring availability of reagents and tests, adequate and safe shipping of supplies and samples, to ensure continuity of services as the demand for testing grows.

As countries close their borders in an effort to contain or prevent outbreaks, it has become increasingly difficult to ensure laboratories' access to testing, as the tests provided to countries are currently sourced from Europe. As countries continue to close their borders to commercial flights it becomes more urgent to strengthen the capacities of laboratories in the Region to produce necessary enzymes, reagents and tests for coronavirus, in order to maintain testing capacity as the outbreak continues its exponential growth.

Case Management

As this is a new disease, information on the disease progression and possible treatments for COVID-19 is not yet fully known but research and new studies are shedding new light on appropriate protocols, therapies, essential medical devices, and personal protective equipment to help patients and protect healthcare workers from acquiring the disease. Based on the current data in other countries, the Region of the Americas can expect a similar proportion of severe cases requiring advance supportive care, mainly in intensive care units (ICUs).

Timely provision of care will be essential in saving lives, which means countries must rely on or develop new referral systems to bring patients to ICUs which are designated for the COVID-19 response and have appropriate medical equipment for treatment. Countries are currently mapping their referral healthcare facilities, their capacities, and gaps for case management including whether they have appropriate life-saving medical equipment in their ICUs. Additionally, healthcare workers will need to be trained on new protocols on COVID-19-specific case management.



public health laboratory on SARS-CoV-2 in Bridgetown, Barbados. **Photo credit**: PAHO/WHO. February 2020

Infection Prevention and Control

Patients with the novel coronavirus infection (COVID-19) present with signs and symptoms of respiratory airways and will require some sort of invasive procedure (e.g. sampling, intubation, mechanical ventilation, or suction). These procedures generate aerosols and might play a role in disseminating the virus in healthcare facilities. Therefore, healthcare providers should comply with standard precautions and proper use of personal protective equipment (PPE) to stop transmission. Activities to reduce human-to-human transmission are essential to protect healthcare workers at all levels. Indeed, infections of COVID-19 in healthcare workers have been reported in other countries, which further strains the capacity of national health systems to care for the overflow of patients during an outbreak. In the region of the Americas, 54.3% (19/35) countries have an Infection Prevention and Control (IPC) Program at the national level to guide healthcare facilities in implementation of IPC measures. COVID-19 is expected to significantly impact resource-limited settings. The availability of appropriate PPE will be challenging as global demand has surged while production has dropped, resulting in limited supply and higher prices both locally and globally. International procurement of goods has been challenged due

to shipping restrictions for these essential items, and countries will have to look for local sources of production, including converting factories of other goods to produce their own PPE and essential medical devices. Additionally, all countries will need to put in place appropriate IPC requirements both at national and facility level. Healthcare services will need to be reorganized with a focus on improving triage and isolation to reduce human-to-human transmission in healthcare facilities.

Risk communication

The COVID-19 outbreak and response has been accompanied by an over-abundance of information - some accurate and some not that makes it hard for people to find trustworthy sources and reliable guidance when they need it. Health authorities must implement risk communication campaians to massively disseminate to the general population conceptually accessible and trusted information on COVID-19 outbreak and simple public health advice on how to protect themselves from the virus. Risk communication capacity is low in the countries of the Region and must be improved to ensure evidence-based information is regularly shared with the populations and travelers to reduce transmission.



Figure 3: PAHO/WHO Press conference on COVID-19 at PAHO/WHO Headquarters in Washington, D.C. Photo credit: PAHO/WHO. March 2020

Response Strategy in the Region of the Americas

PAHO/WHO's strategy for the Region of the Americas is aligned with the global WHO's Strategic Preparedness and Response Plan (dated 3 Feb 2020).

As there is still uncertainty surrounding the extent of the outbreak, the transmissibility of the virus, and the clinical spectrum of the disease, it will be necessary to regularly update the response strategy as gaps in our knowledge of the disease are filled. The current strategy assumes that human-to-human transmission takes place, and that it may be amplified in specific settings, including healthcare facilities. The rapid transmission of the virus through the countries and the closure of international traffic pose a unique challenge for the response, as international procurement of essential supplies such as PPE, medical devices, or laboratory testing may not be a viable option at this time. In addition to strengthening their health systems, protecting their healthcare workers, and putting in place measures to slow transmission, countries may also have to strengthen their national capacities of production to provide the supplies needed to respond appropriately to this outbreak.

The overall goal: Support Member States in the Region of the Americas in preparing for and responding to COVID-19 outbreaks.

Specific objectives:

- 1. Save lives and protect the most vulnerable individuals, including healthcare workers
- 2. Limit human-to-human transmission, including reducing secondary infections among close contacts, to slow down the spread of the disease.

These objectives are expected to be achieved through a combination of interventions to support the regional response and activities aiming to scale up individual country readiness and response operations.



Figure 4: Laboratories from PAHO/WHO Member States in South America and Panama were trained to detect SARS-CoV-2 to confirm cases of COVID-19 at the Oswaldo Cruz Foundation (FIOCRUZ) in Brazil. PAHO/WHO also provided reagents and enzymes for Member States to carry out the protocols in their countries. Photo credit: PAHO/WHO. February 2020

Priority Lines of Action

Objective 1: Ensure real-time information to countries and efficient coordination of national and regional response operations

At regional level

- Establish and maintain international coordination and operational support through existing mechanisms, strategic partnerships, and linkages with the global community.
- Maintain formal communication channels with Member States (through the national IHR focal points) to facilitate information sharing.
- Participate in global coordination of subject matter expertise to gather real-time information and update available guidance
- Provide technical expertise and updated guidance to Member States
- Track, analyze, and forecast epidemiological trends at national and global levels
- Support surge capacity for human resources and deployments related to the response
- Coordinate with global supply chains for additional resources (e.g. PPE, laboratory kits)
 to be distributed at country level
- Participate and contribute to global discussions around priority research & development and innovation.

At country level

- Support national governments in developing a COVID-19 readiness and response plan, building upon existing public health emergency contingency, preparedness and response plans, including for pandemic influenza.
- Support countries in the activation of existing national emergency response committee(s)
 to take the lead in coordination of these functions, and to provide the forum for partners
 to be involved in response operations.
- Support surge capacity for human resources and deployments related to the response

Objective 2: Limit human-to-human transmission, including reducing secondary infections among close contacts and healthcare workers, and preventing transmission amplification events

Infection Prevention and Control

- Prepare rapid healthcare assessments on IPC and isolation facilities to manage patients
- Support national authorities in reorganizing their health services, particularly for triage and isolation, to limit human-human transmission within health facilities.
- Provide updated information to countries including guidelines and recommendations, including for appropriate use of personal protective equipment
- Support procurement and distribution of appropriate PPE and essential medical devices or supplies where possible, and support countries in ramping up capacity of national production if procurement is not possible.

Objective 3: Identify, isolate, and care for patients early, including providing optimized care for infected patients

Improve and scale-up surveillance

- Support countries in enhancing or adapting existing respiratory-disease-surveillance systems, including indicator-based surveillance and event-based surveillance.
- Reinforce active case-finding and enhance existing surveillance systems to enable monitoring of COVID-19 transmission
- Disseminate updated case definitions, reporting forms and surveillance guidelines to countries.

Laboratory

- Support standardized systems for molecular testing across the region
- Provide updated guidelines (including for sample collection and shipment, biosafety and biosecurity, laboratory protocols), reagents, and training for the molecular detection of SARS-CoV-2
- Continue ensuring availability of laboratory supplies, reagents and COVID-19 tests including external quality assurance assay panels when available. This can be through procurement or through supporting countries in ramping up national production.
- Carry out further training or refresher courses as the situation evolves.

Case management

- Support national authorities in mapping referral facilities including ICU and bed capacities in countries
- Support implementation of timely, effective, and safe supportive therapies (oxygen, antibiotics, hydration & fever / pain relief) as the cornerstone of therapy for patients with severe manifestations of COVID-19
- Share information such as guidelines for specific COVID-19 clinical management in health facilities at home, to be updated as more information becomes available.
- Support countries through trainings and refreshers for medical facility and ambulance staff to manage severe acute respiratory infections (SARI).

Objective 4: Communicate critical risk and event information to all communities, and counter misinformation

Risk communication

- Support countries to communicate rapidly, regularly, and transparently with their populations, including production of risk communication materials
- Support countries in developing and providing risk communication materials for travelers, particularly for points of entry into the country.

Funding Requirements

The following section outlines the estimated funding level required for an initial 6 months (1 March to 31 August 2020) to implement the priority public health measures above-mentioned in support of countries in the Region of the Americas to prepare for and respond to COVID-19. The estimated financial requirements will be adjusted as the situation evolves.

BUDGET CATEGORY (USD)	Regional	Caribbean	Central America	South America	Total for Americas Region
Objective 1	1 <i>,777</i> ,500	2,749,000	2,025,000	2,700,000	9,251,500
Objective 2	2,461,000	6,655,000	4,903,000	6,538,000	20,557,000
Objective 3	5,700,000	15,624,000	11,513,000	1 <i>5</i> ,3 <i>5</i> 0,000	48,187,000
Objective 4	1,200,000	3,472,000	2,558,000	3,411,000	10,641,000
Subtotal	11,138,500	28,500,000	20,999,000	27,999,000	88,636,500
PSC (7%)	779,695	1,995,000	1,469,930	1,959,930	6,204,555
Total	11,918,195	30,495,000	22,468,930	29,958,930	94,841,055

Countries included in each subregion:

- Caribbean: Antigua and Barbuda, Bahamas, Barbados, Belize, Dominica, Grenada, Guyana, Haiti, Jamaica, Saint Kitts and Nevis, Saint Lucia, Saint Vincent and the Grenadines, Suriname, Trinidad-Tobago
- **Central America:** Costa Rica, Cuba, Dominican Republic, El Salvador, Guatemala, Honduras, Mexico, Nicaragua, Panama
- **South America:** Argentina, Bolivia, Brazil, Chile, Colombia, Ecuador, Paraguay, Peru, Uruguay, Venezuela

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