

PAHO



Pan American
Health
Organization



World Health
Organization
REGIONAL OFFICE FOR THE
Americas

Initial Donor Alert & Funding Request



HURRICANES ETA and IOTA

18 NOVEMBER 2020

HIGHLIGHTS

On November 3, Hurricane Eta made landfall along Nicaragua's Caribbean coast (26km south of Bilwi) as a Category 4 storm with maximum sustained winds near 140mph (220 km/h) and continued moving towards the west near 6mph (9kmh/h). On 4 November 2020, the system rapidly weakened to a tropical storm, but nonetheless caused extensive damage in Honduras, Guatemala, Costa Rica, Belize, El Salvador, Panama, Colombia, and Jamaica.

Two weeks later, on November 16, Hurricane Iota, a category 5 storm, made landfall in the Colombian archipelago of San Andres, Providencia, and Santa Catalina. It moved along the northeastern coast of Nicaragua near the town of Haulover with sustained winds near 155 mph (250 km/h). On November 17, Iota weakened to a Tropical Storm, moving into southern Honduras and Guatemala.

Guatemala, Honduras, and Nicaragua, which were located in the direct path of both hydrometeorological events, are the most severely affected countries. Hurricane Eta and

Iota left a path of devastation in Central America, with more than 6.5 million persons directly affected. Approximately 441,000 have been evacuated and suffered significant dwelling and livelihoods losses. Over 125 health facilities across all three countries are reporting infrastructural damage further reducing the capacities of the national health systems already overstretched by the COVID-19 pandemic. Reduced access to drinking water, loss of adequate sanitation, and power outages have also been reported. Conditions in some shelters remain precarious due to inadequate infrastructure, sanitation, and limited access to safe water, all critical to mitigate the risk of COVID-19 infections and other communicable diseases endemic in the affected countries.

As a consequence of the impact of the Hurricane in highly vulnerable areas along the Central American Caribbean Coast, urgent humanitarian actions are needed to ensure availability of urgent healthcare, adequate WASH conditions, increased epidemiological surveillance, and vector control.

PAHO/WHO APPEAL

USD \$9,900,000

Preliminary estimates to cover urgent healthcare, WASH, epidemiological surveillance and vector-control needs in Honduras, Guatemala, and Nicaragua -the countries most affected by Hurricanes Eta and Iota- for the next 6 months.

Situation Update

Eta, a tropical depression that originated in the Eastern Caribbean Sea, quickly intensified reaching hurricane force on 2 November 2020. In less than 12 hours, Hurricane Eta strengthened into a category 4 storm, with sustained winds peaking at 140 mph. The system made landfall along Nicaragua's Caribbean coast on 3 November 2020 and continued moving towards the west for several hours at an average speed of 6mph. On 4 November 2020, Hurricane Eta rapidly weakened to tropical storm.

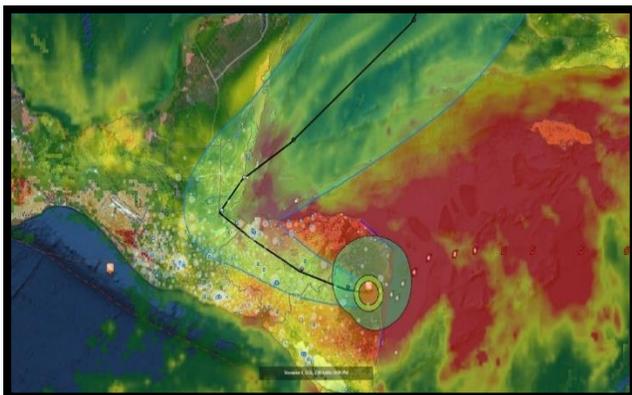
On 16 November 2020, Hurricane Iota made landfall in the Colombian archipelago of San Andres, Providencia, and Santa Catalina during the early morning and became a category 5 storm around 11:34 am. At 10:45pm, Hurricane Iota made landfall as a category 4 storm, with sustained winds near 155 mph (250 km/h), along the northeastern coast of Nicaragua near the town of Haulover. On November 17, Iota weakened to a Tropical Storm moving into southern Honduras and Guatemala and dissipated on 18 November 2020.

The explosive intensification of Iota and subsequent landfall in Central America aggravated a dire humanitarian situation

resulting from the ongoing COVID-19 pandemic and the impact of Eta just two weeks prior.

While field needs assessments are still ongoing to evaluate the full extent of impact and identify the most urgent needs of the affected communities, preliminary reports from the National Health Authorities and PAHO's experts present in or deployed to the affected countries (Honduras, El Salvador, Costa Rica, Colombia, Guatemala, Belize, Panama, Jamaica, and Nicaragua) indicate severe damages to physical infrastructures, including houses, roads, industries, etc. In particular, over 125 health facilities have reported damages.

It is estimated that more than 6.5 million people have been affected by Hurricanes Eta and Iota. 150 deaths and 116 missing persons have been reported. As of 16 November 2020, more than 441,000 people have been evacuated in Honduras, El Salvador, Guatemala, Costa Rica, Belize, Colombia, and Panama. 76,640 people were relocated in 492 temporary shelters in Honduras, Guatemala, Costa Rica, Panama, and El Salvador.



Report by country

As of 17 November, **Honduras** reported over 2 million people affected, including around 500,000 individuals with limited or no access to health services; 74 deaths, 8 people missing and 69,000 people in 268 shelters. Initial reports highlight damage in over 55 health facilities, including 37 affected institutions out of 71 health facilities (60%) in the department of Cortes, of which over 27 health facilities are inoperative (including 5 health facilities in la Lima which are completely flooded), 10 report a total loss of cold chain equipment and vaccines, and 29 report various infrastructure damages (water filtration, subsidence of floors, among others). Additionally, several health facilities are reporting lack of access to drinking water and electricity.

As of 16 November, **Guatemala** reported 311,317 people affected, 53 deaths, 96 people missing, 92,837 people evacuated, and over 18,000 people relocated in 149 shelters, all of which lack optimal conditions for space management, infection prevention and control measures, and basic hygiene standards necessary for the prevention and control of COVID-19. 72 health facilities across the three most impacted departments have reported important damage due to flooding and strong winds. The Cobán regional hospital in the Alta Verapaz Department has currently no communications, the electrical power has been restored, and the outpatient clinic continues flooded. Approximately 24,000 houses have been damaged by Hurricane Eta. Reports indicate that 116 roads are affected, 9 roads are destroyed, and 17 have suffered considerable damages in 12 departments of the country, thus blocking out the arrival of the urgently needed

humanitarian assistance to the affected population.

As of 16 November, **Nicaragua** reported over 50,000 persons evacuated, two deaths, and over 17,000 people in more than 250 shelters located in 12 communities. Eleven health facilities recorded partial damage in roofs and surrounding areas. Out of the health facilities affected, two may have infrastructural damage in critical service areas.

As of 16 November, **El Salvador** reported 11 deaths (9 deceased due to landslides and 2 deaths directly associated to Hurricane Eta). One person remained missing and 399 people were still hosted in 13 shelters. The country has not reported any damage to health facilities as assessment continues.

As of 16 November, **Costa Rica** reported over 325,000 people affected, two deaths, and 327 people in 30 shelters. The country has not reported any damage to health facilities yet, but around 60,000 people remain with limited or no access to drinking water due to shortages or interruption of services.

As of 16 November, **Colombia** reported loss of communications with the island of Providencia. One person is reported dead and 98% of the houses in Providencia have been affected or destroyed. Local health authorities reported that the hospital in Providencia has suffered infrastructural damage. PAHO is on standby to conduct field needs assessment once weather conditions permit deployment to the archipelago. Due to the severity of Hurricane Iota and the vulnerability of the island, PAHO estimates severe affectation and interruption to the health services network.

As of 9 November, **Belize** has not reported loss of life or missing persons. Search and rescue operations are still ongoing and an estimated 500 families are temporarily displaced. No health facilities have reported damage and most of them are reported open and operational, with the exception of the clinics in Santa Elena Town (Cayo district) and Santa Teresa (Toledo district) which are currently closed due to access issues as a result of flooding.

As of 9 November, **Panama** reports at least 31 communities in 5 provinces have been directly impacted by Hurricane Eta. During the first days of the emergency, at least 8 water treatment plants stop operating because of the elevated soil in water. Three water treatment plants that supply the most densely populated areas were operating at 50% reduced capacity, thus limiting the access to safe water for over 150,000 persons. The country reports 3,332 persons directly impacted by Hurricane Eta, 19 deaths, 12 missing persons, and 2,424 people in 32 shelters. No health facility reported damage. Health personnel have been deployed to provide surge capacity for emergency coordination, epidemiological surveillance, and case management in active shelters.

As of 8 November, **Jamaica** reports major damage to the road network due to flooding, landslides, and erosion by rivers. Several

roadways are blocked and impassable. No health facilities have reported damage yet.

A major concern is the high level of COVID-19 cases and hospitalizations in the most affected areas. Difficulties to maintain social distance and COVID-19 public health preventative measures in emergency shelters for displaced populations posed an additional risk to the already dire situation of infection numbers in the region.

The current challenges for the humanitarian response include:

- Multi-hazard scenario due to COVID19 and previous dengue outbreaks, as well as Hurricanes Eta and Iota and their possible impacts;
- Reduced access to affected areas;
- Limited financial resources to attend to the emergency caused by the Hurricanes Eta and Iota;
- Heightened COVID-19 risk in shelters, related to insufficient PPE and inadequate implementation of COVID-19 preventative public health measures;
- Unstable political context;
- Information gaps;
- Vulnerability of the health services network, mainly hospitals, with a deteriorated infrastructure, reduced human resources, and saturated care rooms.



PUBLIC HEALTH CONCERNS

The capacity of the local healthcare systems has been critically impacted by Hurricanes Eta and Iota in Honduras, Nicaragua, and Guatemala. Access to essential health services and medical care delivery capacity have been significantly hampered in the most affected areas. According to reports from various sources, many communities continue to be isolated due to flooding and impassable roads and are unable to reach needed health services. Although initial needs assessments is still ongoing, it is estimated that over 125 health facilities have suffered damages, many of are found to be fully or partially inoperable, due to important physical damage (e.g. by loss of roof, flooding, fallen trees on the building) with loss of cold chain and many other equipment and supplies.

Based on information available from Honduras, over 55 health facilities have reported damage across Cortés (Puerto Cortés, Choloma, La Lima, Planeta, Flor de Oriente and La Lima triage), Yoro (El Progreso and El Negrito), Gracias a Dios and Atlántida. Out of the 37 health facilities with reported damages in the most severely impacted department of Cortes (60% of the local health network), 27 are inoperative, of which 10 report a total loss of cold chain equipment and vaccines. Some 29 health facilities have suffered infrastructural damage due to rain, reporting internal leaks and roof damage, trouble accessing drinking water, inadequate sanitation among others. Lack of health personnel due to accessibility and being directly impacted by the storm is also a concerning challenge to ensure uninterrupted health services. As of 16 November, the Honduran Government estimates that over two million people have

limited or no access to health services, including at least 500,000 in need of healthcare services.

The increased number of COVID-19 cases in the areas of affected hospitals, accentuated by the loss of adequate WASH condition and the risk of outbreak of endemic diseases such as dengue, leptospirosis, Zika and Chikungunya, are all major public health concerns that may result in disproportionate mortality and morbidity in the aftermath of Hurricanes Eta and Iota. The Cortes department is also at high risk of interruption of essential health services due to the limited availability of health personnel, supplies, medicines, and PPEs. Four municipalities have already reported significant number of health personnel affected by the emergency and unavailable to provide health services, with Choloma and Lima municipalities reporting over 40% of health personnel unavailable. The municipalities of Puerto Cortes and Lima have lost over 80% of essential supplies and medicines in health facilities, followed by Choloma (37.5%), Villa Nueva (13.3%) and Oma (7.7%). The San Antonio de Cortes municipality reported total loss of PPE supplies in health facilities (100%), followed by Lima (80%), and Choloma (37.5%).

There is a high risk the situation could worsen because dams throughout the country are at 100% of their capacity and heavy rains continue in different regions of the country. Urgent actions are needed to ensure that the sheltered population receive medical assistance, medicines, and supplies for the management of vector and water-borne diseases, acute respiratory infections, and prevention of a peak in COVID-19 transmission.

In Guatemala, more than 72 health facilities have reported significant infrastructural damage and loss of essential medicines, health supplies, and equipment due to flooding and strong winds, which has rendered critical services inoperative. This further reduces care delivery capacity of essential services of the already overstretched local health systems due to the ongoing COVID-19 pandemic. As of now, about 30% of the COVID-19 hospital beds are occupied in the affected departments. Preliminary damage assessment also estimates that more than 40% of health personnel are inactive due to COVID-19 precautions. Additional health personnel might be required to respond in the affected areas. The Ministry of Health has mobilized an emergency hospital donated by the U.S. Government to the Department of Alta Verapaz.

None of the activated emergency shelters (official or unofficial) have optimal conditions for space management, infection prevention and control measures, and basic hygiene standards necessary for the prevention and control of COVID-19. During the assessment conducted by PAHO on 17 November 2020, 80 out of 112 official shelters in Alta Verapaz, Izabal and Quiché had poor sanitary conditions. In addition, many shelters have reported difficulties maintaining social distance and COVID-19 public health preventive, as well as insufficient quantities of necessary supplies for refugees, such as mattresses and blankets and lack of access to safe water. Cases of acute respiratory infections, foodborne diseases, skin infections, chronic diseases and some COVID-19 cases have been already identified.

The current state of operation of the health services and environmental health conditions in emergency shelters in the impacted areas are a major concern given the increased risk of

infectious and vector-borne diseases outbreaks and the rapid degradation of environmental health conditions that puts the lives of the most vulnerable individuals at risk due to interruption of treatment and critical care, including prenatal care. Repair of damaged health facilities, replacement of lost essential medical supplies, equipment and medicines, and support to emergency and primary healthcare are critical actions needed to reduce the mortality and morbidity in the aftermath of the hurricane. Continuity of local health services is needed to prevent the interruption of critical health programs. Mental health and psychosocial support (MHPSS) as well as sexual and reproductive health actions are also critically needed to protect vulnerable individuals.



In Nicaragua, 81 health facilities so far report damages, including 11 hospitals (1 regional, 3 departmental and 7 first level), 15 health centers, 42 primary healthcare centers and 5 maternity care facilities, as well as 8 other health institutions including a provisional hospital, the HQ of a Local System of Comprehensive Care (SILAIS in Spanish), a medical supplies warehouse and small medical practices. Some of damaged health facilities are reported as inoperative and had to be completely evacuated. Others report roof damage, leaks and water infiltration leading to loss of medicines and

medical equipment as well as damage to laboratory capacity and electrical system. Repairs for those affected facilities are estimated at approximately US\$3 million.

Eight medical teams are standing by in Puerto Cabezas and 11 in Pinzapolka and Waspam. A temporary hospital has attended 40 patients and 2 emergency surgeries. As of 17 November, 115,355 people in the affected areas have received prophylactic treatment for leptospirosis and 87 out of 1,448 people tested positive for malaria. Bilwi has no access to drinking water and affected neighborhoods and shelters are currently supplied with water using trucks from the fire department and the Ministry of Transport and Infrastructure (MTI).

Flooding in some health facilities in the three most impacted countries has reportedly resulted in loss of electrical power and destroyed drug supplies and medical equipment, further limiting local health networks ability to provide services. There is an urgent need to quickly restore power and replace stocks of essential medicines to ensure timely emergency care delivery at the hospital and primary health care level. Recovery of communications within healthcare facilities and access to severely impacted communities are also important to assess damages, supply

needs, and restore access to health services. The sanitation situation in some hospitals and health centers is also poor due to the flood waters.

With most of the population affected in the areas hit by Hurricanes Eta and Iota, including health care workers who have been working relentlessly and are exhausted, there is an anticipated shortage of health personnel. There is therefore a need for surge personnel from neighboring countries to facilitate the rotation of health workers in support of the health sector's response and continuity of care delivery capacity. Mental health and psychosocial support (MHPSS) are also urgently needed to assist victims to deal with the consequences of the disaster. Mental health assistance and psychosocial support are paramount in the context of the prolonged COVID-19 pandemic which has already exacerbated stress, anxiety, depression, and other mental health disorders in both the general population and the healthcare workers. These conditions will be aggravated by the impact of Hurricanes Eta and Iota in the communities and by the high losses in livelihoods and human lives.

Given the magnitude of infrastructural damage in the most affected areas and the limited access to safe water due to service interruption and water shortages, a rapid degradation of environmental conditions, including sanitation, hygiene and waste management is to be anticipated. Additionally, the dengue epidemic season has just started, following one of the worst dengue epidemics in the same countries in 2019. This combined situation could have detrimental health consequences in affected communities with increased risks of disease outbreaks associated with poor hygiene and sanitation and limited access to safe water, such as water and vector borne diseases. In the



context of the ongoing COVID-19 pandemic restoring proper WASH conditions in the affected communities and health facilities is paramount to support infection prevention and control measures. In addition, water quality surveillance is urgently needed to prevent food- and water-borne diseases and ensure the delivery of safe water to the affected populations, hospitals, and health facilities.

Within the context of the ongoing COVID-19 pandemic, there is a need to increase the protection measures available to frontline workers in health facilities and first responders in communities – both with PPEs and MHPSS. It is expected that the damages resulting from the impact of Hurricanes Eta and Iota will further worsen the situation of already overstretched healthcare delivery capacity due to COVID-19. The situation may increase the risk of deprogramming elective and non-emergency services resulting in increased mortality and morbidity, particularly medical complications due to delayed access to care.

Furthermore, the crisis takes place in the context of several years of drought and prolonged food insecurity and nutritional crisis, which will be worsened by the hurricane and widespread loss of crops. The underlying factors demand increased monitoring of nutritional status of children and pregnant women and actions to mitigate nutritional risks.

Most vulnerable groups

As with any emergency, the most vulnerable populations will be disproportionately affected by the impact of the disaster. High-risk groups include people in extreme poverty, indigenous populations, migrants, refugees and internally displaced persons (IDPs), pregnant adolescents, women, particularly single female heads of

households, children under five, undernourished children, people with disabilities and the elderly. While all these groups are facing increased vulnerabilities, they are also all being affected differently. This is even more true as the devastation caused by Hurricane Eta and Iota takes place in the context of a complex and multidimensional humanitarian situation in the Northern Central American Triangle. This prolonged emergency has been marked by a multi-year food and nutritional crisis in the Dry Corridor, growing insecurity levels and rampant social violence due to the widespread presence of gangs and narco-trafficking groups, the progressive deterioration of socio-economic conditions combined with intensified migration and population movements as well as successive major epidemic outbreaks of infectious diseases including dengue in 2019 and now the COVID-19 pandemic, which have exposed the weaknesses and gaps of the national health systems and social protection networks. All of this has widened gender gaps and has placed women, girls and adolescents in a situation of greater vulnerability.

In the current context of the global pandemic, gender inequalities have been exacerbated. Traditional gender roles and social norms often place women and girls as the family and community caregiver, both in terms of caring for



sick in the homes as well as in the health work force. Women are at the frontlines of the COVID-19 response, making up 70 per cent of the health workforce in the Americas, therefore increasing their exposure to infections. The COVID-19 outbreak has also worsened the already high prevalence of gender-based violence (GBV), including domestic violence and trafficking, physical and emotional violence, intimate partner violence, contracting sexually transmitted infections, and having unplanned pregnancies. Stress, economic and financial insecurity, as well as distancing measures and stay at home orders put in place have exacerbated domestic conflicts and the risk of violence against women while the disruption of social and protective networks and decreased access to services have reduced protection measures.

Eta and Iota's short- and long-term impact on food security may also disproportionately affect children under five given the high incidence rate of chronic undernourishment and stunted growth in NCAT countries. Malnutrition is a characteristic closely correlated to poverty with lower socioeconomic quintile concentrating the highest portion of undernourished children. Given the detrimental socio-economic impact of the current COVID-19 pandemic, malnutrition rates in most vulnerable communities, including rural populations impacted by crop losses as a result of Eta and Iota, are expected to increase along with poverty levels. PAHO's health response to Hurricanes Eta and Iota will monitor and address conditions of vulnerability of women and adolescent girls with a rights-based by supporting the increased availability and access to disaggregated information based on sex and ethnicity as well as other equity variables. Accordingly, emphasis will be given to creating spaces for women and adolescent girls

to safely partake in available services. Thus, integrating and addressing persistent constructs of gender related health perceptions, personal care, health risks, and health seeking behavior in health and health related services will be core elements of the response.

PAHO/WHO Response Operations

Prior to the passage of Hurricanes Eta and Iota, PAHO/WHO activated its emergency teams for surge capacity and pre-deployed Rapid Response Team experts to support health authorities and humanitarian response as needs were identified.

UN agencies, including PAHO/WHO, have activated their emergency response mechanisms and providing direct support to all 8 countries along the path of Hurricanes Eta and Iota to assess and attend immediate humanitarian needs. PAHO/WHO has mobilized experts in damage assessment to accompany the Ministries of Health in initial field visits to affected health infrastructures and determine the most urgent actions.

On 10 November 2020, the Honduras Ministry of Health requested the deployment of Emergency Medical Teams (EMTs) to provide surge healthcare capacity in the affected areas. To initiate the assessment of capacities and coordinate the deployment of EMTs, PAHO mobilized an expert in EMT Coordination and CICOM methodology to Honduras to support the health authorities.

In **Honduras** PAHO has deployed public health and disaster management experts to strengthen and provide surge capacity to the national health response. A batch of 40,000 antigen tests and 300,000 PCR tests have been donated to the MOH for the early detection of COVID-19 cases in shelters. Biosecurity and hygiene supplies

have been donated to shelters in the most affected areas (50,000 surgical masks, 40,000 medical gloves, 1,500 gallons of liquid soap, 1,500 gallons of alcohol-based gel, among other supplies). In addition, PAHO has delivered 2 PAHO COVID-19 5x30 kits (PPES) and 300 dignity kits, and has shipped 1 5,000-liter bladder tank, Hach kits, WASH supplies, incubator, portable turbidimeters, chlorine meters, Ph testers, 100 mosquito nets and 5,280 soap bars. One (1) EMTs is established in Cortes department.

In **Guatemala** PAHO has supported the deployment of 18 medical teams (doctors, nurses, psychologists, nutritionists, environmental sanitation technicians) to provide support in shelters in the Departments of Alta Verapaz, Quiche, and Izabal. PAHO has already shipped 17 clinical kit modules with equipment, 36 first aid kits, and 1,000 PPE kits to the Departments of Alta Verapaz, Quiche and Izabal.

Six (6) health damage and needs assessment teams conformed of experts from PAHO and the Ministry of Health were deployed to the departments of Peten, Quiche, Alta Verapaz, Izabal, Zacapa. In addition, 100 emergency backpacks for first responders and 400 dignity kits are pending delivery to the affected areas.

In **Nicaragua** PAHO has activated the Incident Management System and initiated implementation of contingency plans to support the national response of the health sector and ensure uninterrupted operations in the affected communities. One (1) PAHO COVID-19 kits was delivered to the Ministry of health to support the restoration of adequate conditions in shelters for the prevention of COVID-19. Health emergency brigades from the Ministry of Health, including mobile clinics and medical teams, have been deployed to the affected areas.



PAHO/WHO RESPONSE STRATEGY

Expected Results and Priority Actions

Objective: Ensure continuity of health services and reduction of the public health consequences related to Hurricanes Eta and Iota by responding to emergency health needs in Honduras, Nicaragua, and Guatemala.

Expected Result 1: Restore healthcare delivery capacity and access to health services in the most affected areas, including mental health care.

- Clean up, repairs and rehabilitation works in damaged health structures to reestablish functionality of health services.
- Deployment of replacement health personnel, including EMTs, with specific expertise from neighboring countries to support the delivery of health services and scale-up response capacity of health systems already saturated by the COVID-19 response.
- Procurement, temporary storage, and distribution of medical and health supplies and equipment for the diagnosis and treatment of waterborne, foodborne, and vector-transmitted diseases to health centers.
- Procurement, temporary storage, and distribution of medical and health supplies and equipment for the diagnosis and treatment of Acute Respiratory Infections (ARI), dermatological diseases, and diarrheic diseases.
- Procurement, temporary storage, and distribution of medical and health supplies lost during the emergency, for essential health services such as ICUs, emergency rooms, surgery, mother and child health, and the treatment of chronic diseases
- Procurement, temporary storage, and distribution of PPEs for healthcare workers and deployed surge personnel to prevent the risk of increased COVID-19 infections.
- Support health authorities for the implementation of mental health and psychosocial support guidelines and public health measures to victims of the hurricane
- Provide technical support to the national authorities to implement humanitarian health interventions and disease prevention actions in active shelters and affected communities, including the promotion of healthy habits, sexual and reproductive healthcare, gender-based violence prevention, and sexual violence prevention.
- Support the implementation of COVID-19 preferred sheltering practices, including procurement of essential health supplies, to ensure adequate shelter and space management, infection control and prevention, shelter hygiene standards, and adherence to COVID-19 precautions.

Expected Result 2: Increase epidemiological surveillance to support early detection and timely management of disease outbreaks

- Procurement, temporary storage and distribution of essential equipment and supplies for epidemiological surveillance and to the public health laboratories for the timely detection of disease outbreaks and strengthening of the diagnostic capacity.
- Procurement, temporary storage, and distribution of PPEs for epidemiological surveillance teams and deployed surge personnel to prevent the risk of increased COVID-19 infections.

- Provision of rapid on-site training to epidemiological surveillance teams on standardizing data collection and prompt reporting, on strengthening the continuous risk assessment and on implementing an adequate response through mitigation and control measures.
- Deployment of epidemiologists to support decentralized epidemiological surveillance in affected communities

Expected Result 3: Ensure safe access to water, emergency sanitation measures, and vector control.

- Provision of equipment and supplies for clean water in the affected communities, active shelters, and health centers, such as water tanks, chlorine tablets, water testing kits, etc.
- Water quality monitoring within health facilities and shelters
- Procurement and distribution of equipment and supplies for food safety surveillance and vector control measures
- Implementation of measures for the adequate management of sanitation in the affected communities and health centers, including procurement of supplies and equipment and vehicles for debris removal, clean-up operations and solid waste management
- Reproduction and dissemination of good hygiene practices, including food and water safety and sanitation promotion, in shelters and affected communities.
- Refresher training to the health personnel on food safety and entomological surveillance.

Expected Result 4: Ensure efficient coordination and management of information to effectively address the most urgent humanitarian needs

- Deployment of members of the Regional Response Team to assist the affected countries with damage and needs assessment in the health sector
- Collect and analysis of information to support evidence-based decision-making
- Logistical support to the reception of external assistance, including coordination of international emergency medical teams as well as management of supplies and equipment
- Support to authorities in the development and implementation of a short-term emergency response plan as well as medium- and long-term recovery plans for the health sector
- Provision of support the management of national and local health coordination mechanisms, as well as coordination with other sectors involved in response operations
- Implement risk communication strategies and dissemination of information on protective measures to prevent communicable diseases, including social mobilization at community level regarding prevention and control of food and waterborne diseases, ARI, dermatological diseases, diarrheic diseases, vector control, and vector borne diseases including Dengue and COVID-19.

Monitoring and Reporting

Monitoring will be done through regular field visits to ensure the proper implementation of activities and the effective reestablishment of essential health and WaSH services in affected areas. The expenditure will take place early on in the response operation for the procurement of critical health and WaSH supplies and equipment to ensure rapid recuperation of healthcare delivery capacity, as well as the support to the damage and needs assessment process.

Oversight and coordination

Implementation of activities and resources will be managed by PAHO/WHO, in close cooperation with national and local authorities. PAHO/WHO's Health Emergency Department (PHE) in coordination with the PAHO/WHO Honduras, Nicaragua, Guatemala, and Panama Country Offices will be responsible for the overall management of the project and provide direct support to the health authorities and national and sub-regional disaster management institutions.

FUNDING NEEDED

PAHO/WHO funding requirement to support short-term emergency health needs highlighted above for the next six months is estimated at US\$ 9,900,000.

Funding requirement per priority is as follow:

Strategic Objective	Costs (USD)
1. Restore healthcare delivery capacity and access to health services in the most affected areas.	\$ 5,074,688
2. Increase epidemiological surveillance to support early detection and timely management of disease outbreaks	\$ 1,569,345
3. Ensure safe access to water, emergency sanitation measures and vector control	\$ 1,650,708
4. Support efficient coordination of humanitarian assistance and management of information to effectively address the most urgent humanitarian needs	\$ 957,595
<i>Indirect Costs (Project Support Costs)</i>	\$ 647,664
TOTAL	\$ 9,900,000

CONTACT INFORMATION

Organization

Pan American Health Organization/World Health Organization
525 Twenty-third Street, N.W., Washington, D.C. 20037
+1 (202) 974 3531
emergencies@paho.org
www.paho.org/emergencies

Regional

Dr. Ciro Ugarte	Director, Health Emergencies ugarteci@paho.org
Dr. Leonardo Hernandez	Unit chief, Emergency Operations hernandel@paho.org
Dr. Alejandro Santander	Sub-regional Advisor for Central America, Health Emergencies santande@paho.org
Ms. Julie Mauvernay	Team Lead a.i., Resources Mobilization and Communication mauvernj@paho.org

In Country

Dr. Mark Cantrell	Nicaragua. Advisor, Maternal Health and Mortality Reduction cantrelmar@paho.org
Dr. Liz Parra	Guatemala. Advisor, Health Emergencies lparra@paho.org
Dr. Eduardo Ortiz	Honduras. Advisor, Sustainable Development and Environmental Health ortizedu@paho.org

Appeal Cost US\$ 9,900,000

Appeal Duration 6 months

PAHO



Pan American
Health
Organization



World Health
Organization
REGIONAL OFFICE FOR THE
Americas