

COVID-19 Response in Central America

A Race Against the Virus

June 2021



COVID-19 exploded with fury in late 2019 and early 2020 leaving almost no part of the world untouched, confounding governments, health experts, and frontline health workers with its speed and lethality. It killed 4 people out of 200 known cases by January 21, 2020, and made an exponential leap to more than 9,800 cases 10 days later with more than 200 deaths. The World Health Organization (WHO) met that month to consider declaring a public health emergency and by March 11, 2020, had declared COVID-19 a global pandemic.

A scramble ensued—for diagnostics, solutions, policies, cures, treatments, and explanations. With no global framework for a health

emergency of this magnitude, instantly governments and health sectors were searching for resources to fight a virus that persisted 18 months later with 4 million lives lost.

Palladium joined the list of organizations looking for solutions, having expertise in the areas of health system strengthening—recently working on the Ebola outbreaks in West Africa—and a long history fighting HIV, tuberculosis, and other infectious diseases in poorer countries where struggling health systems were disadvantaged in emergencies. With a presence and history in Guatemala, Palladium was known for its responsiveness and ability to work fast. The U.S. Agency for International Development (USAID) sought to harness



Healthcare workers at the Hospital Leonardo Martinez Valenzuela in San Pedro Sula, Honduras, receive training on mechanical ventilation for patients with severe COVID-19 and how to use personal protective equipment to protect themselves from infection. Photo credit: Alicia Cerrato, HP+

that track record to fight the battle against COVID-19 in Central America, enlisting the Health Policy Plus (HP+) project, for which Palladium is the implementing partner, to mount a vigorous response in three countries.

The first challenge faced was that HP+ had a robust staff in Guatemala, but no staff and no office in the other two countries—Honduras and El Salvador.

As envisioned, the work was organized around three pillars: (1) laboratory capacity, (2) surveillance, and (3) case management and infection prevention and control. Honduras was the first to get specific COVID-19 response underway—followed soon by El Salvador and Guatemala. Public communications on the risks of COVID-19 and community engagement were additional aspects added in Guatemala, where HP+ had relationships with civil society partners serving women, youth, and Indigenous peoples. The project immediately acted to:

- Adapt and implement international guidelines on clinical case management and infection prevention and control.
- Strengthen the capacity of health ministries, at national and subnational levels, to improve facility and community-level care for COVID-19 patients, working directly with frontline workers and prioritizing whatever would save lives and reduce the spread of the disease.
- Improve surveillance and local laboratory capacity to test for COVID-19, which would also provide data to help understand and control the epidemic.

This report looks at the COVID-19 response in these three countries. The examples provided and voices of staff elaborate the unrelenting scramble to react effectively; the motivations of the players; the partnerships formed; the government participation and leadership, cutting through red tape when possible; the victories large and small; and the lessons for next time.

“Thanks to our work in Guatemala, we had a path for USAID to entertain the idea of obligating funds to us. We were good at navigating the local landscape; we knew who needs to be involved. That turned out to be very important.”

David Merchant, Technical Advisor, Health, Palladium

Honduras

Palladium had no staff and no office in Honduras, though staff was nearby in Guatemala. To begin work, the first step was for headquarters staff to activate its networks while writing job descriptions for the technical support that would be needed. The work plan in Honduras was a COVID-19 response aligned to the three pillars. Surveillance focused mainly on improving the weekly bulletin that serves as an official communication tool to inform decisions and strengthening data flow and analysis. Case management included building critical care capacity, case finding, contact tracing, plus infection prevention and control and procedures for rapid response to deal with surges of patients. Laboratory imperatives were systems and platforms for test sample management, safeguards against contamination, and quality assurance.

The networks in Guatemala and other Latin American countries were instrumental in getting Honduras activated first. Based on prior experience with HIV and malaria elsewhere, HP+ staff knew who to call to pull levers and quickly assemble a team. The HP+ team determined that putting the Honduran government in the driver's seat was the most important element for success. With the USAID Mission in Honduras, HP+ set up a task

“Although challenging at times, it has been a very satisfactory experience to provide high-quality scientific and technical assistance to the lab staff and witness the growth in the knowledge of a new generation of microbiology experts in Honduras.”

Magelda Montoya,
Laboratory Technical Pillar
Lead, Palladium

force managed by the director of hospitals. Through the task force, the directors of 24 hospitals made certain they were ready to be assessed for staff capacity and the ability to accept ventilators that the U.S. Government was donating. The hospital director enlisted actors across the spectrum—from the Honduran Ministry of Health (SESAL), health facilities, and political influencers. The idea was to save the most lives with a focus on critical care and oxygen support.

Laboratory Management and Capacity

An early scramble in Honduras was to find experts in microbiology to set up the laboratory system, which did not meet the standards required for the speed and intensity of the race against COVID-19. The HP+ team found a bilingual microbiologist from Cleveland who was willing to come to Honduras, but travel bans were in place because of the enormous risk.

HP+ conferred with the USAID Mission, which turned to a Honduran private company. The company director had a good relationship with the Honduran government—the red tape for a travel permit was overcome and the technical advisor was deployed to Tegucigalpa. The microbiologist stayed for months, adding two technical assistants from Nicaragua—thanks again to the private company’s relationship with the government. As it turned out, the laboratory response in Honduras hinged on achieving this private sector involvement to secure these scientists.

Buoyed by this success, the HP+ team and the USAID Honduras Mission worked in tandem thereafter. As one staff member put it, “We had each other on speed dial.”

By May 2021, with financial and technical support from USAID, the Pan American Health Organization (PAHO), and HP+, three new molecular laboratories were constructed to improve the turnaround time for COVID-19 test results from as much as a month to 48

hours. By increasing the geographic distribution of the laboratories, SESAL increased the availability of testing and sample processing, improving local COVID-19 response.

Other support that improved laboratory operations and efficiencies include the following:

- Laboratory standard operating procedures (SOPs) that improved the quality and utility of data captured and delivered to surveillance units, thereby supporting another pillar of the response work plan
- Assessment of three testing scenarios to define options for increasing the speed and volume of testing capacity and for predicting the quantities of test kits needed
- Identification of analytic errors that had led to false negative results, resolution of this challenge, and solutions for contamination challenges; protocols for sample handling; data input and verification; and biosafety
- Training for 100 staff from three labs on a data management system, including use of barcodes and digital protocols for results reporting, increased capacity to troubleshoot and solve problems, and improved processes to reduce contamination and improve quality control
- Assessments in four labs of process flow bottlenecks and recommendations on work efficiencies, thereby increasing the volume of samples processed and better use of space and resources
- Procurement, distribution, and implementation of a new technology called TaqPath, which delivers faster and better targeted polymerase chain reaction (PCR) testing for SARS-CoV-2, and training on the technology for more than 60 microbiologists from four laboratories in Honduras



Training on ventilators and personal protective equipment at Hospital Leonardo Martínez Valenzuela, Honduras, July 2020. Photo credit: HP+

The laboratories were crucial for testing. Furthermore, high-quality data based on testing underpinned scientific decision making as the government grappled with the pandemic and was reliant on accurate and timely information. The external scientists brought in were sometimes viewed as outsiders with different ideas, team members said. But the team was constantly on the phone—from 6 a.m. to midnight supporting all three countries—keeping open the lines of communication with USAID, headquarters, and the field. This hands-on approach was effective at addressing challenges, alleviating the constant stress, and helping people accept whatever would save lives. The pandemic was a constant reminder that coordination was crucial.

Strategies to Find and Fight COVID-19

Case management and infection prevention and control is a crucial disease response component. Patients come to the hospital or health facility and data collected on their condition is relayed to surveillance units for case finding and also used in decision making. The question for clinical care of COVID-19 patients in any setting was always which ward in which hospitals with which skills would save the most lives. When competing ideas arose in the response, the one that would save the most lives always won.

Surveillance is another fundamental component in the overall response to COVID-19. HP+ and SESAL agreed for HP+ to use clinical and laboratory testing data provided by SESAL to strengthen the surveillance system and case management efforts. HP+ mapped the data flow of the entire response and strengthened data management and analysis. This included adaptations of the Honduran database platform to better interoperate with the PAHO Flu system for reporting respiratory illnesses and to prioritize a backlog of 35,000 forms to be entered into the system. Also in collaboration with PAHO, HP+ supported adaptation of the XCOVID information system to allow the government to collect surveillance data from antigen tests.

The project conducted a municipal-level data analysis of COVID-19 cases per 100,000 population, updated a case definition of recovered cases, and presented to regional epidemiologists interim tools created by HP+ for reporting deaths and expediting official classification of deaths.

On the clinical side, the team recognized within the first month that it needed to develop a training guide on how to use ventilators. By the second month, the team had a guide, with video, for training frontline workers, developed with SESAL and already at work in the 24

“Bringing ventilators into a country overnight—importing, finding space, getting the right medication, the right tubing, training—how do you do an assessment so fast? We think linearly often but this isn’t linear!”

Sara Bowsky, Director, HIV and COVID-19 Response, Palladium

hospitals originally enlisted by the hospital director and supported by the minister of health. The ventilator-readiness effort included the following activities:

- HP+ assisted SESAL to conduct a rapid assessment of 22 critical care facilities to determine their readiness to receive and use the donated ventilators, finding that four of nine hospitals were short on oxygen and that staff trained in mechanical ventilation were available less than half of the time.
- The project supported the creation of a ventilator task force to optimize distribution of ventilators for severe cases and worked with the USAID-funded Meeting Targets and Maintaining Epidemic Control (EpiC) project—on which Palladium is a subawardee to FHI 360—and other stakeholders to use readiness assessment results to inform scale-up of dissemination of guidelines on proper ventilator use for health facilities.

The ventilators, when deployed, would almost double the number available in public facilities, saving many lives. But the scramble for clinical competence was unrelenting. “We collected data and found that in fewer than half of COVID-19 cases was an expert doctor or nurse available. So, we trained existing staff and staff from other specialties and from other hospitals on priority critical care topics,” said Mirwais Rahimzai, a physician central to the Palladium work in Central America and a senior technical advisor of health at Palladium.

Another challenge was that solutions developed often would dissolve as medical personnel fell sick and new ones had to be trained. “We had to have the ability to adapt quickly,” Rahimzai said. “Needs changed every second month. Some cases were in the capital and then moved to another geographic area. One hospital was overwhelmed and then another one. It was extremely important to build in flexibility.”

The flexibility was achieved in concert with USAID. Daily communication and ever-changing work plans were reviewed frequently—sometimes every two months instead of every quarter. Stakeholders were engaged and put in the driver’s seat. For example, the Critical Care Society of Honduras was engaged for training and capacity strengthening. The intentional strategy from the outset was always to work with government and local organizations to develop policies and materials. HP+ called on colleagues it knew from work in Zika response to ask who might be able to train Honduran clinical workers. It found seven Honduran critical care trainers, recruited them in the first month, and set them the task to serve as champions and to develop the materials to train their colleagues.



In collaboration with SESAL and EpiC, HP+ trained more than 1,800 frontline healthcare workers providing critical care to COVID-19 patients. Healthcare workers were trained in hundreds of sessions—62 percent of participants were general practitioners, 18 percent were nurses, and 20 percent were medical specialists or other. Trainings were intensive and thorough, covering:

- Proper use of personal protective equipment (PPE)
- Non-invasive and invasive oxygen delivery to serious and critical patients
- Indications and contraindications for the use of therapeutics
- Essential measures to identify, treat, and support patients receiving critical care
- Engagement of local organizations and professional associations for training intensive care unit (ICU) personnel—expanding the reach of training for critical care staff
- Fifteen critical care topics for a mentorship program, for which HP+ developed the program content and tutorial videos for hundreds of doctors and nurses

HP+ also worked to support SESAL to update evidence-based guidelines for home-based care, with visual guides, for healthcare workers and communities. These are essential references on topics such as hand hygiene, PPE, home infection control, patient isolation, care plans and case management, and infection control among healthcare workers, their patients, families, and the community. Frontline health workers from 16 regions were trained in the guidelines, which were approved by SESAL as an institutional document.

“The commitment of our surveillance staff is remarkable, they worked long hours and weekends at the Ministry of Health offices throughout the pandemic in order to provide timely information for different departments and the minister herself.”

Diana Gonzalez, Technical Advisor, COVID-19 Response, Palladium

El Salvador

The three countries where Palladium worked were similar in language, culture, geography, and COVID-19 effects. The approval process for funding went faster in Honduras, where the work began first; El Salvador started shortly thereafter. The search for staff and expert consultants was one bottleneck. The team moved as fast as it could and kept government involved by finding people who knew how to make things happen and through USAID, which had good government relationships.

Training Healthcare Staff

Chief among HP+'s work in El Salvador was the provision of professional training in healthcare settings. For health system managers, HP+ provided technical assistance on COVID-19 surveillance and training of rapid response teams for case investigation, contact tracing, and entry points into the care system. Clinical training focused on topics of infection prevention and control, ventilator care, surge training for frontline workers, and hospital referral.

As an example, to ensure Salvadorean healthcare workers were adequately equipped to use donated mechanical ventilators, HP+ and EpiC developed a comprehensive curriculum. The training was delivered to more than 500 healthcare workers (intensive care specialists, general physicians, nurses, biomedical engineers, and others) to strengthen capacities on invasive and non-invasive ventilation, intubation and extubation, cleaning, sterilization, and monitoring oxygen levels of patients. Mentoring was provided in facilities with and without ICUs—75 percent of hospitals do not have an ICU and were unprepared to provide care for critically ill COVID-19 patients.

As it became clear that some patients could recover without hospitalization, the project added training focused on providing community-level health workers with information and mentoring on case management, hospital referral when necessary, home-based care, and

infection prevention and control for themselves and households. The guidelines for El Salvador were adapted from the successful guidelines created in Honduras.

As the pandemic progressed, HP+ worked with the Ministry of Public Health (MINSAL) and the El Salvador National Nursing Association to set up training for clinicians on primary care and use of oxygen, respiratory therapy, and mechanical ventilation for critical patients.

“The operational challenges were constant. You train 20 workers and the next day five of them are infected. Or many of your lab workers are infected and have to be quarantined. You lose your workforce.”

Mirwais Rahimzai, Senior Technical Advisor, Health, Palladium

Improving Laboratory and Surveillance Processes

In addition to clinical case management training, HP+ supported MINSAL to strengthen systems for disease surveillance and improve laboratory capacity in an effort to bolster the COVID-19 response. For example, HP+ assisted labs in El Salvador to improve biosafety, sample taking and handling, triage of various rapid diagnostic test advantages and disadvantages, and evaluation of test results. Achievements in this area include the following:

- Seconded four data entry staff to the national laboratory to enter a backlog of COVID-19 data—more than 14,000 forms over two months in the fall of 2020. From November to December

Achievements in Training in El Salvador, September 2020–February 2021

- Delivered training to more than 500 healthcare workers in 31 hospitals on mechanical ventilation.
- Engaged 83 healthcare professionals in 20 facilities across six municipalities to adapt and disseminate evidence-based guidelines and provided mentorship for 178 hospital workers in 31 hospitals.
- Provided virtual training on COVID-19 case monitoring guidelines to 80 health workers from rapid response teams in each of the health regions.
- Developed and delivered four virtual sessions on telehealth to more than 189 primary healthcare personnel, covering telehealth for care management, monitoring of patients at home, and how to support mental health among COVID-19 patients and their families.



Together, the USAID-funded HP+ and EpiC projects implemented a virtual training program, paired with in-person technical mentorship, for Salvadoran healthcare providers in secondary- and tertiary-level health facilities to improve critical COVID-19 patient case management. Photo credit: HP+/EpiC

2020, seven data entry staff entered 33,000 forms into the national epidemiological data system. The backlog has dramatically decreased since that time, with 81,000 records uploaded as of February 2021.

- Assessed the quality of El Salvador's VIGEPES database to identify system errors and devise solutions. Of note were multiple small but consequential errors at the sample collection level, which had compromised data quality.
- Trained 137 data entry staff on VIGEPES as of January 2021.
- Worked with government counterparts to produce training materials on lab best practices, PCR theory, protocols, and troubleshooting.
- Working with the heads of four labs, HP+ presented a bar code system to improve the flow and tracking of SARS-CoV-2 test samples—this entailed preparation of a manual, provision of a printer and consumables, software installation, training in the use of bar codes, and printing tests and labeling of laboratory vials.
- Assessed the efficiencies of lab workflows, processes, and use of space, and provided recommendations for improvements.
- Developed 16 laboratory protocols and provided advice on rapid testing strategies and equipment; analyzed forms associated with COVID-19 tests and identified patterns of poor quality or incomplete data. Training was designed to fill the identified gaps to improve data and analytic abilities.

Other notable efforts supported by HP+:

- Launched the “Learning Network COVID Response in Latin America,” a collaboration between HP+ and EpiC in Honduras and El Salvador, consisting of six virtual sessions in Spanish to assist healthcare workers in Latin America to improve service delivery in critical care addressing topics such as infection prevention and control, mechanical ventilation, and diagnostic testing.

- In partnership with MINSAL and health facility leadership, developed a community of practice for primary care facility staff to continue engagement with participants from previous home-based care and infection prevention and control trainings and mentorships. Healthcare workers lead the group and cover topics of interest to members related to COVID-19 and patient care. This group is envisioned to sustain engagement among primary care healthcare community members beyond the life of the project.

Guatemala

Health and Education Policy Plus (HEP+), as the HP+ project is known in Guatemala, has supported the government in Guatemala since 2011 in the health, nutrition, and education sectors. It recently pivoted to educate health professionals and communities on COVID-19 and was the only country that had existing staff and infrastructure among the three in Central America where USAID engaged HP+. It formed the initial nexus for planning the strategies for a wider field response and headquarters management.

The lines of communication were especially important in Guatemala, which was already operating. The HEP+ country director called upon relationships and networks with civil society, donors, and government. This staff also was communicating at the outset with three USAID missions and three U.S. embassies, with hundreds of presentations prepared for lay officials, with tailored messages and talking points to describe what was happening.

The mandate in Guatemala was broader than in the other two countries. It included best practices in treatment and protection coupled with operational and logistics support, as did the others. It added engaging youth to leverage social media for COVID-19 messaging and using its existing networks and experience to provide risk communication and community engagement along with information on points of entry for care.

“We had a team in Guatemala but no staff elsewhere. In headquarters we didn’t have that many who had worked in emergency response. So, we brought on experts who have been pivotal. The passion and commitment made them speed up working as a team. They were working in lockdown and were in the midst of the pandemic too in their own countries. But they made this work happen.”

Sara Bowsky, Director, HIV and COVID-19 Response, Palladium

Civil Society and Essential Messages during COVID-19

Communications about COVID-19 was a wide-ranging effort, as avoidance of exposure is a first line of defense against the disease. HEP+ provided technical assistance to civil society networks to hold online forums for the dissemination of materials in a variety of media formats—social media, radio, television, and general outreach among community members—focusing on promoting individual and social behaviors to deter the spread of COVID-19. Messages included the prevention of domestic violence and encouragement of responsible parenting during the stress of lockdown. The project also supported monitoring the continuation of family planning and reproductive health services as part of the COVID-19 response.

Communications involved many players with specific messages:

- HEP+ supported two civil society networks—the Young Artists for Social Justice (JAxJS) and the Sexual and Reproductive Health Watchdog’s Youth Branch (OSAR Youth)—to deliver messages about

containing the spread of COVID-19 through social media and on radio with songs and poetry. These messages reached about 7,000 young Guatemalans every day.

- OSAR Youth disseminated messages on continuing reproductive health services to prevent teenage pregnancies.
- A virtual forum aimed at men was organized by the Interagency Gender Working Group’s Male Engagement Task Force of USAID and supported by HEP+ to involve men in the COVID-19 response. “Emerging Strategies to Engage Men in Addressing the Gendered Impact of COVID-19,” focused on preventing the spread of the virus, deterring domestic and gender-based violence, and supporting men to manage their emotions during the pandemic.
- To communicate the negative effects of the pandemic on nutrition among children, HEP+ helped disseminate a report on care for children with acute malnutrition as part of Guatemala’s “Active Case Detection Plan for Children affected by Acute Malnutrition in the Context of the COVID-19 Pandemic.” This plan was implemented by the Ministry of Public Health and Welfare (MSPAS) and the Secretariat for Food Security and Nutrition.
- The risks of migration were another topic made especially important during the pandemic.

HEP+ provided technical assistance to civil society organizations (CSOs) to monitor implementation of these and other social programs established by the government. HEP+ conducted training for CSOs on gender equity issues and water management. These organizations were invaluable in delivering communications, reinforcing prevention and sanitation at the community level, and monitoring social programs for school-based food and other food assistance.

HEP+ continued through the winter of 2020 to provide technical assistance for CSOs to hold dialogues, online forums, and interviews in local media on additional topics, including measures to prevent a second



Messages about containing the spread of COVID-19 reached an audience of 7,000 young Guatemalans every day through social media and radio.

wave of disease during end-of-year celebrations and the human rights of migrants. A diploma on COVID-19 was delivered to 213 active CSO partners.

Examples of CSO Trainings in Guatemala

- Masculinities for Gender Equality and Equity in Times of COVID-19: 64 participants (36 women and 28 men)
- Water Management for Social Development in Times of COVID-19: 239 participants (152 women and 87 men)
- Preventing Gender-Based Violence in the Context of COVID-19: 42 participants (35 women and 7 men)

Healthcare Workers and Essential Skills for COVID-19

An innovative clinical training program mounted by HEP+ reached more than 2,300 public and private sector health professionals in Guatemala who participated in five hours of live training on COVID-19 via YouTube. Two interactive sessions featured local experts and questions from viewers. Since airing, more than 18,000 additional views have been recorded. In coordination with health sector stakeholders, HEP+ facilitated and moderated the sessions and solicited participant input for future trainings.

This program provided a solid foundation on the basics of COVID-19, enabling health professionals nationwide to improve service delivery to support pandemic response. Buttressing that effort, HEP+ helped train local leaders and experts on how to plan for and deliver services related to COVID-19 and to work with local authorities. So far, 130 area chiefs, along with epidemiologists, statisticians, and heads of service provision from five health areas have taken the course. HEP+ indexed the material and made it available nationally, giving health experts quick access to guidance to improve epidemic response.

For specific clinical care, HEP+ trained more than 100 hospital personnel and paramedical personnel from eight Guatemalan hospitals on essential critical care topics such as the use of ventilators donated by USAID to MSPAS, medicines for treating COVID-19, and management of severe and critical patients. Equipped with improved protocols and patient care options, workers could immediately use the ventilators to treat severe cases and be able to provide other therapies for patients needing ventilator support. HEP+ continues to provide this technical assistance.

HEP+ also developed essential protocols for government-sponsored temporary COVID-19 isolation centers for asymptomatic and mild COVID-19 cases—a strategy adopted by MSPAS. By June 2020, four isolation centers were open and 15 respiration assistance centers were operating, all with HEP+ support. The project also trained ICU specialists in eight large hospitals, doctors and nurses at urban hospitals, and those in smaller rural hospitals on 20 protocols, developed with partners, on triage, security, case management, essential services, supplies and equipment, essential medications, and infection prevention and control.

Strategies for Overall Management of COVID-19

A model, the “Stratification of Municipalities for the Response and Management of the COVID-19 Pandemic,” was presented by HEP+ to MSPAS, the Presidential Commission for the COVID-19 Emergency Response, and 29 health area directorates. The model ranks municipalities by COVID-19 threat level, exposure level, level of vulnerability, and level of impact. This tool is being adopted by the government. In October 2020, HEP+ helped MSPAS and the commission devise a site visit plan for 12 priority municipalities. The aim was to use the model to further define strategies for respiratory care centers based on priority ranking. The U.S. Department of Defense donated tents for these centers and HEP+ coordinated guidance on improved cross-ventilation, patient flow, patient care spaces, and sanitation practices that was provided to medical personnel who would staff the centers. The project also facilitated

consensus building among municipalities, the Ministry of the Interior, and MSPAS on efficient functioning of the centers in host municipalities.

Nature intervened on November 3, 2020, sending Category 4 Hurricane Eta slamming into Nicaragua and on to Honduras and Guatemala. Less than two weeks later, Hurricane Iota, also a Category 4, hit the same countries on November 13. The respiratory care centers were repurposed as shelters for displaced Guatemalans affected by the storms, with MSPAS, the presidential commission, and HEP+ coordinating equipping shelters with masks, sanitation, and supplies and planning the installation of more centers. “It’s been one thing after another. It’s been tough,” said David Merchant. “If someone asks me about resilience, I can say ‘2020’.”

Examples abound that illustrate the complexities and insistent needs during the pandemic. HEP+:

- Supported efforts to identify administrative and financial management bottlenecks to increase the release of funds earmarked to fight the COVID-19 pandemic—solutions resulted in 80 percent of MSPAS units solving procurement issues and an almost fourfold increase in budget execution
- Helped coordinate a contact tracing strategy for use at the local level among 22 departments, after engaging the governors of those departments
- Supported a “Back to School 2021” forum to develop health guidelines for in-classroom learning
- Led a course on the municipal stratification model for directors, epidemiologists, statisticians, and stakeholders at the 29 health ministry directorates throughout the country
- Worked with MSPAS, the Ministry of Labor, municipalities, and the presidential commission to coordinate and monitor risk mitigation measures in public markets and other gathering places

- Collaborated with MSPAS and the presidential commission on mechanisms to measure the impact of contact tracing strategies
- Facilitated the delivery of 85,857 masks donated by USAID for vulnerable groups in the western highlands of Guatemala
- Designed a severity index that weighs positivity and incidence rates along with death rates to identify municipalities most in need of COVID-19 response support—information that is being used by the central government to determine how resources will be deployed

Considerations for a Vaccination Strategy

HP+ has significantly benefited from two regional platforms: (1) collaboration with EpiC and others on the Learning Network COVID Response in Latin America and (2) a Northern Triangle regional HP+ Technical Taskforce on Vaccination that meets weekly to discuss critical topics in the region. In addition, HP+ benefited from collaboration with the USAID-supported Sustaining Technical and Analytic Resources (STAR) project.

Establishing a committee or using an existing one as a national coordinating group was an important learning in setting up vaccination strategies in Latin America. Coordinating groups could be a clearinghouse for subcommittees that would manage vaccine introduction; delivery; cold chain logistics, transport, and storage; public demand generation and communications; vaccine recipient targeting; and monitoring and evaluation to measure and document coverage and impact.

The COVID-19 vaccination strategy developed by Palladium through HP+ had three major pillars:

1. Provide strategic advice to USAID missions on priorities to focus U.S. Government funding. For instance, in Honduras the USAID Mission endorsed the seven priorities (policy and planning, service delivery, training, etc.) recommended by the president.
2. Provide strategic advice to senior staff at ministries of health on coordinating COVID-19 vaccination activities throughout the ministries and with key stakeholders.
3. Focus on implementation priorities especially for improving vaccine service delivery.

A vaccination program of the scale required in this global effort—one of the largest public health efforts in a century—still must be particular to each country. Learnings from countries that have begun vaccination programs suggest a combination of similar steps:

- A government health ministry should spearhead the effort and prioritize briefing stakeholders and implementing partners to agree on a procurement strategy (for example, bilateral purchase, purchase through the United Nations, or purchase through COVAX).¹
- Subsequent steps include setting up clear objectives and plans for waste management, logistics, staffing, and delivery of vaccines to targeted populations.
- Countries must include budgets for each step, regulations for appropriations and procurements, timelines for import and distribution before expiration, safety for vaccine handling, training, risk mitigation and response to adverse events, and risk management of liabilities.
- For the final delivery of vaccine to individuals, governments must plan PPE for vaccine staff; outreach to targeted populations; communications and community distribution of information; equipment for facilities; record-keeping of inoculations given; consent forms and

¹ The “COVID-19 Vaccines Global Access,” COVAX, is a global initiative to provide equitable access to vaccines. It is directed by Gavi, the Vaccine Alliance; the Coalition for Epidemic Preparedness Innovations; and the World Health Organization.

As of June 2021, El Salvador had 900,000 people vaccinated (7%); Guatemala had vaccinated 762,497 with a first dose (7%) and 157,718 with the second dose (1.4%); and Honduras had 64,400 people vaccinated (0.3%).

complaint processes; and training on safe injection, use of WHO guidance, and security for staff at vaccine sites.

HP+ Vaccination Assistance in Honduras

In Honduras, HP+ is advising the USAID Mission and providing policy, planning, and coordination support to SESAL. It also is strengthening communication among government agencies so that leadership understand deployment and related regulations in a mixed vaccine environment.

With HP+ support, USAID in Honduras selected seven priorities for investment: (1) planning, advocacy, coordination, and implementation; (2) design and development of a COVID-19 information system; (3) a vaccine risk communication strategy; (4) cold chain strengthening; (5) research and pharmacovigilance; (6) human resources capacity strengthening; and (7) vaccine waste management. HP+ will support technical assistance on planning, advocating, coordinating, and implementing the vaccination program.

HP+ Vaccination Assistance in El Salvador

El Salvador is now expanding vaccine rollout beyond healthcare workers to include individuals over 60 years of age, armed forces and national security personnel, educators, individuals 18 years of age or older with comorbidities, and government administrative staff. HP+ technical assistance will focus on the USAID priorities of: (1) policy, planning, and coordination; (2) service delivery; (3) human resources for health, training, and supervision; and (4) communication engagement and demand generation.

HP+ is leading multi-stakeholder working groups to create synergies among activities supported by donors, multilateral organizations, nongovernmental organizations, and others at the

national and regional level. The project is also collecting information on best practices for adaptation to local settings; conducting regional consultation meetings or rapid needs assessments; developing and updating training materials for healthcare workers filling vaccine roles; and assisting with SOPs for receipt, storage, and administration of vaccines. To assist USAID with communications and demand generation, HP+ is supporting the development of vaccine acceptance data collection tools and conducting focus group discussions to identify barriers to acceptance and identify and engage champions to reduce vaccine hesitancy.

HEP+ Vaccination Assistance in Guatemala

The Guatemalan government unveiled the National Vaccination Plan Against COVID-19 in February 2021, was set to receive the vaccine in late February, and begin distribution in early March. It aimed to distribute 400,000 doses over several months to reach healthcare



Vaccine rollout in Guatemala. Photo credit: José Eduardo

workers, followed by people aged 70 and older, then people with pre-existing medical conditions, and then the remainder of the population. HEP+ continued its help to the ministry for the full rollout and an HEP+ team member was appointed as the national coordinator for vaccine implementation.

HEP+ provided the ministry with technology support to launch its website for online vaccine registration. It supported the ministry to procure, set up, and install a dedicated server for the site and completed it in one day. As of May 2021, more than 131,000 people 70 years of age and over had registered. Now in the second phase with a goal of vaccinating 620,000 people, HEP+ is coordinating government agencies, private sector representatives, and other implementing partners to set up in-person registration stands and vaccination posts located according to the stratification of municipalities model, now repurposed to stratify locales based on population density.

HEP+'s activities have resulted in the installation of 547 vaccination centers and 49 in-person registration stations, an aid for people without internet. HEP+ facilitated dialogue with mayors, governors, and the private sector to identify locations and support for the sites. HEP+ also developed the vaccine site standards and client flows, which have been adopted by the ministry.

What Was Learned

The HEP+ staff on the ground and those recruited to the COVID-19 response in Central America were united in their motivation to quickly apply and adapt their skills for USAID's fight against the new and deadly virus. Some of the chief learnings pertain to approaches that worked to speed response and save lives. Other learnings were relevant to attitudes that would serve well in response to emergencies and pandemics.

The personal learnings were similar among the three countries and among field and headquarters staff. Each of these people were themselves in the midst of a pandemic. Many lost colleagues. Some lost family members.

All worked punishing hours. But there was an enduring vitality in their response to the pressure.

"We had to work fast. Always. But in a pandemic people want to do the right thing."

"It was horrible what you saw happening on the front line. Then, the second line behind the scenes were exhausted with the impact on field colleagues, logistics, developing training, and so on."

"Everyone is impacted personally and professionally. No has been untouched by the pandemic."

"That work is a great achievement. We weren't defeated. We came up with solutions."

"We ensured we have protocols to support each other and our staff if they became infected with COVID-19. Our collective wellbeing was the most important ingredient."

"We were constantly on WhatsApp. We had calls in the wee hours trying to find out when was the training, when would the ventilators come, etc. etc."

"It was a nightmare but we prevailed because we weren't willing to throw in the towel."

"USAID worked with us as a team with no distinction between the two."

"We knew we could do this. We knew we could rise to the occasion. We did and continue to do so."

"Every win, no matter how small, motivated people to move forward."

The challenges generally noted in technical reports align with the personal impressions of the speed and intensity of the work:

- Emergency response requires more coordination and appropriate coordination structures.
- Emphasis should be on the importance of flexibility when offering technical assistance.
- Engaging local expertise and partners early and continuously is crucial.
- Expect changes and accept the necessity of making rapid decisions.
- Project management must be flexible, nimble, and adaptable.
- Use technology.
- Establish mechanisms for learning among countries to improve the efficiency and speed of implementation.
- Listen to all stakeholders and find the common threads for success.

The COVID-19 pandemic revealed flaws that parallel those laid bare by HIV—that every individual isn’t treated equally and that rich countries have more access to care and medicines than do poorer ones. It revealed global supply chain issues—for PPE, for ventilators, and for vaccines. Once the vaccine got into a country, things would go more quickly. But getting them in was slow, as was getting approval from an inundated COVAX.

Nevertheless, especially at the field level, activities led to learnings that can persist as instruction for health systems and strategies for rapid response. For example, in Honduras, the project supported an assessment of testing scenarios, hoping to increase the speed and volume of testing and to predict the quantities of test kits needed. HP+ presented its results to USAID, which wanted to increase laboratory capacity for its Bureau for Latin America and the Caribbean and its Global Health Supply Chain Program-Procurement and Supply Management. The data helped define options for use of test kits and also led to



conversations with the U.S. Centers for Disease Control and Prevention to discuss validation processes for open platforms.

Healthcare workers exposed to COVID-19 benefitted from HP+ support to revise isolation criteria. The new criteria, which align with international guidance, shorten required isolation time for non-severe cases, non-immunocompromised cases, and asymptomatic cases, without a required negative PCR test. The new criteria allowed staff to safely leave isolation earlier and return to work and home to their families. HP+ supported local medical networks to facilitate discussions of the criteria, update the guidance, and implement the guidelines in support of staff safety and wellbeing.

HP+ helped the government of Honduras develop and publish an extensive epidemiological report of its COVID-19 pandemic, useful not just to government agencies but also outside parties, journalists, and clinicians. With the report, the health surveillance unit could produce monthly reports capturing emerging data. The report provides key

epidemiological data from March 10, 2020, when the first COVID-19 case was identified in Honduras, through November 14, 2020. These data support improved data visualization, which was used in weekly and daily COVID-19 surveillance bulletins, at press conferences, and at high-level SESAL meetings.

Across the countries, the multiple tools for developing policies and guidelines are now products that can be used whenever needed. Such products make a future team better prepared to know what

measures to put in place to reduce the spread of a virus or the effects of a disaster. They include literature and job aids designed for informing action.

“It’s something tangible. We don’t work in construction so we can’t see a building or a house,” said David Merchant, “but we developed these products and those things are there now. We can say we know more about how to set up an orderly process. The machine is in place, the gears are oiled.”





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For the past 50 years, we have been making Positive Impact possible. With a team of more than 2,500 employees operating in 90 plus countries and a global network of over 35,000 technical experts, Palladium has improved—and is committed to continuing to improve—businesses, economies, societies and most importantly people's lives.