Annual Report 2020

Universal Health and the Pandemic – Resilient Health Systems

Belize

PAHO

Pan American Health Organization

World Health Organization

REGIONAL OFFICE FOR THE Americas

PAHO/BLZ/21-0001

The Pan American Health Organization (PAHO) was founded in 1902 and is recognized as the independent specialized health agency of the inter-American system, under the Charter of the Organization of American States. In 1949, PAHO agreed to serve as the Regional Office for the Americas of the World Health Organization (WHO), a specialized agency of the United Nations system. Acting in its capacity as WHO's Regional Office, PAHO participates actively in the United Nations Country Team, collaborating with other agencies, the funds and programmes of the United Nations system, and with the United Nations Resident Coordinator to contribute to the achievement of the Sustainable Development Goals at country level. For nearly 120 years, PAHO has developed recognized competence and expertise, providing technical cooperation to its Member States to fight communicable and noncommunicable diseases and their causes, to strengthen health systems, and to respond to emergencies and disasters throughout the Region of the Americas.

Given PAHO's dual legal status and the difficulty of disaggregating PAHO from WHO activities, this Annual Report reflects both PAHO and WHO activities in the Americas as related to technical cooperation in 2020. Approximately 80% of PAHO's technical cooperation in health in the Region of the Americas is funded by PAHO's own quota and voluntary contributions, as an inter-American organization. The remaining 20% of PAHO's integrated biennial budget includes WHO-funded activities. Further detailed financial information for this Annual Report can be found in the Financial Summary section.

Mission

To lead strategic collaborative efforts among Member States and other partners to promote equity in health, to combat disease, and to improve the quality of, and lengthen, the lives of the peoples of the Americas.

Vision

To be the major catalyst for ensuring that all the peoples of the Americas enjoy optimal health and contribute to the well-being of their families and communities.

Values

EQUITY
Striving for fairness and justice by eliminating differences that are unnecessary and avoidable.

EXCELLENCE
Achieving the highest quality in what we do.

SOLIDARITY
Promoting shared interests and responsibilities and enabling collective efforts to achieve common goals.

RESPECT
Embracing the dignity and diversity of individuals, groups, and countries.

INTEGRITY
Assuring transparent, ethical, and accountable performance.

Contents

Forewords

The year 2020 will be remembered as the year that tested everyone's resilience. By December, in the Americas, more than 33 million people had been infected with COVID-19 and more than 800,000 persons had died. The devastating loss of life is accompanied by an economic downturn that continues to affect everyone and threatens to derail the achievement of the Sustainable Development Goals.

The year of the COVID-19 pandemic has shed light on inequities and the barriers to universal health. Some of them – low-paid work, the informal economy, overcrowded housing, lack of social protection, and limited access to health services – have made vulnerable populations even more susceptible to COVID-19. The disease has exposed both the barriers to universal health and the profound need for it.

The pandemic has also demonstrated that the health sector acting alone cannot achieve universal health. We need leadership, good governance, the private sector, and civil society. Academia and industry must work with government to produce and share technologies, including diagnostics, therapeutics, and vaccines, as well as digital innovation. Development partners must facilitate coordination for disease surveillance, information sharing, and the response to health emergencies. Financial sectors must help make available the resources needed to ensure that health systems are adaptable, responsive, and inclusive while they address the needs of the entire population. The pandemic has irrefutably proved that we need everyone to be engaged for health and well-being that leaves no one behind.

This year, PAHO's technical cooperation has focused not only on helping countries to respond to the pandemic but also on safeguarding progress toward universal health. This Annual Report reviews our contributions and achievements and reinforces PAHO's core mission, through our focus on the country level, recognizing that progress toward sustainable development hinges on improved health at the local and national level.

Dr. Carissa F. Etienne
Director of the Pan American Health Organization

The emergence of the COVID-19 pandemic in 2020, provided both many opportunities and challenges for the technical cooperation of the Pan American Health Organization / World Health Organization in Belize. As an office, we learned to be agile, adapting rapidly to the changing demands and being responsive to the needs of the country through the uncharted course of the COVID-19 pandemic. The PAHO/WHO Belize Country Office created an Incident Management Team in early February 2020 based on a similar construct at PAHO Headquarters, re-purposing staff functions and working with support of the entire organization to provide the latest technical information and enabling adoption in country. A truly multisectoral approach was required working closely with the Ministry of Health and Wellness but engaging increasingly with other ministries, including the Ministry of Foreign Affairs and the Ministry of Human Development.

Collaboration with many donor partners, the United Nations, and nongovernmental organizations accompanied by resource mobilization was critical. In addition, EUR 500,000 (US$ 562,800) from an existing grant from the European Union Health Support Programme Belize was reoriented. Funding from Canada, Germany, the United Kingdom of Great Britain and Northern Ireland, and other donors was received through both WHO and PAHO Headquarters. Resources were obtained through the United Nations Multi-Partner Trust Fund and the India-UN Partnership Development Fund. The continuation of essential health services was promoted, and increasingly support focused on the preparation for the national deployment of the COVID-19 vaccine.

Teleworking combined with meetings using virtual platforms became the norm, engaging with stakeholders both in and external to Belize. The many lessons learned would continue to influence technical cooperation delivery in the future. Special thanks are due to the staff of the PAHO/WHO Belize Country Office for their tireless efforts and colleagues at the regional and global levels for their invaluable support.

Dr. Noreen Jack
PAHO Representative in Belize

PAHO Technical Cooperation with Belize

In 2020, all the Strategic Priorities of the Pan American Health Organization / World Health Organization (PAHO/WHO) Country Cooperation Strategy with Belize 2017–2021 remained relevant to PAHO/WHO technical cooperation in Belize. The Strategic Priority areas are:

Strategic Priority 1: Strong and resilient health systems achieved through improved governance, leadership and management that support universal health (access and coverage for all).
Strategic Priority 2: Human resources for health management and capacity strengthened to parallel the health needs and the growing population.
Strategic Priority 3: Health and wellness promoted throughout the life course using an integrated primary health care approach to reduce noncommunicable diseases (NCDs) and their risk factors, communicable diseases, mental health disorders, urban violence, and injuries.
Strategic Priority 4: Public health emergencies that can become emerging threats of public health concern.

As will be seen in this report, these four areas formed the basis of technical support provided during COVID-19 pandemic with Strategic Priority 4 being pivotal to the entire response. Initiatives to focus on primary health care approaches, the continuation of essential health services, especially for maternal and child health and NCDs, and the maintenance of gains as for example the milestones to malaria elimination are in keeping with Strategic Priority 1 and Strategic Priority 3. The capacity-building of health personnel during this year focused mainly on increasing the diagnostic capacity for COVID-19, contact tracing, and infection prevention control and surveillance, and were in keeping with the focus of Strategic Priority 2.

„We extend appreciation for the team effort coordinated through our partners...„

Michel Chebat, Minister of Health and Wellness

© Carlos Spitzer/Canva

Health Systems and Services

COVID-19 is a new respiratory illness for which much of the information on its prevention, diagnosis, treatment, and response is unknown. An integrated approach to health services response required strengthening of the first level of care as the first line of defense; protection of the hospital from collapsing; and involvement of all health care services in the response in both public and private facilities.

Continuing Medical Education

To improve the capacity, effectiveness, and efficiency of human resources, it was deemed important that they were properly trained before deployment in order to optimize care of persons in isolation and treatment, minimize risks of patient to health care worker transmission in various occupational settings, and maintain essential health services.

PAHO/WHO supported efforts of the Ministry of Health and Wellness (MoHW) and the Belize Medical and Dental Association in their joint efforts to provide timely, accurate, and relevant information regarding technical guidelines, based on state-of-the-art research and clinical evidence. PAHO/WHO also supported work to improve the effectiveness, efficiency, and safety of human resources to be able to respond to the need for surge capacity in the health system and maintain essential health services, by providing a series of practical webinars related to the COVID-19 pandemic via a video-conferencing platform. The sessions were held on Mondays, Wednesdays, and Fridays at 6:00 p.m. Belize time with duration of one hour for presentation and question and answer, even during national holidays.

Achievements related to the joint continuing medical education of clinical and public health professionals in the country during the pandemic included:

An integrated approach to health services response required strengthening of the first level of care as the first line of defense.

- Provided over 20 international experts to discuss various topics relevant to COVID-19, ranging from rational use of personal protective equipment and management of health workers exposed to COVID-19, including modes of transmission, to best practices in the clinical management of COVID-19 among various population groups and various settings, and sharing of experiences on practical technical guidance on ensuring continuity of essential clinical and public health programs and services during the pandemic and beyond;
- Sessions were participated in not only by health workers in Belize but also included those from other Latin American and Caribbean countries, with as many as over 200 participants per session.
- In terms of health service goals, the continuing medical education contributed toward:
  - Maximizing number of lives saved during the COVID-19 pandemic;
  - Containing disease transmission to lowest possible levels;
  - Protection of the health and well-being of health workers providing care and responding to the pandemic;
  - Progressive expansion of health services supported by adequately trained and committed health workers.

Among the key challenges identified were making sure that the technical guidance shared by the international and regional experts to the local Belize audience were in keeping with PAHO and WHO guidelines, based on existing evidence that was continually being updated as new information came out.

Going forward, the core health service objectives for human resources in a pandemic include the following: mitigate the negative impact on the provision of other services; and increase the efficiency of resources, particularly human resources, while avoiding the overflow of emergency and hospital services and their subsequent collapse.

Expansion of Laboratory Capacity

Controlling the spread of COVID-19 required rapid case identification, contact tracing, and isolation, all of which implied access to diagnostic testing. Despite efforts to control the COVID-19 pandemic, the number of cases was increasing, exceeding the capacity of the Central Medical Laboratory to cope. This resulted in a significant lag in processing of samples, thus affecting the turnaround time of the test results and causing delay in implementing control measures.

Decentralization of diagnostic capacities with robust quality control became one of the best solutions for strengthening the surveillance of the disease and reducing the turnaround time for results.

In addition to the current gold standard of a reverse transcription polymerase chain reaction for diagnosing COVID-19, PAHO/WHO recommended the new technology of rapid antigen-based testing for expansion of testing capacity at the point of care. With reoriented funding from the European Union, the initial rapid antigen tests were provided to the MoHW in October 2020.

Subsequently, additional kits were provided by PAHO/WHO, accompanied by technical inputs for the development of a decentralized testing protocol. The number of SARS-CoV-2 samples to be processed by the Central Medical Laboratory decreased and the turnaround time for a COVID-19 result improved. Predicting and securing the adequate amounts of antigen tests, reagents, and laboratory supplies were a challenge as the transmission scenario changed, and the unpredictable nature of the COVID-19 pandemic will make this a continuing challenge.

Assessment of Critical Care and Isolation Facilities

On 10 February, PAHO/WHO released the Hospital Readiness checklist for a novel coronavirus (nCoV). The tool was introduced to the MoHW through a virtual meeting convened on 18 February.

PAHO/WHO collaborated with the MoHW to conduct rapid assessment of areas to be used for the triage, examination, isolation, and critical care of persons with COVID-19 and for the quarantine of health professionals attending to persons with COVID-19.

To support the MoHW in assessing the level of preparedness of health facilities for COVID-19, assessments were conducted in Corozal, Orange Walk, Belize City, Punta Gorda, and Independence using the adapted tool.

Considerations for the preparedness and response to COVID-19 included:

- An overall whole-of-health systems approach recognizing the primary, secondary and tertiary levels of care;
- Measures for the safety and protection of health workers, including infection prevention control;
- Procedures and patient flow at screening sites for rapid identification, diagnosis, and triaging;
- Internal coordination within the health teams established;
- Logistical and operational adjustments made;
- Staff oriented to protocols for disposal of biological waste, infection prevention and control, and on use of Personal Protective Equipment (PPE).

Challenges included limited resources both physical space and human resources. Health teams recognized a need to triage with early separation of persons with respiratory symptoms from other patients. However, adequate structural spaces to examine and manage patients with respiratory symptoms and to minimize the possibility of exposing others to COVID-19 were not always available.

Standard operating procedures and institutional guidelines enable all members of the team to be clear on what is expected of members of the team supporting the COVID-19 response.

Challenges included limited resources both physical space and human resources.

Preparation for COVID-19 Vaccine Deployment

Even though border closures and lockdown measures have allowed better control of the pandemic, they have adversely affected the country's economy.

A recent report on Belize's economy observes a dramatic reduction in income levels, equivalent to those of 1992:

- A tripling in unemployment from 10.4% to 30% in 2020, more than triple the rate of the Caribbean and more than quadruple that of Central America;
- A decrease in government revenues of over US$ 150 million resulting in financing requirements of over US$ 500 million in 2020.

At 134.1%, Belize now has the highest ratio of debt to gross domestic product in the Caribbean and Central America.

Given the public health and economic crises that have been created by the pandemic in Belize, the introduction of COVID-19 vaccines is seen as an effective measure for protecting vulnerable populations while allowing for an eventual return to work activities to help alleviate the economic impact.

The systems that have been put in place through the Expanded Programme on Immunization under the MoHW and the experience of introducing influenza vaccine to an adult population after the 2009 pandemic have provided valuable

Raquel's Story

Located just off the Western Highway between Belize City and Belmopan is a small village known as Mahogany Heights.

As the community health worker in Mahogany Heights, Raquel Vega cares for approximately 1,063 persons.

She has lived in Mahogany Heights for 18 years and has been serving as the community health worker for 11 years.

"Our role basically is to educate our people first of all," said Raquel, "And, for us, to offer basic first aid service to our community."

As the country is learning to cope with COVID-19, community-based delivery of essential health services becomes a viable solution to the disruption of health services created by an upsurge in cases and lockdowns, and to the shifting of the health workforce.

"Whenever they (people) come, I just have to make sure they sanitize, we do social distance, and we keep safe," said Raquel.

Through the European Union-funded Health Sector Support Programme Belize project, funds were reoriented for improving integrated health care at the community level during COVID-19.

Two hundred and thirty community health workers, including Raquel, received work kits containing noncontact thermometers, stethoscopes, glucometers with strips and lancets, and first-aid kits.

best practices that can be utilized for the deployment of COVID-19 vaccines.

Achievements during the preparation for the deployment of vaccines included:

- Coordination among PAHO Revolving Fund, MoHW, Ministry of Finance, and Inter-American Development Bank on mechanisms for payment for the COVID-19 vaccine;
- Regular updates on COVID-19 vaccine candidates accessible through the COVAX Facility;
- Orientation on the Vaccine Introduction Readiness Assessment Tool, cold chain equipment, regulatory framework, indemnification and liability, risk communication, and demand generation;
- With the United Nations Children's Emergency Fund (UNICEF), and the MoHW, review of the national vaccine deployment plan;
- Estimation of the financial and human resource needs using the COVID-19 Vaccine Introduction and Deployment Costing tool.

Challenges include the lack of an ultra-cold chain capacity and the global challenges in accessing COVID-19 vaccines.

Continued attention to the national deployment of COVID-19 vaccines must be balanced with needs of routine immunization to ensure that the previous gains are not lost.

The development and implementation of a training plan for health workers, including nurses and community health workers (CHWs) will be crucial in ensuring a safe and successful vaccination campaign, with particular attention to the specificities of the vaccines that will be made available for deployment in the country.

The MoHW continued the procurement of other vaccines and syringes through the PAHO Revolving Fund, thereby ensuring the continued access to the vaccines for children and adults through the expanded programme on immunization.

Communicable Diseases

Diseases regularly interact, directly or indirectly, to influence disease course, manifestation, severity, and transmission. It is for this reason that the prevention and control of both communicable and noncommunicable diseases become of paramount importance during the COVID-19 pandemic because of the possibility of creating syndemics, or co-occurring epidemics that additively increase negative health consequences, including the extra burden on an already saturated health system.

Dealing with Vector-borne Diseases

Dengue and malaria have been the two main vector-borne diseases (VBDs) in Belize. However, during the last two decades, there has been a steady decrease in malaria in Belize, from 1,486 cases in 2000 to zero in 2019 and 2020, placing the country well on track toward malaria elimination.[1] For other VBDs the reality is not the same. In 2019, during the regional dengue outbreak, Belize reported about 13,316 dengue cases, 7 dengue-related deaths, and 109 cases of severe dengue. Three out of the four serotypes were cocirculating in the country and the number of laboratory-confirmed cases increased 980% from 295 in 2018 to 3,186 in 2019. In 2020 with the COVID-19 outbreak, there was a 79% decrease in dengue, likely due to the fear of the febrile patients to visit the facilities because of the COVID-19 pandemic. Other plausible hypotheses could be the restrictions of movement between households that could also drive a reduction in transmission, or herd immunity for some serotypes might have been already acquired as a result of the epidemic in 2019.[2]

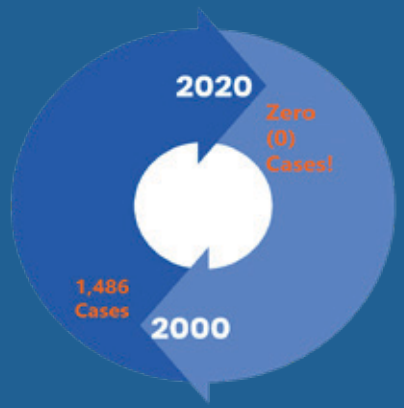
Belize has been reporting zero malaria cases for the last two consecutive years placing the country well on track toward the elimination goal.

As a Member of the E-2020 initiative launched by WHO in 2017 that set the goal of eliminating malaria in their territories, Belize

1 Source: 2018–2022, Belize Ministry of Health National Strategic Plan for Malaria Elimination and Prevention of Transmission Re-establishment

2 Source: PAHO PLISA Health Information Platform for the Americas

Cases of Malaria from 2000 to 2020 in Belize



Belize ... well on track toward malaria elimination.

© Ministry of Health and Wellness, Belize

© Ministry of Health and Wellness, Belize

has achieved the goal, and aims at being certified a malaria-free country by 2022. To maintain the target of zero indigenous cases and be certified as malaria-free, the country has been receiving specialized support and technical guidance through strengthening the main pillars of elimination as diagnosis, treatment, investigation, and response, known as the DTIR strategy.[3]

Additionally, in early 2020, during the COVID-19 pandemic, PAHO/WHO encouraged the country to maintain essential health services, including for malaria, while ensuring that vector control personnel and communities and health workers are protected from COVID-19 transmission. More emphasis was placed on malaria due to the threat of losing the gains if strategies related to robust surveillance capacity to timely treat and respond were not put in place.

Some of the key actions taken by the MoHW included the integration of the malaria surveillance in the broader COVID-19 surveillance.

While there were some disruptions of some vector control activities, especially those oriented as integrated vector management, the MoHW has been able to conduct indoor residual spraying (IRS) in some localities considered as high-risk communities.

A few clean-up campaigns also took place in some villages to reduce vector densities and subsequently prevent VBDs.

After hurricanes Eta and Iota in 2020, PAHO/WHO advised the MoHW and other entities involved in the response on the importance of protecting people living in the affected areas through the provision of insecticide-treated nets, the conduct of IRS, communication campaigns, health education, community participation, and strong passive surveillance to prevent VBDs.

Key milestones included:

- The development of malaria treatment guidelines;
- The selection of the localities for the deployment of malaria rapid diagnosis tests based on malariogenic risk;
- The deployment of rapid diagnosis tests in the most vulnerable and receptive areas to facilitate timely diagnosis in remote areas where microscopy services are not readily available;
- The integration of the malaria surveillance into broader COVID-19 surveillance for timely detection and response to cases;
- Despite the COVID-19 pandemic the National Vector Control Program conducted IRS in the vulnerable localities;

3 Source: 2020 October, Ministry of Health National Malaria Guidelines.

© Ministry of Health and Wellness, Belize

© Ministry of Health and Wellness, Belize

- Virtual supervisions were also carried out to assess the progress toward malaria elimination.

One of the biggest challenges is the fact that some communities have not seen a malaria case for more than a decade; hence, the disease becomes a forgotten disease for doctors and nurses, leading to less robust surveillance in these facilities. Therefore, there is an urgent need to strengthen surveillance at the health facilities.

Furthermore, Belize has porous borders, and the neighboring countries have relatively higher endemicity of malaria. Thus, the surveillance system must be sensitive and targeted enough to timely detect the imported cases. Cross-border collaboration and information-sharing will be also key to prevent malaria reintroduction after certification.

PAHO/WHO and the MoHW have planned to train health care workers on malaria surveillance and case management in 2021.

PPE for the vector control personnel, CHWs, and voluntary collaborators will still be needed during 2021 and beyond to ensure the continuity of malaria testing in the facilities and the communities.

Another important aspect is the decrease in dengue cases in 2020 after the epidemic in 2019. There was a sharp decrease also in the number of tests ordered for dengue in 2020, probably because less attention was paid to the disease during the COVID-19 pandemic.

As both diseases can present as acute febrile illness of short duration, there is a need to also include dengue in the differential diagnosis, especially in febrile patients without respiratory symptoms in some selected sentinel sites.

PAHO/WHO will also continue supporting the MoHW in its strategies of maintaining essential health services to facilitate timely detection and case management of communicable and noncommunicable diseases. Advocacy and guidance will continue to encourage the constant availability of PPE for health workers and voluntary collaborators.

VBDs are some of the major threats after disasters such as hurricanes, floods, especially when infected and vulnerable hosts are displaced and there are some disruptions of vector control measures, and the formation of new breeding sites after the disaster, especially with collection and storage of water.

As Belize is very vulnerable to disasters, PAHO/WHO will continue supporting the MoHW and other entities in their approaches to prevent the emerging and the reemerging VBDs, especially post-disaster.

While PAHO/WHO technically assisted the MoHW in the drafting of the document on the entomological surveillance

© Ministry of Health and Wellness, Belize

© Ministry of Health and Wellness, Belize

of *Aedes*, it was however recommended that other vectors should also be included to facilitate the integrated vector management approach in Belize.

Therefore, PAHO/WHO will support the MoHW in its effort to develop a comprehensive vector surveillance manual, placing emphasis on the major vectors present in Belize, particularly *Aedes anopheles*, to guide vector control interventions in the country.

Tackling Neglected Infectious Diseases

Although Chagas cases are still detected in Belize, the available data on the disease are limited and there is the need to enhance the surveillance for a better understanding of the magnitude of the problem. The blood bank conducts screening for Chagas. Some studies document home infestation by the triatomine bug (kissing bug) and IRS with deltamethrin is performed at the infested homes. In 2019, blood bank screening identified 19 positive Chagas cases.

With respect to Leishmaniasis, the Belize Defense Force is responsible for the case management of Leishmaniasis. However, information related to the extent of the disease is scarce.

Belize reported zero cases of rabies in 2020 and, there have been no rabies cases in humans since 1989. However, in recent years rabies outbreaks in livestock have significantly increased according to the study *Temporal Patterns of Vampire Bat Rabies and Host Connectivity in Belize*, published in 2020. Therefore, humans, domestic animals, and wildlife remain susceptible and at risk, underscoring the importance of robust surveillance and provision of quality-assured vaccines to prevent cases.

Robust surveillance for timely detection, prompt treatment, and strong response to cases are the most important pillars to control and eliminate these neglected tropical diseases (NTDs). Recognizing the importance of these aspects for the control and elimination of the NTDs, PAHO/WHO has been donating medicines for the treatment of Chagas, including a donation made in 2020 for treatment of cases during the COVID-19 pandemic. The guidelines for surveillance and case management of the disease were also drafted in 2020.

PAHO/WHO facilitated the participation of the MoHW in the annual meeting related to the Initiative of the Countries of Central America and Mexico for the Control of Vector-borne and Transfusional Transmission and Medical Care for Chagas Disease, during which the Central American countries and Mexico shared experiences

© Ministry of Health and Wellness, Belize

© Ministry of Health and Wellness, Belize

© Ministry of Health and Wellness, Belize

and lessons learned in the journey of control and elimination of Chagas in their territories.

Regarding Leishmaniasis, PAHO/WHO supported the participation of the Central Medical Laboratory (the national reference laboratory) in the Regional External Evaluation Program of the Performance of Microscopic Diagnosis of Leishmaniasis. Proposed technical cooperation in 2020 included capacity-building for Leishmaniasis diagnosis at a regional laboratory as well as capacity-building for case investigation. However, due to the pandemic, these activities were postponed.

Other discussions in 2020 were related to the conduct of an entomological study to confirm the presence of competent vectors for Leishmaniasis.

In relation to rabies, PAHO/WHO has been advocating for the strengthening of One Health in Belize to address the diseases belonging to human and animal health interface, including rabies.

Key milestones included:

- The advanced draft of the Chagas treatment guidelines was revised;
- Participation of the Central Medical Laboratory in the sixth cycle of the Regional External Evaluation Program of the Performance of Microscopic Diagnosis of Leishmaniasis, 2020;
- Quality-assured vaccines for rabies were procured through PAHO to facilitate the vaccination of canines in Belize;
- Treatment for Chagas was facilitated.

Lack of adequate surveillance to gather epidemiological and entomological data for Chagas and Leishmaniasis, respectively, is an important challenge.

For Chagas, one suggestion has been to conduct a retrospective study using the data from the blood bank to identify the localities that are most affected to establish some sentinel sites for a more targeted surveillance. PAHO/WHO remains committed to technical cooperation with the MoHW to conduct a retrospective study to identify the populations at risk for Chagas.

Concerning Leishmaniasis, PAHO/WHO will continue advocating for a programmatic approach to enhance surveillance, diagnosis, treatment, and case investigation. The focus will remain on facilitating the strengthening of capacity for microscopic diagnosis of the disease.

Advocacy will also continue to conduct an entomological study to determine the presence and competence of the sandfly in Belize. Training on case investigation to determine the origin of Leishmaniasis cases will also be held in 2021.

Tackling HIV/AIDS, Other Sexually Transmitted Infections, and Tuberculosis[4]

With respect to Leishmaniasis, PAHO/WHO has proposed an entomological study to determine the presence of the vector in the country.

For rabies, the vaccination of canines will be supported, ensuring timely access to pre- and post-exposure prophylaxis to 100% of people attacked by suspicious animals, as well as maintaining high coverage of canine and feline vaccination, efficient epidemiological surveillance, raising community awareness, and promoting actions to prevent reintroduction of human rabies in Belize.

The strengthening of the One Health strategy will also be supported by PAHO/WHO together with partners.

HIV/AIDS continues to be a major public health issue in Belize. The country reported 130 new HIV cases (65 males and 65 females) in 2020, far below the 250 new cases estimated each year. This may have been the result of reduced access to HIV testing, especially during the periods of lockdown during the COVID-19 pandemic. In the age group 15–49 years, in 2018, Belize had the highest HIV prevalence (1.9%) (UNAIDS estimates 2019) in Latin America and the second highest in the Caribbean along with Jamaica. There is a concentrated epidemic among men who have sex with men (MSM) and transgender women who constitute the main key affected populations. Although disaggregated data have not been published, the prevalence has been significantly higher in key populations compared to the general population.

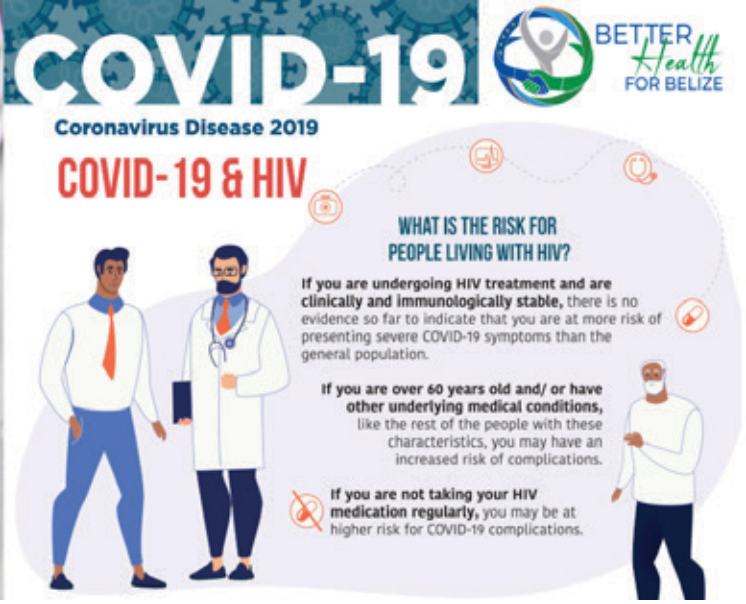
In 2019, prevalence estimates among MSM was 13.9%, and 5.8% among prisoners, while prevalence among transgender people was unknown. Prevalence for sex workers was 0.9% in 2016. More than three-quarters (78.5%) of all cases diagnosed in 2019 were between the ages of 20 and 49 years.

HIV/AIDS continues to be included in the top 10 leading causes of death in Belize, and during 2020 claimed 94 lives (56 males and 38 females). It is estimated that 5,100 persons in Belize are living with HIV, and half of these infected persons are unaware of their HIV status according to the National AIDS Commission.

From those who know their HIV status, only around half of them are on antiretroviral therapy, an estimated 1,250 HIV-positive persons. Of those on treatment, only around 40% achieved viral suppression. The Districts of Belize, Stann Creek, and Cayo continued to experience the highest burden of the infection, representing 77% of new cases and 81% of total deaths.

Between 2015 and 2019, there was an annual average of 1,500 sexually transmitted infections (STIs) reported, with pelvic inflammatory diseases accounting for the largest proportion of cases. Morbidity data on syphilis are not yet available for 2020; however, there has been a steady increase during the last decade.

4 Source: 2019, UNAIDS data.



The country reported an approximate 200% increase from 40 in 2010 to 120 cases in 2018, while gonococci infection decreased 48% during the same period from 29 cases to 15 cases, respectively. Overall, females reported disproportionately more STIs diagnosed in 2018 (80.53% females vs. 19.47% males) and 2019 (80.73% females vs. 19.27% males).

This could be explained, in part, by the ongoing efforts by the Maternal and Child Health programme, which routinely includes STI testing as part of antenatal care. In addition, men are generally less likely to seek health care and, therefore, cases among men are less likely to be picked up by the Belize Health Information System.

In 2020, a total of 81 new and relapsed cases of tuberculosis (TB) were diagnosed (30 females and 51 males), with 14 (17%) of them having a co-infection with HIV. Five TB-related deaths were reported during the same year.

The Districts of Belize, Stann Creek, and Cayo represented 85% of the total of new cases, with Belize District alone representing 48% of the total. In 2019, one-third of all cases were persons 55 years and older, and more than one-fifth were among those aged 25–34 years.

Five TB-related deaths were reported during the same year.

The TB treatment success rate declined from 2017 to 2018, and TB remains the fourth leading cause of death among all communicable, maternal, neonatal, and nutritional diseases.

As the burden of HIV and TB continues to be relatively high in the country, PAHO/WHO facilitated the national stakeholders' consultation on ending HIV/STIs, viral hepatitis, and TB in Belize in 2020, where the situational analysis developed in 2019 was presented. Because of the COVID-19 pandemic, the sessions were all held virtually.

The consultations for the development and finalization of the National Strategic Plan for HIV/STI, Viral Hepatitis and Tuberculosis 2021–2025, including a monitoring and evaluation framework were also supported, as well as discussion on the costing of the plan. In addition to the national partners and stakeholders, PAHO/WHO collaborated with other partners including the Global Fund, United Nations Development Programme and UNAIDS among others.

In 2020, the following milestones were achieved:

- Finalization of the HIV/TB situational analysis conducted in 2019;
- Consultations and development of the HIV/STI, Viral Hepatitis and TB National Strategic Plan 2021–2025, including a five-year monitoring and evaluation framework;

© CDC/Canva

- Initial discussions on the costing of the HIV/TB, STI and viral hepatitis guidelines;
- Technical discussions on transition to dolutegravir-based treatment regimens were conducted;
- Forecasting and procurement of ARVs based on new DTG-based regimens through the PAHO Strategic Plan were facilitated;
- Planning for the HIV Drug Resistance Study was initiated.
- Revision of the national HIV and TB guidelines;
- Practical hands-on training on GeneXpert for HIV viral load testing was conducted;
- Consultancy on the development of an implementation plan for Pre-Exposure Prophylaxis (PrEP) and estimation of key population.

Available human resources for health remained a challenge. The MoHW has created positions for adherence counsellors; however, some key positions such as those of TB/HIV coordinator and monitoring and evaluation officer remain unfilled.

PAHO/WHO will continue advocating for the allocation of human and financial resources for health.

The consultancy to undertake the finalization and costing exercise for the HIV/STI, Viral Hepatitis and TB National Strategic Plan 2021–2025 will be completed in 2021.

Technical support will continue for the implementation of PrEP, the finalization of the national HIV treatment guidelines, genotyping for HIV drug resistance surveillance, and enhancing the capacity and decentralization of laboratory testing capacity for HIV/STI and TB.

Technical support will be provided for the development of the funding proposal for the new cycle, as well as the COVID-19 Resource Mobilization proposal.

With funding from the European Union, support is also being provided for expanding the capacity of the Central Medical Laboratory and regional/district laboratories for testing of STIs and other pathogens with the planned procurement of additional GeneXpert machines.

Managing Influenza and Pneumonias

Influenza and other type of pneumonias represent the leading cause of mortality.

In 2020, 15% of deaths were due to pneumonias in Belize surpassing mortality due to cardiac diseases, cancer, diabetes, stroke, HIV for the first time in more than 2 decades.

This change in mortality is likely due to the COVID-19 pandemic as more pneumonia cases were seen during 2020 compared to previous years.

In 2020, 15% of deaths were due to pneumonias in Belize.

Regarding influenza and pneumonia, PAHO/WHO supported the MoHW in its annual campaign to vaccinate the vulnerable groups, such as adults over 65 years, children from 6 to 23 months, health care workers, HIV-positive patients, and persons with chronic lung diseases.

PAHO/WHO provided technical advice to the country to maintain routine influenza vaccination programs to protect people vulnerable to influenza, with vaccination activities conducted with appropriate measures to reduce the risk of exposure to COVID-19.

PAHO/WHO also advocated for the country to continue with routine sentinel syndromic surveillance of diseases caused by respiratory pathogens, such as influenza and respiratory syncytial virus, through surveillance for influenza-like illness (ILI), severe acute respiratory infections, atypical pneumonia, and unexplained fever, with sampling and laboratory testing of all or a subset of cases during the COVID-19 pandemic to timely detect other causes of respiratory illnesses.

Technical guidance was provided to the MoHW to initiate the establishment of differential diagnosis between COVID-19 and the other ILIs.

Discussions were also held between PAHO/CDC and the MoHW to facilitate the procurement and acquisition of reagents for influenza testing through the International Reagent Resource.

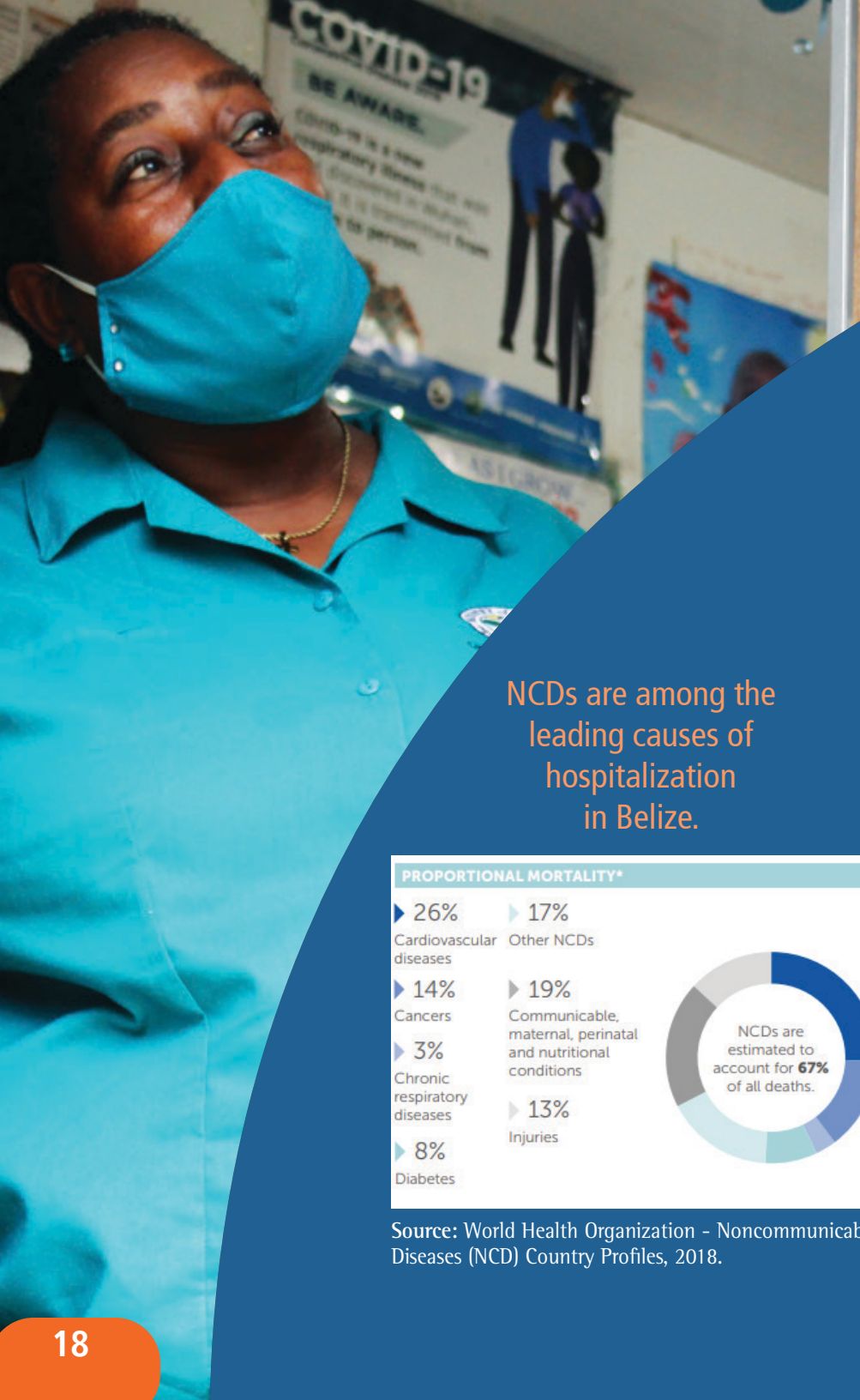
Routine surveillance of other ILIs may be jeopardized because of the burden of COVID-19 in the country, PAHO/WHO plans to provide orientation on a more targeted sentinel surveillance for ILIs.

Human resource to process the increased number of samples resulting from the COVID-19 pandemic in 2020 has been also a challenge.

With the expansion of the laboratory, PAHO/WHO will support the MoHW with the procurement of a bigger analyzer with the capacity of testing 16 different pathogens, including SARS-CoV-2, simultaneously.

That procurement will be facilitated through financial support from the European Commission Directorate-General for International Cooperation and Development.

Advocacy and capacity-building for further decentralization of the testing for influenza and other epidemic and pandemic-prone diseases will also continue.



Noncommunicable Diseases

NCDs are among the leading causes of hospitalization in Belize. Additionally, NCDs such as diabetes and hypertension lead to debilitating morbidity. Diabetes, for example, affects 14.5% of Belize's population, compared to the global average of 8.8%.[5] Other complications, such as chronic kidney disease, imply regular medication, laboratory monitoring, and follow-up care at high costs to both the patient and government. This has prompted health authorities to address risk factors.

NCDs are among the leading causes of hospitalization in Belize.

Source: World Health Organization - Noncommunicable Diseases (NCD) Country Profiles, 2018.

Confronting Noncommunicable Diseases during the COVID-19 Pandemic

The COVID-19 pandemic has exposed several health vulnerabilities. For one thing, NCDs increase the risk of severe disease and death from SARS-CoV-2. Additionally, case surges have forced the suspension of clinical services, redistribution of resources, and restrictions of movement during lockdown, which can lead to interruption of monitoring of patients with NCDs.

As a solution, Community Management of NCDs is a training course that was introduced for CHWs to develop skills for monitoring persons with diabetes and hypertension in their villages as a way of maintaining continuity of care within the context of COVID-19. In addition, with funding from the European Union and United Nations Multi-Partner Trust Fund (UN MPTF), basic diagnostic equipment and supplies were purchased for 230 CHWs to allow them to maintain continuity of care to clients in their communities.

District health educators were first introduced to the training module for the CHWs and using a trainer-of-trainer approach will continue to deliver future training utilizing the prepared curriculum on community management of NCDs.

Taking into consideration competing priorities, the course

5 Source: 29 November 2018, Ambergris Today, Queen Elizabeth Commends Belize On Progress On Tackling Blindness In Diabetics

© Ministry of Health and Wellness, Belize

© Ministry of Health and Wellness, Belize

had to be delivered over a period of weeks, as opposed to continuous programming. The unavailability of Internet service in some remote areas of the country necessitated a mixed modality of face-to-face session for some CHWs.

Belize has made specific efforts in addressing diabetes through training for CHWs at the primary care level.

In setting up the HEARTS initiative, diabetes takes on a priority position. The National Health Insurance has also given priority for an improved management of diabetes.

The country has been guided by its National Action Plan for the Prevention and Control of NCDs, 2013–2023. Belize has reported a high prevalence of chronic kidney disease being associated to diabetes and hypertension; thus, the aim of the MoHW is to improve the care of these two diseases.

Building Capacity for Local-level Authorities on Health Promotion

Addressing the risks of NCDs needs to be approached with an intersectoral perspective. Working in collaboration with the Ministries of Health and Wellness, Education, and Agriculture, the National Commission of Nutrition and Food Security, UNICEF, and nongovernmental organizations (NGOs) has enhanced endeavors.

NCDs, like many health problems, are of multifaceted causality, and thus require intersectoral collaboration. Efforts have been made to strengthen partnerships with relevant national entities and civil society organizations. PAHO/WHO participated in the planning and implementation of continuous professional development (CPD) for primary school teachers, where

NCDs, like many health problems, are of multifaceted causality, and thus require intersectoral collaboration.

sessions on healthy food, the importance of and strategies to implement physical activity, and NCDs and their risks for COVID-19 were the themes.

To promote healthy eating, capacity-building supported the implementation of the nutrition curriculum of the Ministry of Education (MoE).

The topics included: the promotion of and tips for school gardens, which were presented by staff of the Ministry of Agriculture; promotion of physical activity presented by an expert on physical activity; NCDs' risks and COVID-19; and menu planning and the preparation of healthy food in the school cafeteria and food


Addressing Childhood Nutrition

safety and handwashing. Integrated into the training sessions were infection prevention and control of COVID-19 and use of PPE.

Over 100 teachers were trained. Primary school teachers, being a targeted audience in the CPD sessions, were sensitized also on the Front of Package Warning Labeling (FOPWL) Initiative.

As schools proceed through phased reopening, the training will be repeated for additional teachers. Future topics will also include the banning of sugar-sweetened beverages within the school environment.

The country average rate of stunting (moderate and severe) is 15%. However, the Toledo District reports a higher proportion of stunting in children under 5 (41.6% and 33.2% in 2011 and 2015, respectively). The overweight prevalence in 2015 was 7.3% in children under 5.[6] The exclusive breastfeeding rate increased from 14.7% in 2011 to 33.2% in 2015.

The exclusive breastfeeding rate did show an increase from 14.7% in 2011 to 33.2% in 2015.

6 Source: 2015-2016, Multiple Indicator Clustor Survey.

All public hospitals have been certified as baby friendly hospitals, as have three public polyclinics. This resulted in the need for strengthening the capacity at local level to monitor the implementation of the International Code of Marketing for Breastmilk Substitutes (Code). Breastfeeding was promoted and supported during World Breastfeeding Week through fairs at district level. Breastfeeding during the pandemic was promoted through the development and distribution of posters that encouraged the breastfeeding of newborns and provided advice on the approaches to limit transmission of COVID-19 to the newborn.

Capacity-building was implemented for technical and professional staff, involved in maternal and child health in all six districts, for the monitoring of the Code. The plan is to increase intersectoral collaboration with national sectors that play a role in nutrition and food security.

The significant consumption of unhealthy food in the school environment is acknowledged. For this reason, along with the MoE and the MoHW, multiple training sessions have been implemented to promote healthy food among teachers and primary school children. These sessions are now part of the Continuous Professional Development Program of the MoE. Apart from healthy midday meals prepared in the school kitchens, the preparation of healthy snacks has been promoted. It must be noted that the promotion of school gardens is a strategy that has gained support from policymakers.

Health Throughout the Life Course

Responses to the COVID-19 pandemic led to a disruption of health services at all levels of care, especially at the primary care with redeployment of health personnel and repurposing of health facilities. This further intensified during the period of national lockdown when travel restrictions affected some communities in accessing care and some clients preferred to stay away from health facilities for fear of acquiring COVID-19.

Promoting Community and Self-care during the COVID-19 Pandemic

In Belize, 230 CHWs live in and serve defined communities, facilitating access to basic health services related to maternal and child health and NCDs, and providing basic screening and referrals for emergencies and promoting self-care.

As part of funding from the European Union and UN MPTF, support was provided to the strengthen the capacities of the CHWs through the purchase of basic medical instruments.

In addition, promotional material in the form of posters and a laminated binder provided quick facts in both English and Spanish. The illustrated booklets were donated to CHWs as support for COVID-19 public health education targeting specific audiences along the life course while providing information on the COVID-19 illness.

The booklets are educational in that they improve the capacities of the CHWs, and the illustrations can also be used for discussion with their clients to promote self-care in the community. Orientation sessions were held through the six health districts.

During 2020, to support the work of the CHWs, various items of equipment were acquired (including 230 sphymomanometers, glucometers, glucometer strips and medical lancets, 230 noncontact

In Belize, 230 CHWs live in and serve defined communities.

Guiding principles for immunization activities during the COVID-19 pandemic

Belize
Maternal and Child Health

Maintaining Immunization Services as an Essential Health Service

thermometers, 230 pulse oximeters, 230 basic first-aid kits, and 230 stethoscopes with penlight and scissors) to support the work of the CHWs.

Further capacity-building to enhance knowledge on NCDs is planned for 2021.

Although some of these workshops are planned as virtual meetings, some will have to be in-person, especially for CHWs from rural settings where Internet connectivity may be limited.

Due to the lockdowns to contain the spread of COVID-19 in the country, routine immunization services were disrupted. This was partly due to the COVID-19 related burden on the health system, with an already limited number of public and rural health nurses being redeployed to conduct contact tracing, testing and home visits, and as a result of decreased demand for vaccination due to the physical distancing requirements or the parents' fear of contracting the virus from health facilities. In addition, there was also misinformation and fear even among health care providers.

Communities whose immunization coverage was severely affected by the lockdowns included San Pedro, Guinea Grass, Shipyard, and Santa Marta, among others.

As of May 2020, Belize saw its vaccination coverage rates at risk of not being achieved, with only Measles, Mumps, Rubella 2 (MMR2) in two districts (Corozal and Orange Walk) attaining the desired coverage rates, while all other vaccines fell below 39%, with a majority below 36%.

Vaccination Coverage (%) January-May 2020

District	Hep B-BD <24hrs	BCG	Penta1 IPV1	Penta3 OPV3	MMR1	MMR2
Corozal	28.8	32.6	29.0	37.9	30.6	39.9
Orange Walk	20.7	25.7	32.6	36.4	29.8	42.7
Belize	15.9	27.5	33.0	32.5	31.0	31.5
Cayo	25.3	28.0	29.4	31.4	32.5	37.4
Stann Creek	29.5	22.0	32.1	31.4	26.8	38.2
Toledo	17.9	33.7	38.1	31.0	26.1	34.1

KEY	
	39-42%
	36-39%
	<36%

Data Source: MCH Monthly Reports.

Given the high potential for outbreaks of vaccine-preventable diseases (VPDs) during the pandemic, it was therefore imperative for Belize to maintain continuity of immunization services wherever services could be conducted under safe conditions. In view of these challenges, PAHO/WHO provided technical support on maintaining immunization as an essential health service during the pandemic, to include guidance on re-establishing services as permitted by the local transmission patterns, and with catch-up activities on outbreak-prone VPDs such as measles, rubella, pertussis, polio, and diphtheria.

PAHO/WHO highlighted the importance of maintaining the population's trust in vaccination services, conducting hepatitis B vaccination during the first 24 hours of life, and the periodic and systematic registry of the population pending vaccination, among others.

PAHO/WHO ensured timely supply of vaccines of assured quality (biologicals and logistics) through the PAHO Revolving Fund, while procuring a laptop for the Expanded Program on Immunization (EPI) and basic health monitoring equipment such as pulse oximeters. Influenza vaccination of health workers, older adults, and pregnant women was advised. The PAHO/WHO Country Office itself, in partnership with the MoHW, safely conducted outdoors the annual influenza immunization campaign among United Nations staff and their dependents, including those working in the country office compound, while observing public health protocols. Two hundred and four persons benefited from the one-day event.

As part of the risk communication strategies, PAHO/WHO supported the airing of TV ads, development of key public service announcements (PSAs), messages on immunization during the pandemic in several languages, and distribution of posters and communication materials on COVID-19 and maintaining immunization services.

PAHO/WHO promoted the surveillance of VPDs to enable early detection and management of VPD cases, and where feasible, contribute to surveillance of COVID-19.

Despite the many challenges, the following milestones were achieved:

- Belize developed and released national guidelines for immunization activities during the COVID-19 pandemic;
- Starting in April 2020, with the celebration of Vaccination Week in the Americas, Belize introduced the second dose of inactivated polio vaccine into the national immunization schedule, cognizant that PAHO/WHO is promoting three doses;
- Members of the measles recertification process and the National Immunization Technical Advisory Group have been identified, with the terms of reference being shared to them;
- With the support of a cadre of 230 CHWs, MoHW mobile outreach services included vaccination services that were integrated into the maternal and child health and family planning services package;
- Capacity-building and training of health providers on safe vaccination practices, including health worker protection and provision of necessary PPE.

A key challenge for EPI in Belize is ensuring succession planning to address the perennial shortage of rural and public health nurses, with nine vacant positions and student nurses still in training.

Other important strategies are identification of eligible individuals who miss routine doses through the Belize Health Information System and informal community channels, and the planning of catch-up strategies to close “immunization gaps.”

First case of COVID-19 in Belize reported on 23 March 2020.

COVID-19 cases as at December 2020

Health Emergencies

In 2020, the impact of the COVID-19 pandemic exacerbated by climatic events that the country experiences every year defined the major focus of technical cooperation during the year. In response to the COVID-19 pandemic, the PAHO/WHO Country Office repurposed its technical and administrative teams to address the growing demands to support the national response while delivering technical cooperation during other emergency events.

Addressing the COVID-19 Pandemic

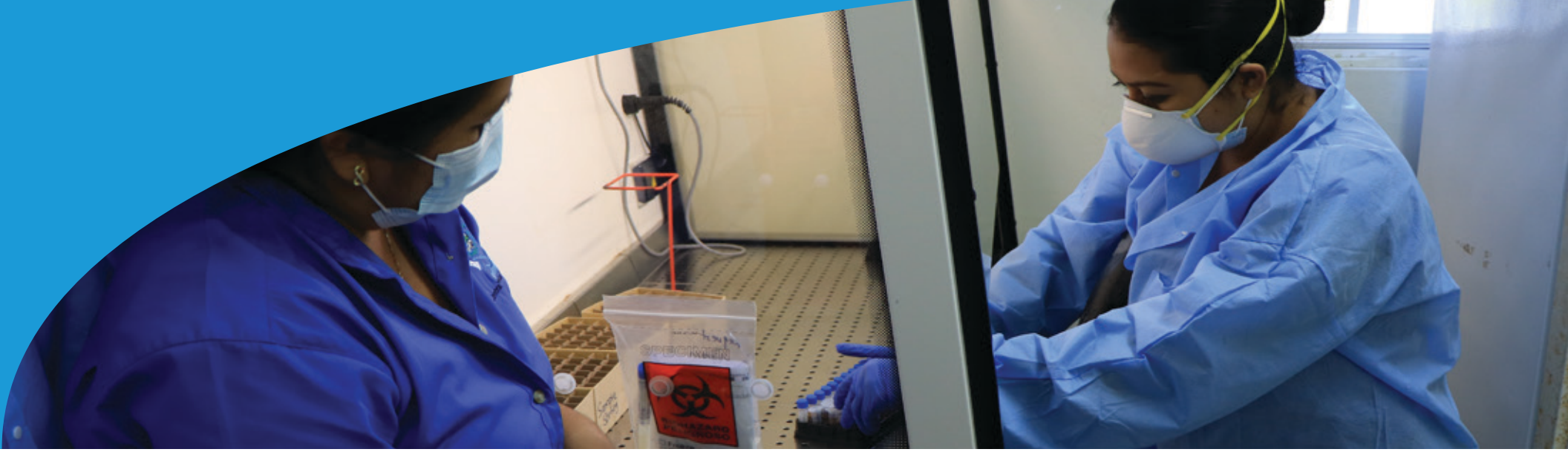
Belize saw its first COVID-19 case on 23 March 2020. Cases then surged, with a total of 10,776 confirmed cases (5,056 women, 5,720 men) as at 31 December 2020. Deaths were reported to be 248 persons as at the same date.[7]

With the increasing number of COVID-19 cases, PAHO/WHO intensified its technical cooperation in the country to strengthen health security through building resilient, responsive health systems in response to COVID-19.

The support provided to the MoHW is guided by the priority actions across the nine pillars of the WHO COVID-19 Strategic Preparedness and Response Plan. Medical and laboratory equipment and supplies were purchased to increase health services and laboratory capacities. Surveillance capacity was also enhanced, including that at points of entry. PPE and other infection prevention and control (IPC) materials were also procured. Risk communication was boosted to ensure greater coverage: urban–rural population, and diverse groups with different languages (English, Spanish, Garifuna, Mayan, Kriol).

Community services were also supported ensuring that CHW kits were donated, and a training curriculum developed.

7 Source: 31 Dec 2020, Ministry of Health and Wellness, Facebook Page.



Strengthening National Capacity for International Health Regulations

The MoHW has also taken serious steps toward mitigating the effects of the pandemic, implementing strict measures such as mask wearing in public, hand hygiene, physical distancing, and other public health measures.

An intersectoral collaborative approach continues to enable a coordinated response to the various aspects of the continuing pandemic. Going forward, continued public health interventions will be combined with national vaccine deployment and monitoring for the evolving situation of occurrence of new variants such as those found in Brazil, South Africa, and the United Kingdom.

The Joint External Evaluation (JEE) conducted in 2016 highlighted several gaps in the core capacities for implementation of the International Health Regulations (IHR).

It reported that laboratory testing for detection of priority diseases needs to be strengthened, biosafety and biosecurity training needs to be conducted, and national surveillance capacity needs to be enhanced, among others.[8]

The COVID-19 pandemic provided an opportunity for Belize to strengthen core capacities as recommended by the JEE.

PAHO/WHO provided the assistance needed, thus identifying critical areas collaboratively with the MoHW to strengthen core capacities.

Support was provided to the Central Medical Laboratory to improve disease surveillance and detection, PAHO/WHO procured the requisite equipment and reagents, improving laboratory-based diagnostics in the context of supporting the COVID-19 response.

Additionally, PAHO/WHO supported capacity-building activities to implement IHR core capacity requirements, with people trained in early detection and field epidemiology. Surveillance and public health interventions were also improved at points of entry, particularly the international airport through the procurement of key items identified by the MoHW.

Intersectoral coordination remains a challenge, and technical cooperation continues to support the MoHW in the role of coordination and oversight for the implementation of the IHR beyond core capacities.

Funding has also been obtained to strengthen pandemic preparedness and health systems strengthening and resilience to prepare for and respond to future pandemics and other threats.

8 Source: 4-8 July 2016, PAHO/WHO External Evaluation related to the International Health Regulations.

Enhancing Disaster and Climate Resilience in Health Facilities

According to studies, more than 67% of hospitals in Latin America and the Caribbean are located in areas of high-risk disaster areas.

In collaboration with the MoHW, PAHO/WHO is providing safer, greener health facilities to deliver care in disasters, generate operational savings, and reduce disaster losses in the Caribbean through the Smart Hospitals initiative.

This initiative focuses on improving hospitals, resilience, strengthening structural and operational aspects, and providing green technologies.

It was formally launched in Belize in September 2016 as part of a subregional project of the PAHO/WHO Health Emergencies Department.

This project funded by the Foreign, Commonwealth and Development Office of the United Kingdom (FCDO) covers six other Caribbean countries (Dominica, Grenada, Guyana, Jamaica, Saint Lucia, and Saint Vincent and the Grenadines), and retrofitting close to 50 health facilities by the end of 2022.

In Belize, with support from FCDO, four health facilities (Cleopatra White Polyclinic, San Ignacio Community Hospital, Palm Center Nursing Home, and Independence Polyclinic) are currently being retrofitted, while the Isabel Palma Polyclinic will soon receive target interventions on safety and green measures.

Gaining experience from the United Kingdom-funded smart hospital project, PAHO/WHO has successfully secured funding from the European Union to design and retrofit an additional six health facilities in the country in collaboration with the MoHW.

Component 1 of the Health Sector Support Programme Belize project funded by the European Union aims to develop efficient, effective, disaster-resilient, and environmentally friendly health facilities.

With this project, designs for the Southern Regional Hospital, and the Punta Gorda and Corozal Community Hospitals have been completed and a tender for retrofitting works is to be published. The Central Medical Laboratory is undergoing a tender for design, while a contract for designing the Western Regional Hospital will soon be awarded to the selected local contractor.

Due to limited bid submissions, the design for the Northern Regional Hospital will be retendered.

This project component is currently the backbone to implement effective risk-reduction strategies as it supports multi-hazard emergency response planning, strengthening disaster management capacity of the health sector, including its first responders, while building resilience and environmental protection in the healthcare service network.

Responding to Hurricanes during the COVID-19 Pandemic

"The grant funds from the European Union will facilitate that health facilities in Belize are more efficient, storm resilient and environmentally friendly."

Nicolaus Hansmann,
European Union
Team Leader in Belize

As most countries in the Caribbean, Belize is highly vulnerable to natural and climatic events that may have catastrophic consequences.

Along with COVID-19, Belize suffered from several storms and flooding in 2020. Hurricanes Nana, Eta, and Iota brought severe flooding in several communities, causing evacuation of people to shelter where the COVID-19 protocol had to be strictly followed.

Belize is not new to natural disaster events, having responded to previous events utilizing available resources and implementing strategies to mitigate risk exposure to weather-related events.

PAHO/WHO is assisting the country hone its strength and enhance risk mitigation and disaster response measures in country.

PAHO/WHO closely coordinated with the MoHW and the National Emergency Management Office to ensure priority health needs in affected shelters and health facilities are addressed.

PPE was mobilized from the PAHO/WHO strategic reserve in Panama to assist in IPC measures in shelters and affected communities.

As chair of the United Nations Emergency Technical Team, PAHO/WHO collaborated with United Nations agencies to provide a coordinated response to support the national emergency operations.

However, the compounding effects of the COVID-19 pandemic and hurricanes have had a devasting impact on already poor communities in the country.

In preparation for the new hurricane season in 2021, emphasis on preparedness and risk mitigation for shelters and first responders continues to be critical.

Virtual Webinar for healthcare workers and first responders.

In 2020, anxiety disorders accounted for 27% of the total number of mental health disorders.

Mental Health

In 2020, anxiety disorders accounted for 27% of the total number of mental health disorders diagnosed in the public system. Affective disorders (bipolar and unipolar depression) and schizophrenia and related disorders accounted for 25% and 14%, respectively. As part of the national response to COVID-19, frontline health care workers made personal sacrifices to respond to the pandemic at all levels of care.[9]

Coping with COVID-19 Mental Health Stressors

The COVID-19 pandemic affected the psychological and mental health of many frontline workers especially health care personnel.

Therefore, it was essential for interventions to be included to build resilience of frontline health care workers as they continued to respond to the changing demands of the health system while continuing to also care for their families.

Multiple webinars on mental health and psychosocial support (MHPSS) were implemented for staff of the MoHW and the MoE. The support was provided by PAHO Headquarters and the Country Office in collaboration with the MoHW. The topics were geared toward improving coping skills and resilience during the pandemic.

To improve coping in the workplace, with an increased sense of confidence, PPE was provided to frontline workers of essential services (health and nonhealth) and also training was provided in the area of IPC.

The topics included: MHPSS in COVID-19 Response; Public Health Measures for the reopening of schools; COVID-19 and Substance Abuse; and Mental Health Literacy.

9 Source: 2020, Mental Health Annual Report, Ministry of Health and Wellness

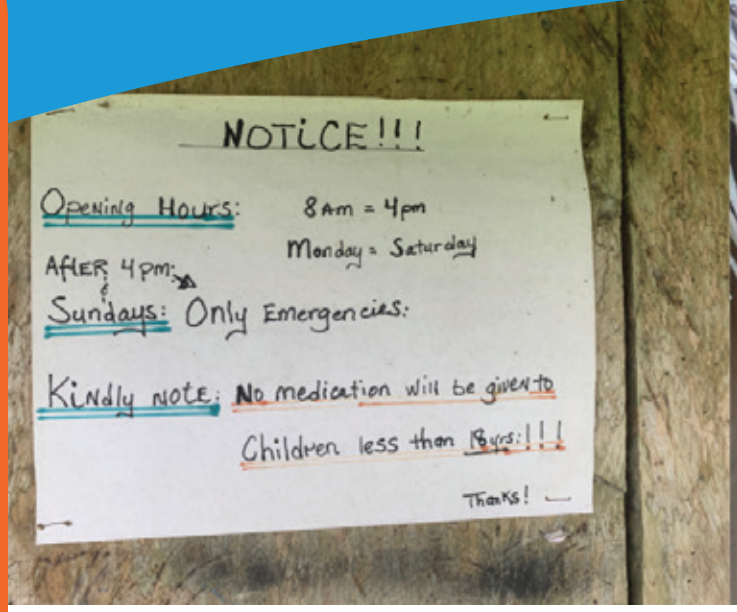
© Ministry of Health and Wellness, Belize

Technical Working Group

A few months into the pandemic, it was recognized that the mental health services provided by the MoHW were disrupted as a result of the reassignment of staff. This openly and immediately posed a threat to the appropriate delivery of MHPSS.

With support from PAHO Headquarters together with the MoHW, the status of MHPSS was evaluated. It was recognized that there was no specific consideration for mental health in the overall national COVID-19 response plan. Technical support was provided to establish a technical working group (TWG), connected to a network at community level in support of the efforts of the MoHW in MHPSS.

Of great interest is that two female community volunteers and advocates of mental health participated in a subregional PAHO Virtual Course on Mental Health and Psychosocial Support Coordination in Humanitarian Crises. They are to complete the course in May 2021, but at the moment, along with the Coordinator of the Mental Health Program of the MoHW and the PAHO/WHO focal point for mental health they have developed a framework for the formation of the TWG in support of MHPSS at community level.



Enhancing Continuity of Mental Health Care

MHPSS for frontline staff focused on tips on caring for one's own mental health and coping skills during self-isolation or quarantine.

Mental health staff were reassigned to other clinical functions to assist in the response to COVID-19. However, it is anticipated the work of the mental health professionals will be regularized.

It is necessary to research the social determinants associated with suicide, as, despite a small decrease in the absolute numbers of suicide in 2020, the adolescent group was the one mostly affected.

Reassignment of duties, lockdowns, quarantine, and an increased risk of contracting COVID-19 directly impacted the performance of mental health staff and on the provision of MHPSS.

Restriction of movement also impacted the physical access to mental health services and care.

Telemedicine improves access to health care providers by clients and reduces cost for mobilization by patients and medical staff.

Ten tablet computers were provided to the MoHW to be used by psychiatry nurse practitioners (PNPs) in the field. These tablets have allowed PNPs to follow up with patients, increase communication with MoHW Headquarters, and allowed for their participation in continuing medical education.

Despite the increased need for MHPSS, the number of health personnel in this area remains limited.

In addition, limited access to the Internet in some health care facilities impacts the capacity to adopt telemedicine, especially in rural areas. However, there is interest in strengthening this approach to health services, which will include MHPSS.

Environment and Health

Despite the progress toward sustainable waste management in Belize, the country faces some relatively important pollution challenges, and these are expected to be more significant with the growing population if more efforts are not made to strengthen the multisectoral approach to better address waste management in Belize.

Strengthening infection prevention and control and creating a safer environment.

Tackling Biomedical Waste in Belize while Strengthening Infection Prevention and Control and Creating a Safer Environment

The organizational structure to manage hazardous waste exists in Belize, and the Environmental Protection Act 2002 established the Department of the Environment under the Ministry of Sustainable Development, Climate Change and Disaster Risk Management. The department's primary roles are the prevention and control of pollution by coordinating all activities relating to the discharge of wastes into the environment.

The management of biomedical waste remains an important public health concern. Application of environmentally friendly technologies and enhanced synergies between the health sector as a waste generator and other entities involved in the management of the hazardous waste from the generation, collection, segregation, transport, and disposal of the waste are an opportunity for continued improvement in biomedical waste management.

Although in Belize data on the impact of the environmental factors on the health of the population are scarce, there is strong evidence that improper waste management, especially biomedical waste, has the potential to contaminate groundwater sources, land, and air, which in turn may impact the health of humans and animals through airborne and waterborne pathogens that can

result in serious illnesses. Belize had already taken seriously the management of hazardous waste; however, the COVID-19 pandemic (which is significantly increasing biomedical waste) prompted the country to address the waste generated by health facilities in a sustainable and environmentally friendlier way.

To address this concern and further strengthen the national COVID-19 response, the MoHW has decided to procure six autoclaves to be located in each district of the country, aimed at strengthening proper management of biomedical waste while reinforcing the IPC and lessening the impact on the environment by improving air and water quality and contributing to the reduction in greenhouse gas emissions. Four autoclaves will be purchased using funding to PAHO/WHO from two donors. This will allow the districts that did not have direct access to a waste management facility to also reduce the potential hazard posed by health care waste and protect public health and the environment.

A series of virtual meetings were organized by PAHO/WHO with the participation of all the entities involved in waste management in Belize to:

- Revise and agree on specifications of the autoclaves and estimate the volume of waste generated by each district;
- Discuss the aspects related to the operation of the autoclaves, including human resource, training, maintenance, and site of the autoclaves;
- PAHO/WHO facilitated discussions between the Ministry of Sustainable Development, Climate Change and Disaster Risk Management and other related entities for a holistic approach;
- Further discussions with stakeholders will facilitate a continued strategic approach.

Sufficient human resources for the operationalization of the technologies, and effective enforcement of the hazardous waste regulations are the main challenges.

Addressing the Health Threats posed by Mercury in Belize

Mercury contamination is an important public health issue worldwide. Mercury can be absorbed by touch, inhalation, or consumption. In Belize, there is some evidence that mercury contamination of aquatic environments is an important public health concern.

In a press release issued by the MoHW along with the Department of Environment in November, out

of 13 species of fish tested from some of the main rivers in Belize, five species (bay snook, baca, tilapia, shad, and yellow sea catfish) had very high mercury levels above what is safe for consumption. In the case of bay snook, baca, and tilapia, mercury levels were almost twice the levels recommended for safe consumption. Other fishes captured were suitable for human consumption.

Given the harmful effects that consumption of contaminated products with mercury can have on the nervous, digestive, immune systems, lungs, and kidneys, to address the magnitude of the problem in Belize, important steps are being taken, especially the development of the Minamata Initial Assessment (MIA). This is aimed at facilitating the ratification and accelerating the implementation of the Minamata Convention on Mercury. The final main objective is to protect human health and the environment from the risks posed by unintentional and intentional emissions of mercury and the improper management of mercury.

The MIA project that was ongoing in 2020 identified the main sources of mercury in Belize, which will be included in the report that the country will submit the United Nations Environment Programme that will determine whether or not Belize can be a Member of the Minamata Convention on Mercury, which is a global treaty created to protect human health and the environment from the harmful effects of anthropogenic emissions and releases of toxic mercury and mercury compounds. Mercury is toxic to human health, posing a particular threat to the development of the child in utero and early in life.

PAHO/WHO and other entities involved in strategies to address the environmental determinants of health in Belize have been participating in the discussions to: design actions aimed at reducing human and animal exposure to mercury while encouraging the country to switch to mercury-free products; and implement safe handling, use, and disposal of mercury-containing products and waste.

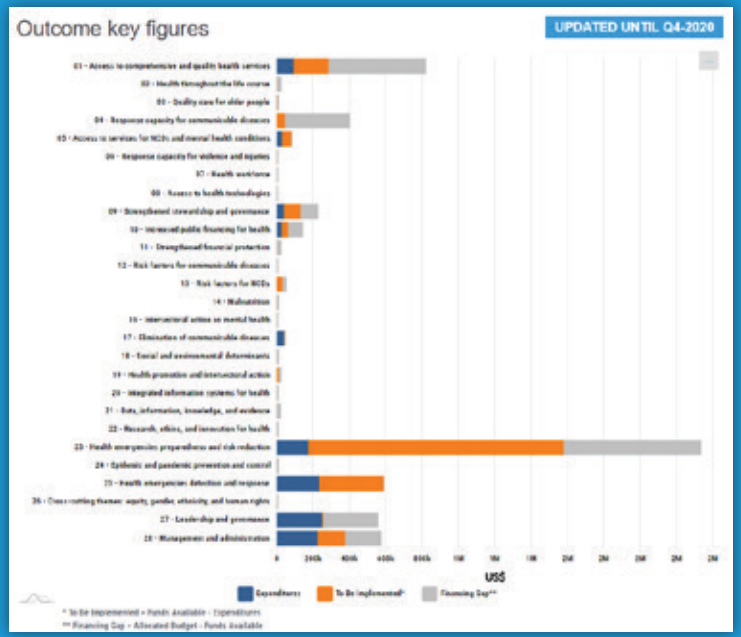
- Virtual webinars were organized from September to November 2020 to present the draft report of the MIA.
- Discussions were held on the roadmap for mercury management in Belize.

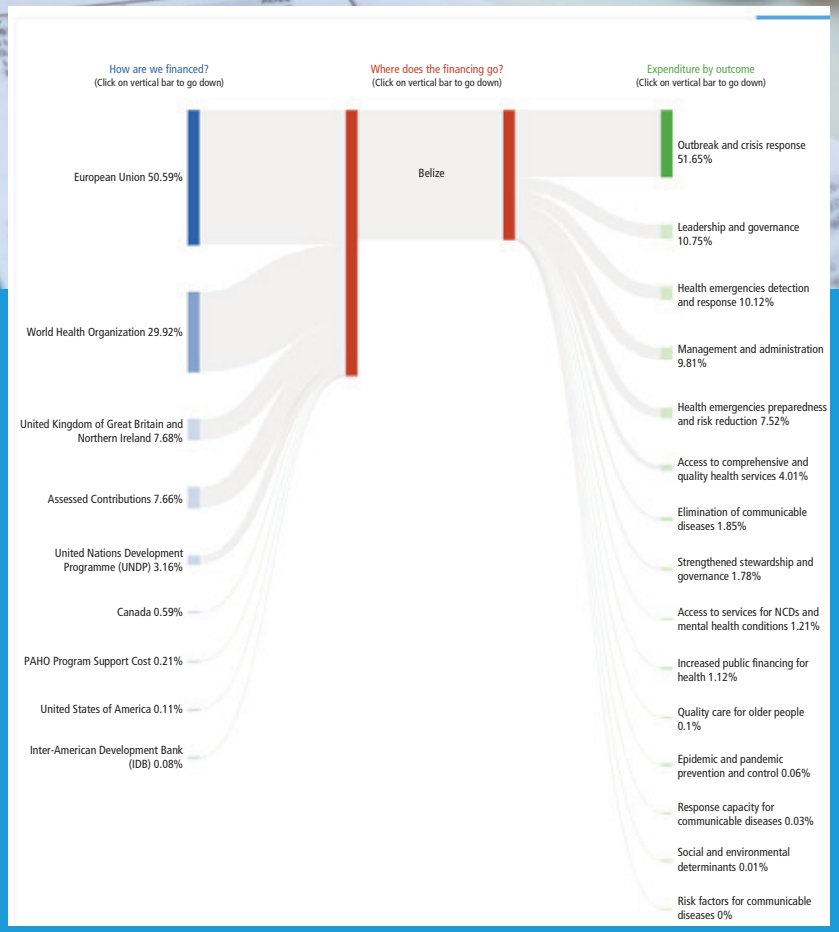
Continuous public awareness for a better understanding of the threats posed by mercury and mercury-containing products and close collaboration between partners to address the risks posed by mercury will be strengthened in 2021.

© Kanchanachitkhamma/Canva

Financial Summary

Of the US$ 6 million allocated budget, US$ 3.5 million (59%) in funds were available, of which US$ 1.1 million (31.4%) was used, leaving a balance US$ 2.4 million (68.6%) to be implemented. The highest implementation was observed in Outcome (OCM) 27 (leadership and governance), followed by OCM 25 (health emergencies detection and response), OCM 28 (management and administration), and OCM 23 (health emergencies preparedness and risk reduction).





Of the funding, 50.59% is from the European Union, mainly for outbreak and crisis response, health emergencies preparedness and risk reduction, related to smart and resilient health systems, and access to comprehensive and quality health services. WHO funding accounts for 29.92%, mainly for outbreak and crisis response, leadership and governance, and management and administration. The United Kingdom of Great Britain and Northern Ireland accounts for 7.68%, and the PAHO Assessed Contribution is 7.66%.

"PAHO/WHO Belize Country Office continues to support and provide technical guidance to the MoHW and the people of Belize."

Dr. Noreen Jack,
PAHO/WHO
Representative

Special Initiatives

This section covers four areas, one of which focuses on the technical cooperation to support the national efforts toward malaria elimination. The second initiative discusses the area of risk communication primarily related to the response to the COVID-19 pandemic and health promotion for other health conditions during the COVID-19 pandemic. In most instances, the risk communication was developed together with the MoHW, as well as with other United Nations entities through the UN MPTF grant. During 2020, procurement increased significantly to support the national response to COVID-19, and a brief overview is included. The fourth area highlights efforts to implement a paperless approach to work, which facilitated a relatively smooth transition to teleworking.

Eliminating Malaria in Belize and Preparing to Be Certified a Malaria-free Country!

During the last decade, Belize has been steadily decreasing the trend of malaria from 150 cases in 2010 to zero indigenous cases in 2019, respectively.[10] The decreasing trend has been attributed to the rebirth and massive scaling up of evidence-based interventions as availability and access to accurate diagnosis, effective treatment, insecticide-treated nets. As the country approaches the elimination goal, the need to understand the heterogeneity of transmission has become essential to guide the interventions, especially in the localities where the malaria cases are most likely to occur. Therefore, the MoHW along with PAHO/WHO embarked on a yearly stratification exercise to facilitate a better understanding of the factors related to malaria transmission. This also enabled the National Vector Control Program to focus on the activities aimed at clearing up the last endemic foci in the country and preventing the reintroduction of the disease in the localities that are already cleared. The exercise helped to strengthen passive and active surveillance in the localities that are at higher risk of parasite importation, deploying rapid diagnosis in remote localities that are at risk of malaria transmission to ensure timely and accurate diagnosis, among other advantages.

This set of interventions and the commitment of the Government of Belize to eliminate malaria have led to an unprecedent two consecutive years (2019 and 2020) of reporting zero malaria cases, placing the country well on track toward its elimination goal and the certification as malaria-free by 2022.

The achievements of maintaining zero malaria cases for two consecutive years are mainly due to the investments of the MoHW in surveillance, diagnosis, treatment, and vector control measures.

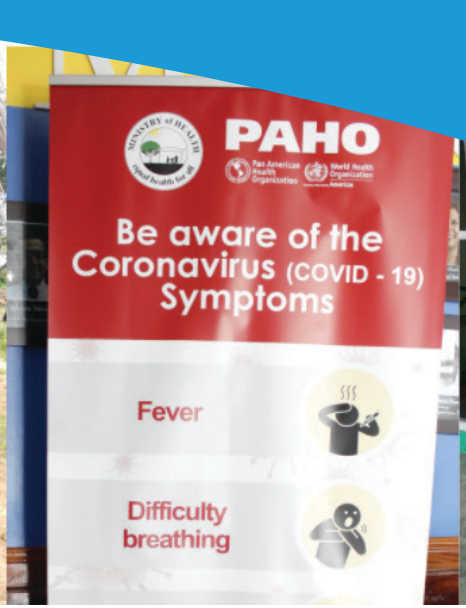
To maintain these achievements of zero malaria cases, prevent the reestablishment of the disease, and prepare for the certification, PAHO/WHO has been technically assisting the MoHW through:

- Development of a workplan with a set of activities to prepare for certification process by 2022;
- Capacity-building on detection, treatment, and case investigation and response;
- Updating the treatment guidelines based on new evidence;
- Supporting the development of risk stratification based on vulnerability and receptivity that make interventions more targeted. This approach aims at allocating resources to the communities where transmission is most likely to occur;

10 Source: 2018-2022, Belize Ministry of Health National Strategic Plan for Malaria Elimination and Prevention of Transmission Re-establishment.

© Ministry of Health and Wellness, Belize

© Ministry of Health and Wellness, Belize



- Advocacy to strengthen the network work of voluntary collaborators and CHWs to ensure robust surveillance;
- Improving access to malaria diagnosis through the deployment of rapid diagnosis tests for malaria in the most vulnerable and receptive foci and those that are far from a microscopy post to ensure timely results.

During 2019, the MoHW, PAHO/WHO, and the Inter-American Development Bank had a series a of field visits and meetings to identify the actions that will contribute to malaria elimination. Strengthening passive and active surveillance along with diagnostic capacity for malaria were identified as the priorities to reach elimination and certification. The expansion of the voluntary collaborators and CHWs was also considered as an urgent necessity.

As some health personnel (doctors, nurses, etc.) have not seen a malaria case for more than a decade, the personnel tend to pay less attention to the signs and symptoms of the disease. Therefore, continuous trainings, health promotion will be crucial to ensure proper screening for malaria to prevent the reintroduction of the disease.

The capacities to detect, diagnose, treat, investigate, and respond to any imported malaria case must be maintained beyond the elimination and certification. PAHO/WHO will continue supporting the MoHW and its strategies to prevent the reestablishment of malaria through capacity-building on the main pillars (diagnosis, treatment, and case investigation and response).

Risk Communication and Community Engagement

Strict measures including border closures and countrywide lockdowns interrupted the first wave of COVID-19 (23 March – 13 April 2020). However, on 1 August 2020, three large clusters were detected in San Pedro Ambergris Caye with subsequent community spread primarily affecting Corozal and Orange Walk in northern Belize. Even though the Toledo District did not have community transmission, it is the most economically disadvantaged district, has several remote small villages (largely without electricity), poor roads, and irregular public transportation.

In northern Belize, the change of scenario from clusters to community transmission implied that more community engagement with affected populations was needed.

In Toledo, the lack of electricity and remote location from the country's tertiary referral hospital, places the district at risk for not receiving

PSAs and for later intervention in cases of severe COVID-19.

For this reason, PAHO/WHO with support from the European Union and in close consultation with the MoHW implemented a Risk Communication and Community Engagement (RCCE) strategy. The RCCE clearly articulates what is known about SARS-CoV-2 and what people need to do in order to protect themselves, using evidence-based key messages presented in easily understood language.

As part of this strategy, PSAs were recorded in English, Garifuna, Maya Mopan, Q'eqchi, and Spanish; a social media campaign was launched; a print campaign was distributed through newspapers and using posters; and video public service was launched on television.

In order to ensure delivery of prepared messages to villages in the Corozal, Orange Walk and Toledo Districts, three public service announcers were engaged to deliver the messages to 85 villages via a public announcement system.

Scaling up Local and International Procurement to Support the Response to COVID-19

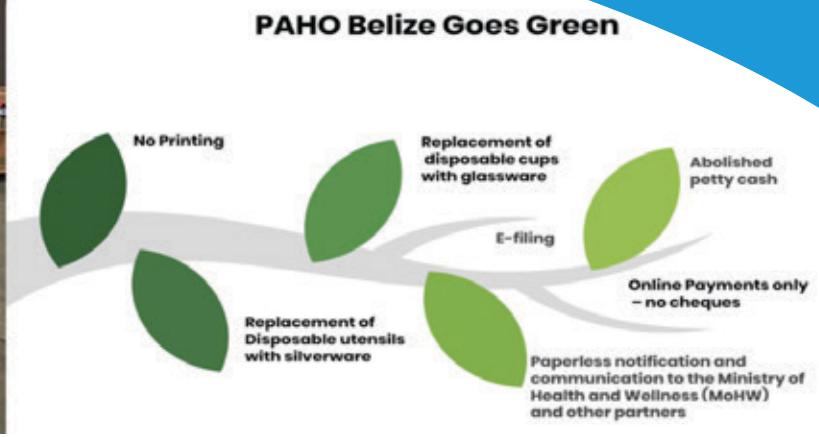
To support the national response to the COVID-19 pandemic, some of the functions of the PAHO/WHO Belize Country Office were repurposed.

For example, the procurement functions were scaled up to support the purchase of many items including PPE, medical equipment, and laboratory diagnostics including tests kits, reagent, and other laboratory supplies.

Because borders were closed in many countries together with the global demand for these items, many items were difficult to obtain and often the prices were marked up. Procurement became time-consuming requiring collaboration and support from PAHO Headquarters as well as liaising with colleagues in other country offices to identify possible sources of items at the best prices.

Beyond the issues of shortages and inflated prices, other challenges included the existence of substandard and counterfeit items. Preventive actions required careful review both at the Country Office and at PAHO Headquarters.

Items were procured both locally and internationally to support the health authorities in Belize including the MoHW and the Karl Heusner Memorial Hospital, the tertiary hospital in Belize. PPE and other items were provided to other ministries to support frontline workers in these other sectors, and NGOs such as the Red Cross following



the three hurricanes, Nana, Eta, and Iota, which resulted in significant flooding. PPE was also provided to the National Emergency Management Organization for persons in shelters.

The various items delivered included: 162,000 gloves; 3,100 gowns; 9220 N95 and surgical masks; 48,748 test kits; 7 SD Biosensor F200 antigen test analyzers; 10,000 SD Biosensor test kits; 20 fire extinguishers; 19 smoke detectors; 2 emergency eye wash showers; 1,650 posters; 230 glucometers, glucometer strips and medical lancets; 230 noncontact thermometers; 230 basic first-aid kits, and 230 stethoscopes with penlight and scissors to support the work of CHWs; and 238,2790 lab supplies, including vacutainer blood collection tubes, microcentrifuge tubes, pipettes, and viral swab sterile collection devices.

Official hand-overs were done and were featured in the different media platforms as part of visibility.

Procurement is a continuous effort, many of the challenges continue but the lessons learned will be applied in 2021.

PAHO Belize Goes Green

Since 2003, the Belize Country Office has begun implementing the “Green Initiative.”

This has contributed to a decrease in expenditures for paper, toner, servicing of printers, copier, office supplies, and printing of cheques.

Because these initiatives were in an advanced stage, the transition to teleworking during the COVID-19 pandemic was relatively smooth; however, these initiatives have been further enhanced.

The following are some achievements:

- Replacement of disposable cups with glassware;
- Replacement of disposable utensils with silverware;
- No printing;
- Online payments only – no cheques;
- Abolished petty cash;
- E-filing;
- Paperless notification and communication to the MoHW and other partners.

Looking Ahead

In 2021, technical cooperation will continue to support the response to COVID-19, especially related to the national deployment of COVID-19 vaccines in addition to the continued implementation of the public health measures to prevent and control the spread of COVID-19.

Attention must focus on the continuation of essential health services, especially maternal and child health, NCDs, and communicable diseases such as HIV, STIs, and tuberculosis.

Critical focus will be on maintenance of previously achieved gains as the progress made toward malaria elimination, with no indigenous cases of malaria reported for the past two years.

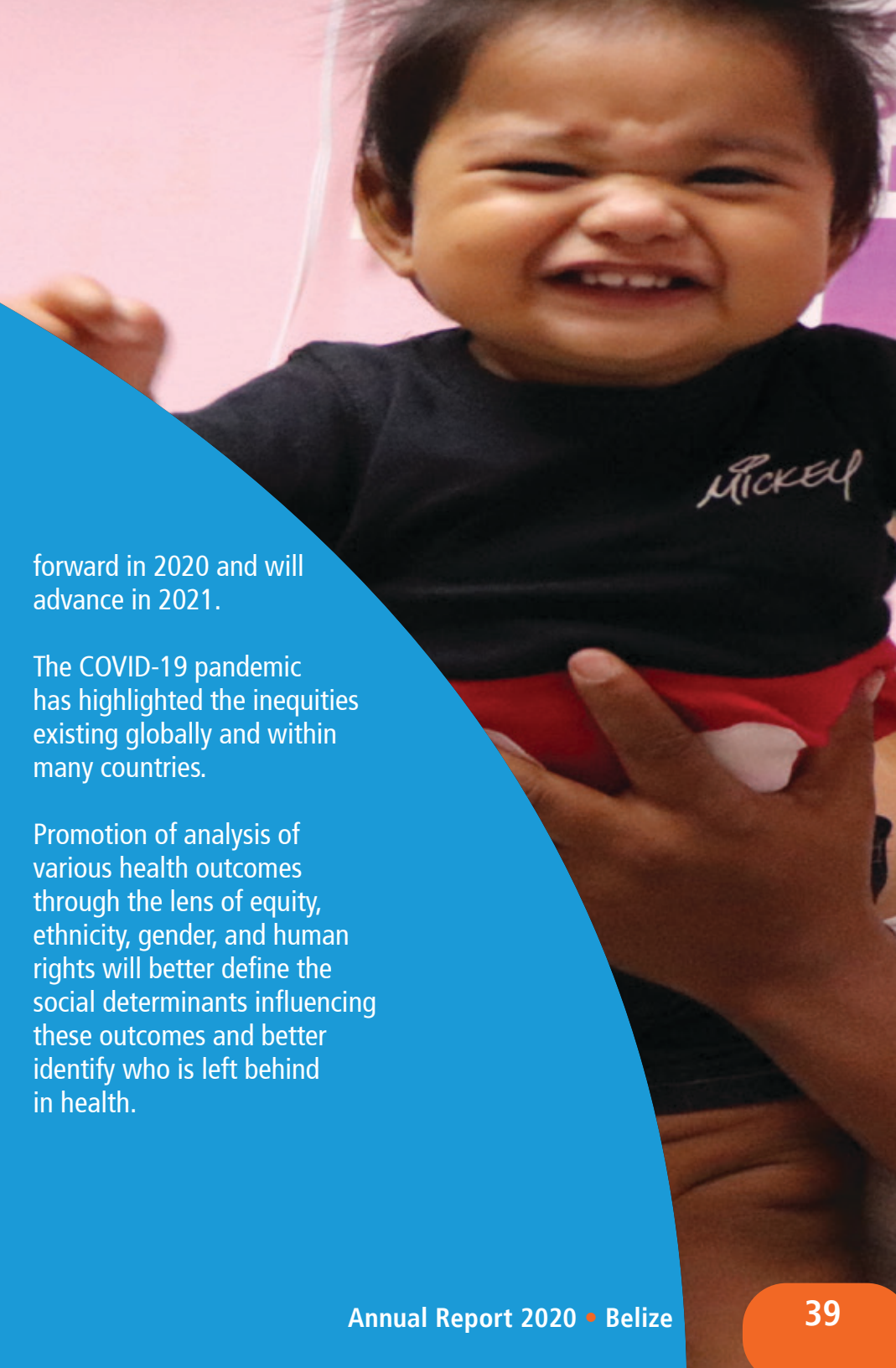
Challenges include the continued uncertainties related to the COVID-19 pandemic that demand human and financial resources and, therefore, compete with the implementation of other health initiatives.

Continued and existing resource mobilization will however contribute to progress toward universal health access, coverage based on a primary health care approach, and enhancement of essential public health functions to ensure sustainable actions for resilient health systems to address future pandemic preparedness and responses.

The increased focus on the environmental determinants of health will continue through the development of the climate change adaptation plans for the health sector. Retrofitting work related to the 11 SMART Health facilities moved forward in 2020 and will advance in 2021.

The COVID-19 pandemic has highlighted the inequities existing globally and within many countries.

Promotion of analysis of various health outcomes through the lens of equity, ethnicity, gender, and human rights will better define the social determinants influencing these outcomes and better identify who is left behind in health.



PAHO/WHO Office Belize
4792 Coney Drive Business Plaza
Third Floor Withfield Tower
Belize City, Belize
Tel.: +501 2244885

www.paho.org

PAHO Pan American Health Organization World Health Organization Regional Office for the Americas

PAHOWHO PAHOWHO OPSPAHO PAHOTV