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RESEARCH ARTICLE

The Tourism and Health Program- Safeguarding the Health and Safety of the Caribbean People and its Visitors during the COVID-19 Pandemic

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ABSTRACT

The Caribbean is heavily dependent on tourism and as such, the longevity, vitality and resilience of Caribbean economies are intertwined with its travel and tourism industry. Accelerated by travel, the SARS-2-CoV virus (COVID-19), rapidly spread throughout the region concurrently crippling tourism sectors, impacting economies and threatening regional health security. The ongoing COVID-19 pandemic demonstrated the critical necessity for health in tourism. The Caribbean Public Health Agency's Tourism and Health Program is a novel innovative program that aims to strengthen regional and national health systems and enhance the health of visitor and resident populations in addressing the health, safety, and environmental sanitation threats to tourism. This versatile program adopts a multi-faceted, multisectoral approach for implementation via surveillance and response, guidelines, capacity building, standards, policy, advocacy and partnerships, a travellers health award and mobile app. Since the advent of COVID-19, the program quickly expanded and realigned its public health tools for more rapid and relevant response to the pandemic. Implementing countries have enhanced capacity to mitigate against COVID-19 and other HSE threats to sustainable tourism. The THP is elevating Caribbean tourism by building traveller's confidence and reinstating healthier, safer travel to the Caribbean, especially during COVID-19. This integrated program, first of its kind, continues to pioneer in setting an international precedent for improving sustainable tourism and health security

Keywords: Tourism, health, Travellers, CARPHA, outbreak response, communicable diseases, coronavirus

1. Introduction

The United Nations Sustainable Development Goals (UN SDGs) illustrate global targets toward “a better and more sustainable future for all.”¹ The Regional Tourism and Health Program (THP) was actualised by the Caribbean Public Health Agency (CARPHA) to enhance regional health security and improve the quality, resilience and sustainability of Caribbean tourism by addressing health, safety and environmental threats to tourism. The aim of this Program incorporates the UN SDGs 3 and 9 which focus on ensuring healthy lives and promoting well-being at all ages, and building resilient infrastructure, promoting sustainable industrialisation and fostering innovation respectfully.¹ The ongoing coronavirus pandemic (COVID-19) has demonstrated the critical necessity for health in tourism as it was propelled by travel, devastating tourism, resulting in economic instability and *threatened regional health security in the Caribbean*. This purpose of this paper is to illustrate how the THP is supporting the Caribbean’s preparedness and response to COVID-19, which was declared a pandemic on March 11, 2020, and to highlight the impact and work of the THP.

2. Background and Rationale for the THP

Known for its welcoming climate, picturesque beaches, crystal blue waters and dynamic cultures, the Caribbean region is a well-known and preferred travel destination for many vacationers, especially those attempting to evade colder temperatures. The Caribbean economies are intrinsically linked to tourism as it is the main source of employment and revenue for many of the Caribbean countries. In 2019, the travel and tourism industry accounted for more than 14% of the region’s Gross Domestic Product (GDP) contributing over USD 58 billion to its economy and an estimated 2.8 million jobs.²

Caribbean tourism, and by extension, its economic longevity and vitality, is susceptible to many external shocks. As a result of its tropical climate and ecosystem, the Caribbean remains an easy target for outbreaks caused by Chikungunya, Zika, Dengue and Malaria. Travel, coupled with the region’s Member States’ close proximity and interconnectedness can allow highly transmissible communicable diseases, such as COVID-19, to transcend borders, crippling tourism and livelihoods. Additionally, unfavourable publicity can defame

travel destinations and impact the number of tourists visiting Caribbean countries. In the absence of this lucrative travel and tourism industry, the region can endure devastating impacts as demonstrated by the COVID-19 pandemic. The World Travel & Tourism Council’s annual Economic Impact Report (EIR) revealed that the global travel and tourism private sector’s contribution to GDP dropped a staggering 49.1% in 2020.⁸ Vast losses accumulated during 2020, paint the first full picture of a sector recovering from travel restrictions and necessary quarantines, which threatened the industry. Altogether, the sector’s contribution to global GDP fell to US\$4.7 trillion in 2020 (5.5% of the global economy), from nearly US\$9.2 trillion the previous year (10.4%).⁸

The THP was established out of the crucial need to address health and safety among visitors given that Caribbean (i) depends on visitor arrivals more than any other region in the world (more people visit than live there), (ii) the first cases of many illnesses were imported cases, due to travel, e.g. COVID-19 and (iii) the increasing occurrence of travel related illnesses and outbreak in the Caribbean. In 2019, the Caribbean recorded an estimated 32 million tourist arrivals.³ Despite the disastrous effects of COVID-19 in 2020-2021, the region is “recovering at a faster rate than any other region in the world.”² However, whilst the high influx of visitors to the Caribbean region brings immense economic benefits, they also introduce/re-introduce travel/tourism-related illnesses that can precipitate reputational damage and economic instability whilst posing a regional health and security risk. This is evident through the introduction and spread of new and re-emerging diseases by visitor populations, as demonstrated by Norovirus, H1N1, Chikungunya and Zika, and recently, the novel coronavirus (COVID-19), by visitor populations. From 2010-2019, over 300 outbreaks of gastroenteritis (GI) were reported to CARPHA, one third of which were travel related. Norovirus (spread by person to person, air and environment), first introduced to the Caribbean via visitors, is now the most frequent cause of GI outbreaks in local and visitor populations in the region. Cases increased by 44% from 2005 to 2019 primarily due to travel/visitor related outbreaks, especially on cruise ships. One outbreak in 2012 caused 1,256 illnesses, closures of hotels, travel advisories and a 30% decline in arrivals for that country. Another in

2018 affected over 300 persons. CARPHA data shows that a new Norovirus strain, (GII.4 Sydney) originating in Australia, had already been reported from some CMS. These outbreaks illustrate the fragile nature of the tourism sector and emphasises that the health of Caribbean economies is closely related to the health of its travel and tourism industry, especially as the Caribbean is the most tourism-dependent region in the world.

However, despite the large visitor populations and economic dependency on tourism, before the THP, health monitoring surveillance systems were focused on the local, resident population and there was no ongoing visitor tourism-based surveillance and response system to rapidly detect public health threats and trigger measures to reduce or stop the spread of disease across and within borders. Insufficient food and environmental sanitation training, absent integrative health, safety and environmental sanitation (HSE) standards and certifying system alongside the notable segmentation between tourism and health stakeholders compound the gaps to contributing to the food safety and environmental sanitation issues and disease outbreaks in the region. These public health concerns can morph into catastrophic tourism crises. These risks, in conjunction with the economic importance of the Caribbean tourism industry, reiterate the need for a system to monitor both travellers' and residents' health, and provide rapid response to prevent and control outbreaks. It is within this context that CARPHA established its Regional Tourism and Health Program in 2014.

The COVID-19 pandemic is causing worldwide disruption and challenges public health response in countries, especially for the tourism dependant economies of the Caribbean. CARPHA is leading the regional health response to COVID-19, in keeping with its Intergovernmental Agreement (IGA) mandate from the Caribbean Community (CARICOM) and recommendations from the Council of Health Ministers (COHSOD) Working Group on regional coordination for COVID-19 management. The THP has been a critical component of CARPHA's COVID-19 response.

3. Regional Tourism and Health Program (THP)

The Regional Tourism and Health Program is an innovative, versatile program that addresses the HSE threats to tourism, aiming to strengthen countries' capacity to prepare and respond to public health threats and enhance the health and safety of visitors and locals. The THP, therefore, seeks to improve regional health security and the quality, competitiveness, reputation, sustainability and resilience of Caribbean tourism (<http://carpha.org/THP>). The program is being executed by the Caribbean Public Health Agency (CARPHA), the Caribbean's sole public health agency responsible for preventing disease, promoting and protecting health, in collaboration with the two regional tourism agencies, Caribbean Hotel and Tourism Association (CHTA), the Caribbean Tourism Organization (CTO), and countries. It is being primarily funded by the Inter-American Development Bank (IDB).

The THP is addressing HSE threats in a comprehensive, all-inclusive manner adopting a multi-faceted, multisectoral approach for implementation through real-time surveillance, response, guidelines, capacity building, standards, policy, advocacy and partnerships, and a travellers health award for proactive healthier safer measures and app.

The THP is building countries' capacities to prepare for and respond to COVID-19 and other public health threats, to sustainable tourism through the following regional public health goods (Figure 1):

- Tourism and Health Information System (surveillance for land-based tourism)
- Caribbean Vessel Surveillance System (surveillance for sea-based tourism)
- Regional Guidelines for Managing Illness in Accommodations and Ship Settings
- Capacity Building in COVID-19 Health Guidance, Food Safety and Sanitation
- Caribbean Travellers Health Assurance Stamp for Healthier, Safer Tourism
- Caribbean Travellers Health Mobile App
- Hospitality Health, Safety and Environmental Standards
- Partnerships, Mandates and Policy



Figure 1: THP's regional public health goods

With the advent of COVID-19, the THP quickly expanded its tools for more rapid and relevant response to the pandemic. Implementing countries now have enhanced capacity to mitigate against COVID-19 and other HSE threats to sustainable tourism. The THP is elevating Caribbean tourism by building traveller's confidence and reinstating healthier travel to the Caribbean, especially during COVID-19. This timely, relevant, multi-pronged program, a regional and international trailblazer, is the first global effort of its kind. There is no better time than now, as new threats to health and travelling the region emerge and in this era of real time, instant information flow, for implementing mechanisms for monitoring and responding to tourism health and safety threats. Each of these THP components is discussed below and linked to possible COVID-19 preparedness and response actions.

3.1 Components of the Regional Tourism and Health Program

3.1.1 Tourism and Health Information System

The Tourism and Health Information System (THIS) is a web-based application for syndromic surveillance of populations in tourist

accommodations and services (<http://www.this.carpha.org>). This early warning, monitoring and response system is designed to confidentially capture traveller's illnesses in real time. Its built-in alert system, accessible to national authorities, triggers a rapid and coordinated response that can reduce illness spread, economic and reputational negative impact. THIS was expanded when COVID-19 came, and its can now accommodate a wide range of users (hotels, guesthouses and other accommodation settings, transportation companies, yachts, airlines, restaurants, tour operators, events and self-reporting). The system, despite being developed less than 5 years ago, has already resulted in improved disease detection by providing alerts to outbreaks of COVID-19 and gastroenteritis, stopping spread and curtailing economic damage. These public health events were identified early and addressed and not reported elsewhere, which could have resulted in severe reputational and economic devastation to the tourism establishment and country. Figure 2 shows a schematic of how the THIS web application integrates into the existing national and regional public health surveillance mechanisms.

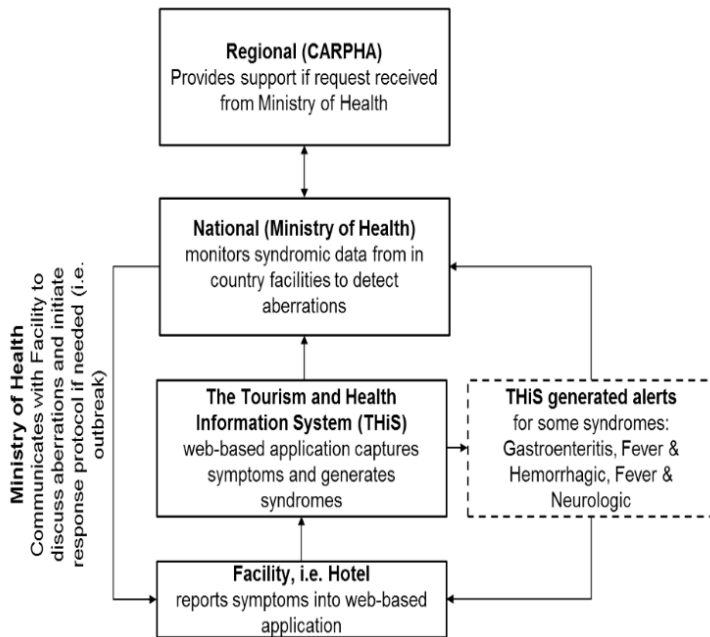


Figure 2: Primary surveillance pathways for THiS

Data collection in the THiS web application is conducted by staff from a registered tourist facility and services using an online questionnaire administered to an unwell guest or staff member. Tourist facilities are also required to confirm the absence of cases by epidemiological week, using a “zero case” submission on the web application page, when applicable. Additionally, the self-reporting page allows visitors and staff to independently report their illness using an online questionnaire located on the THiS web page: this.carpha.org.

The online questionnaires are similar for reporting by registered facilities and self-reporting. The questionnaire includes short questions that ask the user for necessary demographic information such as age and gender, potential exposure information, such as recent travel and home country, and which

symptoms they are experiencing including diarrhoea (≥ 3 loose or watery Vomiting and/or nausea stools in past 24 hours), Fever ($>38.0^{\circ}\text{C}$ or 100.4°C), Cough or sore throat, Bleeding (gums, nose, blood pooling underskin, when coughing, in stool), Headache, Joint or muscle pains, Eye or facial pain/ headache/facial, Rash, Blurred vision or convulsions or altered consciousness. Responses to these symptoms are analyzed by the system to generate the 6 internationally recognised potential syndromes for each case (Figure 3):

- Gastroenteritis
- Undifferentiated fever
- Fever and haemorrhagic symptoms
- Fever and neurologic symptoms
- Fever and respiratory symptoms
- Fever and rash

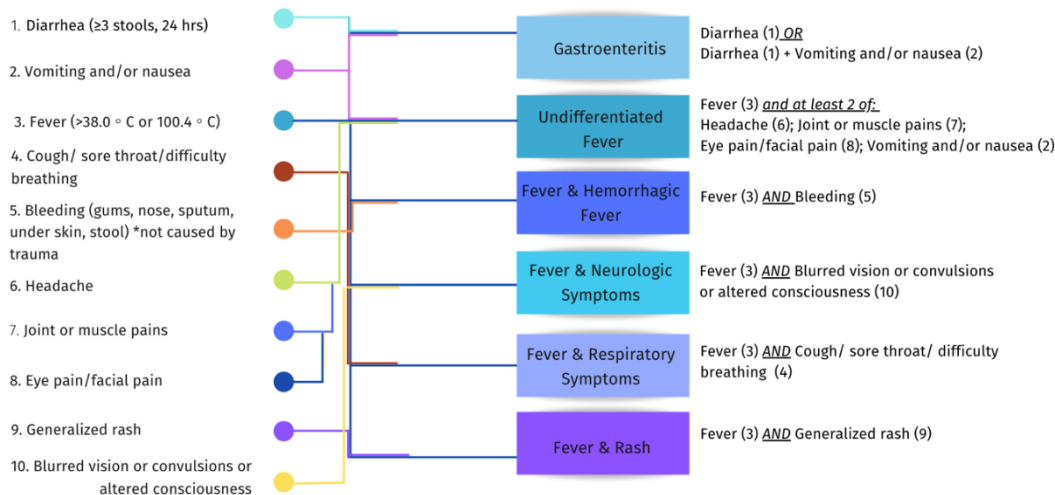


Figure 3: The logic used to generate syndromes from reported symptoms

Data analytics are executed on the inputs from each facility on the THiS web application. The dashboard provides interactive data visualizations and allows the user to slice the information to view cases among guests vs. staff, by facility (for national users only), and by country (for regional users only). All users can slice the information by gender, age, and time; Ministry of Health (MOH) users, by facility and time (case counts by day, week, month, or year). Access is limited to hotel management, e.g., hotel manager, health and safety manager, who would be the persons engaging with public health staff at the MOH in the event of a potential public health issue, such as an outbreak. At the MOH, access is given to users determined by the countries health focal point and typically includes an epidemiologist, surveillance officer, and/or Chief Medical Officer (CMO) or Environmental Health Officer. At CARPHA, access is limited to the THP epidemiologist and head.

3.1.2 Caribbean Vessel Surveillance System

THP's Caribbean Vessel Surveillance System (CVSS) is part of CARPHA's regional surveillance mandate to public health emergencies. It is a novel electronic system created to enhance the monitoring and response to illnesses and outbreaks in passengers and crew onboard vessels. It is designed to capture symptoms for each of the six (6) syndromes under

surveillance (same as THiS), inclusive of suspect COVID-19 and other public health illnesses. Real-time alerts are sent to countries if illness thresholds are reached/passed before the ship arrives, so as to trigger a rapid response from countries (denying entry/entry with only well persons disembarking, inspection before entry) so as to reduce disease spread across borders and enhance regional health security. It is supported by the Regional Guidelines for managing illness in ships. Following a partnership formed with CDC/Vessel Sanitation Program (VSP), the CVSS sends out alerts based on CDC Color Status that depict varying levels of COVID-19 illness on ships.⁵ The illnesses are matched with Caribbean itineraries and if a threshold level is reached, real-time alerts are sent to relevant authorities (CMOs, Port Health Officers, National Surveillance Focal Points) of ships arriving to their shores with COVID-19 or COVID-19 Like Illness (CLI) on board, to allow CMS to investigate and make decisions on pratique. This platform allows for the capture of symptoms for each of the six (6) syndromes under surveillance (like THiS). It will alert stakeholders when outbreak levels surpass threshold values on the vessel. The CVSS is supported by Regional Guidelines, outbreak databases, contact/coordination lists and communication protocols for outbreaks. See Figure 4 for operation details of CVSS.

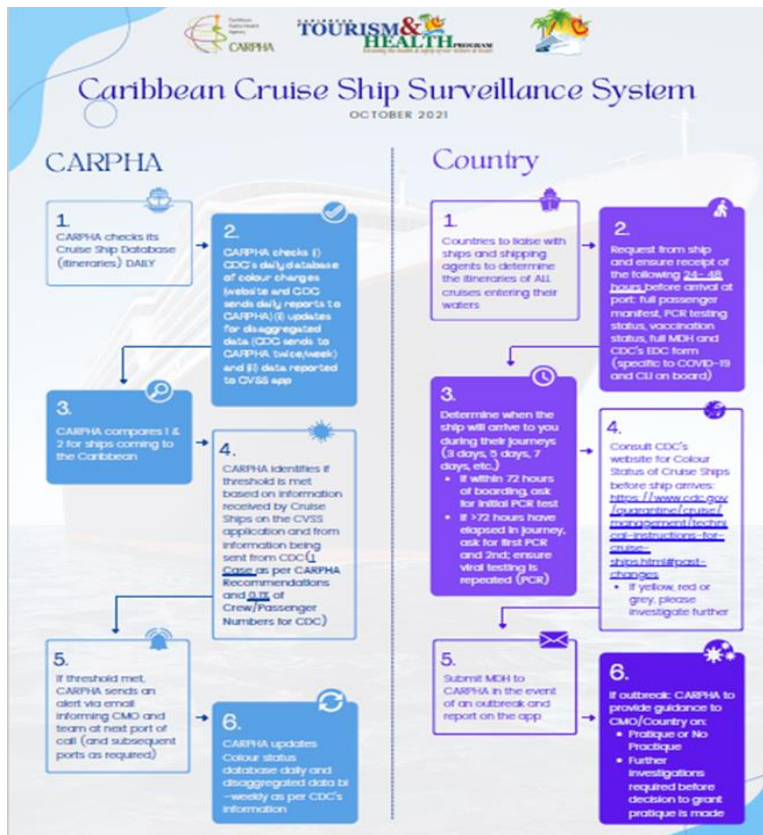


Figure 4: Process Flow for Reporting on Cruise Ship Alerts from CARPHA to CMS

As a proactive tool, the CVSS provides timely alerts to CMS before ships arrived which trigger a range of rapid responses from countries and allow CMS to make better informed public health decisions on granting pratique before a ship arrived. These actions reduce disease spread across borders and enhance regional health security. The decision to grant pratique or not can also severely impact countries' economies, tourism and health systems, namely, spread of illness and related morbidity and mortality, availability of hospital beds and services, health care costs, reduction of human capacity, reputational damage and depletion of other resources.

3.13 Regional Guidelines

To support the THIS and CVSS visitor-based surveillance and response system, two sets of regional surveillance guidelines were developed:

- Regional guidelines for managing issues of public health significance on passenger ships coming to the Caribbean (Caribbean Vessel Surveillance System (CVSS))

- Regional guidelines for managing issues of public health significance in stay-overarrivals (Tourist Accommodation-based Surveillance) in the Caribbean



Figure 5: Regional guidelines

These guidelines, collectively called the “Regional guidelines,” are instructive guidelines for harmonized scientific response to travel-related

public health issues that support countries in managing issues of public health importance in a timely and coordinated fashion and thus, protecting the health and security of visitors and locals. These guidelines are widely used by countries for norovirus and recently COVID-19 response.

Within the Caribbean, there is a marked variation and lack of standardization in the surveillance and response to travel-related public health issues occurring among visitors arriving by sea and those in stay-over arrivals. Core competencies and protocols regarding the investigation and reporting of public health emergencies on passenger ships are described in the 2005 International Health Regulations (IHR), however, its implementation differs by country as each country is sovereign. The commonality of tourism-based illnesses, close proximity and frequent travel (both intra-regional and international) in the Caribbean necessitates the need for uniform and harmonized surveillance and response guidelines to travel-related public health events.

CARPHA, as the Caribbean authority for public health surveillance, developed the Guidelines for coordinated surveillance and response to travel-related public health illnesses to prevent and mitigate public health events on passenger ships and in stay-over arrivals. It will support countries in carrying out public health action to manage issues of public health importance in a timely and coordinated fashion and thus, protect the health and security of visitors and locals within the region. It will also allow for the collection of surveillance data to establish baselines for outbreak detection and strengthen national surveillance. The Guidelines are based on the IHR (2005), the World Health Organization (WHO) management of public health events onboard ships (2016) and other documents developed over a 3-year period involving country and agency consultations; and in close collaboration with the Cruise Lines International Association (CLIA) and CDC VSP. It was presented to the 33rd COHSOD, endorsed at the 2018 CARICOM CMOs meeting, and supported at the 2018 Regional Tourism and Health Stakeholder Workshop by 13 agencies and 14 countries.

The Guidelines were published in May 2018;

presented to Caribbean Chief Medical Officers (CMOs) in June 2018 and distributed to countries. In 2020/2021 the Guidelines were updated to include response to COVID-19 and other public health emergencies and will be published in 2022. In addition, with the announcement of cruise resumption in June 2021 in the Caribbean during COVID-19, THP updated the guidelines and produced *Interim Guidelines for Cruise Ships travelling to Caribbean during the COVID-19 Pandemic* and *Minimum Harmonized Guidelines for the Resumption of Cruise Ship Sailings* in April 2022. This was approved by CARICOM via Savingram #582.⁴



Figure 6: Topics covered in the Advanced Food Safety and Environmental Training

3.14 Capacity Building

3.14.1 Advanced Food Safety Training and Certification

Food safety impacts the health, wealth, and reputation of countries. Diarrheal illness, resulting from contaminated food or water and foodborne disease (FBD), is the most common health problem faced by visitors to the Caribbean. In the last 15 years, the Caribbean has experienced an increase in the number of large and costly visitor-based outbreaks of illness leaving the tourism and travel sector negatively affected. The non-enforcement of existing food and environmental safety standards, inadequately trained staff and the absence of an effective monitoring and reporting

system have contributed to these FBD outbreaks. Whilst decreasing the incidence of FBD remains a challenge, effective tools for preventing foodborne and other illness, such as, science-driven food safety management, education and training, must be utilized.

The THP provides an Advanced Food Safety and Certification Train-the-Trainer course for health and hospitality stakeholders. This training is done by certified regional experts, using the globally recognized ServSafe food safety material uniquely infused with the Caribbean experience based on CARPHA's illnesses investigations of public health threats. ServSafe is the internationally recommended comprehensive capacity-building proficiency course, using practical science-based knowledge and skills. It builds countries' capacities in the areas of advanced food safety, illness causation and prevention, outbreak response and environmental sanitation (see Figure 6). It will also allow for globally recognized certification through the internationally recognized USA National Restaurant Association Educational Foundation (ServSafe). To date, The THP has trained and certified 562 persons from 10 countries.

3.14.2 COVID-19 Training

On 30 January 2020, WHO announced the novel coronavirus disease (COVID-19) outbreak as a Public Health Emergency of International Concern and subsequently, a global pandemic on 11 March 2020. The pandemic has quickly evolved into one of the greatest threats to human society and the second worse pandemic of all time in terms of virulence. For this reason, many countries halted air and sea travel, closed national borders and initiated lockdown strategies in an attempt to mitigate the transmission of COVID-19. The global spread of COVID-19, propelled by travel, continues to threaten the health security of the CARICOM Region, whilst concurrently, disrupting tourism and reducing revenues in CARICOM economies.

3.15 Caribbean Travellers Health Assurance Stamp for Healthier, Safer Tourism

The Caribbean Travellers Health Assurance Stamp for Healthier, Safer Tourism (HST Stamp) is a measurable and verifiable travellers health

With the subsequent reopening of country borders, phased lifting of in-country restrictions, resumption of travel and roll out of vaccinations, a careful balance between reducing restrictive measures and ensuring adequate measures must be implemented to reduce importation and the spread of new cases. As a result, CARPHA, partnering with CTO and CHTA, initiated COVID-19 health guidance trainings to strengthen countries' capacities to fight the effects of COVID-19 with focus on the relevant health and safety guidance, such as COVID-19 aetiology, transmission and prevention, proper cleaning and disinfection techniques and detailed interventions recommended in tourist facilities. Training on THiS is also incorporated as part of the COVID-19 training. At the end of the training, participants receive a certificate of participation, which is needed in the issuance of another THP tool, the Caribbean Travellers Health Assurance Stamp for Healthier, Safer Tourism.

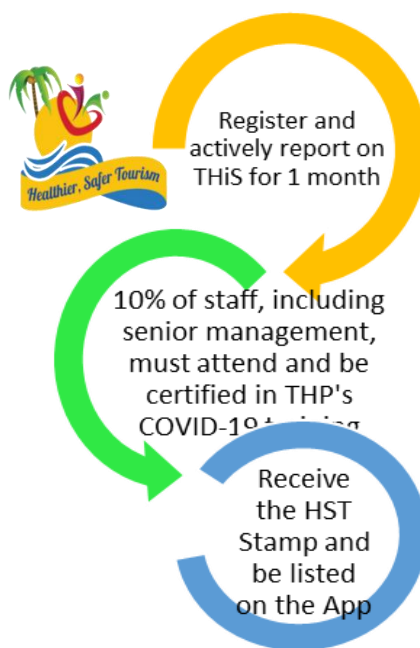


Figure 7: Steps to acquire the CARPHA-CTO-CHTA HST Stamp

assurance and recognition award for tourism entities that are implementing the recommended proactive COVID-19 health monitoring and safety measures. CARPHA, with CTO and CHTA, continues to elevate Caribbean tourism by building traveller's confidence and reinstating healthy and safer travel

to the Caribbean. The HST Stamp has been approved by the Global Tourism Resilience and Crisis Management Centre (GTRCMC) and endorsed by the World Travel and Tourism Council (WTTC).

Caribbean travellers now have the added assurance of a healthier, safer option for accommodations and services awarded the WTCC recognised, regional CARPHA-CTO-CHTA HST stamp. The award adds assurance, gives a comparative, marketing advantage and provides value to the quality of service provided by the tourist facilities, protecting its image, investment and people whilst adhering to the recommended COVID-19 health and safety measures and actively reporting on THiS. HST Stamp awardees are listed as preferred healthier safer options on Caribbean Traveller's Health Mobile App and listed on CARPHA websites.

To be awarded the HST Stamp, tourist businesses must:

- [Register](#) on the Tourism and Health Information System (THiS) and actively report for at least 1 month to be eligible for the HST Stamp. Reporting includes confirming zero cases for each week.
- Ten percent (10%) of all staff, including senior management, must attend and be certified in the COVID-19 Essential Guidelines for the Hospitality Sector training.

CARPHA will verify use of THiS and participation in the certified training, in order to award the HST Stamp. After analysis and approval, an email will be shared to the business confirming award, along with the listing on the Caribbean Travellers Health App. The digital logo of the HST Stamp will be shared for marketing purposes. It is important to note that if a tourism entity fails to consistently report on the THiS platform as a means of proactive monitoring, CARPHA reserves the right to remove this entity from the list of qualifying Healthier, Safer Tourism awardees.

3.16 Caribbean Traveller's Health Mobile App

The Caribbean Traveller's Health Mobile App is a multifaceted, Caribbean health information depository, designed for travellers and health and tourism stakeholders. It was designed to fill the gap in the provision of useful, relevant and timely information to prospective travellers to the region. It provides the self-reporting form for THiS, travel health and safety information by each Caribbean destination, inclusive of vaccinations, COVID-19 proactive/prevention measures and unique travel requirements. More importantly, the mobile app also identifies, by name, accommodations and other hospitality services, within a destination, that have been awarded the HST Stamp. This free app is available on both [Google Play](#) and [Apple Store](#).

3.17 Hospitality Health, Safety and Environmental Standards

Seven (7) Caribbean-wide health, safety and environmental (HSE) "clean and green" hospitality standards have been developed to improve health, safety and environmental quality in the hospitality sector. These standards were developed under the authority of the CARICOM Regional Organization for Standards and Quality (CROSQ) through CARPHA THP and were approved at the CARICOM Council for Trade and Economic Development (COTED) in November 2021.

. The seven HSE Standards include:

1. Energy Management and Efficiency
2. Food Safety and Sanitation for the Tourism Industry
3. Environmental Management Systems for the Tourism Industry- Guidelines
4. Integrated Pest Management for the Tourism Industry
5. Sewage Treatment and Management for the Tourism Industry
6. Solid Waste Management for the Tourism Industry
7. Water Treatment, Management and Efficiency for the Tourism Industry



Figure 8: Hospitality health safety and environmental (HSE) standards

The implementation of these standards by the Caribbean tourism industry will significantly reduce the adverse impact of HSE issues, which in turn would increase the economic well-being of the region. Implementing these standards would protect the region's fragile environment and lead to a safer and better-quality environmental product and a standards-based certified destination, which in turn increases the comparative advantage of Caribbean tourism. Substantial benefits are possible if these standards are adopted and referenced in legislation/regulation that can be made sufficiently similar across the Caribbean Region. One such benefit is a substantial improvement in health food safety and environmental sanitary conditions in the hospitality sector throughout the region. The implementation of the standards would be recognized by the Association of British Travellers (ABTA) and other tour operators. Certified facilities would also be published on CTO, CHTA, and CARPHA websites.

3.18 Partnerships, Mandates and Policy

The THP involves the implementation of a new non-traditional health information and monitoring system (i.e., tourism/visitor-based illnesses), new clients/data users (private sector hotels, cruise ships, visitors) and new partners (Ministry of Tourism, tourism authorities, tourism agencies). In this regard, a critical factor for successful implementation and sustainability of the program is global and regional recognition, partnership development and endorsement from international public and private health and tourism agencies. The THP, starting with a Memorandum of Understanding between CTO and CHTA, is building multi-sectoral, multi-agency partnerships with regional and international health and tourism stakeholders to address travel-related public

health threats in a rapid and well-coordinated manner for seamless information flow and response to traveler's illness across regional and international borders. Additionally, Letters of Agreement have been signed with the CDC VSP in 2019, the Organization of Eastern Caribbean States (OECS) Commission in 2021 and CROSQ in March 2022. Other key partners to date include CDC, VSP, Public Health Agency Canada UK Health Security Agency, CLIA, ABTA, Sandals, Cricket West Indies (CWI) and Caribbean Airlines. Approved by Caribbean Ministerial bodies, COHSOD (2021) and COTED (2020), this Regional Policy mandates reporting of travel related illness to national authorities. It provides a framework for countries to amend their national policy to promote healthier safer tourism. *Implementation creates an urgency among hospitality partners and travelers to reduce the risk posed to people in the Caribbean Region by communicable disease outbreaks and public health emergencies, through early detection and a strengthened rapid response.*

The THP developed a Regional THP Policy Framework to mandate the reporting of tourism/visitor illnesses to national authorities from the hospitality sector for the successful implementation and sustainability of the THP. The Regional THP Policy Framework aims at ensuring an enabling environment for optimal implementation of the THP and its components. This framework is a critical tool in the drive to secure the Caribbean Region's health security. Implementation of the Policy provides a basis for creating a sense of urgency among hospitality sector partners and travelers to reduce the risk posed to people in the Caribbean by communicable disease outbreaks and public health emergencies, through early detection and a strengthened rapid response.

- In 2017, the 33rd CARICOM Council of Health Ministers (COHSOD) mandated CARPHA, through the THP, to prepare a tourism/traveller's health policy for improving regional health security.
- During 2018-2019, through a consultative process, the Travellers Health Policy Framework was developed.
- On September 29, 2019, the Regional Travellers Health Policy Framework was

approved at the 37th COHSOD, and then by COTED in 2020.

4. THP'S Response to COVID-19

With the advent of COVID-19, the THP quickly expanded its tools for more rapid and relevant response, including:

- Expanding its confidential early warning and response tourism information system (THiS) to a wide range of Users (hotels, guesthouses, health centres, transportation, yachts, airlines, restaurants, tour operators and events, self-reporting). *During 2020-2021, almost 800 businesses in 21 countries were registered.* THiS has been able to capture COVID-19 positive cases in many hotels that would have gone unnoticed.
- Implementing the Caribbean Vessel Surveillance System (CVSS) to enhance the monitoring and response to illnesses and outbreaks in travellers and crew onboard vessels.
- Updating of technical guidelines, including minimum guidelines for safe air and cruise ship travel.
- Developing COVID-19 health and safety guidance for the tourism sector and training *almost 10,000 tourism and health stakeholders from 45 countries, in COVID-19 infection, spread and prevention.*
- Implementing the *Caribbean Traveller's Health Assurance Stamp for Healthier Safer Tourism (HST)*. A measurable and verifiable travellers health assurance and recognition award for entities implementing the recommended Proactive COVID-19 health monitoring and safety measures (training, THiS, standards). Caribbean travellers now have the added assurance of a healthier, safer option for accommodations and services awarded the WTCC recognised, regional CARPHA-CTO-CHTA HST stamp. Facilities awarded the HST stamp are listed as preferred healthier safer option on Caribbean Traveller's Health Mobile App and CARPHA, CTO and CHTA websites. *To date, 100 facilities have been awarded the stamp.*
- Caribbean Travellers Health app - provides travel health information by each Caribbean destination (including vaccinations, health care facilities, accommodation listing), health alerts of current public health issues, COVID-19

proactive/prevention measures and unique travel requirements by country (testing, health screening, pre-approval, tracking). The app is available in [Apple Store](#) and [Google Play](#).

- In early 2021, CARPHA partnered with the CTO, CHTA and the Global Tourism Resilience and Crisis Management Center (GTRCMC) to form the COVID-19 Tourism Task Force, for a united, harmonised approach to these COVID-19 measures. This task force lends technical input to CARICOM's tourism reopening guidelines and discusses COVID-19 measures for safe reopening. It convened joint training and disseminated joint press releases.

4.1 Timely (near real-time) Surveillance and response

To safeguard and improve the health of the population, surveillance is essential. During a pandemic such as COVID-19, public health officials must be able to rely on a surveillance system that produces real-time and accurate data on the outbreak, collected and monitored over time, directly from the communities, so that they can rapidly identify and implement the most effective interventions. In a region such as the Caribbean, consisting of small island developing countries and territories where travellers outnumber residents, there is a crucial need for a surveillance system that support and adds value to national public health surveillance platforms as prior to THiS and CVSS, many Member States did not have a visitor-based system.

The Tourism and Health Information System (THiS) fulfils this requirement by monitoring illnesses among visitors and staff in tourist accommodations and services in real time. From January 2017 to February 2022, there were 761 businesses registered on THiS in 21 CMS. tour operators, events and self-reporting). The system, despite being developed less than 5 years ago, has already resulted in improved disease detection by providing alerts to outbreaks of COVID-19 and gastroenteritis, stopping spread and curtailing economic damage. These public health events were identified early and addressed and not reported elsewhere and could have resulted in severe reputational and economic devastation to the tourism establishment and country. The system has identified COVID-like syndromes as well as clusters of other illnesses.

The Caribbean Vessel Surveillance System (CVSS) is another platform that monitors illness among visitors and staff on cruise ships. Designed specifically during the COVID-19 pandemic, this platform transmits real-time alerts to countries if predetermined thresholds are reached or surpassed before a cruise ship arrives. By getting this information, before the ship has arrived in the country, a country-specific rapid response can be initiated to prevent and decrease transmission of illness as well as bolster regional health security.

Cruise Ships continued to be a major public health concern since the resumption of sailings in August

2021 because of the *increased risk of transmission of COVID-19 and other diseases, due to large numbers of persons in a confined space who are likely to be in close contact for a long duration of journey (3-7 days or more). The cruise ship acts as a means for infected persons travelling to different geographical locations thereby perpetuating spread to “virgin” territories.* CARPHA’s THP developed the *Regional Guidelines for Managing Issues of Public Health Significance on Passenger Ships Coming to the Caribbean.* Following consultations with CMOs, VSP, and research we updated the “*CARPHA’s Interim Guidelines for Cruise Ships travelling to Caribbean Countries during the COVID-19 pandemic*”. The key recommendations are:



Figure 9: Key recommendations for Cruise Ships travelling to the Caribbean

The THP CVSS started sending alerts to CMS effective October 2021. During the period of October 2021 to March 5th 2022, 656 alerts have been issued. There was a marked increase in the number of Yellow Level Alerts (number of on-board cases exceeds CDC’s 0.1% threshold, warranting an investigation) from December 2021 to January 2022, likely due to the more transmissible Omicron, highlighting the increasing cases and risks posed by ships sailing during COVID-19. Several ships frequently recur on the listing for Yellow/Orange level alerts, and Member States have been advised to look into re-embarkation/embarkation testing criteria, screening processes, adherence to Public Health Guidelines on the ship and vaccination status. To date, these alerts have triggered the following responses from countries and agencies:

- Denied pratique/entrance to cruise ships as a result of these updates
- Conducted investigations and risk-based assessments before letting the ships in
- Solely allowed well persons to disembark while ill persons stay on board

- Requested rapid COVID-19 test before disembarking
- Designated special areas/islands for cruise ships passengers
- Special meetings with CLIA and US CDC and CMOs to discuss minimum requirements

Prior to THiS and CVSS, no regional system was in place to compile disease data on this target population. The systems can detect aberrations in patterns of illness among travellers, which is even more important if they originate from multiple nations or regions (THiS). The strength of the platform is also that the visitors themselves are considered as part of the surveillance system. Being able to collect these data in the context of the COVID-19 pandemic cannot be overstated. It allows reporting of more comprehensive and timely data about the outbreak to public health officials. CARPHA is promoting the reporting of illnesses, including suspected cases of coronavirus, on THiS (by hospitality accommodations, tourist services and through self-reporting) and on CVSS (by cruise

ships), as a proactive COVID-19 surveillance measure. This pandemic is a reminder that our first line of defense starts with people. We must consistently protect ourselves so that we are more prepared.

4.2 Regional Guidelines

Responding to the COVID-19 pandemic and other emerging and re-emerging infectious diseases in the tourism-dependent, Small Island Developing States in the Caribbean region requires a strong, harmonized coordinated regional approach, given the proximity and interconnection between the islands, their limited and varying capacity to quarantine/isolate, to respond (test, isolate, treat, and contact tracing). As such, CARPHA convened the Regional Coordinating Mechanism for Health Security (RCM-HS), consisting of Member States, regional and international agencies, to work with its partners and countries, towards a harmonized regional response.

The THP's Regional Guidelines have provided technical guidance for a harmonised regional response to COVID-19 and other travel-related public health events arriving by air or ships. Since the onset of the outbreak, the Regional Guidelines, in particular the Guidelines for Managing Issues of Public Health Significance on Passenger Ships, are being used by many countries. The latter was the foundation for the development of a CARICOM Heads of Government mandated Regional Coordination for the Management of COVID-19 and other Infectious Diseases in Passenger Ships. Virtual sessions on the response protocols were held with CMOs and some chief environmental health officers, to enhance ports of entry screening for suspected COVID-19 cases and thus, ensure consistent implementation of pandemic responses.

On 25 August 2021, CARICOM approved minimum guidelines for safe cruising which were circulated.⁹ In summary, these are:

- Proof of a negative PCR testing 72 hours before boarding ship (at start of voyage)
- Recommend Vaccination of crew (100%) and passengers over 12 years
- Daily accurate reporting of all symptoms through the Maritime Declaration of Health form

- Immediate reporting of any COVID-19 positive case or COVID-like illness (CLI) cases
- Demonstrated capacity on Ship to isolate, quarantine and test for COVID-19
- Ship capacity to range between 60-70% maximum to promote social distancing.
- Repeat viral testing on ships after 4 days on board ship (Antigen/PCR)
- Implement public health measures on ship: hand sanitisation, mask wearing, social distancing.
- Provide detailed shore and homeporting protocols

4.3 Updates on measures for safer air travel

Air travel has been a concern since the beginning of the COVID-19 pandemic with respect to importation of cases. There is considerable potential for outbreaks of new COVID-19 variants e.g., Omicron stealth variant from imported cases when public health guidance around quarantine of travellers and self-isolation of cases is not adhered to. Risks can be mitigated by measures such as: avoiding non-essential travel, targeted testing and quarantine of travellers from high incidence regions or regions of concern, managed quarantine processes and protocols for rapid investigation and control of transmission from a possible variant.¹⁰ Updated measures for safe air travel include:

Pre-travel measures

- Verify country entry requirements, including documents to fill online, vaccination, polymerase chain reaction (PCR) testing requirements.
- Acquire full vaccination status with a WHO approved vaccine.¹¹
- COVID-19 test: CARPHA recommends the nucleic acid amplification test (NAAT) (e.g., PCR) test as the gold standard because it is > 95% sensitive and >95%specific. If using rapid antigen, ensure ≥80% sensitivity and ≥97% specificity.
- Acquire Travel insurance (to allow for 2-week coverage if person gets COVID-19).
- Book an accommodation that is listed as an approved COVID-19 hotel in the host country.

- Identify an accessible in-hotel or in-country physician, in case of symptoms or other health issues.

During air travel

- Be mindful of international and country-specific travel advisories and travel restrictions (including quarantine requirements) in departure, arrival destinations and transit points.
- Do not travel if symptomatic.
- Wear a medical face mask at all times, double masking if using a cloth mask, if possible, especially if high risk.
- Maintain physical distancing of 2 feet/6 metres apart, avoiding crowded queues, and following floor markings if provided.
- Practice proper hand hygiene, particularly before eating or drinking in open spaces and after use of the toilet.
- Cleaning surfaces in your seat area (e.g., armrests, window shades) with disinfectant wipes.
- Limiting use of on-board services (meals, duty free, even bathrooms where possible).
- Follow respiratory etiquette (i.e., covering of mouth and nose when coughing or sneezing).
- Selecting a window seat if possible.

4.4 Capacity Building

Unlike foodborne gastrointestinal viruses that can make people ill through contaminated food, SARS-CoV-2, a virus which causes COVID-19, a respiratory illness, spreads mainly from person-to-person, either between people who are in close contact with one another or through respiratory droplets produced when an infected person coughs or sneezes.⁶ However, a person can also contract COVID-19 by directly touching surfaces that have “cough or sneeze” droplets from an infected person, and then touching their mouth, nose, or eyes. For that reason, it is imperative that workers in the hospitality sector, including food handlers, be trained in the COVID-19 health guidance as well as the Advanced Food Safety and Environmental Sanitation training. Both trainings build capacity and reinforce good behaviors that help avoid encountering the virus (and pathogens in general), such as proper hand hygiene, food preparations and frequent cleaning

and sanitizing.

To date, 7836 persons from 51 countries (25 CMS and 26 non-CMS) have been trained in the COVID-19 health guidance and THiS sensitization session. During 2021, 88 persons successfully completed the Advanced Food Safety and Environmental Sanitation training.

4.5 Caribbean Travellers Health Assurance Stamp for Healthier, Safer Tourism

This award encourages tourist facilities and services to maintain a high standard by actively reporting on THiS and having their staff trained on COVID-19 health guidance. The attainment of the HST Stamp fosters active collection and reporting of data, not only related to COVID-19, but to other illnesses and syndromes that can negatively affect the reputation and marketability of a tourist destination.

As of February 2022, 101 tourist establishments and facilities in 14 CMS have been awarded the HST Stamp – 78 facilities, 17 tour operators, 5 ground transportation and 1 yacht. The THP continues to work closely with various tourism stakeholders in multiple Caribbean countries to acquire the HST Stamp and to reestablish healthier, safer tourism in the Caribbean region.

4.6 Caribbean Traveller's Health Mobile App

The Caribbean Health Mobile App users can access expert advice and regional health and travel information easily and freely. The provision of reliable health, safety and tourism-related information can increase public awareness and curb the spread of COVID-19. The ability to self-report on the mobile app can boost national health surveillance systems and enhance the collection of data and the appropriate, integrated response, if needed.

As of February 2022, there have been 836 downloads of the app, 301 from Google Play and 535 from the App store. The THP continues to collaborate with countries, tourism establishments and services to ensure accurate and timely dissemination of information circulated on the mobile app weekly.

4.7 Hospitality Health, Safety and Environmental Standards

According to WHO, “the provision of safe water, sanitation, and hygienic conditions are essential to protecting human health during all infectious disease outbreaks.”⁷ The implementation of the Caribbean-wide Health, Safety and Environmental “clean and green” Standards will further contribute to preventing transmission of communicable diseases, including the COVID-19 pandemic. In particular, the HSE standards encompass different components that are relevant to mitigate the spread of the virus, e.g., within the Food Safety and Sanitation component, frequent and proper hand hygiene is one of the key measures to prevent contamination and transmission, and disinfection will facilitate faster die-off of the virus. These HSE standards constitute a critical component of a set of preventive interventions to enhance not only the region’s capacity to respond to the public health threats, but also to support the region’s drive towards achieving quality and sustainability and to remain competitive in this rapidly growing global tourism trade.

4.8 Multisectoral Partnerships

Public health emergency preparedness and response aim to minimize the risks posed by communicable diseases and mitigate their impacts. Sharing and aligning activities in public health emergency preparedness add value to efforts of single countries to strengthen their capacities and ensure coordinated, effective support with cross-border health threats. Responsibility for the preparedness and the response lies not only with public health agencies but involves every level of government, the private sector, non-governmental organizations, and individuals.

Tourism is currently one of the sectors that has been hardest hit by the COVID-19 crisis. Guiding the tourism sector’s response requires strong public-private intersectoral partnerships at national and regional levels between tourism, health, and environment stakeholders. This is the only way to support a rapid and well-coordinated approach to managing the pandemic – and this is what the Tourism and Health Program has executed since its inception.

In response to the crisis, regular webinars were convened with CHTA, CTO and regional Ministers of Tourism to provide technical guidance to the hospitality sector for mitigating the spread of the virus throughout the region. COVID-19 Situation reports, travel briefs and travel advisories, that showcase a consolidated view of the health situation in the Caribbean, are communicated weekly to countries, regional agencies (CARICOM, Caribbean Disaster Emergency Management Agency (CDEMA), Implementation Agency for Crime and Security (IMPACs) international development partners (World Bank, IDB, European Union, European Centre for Disease Prevention and Control) and others. Guidelines for travellers, hotels and guesthouses, food and beverage industry, conveyances, front line workers, ports of entry and cruise ships in the region have also been developed with support from the THP and disseminated to promote a coordinated response.

The COVID-19 Task Force supplements CARICOM’s efforts to extend core health safety protocols throughout the region aimed at decreasing the risk of COVID-19 to residents and visitors and continues to recommend proactive COVID-19 Health Measures to build travellers’ assurance, tourism resilience and regional health security.

Conclusion

The ongoing COVID-19 pandemic continues to cause worldwide disruption. It demonstrates that for new and emerging public threats, it is critical to capture and monitor the variables that drive illness occurrence in real time, informing strategies to tackle emerging and re-emerging infectious diseases. This requires a well-coordinated multi-sectoral response. In particular, the dependence of the Caribbean islands on tourism, the high volume of people travelling to the islands and the speed of international travel, heightens the public health challenges for the region. The novel regional Tourism and Health Program, through its multi-pronged components and multi-sectoral partnerships, is supporting the regional fight against COVID-19. Efforts are already being made to expand this transdisciplinary approach to more countries within the region.

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