THE HEALTH SECTOR SUPPORT PROGRAMME (HSSP) IN BELIZE

FINAL EVALUATION REPORT

Abstract

The final evaluation of the Health Sector Support Programme (HSSP) (2018–2025) assesses its impact on health system resilience, service delivery, and governance in Belize. Using a mixed-methods approach, the evaluation examines relevance, effectiveness, efficiency, sustainability, and visibility. Findings will inform policy recommendations and future health sector planning, ensuring continued improvements in healthcare access, disaster preparedness, and system integration.

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Acronyms and Abbreviations

BHIS	Belize Health Information System
CCS	Country Cooperation Strategy
CDEP	Clinical Data Exchange Platform
CHW	Community Health Worker
CML	Central Medical Laboratory
ERG	Evaluation Reference Group
EU	European Union
HECOPAB	Health Education and Community Participation Bureau
HSSP	Health Sector Support Programme
ICD	International Classification of Diseases
ICM	Integrated Care Model
IHSDN	Integrated Health Service Delivery Network
M&E	Monitoring and Evaluation
MEL	Monitoring, Evaluation, and Learning
MoHW	Ministry of Health and Wellness
NCDs	Non-Communicable Diseases
NEMC	National Emergency Managem33ent Committee
NMH	National Multi-Hazard
NHI	National Health Insurance
PAHO	Pan American Health Organization
PPPs	Public-Private Partnerships
PWR	PAHO/WHO Representative
RAWA	Revenue Allocation and Welfare Administration
RBM	Results-Based Management
ROM	Results-Oriented Monitoring
SMART	Safe, Mitigative, Adaptive, Resilient, and Transformative
SO	Strategic Objective
TOR	Terms of Reference
TWG	Technical Working Group
UNEG	United Nations Evaluation Group
WHO	World Health Organization

1. Executive Summary

Introduction

The Health Sector Support Programme (HSSP) (2018–2025) was established to enhance Belize's health system's resilience, service delivery, and governance. It aligns with the Belize Health Sector Strategic Plan (BHSSP) 2014–2024 and the PAHO/WHO Belize Country Cooperation Strategy (CCS) 2017–2021. Funded by the European Union (EU) and implemented by PAHO/WHO in collaboration with the Ministry of Health and Wellness (MoHW), the HSSP has evolved through an initial agreement and a subsequent amendment.

The programme's overarching goal is to "achieve a better quality of life for all Belizeans, now and in the future." To support this vision, it focuses on three specific objectives:

1) To develop efficient, effective, disaster-resilient, and environmentally friendly health facilities.
2) To improve the structure, organization, and management of health services.
3) To support the tender, installation, and operationalization of a Supply Data Exchange Warehouse and Analytics Platform software (referred to as CDEP) for the Ministry of Health and Wellness.[1]

Evaluation Objectives and Scope

The final evaluation of the HSSP assessed its relevance, effectiveness, efficiency, impact, sustainability, and visibility, identifying successes, challenges, and areas for improvement. It sought to determine whether objectives were met and interventions were sustainable, evaluate the optimal use of resources in achieving intended outcomes, document key lessons learned and best practices, and offer recommendations for future health sector planning and reform.

Methodology

A mixed-methods approach was employed, aligning with the United Nations Evaluation Group (UNEG) principles and PAHO/WHO evaluation guidelines. The evaluation was conducted between January 15 and February 28, 2025, using a triangulated data collection approach, including:

- Document review of HSSP reports, epidemiological data, and government policies.
- Stakeholder consultations through in-person and virtual interviews with representatives from MoHW, PAHO/WHO, EU, healthcare providers, and civil society organizations.
- Site visits to key healthcare facilities, including Southern Regional Hospital, Punta Gorda Community Hospital, Corozal Community Hospital, and the Central Medical Laboratory.
- Quantitative and qualitative analysis of project implementation, performance indicators, and stakeholder feedback.

[1] European Union Delegation Agreement, FED 2018/399-318, Addendum No. 2, March 2021.

Key Findings

1. Relevance

The HSSP aligned highly with Belize's national health priorities and global best practices. It addressed critical gaps in Non-Communicable Diseases (NCD) prevention, climate resilience, and digital health integration, particularly benefiting vulnerable and underserved populations.

2. Effectiveness

By November 26, 2024, the HSSP reported 68% completion in Strategic Objective 1, 90% in Strategic Objective 2, and 100% in Strategic Objective 3.[2]

The HSSP achieved significant milestones, including:

- Facility Retrofitting: Safe, Mitigative, Adaptive, Resilient, and Transformative (SMART) upgrades were completed in 60% of the proposed facilities (Punta Gorda, Corozal, and Southern Regional Hospitals) and almost completed in the Central Medical Laboratory, improving disaster resilience and service delivery.
- Health System Strengthening: Development of an Integrated Care Model (ICM) improved primary healthcare services.
- Structure, organization and management of the health system: A National Nutrition Policy and NCD prevention programs were implemented.
- Digital Health Advancements: The Clinical Data Exchange Platform (CDEP) was developed, improving data interoperability.

Challenges included delays in procurement, administrative bottlenecks, and varying levels of stakeholder engagement, affecting the pace of implementation.

3. Efficiency

The project demonstrated financial and operational efficiency, though procurement delays and budget reallocations posed challenges. Rising construction materials and labour costs and contractor selection difficulties impacted timelines, requiring adaptive management strategies.

4. Impact

Although it is difficult to assess the impact of the HSSB on health outcomes strictly due to the small window of time since the interventions, it is possible to identify impacts in health service delivery. The evaluation found that improvements in healthcare infrastructure enhanced climate resilience and emergency preparedness, increased hospital capabilities (especially for surgery), and reduced patient referrals. HSSP also strengthened policy frameworks, including the National Nutricion Policy and Integrated Care Model.

[2] EU, MoHW Belize, MNRA Belize, PAHO/WHO, HSSP Belize Project Steering Committee Meeting, 26 November 2024

5. Sustainability

Sustainability prospects vary and are subject to contextual changes as well. On the one hand, institutionalized training programs and policy reforms have a strong potential for long-term impact. However, there are important challenges. For example, facility maintenance funding gaps could limit the longevity of SMART hospital upgrades, and digital health governance needs further investment and refinement of technical and legal details to ensure CDEP's full adoption.

6. Visibility

The evaluation found EU and PAHO contributions were effectively communicated through facility signage, branding, and stakeholder engagement. In addition, there were mentions of recognition of the SMART hospital model and digital health initiatives in Belize from other places in the Caribbean. However, public awareness campaigns were limited, suggesting a need for stronger community outreach.

Recommendations

To sustain HSSP gains and guide future health sector development, the evaluation recommends:

Recommendations for the MoHW

1. Ensure the long-term sustainability of the HSSP by strengthening institutional capacity within the MoHW.
2. Advancing the digital health transformation to improve efficiency in health service delivery.
3. Continue developing Belize's health workforce to strengthen primary healthcare services, particularly in rural and underserved areas.
4. Strengthen community engagement and public awareness to contribute to the success of health initiatives.
5. Ensure financial sustainability to reduce reliance on donor funding and secure long-term resources for health sector improvements.

Recommendations for the MoHW and PAHO

1. Improve procurement processes and project management within the MoHW and PAHO to ensure the successful implementation of health sector projects in Belize.

Recommendations for PAHO and the EU

1. To explore strategies to achieve flexibility in project management and execution.

Conclusion

The HSSP has significantly strengthened Belize's healthcare system through infrastructure improvements, digital transformation, and workforce capacity building. However, to ensure long-term benefits, sustainability challenges must be addressed in facility maintenance, financial security, and digital health governance.

2. Introduction

The Health Sector Support Programme (HSSP) (2018–2025) aims to strengthen Belize's health system resilience, service delivery, and governance in alignment with the Belize Health Sector Strategic Plan (BHSSP) 2014–2024 and PAHO/WHO Belize Country Cooperation Strategy (CCS) 2017–2021. Funded by the European Union (EU) and implemented by PAHO/WHO and the Ministry of Health and Wellness (MoHW), after an initial agreement and an amendment to it, the HSSP has as its objective "Achieving a better quality of life for all Belizeans, living now and in the future", and three specific objectives:

1) To develop efficient, effective, disaster-resilient, and environmentally friendly health facilities.
2) To improve health services' structure, organization, and management.
3) To support the tender, installation, and operationalization of a Supply Data Exchange Warehouse and Analytics Platform software (CDEP) for the Ministry of Health and Wellness.[3]

Evaluation Objectives and Scope

The COVID-19 pandemic required strategic adjustments in Belize's health system, shifting resources while maintaining core health interventions. The final evaluation of the HSSP assesses its progress, sustainability, and lessons learned, ensuring long-term institutionalization within the national health system.

The evaluation follows the United Nations Evaluation Group (UNEG) principles and PAHO/WHO standards, ensuring rigor and objectivity. Findings will inform policy recommendations and guide future health sector reforms.

In alignment with the Terms of Reference (TOR) (Appendix 1), this evaluation assessed the progress made toward achieving the HSSP's objectives. It examined the sustainability of implemented initiatives and offered recommendations for future health sector reforms. The evaluation is expected to provide an analysis of the project's implementation. It focuses on its relevance, effectiveness, efficiency, impact, and sustainability while ensuring that resources are optimally utilized to achieve the intended outcomes.

The evaluation documents key successes, identifies challenges, highlights gaps, identifies lessons learned, and outlines opportunities for improvement. This assessment will support evidence-based decision-making and inform strategies for enhancing the resilience and efficiency of the health system in Belize.

The findings from this evaluation will serve as a foundation for strengthening health sector policies and interventions, reinforcing institutional capacities, and ensuring long-term improvements in service delivery. By assessing the extent to which the project outcomes have been institutionalized within the Ministry of Health and Wellness (MoHW) and relevant stakeholders, the evaluation will also provide insights into strategies for sustaining key interventions.

[3] European Union Delegation Agreement, FED 2018/399-318, Addendum No. 2, March 2021.

Components of the Report

This report presents the results of the HSSP final evaluation. It starts by providing background information about the Belize health system, the HSSP, its objectives, key activities, and stakeholders. The report continues by describing the evaluation methodology and tools, including evaluation criteria and questions, data collection and analysis methods, and limitations. Then, the report presents the key findings of the evaluation, first presenting the implementation status at the moment of the evaluation and then presenting findings for each evaluation criterion. The report ends with conclusions, lessons learned, and recommendations from this evaluation.

Limits and Strengths of the Evaluation

An important strength of this evaluation is that it uses different sources of information, allowing the capture of perspectives from stakeholders with different levels of involvement and participation. It attempted to account for external factors that happened during the intervention period (mainly the COVID-19 pandemic with all its health, social, and economic consequences), changes in government priorities, and funding constraints over the intervention period by exploring with stakeholders the possible impact of these external factors and weighting them in the interpretation of results.

However, there are limitations that should be recognized. A key one is that since the evaluation was conducted shortly after the end of the intervention, there is not enough time to see the impact of the interventions on health outcomes like mortality or morbidity or even others related to the use of health services. Finally, this evaluation was conducted in a limited time frame, and specific areas for further analysis may be identified.

3. Background of the Project

The HSSP is a six-year initiative (2018–2024) funded by the EU and implemented in collaboration with the MoHW of Belize and PAHO/WHO. The HSSP aims to strengthen the health system in Belize by improving infrastructure, management, and service delivery, ultimately contributing to better health outcomes for all Belizeans.

The project was originally designed as a five-year program but was later extended by another year following the second amendment of the HSSP Belize (EDF 2018/399-318) contract in March 2021. The total funding allocated by the EU to the project amounts to EUR 8.8 million.

Objectives and Expected Results

The HSSP focuses on three key strategic objectives (SO):

1. SMART Health Facilities (SO1)

This objective aims to develop efficient, disaster-resilient, and environmentally friendly health facilities through retrofitting and improving health infrastructure. Its expected results are:

- Retrofitting of five hospitals and one laboratory (Central Medical Laboratory) to improve climate resilience and energy efficiency.[4]
- Establishment of a preventive maintenance plan for health facilities.
- Creation of a digital repository for infrastructure and facility assessments.

2. Health Systems Strengthening (SO2)

This objective aims to enhance health services' structure, organization, and management. Its expected results are:

- Integrated Health Service Delivery Network approach implemented in all regions, including primary care services
- Health system reorganized with improved efficiencies and organizational management, fostering partnership with different stakeholders
- National Nutrition Policy designed and promoted
- Training in results-based management, strategic planning and program budgeting and Monitoring and Evaluation system functional.

3. Clinical Data Exchange Platform (CDEP) (SO3)

The health sector in Belize uses two information systems. The MoHW uses the Belize Health Information System (BHIS), and the Revenue Allocation and Welfare Administration (RAWA) is used by the National Health Insurance (NHI). While these systems have substantial development and coverage, the communication between these systems is challenging. Therefore, this objective aims to

support tender, installation and operationalization of a Supply Data Exchange Warehouse and Analytics Platform software (CDEP) for the Ministry of Health and Wellness

, with the following expected results:

- Clinical Data Exchange Warehouse and Analytics Platform (referred to as CDEP) software installed and operational.
- Cancer Registry enhancement facilitated
- Health management teams/staff trained in CDEP, surveillance and epidemiology, and ICD 11
- Best to use the exact wording from the agreement

<u>Key Stakeholders and Implementing Partners</u>

PAHO/WHO implements the project in collaboration with MoHW Belize, with funding from the EU. Key stakeholders include government and public institutions, hospitals, technical and development partners, and community-based and private sector partners, as presented in Table 1.

[4] The Hospitals considered for the retrofitting were Northern, Western, and Southern Regional Hospitals; Punta Gorda; and Corozal Community Hospitals. The San Ignacio Community Hospital was originally considered to participate in the project but was removed from the participating facilities.

Table 1: HSSP Key Stakeholders and Implementing Partners

Government and Public Institutions	Health Facilities	Technical and Development Partners	Community-Based and Private Sector Partners
Ministry of Health and Wellness (MoHW) – Primary implementing agency responsible for health service delivery.	Karl Heusner Memorial Hospital (KHMH) (National referral hospital benefiting from capacity-building initiatives.) Regional and Community Hospitals (Northern, Western, Southern, Punta Gorda, and Corozal hospitals, all of which are undergoing SMART facility upgrades). Central Medical Laboratory	PAHO/WHO – (Providing technical expertise, monitoring, and implementation oversight). EU (Funding agency and strategic partner in Belize's health sector development).	National Health Insurance (NHI) Community Health Workers (CHWs) Local and regional health service providers

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Geographic and Sectoral Scope

The HSSP is national in scope, with activities concentrated in regional hospitals, community hospitals, and primary healthcare facilities across all six districts of Belize. The program targets hospital infrastructure, primary healthcare services, data systems integration, and emergency preparedness.

The sectoral scope includes:

- Health infrastructure modernization (retrofitting hospitals and improving maintenance systems).
- Health service delivery improvement (integrated care model, capacity building, governance reforms, nutrition policies).
- Digital transformation of health information (CDEP).
- Emergency and disaster preparedness (SMART hospitals, public health emergency response).

4. Evaluation Methodology and Tools

Purpose and Scope of the Evaluation

The evaluation is structured around a set of key criteria defined in the evaluation TOR (Appendix 1), each associated with a series of critical questions designed to guide the assessment process. The evaluation team has added another evaluation criterion, visibility, to explore perceptions about activities to disseminate the HSSP objectives, actions, and achievements conducted among different stakeholders (Table 2).

Table 2. Evaluation Questions

Criteria	Evaluation questions
Relevance	To what extent were the HSSP objectives aligned with Belize's health needs and priorities, especially in the context of public health challenges such as climate change, COVID-19, and the fragmentation of health data sources? a. How well did the HSSP address the needs of vulnerable and underserved populations, including rural and low-income communities? b. Were the selected strategies and interventions appropriate for achieving the HSSP's goals?
Effectiveness	To what extent did the HSSP achieve its intended objectives and outcomes, particularly in strengthening service delivery, health workforce capacity, and health information systems? a. How effective were the interventions in improving access to and quality healthcare services at different health system levels? b. What were the main factors (both internal and external) that influenced the achievement or non-achievement of the project's objectives? c. What were the main challenges encountered during the implementation of the HSSP, and how were they addressed? d. What were the unintended outcomes (both positive and negative) of the HSSP, and how were they managed? e. How effectively were stakeholders, including the MoHW, regional and local health authorities, and community organizations, engaged in the project's planning, implementation, and monitoring? f. What was the level of community involvement and acceptance of the HSSP initiatives, and how did it impact the project's overall success?
Efficiency	Were the HSSP resources (financial, human, technical, etc.) used optimally to achieve the intended outcomes? a. How well did the project management and implementation structures function? Were there any delays or bottlenecks in the implementation process? b. What cost-effective measures were adopted, and were there any instances of inefficient use of resources?
Impact	What were the measurable changes in health outcomes resulting from the HSSP, such as improvements in service delivery, patient care, and health workforce performance? a. How did the integration of the Belize Health Information System (BHIS) contribute to decision-making, data management, and overall healthcare delivery?

Criteria	Evaluation questions
	b. How did the project impact the health sector's resilience and preparedness for future public health emergencies?
Sustainability	To what extent are the project outcomes and benefits likely to be sustained after the project ends? a. Have the health systems, processes, and capacities strengthened by the project been institutionalized within the Ministry of Health and Wellness (MoHW) and other relevant stakeholders? b. b. What measures have been put in place to ensure the continuity of key interventions, particularly regarding funding, capacity, and stakeholder commitment?
Visibility	How do different stakeholders perceive activities to inform about the project and its impact?

Methodology and Tools (Data Collection, Analysis)

The final evaluation of the HSSP employed a mixed-methods approach, integrating both qualitative and quantitative data to provide a comprehensive assessment of the project's relevance, effectiveness, efficiency, impact, sustainability, and visibility. The methodology adhered to internationally recognized evaluation standards, including the United Nations Evaluation Group (UNEG) Principles and PAHO/WHO evaluation guidelines, ensuring rigor, objectivity, and alignment with global best practices.

Conducted by two external consultants—one of whom is based in Belize (Appendix 2)—the evaluation took place between January 15 and February 28, 2025. It was structured around predefined evaluation questions and sub-questions to ensure a systematic and targeted analysis.

To enhance understanding of the project's intended pathways of change, a retrospective Theory of Change (ToC) was developed. This framework mapped key inputs, activities, outputs, outcomes, and impacts, providing deeper insight into the project's mechanisms and overall contribution to its objectives.

Data Collection Approach

A preparation phase for data collection involved initial discussions between the evaluation consultants and the PAHO Belize team to finalize the timeline and onboard the evaluation team. This phase took place from January 20 to 31, 2025. Concurrently, document collection for the desk review began, along with the identification of key stakeholders and locations for site visits. Interview guidelines and consent letters were prepared, and interviews and site visits were scheduled with support from PAHO officers. The consulting team prepared and submitted an inception report for review and discussion.

A triangulated approach was applied to integrate multiple data sources, ensuring a comprehensive and credible evaluation. The data collection included the following components:

Document Review (Desk Review)

An in-depth review of project documents and relevant epidemiological and health system data was conducted to evaluate the HSSP's impact on health system performance, service delivery, quality of care, and governance. The document review included a careful review of HSSP annual

progress reports, exit reports, as well as the Results-Oriented Monitoring (ROM) report. Particular attention was given to:

- Identifying changes over time attributable to the project.
- Assessing the influence of contextual factors on project outcomes/impact.

Stakeholder Consultations (In-Person & Virtual Interviews)

Consultations with national and international stakeholders were conducted in-person and virtually to capture diverse perspectives on the project's implementation, successes, challenges, and sustainability. Since some key individuals may have transitioned out of their roles, virtual engagement was facilitated as necessary. PAHO and program personnel provided guidance in identifying priority interviewees and supporting the scheduling process.

Interviews were conducted remotely between January 29 and February 10, 2025. In-person interviews were conducted over a visit to Belize from February 3 to 7, 2025. All interviews were conducted after informing the participants about the evaluation objectives and methods, clarifying any questions, asking for permission to record the interviews, and obtaining a signed consent form. Data collection tools are presented in Appendix 3, and the list of interviewed stakeholders in Appendix 4.

Site Visits

A selection of in-person site visits were conducted to assess the physical condition of health facilities and the settings in which some interventions were conducted at the community level. These visits provided firsthand insights into the progress, contextual challenges, and implementation realities. The selection of facilities and communities was based on the progress of activities implemented there, and the final list was determined in consultation with PAHO officers.

The site visits were conducted between February 3 and 7, 2025, and included the Central Medical Laboratory (CMT), Southern Regional Hospital (SRH), Punta Gorda Community Hospital (PGCH), Corozal Community Hospital (CCH), and the community of Dolores in the Toledo District.

Data Analysis Approach

The evaluation integrated findings from the document review, stakeholder consultations, and site visits to triangulate information, validate findings, and ensure robust conclusions.

- Quantitative Analysis: Review of quantitative indicators from project reports, exit reports, committee meetings presentations, and LogFrame matrix.
- Qualitative Analysis: Thematic analysis of stakeholder interviews and site visits to capture insights on project effectiveness, challenges, and lessons learned. Analysis of information provided in interviews by different stakeholders to questions related to each evaluation criterion. For the case of site visits, analysis of information provided in interviews by personnel of sites visited for each evaluation criteria, and inclusion of information derived from the on-site observations.

- Triangulation: Comparison across data sources to detect cases of agreement and disagreement, enhance credibility and reliability.

Stakeholder Validation & Reporting

Preliminary findings were shared with the Evaluation Reference Group (ERG) in a draft version of this report to get feedback and comments, validate insights, address gaps, and refine recommendations.

Limitations and challenges of the evaluation

This is a final evaluation conducted with limited resources and timeframe. Due to time and resource limitations, the evaluation relied on documented information, including primary data collection only from stakeholders' interviews and site visits. Some aspects, like the final impact of the project on health outcomes or the satisfaction of specific components like the integration of health information systems, may require more time or the full implementation of the activities to be assessed. Other analyses that may require other sources of information are beyond the scope of this evaluation.

In addition, this evaluation relies on the information provided by key stakeholders or included in published reports. Although triangulation methods were used to detect concordances and areas of disagreement, this report limits the findings, even concordant or discordant, since we may not have other sources of hard information to use as a gold standard.

Although there is an important body of information for the document review, and it was possible to collect more information for this evaluation through interviews and site visits, the availability of reliable and comprehensive project data could be a challenge, particularly if health information systems are not fully integrated or if some reports are incomplete. Any gaps in data could limit the depth of analysis. Therefore, integration is not fully completed, and the data needed for the analysis of specific areas such as user satisfaction is not possible.

5. Key Findings

This section outlines the key findings from the evaluation of the HSSP. It begins with an overview of the implementation status at the time of the evaluation, followed by a structured presentation of findings based on the previously defined evaluation criteria. Additionally, it highlights any unexpected positive and negative outcomes that emerged during implementation.

Implementation Status at the Time of the Evaluation

At the moment of the evaluation (February 2025), significant progress has been made across all three strategic objectives. Based on Year 6 Annual Report (July 2023 – June 2024)[5] , the notes from the HSSP Belize Project Steering Committee Meeting (26 November 2024)[6] and the information collected in interviews and site visits:

1. Under SO1 (SMART Health Facilities), the steering committee meeting notes report a progress of 68%, including:
   - Completed retrofitting of three out of five (60%) facilities: Punta Gorda, Corozal, and Southern Regional Hospitals.
   - Substantial progress in the retrofitting at the Central Medical Laboratory, with expected completion by February 2025.
   - Designs and bid processes for Northern and Western Regional Hospitals are ongoing.

2. Under SO2 (Health Systems Strengthening), the steering committee meeting notes report a progress of 90%, including:
   - Capacity assessment, gap analysis and workplan to address priority gaps for essential public health functions (EPHF) were completed, along with the mapping of public policies and legislations to the EPHFs.
   - Integrated health service delivery approach implemented for HEARTS and mhGap, including procurement of equipment and supplies to support implementation of HEARTS.
   - The National Nutrition Policy was completed and launched in June 2023.
   - Strengthened capacity to provide mental health services in the primary care settings through training.
   - Health promotion/education and screening outreach activities conducted.
   - Study tour to Chile to facilitate strengthening the organization of primary health care (PHC) in advancing reform.
   - National Cancer plan and Cervical Cancer Plan in draft and staff trained in their use.
   - Informants also reported the development of the National health strategic plan using the findings from the EPHF capacity and gap assessment and the development of the National Human Resources for Health Policy and Plan.

3. Under SO3 (Clinical Data Exchange Platform), the steering committee meeting notes report a progress of 100%, including:

[5] EU, MoHW Belize, MNRA Belize, PAHO/WHO, HSSP Belize Year 6 Annual Report 1 July 2023-30 June 2024.
[6] EU, MoHW Belize, MNRA Belize, PAHO/WHO, HSSP Belize Project Steering Committee Meeting, 26 November 2024

- CEDP agreements for full interoperability of BHIS and RAWA were established, and capacity building on various CDEP components for the MoHW team took place.
- Alignment of Belize clinical data to international standards.
- Use case development and finalization of tools of CDEP.
- Integration of ICD-11 in BHIS.
- Cancer registry template integrated into the CDEP.
- The CDEP was completed and handed over to the MoHW for implementation in September 2024.

Despite progress in all three objectives, key challenges remain, including technical aspects of the operation, administrative delays, and sustainability concerns regarding maintenance funding and long-term system integration, which are presented for each criterion below.

5.1 Findings Organized by Evaluation Criteria

5.1.1 Relevance: Alignment with National Health Priorities and Global Best Practices

The relevance criterion assesses how well the HSSP aligns with Belize's health needs and priorities, particularly in addressing public health challenges such as climate change, COVID-19, and the fragmentation of health data sources. The evaluation also examines how effectively the HSSP addresses the needs of vulnerable and underserved populations, including rural and low-income communities, and whether its interventions were appropriate for achieving project goals.

A review of documentary evidence, interviews, and site visits confirms that the HSSP's objectives align well with Belize's national health priorities. Table 3 below illustrates this alignment by mapping the HSSP's strategic objectives against the Belize Health Sector Strategic Plan 2014-2024, showing a strong correlation between them.

Table 3. Alignment of HSSP Strategic Objectives & Belize Health Sector Strategic Plan 2014-2024

HSSP Strategic Objectives	Belize Health Sector Strategic Plan 2014-2024 Strategic Objectives
Integrate health services based on PHC	Strengthen the organization and management of health services; Achieve greater equity, cost-effectiveness, and efficiency in health resource allocation.
Strengthen human resource capacity	Strengthen capacity for human resources planning to meet present and future health sector needs.
Improve health information systems (BHIS & RAWA integration)	Strengthen the Belize Health Information System to support evidence-based planning; Develop a quality improvement framework to ensure stakeholder accountability.
Enhance health infrastructure resilience and sustainability	Develop efficient, disaster-resilient, and environmentally friendly health facilities.
Support digital transformation and data exchange (CDEP)	Improve the structure, organization, and management of health services; Support tender, installation, and operationalization of a Clinical Data Exchange Platform (CDEP).

The growing burden of NCDs in Belize further validates the relevance of HSSP interventions. The program's activities, including preventive measures, community health outreach, and facility reinforcements, align with national priorities to reduce NCD prevalence through early detection, education, and improved service delivery.

Additionally, the Smart Hospitals Initiative, built on PAHO's Safe Hospital Initiative, enhances Belize's resilience to hurricanes, earthquakes, and climate-related disasters. Structural upgrades and green technology integration improve safety, sustainability, and maintenance efficiency. However, the reallocation of resources to address COVID-19 emergency needs posed a challenge to maintaining full implementation of this initiative.

Stakeholder consultations confirmed that the HSSP's objectives align closely with the Belize National Health Plan, with the MoHW playing an active role in project design and execution. The program was built around MoHW priorities, ensuring that underserved populations were directly targeted in HSSP activities. Stakeholders also emphasized HSSP's role in integrating health service delivery, helping reduce fragmentation in the health system. The program demonstrated adaptability to changing health priorities, as seen in its response to the COVID-19 pandemic and evolving NCD prevention strategies.

While Belize has a well-developed health information system, stakeholders acknowledged ongoing connectivity and interoperability challenges between BHIS and RAWA. The development of CDEP under HSSP directly responds to this gap by improving data communication, case follow-up and reducing duplicate entries across systems.

The HSSP's strategic alignment with national health priorities underscores its relevance in enhancing healthcare infrastructure, digital transformation, and service integration. While external factors, such as COVID-19 resource reallocation, digital infrastructure gaps, and interoperability challenges, have presented obstacles, this alignment indicates the program can be an important contributor to Belize's long-term health sector strengthening.

5.1.2 Effectiveness: Achievement of Planned Outputs and Outcomes

This section evaluates the extent to which the interventions successfully strengthened service delivery, enhanced health workforce capacity, and improved health information systems. The analysis considers key achievements, factors influencing success or failure, challenges encountered, unintended outcomes, and stakeholder engagement.

Each strategic objective is examined separately, highlighting major accomplishments and barriers to implementation. The findings presented in this section are supported by data from annual reports, exit reports, stakeholder interviews, and site visits, with a summary of results provided in the corresponding tables in Appendix 5. The following subsections detail the effectiveness of HSSP under each strategic objective.

5.1.2.1 Objective 1: Efficient, Effective, and Disaster-Resilient Health Facilities

Achievement of Intended Objectives and Outcomes

One of the most significant accomplishments under Specific Objective 1 was the implementation of SMART hospital principles, which significantly improved disaster resilience, climate adaptation, and operational efficiency in healthcare facilities across Belize. The HSSP focused on retrofitting key regional hospitals and strengthening their ability to withstand extreme weather

events, optimize energy efficiency, and enhance patient safety. These efforts aligned with the project LogFrame target of ensuring that at least three (3) regional hospitals complied with the Hospital Safety Index (HSI) by the end of the project, with an A70 rating being the benchmark for high disaster resilience.

Substantial progress was made toward this goal, with the completion of retrofitting works at Punta Gorda Community, Corozal Community, and Southern Regional Hospitals. These hospitals underwent structural reinforcements, electrical upgrades, installation of solar energy systems, and improvements to water and waste management systems to enhance climate resilience and reduce operational vulnerabilities. Meanwhile, retrofitting efforts at Northern and Western Regional Hospitals and the Central Medical Laboratory[7] remain ongoing, delaying full compliance with the HSI A70 target. According to the LogFrame target, the expectation was for two regional and three community hospitals to achieve the A70 rating, signifying that they meet international disaster resilience and structural safety standards. It is important to highlight the retrofitting was completed overcoming unexpected challenges in construction conditions or construction type (like in the Southern Regional Hospital).

The LogFrame also set a target of 50 health facilities utilizing the SMART Facility Base Assessment Tool, which was achieved during the early phase of project implementation. This tool guided the evaluation of facility vulnerabilities, retrofitting needs, and sustainability measures across the healthcare network. Additionally, the LogFrame aimed to develop a multi-hazard plan and training for all disaster response teams fully, both of which were completed, ensuring that health staff were adequately prepared to manage emergencies and climate-related risks.

An important advancement under Specific Objective 1 was developing and implementing a Preventive Maintenance Plan (PMP) to ensure the sustainability of infrastructure investments and reduce long-term operational costs in upgraded healthcare facilities. This plan aimed to establish a structured and systematic approach to maintenance, addressing common vulnerabilities in health infrastructure, such as wear and tear, equipment failures, and climate-related damages.

The plan was crucial for SMART hospitals, which require specialized upkeep of disaster-resilient features, solar energy systems, and modernized infrastructure. As part of this initiative, training in preventive maintenance was provided to the National Engineering and Maintenance Center (NEMC) staff and regional maintenance teams, equipping them with the skills necessary to effectively manage infrastructure and medical equipment. However, despite these efforts, the full institutionalization of the PMP within the MoHW remains incomplete, as integration into MoHW's operational policies and budgetary planning has been slow, which presents a risk to the long-term durability of upgraded facilities.

While the project achieved notable advancements in hospital retrofitting and SMART facility implementation, the ongoing works at key regional hospitals and the CML mean full compliance with the HSI A70 rating has yet to be confirmed for some facilities. The full LogFrame targets will not be met, noting that retrofitting at the Western and Northern Regional Hospitals will not be done. Integrating long-term maintenance plans to preserve the gains made in health system resilience and infrastructure modernization will be essential.

[7] According to stakeholder interviews, WRH and NRH will only be provided with the installation of solar energy systems and not the retrofitting as was done at the other health facilities.

Effectiveness in Improving Access to and Quality of Healthcare Services

Under Specific Objective 1, the HSSP contributed to enhancing the quality and resilience of healthcare facilities, leading to improved service delivery across multiple levels of the health system. Although the program did not directly increase the number of healthcare access points, its infrastructure investments, capacity-building initiatives, and digitalization efforts supported better service quality, operational efficiency, and climate resilience, particularly in vulnerable regions like Punta Gorda and Corozal Town.

One of the most impactful interventions was infrastructure retrofitting, which provided upgraded patient care environments, optimized facility workflows, and enhanced the ability of community hospitals to deliver essential services. The retrofitting of hospitals under the SMART Hospital initiative further strengthened health system resilience, ensuring facilities could withstand climate-related disruptions and continue providing uninterrupted services. For example, at the Punta Gorda Hospital, the installation of emergency diesel generators and improvements to the surgical suite have enabled the hospital to conduct surgeries on-site, reducing the need for patient referrals to regional hospitals. Before these upgrades, the hospital lacked reliable backup power, which limited surgical capacity and emergency response capabilities.

Capacity-building initiatives strengthened human resource capabilities, particularly in preventive maintenance, disaster preparedness, and gender-sensitive emergency response. These training programs targeted health facility managers, maintenance personnel, and frontline healthcare workers, equipping them with the skills to ensure sustained facility operations and efficient emergency response protocols.

The digitalization of facility designs and establishing a repository introduced a modernized approach to data management, expected to enhance long-term decision-making, resource allocation, and overall efficiency in facility management. These advancements in health data management are anticipated to streamline operations, reduce administrative burdens, and support evidence-based planning at the facility and policy levels.

Factors Influencing Project Success

Several internal and external factors played a role in the achievement (or non-achievement) of SO1 objectives:

a) Internal Factors

A key driver of success was the strong technical guidance provided by PAHO and the MoHW. Their collaboration ensured adherence to SMART hospital standards, maintaining international best practices in hospital retrofitting, disaster resilience, and climate adaptation. The technical support provided by PAHO experts helped address structural challenges in facility upgrades, ensuring that modifications aligned with safety, sustainability, and energy efficiency requirements.

Additionally, the project benefited from structured planning and assessment tools, such as the SMART Facility Base Assessment, which served as a critical decision-making tool in identifying infrastructure weaknesses and prioritizing retrofitting efforts. The data-driven approach to facility selection helped streamline project execution and resource allocation, ensuring that investments were directed toward the most vulnerable healthcare facilities.

The early involvement of key stakeholders, particularly in facility selection, risk assessment, and disaster preparedness planning, contributed to the smooth execution of infrastructure upgrades. Engaging hospital administrators, facility managers, and local disaster response teams from the outset enhanced project buy-in, encouraged collaboration, and minimized resistance to operational changes.

b) External Factors

Despite these internal strengths, the project faced several external challenges that delayed implementation timelines and hindered efficiency. One of the most significant barriers was procurement and construction delays, which stemmed from difficulties in identifying qualified contractors, extended bidding processes, and administrative bottlenecks in contract approvals. These challenges resulted in delays in hospital retrofitting works and slowed progress in operationalizing upgraded facilities.

The COVID-19 pandemic exacerbated these delays, as global supply chain disruptions limited the availability of construction materials, medical equipment, and key infrastructure components. Price fluctuations and shipping delays increased project costs and forced adjustments to the implementation schedule.

Additionally, changes in government leadership and shifting institutional priorities affected long-term commitment to maintenance and operationalization efforts. Political transitions led to changes in MoHW leadership, which occasionally delayed decision-making processes, restructured institutional priorities, and disrupted continuity in project oversight. While the technical foundation for sustainability was established, ensuring continued government commitment to funding maintenance and operationalization remains a long-term challenge.

Challenges Encountered and Mitigation Strategies

Table 4 shows the main challenges during project implementation and the mitigation strategies employed.

Table 4: Challenges & Mitigation Strategies

Challenge	Mitigation Strategy
Delays in contractor selection and obtaining bids for the required work. The required retrofitting work was too large for small contractors and too small for big ones, making it difficult to identify suitable contractors and obtain bids.	Adjusted bond certificate thresholds to more realistic levels, allowing intermediate-sized contractors to participate. Combined multiple projects into a single tender package. Online orientation sessions were provided to guide potential bidders through the registration process on the UNGM portal. organized site visits for potential bidders to assess the scope of work firsthand
Delays in retrofitting works due to contractor performance issues.	Implemented stricter contract management and oversight mechanisms.
Identification of non-expected problems in the construction or characteristics of the	Early identification of problems that needed to be addressed before moving on to the initially identified areas for retrofitting; e.g. deteriorated columns at SRH that

Challenge	Mitigation Strategy
construction that delayed the retrofitting activities.	needed to be addressed before anything else could be done.
Difficulty in integrating the facility maintenance plan into MoHW operations.	Conducted training programs and promoted institutional adoption.
Limited financial sustainability planning for infrastructure upkeep.	Engaged government stakeholders to advocate for dedicated maintenance budgets.
Procurement delays affecting material availability.	Adjusted work plans to accommodate supply chain disruptions.

Unintended Outcomes

The HSSP produced both positive and negative unintended outcomes:

a) Positive

One of the most notable positive effects of the HSSP was the growing interest in SMART hospital principles beyond the initially targeted facilities. As the retrofitting of hospitals demonstrated tangible benefits in disaster resilience, operational efficiency, and sustainability, additional healthcare institutions and policymakers expressed interest in adopting similar infrastructure improvements. This unexpected ripple effect has encouraged discussions about scaling up SMART hospital approaches nationwide and exploring policy reforms to embed disaster-resilient infrastructure standards across Belize's health sector.

Another significant spillover benefit was the enhanced disaster preparedness across the healthcare workforce. The training provided to hospital personnel on emergency response, disaster risk reduction, and climate resilience extended beyond the targeted facilities, benefiting regional and community healthcare workers who were indirectly exposed to the knowledge and protocols shared through the program. This contributed to improved emergency response capabilities and disaster risk awareness across multiple levels of the health system beyond the originally intended scope of the project.

Furthermore, the HSSP sparked greater discussions around sustainability and long-term facility management within MoHW and healthcare facility leadership. The retrofitting process not only modernized physical infrastructure but also encouraged dialogue on the integration of green energy solutions and preventive maintenance planning. This shift in perspective is a crucial step toward ensuring the sustainability of healthcare investments and has led to exploratory efforts to integrate renewable energy solutions into future hospital designs.

Additionally, other organizations and donors were interested in supporting further hospital upgrades after witnessing the impact of the HSSP retrofitting projects. This occurred at the Corozal Community Hospital, where members of the business community and some prominent residents contributed resources for further retrofitting spaces, for example, the painting/design of the children's ward, that were not addressed by the HSSP program.

b) Negative

Despite its successes, the HSSP faced unintended outcomes requiring further intervention and long-term support. One such challenge was the underutilization of digital facility records. While the project successfully developed a digital repository to improve facility management and data-driven decision-making, many regional health teams struggle to integrate these digital tools into daily operations. Gaps in technical training and digital literacy among healthcare workers created barriers to adoption, limiting the full potential of the digital system. Without additional capacity-building efforts and technical support, these systems risk becoming underused or obsolete, reducing their intended impact.

Once the retrofitting was completed in some facilities, an unintended outcome (which in turn posed a challenge) was the need for dedicated budgets for long-term maintenance of retrofitted facilities. While the SMART hospital upgrades improved energy efficiency, climate resilience, and operational sustainability, all the facilities lacked financial planning mechanisms to ensure proper maintenance and upkeep beyond the project's timeframe. Stakeholder interviews revealed concerns that some newly improved hospitals may struggle to sustain their upgraded infrastructure over time without clear government commitment to maintenance funding.

The unintended outcomes of the HSSP underscore both promising opportunities and areas for further support. The growing interest in SMART hospital principles, expanded disaster preparedness training, and additional financial commitments from external donors highlight the program's success in driving systemic change beyond its original scope. However, challenges related to digital record utilization and long-term facility maintenance signal the need for continued investment in training, sustainability planning, and financial resource allocation.

Stakeholder and Community Engagement

Various stakeholders were engaged with strategic objective 1, including the MoHW, regional and local health authorities, community organizations, and contractors. The MoHW and regional and local health authorities played a pivotal role in project execution, particularly in facility selection, retrofitting works oversight, and training program implementation. Their involvement ensured that infrastructure upgrades aligned with national health priorities and that SMART hospital standards were maintained. Additionally, regional health officials actively participated in capacity-building initiatives, particularly in disaster preparedness, digital health training, and results-based management. These efforts helped strengthen the institutional capacity of regional health teams, though some gaps remain in fully integrating monitoring and evaluation (M&E) frameworks into routine operations.

Community engagement in the HSSP was relatively limited, with varying levels of participation across different interventions. While community health workers were trained in emergency response protocols, broader community consultations on facility upgrades, service delivery improvements, and health system reforms were not systematically conducted. As a result, while communities that directly benefited from facility improvements appreciated the changes, many local populations remained unaware of the full scope of improvements and their implications for health service delivery.

The private sector was minimally engaged in the retrofitting activities as contractors and sustainability strategies for infrastructure maintenance and future funding mechanisms. Although some private organizations expressed interest in funding additional facility improvements, there was no structured framework in place to facilitate collaboration between the government and private sector partners. This lack of public-private partnerships may have resulted in missed opportunities to secure long-term maintenance funding for SMART hospital infrastructure.

5.1.2.2 Objective 2: Health system strengthened in collaboration with an organized monitoring and evaluation system.

Achievement of Intended Objectives and Outcomes

Specific Objective 2 focused on strengthening health system governance, improving service delivery models, and enhancing health sector monitoring and evaluation (M&E) capacity. Several key initiatives were implemented to achieve these objectives, with mixed success in meeting LogFrame targets.

A comprehensive assessment of Belize's Health Sector Reform was conducted to evaluate system inefficiencies and propose strategic recommendations for organizational restructuring and improved governance. This assessment involved key stakeholders, including the MoHW, PAHO/WHO, the NHI, and KHMH, and led to several governance reforms to enhance health system efficiency, accountability, and service integration. One of the primary actions taken was the reorganization of MoHW's governance structure, which sought to improve decision-making processes, resource allocation, and oversight of health services. This included:

- Defining clearer roles and responsibilities within MoHW to streamline operational processes and reduce bureaucratic delays in implementing health sector initiatives.
- The establishment of a Health Sector Reform Technical Working Group, which facilitated inter-agency collaboration and policy alignment between MoHW, NHI, and regional health authorities.
- A Fiscal Space Study for the health sector, which identified potential sources of funding for the expansion of the NHI and provided a financial sustainability roadmap for future reforms.
- A costing study and phased rollout plan for expanding the NHI, ensuring that health financing strategies were data-driven and aligned with national priorities.

The Integrated Health Service Delivery Network approach was also introduced to improve coordination across healthcare services, particularly at the primary care level. This reform helped reduce fragmentation, enhance patient referral systems, and promote a more integrated approach to service delivery.

The Health Sector Reform assessment's recommendations were partially integrated into the HSSP, including improved coordination through the Integrated Care Model (ICM) and developing a results-based Monitoring & Evaluation (M&E) system. Full-scale implementation of the governance restructuring proposals remains a work in progress, requiring further policy adoption, stronger institutional buy-in, and sustained financial commitment. While significant progress has been made in strengthening organizational management and financial planning, continued

efforts are necessary to institutionalize governance reforms and ensure long-term health sector sustainability fully. The Health Sector Strategic Plan and the Human Resources for Health Policy and Plan play a key role in this. For example, the Health Sector Strategic Plan has the M&E component not considered by the MoHW before, what constitutes an important contribution.

The ICM was piloted in select regions to improve primary healthcare coordination, strengthen referral pathways, and enhance service integration. The model introduced structured communication channels between community health workers, regional hospitals, and specialist services, resulting in reduced patient wait times, improved service delivery efficiency, and better continuity of care. Despite its positive impact on healthcare coordination, the ICM faced challenges related to funding constraints and human resource limitations, leading to a phased rollout approach rather than nationwide implementation. The LogFrame projected that ICM implementation would strengthen service integration at the primary healthcare level. While the pilot demonstrated notable success, expansion efforts remain dependent on additional financial and policy support.

The National Nutrition Policy was finalized and approved, incorporating stakeholder consultations and policy alignment with national development goals. This policy is a strategic framework for addressing malnutrition, improving dietary habits, and promoting nutrition education across Belize.

Additionally, HSSP launched Non-Communicable Disease (NCD) prevention initiatives, including school-based nutrition programs, community health fairs, and public awareness campaigns. These programs aimed to increase community engagement in preventive healthcare, promote healthy lifestyles, and reduce the prevalence of NCDs. While these initiatives improved public awareness and promoted early prevention strategies, the full implementation of NCD prevention activities remains ongoing, albeit less extensive. These initiatives require sustained government commitment and cross-sector collaboration to be effective and sustained.

To enhance MoHW's strategic planning and financial management capabilities, HSSP provided training in results-based management, strategic planning, and program budgeting. This training was delivered to health facility managers, MoHW technical personnel, and regional health authorities, to improve institutional capacity for evidence-based policy formulation and financial planning. Despite the success of training activities, staff retention challenges and limited institutionalization of results-based management principles within MoHW have affected the long-term impact of these interventions. The LogFrame targeted capacity-building for MoHW staff, and while the program achieved notable success in workforce development, ensuring continuity and institutionalization remains an ongoing challenge.

Another key achievement under Specific Objective 2 was developing and integrating an M&E framework into MoHW's operational systems to enhance data collection, performance tracking, and policy evaluation. M&E training was provided to health sector personnel, public health officers, health facility administrators, and regional health authorities, thereby strengthening their ability to monitor key health indicators and evaluate program performance. While the LogFrame projected full integration of an M&E system, some challenges remain in fully institutionalizing its usage across all health facilities, requiring continued capacity-building efforts and policy reinforcement. As mentioned above, the Health Sector Strategic Plan now has the M&E component not considered by the MoHW before.

Effectiveness in Improving Access to and Quality of Healthcare Services

Under Specific Objective 2, the HSSP contributed to service delivery improvements through public awareness initiatives and capacity-building programs. These efforts enhanced preventive healthcare approaches aimed at promoting overall health. While the program strengthened early intervention strategies and encouraged proactive health-seeking behaviours through school-based nutrition programs, public health campaigns, and prevention of risk factors, there is no evidence to suggest that these initiatives led to a measurable reduction in the prevalence of NCDs yet, taking into account such reduction take time to be identifiable.

A key initiative, the National Nutrition Policy, introduced educational programs promoting healthy lifestyle choices and early screening for NCD risk factors. These campaigns targeted schools and community health programs to reinforce preventive care and dietary improvements among Belize's most vulnerable populations. Additionally, efforts to enhance disease surveillance and implement digital health interventions were expected to strengthen early detection capabilities, potentially enabling health authorities to anticipate and respond more effectively to public health threats. However, the extent of actual improvements in early detection and response remains to be fully assessed.

A crucial factor in the HSSP's success was its investment in healthcare workforce development. The program provided targeted training in preventive maintenance, disaster preparedness, and gender-sensitive emergency response, equipping regional and community health personnel with essential skills to sustain and manage healthcare improvements. Training in results-based management and program budgeting further enhanced the MoHW staff's ability to plan, monitor, and allocate resources effectively, ensuring long-term sustainability.

While the full impact of the HSSP on service delivery improvements is still being assessed, its public health initiatives and capacity-building efforts have laid a strong foundation for a more resilient health system.

Factors Influencing Project Success

Several internal and external factors played a role in the achievement (or non-achievement) of SO2 objectives:

a) Internal Factors

Active engagement from the MoHW played a pivotal role in policy implementation and alignment with national health priorities. The MoHW leadership guided key initiatives, particularly in developing the National Nutrition Policy and piloting the ICM. For example, MoHW officials actively participated in defining the ICM framework and selecting pilot regions to test its effectiveness in improving primary healthcare access. Their involvement in governance and decision-making structures ensured project activities aligned with broader health sector reforms, facilitating smooth policy adoption. However, leadership transitions and administrative shifts within the MoHW affected continuity in project execution, particularly in the institutionalization of digital health systems and M&E frameworks.

The HSSP significantly invested in building the capacity of MoHW staff through structured training programs in RBM, strategic planning, and program budgeting. These trainings enhanced the ability of MoHW staff to analyze health system performance, allocate resources efficiently, and implement evidence-based decision-making processes. Specifically, train-the-trainer

workshops were implemented to ensure knowledge transfer within MoHW teams. Personnel from the Planning Unit, Epidemiology Unit, and Finance Department were the primary beneficiaries, improving the ministry's capacity for long-term strategic health planning. Despite these training efforts, stakeholder interviews indicated challenges in fully applying RBM principles, particularly in integrating M&E systems into routine operations. Some MoHW staff lacked the technical expertise to utilize performance-tracking tools effectively, indicating the need for continuous training and mentorship.

While the ICM was designed to enhance coordination across healthcare services, financial constraints led to phased rollouts instead of a nationwide implementation. Although the ICM improved service delivery at pilot sites, limitations in financial and human resources created gaps in coordination between primary care providers and specialist services.

b) External Factors

One of the most significant external influences was cross-sector collaboration. The involvement of the education and nutrition sectors played a crucial role in advancing health promotion initiatives. Through coordinated efforts, health messaging and nutrition awareness campaigns reached a broader population, strengthening the impact of preventive healthcare measures. Reports indicate that these collaborations enhanced policy coherence and ensured health initiatives aligned with broader national development goals. The engagement of these sectors helped reinforce the importance of integrated service delivery, particularly in community health programs.

However, COVID-19 disruptions posed a major challenge to implementing SO2 activities. The pandemic led to widespread delays in training programs, pilot projects, and the rollout of key health initiatives. Travel restrictions and the reallocation of health resources toward pandemic response efforts significantly affected the project's momentum. Annual reports highlight several planned activities that had to be postponed or restructured to adapt to the evolving health crisis. These disruptions underscored the need for flexible project management and adaptive strategies to ensure continuity in implementation.

Financial constraints also played a critical role in shaping the scope of SO2 implementation. Stakeholder interviews revealed that budgetary limitations delayed the full execution of the ICM, necessitating a phased rollout instead of a nationwide expansion. The source of financial constraints varied from funding shortfalls within the national health budget to delays in donor disbursements. While external funding was secured for certain components of SO2, inconsistencies in financial flow created challenges in sustaining long-term program activities. From the perspective of implementing partners and MoHW officials, these constraints necessitated prioritizing certain regions over others, limiting the model's scalability. The inability to secure adequate funding for full-scale implementation meant that coordination gaps between primary and specialist care services remained unaddressed in some areas.

Despite these challenges, the project benefited from strong institutional commitment and strategic alignment with MoHW priorities. The alignment of SO2 activities with national health sector reforms facilitated continued progress, even when external challenges arose. Government stakeholders remained engaged in key decision-making processes, ensuring that project objectives stayed relevant despite financial and logistical hurdles. Additionally, the collaborative approach taken by implementing partners allowed for strategic adjustments to project timelines, mitigating some of the adverse effects caused by external disruptions.

Challenges Encountered and Mitigation Strategies

Table 5 shows the main challenges that arose during project implementation and the mitigation strategies employed.

Table 5: Challenges & Mitigation Strategies

Challenge	Mitigation Strategy
Delays in implementing the Integrated Care Model due to limited resources.	Phased implementation and pilot testing in select regions before full-scale rollout.
Insufficient staffing for training programs.	Conducted train-the-trainer programs to expand training capacity across MoHW teams.
Difficulties in integrating the M&E framework with existing MoHW systems.	Conducted technical training sessions and established data collection protocols for smooth adoption.

Unintended Outcomes

The HSSP produced both positive and negative unintended outcomes:

a) Positive

One of the most notable positive unintended outcomes was the increased collaboration between the MoHW and the education sector. The integration of NCD prevention and school-based health programs led to strengthened partnerships between health and education authorities, facilitating joint policy development and cross-sectoral initiatives. This collaboration extended beyond the project's initial scope, resulting in a more structured approach to addressing school health education.

Another significant outcome was the institutionalization of health workforce training. The structured training programs developed under SO2 prompted discussions within the MoHW regarding establishing continuous professional development mechanisms for healthcare workers. This has led to ongoing efforts to create a sustainable framework for skills enhancement and capacity building within the sector.

Additionally, the success of the M&E framework implemented under SO2 gained the interest of other government agencies. Ministries outside the health sector have expressed a desire to adopt similar methodologies, recognizing the framework's effectiveness in tracking performance and improving data-driven decision-making. This cross-sectoral interest demonstrates the broader applicability of health sector innovations in public administration.

b) Negative

Despite these positive developments, several challenges emerged. One key issue was capacity gaps in the use of the M&E framework. While the system was successfully established, some health officers lacked the technical expertise and training to leverage data for decision-making fully. This resulted in inconsistencies in data usage and limited the framework's impact on evidence-based planning and resource allocation.

Stakeholder and Community Engagement

The MoHW leadership and Regional Health Authorities were central in shaping policy development, overseeing training programs, and implementing governance improvements. Their active involvement ensured alignment between HSSP initiatives and national health priorities. Their contributions were particularly visible in developing NCD prevention strategies, rolling out strategic health planning frameworks, and governing integrated care initiatives. However, frequent leadership transitions at the national and regional levels posed challenges to maintaining continuity in implementation efforts.

Collaboration with the education sector and community organizations proved instrumental in bridging the gap between health promotion efforts and school-based interventions. By integrating NCD prevention programs into schools and community outreach activities, these partnerships facilitated a broader reach and deeper public awareness. School administrators and community health educators helped translate national health policies into practical, community-driven initiatives that targeted high-risk populations.

Public health workers and facility managers demonstrated strong engagement in capacity-building and training programs, particularly in strengthening strategic planning, results-based management (RBM), and M&E systems. However, stakeholder interviews indicated that additional support was needed to integrate M&E practices into routine operations fully. Many frontline workers faced challenges adopting new data-driven performance tracking tools, underscoring the need for sustained technical support and mentorship.

5.1.2.3 Objective 3: To support tender, installation, and operationalization of a Supply Data Exchange Warehouse and Analytics Platform software (referred to as CDEP) for the Ministry of Health and Wellness

Specific Objective 3 focused on enhancing digital health interoperability and improving health data management within the MoHW. The development and implementation of the CDEP were major milestones in advancing real-time health data exchange and integration across key national health systems.

A significant achievement under this objective was the successful procurement and phased installation of the CDEP software, ensuring compliance with international health data standards. The LogFrame set a target for full installation and operationalization of the CDEP. The system was completed and handed over to the MoHW in September 2024. However, the absence of the regulatory framework is limiting its full use.

To ensure a smooth transition and minimize system vulnerabilities, the CDEP was developed and deployed in phases:

1. The first phase, launched mid-2024, focused on technical integration, system installation, and internal testing to assess functionality and interoperability.
2. The second phase involved live testing with real patient data at Matron Roberts Polyclinic, allowing for early identification of technical issues and workflow optimization before a national rollout.

This incremental approach helped mitigate system vulnerabilities and provided valuable insights into user adaptation, security protocols, and interoperability gaps before full-scale implementation.

A key objective of the CDEP was to establish seamless interoperability between health information databases, particularly the BHIS used by the MoHW, the RAWA system from the NHI, the Cancer Registry, and other MoHW systems. Although an interoperability framework was successfully designed to facilitate data exchange and the system was completed and handed over to the MoHW in September 2024, full integration has been delayed due to technical barriers and the absence of a robust data-sharing governance framework.

As part of the CDEP initiative, the Cancer Registry was upgraded, significantly improving data input, case tracking, and reporting functionalities for cancer-related health records. The MoHW selected CanReg5 software for managing cancer data and tested its integration with CDEP using a file-based transfer method. While the LogFrame set a target for the full integration of the Cancer Registry into CDEP. As mentioned before, the system has been delivered to the MoHW, and it will require other activities on its end for full implementation.

To ensure successful CDEP adoption, extensive capacity-building initiatives were undertaken to train MoHW staff, health management teams, and technical personnel. Training covered using BHIS and CDEP, Epidemiology modules, and ICD-11 coding standards. These capacity-building efforts aligned with the LogFrame target of training at least five health management teams in digital health solutions. However, stakeholder interviews revealed persistent challenges, including digital literacy gaps among healthcare personnel, reluctance to transition from paper-based workflows, and system usability concerns, requiring continued support and refresher training.

An M&E framework was embedded within CDEP to facilitate real-time tracking of key performance indicators (KPIs) and ensure evidence-based healthcare delivery decision-making. While this effort aligned with the LogFrame's expected outcome of integrating performance-tracking tools into MoHW's digital health infrastructure, interviews with health officers highlighted difficulties in fully utilizing the M&E system, emphasizing the need for ongoing training, user support, and system refinements.

However, full operationalization of CDEP remains ongoing, with technical challenges, interoperability constraints, and workforce adoption barriers slowing full-scale implementation. Continuing investments in system integration, governance frameworks, and workforce training will be critical to achieving the LogFrame's digital health transformation objectives.

Effectiveness in Improving Access to and Quality of Healthcare Services

The implementation of the CDEP under SO3 was designed to strengthen digital infrastructure and enhance service efficiency, patient management, and data-driven decision-making within the MoHW. A key objective of the CDEP is to improve data sharing and interoperability across the healthcare system. Its integration with existing platforms, such as the BHIS and RAWA, is expected to enhance patient tracking, data management, and referral coordination. By facilitating a more seamless flow of health information across healthcare facilities, the system aims to minimize redundancies and improve the efficiency of medical service delivery.

Additionally, the enhancement of cancer data management through the Cancer Registry upgrade played a significant role in strengthening cancer surveillance. This improvement allowed for more

accurate patient care tracking, enhanced epidemiological research, and better coordination of treatment plans. The integration of cancer-related data into the broader health system also supported evidence-based decision-making, which is essential for planning effective interventions and allocating resources efficiently.

The project also focused on capacity building for health professionals, ensuring that healthcare workers were adequately trained in BHIS and CDEP modules. This training strengthened the health workforce's ability to utilize digital tools more effectively in order to improve data entry accuracy, analysis, and the overall efficiency of health service delivery.

Although the direct impact of CDEP on patient care is still under evaluation, its development represents a crucial step toward a modernized health information system. The digitization of patient records and interoperability between health facilities will contribute to greater efficiency, improved accessibility of patient data, and enhanced continuity of care. As the platform continues to evolve, ongoing monitoring and assessments will be necessary to measure its full impact on healthcare service delivery and patient health outcomes.

Factors Influencing Project Success

Several internal and external factors impacted the achievement of SO3 objectives:

a) Internal Factors

MoHW demonstrated a strong commitment to digital health transformation, which played a crucial role in facilitating the adoption of CDEP. This commitment was evident through the prioritization of health information system reforms in the national digital health agenda. MoHW leadership actively supported the integration of CDEP with the BHIS and the RAWA, ensuring a smoother transition to a more interoperable health data system.

Additionally, the establishment of a dedicated digital health unit within MoHW provided technical oversight and strategic direction for CDEP implementation. This unit collaborated with healthcare facilities to oversee capacity-building initiatives, IT infrastructure assessments, and phased software rollouts. For example, training workshops conducted for hospital IT personnel and administrative staff improved familiarity with CDEP functionalities, enabling better system utilization. Moreover, MoHW's collaboration with PAHO ensured that CDEP development adhered to international health data standards, such as ICD-11 classification and WHO interoperability guidelines.

b) External Factors

One of the key external challenges affecting CDEP's full operationalization was the absence of a comprehensive legal framework for health data governance and sharing. The lack of clear legislation regulating electronic health records (EHRs), data-sharing protocols, and patient confidentiality agreements created uncertainty among healthcare institutions regarding the proper use and exchange of health data. For example, hospitals and regional health facilities expressed concerns about liability issues related to patient data sharing across multiple platforms. Some institutions were hesitant to fully integrate CDEP due to uncertainties surrounding data ownership, patient consent, and regulatory oversight. Additionally, the absence of a structured Health Information Governance Act limited MoHW's ability to enforce standardized data-sharing protocols across public and private health institutions. This resulted in inconsistent implementation of CDEP functionalities, as some facilities adopted partial integration models

while awaiting clearer policy directives. To address this challenge, stakeholders highlighted the need for a national digital health policy that defines data protection measures, cybersecurity standards, and institutional responsibilities in managing health information. Without such a legal framework, CDEP's ability to facilitate seamless interoperability and real-time health data exchange remains constrained.

Another external factor that impacted CDEP implementation was the disparity in IT infrastructure across health facilities. Site visits revealed that some rural and regional hospitals lacked the necessary hardware, stable internet connectivity, and IT personnel required for full CDEP integration. While urban health centers with advanced digital capabilities could integrate CDEP effectively, facilities in remote areas struggled with system lag, data entry inefficiencies, and unreliable network coverage. For instance, regional hospitals in Toledo and Corozal districts faced frequent network disruptions, making it difficult to synchronize patient data with the central CDEP system. Additionally, some facilities lacked adequate IT support personnel, leading to longer resolution times for technical issues and a slower adoption rate of the platform.

The long-term sustainability of CDEP will also be affected by financial constraints, particularly in budget allocations for system expansion, maintenance, and software upgrades. While donor funding facilitated CDEP's initial development, limited government budgetary provisions for IT infrastructure pose concerns regarding ongoing maintenance and technical support. Stakeholders noted that health facilities often struggled to allocate funds for routine software updates, cybersecurity enhancements, and personnel training. Without a sustainable financing model, some facilities may face difficulties in maintaining CDEP functionality over time. The reliance on short-term donor support raised concerns about the future scalability of digital health solutions in Belize's public health sector.

Despite these challenges, the foundational development of CDEP sets the stage for future advancements in Belize's health information system. The system's interoperability capabilities and ongoing policy discussions on digital health governance indicate potential for future enhancements in national healthcare data management. Addressing legislative gaps, strengthening IT infrastructure, and ensuring sustainable financing mechanisms will be key to maximizing the long-term impact of CDEP.

Challenges Encountered and Mitigation Strategies

Table 6 shows the main challenges during project implementation and the mitigation strategies employed.

Table 6: Challenges & Mitigation Strategies

Challenge	Mitigation Strategy
Delays in full operationalization of CDEP due to technical complexities[8].	Implemented a phased rollout approach, prioritizing high-volume facilities first.
Limited training and user adoption of CDEP modules.	Conducted targeted capacity-building programs to improve MoHW staff proficiency.
Interoperability issues with existing health data systems.	Established a technical working group to oversee integration with BHIS, RAWA, and Cancer Registry.
Sustainability concerns regarding IT system maintenance.	Engaged MoHW leadership to explore long-term financing strategies for digital health solutions.

Unintended Outcomes

The HSSP's digital transformation efforts produced both positive and negative unintended outcomes:

a) Positive

One of the most notable positive effects was the growing interest in digital health integration beyond the MoHW. Stakeholder interviews indicated that other government agencies, including social security and civil registration entities, expressed interest in leveraging CDEP functionalities for broader national health data integration. This interest underscores the potential for a more interconnected government health data ecosystem, which could enhance multi-sectoral collaboration.

Additionally, the retrofitting improvements as part of HSSP highlighted the need for further facility upgrades. Exit reports revealed that hospital administrators and facility managers recognized gaps in infrastructure that had previously gone unnoticed. For example, the retrofitting process at Corozal and Punta Gorda Hospitals exposed weaknesses in power supply and backup systems, prompting local officials to advocate for additional funding to ensure sustainable infrastructure improvements.

Another significant outcome was the increased awareness of data privacy and security needs. Annual reports noted that the implementation of CDEP sparked discussions on strengthening health data regulations and developing a national policy on electronic health record (EHR) management. This was particularly relevant given concerns about patient confidentiality and cross-institutional data sharing.

Finally, the project facilitated capacity gains in digital health management. Through hands-on training and IT capacity-building workshops, health professionals developed stronger skills in health informatics, data entry, and real-time reporting. Site visits confirmed that staff at select

[8] Note that the CDEP is not operationalized as technical challenges remain that are inhibiting its full implementation. Several coding aspects need to be harmonized (e.g. RAWA uses ICD11, BHIS uses ICD 10). Stakeholders from the MoH raised the need to harmonize the coding of medical inputs. In turn, stakeholders from NHI mentioned another challenge is that the harmonization has to take place without stopping the use of the system (which also applies to BHIS on the MoHW side).

regional hospitals reported greater confidence in using digital tools for patient management and resource allocation, contributing to improved data-driven decision-making in facility administration.

a) Negative

Despite the positive outcomes, SO3 implementation also resulted in several challenges and unintended negative effects. One major issue was resistance to new health information systems among some health workers. Stakeholder interviews indicated that certain frontline healthcare providers were reluctant to adopt CDEP, citing concerns about workflow disruptions and the steep learning curve associated with the new system. At Southern Regional Hospital, some nurses expressed frustration with the transition, noting that the shift from paper-based records to digital entry initially slowed patient processing times.

Another unintended consequence was the unequal digital infrastructure across health facilities, which created disparities in CDEP adoption. Exit reports highlighted that while urban hospitals had the necessary IT resources, many rural health centers, particularly those in Toledo and Stann Creek, struggled with unreliable internet connectivity and a lack of dedicated IT support. These challenges limited the full utility of CDEP in remote areas, where facilities could not fully integrate patient data into the national system.

Furthermore, gaps in data standardization emerged as a technical challenge. Annual reports pointed out discrepancies between legacy systems and new CDEP protocols, which led to inconsistencies in patient record synchronization and interoperability issues. For example, in some cases, older patient records in the BHIS were not fully compatible with CDEP, requiring manual data migration and increasing administrative workload.

These unintended effects underscore the need for further investment in IT infrastructure, additional training for healthcare workers, and the establishment of standardized health data governance frameworks. Addressing these challenges will ensure the long-term success and sustainability of digital health initiatives in Belize.

Stakeholder and Community Engagement

The HSSP engaged multiple stakeholders in CDEP planning and implementation, though participation varied:

The MoHW leadership and IT teams played a central role in system design, policy alignment, and technical implementation, ensuring compliance with national health information standards and integration with the BHIS and the RAWA. Their leadership in defining interoperability frameworks and digital health policies contributed to the platform's structured rollout.

Health facility managers contributed insights on practical interoperability needs, though participation was stronger in urban settings, where digital infrastructure and technical capacity were more advanced. In contrast, rural and regional facilities faced greater challenges, including limited IT personnel and connectivity issues, affecting system adoption rates.

Public health workers and epidemiologists actively participated in CDEP training and early system testing, contributing significantly to disease surveillance and patient tracking improvements. Facilities that participated in pilot testing adapted more quickly, while those with minimal exposure to the platform struggled with data integration and workflow transitions.

The response to CDEP among health workers was mixed. While some welcomed digital transformation and data-driven decision-making, others cited workflow disruptions, technical complexity, and system learning curve challenges as barriers (Stakeholder Interviews). Resistance was common among long-serving staff accustomed to manual processes, whereas younger professionals adapted more quickly to digital workflows.

Additional training and structured stakeholder engagement initiatives will be necessary to ensure smooth CDEP adoption across all health facilities. Targeted capacity-building efforts in rural facilities will help bridge digital literacy and system integration gaps, fostering a more uniform and sustainable nationwide transition to digital health management.

5.1.3 Efficiency: Use of Resources and Cost-Effectiveness

The efficiency of the HSSP is assessed by evaluating how well financial, human, and technical resources were utilized to achieve intended outcomes. A crucial part of this assessment involves understanding whether the project management structures, procurement mechanisms, and administrative processes functioned optimally or if inefficiencies led to delays and resource misallocation.

The HSSP navigated various operational challenges throughout its implementation, including procurement delays, bureaucratic bottlenecks, and financial constraints. Despite these obstacles, the project maintained progress through adaptive management strategies and collaboration between key stakeholders. The evaluation of efficiency is structured across three key areas: financial efficiency, operational efficiency, and administrative/governance efficiency

5.1.3.1 Financial Efficiency

The HSSP relied on funding from the European Union (EU) (EUR 8.8 million), the Government of Belize, and a counterpart contribution from PAHO, which covered staff time and project management costs. PAHO provided substantial in-kind contributions, including technical expertise, project oversight, and facilitation of procurement processes. Financial resources were largely directed toward retrofitting hospitals under the SMART Hospital Initiative, developing health information systems, and capacity-building programs for health sector personnel. Budget utilization was monitored through financial oversight mechanisms, ensuring regular budget reviews and reallocating funds where necessary.

However, financial challenges arose, including cost overruns and necessary budget reallocations, particularly in infrastructure projects to respond to unexpected conditions of the construction. Rising construction costs, procurement delays, and contractor unavailability led to higher-than-anticipated expenditures. In some instances, funds were reallocated to accommodate these rising costs, which resulted in the postponement of specific activities. On the other hand, there were savings derived from modalities implemented by PAHO (like virtual meetings or technical cooperation), releasing resources to be allocated to other areas in need, like civil works.

A major financial constraint was the procurement of medical and IT equipment. Fluctuations in market prices and limited availability of specialized equipment led to increased procurement costs, requiring adjustments in order quantities and supplier selection. Additionally, resource reallocation occurred due to shifting priorities, including reallocating €500,000 from SO1 to COVID-19 emergency response. This resulted in underbudgeting critical infrastructure projects, requiring scope reductions in hospital retrofitting.

Another issue was delays in finalizing contracts, particularly for the CDEP, which affected the sequencing of digital health initiatives. The misalignment of planned and actual expenditures led to underutilization of certain budget lines, while others required urgent reallocation to avoid project disruptions.

Despite these financial hurdles, flexible budget planning and financial oversight by implementing partners allowed the project to continue.

5.1.3.2 Operational Efficiency

The success of the HSSP depended heavily on the effectiveness of procurement, contract management, and coordination between PAHO, MoHW, and other implementing partners. While the project was structured to ensure smooth implementation, challenges in the procurement process, and logistical delays significantly affected the timely delivery of critical infrastructure and health information systems.

The procurement process encountered several challenges like:

- Limited contractor participation: The size of the retrofitting projects created a gap, as they were too small for large firms and too large for small contractors. This resulted in a lack of competition and limited options for qualified bidders.
- Repeated retendering: Several tenders had to be reissued multiple times due to bids exceeding budget allocations or failing to meet technical requirements. For instance, the retrofitting works for Corozal, Punta Gorda, and Southern Regional Hospitals required multiple rounds of bidding, which delayed project timelines.
- Delays in contract approvals: The approval process for key infrastructure and IT contracts was prolonged, causing significant project setbacks. This was particularly evident in the procurement of the CDEP, where tendering complexities extended timelines and delays in the system integration affected the transition to digital health management.
- Contractor hesitancy: The uncertainty surrounding infrastructure conditions, such as electrical systems at hospitals, discouraged potential bidders. The risk of unforeseen issues during retrofitting made contractors reluctant to commit to project bids.

Despite these challenges, PAHO, MoHW, and project partners worked collaboratively to improve operational efficiency. Stakeholder coordination facilitated the resolution of procurement bottlenecks, improved communication regarding work plan adjustments, and strengthened reporting structures. While the initial phases of the project faced operational difficulties, coordination efforts improved over time, allowing for smoother implementation.

5.1.3.3 Administrative and Governance Efficiency

Administrative and governance efficiency significantly influenced the pace of project implementation. The project's oversight mechanism was designed as a multi-tiered governance structure, comprising a Steering Committee for strategic direction, Technical Working Groups for program execution, financial monitoring systems for budget oversight, an M&E framework for tracking progress, and external audits for compliance and accountability. These mechanisms were intended to ensure transparency, efficiency, and alignment with project objectives. While the governance structures provided a clear framework for oversight and accountability, the project

experienced delays in decision-making and bureaucratic hurdles, particularly in its early stages, which hindered the timely execution of key activities.

However, governance challenges emerged through delayed decision-making and bureaucratic bottlenecks. According to stakeholders, lengthy approval processes for budget reallocations, contract signings, and procurement authorizations created inefficiencies. While beneficial for oversight, the involvement of multiple government agencies sometimes resulted in overlapping responsibilities and confusion over procedural authority. These delays were particularly evident in finalizing hospital retrofitting contracts and rolling out health information system upgrades.

A key challenge in the procurement process was adhering to PAHO/WHO procurement procedures, which, while ensuring compliance and transparency, may not have been flexible enough to adapt to the country's specific context and procurement realities. The rigid procurement framework contributed to delays in contract approvals, prolonged tendering processes, and limited responsiveness to market fluctuations. This issue was compounded by a mismatch between PAHO's centralized procurement mechanisms and Belize's localized infrastructure needs, resulting in prolonged negotiations and increased administrative workload for implementing agencies.

According to stakeholders interviewed, another challenge was the impact of leadership changes within government institutions, which affected continuity in project decision-making. Leadership changes sometimes led to policy shifts and delays in approving critical project documents, requiring additional efforts from PAHO and MoHW to maintain momentum. Project managers worked closely with key stakeholders to mitigate these governance challenges, streamline approval processes, improve inter-agency coordination, and enhance reporting mechanisms.

Despite the initial administrative slowdowns, governance efficiency improved over time. The Steering Committee played an increasingly active role in monitoring project milestones, ensuring that activities stayed on track. The improved inter-agency collaboration and communication strategies helped overcome early bureaucratic bottlenecks, allowing for smoother project execution in later stages.

5.1.4 Impact: Contributions to Long-Term Health Outcomes

Interventions like the ones proposed in HSSP require a longer observation time to show an impact on final health outcomes, such as reducing mortality or morbidity, than the one available for this evaluation. However, it is possible to identify some impacts of the HSSP on health service delivery, patient care, and workforce performance.

5.1.4.1 Impact on Healthcare Infrastructure

Improvements in Hospital Functionality and Climate Resilience

Based on interviews with stakeholders and site visits, it was possible to identify changes in healthcare infrastructure that impacted the functionality of the facilities and their climate resilience. Overall, the interviewed stakeholders believe that retrofitted facilities are better prepared to face climate or health emergencies and provide better care. For example, installing emergency electric generators, solar panels, insulation, and communication areas in the hospitals allowed easier transportation of patients within the facilities. These improvements were noticed by hospital staff, where the morale improved as reported in the interviews. Also, the current facilities at the Central Medical Laboratory show important limitations in their functionality,

providing adverse working conditions. The retrofitting, which is almost completed, will make possible the reallocation of laboratory and public attendance areas, which is expected to impact on the quality of services provided. Laboratory staff are highly motivated and expect the move to the new facilities soon.

Community Perceptions of Improved Healthcare Services

Improvements in health facilities also include waiting rooms and other areas for community members to attend. Community members have noticed these changes, reporting, for example, more private areas for service (quite important for mental health care), better waiting rooms, and more comfortable areas due to light improvements (which are also more environmentally friendly).

5.1.4.2 Impact on Health Service Delivery and Access

Reduction in Patient Referrals Due to Improved Facilities

Installing emergency diesel generators and improvements to surgery rooms has substantially increased the resolutive power of retrofitted hospitals. In Punta Gorda and Corozal community hospitals, diesel generators have made it possible to conduct surgeries that were not possible to conduct previously without the certainty of energy supply in case of a blackout. This has reduced, in turn, the frequency of referrals to higher-level hospital facilities. Although not assessed in this evaluation, it will be important to monitor to what extent improvements in health service delivery and access may increase the demand for services in the retrofitted facilities. If this is the case, it will be necessary to provide hospitals with additional resources to attend to the additional demand, or they may become victims of their success.

Strengthened disease surveillance and data-driven decision-making.

Belize has substantially increased its health information systems coverage in the last few years. The installation of CDEP, now with a successful pilot platform in place but not yet fully implemented across the health system, will decrease the need for double data entry and provide more accessible health data for decision-making. Important details required for a successful implementation of CDEP have been flagged by stakeholders from the MoHW and the NHI, so the attendance of these details is crucial for a successful implementation and final impact on data utilization.

5.1.4.3 Impact on Policy and Institutional Strengthening

Influence of HSSP Initiatives on National Health Policies

Institutionalizing operational changes into policies is an important way an intervention can impact the long term. The HSSP had a notable influence on the development and implementation of national health policy in Belize, which has been institutionalized. For example, the HSSP contributed to establishing structured health sector reforms, particularly through the Health Sector Reform Assessment, which generated key recommendations for reorganizing the MoHW and strengthening governance mechanisms. Two key contributions are the use of the capacity and gap assessment of the EPHF for the development of the ten year National Health Strategic Plan as well as the development of the national Human Resources for Health Policy and Plan and five

year policy plan. These plans are crucial to strengthening the reform process and contribute to the strengthened stewardship of the MoHW.

Referring to specific health areas, the National Nutrition Policy, developed under the HSSP, has been officially integrated into the national policy framework. It supports long-term strategies to address nutrition-related health challenges. The policy's approval included extensive stakeholder consultations and alignment with regional and global best practices.

Another example of institutionalization was the adoption of an Integrated Care Model (ICM) for primary healthcare services, which was piloted in select regions to improve patient care coordination and strengthen the referral system. While its full nationwide implementation remains a work in progress, the ICM is now embedded in national strategic discussions as a model for service delivery improvement.

Finally, The HSSP also played a role in strengthening public health surveillance and digital health governance, particularly by developing an M&E framework integrated within MoHW systems. This has enhanced the ministry's capacity to track health service performance and informed data-driven decision-making.

Contribution to Health Workforce Development

A critical component of the HSSP was its emphasis on capacity building and workforce development. Through targeted training programs, health personnel across various health system levels received specialized training in strategic planning, results-based management, and program budgeting, equipping MoHW staff with skills to enhance service delivery and resource allocation.

Additionally, health professionals were trained in disaster preparedness and emergency response protocols, strengthening Belize's resilience to health crises and climate-related disasters. This training was particularly relevant for facilities retrofitted under the SMART Hospital initiative, ensuring staff could efficiently manage disaster-related risks.

One of the program's significant achievements was its role in digital health capacity building. Training sessions were conducted for MoHW personnel on electronic health record systems (BHIS), Clinical Data Exchange Platform (CDEP), and epidemiology modules, enhancing the ability of health personnel to manage and analyze health data effectively. The integration of ICD-11 coding and surveillance systems will also contribute to improving disease tracking and response capacity.

5.1.5 Sustainability: Potential for Long-Term Benefits Beyond Project Funding

While these initiatives have strengthened the health workforce, some challenges remain, particularly in ensuring the long-term retention of trained personnel and addressing staffing shortages in rural and underserved areas. Sustainability: Potential for Long-Term Benefits Beyond Project Funding

Previous reports, particularly the ROM report, raised concerns about the project's sustainability prospects, particularly to Specific Objective 1. The report stated: "Sustainability prospects in SO1 have lost much of their initial potential with the changes in budget allocations, but also because

of the approach taken to implement works. The retrofitting will hardly increase the necessary capacities."[9]

It also questioned the extent of hospitals' participation in the retrofitting process, highlighting a missed opportunity to enhance their institutional capacities. While the outlook for Specific Objectives 2 and 3 is more promising—given that training and institutional reforms provide stronger sustainability prospects—the retrofitting activities remain essential for reinforcing and institutionalizing maintenance within the broader health sector reform.

Despite these recognized sustainability challenges, our analysis suggests a more optimistic outlook for several project components. The following sections provide a detailed assessment.

5.1.5.1 Institutionalization of Project Initiatives

Stakeholders agree that, although substantial improvements have been made with the HSSP to achieve sustainability, the institutionalization of project initiatives is crucial. Activities in strategic objective 2 include preparatory work for interventions, training, and increased human capacities in personnel that may constitute change agents. The normative framework has been updated, like in the case of the National Nutrition Policy.

5.1.5.2 Financial and Operational Sustainability

Regarding the retrofitting activities under Specific Objective 1, maintenance remains an ongoing effort. Site visits revealed that, despite recent retrofitting, certain maintenance needs have already emerged. Stakeholders acknowledged the existence of maintenance departments, a national maintenance center, and dedicated funds that could be utilized. However, retrofitting has also introduced new maintenance requirements. It was suggested that additional funding from external organizations be sought to support further improvements and upkeep.

For Specific Objective 2, the need for sustained funding for the proposed activities has been highlighted in previous reports and reiterated by stakeholders involved in community activities. While events like community fairs have been successful and well-received, concerns persist that initiatives such as health fairs may be difficult to sustain without future funding. Stakeholders underscore the importance of securing long-term commitments from the MoHW and other partners to support key interventions. Some stakeholders also proposed creative strategies, such as reinvesting savings from retrofitting—such as reduced electricity costs from solar panels and LED lighting—into maintenance efforts.

5.1.5.3 Technological and Environmental Sustainability

The sustainability of hospital infrastructure upgrades, energy-efficient systems, and the implementation of CDEP presents unique challenges. The rapid evolution of healthcare technologies necessitates adaptable hospital infrastructure and health information systems, ensuring seamless integration of new advancements. This is particularly relevant for SMART hospital infrastructure, energy-efficient systems, and surveillance and information systems.

Significant progress has been made in developing the CDEP; however, stakeholders have raised key concerns regarding its successful implementation and long-term sustainability. Those involved in its design emphasize that sustaining the system requires a strong commitment from

[9] Belize HSSP d-39232 Results-Oriented Monitoring report (ROM).

all users to ensure full adoption and engagement. Additionally, establishing clear mechanisms for system ownership and governance is critical to its success.

The MoHW and NHI stakeholders have highlighted the need to address specific unresolved technical issues before the full implementation of CDEP, like harmonization of causes of death and diseases using ICD-11 and coding of items like medications, which, although have been done, need a detailed review. Moreover, maintaining comprehensive documentation of the system's design and operation is necessary to allow future adjustments or improvements to the system.

5.1.6 Visibility: Awareness and Recognition of the Project's Contributions

This section assesses how project achievements were communicated through branding, media engagement, public awareness efforts, stakeholders' perceptions, and recognizing its impact at national and regional levels. While outreach efforts were integrated into project activities, challenges remained in ensuring broader public awareness, particularly at the community level.

Communication of HSSP, EU, and PAHO Contributions to Stakeholders

The EU's role as the primary funder was prominently displayed across project communication materials, infrastructure upgrades, training manuals, and digital platforms. Official branding and logos were incorporated into facility signage, particularly in SMART hospitals and retrofitted health centers, ensuring that the public and stakeholders recognized EU contributions.

Similarly, PAHO's role as the technical implementing partner was acknowledged through its policy guidance, technical expertise, and oversight of capacity-building initiatives. PAHO facilitated sectoral discussions, technical consultations, and knowledge-sharing efforts, reinforcing its influence on strengthening the health system.

The visibility strategy employed multiple communication channels, including:

- Stakeholder meetings
- Project launch events and workshops
- Press releases and official statements
- Social media presence

Despite these structured efforts, there was limited awareness at the community level regarding the specific roles of PAHO and the EU. Many frontline workers and facility staff focused more on the project's tangible outcomes—such as improved infrastructure, equipment, and digital health advancements—rather than the implementing and funding entities behind them. Stakeholder interviews revealed that while the MoHW leadership and health sector personnel were well-informed, public awareness efforts at the community level could have been more robust.

Effectiveness of Branding, Media Engagement, and Public Awareness Campaigns

Branding efforts were consistently implemented across project-related documentation, training materials, and physical health facility upgrades. Retrofitted hospitals featured EU and PAHO signage, reflecting their contributions to improving health system resilience. However, media engagement was sporadic, with press releases and social media updates primarily focusing on key milestones rather than ongoing public awareness efforts.

While PAHO and MoHW leveraged their networks to provide updates on project progress, broader public-facing campaigns were limited. PAHO's involvement in policy discussions ensured that health officials and decision-makers remained engaged,

Exit reports indicated that MoHW's internal communication structures were effective, ensuring that government health officials, technical personnel, and regional administrators were well-informed about PAHO's role in capacity-building, policy alignment, and project implementation. However, awareness among frontline health workers and community stakeholders varied depending on their direct involvement in HSSP interventions.

Recognition of Project Achievements at National and Regional Levels

The EU and PAHO were recognized internationally for their contributions to health sector development, particularly in infrastructure resilience, digital health transformation, and workforce capacity-building. Stakeholders mentioned the interest of other countries in the Caribbean in implementing interventions like this.

6. Risk/Challenge Analysis

Table 7 provides an overview of the key contextual factors and risks/challenges that influenced the implementation of HSSP, highlighting socio-economic conditions, health system dynamics, institutional capacity, and procurement constraints that impacted project execution, financial sustainability, and long-term program effectiveness.

Table 7 Risk/Challenges & Context Factors Affecting HSSP in Belize

Context factors	Risks/Challenges
1. Socio-Economic Conditions in Belize • Small and Vulnerable Economy: Belize relies heavily on tourism, agriculture, and export markets, making it vulnerable to external shocks such as the COVID-19 pandemic and global inflation. • Impact of COVID-19: The pandemic required a major reallocation of financial and human resources, delaying health infrastructure projects, training programs, and digital health investments. • Inflation and Supply Chain Disruptions: Rising costs of construction materials, medical equipment, and digital infrastructure impacted the implementation of the SMART hospital retrofitting projects and the Clinical Data Exchange Platform (CDEP).	1. Infrastructure and Procurement Challenges • Limited Local Construction Capacity: The size and scope of retrofitting projects made it challenging to identify suitable contractors, leading to delays in hospital upgrades. • Procurement Delays: Inefficiencies in tendering processes, contract approvals, and supplier selection slowed the acquisition of medical equipment and IT systems. • Cost Overruns in Retrofitting Works: Due to inflation, material shortages, and supply chain disruptions, some hospital retrofitting projects required budget adjustments and phased implementation.
2. Health System Landscape • Ongoing Health System Reform: Belize's health sector is undergoing structural reforms to strengthen governance, financing, and service delivery, which affected the alignment of HSSP initiatives with evolving policies. • Fragmentation of Health Data Systems: The BHIS and the RAWA coexistence created barriers to data	2. Digital Health System Implementation Risks • Interoperability Issues: The integration of CDEP, BHIS, and NHI systems faced technical and administrative barriers, requiring additional investments in data harmonization. • Resistance to Digital Transformation: Some health professionals and administrators were reluctant to adopt new digital workflows, citing learning curve challenges and system usability concerns.

Context factors	Risks/Challenges
interoperability, patient tracking, and clinical decision-making. • NCDs on the Rise: Belize faces a growing NCD burden, requiring greater emphasis on preventive care, health promotion, and early detection.	• Cybersecurity and Data Protection Gaps: The absence of comprehensive digital health governance frameworks posed risks related to data privacy, security breaches, and system sustainability.
3. Institutional Capacity and Human Resources • Leadership Turnover: Frequent changes in MoHW leadership and technical personnel slowed decision-making, affecting project execution. • Procedures that need to be followed for procurement from different stakeholders	3. Financial Sustainability Risks • Lack of Dedicated Maintenance Budgets for SMART Hospitals: Although hospitals were upgraded with resilient infrastructure and green technology, long-term maintenance plans remain underfunded, threatening sustainability. • Uncertainty Over Long-Term Digital Health Funding: The continued operation of CDEP and health data systems requires ongoing technical support and software upgrades, which have not been fully budgeted. • Dependency on External Funding: Several HSSP components rely on EU funding and PAHO technical support, raising concerns about sustainability once donor support ends. • Although PAHO has made efforts to make its administrative procedures more flexible, this flexibility may not have been enough to meet the Belize context, which poses an important challenge for the project's execution. 4. Health Workforce and Capacity Constraints • Insufficient Training and Retention of Skilled Staff: While HSSP trained health workers, IT specialists, and policy officers, retaining them in the public sector remains a challenge due to higher salaries in the private sector and migration.

Context factors	Risks/Challenges
	• Need for Continuous Professional Development: The transition to digital health records, telemedicine, and results-based health financing requires ongoing workforce training, which is not yet institutionalized.

7. Conclusions and Lessons Learned

This section outlines key conclusions from the HSSP, highlighting its contributions to strengthening Belize's healthcare system while underscoring the importance of sustainability, institutional commitment, and continued investment in health infrastructure and digital transformation. It also presents critical lessons learned that can inform future health sector interventions, emphasizing procurement efficiency, digital health governance, workforce development, community engagement, and financial sustainability.

7.1 Conclusions

1. **The HSSP in Belize has significantly strengthened the country's health system**. As documented in this report, the project was aligned with the country´s health priorities, and it achieved important milestones in evaluating and retrofitting healthcare facilities to adjust to the SMART standards, increasing their capacity to improve health service delivery. HSSP has also contributed to developing key interventions and policies, especially in NCDs, and developed the CDEP, a platform that allows interoperability of the BHIS and RAWA systems.

2. **The implementation of the HSSP encountered significant challenges, requiring a high degree of flexibility to address them.** As an ambitious project spanning multiple areas of the health system, it involved diverse interventions that had to be adapted to evolving circumstances. The outbreak of the COVID-19 pandemic during implementation necessitated major adjustments, including reallocating funds to address the public health emergency while ensuring continuity of project interventions. Additionally, other contextual challenges—such as the complexities of Belize's construction market and the administrative requirements of participating organizations—demanded adaptability, particularly from PAHO/WHO. While PAHO/WHO demonstrated flexibility within its policies, it may not have been sufficient to fully navigate the challenging context, highlighting the need to explore alternative strategies**.**

3. **The coordination and active participation of various stakeholders were essential to the project's development.** Given the project's multi-level implementation, engagement from diverse stakeholders was required. Effective coordination, supported by strong leadership from the MoHW and PAHO, played a crucial role in ensuring successful project execution.

4. **Ensuring the sustainability of the project's various components is critical.** While steps have been taken in this regard, including institutionalizing activities, continued follow-up will be necessary. Findings indicate that key sustainability challenges include financial considerations, such as securing funds for maintaining retrofitted facilities and sustaining community activities, as well as governance, technical, and operational factors. These include governance requirements and technical aspects essential for the full implementation and long-term maintenance of the CDEP. Additionally, results highlight the potential role of public-private partnerships in supporting the future sustainability of these efforts.

7.2 Lessons Learned

The following critical lessons, derived from the HSSP experience, can inform future health sector interventions in Belize:

1. **Institutional Commitment and Leadership Drive Sustainability.** While the HSSP introduced critical reforms and improvements, sustaining its impact depends on strong government ownership and institutional commitment. For example, harmonizing the RAWA and BHIS systems—such as adopting a standardized ICD-11 coding system—requires ongoing investment, capacity-building, and policy alignment to ensure full operationalization.

2. **Strengthening Procurement and Project Management is Essential.** Delays in infrastructure retrofitting, equipment procurement, and digital system deployment revealed challenges in the procurement process, tendering, and contract management. For instance, tendering delays for the Northern and Western Regional Hospitals highlighted the need for better contract oversight and structured procurement timelines.

3. **Digital Health Transformation Requires More Than Just Technology.** While the CDEP and electronic health systems represent significant advancements, their effectiveness depends on factors beyond technology, including interoperability, workforce training, cybersecurity measures, and system adjustments to ensure seamless information management.

4. **Community Engagement Enhances Program Effectiveness.** Public health interventions achieved greater success when communities actively participated in decision-making, awareness campaigns, and service delivery. For example, the training of 230 Community Health Workers (CHWs) demonstrated that investing in community health networks improves service reach and long-term sustainability.

5. **Flexible Programming is Crucial for Addressing Emerging Challenges.** The COVID-19 pandemic underscored the importance of adaptable program frameworks and resource allocation. For example, the EU's reorientation of project funds toward COVID-19 testing, medical waste management, and personal protective equipment (PPE) procurement showcased the value of flexible funding mechanisms.

6. **Effective Monitoring, Evaluation, and Learning (MEL) Systems Are Key to Program Success.**
   The lack of a structured monitoring framework for the National Nutrition Policy made assessing its impact on reducing malnutrition and NCD prevalence in Belize difficult. Establishing robust MEL systems—including data collection mechanisms and impact assessments—will enhance the effectiveness and accountability of future public health initiatives.

7. **Intersectoral Collaboration Strengthens Program Implementation.** Collaboration among the MoHW, PAHO, the EU, and other stakeholders facilitated program delivery. For example, multi-sector engagement benefited the National Nutrition Policy and

the HEARTS Initiative. However, NCD prevention strategies require more coordinated inter-agency efforts to maximize their impact.

8. Recommendations

This section presents strategic recommendations to sustain and build upon the HSSP's achievements, address ongoing challenges, and guide future health sector planning to advance universal health coverage, system resilience, and efficiency. These recommendations emphasize institutional strengthening, procurement optimization, digital health transformation, workforce capacity building, community engagement, financial sustainability, and robust monitoring and evaluation. They are grouped by the primary stakeholders responsible for their implementation.

Recommendations for the MoHW

1. Ensure the long-term sustainability of the HSSP by strengthening institutional capacity within the MoHW. This requires embedding HSSP initiatives into national health policies, strategic frameworks, and financial planning mechanisms to secure ongoing government ownership. Developing a National Health Resilience Plan would help institutionalize key health sector reforms and ensure continuity beyond donor-funded programs. Additionally, reinforcing the role of regional health authorities is essential for decentralized decision-making and effective service delivery. To further enhance inter-sectoral collaboration, the MoHW should establish formal inter-ministerial committees to improve coordination between health, finance, education, and social services, fostering a holistic approach to health system strengthening.

2. Advancing the digital health transformation to improve efficiency in health service delivery. The successful implementation of the CDEP will require full integration with existing systems, such as the BHIS and RAWA, ensuring seamless data exchange and interoperability. To achieve this, the MoHW should refine technical specifications, maintain comprehensive system documentation, and expand IT training programs to build internal technical expertise. Additionally, establishing a digital health governance structure will provide oversight and facilitate long-term operational sustainability.

3. Continue developing Belize's health workforce to strengthen primary healthcare services, particularly in rural and underserved areas. Expanding the Community Health Worker (CHW) programs will ensure that frontline health personnel are equipped with the necessary resources, training, and diagnostic tools to enhance service delivery. Strengthening CHW networks will improve accessibility to healthcare services and increase community-based interventions for disease prevention and health promotion.

4. Strengthen community engagement and public awareness to contribute to the success of health initiatives. The MoHW should enhance community outreach programs to improve public understanding of available health services, disease prevention strategies, and the benefits of digital health innovations. Investing in targeted health education campaigns will help foster proactive health-seeking behaviors, ensuring greater community participation in health programs.

5. Ensure financial sustainability to reduce reliance on donor funding and secure long-term resources for health sector improvements. The MoHW should work toward integrating key HSSP components into national budgets, ensuring that core initiatives receive sustained government financing. Expanding Public-Private Partnerships (PPPs) can unlock

alternative funding sources for infrastructure maintenance, digital health system expansion, and service delivery improvements. Additionally, the MoHW should leverage cost savings from SMART hospital upgrades, such as energy-efficient hospital retrofits, to support operational and maintenance expenses. Exploring Results-Based Budgeting (RBB) as a financial management approach can help align health sector funding with measurable outcomes, ensuring that resources are effectively allocated to high-impact interventions.

Recommendations for the MoHW and PAHO

1. To improve procurement processes and project management within the MoHW and PAHO to successfully implement health sector projects in Belize. The challenges faced in executing the HSSP, particularly those related to Belize's economic and construction sector constraints, underscore the need for more structured and efficient procurement mechanisms. The MoHW and PAHO should conduct comprehensive needs assessments to align project requirements with the capabilities of potential contractors, reducing the risk of mismatches that lead to delays or inefficiencies. Further, exploring mechanisms to streamline procurement processes—such as enhancing bidding procedures and contract oversight—will minimize delays and improve project implementation timelines. Strengthening contract management and oversight is also essential to ensuring transparency, accountability, and the efficient execution of projects.

Recommendations for PAHO and the EU

1. Explore strategies to achieve flexibility in project management and execution. Given the unique challenges encountered in the implementation of the HSSP, particularly those related to procurement processes for retrofitting, there is a need to enhance flexibility in project management and execution. The socio- economic context of Belize created specific constraints that affected project progression despite efforts to introduce flexibility within implementation strategies. While some adaptations were made to navigate these challenges, they may not have been sufficient to ensure smooth execution. Moving forward, PAHO and the EU should explore new strategies to enhance adaptability in future projects, allowing for greater responsiveness to emerging challenges. Evaluating past flexibility measures and identifying additional mechanisms to facilitate project execution will be critical to improving efficiency in similar health sector initiatives.

Appendices

Appendix 1. Terms of Reference for the Evaluation

Final Evaluation of the Health Sector Support Programme (HSSP) in Belize

Terms of Reference – November 2024

Title	Final Evaluation of the Health Sector Support Programme (HSSP) in Belize
Purpose	To review the progress towards achieving project's objectives, assess the sustainability of implemented initiatives, and provide recommendations for future health sector reforms.
Contract type	Consultancy – Institutional contract (evaluation team)
Modality	Contracted out to a team of independent consultants
Duration	3 months (after the contract is effective and the evaluation team starts work)
Start and end date	December 2024 to February 2025
Location	Hybrid, partially remote, and partially with field data collection and engagement
Language(s) required	Operational: English
Commissioner	PAHO/WHO Office for Belize
Evaluation manager	Karen Lewis-Bell

Background

The European Union funded **Health Sector Support Program (HSSP)** Belize aimed to strengthen the national health system with a focus on health service delivery, quality of care, and governance, particularly by enhancing the country's capacity to respond to public health challenges such as the COVID-19 pandemic. The strategic priorities included expanding access to essential health services, strengthening the health workforce, and integrating health information systems.

The HSSP was developed in response to the critical gaps in health service delivery identified in previous assessments. Key challenges included limited access to quality healthcare, especially in rural and vulnerable communities, insufficient health infrastructure, and a fragmented health information system. The COVID-19 pandemic further exacerbated these issues, highlighting the urgent need for resilient health systems that can withstand public health emergencies.

The contracting authority, the European Commission on behalf of the European Union (EU) initially provided the implementing organization, the Pan American Health Organization (PAHO) a grant of 6,800,000 Euros for an initial implementation period of 48 months. The project adopted a multi-pronged approach that initially included two specific objectives:

To develop efficient, effective, disaster resilient and environmentally friendly health facilities and

To improve the structure, organization and management of health services.

An Addendum was then signed in March 2021 to include an additional 24 months, 2,000,000 Euros and the implementation of a third specific objective:

To install an operational Clinical Data Exchange Warehouse and Analytics Platform.

Significant progress was made in several areas, including the expansion of health services and improvements in the quality of care. The project supported the digital transformation of the health sector, enabling better management of health data, improved patient care, and enhanced public health surveillance. Despite these achievements, several challenges remained, including limited financial resources for full retrofitting of facilities, infrastructural deficits, and the need for further capacity building among health professionals. Additionally, the ongoing need for improvements in Health Information Systems interoperability and data security highlighted the complexity of integrating health data across different levels of the health system.

As the project concludes, it is essential to conduct a final evaluation to assess the impact of the interventions, identify best practices, and identify any remaining gaps to be addressed. The evaluation will provide critical insights into the effectiveness of the project in achieving its goals and to inform future strategic planning for the health sector in Belize.

The review of the progress made towards achieving the project's objectives, will help to assess the sustainability of implemented initiatives, and provide recommendations for future health sector reforms. The findings will guide policymakers and stakeholders in optimizing health service delivery, strengthening governance, and enhancing health outcomes for the Belizean population living now and in the future.

Objectives and Purpose

The objective of the evaluation is to review progress made towards achieving the project's objectives, assess the sustainability of implemented initiatives, and provide recommendations for future health sector reforms. The evaluation will look at how effectively the project was implemented and the expected results achieved as well as how efficiently the resources were utilized and the planned activities executed to ensure achievement and sustainability.

The evaluation will document **successes, challenges, gaps**, and **good practices,** identify **lessons to be learned** and opportunities for improvement. The findings will provide policymakers, stakeholders, and the contracting authority and implementing Organization **recommendations** to optimize project implementation for health service delivery, strengthening governance, and enhancing health outcomes for the Belizean population.

Scope and Approach

Scope: This **decentralized end-of-project evaluation** covers national, subnational, and community levels with specific emphasis placed on regions with the highest levels of vulnerability or where significant project activities were concentrated.

Approach: The evaluation should also develop retrospectively a theory of change based on the HSSP project objectives. The evaluation should abide to the OECD/DAC criteria guidance for framing the major evaluation questions. It should also be guided by PAHO's 2021 Evaluation Policy and by the 2022 Evaluation Handbook and follow PAHO's evaluation standards.

Criteria and key evaluation questions

The following questions will guide the evaluation and be part of the detailed evaluation matrix that the contracted firm will have to develop as part of their deliverables of the evaluation during the inception phase.

Relevance	*To what extent were the HSSP objectives aligned with the health needs and priorities of Belize, especially in the context of public health challenges such as climate change, COVID-19 and fragmentation of health data sources?* How well did the HSSP address the needs of vulnerable and underserved populations, including rural and low-income communities? Were the selected strategies and interventions appropriate for achieving the HSSP's goals?
Effectiveness	*To what extent did the HSSP achieve its intended objectives and outcomes, particularly in strengthening service delivery, health workforce capacity, and health information systems?* How effective were the interventions in improving access to and quality of healthcare services at different levels of the health system? What were the main factors (both internal and external) that influenced the achievement or non-achievement of the project's objectives? What were the main challenges encountered during the implementation of the HSSP, and how were they addressed? What were the unintended outcomes (both positive and negative) of the HSSP, and how were they managed? How effectively were stakeholders, including the MoHW, regional and local health authorities, and community organizations, engaged in the planning, implementation, and monitoring of the project? What was the level of community involvement and acceptance of the HSSP initiatives, and how did it impact the overall success of the project?
Efficiency	*Were the HSSP resources (financial, human, technical, etc.) used optimally to achieve the intended outcomes?* How well did the project management and implementation structures function? Were there any delays or bottlenecks in the implementation process? What cost-effective measures were adopted, and were there any instances of inefficient use of resources?
Impact	*What were the measurable changes in health outcomes resulting from the HSSP, such as improvements in service delivery, patient care, and health workforce performance?* How did the integration of the Belize Health Information System (BHIS) contribute to decision-making, data management, and overall healthcare delivery? What was the impact of the project on the health sector's resilience and preparedness for future public health emergencies?
Sustainability	*To what extent are the project outcomes and benefits likely to be sustained after the project ends?*

	Have the health systems, processes, and capacities strengthened by the project been institutionalized within the Ministry of Health and Wellness (MoHW) and other relevant stakeholders? What measures have been put in place to ensure the continuity of key interventions, particularly in terms of funding, capacity, and stakeholder commitment?

Methodology

The evaluation will use a mixed-methods approach and various data collection methods, including primary and secondary sources and triangulation with data from other sources. The evaluation team leader will propose the approach, methods, and tools most suitable and adequate to tackle the evaluation questions, including:

Desk review of policy and program documents and materials (Project agreement, annexes and amendments, guidelines, technical briefings, trainings, reports). The evaluation will triangulate these against relevant data and with across information from interviews.

Stakeholders' consultations through structured and semi-structured **interviews** and focus group discussions with PAHO staff, government officials, civil society organizations (as beneficiaries of PAHO's technical cooperation), and institutions related to the project. These consultations may also be used as further data collection and data validation methods, as well as a way of engagement and early learning of lessons identified during the evaluation process. Key stakeholders include the Chief Executive Officer, Directors and technical advisors of the Ministry of Health and Wellness, senior officials of the Regional Health Services, the team leader of the local EU office, past Representative of the PAHO country Office, previous project manager and consultants on the project.

Virtual consultations with relevant key stakeholders in and outside the country.

Site visits to facilities where civil works were done, and capacity building was provided

Possible limitations and mitigation measures

The evaluation could face limitations, listed below. More should be identified by the team and will be completed with the team's suggestions on how to address them. The limitations and challenges that are identified:

Limitations may include limited availability of relevant reports and data given that almost all the people involved with the project from inception are no longer at the Country Office. However, key informant interviews may be done virtually or by phone. Additionally, there may be inadequate time to do the full evaluation given the time constraints. This would need an experienced team to conduct various aspects of the evaluation simultaneously. Another limitation is the absence of a mid-term evaluation; however various annual reports and other relevant documents may be used to inform the evaluation.

Deliverables and work plan

Phase	Deliverables	Timeframe
Selection of the evaluation team	Presentation and internal discussion of terms of reference of the evaluation	5 November
	Presentation to Evaluation Reference Group, and finalizing the TOR	Mid November
	Selection of external team, and contract	End November

Phase	Deliverables	Timeframe
Inception report **Deliverable #1** **25%**	Discussion with evaluation team of proposal or timeline and onboarding.	First week December
	Inception Report: Max 10 pages excluding annexes, including work plan with response to ToR and proposed changes with the following sections: Introduction, context; purpose, objectives, criteria Methodology for evaluation, including: Evaluation matrix, evaluation questions/sub-questions, indicators, approach detailing data sources, data collection methods [field visits, focus groups, surveys, interviews, protocols as needed] and analysis. Stakeholder analysis: who to be consulted and how to engage them. Analysis of risks on methodology, limitations, mitigation measures. Detailed Work Plan/Timetable Annexes, with tools and instruments related to the evaluation matrix. Draft intervention logic/theory of change, tested by the evaluation. Draft final report outline (using PAHO/WHO evaluation template).	13 December
	Presentation to Evaluation Reference Group **(ERG1),** response to comments	Mid December
Data collection, and analysis	Collection of primary and secondary data, triangulation and validation	Week 1 February
Draft Evaluation report, reviewed **Deliverable #2** **45%**	**Draft evaluation report:** (preliminary findings, conclusions, recommendations. Time to reflect on what is emerging and counterparts to comment on findings. Brief description of the purpose and objectives of the evaluation Description of methodology, limitations, data, and contextual factors A chapter on good practices, lessons learned for decision-making. Quality assurance and validation of final report, internally and through **ERG2**	7 February
Final Evaluation report, Annexes **Deliverable #3**	**Final report:** following PAHO Handbook and UNEG guidelines, the report has a stand-alone executive summary and findings by question, with evidence-based conclusions. The report incorporates ERG and Evaluation Manager comments, as appropriate. A 2-page executive summary, tightly drafted, free-standing, focused on purpose and objectives, to outline main analytical points, findings, conclusions, best practices, lessons learned and actionable recommendations.	**24 February**
30%	**Sharing final report with ERG for final validation ERG3** The report will consider comments from the ERG. The maximum length of the Final report is 30 pages plus annexes, with a 2-page executive summary.	28 February

Management and quality assurance

As part of quality assurance, PAHO Evaluation will oversee all deliverables (inception report, report drafts, final report) for compliance with PAHO Evaluation Policy, Evaluation Handbook, and the UNEG quality standards[10].

The evaluation will be conducted by **external independent consultants.** The consultants will be accountable for, report to, and maintain regular and periodic communication with the evaluation manager, who will be responsible for the appropriate orientation and onboarding process of the evaluation team, guiding the team to learn about PAHO's context and PAHO's work in the country and facilitate the necessary consultations during the inception phases. PAHO Evaluation will backstop the external evaluation team if and as required.

An **Evaluation Reference Group (ERG)** is established to advise the Evaluation Manager at key stages of the evaluation process and comment on key deliverables (draft TOR, draft inception report, draft final report). The ERG includes representatives from the Ministry of Health and Wellness, the European Union, the PAHO country office and the PAHO Evaluation team. A total of four persons will comprise the ERG and will be objective individuals who were not involved in the implementation of the project. Members of the ERG must not have conflicts of interest in the project and strictly adhere to the advisory role.

Quality, code of conduct, and norms for evaluation in the UN System

In line with the 2021 PAHO Evaluation Policy, all evaluations in PAHO are informed by the UNEG (United Nations Evaluation Group) Norms and Standards for Evaluation (2016) and comply with the Ethical Guidelines for Evaluation. The quality of the evaluation deliverables should follow UNEG guidelines and the 2022 PAHO Evaluation Handbook. Evaluations of PAHO-supported activities must be independent, impartial, and rigorous, and evaluators and evaluation firm must model personal and professional integrity. The external team shall abide by the PAHO requirements for external contractual agreements. Evaluation team members are expected to comply with the UNEG code of conduct for evaluators throughout the process.

Evaluators and evaluation team

The evaluation team will comprise professionals and experts with solid backgrounds and experience in monitoring and program evaluation, health systems, resilience to climate change, and public health-related topics. The team should include one member with outstanding relevant methodological evaluation expertise.

The team must have experience in planning and conducting project evaluations using robust methods and approaches. They must understand (and be willing to learn about) PAHO's context and within the country. The evaluation team members must not have conflicts of interest, real or perceived, or declare them if any.

The skills and qualifications of team members include the following:

Team Leader (Evaluation and/or global health and/or health systems)

Advanced degree (Master's or PhD) in Public Health, Health Administration, Health Policy, Evaluation or related field,

Relevant experience **(over at least 8 years)** in health sector evaluations, with a strong focus on health systems strengthening, health service delivery, and quality of health,

Experience in designing and leading/participating in evaluation and/or applied research utilizing a wide range of approaches and methods,

[10] It will also have to comply with PAHO's Publications standards, that include the use of Vancouver referencing style, adequate use of PAHO's language, acronyms, and visuals, and the writing of the deliverables on American English.

Be familiar with working in the context in which PAHO operates (i.e. public health, in the Americas),

Experience leading or conducting evaluations for UN agencies or major bilateral donor country programs, and familiarity with UNEG Norms and Standards, and ethical standards for evaluation,

Facilitation skills, particularly for programmatic and organizational learning and virtual facilitation skills to engage effectively remotely and in person with stakeholders (desirable),

Respect for stakeholders, partners, and beneficiaries; ethical research (confidentiality and anonymity), flexibility, energy, resourcefulness, humility, willingness to learn and adapt on the go, and ability to resolve conflicts; and diplomacy in presenting the findings of evaluation processes,

Excellent command of English, spoken and written. Knowledge of Spanish is an asset.

Demonstrated track of producing high-quality reports on time.

Data and Research assistant and/or one national expert for field data collection and facilitation in the country

Five years of professional experience, including two years of exposure to monitoring and evaluation

Excellent writing skills in English (and Spanish desirable)

Solid computer skills in Microsoft Office Suite, including Excel or similar software

Experience collecting and analyzing data to determine its accuracy, and in synthesizing documents

Experience in quantitative and qualitative data collection methods, data cleaning and reporting

The national expert for field data collection should be a Belizean national or a resident in Belize

Application process and submissions

The commissioner (BLZ CO), with support by PAHO Evaluation will review the CVs of qualified candidates available from the PAHO Evaluation Consultants Roster, based on experience, qualifications, availability, and technical aspects useful for this task. Candidates will be assessed through an interview. The main criteria for assessing the bids are summarized in Table 1. Interested consultants will be asked to submit the following:

Detailed but concise CVs with links to references, relevant evaluation reports, and relevant work.

Detailed cover letter highlighting previous team experience in M&E, evaluation, and health systems.

Technical proposal, methods, and approach for this evaluation, in line with UN/UNEG and other international best practices, and specifically for PAHO's context, discussing risks and limitations.

Appendix 2. Profile of Evaluators

Bernardo Hernández Prado

Dr. Hernández Prado has a first degree in Social Psychology (Metropolitan Autonomous University-Mexico), a Masters in Science in Social Psychology (London School of Economics and Political Sciences), and a Doctor in Science in Health and Social Behavior (Harvard School of Public Health). He has been working at the intersection of public health, epidemiology, and surveillance for nearly thirty years. Currently, he is the Dean of the School of Public Health of Mexico at the National Institute of Public Health in Mexico and an Affiliate Professor at the Institute for Health Metrics and Evaluation (IHME) at the University of Washington (UW). He has published over 140 peer-reviewed journal articles and is a Mexican National Researchers System level II member.

His first experience in evaluation was the evaluation of the Mexican National anti-poverty program Progresa-Oportunidades, a conditional cash transfer program that became a regional model in the early 2000s. His interests include using various surveillance and monitoring activities to improve health system performance and build capacity in low-resource settings. He has participated in various evaluations regarding health program performance and capacity, emphasizing maternal and child health, as well as malaria in Central America, where he evaluated the Mesoamerican Health Initiative and the Regional Malaria Elimination Initiative. He has also studied immunization coverage in Central America, focusing on measles, mumps, and rubella. He has looked at increases in immunization rates and crude versus effective immunization coverage. He has also worked extensively on projects to validate and improve verbal autopsy techniques and chronic disease diagnosis questionnaires and to apply these methods to improve vital registration systems.

Additionally, Dr. Hernández Prado has led and conducted several projects that used qualitative methods, including the Prospective Country Evaluation, an assessment of the barriers and facilitators to implementation of the Global Fund business model in Guatemala, the Democratic Republic of Congo, Uganda, and Senegal, as well as a Study Case in Bolivia on the implementation of Global Fund strategies. With his knowledge of program evaluations in Central America, he has gained unique skills to apply to the design and implementation of similar evaluations, including creating quality questionnaires and assisting with training and supervision throughout data collection efforts.

He is committed to mentoring and training young researchers alongside his research projects. He is now Dean of the School of Public Health of Mexico, where he previously conducted teaching and thesis direction. He also worked as the Director of the Health Metrics track of the Master of Public Health program at the University of Washington.

Miguel Usher

Miguel Usher is a development consultant and project manager with extensive project management experience after working for more than 15 years in successfully managing projects from both the donor and grantee perspective. He holds an M.B.A. with a concentration in Sustainable Development from Galen University and a B.B.A. from the University of Belize. His interests are in community development and socioeconomic strategy and planning.

He was previously a Programme Assistant for the Global Environment Facility Small Grants Programme (GEF SFP), where he had the opportunity to interact with communities throughout

Belize and assisted in facilitating public participation in all aspects of project development and execution. During this time, his skills in resolving conflict, financial management, and project management were greatly enhanced. Miguel later managed several development projects that sought to address poverty through increased access to financial services. He continues to be involved in development project management.

Through his work as a consultant, Miguel has engaged in assignments that support development through capacity building and market research for enhanced service and product provision. Miguel currently is a Senior Technical Consultant with praxi5 Advisory Group Ltd. Over the years, he has worked with and undertaken consultancy assignments for development programs and agencies such as the Belize Rural Development Programme, Belize Rural Finance Programme, Ministry of Human Development, Ministry of Economic Development, Ministry of Infrastructure, Development, and Housing, RESTORE Belize, the Belize Audubon Society, Environmental Defense Fund, Oak Foundation, Protected Areas Conservation Trust, Belize Tourism Board, University of Belize, Colleges and Institute Canada, United Nations Development Programme, United Nations Office for Programme Services, Inter-American Development Bank, German Agency for International Cooperation, and the International Union for Conservation of Nature.

Appendix 3. Data Collection Tools

Data Collection Instrument for the Final Evaluation of HSSP Belize

1. Criteria and Key Evaluation Questions

Relevance

Objective: Assess the alignment of project objectives with national health priorities and community needs.

Core Questions:

- To what extent were the HSSP objectives aligned with the health needs and priorities of Belize, particularly in the context of COVID-19, climate change, and data fragmentation?
- How well did the HSSP address the needs of vulnerable and underserved populations, including rural and low-income communities?
- Were the selected strategies and interventions appropriate for achieving the HSSP's goals?

Additional Questions:

- How were the priorities of local stakeholders integrated into the project design?
- What alternative strategies, if any, could have enhanced the project's alignment with health needs?
- Were community leaders and local councils involved in identifying key needs?

Effectiveness

Objective: Measure the extent to which the project achieved its intended objectives and outcomes.

Core Questions:

- How effective were the interventions in improving access to and quality of healthcare services?
- What were the main factors influencing the achievement or non-achievement of project objectives?
- What were the unintended outcomes (positive and negative) of the HSSP, and how were they managed?

Additional Questions:

- Were the training programs for healthcare workers adequately designed and delivered to meet objectives?
- How effective were the retrofitting efforts in increasing disaster resilience and sustainability of health facilities?
- To what degree were partnerships with local stakeholders leveraged to enhance implementation?

Efficiency

Objective: Assess whether resources were used optimally to achieve the desired outcomes.

Core Questions:

- Were the HSSP resources (financial, human, technical) used efficiently to achieve intended outcomes?
- How well did the project management structures function?

Additional Questions:

- Were there significant cost savings or overruns? If so, why?
- Were there any delays in project implementation, and how were they mitigated?

Impact

Objective: Identify measurable changes in health outcomes resulting from the project.

Core Questions:

- What were the measurable improvements in health service delivery and health outcomes?
- How did the integration of the Belize Health Information System (BHIS) contribute to decision-making and healthcare delivery?

Additional Questions:

- What long-term impacts on healthcare resilience and capacity can be attributed to the HSSP?
- How have stakeholders' capacities changed as a result of the project?
- What evidence exists of changes in community-level health indicators?

Sustainability

Objective: Evaluate the likelihood that project outcomes and benefits will continue post-implementation.

Core Questions:

- To what extent have strengthened systems, processes, and capacities been institutionalized?
- What measures have been put in place to ensure the continuity of interventions?

Additional Questions:

- What additional investments are needed to sustain the project's outcomes?
- Are there clear commitments from the government and stakeholders to maintain the gains?
- How have community organizations been empowered to support sustainability?

Visibility (NEW)

Objective: Assess the extent to which the project's visibility objectives were achieved.

Core Questions:

- To what extent was the EU's contribution to the HSSP acknowledged in project activities and outputs?
- Were communication and visibility strategies effectively implemented?

Additional Questions:

- How were visibility objectives incorporated into project design and implementation?
- What communication tools (e.g., media campaigns, public events) were most effective in enhancing visibility?
- Were stakeholders, including beneficiaries, aware of the EU's involvement in the project?
- Did visibility activities align with EU and PAHO/WHO guidelines for acknowledgment of donor contributions?
- What lessons were learned regarding the effectiveness of visibility measures?

2. Evaluation Questions for Primary Stakeholders

Ministry of Health and Wellness (MoHW)

Relevance:

- How well did the project address the specific priorities and needs of Belize's health sector?
- Were the health reforms implemented through the project aligned with the MoHW's strategic goals?
- Were there any challenges in ensuring the project's design aligned with the priorities and needs of stakeholders? In particular vulnerable and underserved populations, including rural and low-income communities.

Effectiveness:

- How effective was the project in improving health system governance and service delivery?
- What were the unintended outcomes (positive and negative) of the HSSP, and how were they managed?
- What role did the MoHW play in supporting project activities, such as retrofitting and training?

Sustainability:

- What measures has the MoHW taken to sustain the benefits of retrofitting and health system improvements?
- Are there commitments for maintaining the Clinical Data Exchange Platform (CDEP) and disaster-resilient infrastructure?

Pan American Health Organization (PAHO/WHO)

Relevance:

- How did PAHO/WHO's technical expertise align with the needs of the project?
- Were there any challenges in ensuring the project's design aligned with the priorities and needs of stakeholders?

Efficiency:

- Were the HSSP resources (financial, human, technical) utilized optimally to achieve project goals?
- How well did the project management structures function?
- Were there any gaps in communication, resource allocation, or stakeholder engagement?
- Were there any delays in project implementation, and how were they mitigated?

Effectiveness:

- What challenges did PAHO/WHO face in coordinating the implementation, and how were they mitigated?
- What challenges did you encounter in collaborating with other stakeholders during project implementation?

Sustainability

- What lessons were learned from overcoming these challenges that could inform future projects?

Regional and Community Hospitals

Relevance:

- How relevant were the retrofitting activities to the operational challenges faced by the hospitals?

Effectiveness:

- How have retrofitted facilities improved service delivery and disaster resilience?

Sustainability:

- What is the capacity of hospital management teams to maintain SMART infrastructure?

Local Communities and Community Health Workers

Relevance:

- Were community health needs adequately considered in the project design?

Effectiveness:

- How has the project improved access to quality healthcare services for the local communities?
- How effective were the training programs for Community Health Workers in improving NCD management?

Sustainability:

- What is the level of community involvement in sustaining health promotion and disaster preparedness initiatives?

Primary Healthcare Facilities

Relevance:

- How well did the expansion of the Belize Health Information System (BHIS) address the needs of primary healthcare facilities?

Effectiveness:

- How have the BHIS upgrades improved patient management and decision-making?

Community Leaders

Relevance:

- Were local health priorities and community-specific needs adequately incorporated into project activities?

Effectiveness:

- How effective were the project's community engagement strategies in fostering support and participation?
- What barriers, if any, were encountered in engaging the community to participate in health promotion activities?
- How did the project address cultural or logistical challenges in reaching underserved communities?

Sustainability:

- What role do community leaders see themselves playing in sustaining health promotion activities and infrastructure improvements?

Appendix 4: Key Project Stakeholders Interviewed

First Name	Last Name	Post	Organization
Ministry of Health and Wellness			
Julio	Sabido	Chief Executive Officer	Ministry of Health and Wellness
Lizett	Bell	Deputy Director	Hospital Services and Allied Health
Jorge	Polanco	Director	Hospital Services and Allied Health
Greg	Cabral	Head	National Engineering Maintenance Center
Jorge	Sajia	Facility Administrator	Punta Gorda Community Hospital
Angela	Gilharry	Deputy Regional Manager	Corozal Community Hospital
Maria	Monima	Southern Regional Health Manager	Southern Regional Hospital
Rochelle	Cabral	Director	Central Medical Lab
Claudette	Dakers-Norales	Information Officer	Ministry of Health and Wellness
Kathleen	Cho	Technical Advisor	HECOPAB
Lizette	Abarca	Software Trainer for BHIS	Ministry of Health and Wellness
Inez	Sanchez	Information Systems	Ministry of Health and Wellness
Russell	Manzanero	National Epidemiologist	Ministry of Health and Wellness
Jessie	Chun	Biostatistician	Epidemiology Unit
Shona	Popper	Health Educator	Ministry of Health and Wellness
Solomon	Enriquez	-	Ministry of Health and Wellness
Tricia	Perez	Primary Health Coordinator	Corozal Community Hospital
Emir	Castaneda	Health Educator	HECOPAB

First Name	Last Name	Post	Organization
EU Office in Belize			
Xavier	Canton-Lamousse	Team Leader	European Union Technical Support Office
Aniceto	Rodriquez Ruiz	Head of Corporation	European Union delegation to Jamaica, Turks and Caicos Islands, Bahamas and the Cayman Islands
PAHO/WHO			
Karen	Lewis-Bell	PWR	PAHO/WHO
Noreen	Jack	PWR (Former)	PAHO/WHO
Edwin	Bolastig	Advisor	Health Systems and Services
Peitra	Arana	Coordinator	HSS Component, EU Grant
Roland	Ngouyamsa	Coordinator	SO3, EU Grant
Annalisa	Sandcroft	NPC	SO2, EU Grant
Alondra	Izaguirre	NPC	SO2, EU Grant
Karen	Roberts	Technical Advisor	PAHO/WHO
Ruby	Dominguez	Office Administrator	PAHO/WHO
Lucien	Chung	Project Engineer	PAHO/WHO
Olivia	Contreras-Perera	Procurement Specialist	PAHO/WHO
Zenena	Moguel	Communications and Visibility Specialist	PAHO/WHO
Shelly	Salazar	Procurement Specialist	PAHO/WHO
Roberto	Bohrt	Technical Advisor	PAHO/WHO
Lealou	Reballos	Sub-regional Advisor	PHE

First Name	Last Name	Post	Organization
GOB			
Luis	Salazar	Director	National Authorizing Office, Ministry of Foreign Affairs
Project Steering Committee			
Perlita	Aldana	President	Belize Medical and Dental Association
NHI			
Jose	Colli	Information Officer	NHI

Appendix 5: Project Results

Table 1A: SO1 Results

Activity	Targeted Results	Outputs	Deliverables/Products	Status
SO1: To develop efficient, effective, disaster-resilient, and environmentally friendly health facilities.				
1.1 SMART Facility Base Assessment Tool completed for 50 health facilities and final design for works and tender dossiers elaborated.	Completion of assessments and design plans for SMART hospital upgrades.	- SMART assessment for targeted facilities completed. - Tender dossiers prepared for planned works.	- SMART Hospital Baseline Assessment Report. - Finalized tender documents for facility upgrades.	Completed
1.2 Tendering of supervision of works.	Supervision contract awarded for hospital retrofitting projects.	- Selection of firms to oversee retrofitting works.	- Contract agreements with engineering firms. - Work plan for project supervision.	Completed
1.3 Upgrade of Northern Regional, Southern Regional, and Western Regional Hospitals.	Retrofitted and modernized regional hospitals with improved resilience and energy efficiency.	- Construction works completed at targeted facilities. - Improved structural and operational resilience.	- Completion certificates for upgraded hospitals. - Reports on energy and structural improvements.	Ongoing (Southern Regional completed, Northern and Western in progress)
1.4 Upgrade of Punta Gorda and Corozal Community Hospitals.	Strengthened infrastructure in community hospitals to improve service delivery.	- Infrastructure and equipment upgrade at selected community hospitals.	- Operational reports detailing facility upgrades. - Staff feedback on facility improvements.	Completed
1.5 Upgrade and retrofitting of Central Medical Laboratory.	Enhanced laboratory capacity to improve diagnostics and outbreak response.	- Modernization of laboratory infrastructure and equipment.	- Laboratory assessment report. - Completion certificate for retrofitting works.	In Progress (Expected completion by Q2 2025)

Activity	Targeted Results	Outputs	Deliverables/Products	Status
1.6 Develop a health facility preventive maintenance plan.	Institutionalized maintenance strategy for healthcare facilities.	- Preventative maintenance plan developed and rolled out. - Training provided to facility management teams.	- National Health Facility Maintenance Manual. - Training records for facility managers.	Completed
1.7 Create an electronic repository system for the digitalization of facility assessments, infrastructure designs, etc. for information storage and sharing.	Digital repository established for ongoing facility management and reference.	- Centralized digital platform operationalized. - Historical and new assessments stored electronically.	- Online repository database for facility records. - User manual and access guidelines.	Ongoing
1.8 Develop a Multi-Hazard Plan and training for health teams in disaster preparedness.	Strengthened disaster preparedness and response in healthcare facilities.	- Multi-Hazard Plan developed and implemented. - Disaster preparedness drills conducted.	- National Multi-Hazard Plan for Health Facilities. - Reports on emergency response drills and simulations.	Completed
1.9 Gender-responsive capacity building of MOH staff and disaster response teams.	Gender-sensitive disaster response training incorporated in health sector planning.	- MOH and response teams trained in gender considerations during emergencies.	- Training manuals and attendance records. - Reports on gender-sensitive emergency planning.	Completed
1.10 Training of NEMC and regional maintenance staff in	Strengthened technical capacity for infrastructure upkeep and	- Regional maintenance staff trained. - Institutionalized training	- Maintenance training curriculum. - Certified list of trained personnel.	Completed

Activity	Targeted Results	Outputs	Deliverables/Products	Status
preventive maintenance.	equipment maintenance.	program for new staff.		

Table 1B: SO2 Results

Activity	Targeted Results	Outputs	Deliverables/Products	Status
SO2: Health information system strengthened in collaboration with an organized surveillance system.				
2.1 Assess the Health Sector Reform and reorganize the organizational structure.	Improved health system governance and efficiency.	- Comprehensive assessment of health sector reform completed. - Recommendations for restructuring finalized.	- Health Sector Reform Assessment Report. - Organizational restructuring plan.	Completed
2.2 Develop an Integrated Care Model for service delivery focusing on primary care services.	Enhanced primary healthcare access and service integration.	- Integrated Care Model framework developed. - Pilot implementation in select health regions.	- Integrated Care Model Strategy Document. - Reports on pilot implementation and evaluation.	Ongoing
2.3 Develop a National Nutrition Policy.	Improved national guidelines for nutrition and dietary health.	- National Nutrition Policy developed and approved. - Stakeholder consultations completed.	- National Nutrition Policy Document. - Reports on policy dissemination and awareness campaigns.	Completed
2.4 Promote health and education for preventing NCDs.	Increased awareness and prevention measures for Non-Communicable Diseases (NCDs).	- Health education campaigns conducted. - School-based nutrition and physical activity programs launched.	- Reports on NCD prevention initiatives. - Educational materials for schools and communities.	Ongoing
2.5 Provide training in results-based management, strategic	Strengthened capacity in health sector planning and budgeting.	- MoHW staff trained in strategic planning and results-based management.	- Training manuals and reports. - List of trained personnel with certification.	Completed

Activity	Targeted Results	Outputs	Deliverables/Products	Status
planning, and program budgeting.		- Training materials and capacity-building sessions conducted.		
2.6 Design and implement a Monitoring and Evaluation System for the health sector.	Improved tracking and assessment of health sector performance.	- M&E framework developed and integrated into MoHW systems. - Staff trained in data collection and performance evaluation.	- Health Sector M&E System Framework. - Reports on M&E implementation progress.	Ongoing

Table 1C: SO3 Results

Activity	Targeted Results	Outputs	Deliverables/Products	Status
SO2: To support tender, installation, and operationalization of a Supply Data Exchange Warehouse and Analytics Platform software (referred to as CDEP) for the Ministry of Health and Wellness				
3.1 Tendering and installation of software for a Clinical Data Exchange Warehouse and Analytics Platform (CDEP) for the MoHW.	Established CDEP in accordance with international and national standards and regulations.	- Procurement process completed for CDEP software. - Installation of CDEP software initiated.	- Tender documents and awarded contract. - Software installation report.	Completed
3.2 3.2 Establish interoperability between BHIS, RAWA, and additional MoHW software including the Cancer Registry.	Integrated digital health information system enabling seamless data sharing.	- Interoperability framework designed. - Technical integration with BHIS, RAWA, and Cancer Registry.	- Interoperability strategy document. - Integration test reports.	Completed
3.3 3.3 Cancer Registry	Improved data collection and management of	- Cancer Registry software upgraded.	- Cancer Registry upgrade report.	Completed

Activity	Targeted Results	Outputs	Deliverables/Products	Status
enhancement facilitated.	cancer-related health records.	- Data input and reporting functionalities enhanced.	- Training materials for Cancer Registry users.	
3.4 3.4 Health management teams/staff trained in BHIS, CDEP, surveillance and epidemiology modules, and ICD-11.	Strengthened technical capacity of MoHW personnel in digital health solutions.	- Training curriculum developed for health information systems. - Training sessions conducted for MoHW staff.	- Training reports and certification records. - List of trained personnel.	Ongoing
3.5 3.5 M&E indicators developed within the CDEP.	Enhanced monitoring and evaluation of health system performance.	- Set of key performance indicators integrated into CDEP. - M&E framework established for digital health monitoring.	- CDEP M&E indicators report. - Performance tracking dashboard.	Completed

Appendix 6. References

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