**THE MINISTRY OF HEALTH AND WELLNESS**

**REQUEST FOR EXPRESSIONS OF INTEREST (Consulting Firm)**

**PROJECT IMPACT ASSESSMENT**

**Institution:** Ministry of Health and Wellness

**Country:**Jamaica

**Project:** Support for The Health System Strengthening for The Prevention and Care Management of Non-Communicable Disease Programme

**Sector:** HEALTH

**Loan/Credit/Grant No.:** JA – L1049

**Contract/Bid No.:** SHSSP-117-SBCC-CF-3.2.1

**Deadline*:*****November 15, 2021**

The Government of Jamaica, through the Ministry of Health and Wellness, has received financing from the Inter-American Development Bank (IDB), toward the cost of the Support for The Health System Strengthening for The Prevention and Care Management of Non-Communicable Disease Programme, and intends to apply part of the proceeds for consulting services.

The consulting services ("the Services") will ascertain the Health System Strengthening Programme's effectiveness to reduce Non-Communicable (Chronic) Diseases risk factors and improve the access, efficiency, and quality of ambulatory and hospital care to patients with NCDs in prioritized areas. **The consultancy will have a duration of 6 months**.

The Ministry of Health and Wellness now invites eligible consulting firms ("Consultants") to indicate their interest in providing the Services. Interested Consultants should provide information demonstrating that they have the required qualifications and relevant experience to perform the Services. The firm should meet the following criteria:

* Experience organizing large-scale surveys, studies or impact evaluations within the past five (5) - ten (10) years.
* Experience in design and implementation of evaluations of quantitative impact using randomized or otherwise controlled designs in the health sector

Consultants will be selected according to the procedures set out in the Inter-American Development Bank: Policies for the Selection and Contracting of Consultants financed by the Inter-American Development Bank GN-2350-9 and is open to all eligible bidders defined in the policies.

Consultants may associate with other firms to enhance their qualifications but should indicate clearly whether the association is in the form of a joint venture and/or a sub-consultancy. If selected, all the partners in the joint venture shall be jointly and severally liable for the entire contract in the case of a joint venture.

A Consultant will be selected in accordance with the Quality and Cost Based Selection set out in the IDB's Policies.

Expressions of interest (EOI) must be delivered via the government electronic procurement portal at <https://www.gojep.gov.jm> by **4:00 P.M. November 15, 2021*.* EOI will be opened online at 4:15 P.M., November 15, 2021. Therefore, firms are urged to commence upload at least two (2) hours prior to the submission time. The Procuring Entity will not be held liable for EOIS not submitted on time due to the late commencement of the upload. Firms must contact the Office of Public Procurement Policy at the FIRST SIGN of any technical difficulties: (876) 932-5220,932-5253,932-5246.**

**All firms who wish to participate in this tender opportunity must first be registered on GOJEP at www.gojep.gov.jm. To register, please select the "Register as a supplier" link from the GOJEP system's home page. For assistance regarding training, registration, download of tender documents and upload of tender proposals, please contact the Ministry of Finance, the Office of Public Procurement Policy Customer Care Desk at (876)932-5220/932-5246/932-5253/932-5251/932-5244 or e-mail at opppcustomercare@mof.gov.jm.**

Further information can be obtained at the address below during office hours, Monday to Friday at *9:00 A.M. to 4:00 P.M*.:

**Support for the Health Systems Strengthening for the Prevention and Care Management of Non-Communicable Diseases (NCDs) Programme**

**Ministry of Health and Wellness**

**Attn: The Procurement Management Specialist**

**IBM Building 3rd Floor,**

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**Kingston 5.**

**Tel: (876) 633-7433**

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# **TERMS OF REFERENCE**

**PROJECT IMPACT ASSESSMENT**

JAMAICA

*Project JA-L1049*

<https://www.iadb.org/en/project/JA-L1049>

**Support for the Health System Strengthening Programme for the Prevention and Care Management of Non-Communicable Diseases**

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## 1. Background and Justification

### 1.1. Introduction

The Support for the Health System Strengthening Programme for the Prevention and Care Management of Non-Communicable Diseases (JA-L1049; JA-L1080) is an IDB funded initiative that commenced in December 2018. The Programme’s objective is to improve the health of Jamaica’s population by strengthening comprehensive policies for the prevention of Non-Communicable (Chronic) Diseases (NCDs) risk factors and improved access to an upgraded and integrated primary and secondary health network in prioritized areas with an emphasis on chronic disease management, that provide more efficient and higher quality care.

The programme is structured using a ‘hybrid model’, which features an investment loan and a programmatic policy-based loan (PPBL) to attain its primary objective. The policies in the PPBL will consolidate regulatory measures to address the preventable causes of NCDs and reorient the health system to address the prevention and control of NCDs through a people-centred chronic care model implemented in primary care settings. The investment component will, in turn, finance activities to consolidate integrated health networks and improve the management, quality and efficiency of healthcare services. The PPBL will benefit the Jamaican population at-large, and the investment loan will reach approximately 800,000 potential direct beneficiaries who reside in the catchment areas of the health services networks that will receive investments.

The Programme logic links the policy reforms to the proposed investments. For the PPBL, the GOJ and the Bank identified vital policies to reduce the risk factors and to improve clinical management of NCDs. It took into consideration the processes and timeframe of such policy measures and the duration of the PPBL series. The policy actions of the first operation prioritized the formulation of regulatory frameworks aimed at reducing the risk-factor behaviours of the population and at aligning health policies, guidelines, and protocols for the efficient management of NCDs.

The second operation of the PPBL emphasizes the implementation of the policies, with robust means of verification that the GOJ fulfilled in 2020. It includes a second set of measures to strengthen the Ministry of Health and Wellness (MOHW) capacity to provide NCD management aligned to best practices. These measures comprise the design and implementation of a Chronic Care Model (CCM), NCDs' screening and nutritional management guidelines suitable for primary care services, the development of a national strategic plan for mental health to provide comprehensive, integrated and responsive mental health services in community-based settings, and the development and approval of an action plan for information systems for health.

The first operation provides the necessary regulations and policies to implement a coherent and comprehensive strategy to address the risk factors and streamline the clinical management of NCDs. The second operation will support the implementation of such regulations and policies, which will contribute to easing the NCDs' burden. Further progress will be contingent on effective behaviour change of the population in terms of healthy lifestyles, which is supported by both operations, and the continued strengthening of the integrated health network approach with sound primary health care.

The investment loan supports the implementation of policy loan initiatives. It establishes a more conducive environment in the health facilities for NCDs risk factor reduction and clinical management. In general, it will increase the capacity of health centres and hospitals to diagnose and treat NCD patients. Specifically, it provides resources for the application of guidelines and screening procedures for early detection and care of NCDs. Additionally, the investment loan will finance the roll-out of the CCM, which is a comprehensive patient-centred care approach for NCDs care. The health information system is another area in which the policy loan establishes a framework for intervention that the investment loan effectively adopts for implementation on a pilot basis. Moreover, the Programme´s strategy considers gender factors in the policies to combat NCDs through prevention, promotion, and clinical management.

### 1.2. Objectives, Components and Cost of Programme

**Objective.** The programme objective is to contribute to the improvement of the health of Jamaica’s population by strengthening comprehensive policies for the prevention of Non-Communicable (Chronic) Diseases (NCD) risk factors and an improved access to an upgraded and integrated primary and secondary health network in prioritized areas with an emphasis on chronic disease management, that provide more efficient and higher quality care.

The following table shows some basic characteristics of the population within the three parishes. About 90% of the population of these parishes lives in the catchment area of the project, thus representing about 33% of the national population. The male/female distribution is like the national population. In terms of urban/rural distribution, St. Catherine is more urban, with St. Ann and Clarendon being more rural.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **St Catherine** | **St Ann** | **Clarendon** | **Jamaica - Total** |
| Population (Census 2011) |  |  |  |  |
| Total | 516,218 | 172,362 | 245,103 | 2,697,983 |
| Male | 250,358 | 86,662 | 123,791 | 1,334,533 |
| Female | 265,860 | 85,700 | 121,312 | 1,363,450 |
| Urban population | 398,555 | 49,812 | 85,861 | 1,454,153 |
| Rural population | 117,662 | 122,550 | 159,242 | 1,243,832 |
|  |  |  |  |  |
| Prevalence of poverty (%, 2012) | 24.0 | 18.4 | 19.33 | 19.9 |
|  |  |  |  |  |
| Households with Elderly Member(s) (%, 2012) | 30.2 | 29.5 | 28.2 | 31.8 |

### 1.3. Programmatic Policy Based Loan JA-L1080

**Component 1. Macroeconomic stability.** The objective is to maintain an appropriate macroeconomic policy framework congruent with the programme’s objectives and in accordance with the provisions of the Policy Letter and the Policy Matrix.

**Component 2. NCDs risk factors reduction.** Policies in this component address the four principal avoidable risk factors that cause NCDs: tobacco, harmful use of alcohol, unhealthy diets, and lack of adequate physical activity.

* The GOJ drafted a Comprehensive Tobacco Legislation (CTL) to keep with the treaty obligations under Framework Convention & Tobacco Control (FCTC) to reduce the prevalence of tobacco usage (policy condition 2.1). The CTL includes, among others: (i) the regulation of interactions of GOJ officials with the tobacco industry; (ii) regulation of price and related measures; (iii) the full and mandatory prohibition on tobacco advertising, promotion, and sponsorship, including a ban on point-of-sale tobacco displays; and (iv) compliance with the Protocol to Eliminate Illicit Trade on Tobacco Products. The first operation supported the Cabinet´s mandate to authorise the drafting of the Bill, while the second operation upheld a draft bill submitted to the Legislative Sub-Committee of Cabinet, and a submission to Cabinet seeking approval for accession to the Protocol to Eliminate Illicit Trade in Tobacco Products, which is a part of the FCTC.
* The MOHW developed and approved a policy paper to reduce the harmful use of alcohol (policy condition 2.2). The policy is aligned to WHO guidelines and best‑buys regarding advertisement and sponsorship, availability, and pricing. The first operation supported the development and approval MOHW of the Concept Paper for the Reduction of Harmful Use of Alcohol Policy. The second operation upheld the development and approval by the MOHW and submission to the Human Resources Sub-Committee of Cabinet of the draft National Policy for the Reduction of Harmful Use of Alcohol.
* The MOHW developed, approved, and implemented a Plan within the Jamaica Moves at School Initiative to promote healthy eating habits, physical activity, and age-appropriate health check-ups (policy condition 2.3). The Plan includes provisions to limit the sugar content of beverages offered at school, facilitate increased physical activities amongst students, and strengthen capacity at schools to identify and respond to at-risk students for NCDs. The first operation supported the development and approval of the plan to implement the initiative. The second operation supported its implementation.
* The MOHW approved and implemented an Infant and Young Child Feeding Policy and Strategic Plan (IYCFPSP) to reduce malnutrition in infancy and childhood (policy condition 2.4). The policy includes measures to address deficiencies and obstacles experienced in infant and young child nutrition. It also provides the context for the development of innovative approaches to influence the determinants of nutritional behaviour. These approaches comprise exclusive breastfeeding during the first six months of an infant’s life, adequate complementary feeding, and support to the mother and the Baby-Friendly Hospital Initiative (BFHI). The first operation supported the policy’s approval by the MOHW and submission to Cabinet. The second operation supported the early implementation of the policy in key areas such as BFHI accreditation, community support groups and certification of key personnel.
* To promote healthy eating and to provide useful, actionable, and timely information (policy condition 2.5), the second operation supports the implementation of a social marketing campaign to promote behavioural change as related to eating habits in support of the implementation of the National Food‑based Dietary Guidelines.

**Component 3. NCD early detection and clinical management.** This component includes regulatory and policy measures to improve the management of NCDs.

* The MOHW commissioned the development of a CCM Concept Paper and Policy for the risk factor reduction, early detection, treatment, diagnosis, and support for priority NCDs (cardiovascular disease, diabetes, cervical, breast, prostate and colorectal cancer, depression, and asthma) to strengthen the delivery system design for priority NCDs care (policy condition 3.1). The CCM emphasizes a gender-sensitive approach to the prevention, diagnosis, and treatment of NCDs. It prioritizes training health personnel in the gender determinants that influence NCDs and barriers to care and addresses the different manifestations of the disease, prevalence, health-seeking behaviour and feasibility of complying with treatment according to gender. The first operation supported the development of the CCM Concept Paper and Policy. The second operation endorses implementing the CCM Policy in at least one health network.
* The MOHW developed and started the implementation of screening guidelines for the primary care level to promote early detection of priority NCDs (policy condition 3.2). The first operation supported the approval of a concept paper for the development of the screening guidelines. The second operation included the approval and early implementation of the screening guidelines through a pilot at the primary care level.
* The programme supported the development, approval, and publication of guidelines for the nutritional management of obesity, diabetes, hypertension and cancer in hospitals and health centres. The guidelines set standards of care and improve the decision-making in the delivery of NCDs services (policy condition 3.3). Such guidelines include the development and implementation of the nutrition care plan based on nutritional adequacy, caloric control, nutrient density, variety, and balance, and the individual anthropometric, biochemical, clinical, and dietary data; the evaluation, documentation, and monitoring of nutritional care; directives for self-management and indications for referrals to a health care team. The first operation supported the development of the nutritional guidelines. The second operation supported MOHW approval and on-line publication.
* To strengthen Jamaica´s record on providing mental health services in community‑based settings and of mental health promotion and prevention strategies (policy condition 3.4), the programme will support the development and approval of the National Strategic Plan on Mental Health. The first operation will support the development of the plan, and the second operation will support the approval of the plan by the MOHW.
* The MOHW developed a National Plan of Action for IS4H (NPAI) to provide the foundational elements for Information Systems for Health (IS4H) (policy condition 3.5). The NPAI supports interoperability standards across components of information systems to facilitate tracking of patients throughout the public health sector, a referral system, modules to support NCD self‑management, follow-up appointments, telemedicine and telehealth initiatives. The first operation supported the development of the NPAI. The second operation upheld its approval, and the implementation of the Policy and Legal Framework Work Stream of the NPAI by developing a policy to govern the collection, use and disclosure of personal health information whether it exists on paper or other formats.

### 1.4. Investment Loan JA-L1049

**Component 1. Organization and consolidation of integrated health services networks.** This component is financing the purchase of medical equipment and improving infrastructure for primary health care services in the catchment areas of three priority hospitals to increase their capacity in health promotion and disease prevention, especially regarding chronic, non-communicable diseases. The investments focus on strengthening the diagnostic and screening capability and the clinical and resolutive‑capacity of health clinics. The improvements will allow for earlier detection and better management of chronic diseases and reduce the rate of avoidable hospitalizations. Concomitantly, the programme provides resources for the upgrading and expansion of three hospitals selected on criteria relating to strategic role in the national hospital network, supply-demand gap analyses, and physical needs assessment. The hospitals benefit from infrastructure upgrading and or expansion as well as modernization.[[1]](#footnote-2) This component’s interventions will provide more rational utilization of health sector resources and facilitate the more efficient distribution of cases according to complexity, with clinics and health centres attending to primary care patients while hospitals concentrate more exclusively on complex cases.

**Subcomponent 1.1. Strengthening primary care.** This component finances primary health care services improvement in the catchment areas of three priority hospitals. Specifically, infrastructure works in ten health centres including the construction of new clinics, and remodelling and expansion of infrastructure in selected health centres. It will also provide for the supply of new medical equipment for these facilities (including essential diagnostic and treatment items for NCDs, such as sphygmomanometers, electrocardiogram machines, pulse oximeters, defibrillators, computerized chemistry machines, etc.); engineering services for construction supervision; and the design and implementation of a program for corrective and preventive maintenance of medical equipment.

**Subcomponent 1.2. Increasing the capacity and efficiency of hospital services.** This subcomponent will address urgent needs to enhance patient safety and services in three hospitals whose catchment areas contain the health centres identified in subcomponent 1.1. Raising the level of complexity of services and the installed capacity to provide them at the centres and their reference hospitals should generate a more rational utilization of resources at both types of facilities, since the hospitals will be less burdened by primary care patients and will be able to utilize their assets on treatment of acute cases. Financing from this subcomponent will be allocated to: (i) the building and engineering designs for infrastructure improvement and expansion; (ii) the construction in three hospitals according to contracted plans and designs; (iii) the purchase of medical equipment to raise clinical capacity to partially account for existing demand; (iv) the purchase of imaging equipment, including computerized tomography machines; (v) industrial style laundry machines; (vi) construction supervision services; and (vii) the design and implementation of a corrective and preventive equipment maintenance programme.

**Component 2. Improvement of management, quality, and efficiency of health services.** The component provides technical assistance to design and implement the CCM in the participating health services networks; to review and develop care pathways and protocols; and to prepare change management, continuous quality improvement and social marketing for behaviour change strategies. It will also finance the implementation of the fourth Jamaica Health and Lifestyle Survey. Moreover, this component will contribute to overcoming the lack of reliable and timely information for policy formulation and planning and patient clinical management through: (i) Creating a strong foundation for a digital health ecosystem, including the adoption of standards for interoperability, system architecture, updated governance structure, and other key elements. (ii) The design and implementation of a sustainable Electronic Health Record (EHR) platform and the digitalization of critical processes within the improved CCM; and (iii) the strengthening of telehealth/telemedicine/telementoring capacity includes chronic care management, and establishing norms and processes for its institutionalization.

The effect of Covid-19 public health crisis in the Programme

Jamaica is within the countries affected by the Covid-19 pandemic. The MOHW reported the first patient on March 10, 2020, and by January 13, 2021, it has 13,759 patients. The Covid-19 incidence is 472 per 100,000 inhabitants. The pandemic has caused 313 deaths, which means a 2.2 case fatality rate, below the LAC average of 3.5%. The parishes in the intervention area of the Programme are St. Catherine, St. Ann, and Clarendon. These parishes account for 3,782 Covid-19 cases, which represent 32% of the total number of Covid-19 cases in the Country (St. Catherine n=2841, St. Ann n= 891, Clarendon n=662).

The MOHW has been implementing actions to contain the pandemic’s spread through case detection and management, including isolation of patients, contact tracing, community lockdowns, and continuous information and education to the population. The MOHW also strengthened the medical facilities response capacity of the, trained health personnel, provided personal protective equipment, supplied medical equipment, and adapted the medical facilities to manage Covid-19 patients. These include: the creation of a 22 bed COVID Ward at the Spanish Town Hospital, the retrofitting of an existing 26 bed ward for the provision of COVID care at the May Pen Hospital, and the retrofitting of the medical ward to provide 20 bed spaces for hospital management of COVID positive cases at the St. Ann’s Bay Regional Hospital.

The Covid-19 sanitary crisis has modified the supply of healthcare in the loan’s intervention area; moreover, it has several effects on the Programme. It is a significant variable to consider for the impact evaluation. The fact that the intervention area has most of the Covid-19 patients has delayed the continuation of the planned activities for 2020 of component 1 of the investment loan, which focuses on the organization and consolidation of integrated health services networks. Due to the lockdown and physical distancing restrictions, there is a slowdown of the infrastructure works. Another indirect effect has been the obstacles for non-Covid-19 patients to access medical care. This delay is partly justifiable since NCDs patients and those older than 60 years are at increased risk of developing severe complications if infected with Covid-19. However, this situation entails an additional risk, since if NCDs patients face barriers to access healthcare, it might negatively affect their health status. These considerations must be taken into account for the design, data collection, and interpretation of the impact evaluation results of the Programme.

## 2. Objectives of Evaluation

The primary objective of the impact evaluation is to ascertain the effectiveness of the Programme to contribute to the reduction of NCDs risk factors and to improve the access, efficiency, and quality of ambulatory and hospital care to patients with NCDs in prioritized areas.

The specific objectives are:

1. To determine the current performance of health services in the target health networks in terms of access and quality of care for NCD’s patients and for Covid-19 patients with NCDs.
2. To evaluate health outcomes (i.e., metabolic control) of patients with NCDs (cardiovascular conditions, hypertension, and diabetes) and with/without Covid-19
3. To assess the performance of integrated health networks to reduce fragmentation[[2]](#footnote-3) of the health services.
4. To estimate the triage’s efficiency at the hospitals of the integrated health networks for patients with NCDs with/without Covid-19.
5. To ascertain the users’ perception of the access and quality of healthcare services.
6. To estimate the impact of the implementation of eHealth solutions (EHR and Telemedicine) on the integrated care pathways and on data quality in the target health networks for the management of patients with NCDs with/without Covid-19.

## 3. Scope of Services

### 3.1. Evaluation design

Through strengthened integrated health services networks with robust primary care platforms, it will be possible to take full advantage of health promotion and prevention opportunities and manage patients with less complicated conditions outside the costlier hospital setting. In this manner, hospitals can operate more efficiently and attend to more complex cases in their more resource-intensive environment.

The evaluation will focus on upgraded and improved hospitals and ten health centres located in the intervention areas, as well as patients of those centres and it will aim to answer the following questions:

For Hospitals: (admissions, outpatient clinic, and health utilization)

1. Leading cause of admissions, by gender and age.
2. Leading cause of discharges by first-listed diagnosis, by gender and age.
3. Number of discharges by diseases of the circulatory system, respiratory system, diabetes, cancer and Covid-19 and divided by gender and age.
4. Days of in-patient care and average length of stay by disease category and gender.
5. Re-admission rates by disease category, age, and gender within 30 days of discharge.
6. Visits to the Emergency Department with information about:
   1. Triage categories assigned to patients according to the Emergency Severity Index (ESI) 5-point system and trends in the patients assigned ESI level 5 which should be decreasing as these are referred/transferred to primary care services.
   2. Trends in and targets for waiting time to complete triage (triage time); that is; time from entry to the department to end of the triage process.

For Health Centres:

1. Leading causes of curative visits by health condition
2. Number of visits, total and for selected NCD conditions, including Covid-19, by age and gender
3. Wait time
4. Number of patients with reference from hospital’s accident emergency departments
5. Number of patients with scheduled visits and walk-in visits
6. Percentage of patients with diabetes and hypertension, with/without Covid-19 adequately managed at the health centre
7. Number of Pap smears done by health centre
8. Number of Pap smear results by health centre
9. Number of antenatal visits, birth and postnatal care, infants, and children´s health visits,
10. Number of women with contraceptive methods

For patients at Health Centres

This instrument will allow to define indicators at the individual level related to:

1. Access
   1. Ease of access to PHC (i.e. availability of appointments)
   2. Use of health centres vs. hospitals for emergency visits
   3. Care disruptions due to Covid-19 pandemic
   4. Need to seek care at private providers
   5. Interaction with health providers due to missing appointments
2. Use of services
   1. Wait time
   2. Duration of consultation (time)
   3. Perception of attentiveness and resolution from health providers
   4. Availability of diagnostic tests – laboratory and medical imaging
   5. Availability of medications
   6. Coordination of care between health centres and specialized care
   7. Awareness and control of chronic conditions

## 4. Key Activities

1. Develop an Impact Assessment Concept Note, a budget and schedule detailing the agreement on the identification, collection and analysis of plan data, personnel, budget, and deadlines. The evaluation of impact will be integrated into the general project monitoring and evaluation plan.
2. Propose a preliminary experimental or quasi-experimental design for the evaluation of impact. The design should isolate the causal impact of the intervention on key performance indicator tool.
3. Consult with project team members on the evaluation design and project execution, making the necessary adjustments.
4. Seek feedback from stakeholders on the preliminary experimental design.
5. Develop an assessment tool and an accompanying research protocol.
6. Identify all the requirements for ethical approval of the activities of impact evaluation. In addition, he/she/firm will lead the development of the research protocol, which will include: Overview of the methodology, data collection and planning plan analysis, summary of the measures adopted for the protection of the human subject’s including confidentiality demanded, assessment of the risks and benefits of the respondents and approval by an ethics committee
7. Implementation of Impact Assessment activities at baseline, midterm, and end line.
8. Monitoring of activities related to the preparation and execution of the impact assessment, including identification of databases for analysis, identification of the result indicators within the different sources of data, articulation and crossings between the different bases
9. Analysis of the reference data to validate the evaluation design through the initial difference in media surveys.
10. Manage documentation and data storage.
11. Ensure adequate and complete documentation of evaluation activities of impact as well as making sure all the data and documentation corresponding is stored correctly.
12. Analysis of the data according to the design of the impact evaluation and the writing impact evaluation reports, presentations, and summary of policies.
13. Present Impact assessment report at baseline. The need for downstream work is anticipated with regards to a mid -term and end of term assessment.
14. Dissemination activities of impact results through presentations to project team and steering committee meetings and seminars, as necessary.
15. Support all those activities that, although not listed in these terms, are decisive for the correct implementation of the impact evaluation.

## 5. Reports / Deliverables

The contract must provide, to the MOHW’s satisfaction, the following products:

1. Inception Report/ Work plan
2. A validated impact evaluation design
3. Assessment tool and research protocol, including an overview of the methodology, the sampling design data collection and analysis plan; Overview of the measures adopted for the protection of human subjects, and the evaluation of the risks and benefits of respondents.
4. Impact evaluation reports for baseline. (Midterm and a final impact evaluation report as later deliverables in consideration of downstream work**)**, with a presentation and a policy note at the end of the programme.
5. All sets of final data, statistical codes and other inputs used for the impact evaluation
6. Dissemination activities.

All reports must be submitted to the MOHW. The report must include a title page, main document, and all attachments.

## 6. Project Schedule and Milestones

### 6.1 Evaluation Timelines-

| **Year** | **2020** | | | | **2021** | | | | **2022** | | | | **2023** | | | | **2024** | | | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Trimester** | **1** | **2** | **3** | **4** | **1** | **2** | **3** | **4** | **1** | **2** | **3** | **4** | **1** | **2** | **3** | **4** | **1** | **2** | **3** | **4** |
| Baseline survey at health networks |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Administrative record gathering and analysis (separate consultant) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Mid-term/ Interim Impact Evaluation (To be determined on 50% of the project implementation) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| End line Surveys at health networks |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Impact analysis |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Results dissemination and publication |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

### 6.2 Reporting Requirements

Reports/ Deliverables and Payment Schedule- Baseline Impact Evaluation Assessment

|  |  |  |  |
| --- | --- | --- | --- |
| **Product** | **Description** | **Contract Price** | **Delivery date** |
| 1 | On acceptance of a ***detailed inception report*** | 10% | 10 days after contract signature |
| 2 | On acceptance of inception report, ***report outlining assessment method, tool(s), and protocol(s)*** | 10% | 8 weeks after contract Signature |
| 3 | On presentation of ***final assessment tool(s) and collected data*** and on acceptance of ***report detailing baseline survey results*** | 30% | 4 months after contract signature |
| 4 | On acceptance of ***Draft Baseline Assessment*** and ***dissemination of findings*** to stakeholders | 20% | 5 months after contract signature |
| 5 | On acceptance of ***Final report of the Baseline Assessment*** | 30% | 6 months after contract signature |

## 7. What you will need:

**Qualifications of the Firm:**

* Experience in organizing large-scale surveys, studies or impact evaluations within the past five (5) - ten (10) years.
* Experience in design and implementation of evaluations of quantitative impact using randomized or otherwise controlled designs in the health sector

**Qualifications of the Team (Key Experts):**

 Team Leader:

* Master of Science Degree in health economics, actuary, related social science field, and certification project management or monitoring and evaluation
* Five to Ten Years of related/ similar experience.
* Extensive conceptual and methodological skills and experience in applying qualitative and quantitative research evaluation methods
* Experience in evaluating large investments, infrastructure development or social impact programmes/ projects.
* Excellent communication skills

National Expert / Primary Technical Consultant

* A Bachelor’s degree in Project Management, the Social Sciences or relevant field and or certification in Monitoring and evaluation
* A minimum of five (5) years of professional work experience in the areas of programme evaluation and or monitoring and evaluation, especially in health, education and development
* Extensive knowledge of and relevant experience in applying qualitative and quantitative evaluation/research methods, data analysis (households and facilities); using statistical analysis software (preferably STATA), special attention to research protocols, research documents and descriptive reports from a diverse audience
* Excellent communicative, both spoken and written skills in the local languages

Secondary Technical Expert/Health Specialist

* A Bachelor’s degree in Medicine, The Sciences or other relevant field
* Minimum of 5 years of professional work experience in the areas of programme monitoring and evaluation, especially in health, or development
* Knowledge of the organisational structures, systems, operations and performance in the local health sector
* A sound knowledge of development issues and results-based management system
* Experience in facilitating group discussions/ communication between the different levels of management and presentation of results

## 9. Characteristics of the Consultancy

Type of contract and modality: Products and External Services Contractual, Lump Sum

* Length of contract: 6 Months
* Starting date: September 2020.
* Location: External Consultancy.
* Responsible person: MOHW Patrick Hunter (Project Manager)

## Annex A.

### Impact Evaluation: Existing evidence base

Unlike most other groups of diseases, NCDs require management and control for extended periods of time, with high level of involvement of both patients, and participation and coordination of multiple healthcare providers (Glassman et al, 2010). The full range of care for management of NCDs includes strategies from primary prevention (preventing the onset of disease by reducing exposure to risk factors), secondary prevention (preventing the full development of disease in patients by detecting early symptoms and treating diagnosed cases), treatment and rehabilitation of acute cases (e.g. cardiac surgery), and palliative care (improving quality of life for patients in life-threatening conditions). Given high costs treatment of acute cases, successful approaches to management and control of NCDs emphasize primary and secondary prevention, and patient involvement is particularly important at these stages (Demaio et al, 2014). In the case of Jamaica, there was a significant progress on the NCDs response, both in service provision and prevention. However, the NCDs continue to pose a major and growing challenge in the country, being the four main NCDs: cardiovascular disease, diabetes, chronic respiratory disease, and cancer. The country is not on track to meet the overall regional NCD goal of 15% reduction in premature mortality by 2019. [[3]](#footnote-4)

While guidelines and protocols of clinical interventions have already been thoroughly developed in the literature and there are effective pharmacological treatments for most cases (McGuire et al, 2016), successful treatment also depend that patients adhere to prescribe treatment taking pills regularly, monitor basic health indicators such as weight and blood sugar levels, maintain a healthy diet and engage in physical activity, and abstain from smoking and excessive alcohol consumption (NICE, 2017). In this case, effective interventions have been less documented in the literature, especially in the context of the Caribbean region. Also, it is well established that although the clinical effectiveness of interventions has been established, the challenge in public health is the implementation in the real world, a challenge that is particular important in the context of developing countries such as Jamaica. So, the evaluation will focus on the impacts of the implementation of the policies in the Jamaican context.

On providing high quality services, evidence indicates that health systems that adopt the Chronic Care Model (CCM) within primary health care are more effective and efficient in managing and controlling NCDs (Hansen et al 2015; Bodenheimer et al 2002). The CCM’s principle is patient-centred care, meaning patients are treated holistically (i.e., considering context, all health problems, and needs), and are supported in learning self-management of their condition (Mahomed et al, 2015). Healthcare teams develop patient-centred treatment goals, plans, and interventions, implementing them across the full care pathway. The delivery network is set up to provide multidisciplinary primary care that covers the entire population, serving as a gateway to the system which integrates and coordinates health care across levels, including the community (Scholl et al 2014).

Evidence shows that in this supported context, interaction between informed, engaged patients and proactive primary care teams sustainably and consistently improves clinical results (Cramm and Nieboer 2014). To achieve the largest improvements in health outcomes, the literature and country experiences point towards actions in the following specific areas for CCM development: (i) digital information systems (electronic records, disease registries); (ii) tools for planning and quality improvement; (iii) decision support tools for providers (guidelines); (iv) integration of services (multi-disciplinary care delivery, care coordination mechanisms); (v) self-management support for patients (education, behaviour change incentives); and (vi) creation and leverage of community resources (Gaudreault and Muhire, 2014).

To our knowledge, no rigorous evaluation of the impact of self-care support component of the CCM on NCDs in the context of the Caribbean region has been published in the peer-reviewed literature so far. Elsewhere, a recent review (Baptista et al, 2016) has identified ten studies that addressed user empowerment for patients who manage their own care. A few of these studies have identified impacts on relevant clinical outcomes, but the evidence is still inconclusive. Recent publications have begun to tap into other sources of innovation for diabetic care, namely the use of information and communication technology (ICT) and insights from behavioural economics.

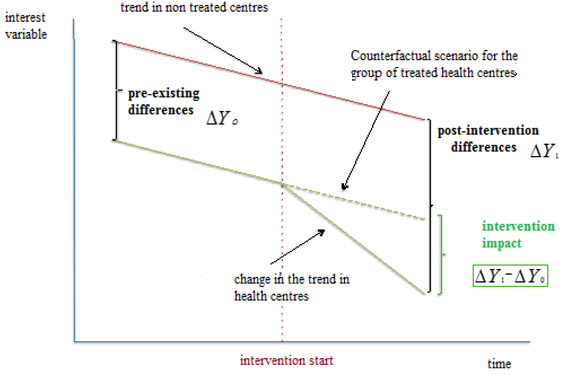
### Evaluation Methodology

The main methodology to be used to estimate impacts of the programme will be differences in differences (DID). This methodology compares the same unit of analysis, for example health centre, in time using data for periods before and after the implementation of a public policy or programme with other units that were not intervened. In Figure IV.1, it is graphically represented what this analysis estimates. The horizontal axis in the graph is time and the vertical axis represents levels of a result variable of interest, for example number of patients that attend a health centre to manage their NCD conditions properly.

The green line (group below) represents the treatment group, i.e. those health centres in which the programme will be implemented and the Red Line (line above) represents the comparison group, those health centres that will not be intervened. The first thing to appreciate is that in the pre-intervention period (extensive time series may be taken) there are different levels between treatment group units and comparison group units. For this example, the treatment group presents levels (solid lines) the share of diabetic patients properly managed below the observed level for the comparison group. This may or may not be the case, as by not having a random allocation, it is common to see that treatment and comparison group analysis units have differences before the intervention. The method of differences in differences correct by these differences’ pre-programme for the estimation of the impacts.

The fundamental assumption behind this method is that, in the absence of treatment, the treated group experienced the same tendencies or tendencies parallel to the comparison group during the treatment period. This scenario, known as the counterfactual scenario, is represented by the green line dotted in figure IV.1. Although this scenario cannot be confirmed with the observed data, because by construction it is not observable, a common practice is to revise if the tendencies between treatment group and comparison group behave in a similar way in the period prior to the Intervention. In Figure IV.1 this is the case.

**Figure IV.1: Graphic representation of a difference in differences model**



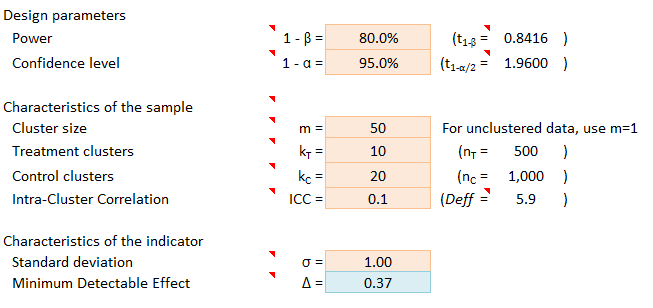
The parameter we seek to estimate is the difference between the green dotted line and the green solid line in the post-intervention period. But by not observing the dotted green line, it is necessary to replicate it with the observed data for the comparison group in the post-intervention period. This is possible, if and only if the assumption that the tendencies between the counterfactual (dotted green line) and the observed comparison group are identical. If so, then we can estimate the effect of treatment by compared differences between pre-and post-programme groups. The key assumption in identifying the impacts of a difference-in-differences model is that the counterfactual trend of the treatment group is the same as the trend of the comparison group[[4]](#footnote-5).

This analysis at the patient level within the health centres, with 10 health centres as treatment and 10 as comparison. Given that the program will intervene in only three hospitals, the analysis at that level will be used to complete the health centre analysis. It is intended to collect similar data at the hospital level for other similar hospitals, but a statistically valid analysis is unlikely to be feasible.

### Sample Selection and Statistical Power

This programme will intervene directly in 10 health centres, so that is the maximum number of treatment units. For this exercise we assume that 20 health centres will be selected as comparison units (although this number could increase, due to cost considerations and limited increase in statistical power, we will use the same number of treatment and comparison units). In each health centre a sample of 50 patients will be randomly selected that will answer a survey instrument (details below). With these basic set up an assuming an intra-cluster correlation of 0.1, the minimum detectable effect is 0.37 standard deviations, which is considered a sensible impact. Comparison health centres will be selected from neighbouring parishes and will be selected to have similar population size, gender, and age distribution as well as population density per heath centre to have similar access to health care. Health centres will also be selected as part of a health network so comparison hospitals will also be selected.

**Table 5. Power Analysis**



This analysis is valid for indicators at the individual level, so in the preparatory work for the evaluation we will focus on establishing indicators at that level. We will also compute indicators at the health centre using records (both reports that health centres complete regularly as by examining a sample of records).

For the analysis at the health centre level we plan to use administrative data from the Monthly Clinic Summary Report. If data is available with high frequency, we could use a difference-in-difference method at the health centre level, using 10 treatment units and a larger number of comparison health centres. Given that this would entail the use of administrative data, a broader set could be used, and we could control for some characteristics, and by using some fixed effects at an appropriate level (parishes or health networks within parishes). A similar methodology was applied by Bernal et al. (2018) to measure the impact of a results-based financing scheme in El Salvador with fourteen treatment municipalities.

**Data Sources for the Evaluation**

This evaluation will use existing health records and reports, as well as the use of survey instruments that have been used for patients and health centres at the primary health care level.

*Administrative Records:*

Hospital Monthly Statistical Report (HMSR)

Patient Administration System (PAS) (hospital)

Monthly Clinic Summary Report (MCSR)

For more information on administrative health records, see the following document prepared by the Ministry of Health and Wellness ([link](https://idbg.sharepoint.com/teams/EZ-JA-LON/JA-L1049/15%20LifeCycle%20Milestones/Enlace%201%20dentro%20Monitorio-Information%20on%20Databases%20-%20Policyand%20Epidemiology%20updated.pdf))

***Primary Data Collection***

In the case of health centres and patients a variation of two surveys has been reviewed. The first one is the Johns Hopkins Primary Care Assessment Tool (PCAT)[[5]](#footnote-6). The PCAT is one of the instruments validated in LAC to assess primary care services and has specific tools for patients and providers. This model was already applied in Jamaica and other Latin American countries like Colombia, México, Brazil, El Salvador, and Panamá to assess not only public but also private services between 2012-2014.

The second tool reviewed is the *Programa de Melhoria do Acesso e da Qualidade de la Atención Básica* (PMAQ) from the Ministry of Health of Brazil. The instrument contains different sections, but we are interested particularly in Module III that intends to verify Health Centre user’s satisfaction and perception.

According to the PMAQ manual, this module seeks to verify users' perception and satisfaction regarding health services regarding their access and use. The questionnaire will be applied to users present at the health centre on the day the survey. For interview with users, the interviewer should select those who did not go through an appointment with a doctor, or a nurse on the day of the interview.

The specific blocks (woman, prenatal, child, hypertension, diabetes) will be applied according to the user profile. It is suggested to apply the following exclusion criteria: do not continue the interview if it is the FIRST time that the user comes to the health unit; do not continue the interview if you know that the user has not come into the health unit/centre in over 12 MONTHS; and do not conduct the interview if the user is under 18 years of age.

The PMAQ instrument has the following blocks that will be adapted to the Jamaican context and to measure specific areas of interest to the project:

* Identification (general, the health centre, of user)
* Access to the health centre
* Access to health services in the health centre
* Mode of scheduling an appointment
* Walk-ins and emergency visits
* Use: Quality in services, relationship with providers, community activities
* Coordination in Care
* Home visits
* Women´s health
* Children´s health
* NCDs (hypertension, diabetes)

1. In the infrastructure upgrading efforts, the MOHW is considering the options and lessons learned in the ongoing effort to retrofit public buildings to improve energy efficiency led by the Ministry of Science, Energy and Technology. [↑](#footnote-ref-2)
2. Definition of fragmentation of health services - Fragmentation is a major cause of poor performance of health services and systems. Examples of fragmentation of health services include the following:(i) coexistence of units, facilities or programmes that are not integrated into the health network; (ii) services that do not cover the entire range of promotion, prevention, diagnosis, treatment, rehabilitation, and palliative care services; (iii) services at different levels of care that are not coordinated among themselves; (iv) services that do not continue over time; (v) services that do not meet people’s needs.

   Fragmentation manifests itself as lack of coordination between the different levels of care and care settings, duplication of services and infrastructure, unutilized productive capacity, and health care provided at the least appropriate location, especially hospitals (PAHO/WHO, Integrated Health Service delivery networks, 2011). [↑](#footnote-ref-3)
3. Ministry of Health and Wellness of Jamaica, Pan American Health Organization, United Nations Development Programme and RTI International. The Case for Investment in Prevention and Control of Noncommunicable on-communicable Diseases in Jamaica (draft version) [↑](#footnote-ref-4)
4. For more information on the method see Gertler, Paul J.; Martinez, Sebastian; Premand, Patrick; Rawlings, Laura B.; Vermeersch, Christel M. J. 2016. Impact Evaluation in Practice, Second Edition. Washington, DC: Inter-American Development Bank and World Bank. [↑](#footnote-ref-5)
5. For more information see: <https://www.jhsph.edu/research/centers-and-institutes/johns-hopkins-primary-care-policy-center/pca_tools.html>. [↑](#footnote-ref-6)