

HEALTH COUNCIL DATA ANALYTICS PROCEDURE

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1 PURPOSE

1.1 The purpose of this document is to outline the processing methods and expected timelines that the Health Council follows when carrying out Data Requests submitted to the Data team by internal members of the Health Council and external members of the public.

2 APPLICATION

2.1 The guide applies to data analytics and data collection conducted by the Health Council.

3 **DEFINITIONS**

- 3.1 **Actionable Recommendations** provides practical suggestions for addressing identified gaps, improving care, or guiding policy.
- 3.2 **Clinical Effectiveness** evaluates how well a health technology works in improving health outcomes in clinical settings.
- 3.3 **Community Perspectives** reflects the views, values, and lived experiences of affected communities regarding the condition or health technology.
- 3.4 **Cost Impact Analysis (CIA)** estimates the short- to medium-term financial impact of adopting a health technology within a healthcare system.
- 3.5 **Current Procedural Terminology (CPT) Codes** standardized codes used to identify a specific medical, surgical, or diagnostic procedure or service.
- 3.6 **Demographics** describes the characteristics of the population affected by the disease or health condition.
- 3.7 **Diagnosis, Treatment, Management and Prevention** describes current clinical approaches to detecting, managing, and preventing a disease or health condition.
- 3.8 **Economic Evaluation** an analysis used to assess the cost-effectiveness of healthcare interventions by comparing their costs and benefits to alternatives to determine whether it is worth implementing.
- 3.9 **EQ-5D** a standardised instrument used to measure health-related quality of life (health outcomes).
- 3.10 **EQ-5D-5L** a 5-level version of the EQ-5D.
- 3.11 **EQ-5D-Y-5L** a child-friendly version of the EQ-5D based on the EQ-5D-5L.
- 3.12 **Environmental Impact** assesses the environmental effects of producing, using, and disposing of the health technology.
- 3.13 **Gap Analysis (Need vs Service)** identifies the difference between current service availability and what is needed to meet population health needs.

- 3.14 **Health Technologies** medications, medical devices, diagnostic techniques, digital products, surgical procedures, therapeutic technologies (other than medications), systems of care, screening programs, and/or tools.
- 3.15 **Healthcare and Service Utilisation** highlights the available services and examines and measures how individuals use and access these health services related to their health condition.
- 3.16 **High Risk Health Technology** as defined in Section 16E of the <u>Bermuda Health Council Act</u> 2004 (Link).
- 3.17 **ICD-10 Codes** The International Classification of Diseases, 10th Revision, is a coding system used to classify and record patient visits and diagnoses.
- 3.18 Low Risk Health Technology health-technologies (See 3.14) used for diagnosis, treatment, or rehabilitation that do not involve significant energy transfer, hazardous substance administrations or ionizing radiation, and require minimal calibration, maintenance, or specialized training. These technologies pose little to no risk to patients under normal use.
- 3.19 **Organizational Impact** evaluates how introducing the health technology affects the healthcare delivery structure and operations.
- 3.20 **Patient Outcomes** measures the direct effects of a health technology on patients' health, well-being, and quality of life.
- 3.21 **Prevalence and Incidence** measures how widespread a condition is (prevalence) and the rate of new cases (incidence) within a specific time.
- 3.22 **Risk Factors** identifies conditions, behaviours, or exposures that increase the likelihood of developing the disease or health condition.
- 3.23 **Saturation Index (Custom Modelling)** a metric used in custom models to estimate how fully a service, or health technology, has reached the intended population, expressed as a percentage of potential coverage.
- 3.24 **Stakeholder Engagement** involves consulting and collaborating with individuals or groups who are affected by or have an interest in the disease or health condition.
- 3.25 **Support and Resources** reviews the availability and adequacy of support services and resources for patients, families and health professionals.
- 3.26 **System Implications** assesses the impact of the condition on the health system's structure and resources (e.g., finances, workforce, health professionals, patients or family of patients).
- 3.27 **Well-Established Technology** health-technologies (See 3.14) that have been in routine clinical use for an extended period, with proven safety, effectiveness, and reliability. These technologies are supported by substantial evidence and clinical consensus, and their use is generally standardized and well-understood (e.g., X-ray, Computed Tomography (CT), Magnetic Resonance Imaging (MRI), Ultrasound, Insulin, Mammography, National Immunization Programs, etc.)

4 DATA COLLECTION FRAMEWORK

Frameworks and Manuals Utilised in Health Needs Assessment (HNA) and Health Technology Assessment (HTA) and Health Technology Assessment (HTA) are listed below.

- 4.1 Health Technology Assessment (HTA): The HTA procedure within this document is structured primarily around the EUnetHTA Core Model^{1&2}: which provides a comprehensive and internationally recognized framework for assessing health technologies. The EUnetHTA Core Model facilitates systematic assessment across multiple domains, including clinical effectiveness, cost-effectiveness, safety, organisational impact, social and ethical considerations, and legal implications. It ensures that HTAs are consistent, transparent, and adaptable for national or regional decision-making. In addition to the EUnetHTA Core Model, this procedure draws on methodological guidance and best practice standards from the following international HTA organizations and resources:
- 4.2 **NICE (UK)** ³ National Institute for Health and Care Excellence methodologies provide detailed guidance on the appraisal of health technologies, economic evaluations, and stakeholder engagement.
- 4.3 **CADTH (Canada)**^{4&5}: The Canadian Agency for Drugs and Technologies in Health offers guidance on evidence requirements, contextualization for Canadian healthcare systems, and review protocols.
- 4.4 **ICER (US)** ⁶: The Institute for Clinical and Economic Review offers methodological insights into value assessment frameworks and cost-effectiveness thresholds in a U.S. healthcare context.
- 4.5 **World Health Organization**⁷ Health Technology Assessment of Medical Devices: This global reference offers policy-driven guidance for the evaluation and implementation of medical devices, particularly in low- and middle-income settings.
- 4.6 **Health Needs Assessment (HNA):** The Health Needs Assessment (HNA) approach outlined in this document is based on two foundational resources:
- 4.6.1 **Health Care Needs Assessment**⁸: The Epidemiologically Based Needs Assessment (Third Series). This series provides a comprehensive methodology for assessing population health needs based on epidemiological data, healthcare utilization, and service gaps. It enables prioritization of interventions based on the burden of disease and potential for health gain.
- 4.6.2 **Health Needs Assessment A Practical Guide (Scotland)**⁹: This guide complements the epidemiological approach by providing a practical and structured process for conducting HNAs

¹ The HTA Core Model®—10 Years of Developing an International Framework to Share Multidimensional Value Assessment

² Introduction to Health Technology Assessment (HTA) of Medical Devices and IVDs: 2. HTA Core Model | EUPATI Open Classroom

³ NICE health technology evaluations: the manual

⁴ Methods Guide for Health Technology Assessment

 $^{^{5}\,\}underline{MG0030\text{-}Quantitative\text{-}Methods\text{-}Manual\text{-}Line\text{-}Numbered.pdf}}$

⁶ MG0030-Quantitative-Methods-Manual-Line-Numbered.pdf

⁷ #11 HTA Advancement-FINAL.indd

⁸ Health Care Needs Assessment, Third Series. Edited by Andrew Stevens, James Raftery, Jonathan Mant and Sue Simpson.

⁹ Health Needs Assessment – A Practical Guide (Scotland). Written and compiled by Sue Cavanagh and Keith Chadwick.

within local health systems, incorporating stakeholder engagement and community consultation.

5 DATA COMMITTEE

- 5.1 The Health Council will establish an internal Data Analytics Committee to assess data requests, determine whether the requests meet the eligibility criteria (outlined in Section 7.5) and determine next steps. The Data Team will consist of the following:
 - (1) CEO
 - (1) Programme Manager
 - (1) Project Manager
 - (1) Project Associate

6 TYPES OF REQUESTS

6.1 There are four (4) types of requests: Data Capture, Data Analytics, Health Needs Assessments and Health Technology Assessments.

DATA CAPTURE

- 6.2 Data Capture refers to the process of collecting and/or recording raw data for dissemination to organizations or businesses. This can involve one of the four collection and/or recording options:
 - Surveys/Questionnaires: See Section 10.6
 - Focus Groups/Interviews: See Section 10.14
 - Stakeholder Feedback: See Section <u>10.18</u>
 - Other: See Section 10.23

DATA ANALYTICS

- 6.3 Data Analytics are used to evaluate Bermuda's health system and fall into one of the three (3) levels of complexity:
 - Level 1: Use basic data on utilisation and/or expenditure
 - Level 2: Involve complex analytics using two (2) or more sources
 - Level 3: Rely on the collection of primary data through one of the data sources.

Sources of Data Analytics

6.4 Data Analytics can be derived from a wide range of sources, with each level utilizing a different type(s) of data sources.

SOURCE	Level 1	Level 2	Level 3
Insurance Transaction-Level Data	✓	✓	
Standard Health Benefits Data	✓	✓	
Registered Health Facility Data	✓	✓	
Registered Health Professionals' Data	✓	✓	
Chronic Disease Innovation Programme Data	✓	1	
Health Council Survey Data		✓	
Epidemiological Data		✓	
Marketing Sizing Data		✓	
Fee Schedule Data		✓	
Quality of Care Survey			✓
Quality of Service Survey			✓
Wait-time Survey			~
Health Disparity Survey			✓
Quality of Life Assessment			✓
Other Customised Survey			✓

HEALTH NEEDS ASSESSMENTS

- 6.5 Health Needs Assessments are used to evaluate current health status, health behaviors and health service utilization patterns in the population or sub-group population of Bermuda and fall into one of the three (3) levels of complexity:
 - **Simple (Level 1):** Provides a basic snapshot of population health, focusing on easily accessible demographic data and key disease burden indicators. Ideal for rapid assessments, short-term planning, or targeted interventions particularly when time, data, or analytical capacity is limited. Commonly used by small programs and organisations or during public health emergencies.
 - Moderate (Level 2): Delivers a more detailed understanding of population health needs by incorporating additional analysis and limited stakeholder input. Suitable for addressing specific

health priorities, such as a chronic disease or maternal health. This level supports more informed resource allocation and mid-term planning.

• Comprehensive (Level 3): A strategic, in-depth assessment designed to inform health system planning, funding decisions, and policy reform. Provides a holistic view of population health, including disparities, service gaps, and resource needs. Best suited for national strategies, care pathways or large-scale changes commonly used by ministries in government (e.g., Ministry of Health, Ministry of Social Development and Seniors).

Components of a Health Needs Assessment

6.6 A Health Needs assessment is composed of components that provide a distinct thematic area or domain of analysis that contributes to understanding population health status, healthcare delivery, and service planning. Each component encompasses specific types of data, perspectives, or insights, and its inclusion varies by the depth or level of the HNA.

HNA Components	Simple HNA (Level 1)	Moderate HNA (Level 2)	Comprehensive HNA (Level 3)
Demographics	✓	✓	✓
(SDOH- Age, Gender, Ethnicity, Socioeconomic Status)			
Prevalence & Incidence	✓	✓	✓
(Prevalence Rate, Incidence Rate, Trends over Time, Differences by			
Population Subgroup)	*	_	_
Risk Factors	*	✓	✓
(Biological, Environmental, Behavioural, Genetic, SDOH Contributing to Disease Risk)			
Diagnosis, Treatment, Management & Prevention	X	*	✓
(Diagnostic Methods, Treatment Guidelines, Care Pathways, Preventive			
Strategies, Current Best Practices)			
Healthcare Service Utilisation and Saturation Index	✓	✓	✓
(Service Types, Frequency of Use, Capacity Limits, Saturation Levels by			
Region, Patient Load Distribution)		*	_
System Implications	X	*	✓
(Workforce Requirements, Capacity, Infrastructure, Service Delivery,			
Inter-service Coordination) Gap Analysis (Needs vs. Services)	-	*	J
(Unmet Needs, Service Shortages, Access Barriers, Areas for	×		✓
Improvement)			
Stakeholder Engagement	X	*	./
(Input form Clinicians, Patients, Other Healthcare Professionals,	^		v
Policymakers, Organisations or Advocacy Groups)			
Community Perspective	X	X	J
(Input from the General Public, Community Concerns)	•		·
Support and Resources	X	*	✓
(Social Support Systems, Financial Assistance, Patient Education, Peer	•		-
Support, Community-Based Services)			
Actionable Recommendations	*	✓	✓
(Strategic Priorities, New Policy Suggestions, Policy Changes, Funding			
Considerations)			

HEALTH TECHNOLOGY ASSESSMENT

- 6.7 Health Technology Assessment are used to evaluate healthcare technologies or interventions/programs and is classified into the following three (3) major assessments:
 - **Simple (Level 1):** A basic, focused assessment of a health technology's safety, clinical effectiveness, and cost impact (upfront costs). Best suited for low-risk or well-established health technologies. This level supports rapid decision-making by public or private entities, particularly for familiar technologies, low in complexity, or already in widespread use.
 - Moderate (Level 2): A more extensive assessment that builds on clinical effectiveness and
 cost impact analysis to include broader considerations such as long-term value, ethical
 concerns, and feasibility of integration. Appropriate for technologies that are moderately
 complex, costly or potentially disruptive. This level is typically used when introducing new
 technologies into the existing system or when decisions require attention to systematic or
 ethical factors.
 - Comprehensive (Level 3): A thorough, multi-dimensional evaluation essential for high-cost, high-risk, or transformative health technologies, ideal for government-led decisions, major insurer assessments, or the development of policy recommendations. This level provides an in-depth analysis across clinical, economic, ethical, and system-level dimensions.

Components of a Health Technology Assessment

^{*}Recommended or If Applicable

6.8 A Health Technology assessment is comprised of components, which are an analytical domain that

*Recommended or If Applicable contributes to

a systematic

evaluation of a health technology's value. Each component addresses a specific aspect of assessment and is included based on the depth of the HTA.

HTA Components	Simple HTA	Moderate HTA	Comprehensive HTA
	(Level 1)	(Level 2)	(Level 3)
Clinical Effectiveness	✓	✓	✓
(Benefits, Safety, Comparative Performance, Outcome Measures,			
Risk/Side Effects)			
Cost Impact Analysis	✓	✓	✓
(Target Population, Patient Uptake Rates, Initial Costs, Installation Costs,			
Resource Costs)			
Service Utilisation and Saturation Index (Custom Modelling)	✓	✓	✓
(Service Types, Frequency of Use, Capacity Limits, Saturation Levels by			
Region, Patient Load Distribution)			
Health Outcomes	*	✓	✓
(QOL, Survival Rates, Symptom Relief, Patient-reported Outcomes and			
Satisfaction)			
Economic Evaluation	*	*	✓
(Cost-effectiveness Analysis, QALYs, ICER, Long-Term Costs)			
Organizational Impact	X	*	✓
(Workflow Changes, Staff Roles, Training Needs, Infrastructure,			
Implementation Challenges)			
Ethical, Legal, Social Impacts (ELSI)	X	*	✓
(Equity, Consent, Legal Responsibilities, Public Perception)	-		
Environmental Impact	Х	X	*
(Resource Consumption, Waste Generation, Emissions)	-	-	

7 DATA REQUESTS

- 7.1 Any individual or organization seeking to submit a data request must do so using the Data Analytics Form (Link).
- 7.1.1 For **Data Capture** requests, the following information is required:
 - First and Last Name and/or Name of Organization
 - Contact Information for the Individuals and/or Organization
 - Purpose of the Request
 - Intended Use
 - Target Population
 - Question(s) You Seek to Answer Using the Data
 - Time Frame
 - Relevant Data Useful to the Data Collection

7.1.2 For **Data Analytics** requests, the following information is required:

- First and Last Name and/or Name of Organization
- Contact Information for the Individuals and/or Organization
- Purpose of the Request
- Intended Use
- Question(s) You Seek to Answer Using the Data
- Time Frame
- Relevant Details and Considerations

7.1.3 For **Health Needs Assessment** requests, the following information is required:

- First and Last Name and/or Name of Organization
- Contact Information for the Individuals and/or Organization
- Purpose of the Request
- Target Population
- Pertinent Data Useful to the Assessment (optional)

7.1.4 For **Health Technology Assessment** requests, the following information is required:

- First and Last Name and/or Name of Organization
- Contact Information for the Individuals and/or Organization
- Purpose of the Request
- Technology Name and Manufacturer/Supplier
- Technology Type
 - Medications
 - Medical Devices
 - Diagnostic Techniques
 - Digital Products
 - Surgical Procedures
 - Therapeutic Technologies (other than medications)
 - System of Care
 - o Screening Programs and/or Tools
 - o Other
- Brief Description
- Intended Clinical Use
- Target Population
- Bermuda Market Status
 - New to the market globally and new to the Bermuda market
 - o Established in the market globally and new to the Bermuda market
 - Established in the market globally and established in the Bermuda market
- Regulatory Approval Status (e.g., FDA, EMA, etc.)
 - Approved
 - Conditionally Approved
 - Approved, Withdrawn/Rejected
 - Compliance Certified (i.e., Voluntary Certification)

- Under Review
- Not Submitted/Pre-Submission
- Other
- Link to Regulatory Approval Documentation (if applicable)
- Complexity and Health System Impact
 - o Low risk, with minimal health system change.
 - o Moderately complex, with potential operational/ethical health system impact.
 - o High-cost, transformative or requiring significant integration with the health system.
- Pertinent Data Useful to the Assessment (optional)

Review Process

- 7.2 The Health Council will review requests for completeness and acknowledge receipt of the request within five (5) business days of submission.
 - For incomplete forms/not fully detailed forms, the individual or organization will be notified via email and asked to update the form and resubmit it within twenty (20) business days from the notification email. Forms that remain incomplete after twenty (20) business days will be deemed as withdrawn.
 - Completed forms will be reviewed for accuracy to ensure all necessary fields are completed.
- 7.3 The internal committee will then meet within ten (10) business days of the acknowledgement of the request receipt to determine if the request will be fulfilled and the type of assessment to be conducted (See Section 6).
- 7.4 An internal committee member will inform the applicant of the committee's decision via email, detailing whether the request was:
 - Accepted: Inform the applicant of the committee's decision to accept the data request, including details on the data collection method or type of assessment to be conducted, the scheduled time and the estimated date of completion.
 - **Rejected:** Inform the applicant of the committee's decision to reject the data request and the reasons for rejection.

Eligibility Criteria

7.5 Each application will be deemed eligible based on the criteria below.

DATA CAPTURE

7.6 **Data Capture Requests** will only be accepted if all the information requested can be collected via one of the methods outlined in Section <u>6.2.</u>

DATA ANALYTICS

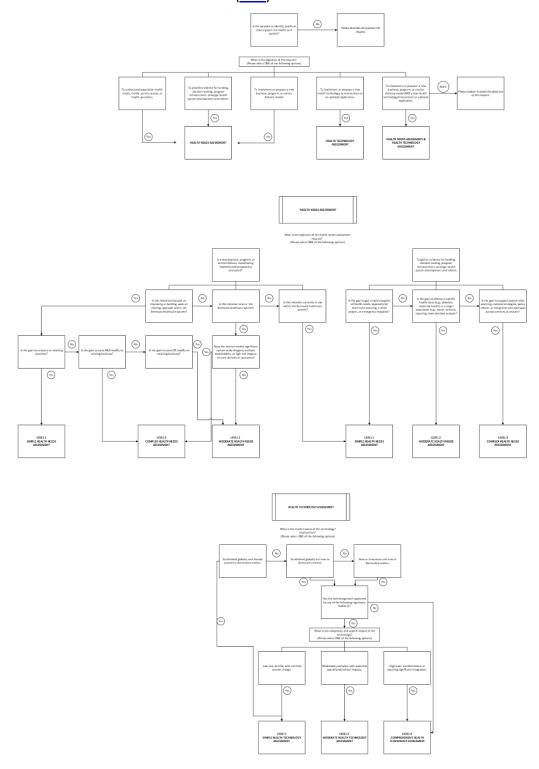
- 7.7 **Data Analytics (Level 1)** will only be accepted if the data requested is available from the applicable sources (See the table in Section <u>6.4.</u>)
- 7.8 **Data Analytics (Level 2)** will only be accepted if the data requested is available from the applicable sources (See the table in Section <u>6.4.</u>)
- 7.9 **Data Analytics (Level 3)** will only be accepted if the data requested is available from the applicable sources (See the table in Section <u>6.4.</u>)

HEALTH NEEDS ASSESSMENT

HEALTH TECHNOLOGY ASSESSMENT

- 7.10 Both assessments will only be accepted if all of the following criteria are met:
 - The objective of the requester is clear,
 - Bermuda has the target population relevant to the request,
 - There is access to reliable and relevant data for the request, and
 - The request complies with all applicable legislation, such as privacy laws.

7.11 The flowchart below can be used as a reference guide to determine the type and level of assessment that should be carried out. (Link)



8 ADMINISTRATIVE PROCEDURE

All data request types will be conducted using the following procedure.

DATA CAPTURE

8.1 Following receipt of a data request, the data team will complete the following:

Task	Team Member	Reference Section
Review the data request submitted	Project Associate	<u>7.2</u>
Complete the Planning Phase	Project Associate	<u>9.1</u>
Determine the methodology for the data capture	Project Associate	<u>6.2</u>
Collect data (If Applicable)	Project Associate	N/A
Final approval of the collected data	CEO	N/A
Disseminate the raw data collected to the requester	Project Associate	N/A

DATA ANALYTICS

8.2 Following receipt of a data request, the data team will complete the following:

Task	Team Member	Reference Section
Review the data request submitted	Project Associate	<u>7.2</u>
Complete the Planning Phase	Project Associate	9.4
Determine the methodology for data collection	Project Associate	<u>10.1</u>
Collect data	Project Associate	N/A
Analyze the data	Project Associate	<u>11</u>
Develop the report	Project Associate	<u>12.1</u>
Final approval of the report and publication	CEO	12.4

HEALTH NEEDS ASSESSMENT

HEALTH TECHNOLOGY ASSESSMENT

8.3 Following receipt of a data request, the data team will complete the following:

Task	Team Member	Reference Section
Review the data request submitted	Project Associate	<u>7.2</u>
Begin the Planning Phase and Complete the Strategic Planning Form	Project Associate	9.7 and 9.8
Committee decides on the Strategic Planning Form	All	<u>9.10</u>
Strategize with the Health Council's communications team about public	Project Associate	N/A
engagement to collect data		
Collect data	Project Associate	N/A
Analyze the data	Project Associate	<u>11</u>
Develop the report	Project Associate	<u>12.1</u>
Final approval of the report and publication	CEO	<u>12.4</u>

9 PLANNING PHASE

DATA CAPTURE

- 9.1 The planning phase begins by reviewing the requester's inquiry to identify the specific data that needs to be collected and how the requester plans to analyse the data.
- 9.2 The Project Associate will then define and determine:
 - Data & Information Collection Methods
 - Strengths & Limitations
 - Proposed Timelines
- 9.3 The project associate will then finalize planning once approval is granted by the Project Manager.

DATA ANALYTICS

- 9.4 The planning phase begins by reviewing the requester's inquiry to identify the specific data that needs to be collected and analysed.
- 9.5 The Project Associate will then define and determine:
 - Data & Information Collection Methods
 - Strengths & Limitations
 - Proposed Timelines
- 9.6 The project associate will then finalize planning once approval is granted by the Project Manager.

HEALTH NEEDS ASSESSMENT

HEALTH TECHNOLOGY ASSESSMENT

- 9.7 The planning phase begins by reviewing the requester's inquiry to identify the specific data that needs to be collected and analysed.
- 9.8 A strategic planning form should be completed where the following should be defined and determined (where applicable):
 - Aims and Objectives
 - Target Population
 - Key Questions
 - Data & Collection Methods
 - Stakeholder Involvement
 - Potential Challenges & Mitigation
 - Strengths & Limitations
 - Proposed Timelines

- 9.9 The draft strategic planning form should be approved by the data team, and then communications should be sent to stakeholders to inform them of the aims and request their participation.
 - If stakeholders agree to participate, the strategic planning form is sent for their feedback.
- 9.10 Once feedback is received from stakeholders, the data committee will review and make necessary adjustments to the strategic planning form and finalize it.

10 DATA COLLECTION METHODS PROCEDURES

10.1 The following data collection methods and procedures may be used depending on the approved assessment type to be completed (Section $\underline{6}$).

Insurance Transaction Level Data

- 10.2 Identify CPT and/or ICD-10 codes from the appropriate database.
- 10.3 Determine the correct STATA commands for data requests.
- 10.4 Run the correct STATA commands for data output.
- 10.5 Document data output from STATA.

Survey/Questionnaires

- 10.6 The survey should be designed to align with the assessment's objectives. The questions should be clear, concise, and relevant to the assessment. A mix of closed-ended questions for quantitative data and open-ended questions for qualitative data is suggested.
- 10.7 The target population, sample size, and sampling method must be determined and appropriate to the assessment's objectives.
- 10.8 An appropriate distribution method must be chosen to reach the target audience. This may include online platforms (e.g., SurveyMonkey and Cognito Forms), email, or face-to-face distribution.
- 10.9 The responses must be collected over a specified period. If the sample size is not met, the specified period can be extended.

Quality of Life Assessment

- 10.10 To ensure consistency in the evaluations of health-related quality of life (HRQoL) data, the EQ-5D measurement method developed by EuroQol Group must be used as the standardized tool for all assessments.
- 10.10.1 For individuals ages eight (8) and older, the <u>EQ-5D-5L Version</u> should be used. (<u>EQ-5D-5L User Guide</u>)
- 10.10.2 For individuals younger than eight (8), the <u>EQ-5D-Y-5L Version</u> should be used. (<u>EQ-5D-Y-5L User Guide</u>)
- 10.11 All EQ-5D data collected should be analyzed using the Bermuda-specific value set to maintain validity and relevance in the local context.

Registration and Licensing Requirements

- 10.11.1 Prior to using any EQ-5D instrument, users must register their specific assessment with the EuroQol Research Foundation using the EQ-5D Registration Form.
- 10.11.2 The registration process includes the following steps:
 - Declare that registration is for Non-Commercial use.
 - Create an institutional or personal account on the EuroQol website.
 - Declare the intended use of the EQ-5D, including the target population and purpose (research, clinical, or policy).
 - Specify which version(s) of the ED-5D will be used (See Section <u>10.14.1</u> <u>10.14.2</u> for instructed version(s)).
 - Agree to the licensing terms provided by the EuroQol Group.
 - Upon approval, download the authorized version(s) of the instrument and any associated materials.
- 10.12 Any EQ-5D Version used can be administered either electronically on SurveyMonkey using the Health Council Data Account or physically on paper. It is vital to declare the administration of the assessment in the registration process.
- 10.13 Any user who has registered their project(s) are responsible for ensuring compliance with all licensing agreements and ethical standards related to the use of EQ-5D instruments.

Focus Groups/Interviews

- 10.14 The objectives of the focus groups or interviews must be defined and developed in a detailed plan, including participant selection, question guides, and logistics. The plan should address ethical considerations such as informed consent and confidentiality.
- 10.15 The participants selected should represent a diverse range of perspectives relevant to the assessment. These can include patients, family members, healthcare workers and providers, policymakers, and industry representatives.
- 10.16 Focus groups/interviews should be conducted in a neutral and supportive environment to encourage open and honest discussions. Semi-structured guide or list of questions should be used to ensure consistency while also allowing flexibility for participants to express their views.
- 10.17 With the participants' consent, the focus group/interview session can be recorded to be transcribed accurately. Transcriptions must be reviewed for accuracy and completeness.

Stakeholder Feedback

- 10.18 Stakeholder feedback is an essential component of both HNA and HTA assessment processes, ensuring that the perspectives of all relevant parties are considered.
- 10.19 Stakeholders must be identified. These may be individuals who may be impacted by or have an interest in the subject area of the assessment. They may include, but are not limited to:
 - Healthcare Professionals and Clinical Experts
 - Patients and Caregivers
 - Policymakers and Regulators
 - Industry Representatives (e.g., Bermuda Hospitals Board, Bermuda Medical Council, etc.)
 - Payers and Funders (e.g., Insurance Companies, Health Departments)
 - Community Leaders (e.g., Government Leaders)
- 10.20 A comprehensive plan for engaging with stakeholders must be developed. It should be outlined in the strategic planning form (Section 9.8) and timelines for obtaining their input.
- 10.21 The Health Council Feedback Request form must be used to facilitate structured and standardized engagement with stakeholders. The form ensures clarity, transparency, and consistency in how feedback is solicited.
- 10.22 The form includes a declaration of the following:
 - Purpose: A clear statement of what the request is for, why it is necessary and what should happen as a result.
 - Background: Necessary Relevant context or summary of how we reached the need for feedback.
 - Feedback Question(s): Clear and targeted questions designed specifically for each stakeholder, if applicable.

- Implications: A description of how the feedback received will be used to achieve the purpose.
- Instructions: Outline how feedback will be received (e.g., Cognito Forms, Microsoft Forms, Focus Groups, or by email) along with submission deadlines.
- 10.23 All feedback received from the stakeholders must be accurate and efficient. The feedback must be analysed to identify common themes, areas of consensus, and points of disagreement. The analysis should consider the validity and reliability of the input provided.

Other

Literature Reviews

- 10.23.1 The literature review supports the selection of appropriate data collection methods by referencing validated practices and tools from existing research. It ensures data collection approaches are evidence-based and relevant to the study's objectives and context.
- 10.23.2 Sources must be relevant to the subject area, data type, target population, and study objectives. Sources should be chosen based on their credibility, relevance, and applicability to the research context.
- 10.23.3 Sources older than ten (10) years should generally be avoided unless they are foundational or if they continue to be cited as authoritative references. Older studies may be relevant when exploring trends, historical context, or when newer studies have not significantly deviated from the established knowledge.

Spreadsheets

- 10.23.4 Spreadsheets provided by the Health Council or other authoritative bodies serve as key sources of administrative, operational, and analytical data. These spreadsheets may contain valuable datasets related to performance indicators, service usage statistics, workforce capacity, demographic data, financial records, and other key metrics relevant to the study.
- 10.23.5 Data from these sources should be cross-verified for consistency, accuracy, and completeness.
- 10.23.6 Any inconsistencies or gaps in the datasets should be noted and addressed, and a clear documentation trail should be maintained to ensure transparency and reproducibility.

Email Correspondence

- 10.23.7 Email correspondence may be used as a supplementary method of data collection, particularly when seeking to ask questions to gather insights from stakeholders, experts, or partner organizations. Emails may also be used to distribute surveys, request data, or send information for follow-up. However, it is important to ensure that the data collected from emails is reliable and transparent.
- 10.23.8 When using email as a data source, the following must be done:
 - Clearly document the purpose of the correspondence.
 - Ensure consent is obtained if sensitive information is involved.
 - Maintain records of email threads for traceability and reporting.

11 DATA ANALYSIS

- 11.1 The data analysis procedures for all reports—Data Analytics, Health Needs Assessment, and Health Technology Assessment—can vary depending on factors such as the assessment objective(s) and the method(s) used for data collection.
- 11.2 The selection of statistical tests is influenced by various factors, including the number of variables, the types of data and their level of measurement (e.g., continuous, binary, categorical), and the study design (e.g., paired or unpaired). The statistical tests should meet industry standards and meet the appropriate quality assurance measures.
- 11.3 Quality assurance measures are implemented to uphold the accuracy, reliability, and validity of the analysis results. This includes conducting peer reviews, validation checks, and sensitivity analyses where applicable.

12 DEVELOPING THE REPORT

- 12.1 Once the data analysis is complete for any report, the report will be drafted, ensuring that findings are presented in an organized and comprehensive manner. The report should be clear, logical, and easy to follow.
- 12.2 Once the report is drafted, the data committee will review and approve it for stakeholder engagement.
- 12.3 The draft report will be sent to stakeholders for their feedback.
- 12.4 Once all feedback is received, the project associate will make the necessary changes and send it to the CEO for final approval.
- 12.5 The final report will be published on the Health Council website.

13 TIMELINES

13.1 The timelines for completing data requests can vary widely depending on the specifics of the request, including not limited to, scope, complexity, required components and data collection sources, availability and quality of required data and level of stakeholder engagement needed. Below are the general estimated timelines:

DATA CAPTURE	1 to 3 months (dependent upon the complexity of surveys and survey responses)		
DATA ANALYTICS		Level 1 (Simple): 1.5 to 2 weeks Level 2 (Moderate): 2 to 3 weeks Level 3 (Complex): 1 to 3 months	
LIE ALTII NEEDO ACCECCATATA	HEALTH TECHNOLOGY	Level 1 (Simple): 3 to 6 months	
HEALTH NEEDS ASSESSMENT	ASSESSMENT	Level 2 (Moderate): 6 to 9 months	

Level 3 (Complex): 12 months

13.2 If any changes to the original timelines are anticipated during the course of an assessment or request, the Health Council will inform all relevant individuals, organizations or businesses about any delays, extensions, or rescheduling along with updated delivery expectations.