



دائرة الصحة
DEPARTMENT OF HEALTH

Emerald Sustainability Jawda Guidance

Version 2

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1. Executive Summary

The DOH Health Facility Guidelines for Emerald Sustainability Index is focused on sustainability and green building initiatives specifically for healthcare.

Abu Dhabi construction industry is already covered by the requirement of Estidama. However, these requirements are not healthcare-specific. Part S of the DOH Guidelines should be seen as complementary to Estidama and a natural extension of the other components of the Guidelines.

It is hoped that through the Emerald Sustainability Index, the Healthcare Industry will introduce initiatives and features that will put the healthcare facilities at the forefront of innovation in sustainability.

The DOH approvals will indicate the level of Sustainability achieved. Dimensions must reflect performance across the 3 pillars prioritized under DoH's sustainability goals to achieve net zero.

The guidance sets out the full definition and method of calculation for Emerald Sustainability Index - Measure Cards.

For enquiries about this guidance, please contact jawda@doh.gov.ae

This document is subject for review and therefore it is advisable to utilize online versions available on the DOH website at all times.

Issued: March 2023

Published update: Version 2, September 2024

2. Introduction

2.1 The Department of Health– Abu Dhabi (DOH) is the regulative body of the Healthcare Sector in the Emirate of Abu Dhabi and ensures excellence in Healthcare for the community by monitoring the health status of the population. DOH is mandated:

- To achieve the highest standards in health curative, preventative and medical services and health insurance in the Emirate.
- To lay down the strategies, policies and plans, including future projects and extensions for the health sector in the Emirate, and to follow-up their implementation
- To apply the laws, rules, regulations and policies which are issued as they are related to its purposes and responsibilities, in addition to what is issued by the respective international and regional organizations in line with the development of the health sector.
- To follow up and monitor the operation of the health sectors, to achieve and exemplary Standard in the provision of health, curative, preventive and medicinal services and health insurance

2.2 DOH defines the strategy for the health system, monitors and analyses the health status of the population and performance of the system. In addition, DOH shapes the regulatory framework for the health system, inspects against regulations, enforce standards, and encourages adoption of world – class best practices and performance targets by all healthcare service providers in the Emirate of Abu Dhabi.

2.3 DOH also drives programs to increase awareness and adoption of healthy living standards among the residents of the Emirate of Abu Dhabi in addition to regulating scope of services, premiums and reimbursement rates of the health system in the Emirate of Abu Dhabi.

2.4 The Health System of the Emirate of Abu Dhabi is comprehensive, encompassing the full spectrum of health services and is accessible to all residents of Abu Dhabi. The system is driven towards excellence through continuous outcome improvement culture and monitoring achievement of specified indicators. Providers of health services are independent. Predominately private and follow highest international quality standards. The system is financed through mandatory health insurance.

Emerald Sustainability Index - Measure Cards

In doing so DOH will:

- Drive structure, process and outcome improvements across health sector
- Put people first and champion their rights
- Focus on quality and act swiftly to eliminate poor quality of care
- Work with Stakeholders and apply fair processes.
- Gather information and utilize knowledge and expertise to improve care.
- Link the care to payment in a way that results in a continuous improvement and maximize the value of the care provided in Abu Dhabi.

Planning for data collection and submission

In planning for data collection and submission Healthcare must adhere to reporting, definition and calculation requirements as set out in this guidance. Healthcare providers must also consider the following:

- Nominate responsible data collection and quality leads(s).
- Ensure data collection leads are adequately skilled and resourced.
- Understand and identify what data is required, how it will be collected (sources) and when it will be collected.
- Create a data collection plan.
- Ensure adequate data collection systems and tools are in place.
- Maintain accurate and reliable data collection methodology.
- Data collation, cleansing and analysis for reliability and accuracy.
- Back up and protect data integrity.
- Have in place a data checklist before submission.
- Submit data on time and ensure validity.
- Review and feedback data findings to the respective teams in order to promote performance improvement.
- Failing to submit valid data will be in breach of the licensing condition and could result in fines being applied, penalties associated with performance or revoke of license.

Emerald Sustainability Index - Measure Cards

- When needed, documentation and tracks will be provided instantly to DOH, or their representative, to assure DOH that all due processes are being followed in collecting, analyzing, validating and submitting your performance

About this Guidance

“Emerald Sustainability Index”

This guidance sets out to contribute to a healthier environment by implementing Sustainability Standards without compromising healthcare principles and concerns. The guidance sets out the definitions, parameters and frequency by which JAWDA Quality indicators will be measured and submitted to DOH and will ensure Healthcare Providers provide safe, effective and high-quality services.

Q. Who is this guidance for?

All DOH Licensed General and Specialist Hospitals in the Emirate of Abu Dhabi

Q. How do I follow this guidance?

Each Hospital will nominate one member of staff to coordinate, collect, quality control, monitor and report relevant data as per communicated dates. The nominated healthcare facility lead must in the first instance e-mail their contact details (if different from previous submission) to JAWDA@doh.gov.ae and submit the required annual quality performance indicators through Online Portal.

Q. What are the Regulation related to this guidance?

- Legislation establishing the Health Sector
- This Emerald Sustainability guidance is in accordance with the requirements set out in the DOH Health Facility Guidelines 2022 Part S – Sustainability.

Emerald Sustainability Index - Measure Cards

Type: Core Indicator

Indicator Number: E001

KPI Description (title):	Annual Energy Consumption Per Patients Covered
Dimension	Operations
Definition:	Measure of an organization's energy consumption
Calculation:	<p><u>Numerator:</u> Total Energy consumption (megawatt hours [MWh])</p> <p><u>Denominator:</u> Total number of encounters in the facility premises</p> <p><i>Denominator Guidance:</i> <i>Report separately OUTPATIENT and INPATIENT encounters</i></p> <p style="margin-left: 20px;">A) Outpatient: all OPD visits including face-to-face visits, diagnostics, virtual visit, ED, daycase</p> <p style="margin-left: 20px;">B) Inpatient discharges: includes inpatient acute care, long-term care, post-acute rehabilitation</p>
Reporting Frequency:	Annual
Unit of Measure:	Megawatt hours [MWh] Per encounters
International comparison if available	<p>https://www.health.vic.gov.au/planning-infrastructure/energy-efficiency-in-hospitals</p> <p>Energy Use in Hospitals (energystar.gov)</p>
Desired direction:	Lower the better
Notes for all providers	
Data sources and guidance:	<ul style="list-style-type: none"> - DOH Health Facility Guidelines 2022 Part S – Sustainability - Energy meters related to ADDC (Abu Dhabi Distribution Company)

Emerald Sustainability Index - Measure Cards

Type: Core Indicator

Indicator Number: E002

KPI Description (title):	Percent of Renewable Energy
Dimension	Operations
Definition:	Organization's effort to reduce its use of non-renewable energy
Calculation:	<p><i>Numerator:</i> Total annual MWh generated from renewable sources, whether obtained from the grid or produced on site.</p> <p>Definition: Renewable energy is energy derived from natural sources that are replenished at a higher rate than they are consumed:</p> <ul style="list-style-type: none"> • SOLAR ENERGY • WIND ENERGY • GEOTHERMAL ENERGY • HYDROPOWER • OCEAN ENERGY • BIOENERGY <p><i>Denominator:</i> Total annual energy consumption of the facility measured in megawatt-hours (MWh).</p>
Reporting Frequency:	Annual
Unit of Measure:	Percentage
International comparison if available	https://www.un.org/en/climatechange/what-is-renewable-energy https://u.ae/en/information-and-services/environment-and-energy/water-and-energy/types-of-energy-sources/solar-energy
Desired direction:	Higher the better
Notes for all providers	
Data sources and guidance:	<ul style="list-style-type: none"> - DOH Health Facility Guidelines 2022 Part S – Sustainability - Energy meters related to ADDC (Abu Dhabi Distribution Company)

Emerald Sustainability Index - Measure Cards

Type: Core Indicator

Indicator Number: E003

KPI Description (title):	Annual Carbon Emissions Per Patients Covered
Dimension	Operations
Definition:	Measure of an organization’s GHG emissions across all scopes
Calculation:	<p><u>Numerator:</u> Total annual carbon emissions per scope of the Greenhouse Gas Protocol measured in CO₂eq.</p> <p><i>Report Separately each scope:</i></p> <ul style="list-style-type: none"> a) Scope 1 (Direct) GHG emissions Facility’s direct emissions, including on-site combustion (e.g. diesel generators), medical gases, on-site treatment of waste, and emissions from facility's vehicles. b) Scope 2 (Energy indirect) emissions. refers to indirect emissions from purchased energy to power, heat or cool healthcare facilities. c) Scope 3 (all other indirect) emissions refers to a different type of indirect emissions, generated through acquiring products and services (e.g., pharmaceuticals, medical and non-medical items and equipment, food and catering, water and sanitation, waste management and disposal off-site), as well as business travel, and employees and patients commuting. <p><u>Denominator:</u> Annual Total number of inpatient discharges from the facility premises (includes inpatient acute care, long-term care, post-acute rehabilitation).</p>
Reporting Frequency:	Annual
Unit of Measure:	CO ₂ eq per discharges
International comparison if available	https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/832776/sustainability_reporting_guidance_2019-20.pdf Scope 1 and Scope 2 Inventory Guidance US EPA
Desired direction:	Lower the better
Notes for all providers	
Data sources and guidance:	- DOH Health Facility Guidelines 2022 Part S – Sustainability

Emerald Sustainability Index - Measure Cards

Type: Core Indicator

Indicator Number: E004

KPI Description (title):	Percent of Virtual Patient Visits
Dimension	Operations
Definition:	Organization's efforts to reduce its carbon intensity by implementing telehealth initiatives
Calculation:	<p><i>Numerator:</i> Annual number of virtual visits, including phone consultations.</p> <p>Telehealth procedure codes: 99441, 99442, 99443, 99446, 99447, 99448, 99449, 01-01, 01-02, 01-03, 01-04</p> <p><i>Denominator:</i> Annual number of outpatient encounters (including face-to-face OP visit, diagnostics, virtual visits, ED, daycase)</p>
Reporting Frequency:	Annual
Unit of Measure:	Percentage
International comparison if available	https://health.ucdavis.edu/news/headlines/telehealth-cuts-health-cares-carbon-footprint-and-patients-costs-during-pandemic/2023/01 https://www.healthaffairs.org/doi/10.1377/hlthaff.2020.01103
Desired direction:	Higher is Better
Notes for all providers	
Data sources and guidance:	- DOH Health Facility Guidelines 2022 Part S – Sustainability

Emerald Sustainability Index - Measure Cards

Type: Core Indicator

Indicator Number: E005

KPI Description (title):	Annual energy consumption per square metre
Dimension	Operations
Definition:	Energy Use Intensity (EUI) captures a building's annual energy use as a function of its size. It is a measure that determines the building's energy performance and is useful for benchmarking and setting targets.
Calculation:	<p><i>Numerator:</i> Total Energy consumption (megawatt hours [MWh])</p> <p><i>Denominator:</i> Total <i>Conditioned floor area</i> of facilities, square metres [m²], includes those directly managed by the hospital, providing support for healthcare delivery</p> <p><i>Conditioned floor area:</i> means the sum of areas of all floors in conditioned space in the structure, including basements, cellars, and intermediate floored levels measured from the exterior faces of exterior walls or from the center line of interior walls, excluding covered walkways, open roofed-over areas, porches, exterior terraces or steps, chimneys, roof overhangs and similar features.</p>
Reporting Frequency:	Annual
Unit of Measure:	Mwh/m ²
International comparison if available	2019-Green-Hospital-Scorecard-Report.pdf (greenhealthcare.ca) Energy Use in Hospitals (energystar.gov) Measuring hospital energy performance HFM Health Facilities Management (hfm magazine.com)
Desired direction:	Lower is better
Notes for all providers	
Data sources and guidance:	<ul style="list-style-type: none"> - DOH Health Facility Guidelines 2022 Part S – Sustainability - Energy meters related to ADDC (Abu Dhabi Distribution Company)

Emerald Sustainability Index - Measure Cards

Type: Core Indicator

Indicator Number: E006

KPI Description (title):	Annual water consumption intensity per square metre
Dimension	Operations
Definition:	<p>Water Use Intensity (WUI) is expressed as the hospital's annual water use relative to the total conditioned floor area. It is a measure that is used to determine the facility's water performance and is useful for benchmarking and setting targets.</p> <p>Facility water data is collected in cubic meters (m³) and divided by the reported conditioned floor area (m²) to calculate a final WUI (m³/m²).</p>
Calculation:	<p><i>Numerator:</i> Total annual water consumption, measured in cubic metres [m³]</p> <p><i>Denominator:</i> The total <i>Conditioned floor area</i> of facilities, measured in square metres (m²), includes those directly managed by the hospital, providing support for healthcare delivery</p> <p><i>Conditioned floor area:</i> means the sum of areas of all floors in conditioned space in the structure, including basements, cellars, and intermediate floored levels measured from the exterior faces of exterior walls or from the center line of interior walls, excluding covered walkways, open roofed-over areas, porches, exterior terraces or steps, chimneys, roof overhangs and similar features.</p>
Reporting Frequency:	Annual
Unit of Measure:	m ³ /m ²
International comparison if available	2019-Green-Hospital-Scorecard-Report.pdf (greenhealthcare.ca) HTM 07-04 Final.pdf (england.nhs.uk) Reducing water use at healthcare facilities Conditioned floor area Definition Law Insider
Desired direction:	Lower is better
Notes for all providers	
Data sources and guidance:	<ul style="list-style-type: none"> - DOH Health Facility Guidelines 2022 Part S – Sustainability - Water meters related to ADDC. This is reflected as well in the bills for water and electricity paid by the facility.

Emerald Sustainability Index - Measure Cards

Type: Core Indicator

Indicator Number: E007

KPI Description (title):	Non-Fossil fuel led CCHP units operated on site
Dimension	Infrastructure
Definition:	<p>To define the percentage of separate non-fossil fuel led CCHP (Combined Cooling, Heat and Power) units operated on the site.</p> <p>Combined cooling, heat & power (CCHP), also known as trigeneration, is an extension of combined heat & power (CHP). While CHP only generates electricity and heat, CCHP adds cooling to the list. In other words, trigeneration or CCHP means some of the heat that is produced is also used to generate cooling energy.</p> <p>Inclusions: CCHP operating on;</p> <ul style="list-style-type: none"> o Oil o Gas o Coal
Calculation:	<p><i>Numerator:</i> Total number of separate non-fossil fuel led CCHP units operated on the site</p> <p><i>Denominator:</i> Total number of CCHP units operated on the site</p>
Reporting Frequency:	Annual
Unit of Measure:	Percentage
International comparison if available	Estates Returns Information Collection, Summary page and dataset for ERIC 2021/22 - NDRS (digital.nhs.uk) CCHP: Combined Cooling, Heat & Power energyst.com
Desired direction:	Lower is better
Notes for all providers	
Data sources and guidance:	<ul style="list-style-type: none"> - DOH Health Facility Guidelines 2022 Part S – Sustainability - Sections: - Commitment to Carbon Footprint Reduction (GHG) & Net Zero Carbon - Renewable Energy

Emerald Sustainability Index - Measure Cards

Type: Core Indicator

Indicator Number: E008

KPI Description (title):	Percent of Employees Trained on Environmental and Social Drivers of Health
Dimension	Infrastructure
Definition:	Organization's actions to raise awareness on environmental and social health drivers among employees
Calculation:	<p><u>Numerator:</u> Annual number of unique staff trained on environmental and social drivers of health</p> <p><i>Numerator Guidance:</i> Amount of full-time equivalent staff who have undergone training sessions, aimed at learning how environmental and social factors determine the health of the population the hospital serves (for example, educating on air pollution is causing respiratory and chronic diseases).</p> <p>Social determinants of health (SDOH) are the conditions in the environments where people are born, live, learn, work, play, worship, and age that affect a wide range of health, functioning, and quality-of-life outcomes and risks.</p> <p>Measured per employee trained, regardless of the number of times they took the training</p> <p><u>Denominator:</u> Total Employees providing services at the facility site.</p> <p>Denominator inclusion: all staff (full time and contracted / part time) for</p> <ul style="list-style-type: none"> • medical staff • non-medical staff
Reporting Frequency:	Annual
Unit of Measure:	Percentage
International comparison if available	https://www.anthem.com/blog/your-health-care/social-drivers-of-health-and-how-they-affect-you/
Desired direction:	Higher is better
Notes for all providers	
Data sources and guidance:	<ul style="list-style-type: none"> - DOH Health Facility Guidelines 2022 Part S – Sustainability - Abu Dhabi Occupational Safety and Health System - Abu Dhabi Public Health Center (ADPHC)

Emerald Sustainability Index - Measure Cards

Type: Core Indicator

Indicator Number: E009

KPI Description (title):	Percent of Employees Trained on Climate Change or Sustainability
Dimension	Infrastructure
Definition:	<p>Extent to which medical and non-medical staff are trained on the relationship between climate/environment and human health conditions/illnesses/diseases</p> <p>Geneva Sustainability Masterclass: An in-person, one-day learning programme which will allow to hone hospital leaders' competencies and provide key information and tools to assess, plan and address the required organizational changes.</p>
Calculation:	<p><u>Numerator:</u> Annual number of unique staff trained on climate change or sustainability</p> <p>(Amount of full-time equivalent staff who have undergone training sessions, aimed at learning about the relation between climate change and human health, the contribution of the healthcare sector, and the role of healthcare leaders and professionals as climate leaders. Measured per employee trained, regardless of the number of times they took the training)</p> <p>Inclusion: can be Attendance Certificate of Healthcare Providers in Geneva Sustainability Masterclasses OR other trainings.</p> <p><u>Denominator:</u> Total Employees providing services at the facility site.</p> <p>Denominator inclusion: all staff (full time and contracted / part time) for</p> <ul style="list-style-type: none"> • medical staff • non-medical staff
Reporting Frequency:	Annual
Unit of Measure:	Number of employees
International comparison if available	<p>https://greenbusinessbureau.com/business-function/executive/executive-guide/corporate-sustainability-training-an-executive-guide/</p> <p>https://www.sustainability.gov/federal sustainability plan/workforce.html</p>
Desired direction:	Higher is better
Notes for all providers	
Data sources and guidance:	- DOH Health Facility Guidelines 2022 Part S – Sustainability

Emerald Sustainability Index - Measure Cards

Type: Core Indicator

Indicator Number: E010

KPI Description (title):	Energy Efficient Schemes Costs
Dimension	Operations
Definition:	<p>Annual amount of all capital (not revenue) invested in energy efficiency projects/programs</p> <p>Inclusions:</p> <ul style="list-style-type: none"> • All large- and small-scale capital energy schemes such as the installation of Combined Cooling, Heat, and Power (CCHP) units, LED lighting, photovoltaic (PV) solar etc.; • All discrete projects such as improvements to Building Energy Management systems or personal computer (PC) power management; • All items such as energy efficiency focused behavioral change programs; • Where refurbishment schemes have included larger elements e.g., CCHP or complete lighting replacements. <p>Exclusions:</p> <ul style="list-style-type: none"> • Public Sector Grants • Charitable funds
Calculation:	<p><i>Numerator:</i> Annual amount of all capital (not revenue) invested in energy efficiency projects /programmes</p> <p><i>Denominator:</i> Annual amount of all capital (not revenue) invested by the organization in a year.</p>
Reporting Frequency:	Annual
Unit of Measure:	Percentage
International comparison if available	<p>Estates Returns Information Collection, Summary page and dataset for ERIC 2021/22 - NDRS (digital.nhs.uk)</p> <p>Greener NHS (england.nhs.uk)</p> <p>Financial Value Calculator ENERGY STAR</p>
Desired direction:	Higher is better
Notes for all providers	
Data sources and guidance:	<ul style="list-style-type: none"> - DOH Health Facility Guidelines 2022 Part S – Sustainability - Facility financial report

Emerald Sustainability Index - Measure Cards

Type: Core Indicator

Indicator Number: E011

KPI Description (title):	LED Lighting Coverage
Dimension	Infrastructure
Definition:	<p>Percentage of Gross internal area that is covered by working LED lighting</p> <p>Inclusions:</p> <ul style="list-style-type: none"> • Temporary buildings; • Embedded education and training facilities; • University accommodation; • Underground and multi-story car parks; • Areas temporarily in the possession of building contractors that is either owned or defined in the terms of a lease <p>Exclusions:</p> <ul style="list-style-type: none"> • Leased-out areas; • Open car parks; • Premises that are vacant and awaiting disposal
Calculation:	<p><u>Numerator:</u> Gross internal area (m²) that is covered by working LED lighting</p> <p><u>Denominator:</u> Gross internal area lit in square meters (m²).</p>
Reporting Frequency:	Annual
Unit of Measure:	Percentage
International comparison if available	<p>Estates Returns Information Collection, Summary page and dataset for ERIC 2021/22 - NDRS (digital.nhs.uk)</p> <p>Greener NHS (england.nhs.uk)</p> <p>LED LIGHTING IN HOSPITALS Final.pdf (paho.org)</p>
Desired direction:	Higher is better
Notes for all providers	
Data sources and guidance:	<ul style="list-style-type: none"> - DOH Health Facility Guidelines 2022 Part S – Sustainability - Facility Management Department Reports and Inspections

Emerald Sustainability Index - Measure Cards

Type: Core Indicator

Indicator Number: E012

KPI Description (title):	Biomedical Waste Generation
Dimension	Disposal
Definition:	<p>It represents the percentage of biomedical waste in comparison to the total waste generated by a healthcare organization.</p> <p>Group A Medical Waste Anatomical or pathological waste, waste contaminated with human blood or other body fluids, excreta, vomit, human tissue, wastes from contagious diseases, dirty bandages, bed sheets, animal remains and all other materials on which animal lay or cloth or used by animal whether contaminated or not and mortuary wastes.</p> <p>Group B Medical Waste Sharps, usually syringes and needles, surgical tools, different medicine and medical equipment vessels, broken glass and all other sharp equipments, tools and materials.</p> <p>Group C Medical Waste Blood, tissue and microbial cultures and microbiology laboratory waste, carcasses of inoculated lab animals, stools from cholera patient or body fluid of highly infectious diseases, and mortuary waste not specified under Group A.</p> <p>Group D Medical Waste Pharmaceutical and chemical waste to which medical specifications apply.</p> <p>Group E Medical Waste Disposable linings used for patient beds, caps of bottles for receiving and storing blood, urine, urine diapers, bags or vessels used for receiving stomach waste and similar wastes.</p> <p>Group F Medical Waste Waste resulting from treatment with radio active materials and wastes resulting from all operations related to radio active materials.</p> <p>General Waste Non-Hazardous Waste; similar to Domestic waste</p> <p>Radioactive waste: such as products contaminated by Radionuclides including radioactive diagnostic material or radiotherapeutic materials</p>

Emerald Sustainability Index - Measure Cards

Calculation:	<p><i>Numerator:</i> Weight of generated biomedical waste in tons (Group A-F)</p> <p>Exclusions:</p> <ul style="list-style-type: none"> • General waste • Radioactive waste <p><i>Denominator:</i> Total weight of all generated waste in tons (e.g. Medical and Non-Hazardous).</p>
Reporting Frequency:	Annual
Unit of Measure:	Percentage
International comparison if available	2019-Green-Hospital-Scorecard-Report.pdf (greenhealthcare.ca) www.canadacoalition.ca Health-care waste (who.int)
Desired direction:	Lower is better
Notes for all providers	
Data sources and guidance:	<ul style="list-style-type: none"> - DOH Health Facility Guidelines 2022 Part S – Sustainability - WasteReductionGuidelinesEn.pdf (tadweer.gov.ae) - Clinical Medical Waste Management Program in Abu Dhabi (cwtme.ae) - Health Sector EHSMS Standards- List of content.pdf - PPR/HCP/P0002/07 (Medical Waste Management in Health Care Facilities) - Facility Management Reports and Waste Invoices generated by the finance department to the Waste Disposal Contracted Company.

Emerald Sustainability Index - Measure Cards

Type: Core Indicator

Indicator Number: E013

KPI Description (title):	Non-Hazardous waste generation
Dimension	Disposal
Definition:	It represents the percentage of Non-Hazardous waste (general waste) in comparison to the total waste generated by a healthcare organization.
Calculation:	<p><i>Numerator:</i> Weight of generated Non-Hazardous waste in tons</p> <p>Non-hazardous or general waste: waste that does not pose any particular biological, chemical, radioactive or physical hazard</p> <p><i>Denominator:</i> Total weight of all generated waste in tons (e.g. Medical and Non-Hazardous).</p>
Reporting Frequency:	Annual
Unit of Measure:	Percentage
International comparison if available	2019-Green-Hospital-Scorecard-Report.pdf (greenhealthcare.ca) www.canadacoalition.ca
Desired direction:	Lower is better
Notes for all providers	
Data sources and guidance:	<ul style="list-style-type: none"> - DOH Health Facility Guidelines 2022 Part S – Sustainability - WasteReductionGuidelinesEn.pdf (tadweer.gov.ae) - Facility Management Reports and Waste Invoices generated by the finance department to the Waste Disposal Contracted Company.

Emerald Sustainability Index - Measure Cards

Type: Core Indicator

Indicator Number: E014

KPI Description (title):	Recyclable waste generation
Dimension	Disposal
Definition:	It represents the percentage of recyclable waste in comparison to the total waste generated by a healthcare organization.
Calculation:	<p><i>Numerator:</i> Weight of generated recyclable waste in tons</p> <p>Inclusions:</p> <ul style="list-style-type: none"> • Plastic • Glass • Metal/cans • Paper • Construction and demolition recyclable material <p><i>Denominator:</i> Total weight of all generated waste in tons (e.g. Medical and Non-Hazardous).</p>
Reporting Frequency:	Annual
Unit of Measure:	Percentage
International comparison if available	2019-Green-Hospital-Scorecard-Report.pdf (greenhealthcare.ca) www.canadacoalition.ca
Desired direction:	Higher is better
Notes for all providers	
Data sources and guidance:	<ul style="list-style-type: none"> - DOH Health Facility Guidelines 2022 Part S – Sustainability - WasteReductionGuidelinesEn.pdf (tadweer.gov.ae) - Facility Management Reports and Waste Invoices generated by the finance department to the Waste Disposal Contracted Company

Emerald Sustainability Index - Measure Cards

Type: Core Indicator

Indicator Number: E015

KPI Description (title):	Food Waste Cost
Dimension	Disposal
Definition:	Invoiceable costs of all food waste. The costs entered should be directly linkable to invoices received and entered by the finance department for waste costs.
Calculation:	<i>Numerator:</i> Cost of Food Waste <i>Denominator:</i> Total Cost of All Organization's Waste Disposal per year
Reporting Frequency:	Annual
Unit of Measure:	Percentage
International comparison if available	Estates Returns Information Collection, Summary page and dataset for ERIC 2021/22 - NDRS (digital.nhs.uk) Greener NHS (england.nhs.uk) https://www.england.nhs.uk/south/wp-content/uploads/sites/6/2022/06/Devon-DPT-Green-Plan-2022.pdf https://ojin.nursingworld.org/table-of-contents/volume-27-2022/number-2-may-2022/articles-on-previously-published-topics/hospital-food-waste/ https://www.blog-qhse.com/en/food-waste-sorting-in-hospitals-and-care-homes-where-to-start
Desired direction:	Lower is better
Notes for all providers	
Data sources and guidance:	<ul style="list-style-type: none"> - DOH Health Facility Guidelines 2022 Part S – Sustainability - Invoices paid for food waste disposal through finance department

Emerald Sustainability Index - Measure Cards

Summary of Changes 2024

KPI #	Changes
E001	<p>Added Denominator Guidance: Report separately OUTPATIENT and INPATIENT encounters</p> <ul style="list-style-type: none"> A) Outpatient: all OPD visits including face-to-face visits, diagnostics, virtual visits, ED, day case B) Inpatient discharges: include inpatient acute care, long-term care, post-acute rehabilitation <p>Revised desired direction Lower is better”</p>
E002	Revised unit of measure to “Percentage”
E003	<p>Revised Numerator and Denominator:</p> <p><u>Numerator:</u> Total annual carbon emissions per scope of the Greenhouse Gas Protocol measured in CO₂eq.</p> <p><i>Report Separately each scope:</i></p> <ul style="list-style-type: none"> a) Scope 1 (Direct) GHG emissions Facility’s direct emissions, including on-site combustion (e.g. diesel generators), medical gases, on-site treatment of waste, and emissions from facility's vehicles. b) Scope 2 (Energy indirect) emissions. refers to indirect emissions from purchased energy to power, heat or cool healthcare facilities. c) Scope 3 (all other indirect) emissions refers to a different type of indirect emissions, generated through acquiring products and services (e.g., pharmaceuticals, medical and non-medical items and equipment, food and catering, water and sanitation, waste management and disposal off-site), as well as business travel, and employees and patients commuting. <p><u>Denominator:</u> Annual Total number of inpatient discharges in the facility premises (includes inpatient acute care, long-term care, post-acute rehabilitation).</p>
E004	<ul style="list-style-type: none"> • Revised phrases in <u>Numerator:</u> Annual number of virtual visits, including phone consultations. Telehealth procedure codes: 99441, 99442, 99443, 99446, 99447, 99448, 99449, 01-01, 01-02, 01-03, 01-04 • <u>Denominator:</u> Annual number of outpatient encounters - all OPD visits including face-to-face visits, diagnostics, virtual visit, ED, day case • Revise unit of measure: Percentage
E005 - E006	<ul style="list-style-type: none"> • Revised Denominator: defined conditioned floor area

Emerald Sustainability Index - Measure Cards

E005	<ul style="list-style-type: none"> • Change the units for numerator to be MWh • Modified the definition to be aligned with the units.
E008	<ul style="list-style-type: none"> • <i>Revised phrases in Numerator:</i> Annual number of unique staff trained on environmental and social drivers of health <p><i>Numerator Guidance:</i> Amount of full-time equivalent staff who have undergone training sessions, aimed at learning how environmental and social factors determine the health of the population the hospital serves (for example, educating on air pollution is causing respiratory and chronic diseases). Social determinants of health (SDOH) are the conditions in the environments where people are born, live, learn, work, play, worship, and age that affect a wide range of health, functioning, and quality-of-life outcomes and risks.</p> <p>Measured per employee trained, regardless of the number of times they took the training</p> <ul style="list-style-type: none"> • <i>Denominator:</i> Total Employees providing services at the facility site. Denominator inclusion: all staff (full time and contracted / part time) for medical staff non-medical staff <p>Revised Unit of measure: Percentage</p>
E011	Added units of measurement square meters (m ²).
E014	Added in Denominator description: (e.g. Medical and Non-Hazardous).