THE ROYAL VICTORIA
EYE AND EAR
HOSPITAL DVBLIN

TOWARDS NET ZERO

ANNUAL SUSTAINABILITY REPORT

2024

Contents

Introduction

The RVEEH Annual Sustainability Report monitors and celebrates the environmental sustainability successes at the hospital throughout 2024. The report reflects on the breadth of activity within our areas of focus, and documents progress towards our net zero ambitions.

We have reduced our carbon footprint (those emissions we can directly control) by 14.7% since our baseline year of 2022. This reduction has occurred despite an average increase in activity of between 7-8% per annum, across all areas in the hospital. The average carbon emissions per patient contact were the lowest they have been since our baseline year, 24.8 kgCO2e per patient in 2024 down from to 33.1 kgCO2e in 2022.

This is an excellent sign that we are making progress to deliver care more efficiently, and in a lower carbon way. However, we are not yet reducing our emissions fast enough to meet our science-based carbon budget. 2025 will see a number of additional initiatives to further accelerate the reduction of emissions to smooth our journey to net zero emissions.

We are pleased to report the progress achieved this year that is outlined in the Annual Report, which details our objectives and supporting projects to enable us on our journey.

This review helps us to recognise what we have achieved and focus us on what needs to be delivered in 2025. I would like to that all our staff for there dedication and commitment to our sustainability journey, particularly how they have embraced sustainability as part of their daily efforts, while continuing to deliver excellent patient care.

Ashton Dallsingh
Council Member and Chair
Sustainability Committee

The Year in Brief

2024

JAN

Waste management audits commenced

Feb

Staff Engagement platform launched

Mar

- Biodiversity: Phase 1 of Green Space upgrade completed
- Sustainability Awareness Week (26th-28th March)

Apr

- Supplier engagement on packaging reduction and minimisation
- HSE funding secured for Waste Management compound

May

Water use survey undertaken and Water Use Plan approved.

Jun

- Thermophilic Biodigester funding secured from HSE Climate
- Inventory Management e-Tender awarded

AUG

Green Cataract Theatre Initiative presented at the Nurses Climate Change European Network Conference

SEP

Biodigester e-Tender completed and awarded

OCT

New stock management system installed that enables product carbon footprint capture

NOV

- LED Lighting upgrade completed.
- Waste Management compound completed

DEC

Dr Emilie Mahon wins the “Sustainability in Healthcare Award” at the Irish Healthcare Awards

About the Royal Victoria Eye and Ear Hospital

The Royal Victoria Eye and Ear Hospital (RVEEH) in Dublin was founded in 1897 and is the National Referral Centre for both Eye and Ear, Nose & Throat disorders. The hospital is a National Centre of Excellence providing tertiary and quaternary services in Ophthalmology and Otolaryngology and is the main tertiary provider for complex subspecialty eye disorders.

Academic and clinical training are provided to undergraduate and postgraduate medical students from Royal College of Surgeons in Ireland, University College Dublin and Trinity College Dublin. Research in both Ophthalmology and Otolaryngology is undertaken in partnership with our academic partners.

In November 2021 the hospital established the Sustainability Executive Committee and in mid-2022 the Council (Board) of the hospital approved the establishment of a Sustainability Committee of the Council.

The RVEEH is committed to the achievement of our carbon objectives, outlined later in the report, and acknowledges that significant change will be required in how we deliver care and specifically that we must be:

- Integrating sustainability into the quality of care systems at the hospital
- Innovating in our approach to care delivery, procurement and energy.
- Ensuring that everyone has a role to play.

Emilie Mahon wins the Sustainability in Healthcare Award at the Irish Healthcare Awards

Professor Debbi Stanistreet, Professor Conor Murphy and Dr Emilie Mahon, on behalf of the Royal Victoria Eye and Ear Hospital (RVEEH) and the Royal College of Surgeons in Ireland (RCSI), won the Sustainability in Healthcare Award at the Irish Healthcare Awards 2024 on Wednesday 4th December.

The project entitled "Optimising Medications" Carbon Footprint in Ophthalmic Care, made possible by the support of a research grant from the RVEEH Research Foundation, was selected by the judges and described as a “Great practical example in an acute hospital.

Currently, the majority of published data on the carbon footprint of medications rely on estimates based on medication price, however accurate calculations are required for clinical decisions to be made. It was therefore sought to improve the manner by which the CO2 emissions of medications used in eye care are measured, notably by calculating the carbon footprint of medications’ packaging and active pharmaceutical ingredients. Comparisons could thus be made between peri-operative regimens used in cataract surgery, routes of administration of antivirals and varying delivery devices.

Overall, the project’s results aim to support the calculation and reduction of CO2 emissions from ophthalmic care in Ireland in line with the HSE net-zero 2050 target.”

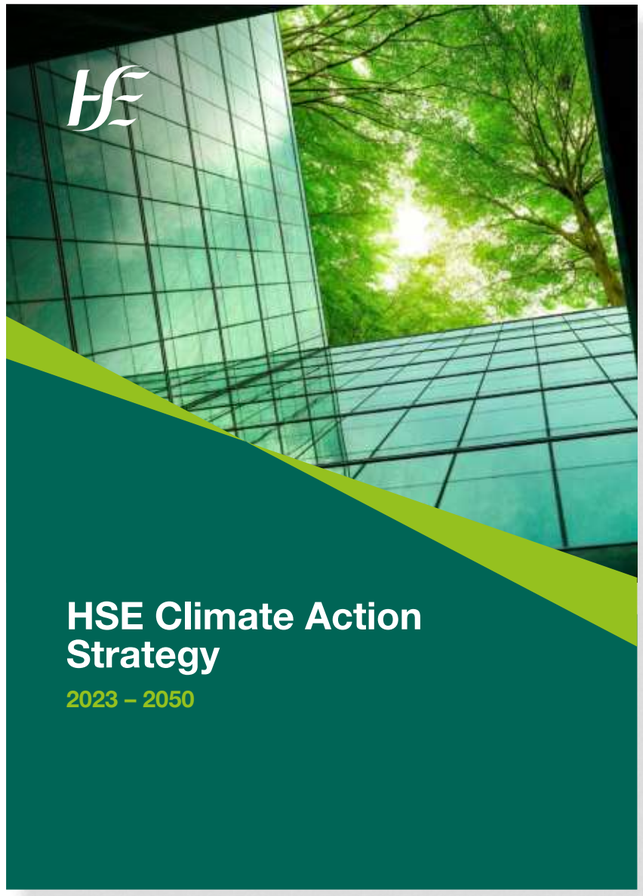
Minister Officially Opens Hospital Biodigester

Minister of State, Mr Alan Dillon, TD, officially opened the hospital's Waste Management Compound & Thermophilic Biodigester.

The installation of the biodigester was another important step in the hospital's sustainability journey, which was made possible by the ongoing support of the Capital & Estates Team of the HSE, and will be an important component in in decarbonising the hospital.

The Thermophilic Biodigester will initially reduce CO2 by a 3% as over 20 tonnes of food waste and compostable materials are composted on site. Over the coming years the biodigester will be an important element in our need to reduce and remove reliance on single use plastic (SUP's) and look for compostable/ biodegradable solution, in our goal of reducing the hospital's carbon footprint by 50% by 2030.

Sustainability Context



Health Service Executive (HSE) Climate Action Strategy 2023-2050

The Health Service Executive's (HSE's) Climate Action Strategy1[1] was launched in June 2023. The Strategy provides a Climate Action Roadmap which outlines how the HSE intends to put Ireland on a more sustainable path, cut emissions, create a healthier, cleaner, and greener society, and help protect and prepare the population from the health consequences of climate change. The strategy has 6 Priority Areas of Focus captured in figure 3:

Figure 3: Climate Action Strategy six priority areas of focus.

1. HSE Climate Action Strategy 2023-2050

Sustainability at the RVEEH

The Royal Victoria Eye and Ear Hospital (RVEEH) in Dublin was founded in 1897 and is the National Referral Centre for both Eye and Ear, Nose & Throat disorders. The hospital is a National Centre of Excellence providing tertiary and quaternary services in Ophthalmology and Otolaryngology and is the main tertiary provider for complex subspecialty eye disorders.

In November 2021 the hospital established the Sustainability Executive Committee and in mid-2022 the Council (board) of the hospital approved the establishment of a Sustainability Sub-Committee of the Council.

Sustainability Vision:

The Royal Victoria Eye and Ear Hospital will embrace sustainability, be leaders in this space and embed sustainability into the delivery of care for patients".

Sustainability Objectives

- A 50% reduction in Greenhouse Gas (GHG) carbon emissions by 2030 and
- Net Zero Emissions by 2050 at the latest.

Carbon Footprint 2022-2024

2022 is the base year for the hospital's carbon footprint. In that year the hospital emitted 3,907 tCO2e. 2023 saw a 9.1% reduction in emissions to 3,552 tCO2e and a further 6.6% reduction in 2024. These reductions were primarily driven by the switch to renewable electricity, the discontinuation of nitrous oxide (NO2) as an anaesthetic agent at the hospital, facilities upgrades (including the LED light replacement programme, the sash windows insulation project, improved recycling and improved procurement). The reduction in Scope 1 and 2 emissions was partially offset by a 2.8% increase in Scope 3 emissions during the year, driven by an overall increase in hospital activity.

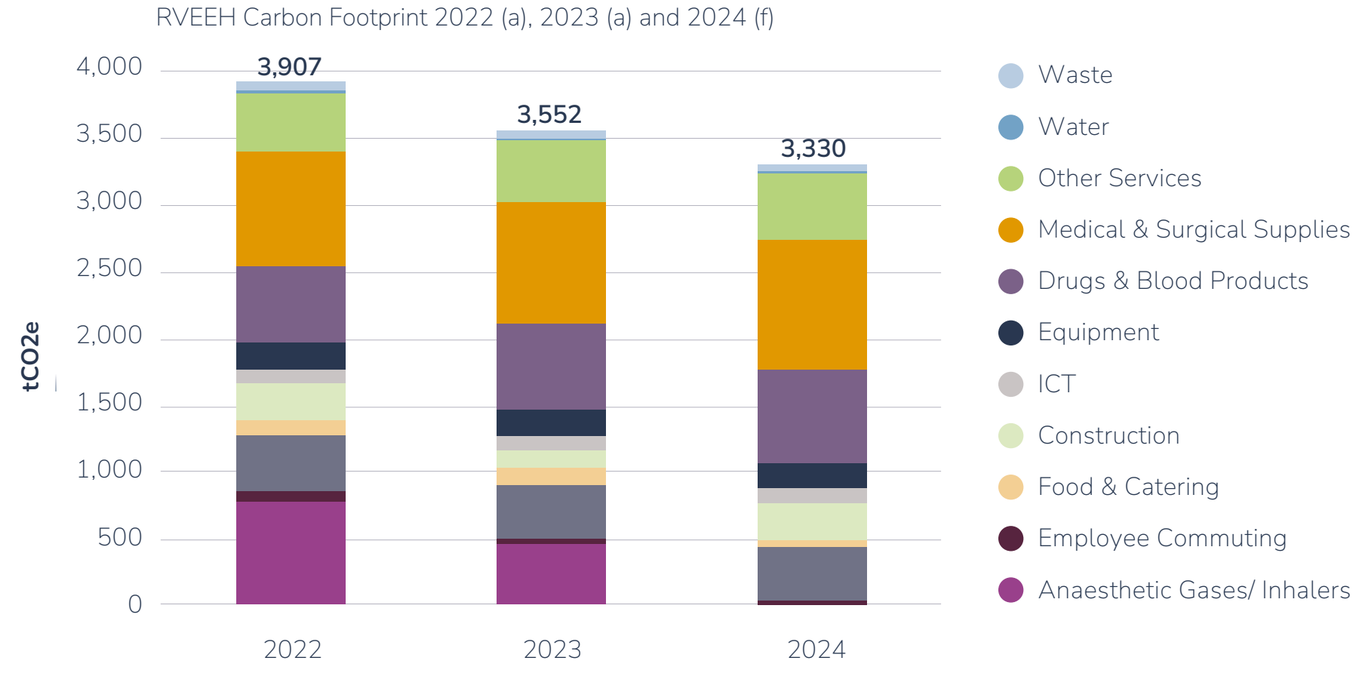


Figure X: RVEEH carbon footprint 2022 , 2023 and 2024.

Sustainability Performance

In 2023, nine key priorities were identified, and their associated requirements, that we believed would set the foundations for a successful sustainability programme at the hospital and launch us on the path to Net Zero. The priorities were:

1. SUSTAINABLE MODELS OF CARE

Overview: Theatres are one of the most carbon-intensive areas of care at the Royal Victoria Eye and Ear Hospital. In 2024, we utilised the Cataract Theatre as a test model for reducing the carbon footprint (our most common procedure) through 2 specific carbon reduction initiatives.

Green Surgical Checklist:

The Green Theatre Checklist was established by the Surgical Royal Colleges of England, Edinburgh, Glasgow and Ireland as part of their commitment to act collectively and urgently to address the threat of the climate and ecological crisis. The checklist includes pointers for healthcare workers in surgical departments, such as using local anaesthetic where possible, or switching to reusable equipment when it is safe to do so.

The checklist is divided into four sections, the first dedicated to anaesthetic care, and the subsequent three looking at preparation for surgery, intra-operative practice and post-operative measures.

Intercollegiate Green Theatre Checklist v2.0

Below is a list of recommendations to reduce the environmental impact of operating theatres. Interventions in the **green** rows can be implemented on the day without prior preparation and can be used as part of a daily pre-operative checklist. Interventions in the **white** rows are those requiring wider stakeholder engagement and planning and may be suitable for monthly review or to help identify areas for quality improvement projects. Relevant guidance and academic literature supporting this checklist is included in the Compendium of Evidence, available at this link:

Anaesthesia		
1	Limit Nitrous Oxide (N_2O) to specific cases where there is evidence of clinical benefit	☐
	Decommission manifolds and switch to N_2O cylinders at point of use (or repair pipe leaks if centralized delivery still used)	
2	Consider TIVA and ensure that all drug waste and giving sets are disposed of through the pharmaceutical waste stream	☐
3	If using inhalational anaesthesia: ▸ use low-flow anaesthesia (via end-tidal anaesthetic gas control, if available)	☐
	Remove desflurane from formulary	
4	Reduce waste: ▸ avoid unnecessary equipment and opt for reusables (e.g. laryngoscopes, body warmers, slide sheets, trays, soda lime canisters) ▸ transfer single-use objects with the patient if still needed (e.g. facemasks, suction)	☐ ☐
	Review and rationalise pre-prepared single-use equipment packs and PPE requirements for standard procedures	
5	Minimise drug waste ("*Don't open unless needed*", pre-empt propofol use, titrate O_2) and dispose in correct pharmaceutical waste stream	☐
	Use air instead of oxygen as the ventilator drive gas	
Preparing for Surgery		
6	Evaluate PPE and sterile field requirements: ▸ rationalise use of non-sterile single-use gloves and PPE and opt for reusables when possible ▸ limit sterile field to necessary areas only	☐ ☐
	Ensure availability of reusable textiles, including theatre hats, sterile gowns, patient drapes, and trolley covers	
7	Reduce water and energy consumption: ▸ *'rub don't scrub'*: after first water scrub of day, you can use alcohol rub for subsequent cases	☐
	Install automatic or pedal-controlled water taps	
8	Avoid clinically unnecessary interventions (e.g. antibiotics, urinary catheterisation, histology examinations)	☐
Intraoperative Equipment		
9	REVIEW AND RATIONALISE: ▸ clarify necessary kit for case and specify what should be available to open only if needed: "Just in time" ▸ take the opportunity to review instrument sets and identify any targets for overage reduction	☐ ☐
	- Review pre-prepared single-use surgical packs and engage with suppliers to remove surplus items and identify those that can be replaced with reusable options (to be included in instrument sets) *- Review reusable instrument sets, remove overage, integrate supplementary items into sets, consolidate sets only if it allows smaller/fewer sets (please see guidance)*	
10	REDUCE: unnecessary waste and single-use equipment, "*don't open it unless you need it*", limit CO_2 insufflation	☐
11	REUSE: opt for reusables, hybrid, or remanufactured equipment instead of single-use (e.g. gallipots, light handles, staplers, energy devices)	☐
	Consider sourcing reusable, hybrid or remanufactured alternatives for single-use equipment	
12	REPLACE: switch to low carbon alternatives (e.g. skin sutures vs. clips, "loose" antiseptic solutions in reusable gallipots)	☐
After the Operation		
13	POWER OFF: Heating, Ventilation, Air conditioning (HVAC), AGSS, lights, computers and equipment out-of-hours	☐
	- Switch off AGSS when theatres are not in use or volatile anaesthesia is not being utilised *- Introduce "shut-down" and "power on" checklists* *- Install occupancy sensors and automatise "set-back" modes HVAC systems*	
14	RECYCLE/use lowest carbon appropriate waste streams: ▸ use recycling waste streams for packaging or, if not available, domestic waste stream (prior to patient entering the room) ▸ use non-infectious offensive waste streams (yellow/black tiger) unless clear risk of infection (orange) ▸ ensure only appropriate contents in sharps bins (sharps/drugs)	☐ ☐ ☐
	- Switch to low impact sharp bins e.g. reusable or cardboard boxes *- Arrange metals/battery collection where possible*	
15	REPAIR: ensure damaged reusable equipment is repaired, encourage active maintenance	☐

DISCLAIMER: These suggestions are based upon current evidence and broadly generisable, however, specific environmental impacts will depend upon local infrastructure and individual Trusts' implementation strategies.

Intercollegiate Green Theatre Checklist v2.0, November 2024.

Cataract Unit: Waste Reduction Initiative

LOW CARBON CATARACT UNIT INITIATIVE

In 2024 a second low carbon initiative was commenced in the Cataract Unit and included:

- New customised Cataract Pack - less hard plastic meaning less waste.
- Non-operational days has been communicated to facilitate switching off the HVAC, computers and plugging off other electrical devices.
- Electronic submission of weekly roster, digital lens implant and stock management.
- A continous effort on EMR to meet the 90% paperless unit.
- Daily monitoring of waste segregation.

In parallel with the Green Surgical Checklist, the team in the Cataract Unit undertook an audit of waste materials used in the approximately 1,800 cataract procedures undertaken in the unit in 2024. The key findings were:

- Shift from Disposable Surgical Instruments to Reusable Surgical Instruments had the biggest carbon impact.
- Procurement costs were down, with less instruments purchased, but labour costs were up due to increase in reprocessing activity.
- 150kg of waste can be avoided per 1,800 cataract procedures undertaken, if the switch from disposable to reusable instruments is rolled out for all cataract procedures.

2. DIGITAL TRANSFORMATION:

The hospital continues to adopt digital technology to deliver and manage healthcare to drive down the use of paper in our clinics and to reduce the transport requirements for patients through maximising the use of specialist ophthalmology community clinics.

Electronic Health Record:

The Royal Victoria Eye and Ear Hospital has rolled out an electronic health record for ophthalmology. MediSight is an ophthalmologist created system for ophthalmology patient management. Unfortunately, no such equivalent system exists for ENT (otolaryngology), but the Chief Technology Transformation Office will commence in 2025 the procurement of a national Electronic Health Record (EHR) that will be used by all hospitals around the country. The roll out of this system will support the shift to paperless care for our ENT colleagues.

Community Clinics:

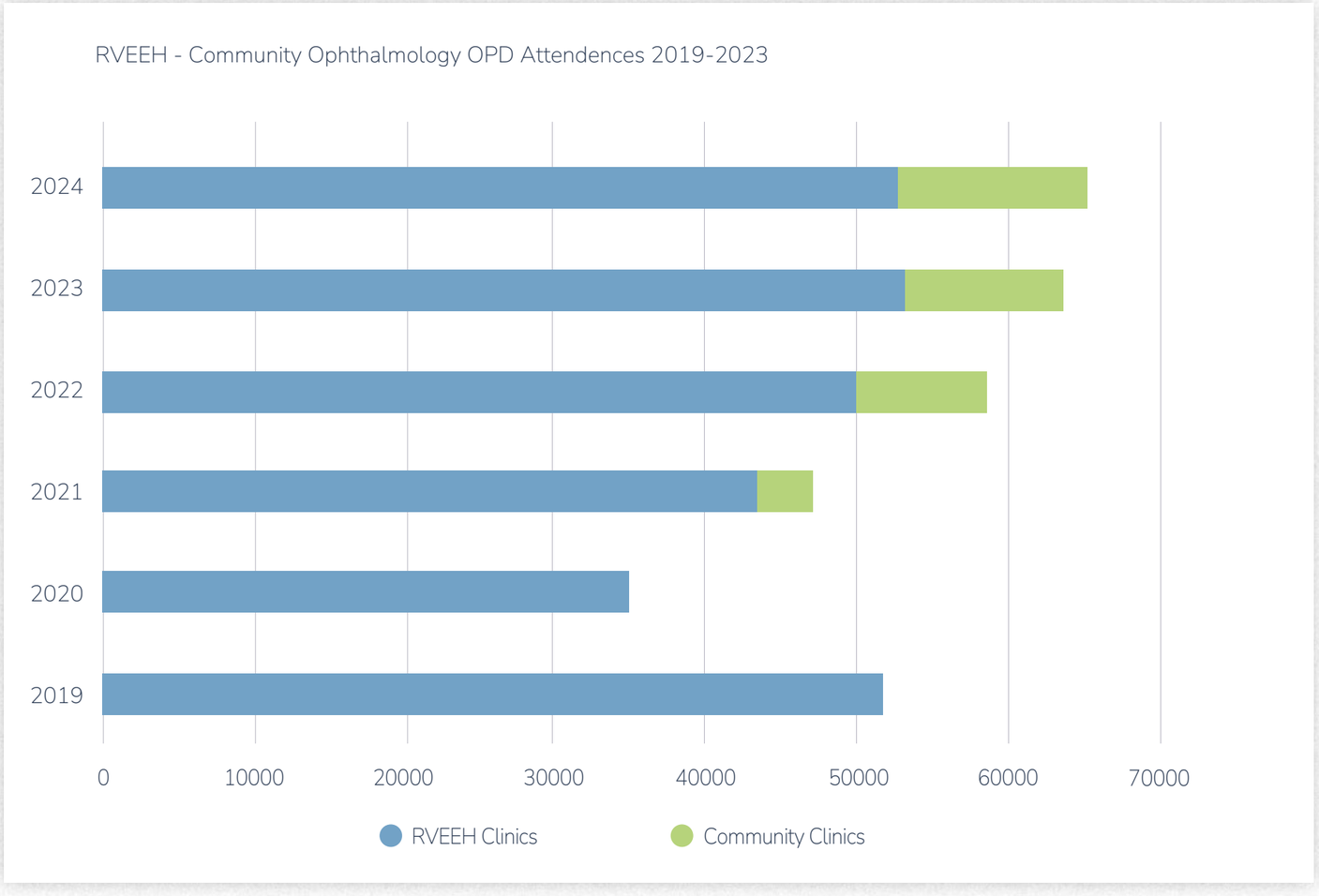
In partnership with our colleagues in Community Healthcare Organisations 6 and 7 the hospital delivers community clinics in Churchtown, Dun Laoghaire, Kildare, Tallaght and Wicklow. In 2025 we will be opening a further clinic in Port Laoise in partnership with Community Healthcare Organisation 8.

Each of these clinics have a full clinical ophthalmology team, with a consultant overseeing the care delivered. This Slaintecare delivery of care, significantly reduces the requirements for patients to attend the hospital, with a significantly reduced travel time.
For example, a cataract patients will have their diagnosis, pre-operative assessment and post-operative follow up in the community and only travel to the hospital for the cataract procedure.
The MediSight system underpins this delivery of care model, as it allows for the seamless sharing of information between clinical teams.

Emergency Department:

EMERGENCY DEPT PHOTO

90% of ophthalmology out-patient clinics are now on MediSight, along with the Cataract Unit and the Emergency Department. Since the outbreak of COVID-19 the Emergency Department moved from a walk-in service to a telephone triage system. The triage system is manned by healthcare professionals and prioritises patients attendance based on their clinical need. This system is underpinned by MediSight which supports clinical delivery and reduces the requirement for paper and scanning at the hospital.



3. SUPPLY CHAIN AND PROCUREMENT:

Stock Control System

In 2024 the hospital purchased a new Stock Control System. The system is a combined stock management and stock control system.
The stock management component allows us to have real time data on all products flowing into and used in the hospital and addresses one of the issues flagged in the 2023 Audit. In addition, it will enable the hospital to build its “bottom up” capability for carbon emissions at the hospital and also provides a “track and trace” capability that enables the tracking of products at an individual patient level. The system became fully operational from October 2024.

Looking ahead to 2025, suppliers of all new procurements must provide the hospital with a carbon reduction plan, which must include detailed plans for high-value procurements and a net zero commitment for lower-value contracts.

Sustainable Procurement Policy

Purpose: In support of the Royal Victoria Eye and Ear Hospital’s mission to improve the health of our patients, staff, and communities, we are committed to applying sustainable procurement guidelines and specifications to purchasing decisions. The hospital has chosen to embed sustainable procurement practices in its day to day activities.

With Scope 3 emissions accounting for 78% of the hospital's emissions, sustainable procurement has the most positive environmental, social, and economic impacts for the planet and the organisation. Sustainable procurement considers these impacts over the entire life cycle of products and services purchased and strives to minimise adverse impacts. Sustainable procurement means making sure our suppliers – and the products and services they deliver – offer value and generate benefits not only for the hospital but also for the environment, society, and economy.

The Royal Victoria Eye and Ear Hospital will evaluate the social, economic (innovation, local suppliers, supplier diversity) and environmental health impacts (greenhouse gas emissions, waste, chemicals/toxicity) throughout the life cycle of products and services in an effort to select healthy and safe products and services that are also environmentally sound. Hospital personnel involved with product selection will communicate to the marketplace that the Royal Victoria Eye and Ear Hospital expects suppliers to continuously develop price-competitive products that conform to our sustainable procurement guidelines and specifications.

Principles of Sustainable Procurement for Healthcare

- **Transparency, accountability, and fairness:** The hospital is accountable for its impacts on society, transparent in its decisions and activities, and fair in its decision-making. Sustainable procurement reduces our reputational risks and upholds integrity and responsibility within supply chains.
- **Analyse all costs:** The hospital will consider cost incurred over the life cycle of the product or service (total cost of ownership), best value for money, and costs and benefits to society, and the environment resulting from procurement activities.
- **Act ethically:** The hospital should ensure sustainable procurement has integrity, encourages diversity and avoids corruption.
- **Encourage innovative solutions:** The hospital seeks solutions to address sustainability objectives and encourage innovative procurement practices to promote more sustainable outcomes throughout the entire supply chain.
- **Work towards continual improvement:** The hospital seeks to continually improve its sustainability practices and outcomes through standing reviews and encourage its supply chain to do the same.
- **Support local production:** The hospital seeks to implement procurement policies and practices that allow locally produced content to become an integral component of sourcing. Sourcing from local suppliers can create economic benefits for communities where health facilities reside and generate economic sustainability through job creation.

4. MEDICINES

Anaesthetics

In Ireland, an estimated 4.4% of national greenhouse gas emissions are attributable to the Irish Health Service. The carbon footprint relating to anaesthesiology is particularly high because of the specialty's reliance on pharmaceuticals, single use medical equipment and plastics – processes that require the burning of large amounts of fossil fuels to procure and to dispose of.

In addition, inhalation anaesthetics, such as nitrous oxide, isoflurane, desflurane, and sevoflurane are greenhouse gases. They are minimally metabolised by the body and as a result, the majority of gases will end up in the atmosphere where they exert a considerable global warming effect. These medical gases account for 5% of the carbon dioxide equivalent emissions from acute hospitals.

The Royal Victoria Eye and Ear Hospital becomes the first hospital in Ireland to remove all Nitrous Oxide supplies and reduce its carbon footprint. The drug is regularly used by doctors and dentists to sedate patients that are undergoing procedures.

Nitrous Oxide confers the largest carbon footprint of anaesthetic gases and is the most potent greenhouse gas.

5. FOOD AND NUTRITION

Biodigester: The hospital completed an assessment of the benefits of locating a biodigester on site. The biodigester would take the 20 tonnes of annual food waste plus all biodegradable items that we use and turn it into compost. The options for use of the compost generated include use on the grounds of the hospital, sharing with local gardens (Iveagh Gardens, Fitzwilliam Square etc), sharing with staff or be removed by a company for onward use/ sale. The cost of the Biodigester is covered under the HSE Climate change programme.

International evidence shows that immediate composting of these products reduces the carbon footprint of the product by approx. 50%. Currently food waste at the hospital accounts for 100 tCO2e. We have an outline agreement with the HSE's Regional Environmental and Sustainability office to fund this project if we move forward.

The tender was completed and awarded in December 2024 and the new biodigester will be fully operational in the first quarter of 2025.

Recycling: The RVEEH has now registered with Re-Turn, Ireland's Deposit and Return Scheme, for all plastic bottles and cans.

6. ESTATES AND FACILITIES

LED Lighting:

In December 2023, the hospital undertook a lighting survey that:

- Mapped each existing type of light fitting in each room or corridor in the hospital.
- Identified the fitting installation type in each room.
- Captured the bulb type and electrical wattage of each fitting in each room.
- Developed a list of proposed fittings and their associated cost.

Funding was secured in May 2024 to replace all lighting in the hospital with LED lighting, at a cost of approx. €200k. The process of changing all of the lighting at the hospital was completed in early December 2024.

Heat Pump:

The Heating System Feasibility Study carried out in 2023 at the hospital concluded:

- *Site Suitability*: A multi-functional all-electric two stage heat pump was a suitable option for the hospital.
- *Heating Demand*: The deployment of a heat pump would meet 100% of the thermal load of the main boiler at the hospital.
- *Combined Heat and Power (CHP):* The CHP can be decommissioned in parallel with the deployment of the heat pump system. The removal of the CHP system will increase the draw on the electricity usage by the hospital but produces a far more efficient energy usage system.

A business case for the replacement of the current heating system was submitted to HSE Estates which has 1. Approved the replacement of the existing boiler with a more efficient boiler, which will be used as back up once the heat pump is in place and 2. Approved the appointment of a design team to deliver a heat pump at the hospital site in 2025.

The deployment of a heat pump system in 2025 will eliminate 510 tCO2 annually, while the increased usage in electricity will be mitigated by the hospitals move to renewable electricity.

Windows Programme:

The hospital has over 160 beautiful, but highly energy inefficient, sash windows in its main building. The hospital identified a company that deploys a brush system on both the frame and the window and reduces the energy loss by approximately 90%. By the end of 2024 almost 100 of the most inefficient windows were refurbished with the programme continuing in 2025.

Water

The carbon cost of the water management both in the provision of fresh water and the disposal of wastewater are substantial. The RVEEH uses more than 1.3 million litres per year at direct cost of >€28,000 p.a. with the carbon cost in producing clean water and retreating wastewater being significant (10.6kg of CO^2 per M^3 of water).

The Water Project for 2024-2025 objectives are to:

- Estimate current carbon loading from all water usage in RVEEH
- Map the RVEEH Water Network
- Fit permanent water logger to main metre to understand hour by hour water demand at the hospital.
- Devise micro metering plan for entire campus and commence installation
- Initiate engagement with Irish Water on billing efficiencies and carbon cost reporting

7. TRAVEL AND TRANSPORT

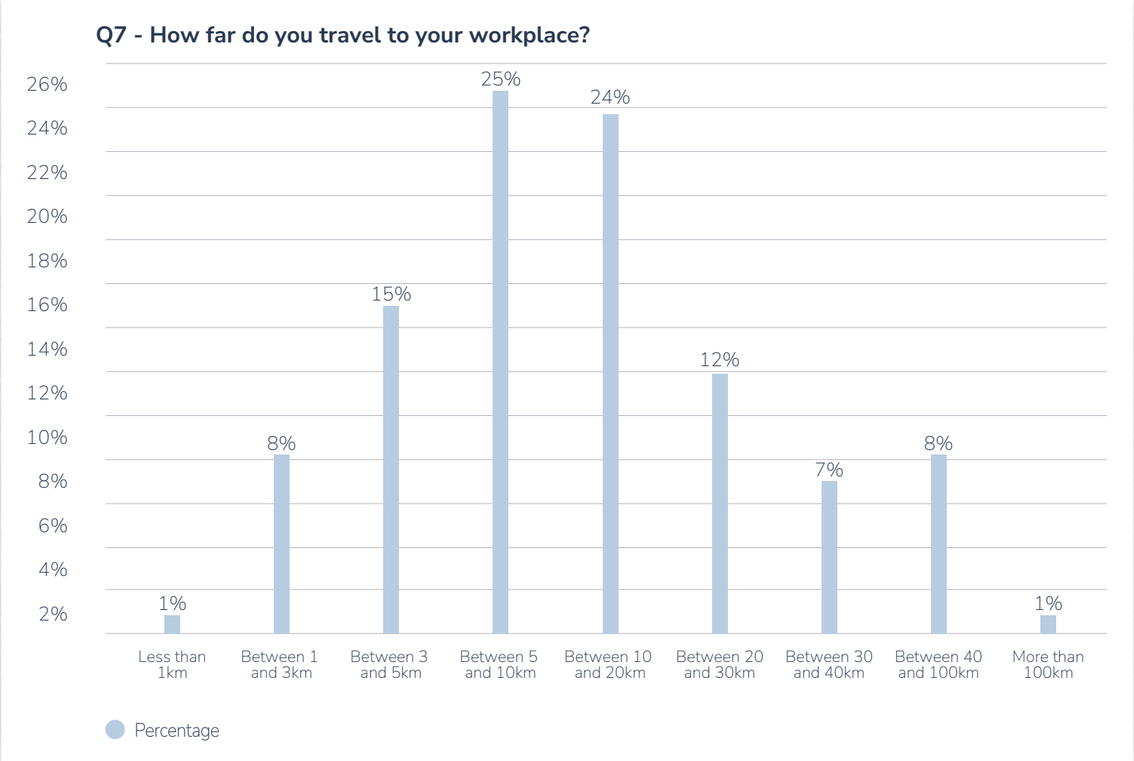
Staff commuting accounted for 400 tCO2 in 2024, with business travel (primarily for medical conference attendance) accounting for a further 7 tCO2. Staff commuting emissions are reflective of geographical location and staff numbers, with 28% of our staff live over 20km from the hospital with a further 24% living between 10-10km.

144 people or 38% of staff at the Royal Victoria Eye and Ear Hospital completed the latest travel survey. In relation to how people get to work, the survey shows the following:

- 8% Walk
- 9% Cycle
- 46% take public transport (train, bus, DART or Luas).
- 11% carpool
- 26% single occupancy car.

Those who walk and cycle are predominantly those who live closest to the hospital. All walkers live within 5km of the hospital, with 90% of cyclists living within 10km of the hospital. By contrast, the majority of single car drivers live over 10km from the hospital.

Looking to the future we have drawn up a series of recommendations to support sustainable travel, which will be implemented in 2025 (see table below).



	Actions
Cycling	Review cycle parking provisions & consider increasing and/or upgrading secure cycle parking.
	Increase shower facilities & introduce a drying room.
	Provide maintenance support for cyclists.
Public Transport	Increase access to information regarding public transport reduced cost ticketing schemes.
	Promote walking/cycling to nearby public transport services.
	Encourage multi-modal transport.
Carpooling	Encourage carpooling through parking preference scheme.
	Provide incentives to those who car-pool.

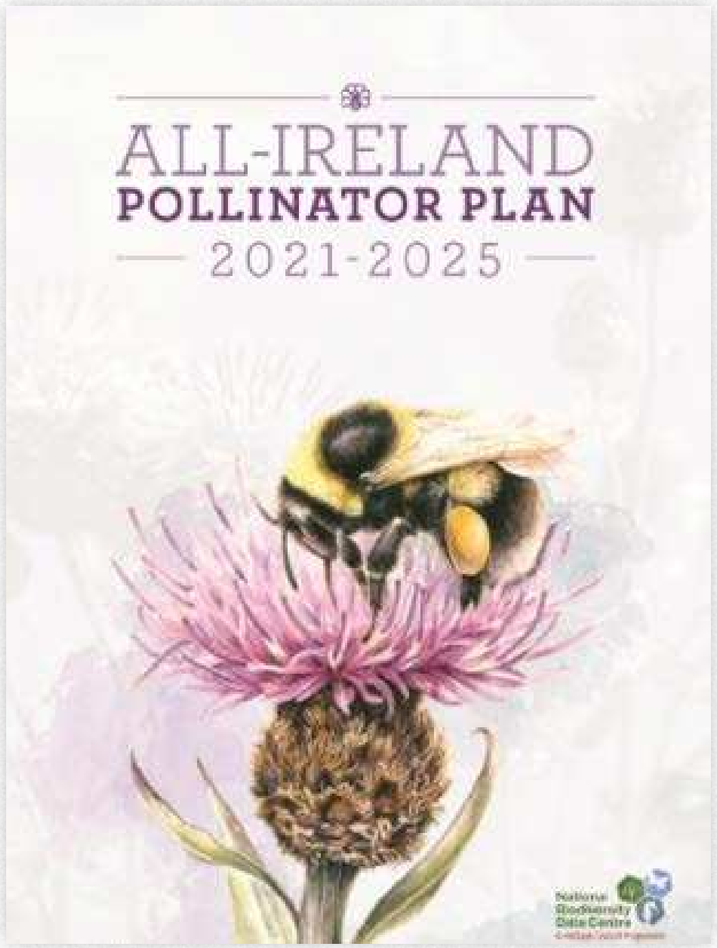
8. GREEN SPACES AND BIODIVERSITY

Green Spaces: The hospital has established a Green Spaces Team with the goal of enhancing the green spaces at the hospital and improving the biodiversity at the campus. Notwithstanding the establishment of the Green Spaces Team, in 2024 the hospital has undertaken the following:

- Reclaimed Space: The hospital has reclaimed space from the car park and established a wild lawn in its place.
- Beds: Expanded the flower beds at the hospital, with the planting of pollinator friendly plants.
- Trees/Shrubs: Selective locating of potted trees and shrubs at various locations on the hospital campus.

Bee Hive: The hospital has undertaken an evaluation of establishing a bee hive on the campus. The benefits of such a hive would include:

- Aligns with our commitment to sustainability and environmental values;
- Provides practical, easily actionable initiative that help meet our Corporate Social Responsibility targets;
- Makes a valuable contribution to rebuilding Ireland's declining bee population;
- Helps meet Environmental Management Systems requirements (e.g. ISO 14001:2015);



9. WORKFORCE, NETWORKS AND SYSTEMS LEADERSHIP

Irish Healthcare Awards: The thesis by Emilie Mahon "Optimising Sustainability in Ophthalmic Surgery" under the supervision of Prof Conor Murphy won the "Sustainability in Healthcare Award" at the Irish Healthcare Awards held on the 4th December in the Royal Convention Centre in Dublin 8.

RCSI Charter Week: The hospital presented at the RCSI Charter Week (6th – 9th February) on Healthcare Sustainability Projects. The theme of the week was " Rising to the Challenges of a New World".

Sustainability Awareness Week: The hospital ran a Sustainability Awareness Week between the 26th – 28th March . The programme included the launch of the hospital's staff engagement programme on sustainability, training on waste segregation/ management, a sustainability stand and a sustainability art competition. Speakers presented on the following topics:

- How Heat Pumps Work.
- Biodigesters and the Circular Economy
- Mapping of the carbon footprint of the cataract pathway.

THE ROYAL VICTORIA EYE AND EAR HOSPITAL DUBLIN
LOOKING AFTER THE NATION'S EYES AND EARS SINCE 1897

SUSTAINABILITY AWARENESS WEEK
26th – 28th March 2024

Tuesday 26th March

Time	Activity	Venue
08.00am	Sustainability Stand - MCQ's on Climate Change and Waste- Quiz 1	Basement Hallway
10.00am	CTC - Waste Sergration Report (General Waste)	Council Room
11.00am	Electricity, Gas and Water Update ***"How does a heat pump work?"***	SAW stand
12.00pm	Official Launch - SAW Initiative Consideration Platform Opening Sustainability Presentation "Title TBC"	ECC ECC ECC
14.00pm	CTC - Waste Sergration Report (Clinical Waste)	Council Room
15.00pm	Stand Closes	

Wednesday 27th March

Time	Activity	Venue
09.00am	Sustainability Stand - MCQ's on Climate Change and Waste- Quiz 2	
10.00am	SteriCycle & Thorntons segregation and bin positioning training	On wards
12.00pm	Climate Change theme for Easter Art Competition (open to children of staff who are less than 18 years old)	Canteen/ECC
13.00pm	Policy Update/Briefing (TBC)	Canteen/ECC
14.00pm	Sustainability Stand open	Hallway

Thursday 28th March

Time	Activity	Venue
09.00am	Sustainability Stand - MCQ's on Climate Change and Waste- Quiz 3	Stand in Hallway
10.00am	Biodigesting and the Circular Economy	Stand in Hallway
12.00pm	Sustainability Update	Canteen/ECC
13.00pm	Sustainability Awareness Week - Closure	Canteen/ECC

Registered Charity Number: 20002374

Appendix 1: Progress to Date

Energy and Facilities

Overarching Objective: Reduce the environmental impact of the buildings and site.			
Objectives	Measures	Assessment	Comment
Transition to zero emissions for energy consumption by 2030.	• Switch to renewable electricity. • Replace gas system at hospital with heat pump.		• Hospital switched to renewable electricity in February 2023. • Business case for funding of heat pump approved and funding for design stage approved.
Implement an ongoing programme of energy and water efficiency schemes.	• Sash Window Programme to reduce heat loss. • Roof upgrade to reduce heat loss. • Replacement of all lighting with LED.		• Sash window programme underway approx. 50% windows completed. • Business case for roof upgrade submitted to HSE Estates and approved. Work to commence in Q4 2025. • LED replacement programme completed December2024.
Ensure new developments and major refurbishments are net zero carbon.	• Build into tender requirements on all new build projects.		• Ongoing.
Protect and enhance biodiversity at Adelaide Road.	• Develop and implement a Biodiversity Action Plan.		• Plan developed. Phase 1 implemented in 2023 with phase 2 completed in Summer 2024.

Workforce and Systems Leadership

Overarching Objective: Leverage the knowledge, expertise and innovation of all staff to deliver sustainability.

Objectives	Measures	Assessment	Comment
Support staff to improve sustainability at work and home and empower them to make sustainable choices.	• Include sustainability as part of induction programme for new staff. • Upskill staff through in-house education programmes and external experts.		• All staff from January 2024 will have sustainability as part of induction. • External courses offered to staff on a phased basis.
All managers to have sustainability included within their annual objectives. All staff clear in their roles in delivering this strategy	• To be included in all roles by end of 2024.		• Slow progress on including in objectives.
Sustainability to be included in all new job descriptions.	• All new job descriptions to include sustainability.		• To be implemented by Q2 2025.

Supply Chain and Procurement

Overarching Objective: Embed sustainability as a core criteria in supply chain and procurement.			
Areas of Focus	Measures	Assessment	Comment
A procurement culture and processes that shift consumption to sustainable products and services and considers broad criteria including: i. Materials. ii. Buy locally where possible. iii. Workforce. iv. Manufacturing processes and transport.	• Implementation of new procurement policy for all purchases. • Target set for % of food produced locally. • % of theatre kits reprocessed rather than disposed. • % materials compostable.		• New procurement policy implemented in 2024. • New stock management system deployed in 2024. • Focus on compostables to run in conjunction with deployment of biodigester in Q1 2025.
Develop robust internal procurement policy and procedures that support the sustainability agenda.	• Policies in place. • New stock management system to be deployed.		• New stock management system to be fully deployed by Q3 2024.
Include sustainability criteria in procurement, tender evaluations, framework design and selection, and product selection.	• Complete.		
Work innovatively with collaborators and suppliers on sustainable approaches.	• Ongoing programmes in place on waste, PPE and surgical instruments		• Ongoing
Promote a culture of reuse and refurbishment of items.	• In early stages, with a focus on a small number of areas.		• Expanded in 2024.
Regularly audit waste and follow up on issues identified.	• In place.		• Ongoing

Digital Transformation

Overarching Objective: Reduce the environmental impact of the buildings and site.			
Objectives	Measures	Assessment	Comment
Transition to a paper free environment for MediSight.	• 100% of ophthalmology OPD clinics and ED using MediSight by end 2024. • Seek alternative system for ENT. • Deploy new stock management system by Q3 2024.		• ED and the Cataract Unit fully transitioned to MediSight with OPD over 90% complete.
Referrals to RVEEH (including ophthalmology community clinics) to be 80% electronic by 2023.	• In place		• Complete
Facilitate, virtual and telephone patients consultations in line with sustainable care pathways.	• Telehealth and e-referral systems in place. • Community clinics undertaking pre-operative and post-operative assessment remotely from hospital.		• Complete
Reduce the use of paper records printing and postage.	• Target 20% reduction by end 2024		• Behind schedule.

Food, Nutrition and Waste

Overarching Objective: To reduce the CO2 emissions from food made, processed or served within the hospital.			
Objectives	Measures	Assessment	Comment
Use local suppliers. Procure food in line with our sustainable procurement objectives – where possible use local suppliers.	• Target set for % of food produced locally.		• Ongoing.
Provide and promote interesting and attractive plant based meals.	• New options developed in conjunction with catering team.		• Ongoing
Effective waste management: appropriate waste disposal routes available and a focus on moving waste up the waste hierarchy.	• Waste Management Committee in place. • Quarterly review of waste data. • Programme in place to reduce waste.		• Ongoing
Deliver on the Food and Nutrition Policy and Food and Drink Programme.	• In place		• Ongoing

Medicines

Overarching Objective: Reduce CO2 emissions associated with areas of high impact such as pharmaceuticals and anaesthetic gases.			
Objectives	Measures	Assessment	Comment
Identify carbon hotspots such as medical equipment and pharmaceuticals and ensure that action plans identify and mitigate environmental impacts. Introduce point of use recycling technology for anaesthetic gases.	• Programme not started.		• Behind schedule.
Reduce medicine wastage and ensure best available technology is used for disposal, including recycling anaesthetic gases when the technology becomes available.	• 60% reduction in packaging waste for medicines by end 2025.		• Pilot programme running into resistance from suppliers.
Stop the use of Desflurane in Surgery.	• Nitrous Oxide and Desflurane usage ceased.		• Ongoing
Consider lower carbon alternative medicines in particular anaesthetic gases.	• Anaesthetic reduction programme initiated.		• Ongoing
Educate staff and encourage lower impact alternatives.	• Education programme to be expanded in 2024.		• Ongoing

Adaptation

Overarching Objective: Ensure our infrastructure, services, procurement, and local community colleagues are prepared for the impacts of climate change.			
Objectives	Measures	Assessment	Comment
Assess the impacts of climate change and adapt to mitigate the negative effects of past and future climate-altering actions.	• Climate impacts assessed and included in the Corporate Risk Register and Business Continuity Plan.		• Ongoing.
Create a RVEEH climate change adaptation risk assessment.	• Incorporated as part of business continuity plan.		• Ongoing
Collaborate with key internal and external stakeholders to develop a Climate Change Action Plan.	• Working with RCSI and HSE in developing plan.		• Ongoing

Travel and Transport

Overarching Objective: Minimise the environmental and health impacts associated with the movement of goods and people through hospital activity.			
Objectives	Measures	Assessment	Comment
Develop Green Travel Plan that facilitates active and sustainable travel options for staff patients and visitors.	• Measure incorporated in travel plan.		• Facilitate green mobility options for staff, patients and visitors.
Incentivise staff to use electric transport, with increased access to these.	• Implement a secure and recharging area for e-bikes and scooters.		• Implement in 2025.
Maximising efficiencies in the transport of goods and services commissioned by the organisation, such as patient transport, courier services and deliveries.	• % of products delivered using EV technology.		• Behind schedule.
Facilitate flexible working / working from home.	• Policy in place.		• Ongoing

Sustainable Models of Care

Overarching Objective: Deliver the best quality of care while being mindful of its social, environmental and financial impact and take a whole systems approach to the way it is delivered.			
Objectives	Measures	Assessment	Comment
Where outpatient attendances are clinically necessary, at least 40% of outpatient activity should be delivered in the community, resulting in direct and tangible carbon reductions.	• % OPD visits occurring in community. • % of macular injections occurring in the community.		• Community activity represents over 20% of OPD activity in 2024. • Macular injection programme behind schedule.
Improve the environmental sustainability of care pathways, and better integrate healthcare services to improve efficiency.	• Programme not yet initiated.		• Major focus for 2025 is the cataract pathway.
Work with partners and stakeholders to identify and deliver solutions that reduce the number of hospital visits, e.g. opticians, GPs.	• Programme in need of significant expansion.		• Cataract pathway with community to be the exemplar model.

Statements contained in this report include statements and information about our expectations for the future. When we discuss our strategy, plans and future performance, or other things that have not yet taken place, we are making statements considered to be *forward-looking statements*.

Forward-looking statements are designed to help the reader understand the hospital's current views of our near and longer-term future, and it may not be appropriate for other purposes.

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