



RCGP Net Zero Practice Carbon Reduction Plan



Practice demographics

Practice name	St Thomas Medical Centre
Practice manager	Chris Stoppard
Address	Cowick St
	St Thomas
	Exeter
Postcode	EX4 1HJ
Practice floor space (m ²)	1780
Name of RCGP Net Zero Adviser	Georgina kirby
Date of visit	19th June 2024

Results

	Total emissions (kg CO ₂ e)
Energy - Gas	40137
Energy - Electricity	21168
Travel - Staff	38364
Travel - Patients	20378
Goods	155836
Services	187342
Clinical - medication	522961
Clinical - SABA inhalers	152224
Clinical - Non SABA inhalers	70440

Review of domains (checklist)

During practice visit:

	Energy	Travel	Goods	Services
Review baseline data, put it into context	Yes	Yes	Yes	Yes
Identify hotspots and what is working well	Yes	Yes	Yes	Yes
Discuss possible interventions to reduce carbon; prioritise hotspots and quick wins; tailoring for practice; identify potential barriers and discuss how to overcome them	Yes	Yes	Yes	Yes
Discuss realistic reduction goals and timescale	Yes	Yes	Yes	Yes

Introduction

St. Thomas Medical Group comprises three urban practices situated across three separate locations: St. Thomas Medical Practice, Exwick Medical Practice, and the Student Health Centre. The total floor space of these practices amounts to 1,780m². The collective patient list size of the group stands at 40,756 registered patients. The Student Health Centre is currently housed in leased premises provided by Exeter University, while the other two practices operate from facilities owned by St. Thomas Medical Group.

The journey to Net Zero is underway; the practice group has a well-established Green Team who have started working on a multitude of initiatives such as sourcing sustainable goods, implementing energy and water-saving practices, and advocating for active travel. St. Thomas Medical Practice is supported by solar panels on its roof. The practice group also have two low emission cars for use of the home visit team.

Carbon Footprint Analysis

The overall carbon footprint for St. Thomas Medical Group from 2023 to 2024 was approximately **1,208,851 kg CO₂e** (1,208 tonnes). Within this total, non-clinical activities associated with running the business accounted for 463,225 kg of CO₂e, while clinical emissions from prescribing accounted for approximately 745,625 kg CO₂e.

The CO₂e for each area is shown in *Table 1* in descending order with graphical representation of emission in *Figure 1*.

	Emissions (kg CO₂e)	% total emissions
Spend based on medication	522961	43%
Services	187342	16%
Goods	155836	13%
SABA inhalers	152224	13%
Non-SABA inhalers	70440	16%
Energy - Gas	40137	3%
Travel - Staff	38364	3%
Energy - Electricity	21168	2%
Travel - Patients	20378	2%

Table 1. Total kg CO₂e by respective area in descending order 2023-2024

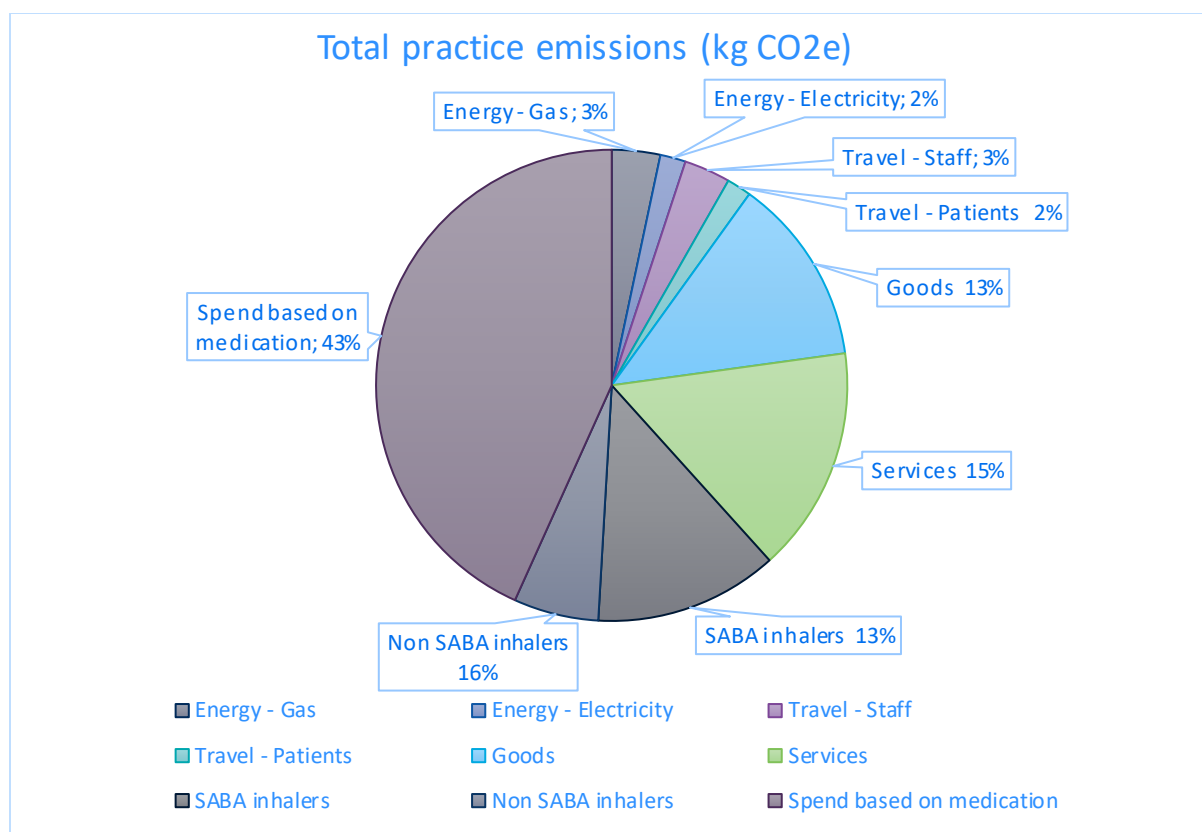


Figure 1. Graphical representation of emissions from St Thomas Medical Group

Clinical Emissions

The emissions generated by pharmaceuticals represent the largest portion of the carbon footprint in primary care, with inhalers being the primary contributor to this footprint.

Across St Thomas Medical Group, inhaler prescriptions account for **222,664 kg CO₂e** per year. *Figure 3* shows the clinical emissions by percentage.

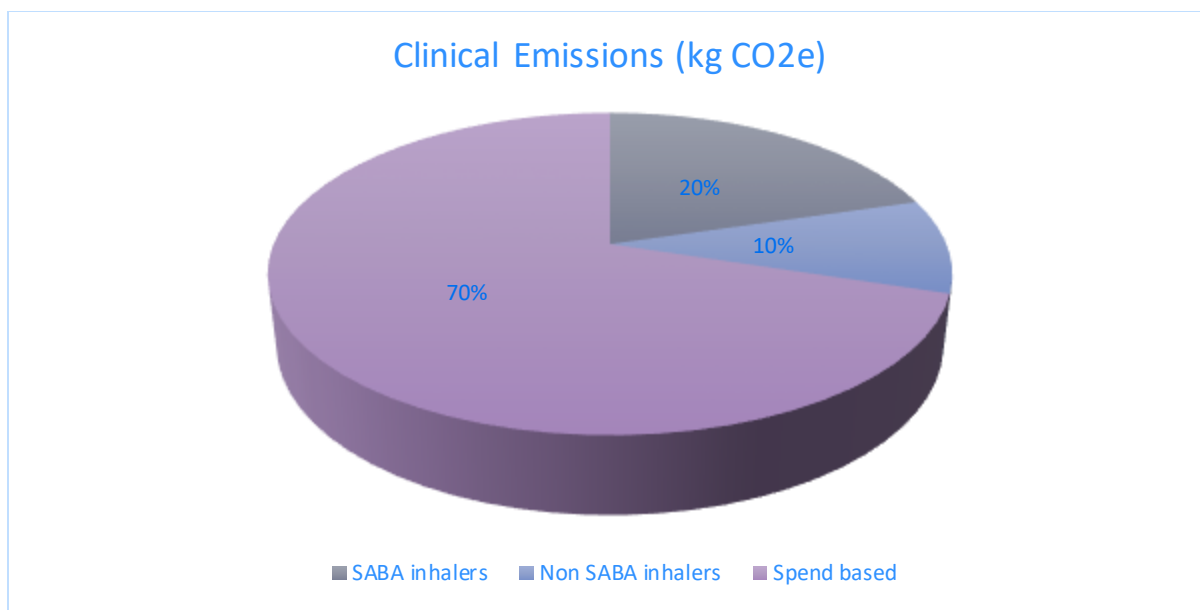


Figure 3. Graphical representation of clinical emissions from St Thomas Medical Group

SABA inhalers make up the largest proportion of the total inhaler footprint 152,224 kg CO₂e per year, compared to the footprint of Non-SABA MDIs 70,440 kg CO₂e. Addressing the overuse of SABA inhalers is likely to have a significant impact on reducing emissions and improving the quality of patient care.

There is also an opportunity for a practice-wide initiative aimed at reducing emissions per inhaler by changing devices from MDI to DPI. Providing access to an updated inhaler formulary that clearly identifies low-carbon options as first and second-line choices could be beneficial in this effort.

There are various strategies that can be implemented to decrease pharmaceutical prescribing, such as tackling polypharmacy and completing compliance assessments. Adopting more social prescribing & green prescribing, alongside promoting lifestyle medicine are recommended approaches to reduce the emissions from prescribing.

Non-Clinical Emissions

Non-clinical emissions account for 38% of the total carbon footprint with an estimated **463,225 kg CO₂e** per year. Figure 2 illustrates the non-clinical carbon footprint breakdown by percentage. Business services and goods account for the largest contribution, followed by gas consumption and staff travel, respectively.

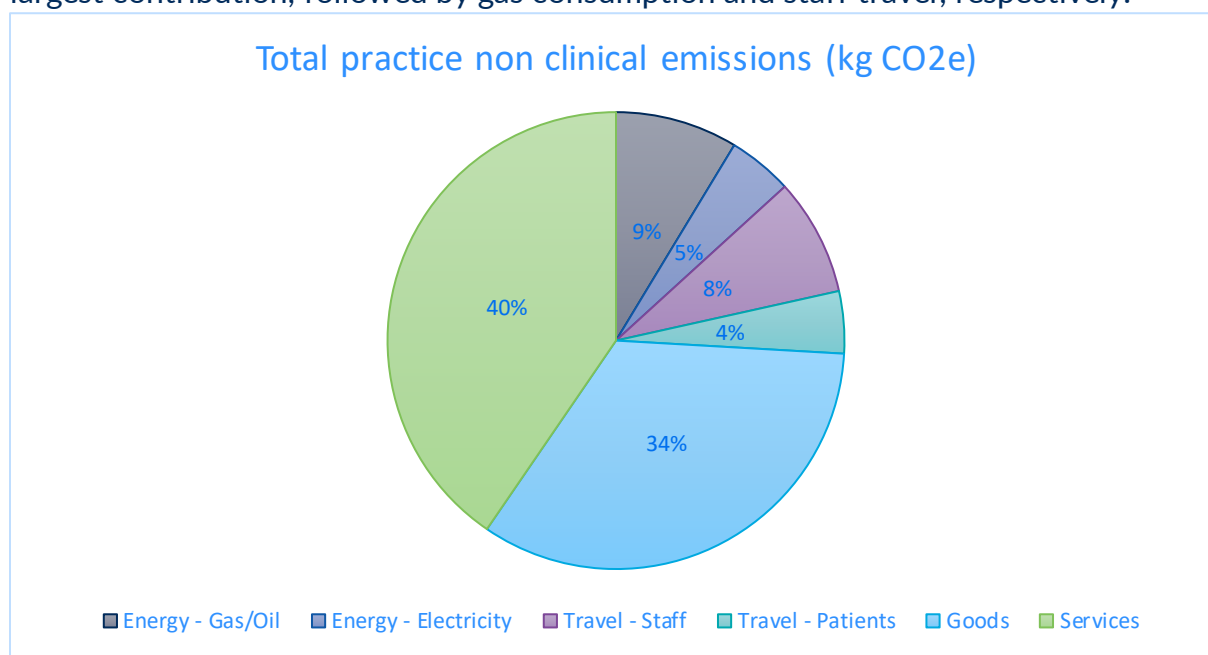


Figure 2. Graphical representation of non-clinical emissions from St Thomas Medical Group

Energy

The total electricity consumption, estimated across the three sites for a 12-month period from 2023 to 2024, was 100,289 kWh. This electricity was purchased from British Gas and the Exeter Universities supplier, resulting in the estimated production of 21,168 kg of CO₂e.

Practice electricity consumption from energy suppliers is 56 kWh/m² annually, the average electricity use for medical and office type premises is approximately 80 kWh/m². The installation of solar panels will have had a positive impact on total energy emissions, and the practice group have made plans to install additional solar panels. In addition to self-generation, if the practice group were to switch to a 100% renewable supplier, then the carbon emissions from electricity consumption would be reduced to zero.

The practice has implemented several measures to reduce its energy consumption including changing the light bulbs to energy efficient LED. The highest area of electricity consumption is the 24 hour use of 87 computers. An intervention to turn

computers off for 12 hours overnight could save approximately 43,400 kWh per year leading to savings of around £13,500 annually.

The gas used for space heating and hot water in the three practices for a 12-month period from 2023 to 2024 amounts to **40,137 kg of CO₂e**. The use of gas across the practices is 111kWh/m², the average energy use for medical and office type premises is 160 kWh/m². Possible ways to reduce this include decreasing usage, ensuring buildings are well insulated and implementing decarbonised heating systems.

Travel

Staff and patient travel account for **58,742 kg CO₂e** per year. Cumulative emissions for staff have been estimated at 38,363 kg CO₂e, based on a staff travel survey which received responses from 86 members of staff.

The most popular mode of transport was by petrol or diesel car. Car share initiatives are already in place and reduced access to the staff car park at St Thomas Health Centre has been associated with a reduced the number travelling by car. The provision of 2 small engine cars at the practice for the home visit team facilitates active travel during their commute. Cycling to work has been facilitated by the availability of the cycle to work scheme, bike storage and an onsite staff shower at St Thomas Health Centre.

Patient travel is estimated at 20,378 kg CO₂e per year and has been calculated based on list size and the average travel patterns for urban practices. Further initiatives to promote green travel for both staff and patients could positively impact the total emissions and reduce the impacts of air pollution on the local community.

Business Services

Business services account for **187,342 kg CO₂e** per year. Each service utilized by the practice group has its own carbon footprint, which has been estimated using spend-based conversion factors (*Table 2*).

Services play a vital role in ensuring the smooth operation of practices and are essential for their functionality. To achieve Net Zero emissions, the supply chain needs to be decarbonized. Starting in April 2027, all suppliers of goods and services in primary care will be required to publish a carbon reduction plan. Initiating early discussions with suppliers of business services could have a positive impact on the supply chain and help reduce the overall carbon footprint of practices.

Service	Emissions (kg CO ₂ e)
Cleaning	30683
Equipment rental	1651
Practice Support, courses & training, staff welfare LMC levies	7842
Communication including telephone systems, IT support	13528
Financial including loans, bank charges, book keeping & accountancy	15381
Gardening services	0
Insurance and legal services	3642
Maintenance	42096
Membership services	11823
Postage, carriage, and printing	6724
Recruitment costs	1076
Servicing	5735
Waste	16649
Water and sewerage	12203
Miscellaneous -Rent of Student Health Centre property and Motor expenses associated with surgery cars	18302
Total	187342

Table 2. Services used by St Thomas Medical Group & estimated carbon emissions generated.

Goods

The procurement of goods across the three practices accounts for an estimated **155,224 kg CO₂e**, summarized in *Table 3*. Efforts to procure lower carbon goods are currently in progress; the group has focused on office consumables (e.g. paper, printing & postage), and has transitioned to a more paper-free working environment with digital communication as the default method. They have also changed to fairtrade suppliers for food and beverages (e.g. tea & coffee).

As a prominent practice group, increasing demand for sustainable procurement will drive changes at the supplier level. Developing and implementing a procurement policy with a sustainable supplier code of conduct will increase compliance to low carbon, sustainable practices. An example of a supplier code of conduct and supplier assessment form can be found at the following website: <https://www.frommedicalpractice.co.uk/suppliers>.

Category	Total emissions (kg CO ₂ e)
Medical consumables & equipment	143289
Office consumables & equipment	12547
Total	155836

Table 3. Goods used by St Thomas Medical Group & estimated carbon emissions generated.

Clinical

Actions to reduce clinical emissions		Who will action?	Who is accountable?	Status - review points/milestones date	Date complete	
Short term (within 6-12months)	1	Reduce the number of total SABA inhaler prescriptions by implementing quality improvement projects aimed at reducing SABA overuse. Ensure robust processes are in place to identify patients who request 6 or more SABA inhalers annually and take steps to improve their asthma control. Educating clinical staff on Maintenance & Reliever Therapy (MART) and AIR (Anti-inflammatory Reliever) therapy helps discourage the use of SABA ('emergency' or 'reliever inhalers') without a non-SABA ('treatment' or 'preventer' inhaler).	Dr Steve Moul	Dr Steve Moul	Start 01/08/2024	
	2	Reduce inhaler emissions by implementing a practice-wide low carbon formulary for inhalers, providing educational sessions for clinical staff on green inhaler prescribing, and promoting the appropriate disposal of inhalers to patients.	Steve /John	Steve /John	01/08/2024	
	3	Review prescriptions of Multi-Compartment Compliance Aids (MCAs) for their clinical appropriateness.	Dr John Fox	Dr John Fox	01/09/2024	
	4	Minimize polypharmacy by conducting comprehensive geriatric assessments that incorporate an annual structured medication review.	Dr Steve Moul	Dr Steve Moul	01/09/2024	

Medium term (within 1-3 years)	1	Reduce medicines waste by identifying patients who are stockpiling unused medications in their homes in order to reduce waste and improve patient safety.	Dr Steve Moul	Dr Steve Moul – link with Pharmacy/Community Pharmacy Team	01/09/2024			
	2	Encourage non-drug options for health by upscaling social & green prescribing through promotion via the care coordinator team, the practice's website and ensuring patients have access to information about lifestyle medicine.	Dr John Fox Denise, Simon James & Sabrina & Camilla Heath	Dr John Fox Denise, Simon James & Sabrina & Camilla Heath	01/08/2024			
	3	Continue to build on the inhaler work with regular audits and quality improvement projects to ensure reduced emissions – this should lead to SABA ('emergency' or 'reliever inhalers') being the smaller proportion of total inhalers compared to the non-SABA ('treatment' or 'preventer' inhalers).	Dr Steve Moul	Dr Steve Moul	01/08/2024			
Longer term (within 3-5 years)	1							
	2							
	3							

Supporting resources

1. <https://www.greenerpractice.co.uk/high-quality-and-low-carbon-asthma-care/>
2. <https://www.asthmaandlung.org.uk/research-health-professionals/health-professionals>

3. [Completing an AIR \(anti-inflammatory reliever\) asthma action plan with your patients | Asthma + Lung UK \(asthmaandlung.org.uk\)](https://asthmaandlung.org.uk)
4. <https://www.cleanairhub.org.uk/clean-air-information>
5. <https://www.england.nhs.uk/greenernhs/whats-already-happening/improving-health-outcomes-for-respiratory-patients-while-reducing-carbon-emissions/>
6. [‘Show me your meds, please’: the impact of home-based medicines assessments - The Pharmaceutical Journal \(pharmaceutical-journal.com\)](https://www.pharmaceutical-journal.com)

Energy

Actions to reduce energy emissions			Who will action?	Who is accountable?	Status - review points/milestones date			Date complete
Short term (within 6-12months)	1	Turn off computers overnight (only leave on when a scheduled update is due)	Rillian Grant	Rillian Grant	Start 01/08/2024			
	2	Reduce energy used for lighting with a ‘Lights Off’ campaign supported by posters. Replace any remaining non-LED bulbs with LEDs and install automatic light sensors	Marilyn Mabe	Marilyn Mabe	01/08/2024			
	3	Create the ‘close- down plan’ to ensure appropriate appliances are off by default overnight and weekends	Rillian Grant/steve Moul	Rillian Grant/steve Moul	1/7/24			
	4	Installation of a smart meter with access to data providing half hourly energy usage.	Marilyn Mabe	Marilyn Mabe	01/09/2024			
Medium term	1	Installation of additional solar panels (planned for either Exwick Health Centre or St Thomas Health Centre).	Graham Lewis	Graham Lewis	01/09/2024			

(within 1-3 years)	2	Switch 100% renewable electricity supplier for Exwick and St Thomas Health Centre. Initiate discussions with the landlord for the Student Health Centre to learn about their carbon reduction plan and plans for energy supplier.	Chris Stoppard and Marilyn Mabe	Graham Lewis	01/01/2025			
	3	Set energy reduction targets and complete regular energy audits to ensure progress towards these.	Chris Stoppard and Marilyn Mabe	Chris Stoppard and Marilyn Mabe	01/09/2024			
Longer term (within 3-5 years)	1	Decarbonise the heating system with an air source or ground source heat pump	Steve Moul	Chris Stoppard and Marilyn Mabe	01/09/2025			
	2	Consider an intelligent building management system for heating	Steve Moul and Graham Lewis	Steve Moul and Graham Lewis	01/09/2025			
	3							

Travel

Actions to reduce Travel emissions			Who will action?	Who is accountable?	Status - review points/milestones date			Date complete
Short term (within 6-12months)	1	Encourage clinicians to travel actively for a proportion of their working week by creating solutions to the perceived barriers to active travel (e.g. travelling between sites with heavy equipment and the need to have a car for home visits).	All of Green Team	All of Green Team	Start	01/08/2024		11/09/2024

	2	Promote staff active travel through providing incentives e.g. team walking challenges to cover a set distance.	Green Team	Green Team	01/09/2024			
	3	Promote the use of active travel and public transport amongst patients travelling to the surgery, to include information on bus routes to the surgery. Highlight the health benefits for active travel.	Dr Claire Evans	Dr Claire Evans	01/09/2024			
Medium term (within 1-3 years)	1	Trial lower carbon options of travel with reduced air pollution for home visits such as e- bikes.	Steve Moul	Steve Moul	01/01/2025			
	2	Complete yearly travel surveys to monitor results.	Nina Smith	Nina Smith	01/01/2025			
	3	Liaise with the patient participation group to guide solutions for low carbon travel for patients.	Nina Smith	Nina Smith	01/01/2025			
Longer term (within 3-5 years)	1	Install electric vehicle (EV) charging points	Graham Lewis, Steve Moul and John Fox	Graham Lewis, Steve Moul and John Fox	01/09/2025			
	2							
	3							

Goods

Actions to reduce goods emissions			Who will action?	Who is accountable?	Status - review points/milestones date		Date complete
Short term (within 6-12months)	1	Promote & celebrate fairtrade fortnight	Dr Claire Evans	Dr Claire Evans	Start	11/09/2024	
	2	Switch to more low carbon alternatives for both office consumables & medical consumables. The group also plans buy in oat milk as an alternative alongside cow's milk.	Chris Stoppard	All Admin Teams		01/07/24	
	3	Complete regular audits of stock to identify medical equipment and consumables to ensure stock is managed sustainably	Rachel Banks	Rachel Banks		01/07/2024	
Medium term (within 1-3 years)	1	Develop and implement a procurement policy for goods with a sustainable supplier code of conduct	Ordering Team/Helen Hodgson	Ordering Team/Helen Hodgson		01/10/2024	
	2	Reduce single use materials	Green Team	Green Team		11/09/2024	
	3	Reduce travel by reviewing supplier logistics	Green Team	Green Team		11/09/2024	
Longer term (within 3-5 years)	1						
	2						
	3						

Services

Actions to reduce services emissions	Who will action?	Who is accountable?	Status - review points/milestones	Date complete
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					date				
Short term (within 6-12months)	1	Create a Waste Management Plan – Starting with a waste audit to understand what is being disposed of and where?	Lynne Stuckey	Lynne Stuckey	Start	01/08/2024			
	2	Develop and implement a procurement policy for services with a sustainable supplier code of conduct	Green Team/Helen Hodgson	Green Team/Helen Hodgson/John Fox		01/10/2024			
	3								
Medium term (within 1-3 years)	1	Actively identify further low carbon services, using only services with a decarbonization plan in place	Partners/John Fox/Chris Stoppard	Partners/Chris Stoppard		01/01/2025			
	2	Audit and press current suppliers to achieve carbon neutrality	Chris Stoppard	Chris Stoppard		01/01/2025			
	3								
Longer term (within 3-5 years)	1	Use only carbon neutral suppliers for all new suppliers.	Partners	Partners		01/09/2025			
	2	Only use suppliers with net zero policy	Partners	Partners		01/09/2025			
	3	Switch to an ethical bank	Partners/Chris Stoppard	Partners/Chris Stoppard		01/09/2025			

Staff & Patient Engagement

Actions towards a cultural shift			Who will action?	Who is accountable?	Status - review points/milestones date			Date complete
Short term (within 6-12months)	1	Promote the practices sustainability initiatives on the new practice website, patient notice boards, the staff green notice board and within the green team monthly updates.	Rillian Grant	Rillian Grant	Start 01/08/2024			
	2	Promote healthy lifestyles by becoming a parkrun practice. Sign up to the Active Practice Charter and gain Active Practice status.	Laura Davies and Chris Dean	Laura Davies and Chris Dean	07/09/2024			
	3	Promote the good work already taking place by completing the Green Impact for Health (GIFH) toolkit to achieve Bronze Award	Claire Evans/John Fox	Claire Evans/John Fox	01/08/2024			
Medium term (within 1-3 years)	1	Use the GIFH toolkit to achieve Silver Award & beyond	Claire Evans/John Fox	Claire Evans/John Fox	01/08/2024			
	2	Project work on incorporating the Wellbeing Local Enhanced Services (LES) into the sustainability work	Dr John Fox/Claire Tomlinson	Dr John Fox	01/08/2024			
	3	Engagement with sustainability groups in the local community e.g. Healthy Homes for Wellbeing	Simon, Denise and Sabrina	Simon Denise and Sabrina	01/08/2024			
	4	Make sustainability one of organizations core values and reflect this in discussions in interviews, appraisals, and mandatory training.	Partners	Partners/John Fox	01/01/2025			
Longer term (within 3-5 years)	1							
	2							

	3							
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Appendix 1