

## Climate Challenge Grants

### Why the Climate Challenge Grants were introduced

Climate change poses a major threat not only to our planet but also to our health. Factors such as extreme weather conditions, water and air pollution pose a major risk to public health.

As one of the largest public sector organisations in Scotland, NHS Lothian has an important role to play in minimising the environmental impact of healthcare, delivering services in a more sustainable manner, and putting green activities are at the core of their practice.

The Climate Challenge Grants provide an opportunity for NHS Lothian staff to introduce more sustainable practice.

### How the grant works

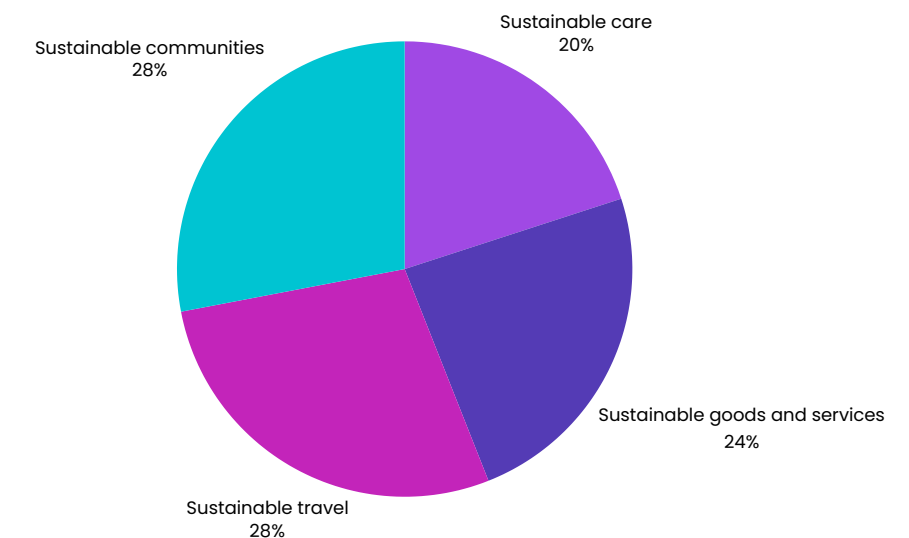
NHS Lothian Charity Climate Challenge Grants are open to all NHS Lothian staff to take forward projects in their departments, wards or area that help reduce the impact of healthcare activities on the environment. Applications can be made via an online application form on the NHS Lothian Charity website. Grants are available from £50–£5,000. Applicants are encouraged to explore initiatives that will improve energy efficiency, increase waste recycling, reduce plastic consumption or reduce emissions from travel. Grants cannot be used fund costs which are considered to be core building management provision and projects must be delivered within 6 months of starting.

### The story so far

Since 2022, NHS Lothian Charity has awarded 46 grants totaling £135,000 (a further 8 projects were supported through ward and specific funds). 60% of grants have been awarded to General Medical Practices across Edinburgh and the Lothians, the remaining 40% have been awarded to teams and departments within NHS hospitals in Edinburgh and 1 in East Lothian Community Hospital.

This report focusses on the projects funded through the Climate Challenge Grants programme, how the money has been spent and examples of some of the projects' impacts. The findings based on project updates illustrate how Climate Challenge Grants support NHS Lothian Charity to meet a number of its strategic outcomes which contribute to the final goals of 'Enhanced experience and care for patients in hospitals and their communities' and 'Have a positive impact on health in the Lothians'.

In line with the [NHS Scotland Climate Emergency and Sustainability Strategy](#), Climate Challenge Grants have been awarded to projects in the following categories:



## OUTCOME – IMPROVED STAFF KNOWLEDGE AND PROFESSIONAL DEVELOPMENT

Climate Challenge Grants have enabled staff to increase their knowledge and awareness of environmental sustainability in healthcare with many staff reporting feeling like an 'expert' on their specific project, including the example below. In most cases, the Climate Challenge project was conceived by the staff member applying for the grant as they were particularly passionate about what could be tested in their area. In many cases, there was evidence of the team/department getting involved and working together on the project. Some staff members noted how their project made them more aware of other sustainability resources and networks in NHS Lothian, further increasing their awareness and understanding of environmental sustainability in healthcare across NHS Lothian.

# 70%

of staff awarded the grant reported their knowledge, understanding and awareness of environmental sustainability in healthcare has increased as a result of implementing their project.



Through looking into hot water taps vs kettles I learnt more about energy use and ways to make greener changes in primary care buildings."



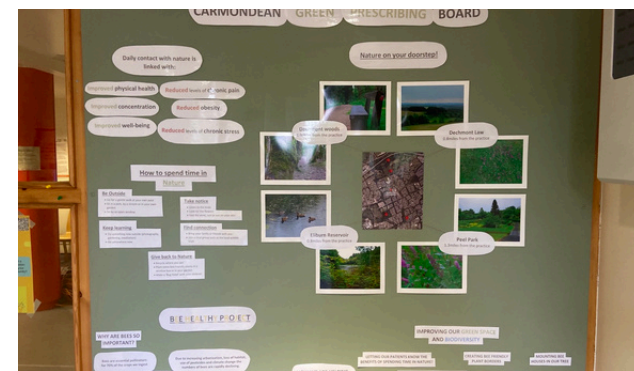
I have become more active in sustainability within NHS Lothian and regularly go on websites and have been taking part in the various webinars and exploring what else as a department we can do going forward."



As a team we have talked about ways to be more climate-friendly in meetings, shared lots of suggestions, have a noticeboard with ideas on."



Hot water tap



Noticeboard, Carmondean Medical Centre



### Example:

Staff at Strathesk Medical Practice in Bonnyrigg used funding to switch from single-use batteries to rechargeable batteries for use in medical devices such as blood pressure monitors, oxygen saturation meters, thermometers and otoscopes. Although the practice have seen an increase in energy use recharging the batteries, they have reduced overall costs as not buying new batteries and producing less single-use waste.

### Did you know...

- Rechargeable batteries emit 28% less greenhouse gases than single-use batteries
- One rechargeable battery can replace up to 300 single-use batteries



As result of this project I feel an expert on the advantages and disadvantages of rechargeable batteries! It has been a first step for us in looking to reduce our carbon footprint at the practice and raise it as a discussion point within the wider team."



Rechargeable batteries

## OUTCOME - IMPROVED NON CLINICAL PRACTICE

Findings from this report illustrate how Climate Challenge Grants have enabled staff to make changes to their behaviours at work or in their area of work. This improved knowledge and understanding have also prompted changes in behaviour at home or in their personal life, meaning a more holistic approach to mitigating climate change. A small number of projects aimed to influence patient behaviours as a result of Climate Challenge Grant projects, including the example below.



Many colleagues are now growing food at home. Having realised that these things can still be done on a small scale if you don't have lots of space small gardens are being set up on patios and balconies. Every little bit helps."



Food growing at home



Staff in our team's driving behaviours have changed. Smoother braking, less speed and in return fuel efficiency has improved."

# 86%

of staff awarded the grant reported their behaviours relating to sustainability/ mitigating climate crisis changed as a result of their project



In addition to the work outlined in the project, we are routinely turning off all computers and monitors when not in use and are looking at other ways to save energy within the imaging department."



Personally this has encouraged me to make the same change at home and move to rechargeable batteries."



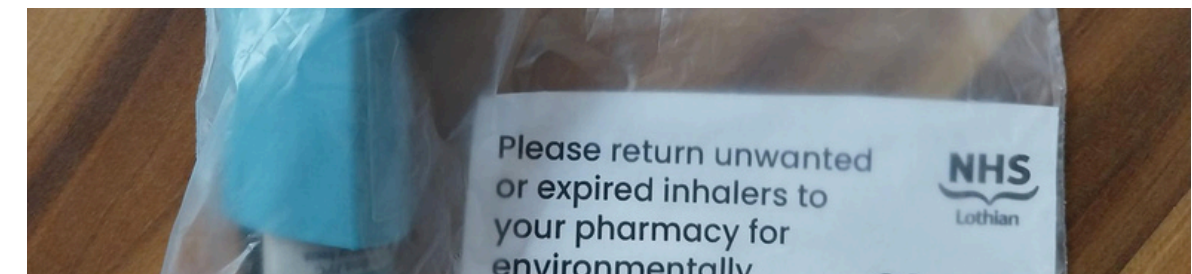
At home being more mindful of how much water I put into the kettle and how frequently I boil it/successively re-boil it."



### Example:

7 pharmacies in NHS Lothian took part in a project to increase the safe return of inhalers. Many patients aren't aware that empty inhalers shouldn't be thrown in the bin. When inhalers end up in landfill, environment-harming residual gas from canisters are released into the atmosphere and are THOUSANDS of times more powerful than carbon dioxide.

Did you know inhaler emissions account for approximately 3% of NHS carbon footprint? By simply adding stickers to inhaler dispensing bags, the project saw a 300% increase in inhalers being returned to community pharmacies after the use of the stickers for 10 weeks. This change in patient behaviour has resulted in reduced carbon emissions and reduced waste going to landfill.



Returned inhaler with sticker



## OUTCOME – EFFECTIVE RESOURCE MANAGEMENT

Some Climate Challenge Grant projects have enabled cost saving measures; changing to rechargeable batteries and the introduction of wild gardens in outdoor spaces to cut down on grass mowing are examples of this. Pilot projects using Climate Challenge Grants are generating less waste which is one of the main drivers of NHS Lothian's sustainability strategy. NHS Lothian aims to reduce clinical waste in this current year (2024/25) by a minimum of 10%. Some projects have been able to save money and reduce waste, including the example below.

# 48%

of staff awarded the grant  
reported their project saved  
NHS Lothian money



We used to spend lots on batteries but haven't spent anything on batteries since the grant was received."



We are saving money by collecting seeds from the current season to start next years crops. By composting waste and leftover leaves we can produce some of our own compost for next season. There is no need to buy pesticides or fertiliser, we can make our own fertiliser from some of the plants we are growing."



Lab Garden plants



Meadow, Carmondean Health Centre



With the meadow and wildlife friendly shrubs there is significantly less grass cutting for the NHS Lothian estates team to do each week."

# 66%

of staff awarded the grant  
reported that, as a result of their  
project, they are generating  
less waste



We are no longer putting to land fill, instead all waste is sorted correctly and taken away appropriately for recycling."



We have reduced the number of disposable theatre drapes on standard sterile packs from six to four, as the extra two were not really required."



This product is sensitive enough to be used by all ages. The change provides an overall improvement for patients, a significant reduction in single-use plastic, less environmental impact and even a slight reduction in cost."

### Example:

All hand therapy departments in NHS Lothian are using funding to replace single use plastic splints with a wooden alternative. The biodegradable splint materials are distributed in ecological packaging and produced with 100% renewable energy. The products are heated with a dry heat in an oven and modelled into the required shape. When care is complete, the splints can be disposed of in a compost bin at home.



Wooden Splints, Hand Therapy Departments, NHS Lothian

## OUTCOME – IMPROVED STAFF HEALTH AND WELLBEING

Climate Challenge projects have impacted on staff wellbeing alongside enabling staff to demonstrate and act upon their passion for climate issues. 26 grants had a staff wellbeing element included, 12 projects spent the funding on active travel initiatives e.g. e-bikes and all saw an improvement in cyclists' physical health and wellbeing as a result. 14 projects created or improved outdoor spaces with the primary aim of increasing biodiversity but there was also evidence of how the outdoor spaces contributed towards an improvement in staff health and wellbeing, including the statement below.

# 90%

of staff awarded a grant with a staff wellbeing focus reported the grant improved their or their teams' health and wellbeing



Many staff have commented how being in a green space has combatted the stresses of the working day in a busy laboratory. Also successfully producing food they can take home to eat boosts self confidence and wellbeing."



Produce from Lab Garden



The added benefit of the project is the benefit to staff morale and wellbeing by being able to spend even a few minutes each day pottering in the garden or even just sitting in a calm green space watching the birds and butterflies."



Wildlife spotted in the Lab Garden, Department Biochemistry/Hematology, Western General Hospital



The increase in birds and insects around the practice has had a significant positive impact on staff wellbeing."

# 41%

of staff awarded the grant reported as a result of their grant they felt more valued and listened to



Staff were positive about the whole project which did make me feel valued, supported and listened to. Also, now that we have successfully implemented it, I can talk to other practices where I may work about how to do it and how easy it was."



Staff member and e-bike



Garden for patients and staff, Bonnyrigg Health Centre



## Case study



Foldable e-bike under office desk



Since getting her bike Catriona has travelled 211 miles by e-bike saving 88,000 grams of carbon. This is the carbon equivalent of:

- Burning 93 pounds of coal
- Powering a home with electricity for 5 days



"It's just one e-bike and one small area in Edinburgh but it's a starting point to take many things forward...I am filled with enthusiasm for this cause and am now thinking about my next project. Watch this space!"

## Cutting carbon emissions with an e-bike and educating families in Mountcastle, Edinburgh

Catriona, a Health Visitor based at Mountcastle Health Centre, purchased an e-bike and accessories with the Climate Challenge Grant funding. Using it to travel to appointments in her catchment area, Catriona shared: "I knew the e-bike would have many benefits but I am amazed by the impact it's had."

Peripatetic staff have a particular role to play in mitigating fuel emissions due to the nature of the job role and relying on cars to get to visits. Catriona explained how the bike has changed that: "I have been reducing my carbon footprint by leaving the car and doing my visits by bike, my monthly car mileage has been reduced, I can avoid traffic jams and save time looking for parking." Catriona says that monthly bike mileage does vary, she explained: "My mileage can go down due to the vast size of the catchment area, lack of cycle paths, poor weather and when I have students on placements with me." The e-bike also folds up so can be safely stored under the desk in the office or at families homes and can also be taken on the bus.

Catriona had no prior experience of using an e-bike and shares: "When I first started using the e-bike I did see a dip in my mental health as I was quite stressed, I didn't know the area well and I wasn't confident riding the bike on busy roads. With time, I have got to know local cycle paths and my confidence has increased, I love using it now." She has also seen a change in her physical health: "I feel fitter, if I am having an active day, I can turn the power off and cycle a bit so I can include a workout in my work day."

The bike has also had a social impact as Catriona explained: "I want to be a role model and raise awareness about climate issues. The area I work in is very urban with little greenspaces and asthma is a particular problem in children due to pollution levels. The bike is a great conversation starter with families and helps me to open conversations about climate change and health and wellbeing, I feel like I am normalising bike use." She shared: "I am famous in the area with children running out to see me, parents taking pictures and children scrambling for their own bikes when they see me arrive. I can't forget one child I visited who was most impressed by the folding bike because he thought it was a real-life Transformer! Whilst I am no 'Robot In Disguise', this grant has been transformative because it enabled me to do my bit to tackle the climate crisis."

Catriona is sharing her knowledge and good practice of the e-bike: "I take the bike to staff meetings and it's a great conversation starter and many of the staff have admired it, so I feel I am spreading the word among staff." She also noted "I feel more connected to the patch I visit" having discovered a number of short cuts she has seen on her bike.

## Case study

### Bee Healthy project at Carmondean Health Centre, West Lothian

Rosie, one of the Practice Doctors, and Practice Manager, Phyllis, with the expertise and help of an NHS Lothian Gardener, created bee friendly plant borders with funding from the Climate Challenge Grant. Rosie explained: "Bees are essential pollinators for 70% of the crops we ingest but due to increasing urbanisation, loss of habitat, use of pesticides and climate change the numbers of bees are rapidly declining. Bees can generally only fly for 40 minutes before stopping to feed therefore planting additional pollen rich flowers in urbanised areas like ours can be the pit-stops needed to save many bees during flight seasons." They also transformed a grassed area to meadow to further increase biodiversity and cut down on grass cutting. This summer has seen many of the plants bloom and staff have witnessed an increase in the number of bees they have seen in and around the plants and flowers.

Rosie shared: "the medical practice is in a very built-up area with little access to green space for staff to spend their breaks and recharge from the demands of their day. By sourcing 2 picnic benches made from 100% recycled plastic we have seen an increased number of staff going outdoors for breaks, staff have told us having the benches has improved their wellbeing and increased their exposure to a natural environment in what is otherwise an indoor based work setting with minimal natural light." Phyllis shared: "It's not only the staff who have benefitted from this newly created outdoor space, I have also seen a number of patients use the benches before or after appointments and even children sitting doing their homework after school!"

They also installed a green and social information board at the front door of the practice promoting information regarding sustainability in healthcare which the practice are looking into as a wider project. It also has regularly updated photos taken by staff and patients of green spaces within a 3 mile radius of the practice to inspire patients to explore their local green spaces for their wellbeing. Rosie shared: "I have had a few patients mentioning the board, how it interested them and they would try and visit some of the local areas."

This is only the start of the climate challenge for the practice. Rosie explained: "We have researched so much and realised there is so much that can be done in GP centres and in our personal lives to help the climate crisis. We are motivated in continuing to improve our carbon footprint and reduce contributions to the climate crisis, for example we have looked at recycling bins, paper usage, social prescribing reviews and use of Fairtrade products, there is lots we can do."



Before the improvements – concrete and no flowers



After the improvements, bee friendly borders



Bee's spotted in the plants



After the improvements, benches for staff and patients



After the improvements, staff weeding



Many of the staff get involved looking after the borders, some staff have brought plants in from home and we all take part in a bit of weeding!"



## Summary and legacy

Climate Challenge Grants have increased staff awareness and understanding of environmental sustainability in healthcare and led to positive changes in behaviours. Projects have saved NHS Lothian money and generated less waste, contributing to NHS Lothian's sustainability goals. Projects have enabled staff with a passion for climate issues to pursue leadership roles and many projects have contributed to an improvement in staff health and wellbeing.

One of the main aims of the Climate Challenge Grant is to introduce climate friendly practices. Encouragingly, many staff expressed the grant was a 'starting point', with nearly half of all Climate Challenge pilot projects being adopted as mainstream practice and 41% of staff who were awarded the grant are implementing other initiatives.

Staff who have so far taken on the Climate Challenge Grant overwhelmingly feel they are doing their bit to tackle the climate crisis.

# 86%

of staff awarded the grant agreed as a result of the grant they/their team are doing their bit to tackle the climate crisis



I now look at all the areas I work in and question if there is anything else I can do differently to be more environmentally sustainable."



The Climate Challenge Grants have given staff a unique opportunity to gain funding to pursue small innovative projects which promote NHS Lothian's environmental sustainability goals. The projects to date have had a significant impact in terms of harnessing the talent and expertise within NHS Lothian staff, reducing our impact on the environment, delivering financial savings and improving patient care. Several of the projects are leading the pathways to environmentally sustainable care in NHS Scotland. The Climate Challenge Grant is a major springboard to an environmentally sustainable future NHS."

Jane Hopton, Sustainability Lead, NHS Lothian

## Will you take up the challenge?

Thanks to NHS Lothian staff members who have taken part in the Climate Challenge Grant programme and to those who took part in this evaluation.

Every member of staff has an important role to play in supporting NHS Lothian to achieve their target of becoming Net Zero by 2040. This funding will help you to implement changes in your own area that will contribute to this vision.

Apply for a Climate Challenge Grant -  
[www.nhslothiancharity.org/apply-for-funding/climate-challenge-grants/](https://www.nhslothiancharity.org/apply-for-funding/climate-challenge-grants/)



## Climate Challenge Grants Recommendations

### Finding:

A significant number of grants, 31%, were awarded to tackle climate change through the development of greenspaces. The health benefits of green spaces and nature connectedness is well documented.

### Recommendations

- The Charity supports the maximisation of the health benefits of the outdoor spaces by sharing NHS Lothian Charity Green Health programme's Green Activities book which has lots of simple but highly effective activities and tools for use by individuals or groups
- The Charity explores and promotes links between the work of the Work Well facilitators and microgrants with the Climate Challenge Grant programme to facilitate connections and prevent duplication

### Finding:

60% of Climate Challenge Grants were awarded to General Medical Practices including many to develop outdoor spaces.

### Recommendations

- The Charity shares information with all General Medical Practices receiving an award about green health prescribing resources. NHS Lothian Charity's Green Health programme developed a model for green prescribing, piloted it in Midlothian and are now funding the development of a Lothian wide resource for GPs and other primary care practitioners.

### Finding:

Many staff stated the grant has facilitated a 'starting point' and that after that project was initiated the individual/team/department planned to action further initiatives.

### Recommendations

- The Charity works with NHS Lothian's Sustainability Network to ensure that all applicants are aware of the information and support available through the network
- Embed in the Charity's single point of access application guidance both the green health ideas book and how to access support from NHS Lothian Charity's Green Health Team
- The Charity explores with colleagues leading NHS Lothian's Sustainability Programme the collation of information that can be shared with applicants to help them progress on their sustainability journey e.g. simple ideas about how to reduce waste or reduce energy consumption



**To tackle climate change and biodiversity loss we need to act quickly now. These grants have been amazing at supporting grass roots actions that can inspire change in one of the largest systems in the world."**

Ian Mackenzie, Greenspace and Health Programme  
Manager, NHS Lothian Charity