IMPACT REPORT 2023/24

ROYAL BROMPTON &HAREFIELD HOSPITALS CHARITY

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How we make a difference

In the fiscal year 2023/24, Royal Brompton and Harefield Hospitals Charity allocated over £4m towards projects that advanced care for people with heart and lung conditions

These projects went beyond existing services; they were critical advancements that surpassed the scope of NHS funding. They encompassed the full spectrum of care that the hospitals provide and support the hospitals' staff who work ceaselessly to treat heart and lung patients.

In the financial year 2023/24, projects supported by the Charity included providing a new sequencer system to Royal Brompton's Genetics and Genomics Lab, partly thanks to a generous grant from Kusuma Trust UK; contributing £445,000 to the cost of a brand-new MRI scanner for research into heart conditions; funding research into Chronic Lung Allograft Dysfunction (CLAD) to help patients with lung transplants live longer; supporting a unique fellowship in CF Reproductive and Maternal Health, and providing educational books for children who have family



members in critical care to reduce anxiety by providing reassuring explanations of what their family member is experiencing via a means accessible to children.

These projects were made possible through the unwavering generosity of our supporters who attended our events, made donations, and contributed through trusts, foundations, places of work and community groups. Every contribution, regardless of its size, played a pivotal role in our mission to create better chances and new possibilities for every patient.

Equipment and infrastructure

£1,471,000

GRANTED ON EQUIPMENT AND INFRASTRUCTURE

150

NUMBER OF PEOPLE WHO WILL BENEFIT EACH YEAR FROM THE NEW HAEMODIALYSIS MACHINES

21

PIECES OF EQUIPMENT BOUGHT

12

NEW ULTRASOUND ECHOCARDIOGRAPHY INTERVENTIONS AND ASSESSMENTS TAKING PLACE WEEKLY

The Charity provided £1,471,000 in equipment to Royal Brompton and Harefield hospitals in the financial year 2023 to 2024, which fell outside NHS funding

The Charity contributed £445,000 to the cost of a brandnew Siemens Magneton CimaX Magnetic Resonance Imaging scanner, which will be used for research into heart conditions. £250,000 in addition was provided by the National Heart and Lung Institute at Imperial College. The scanner will be used on a £1.6m, five-year research grant from British Heart Foundation.

This new generation of scanning technology, the first of its kind in the UK, will be three times faster than any previous scanner. Using diffusion tenser imaging, it can show the 3D architecture of the heart, which will help Royal Brompton's clinicians research patients who have cardiomyopathy, congenital heart disease or who have suffered from heart attacks.

Professor Dudley Pennell, Head of Heart Assessment, said: "When you improve the understanding of the disease, new avenues for treatment become obvious."

The Charity also raised funds for new haemodialysis equipment, which will help treat some of the most severely ill Harefield transplant patients. Many transplant patients require dialysis, but the current system of hemofiltration takes up to 12 hours, requires specialist staff and is undertaken overnight, which can be very disruptive for a patient's sleep and recovery.

We raised funds to provide six haemodialysis machines for one transplant ward and the intensive care ward at Harefield Hospital, which will cut the treatment time down to four hours and will allow it to be delivered during the day without the need of specialist staff.

We also purchased an ultrasound echocardiography machine to increase Royal Brompton's capacity in providing interventions for structural heart diseases.



How we came together to fund a new sequencer

Thanks to donations from our supporters and a very generous gift of £104,000 from Kusuma Trust UK, a new genetic sequencer was purchased for the Clinical Genetics and Genomics Laboratory at Royal Brompton Hospital.

Specialist genetic testing is carried out using a sequencer
to confirm a diagnosis of a suspected inherited heart or lung
condition in children and adults who have symptoms.Over 2,000 samples have been sequenced since it became
operational, representing an increase of approximately 35%
compared to the same period the previous year.

The genetics team manages a significant portion of national tests, delivering cardiac testing for a quarter of the UK, including the whole of London, and respiratory testing for a third of the country. With the escalating demand for these tests in recent years, the team urgently required a new sequencer and identified the Illumina NextSeq 2000 Sequencing System to help cope.

new sequencer and identified the Illumina NextSeq 2000Kusuma Trust UK grants manager Sharika Alam - pictured
above with the sequencer, Dr Deborah Morris-Rosendahl,
Head of Clinical Genetics and Genomics Laboratory, andSequencing System to help cope.Sam Wilkinson, Senior Genetic Technologist - visited Royal
Brompton Hospital recently for a tour of the lab and to
hear about the work of the genetics team. We extend our
heartfelt gratitude to Kusuma Trust UK for their generous
donation, which completed this appeal.



At Kusuma Trust UK we understand that to deliver newer, better treatments needs constant updating of equipment. Royal Brompton Hospital's Genetics and Genomics Lab is one of four in the country providing specialist genetic sequencing for cardiac patients and one of three for lung diseases. We are pleased to support the purchase of a genetic sequencer again after our first grant in 2016 to help them provide rapid accurate diagnosis for more patients."

Soma Pujari, Executive Trustee from Kusuma Trust UK

When you improve the understanding of the disease, new avenues for treatment become obvious."

Professor Dudley Pennell, Head of Heart Assessment

The new sequencer also enhances the genetics team's ability to compile data on genetic variants associated with rare inherited respiratory and cardiac conditions, some of which are tested for exclusively at Royal Brompton Hospital.

Patient experience

We know that a visit to hospital can be daunting, so we work hard to improve the experience in large and small ways to make it easier for patients

£492,000

TOTAL AMOUNT GRANTED OUT TO PATIENT EXPERIENCE

241

GIFTS GIVEN TO PATIENTS ON CHRISTMAS DAY

Patients' Fund

38 APPLICATIONS TOTALLING £161,531

77,914 PATIENTS DIRECTLY SUPPORTED £98,488

AWARDED TO 23 PROJECTS

218,126

STAFF/FAMILIES/CARERS INDIRECTLY SUPPORTED

The Patients' Fund is dedicated to making a stay at the hospitals a little more comfortable for patients by funding small things that make a big difference. This year, income was generated for the Patients' Fund via the 2023 London Bridges Walk and donations from supporters.

The funds were granted to projects that included: providing accessible catering solutions for patients at Royal Brompton, including adapted cutlery and dignity mugs for patients who struggle with coordination or grip, the purchase of educational books for children with family members in critical care, aimed at alleviating concerns related to explaining a family member's severe illness to the child, and the purchase of a vein viewer machine, to reduce the trauma associated with locating veins at the transplant unit in Harefield.

In the 2023/24 financial year, the grants were awarded in two waves: in November and March. In total, £98,488 was granted out to Patients' Fund projects, making hospital life a little more like home life.



rb&hArts

Thanks to funding from Royal Brompton and Harefield Hospitals Charity, this year, rb&hArts celebrated their 20th anniversary

We are also proud to support the work of rb&hArts, who bring the healing power of art to patients. This includes programmes such as Vocal Beats, which assists young patients with lung conditions by improving their breathing as well as giving them an opportunity to socialise and have fun; Crafternoons, which provide artistic expression and entertainment to in-patients; the nature and wellbeing programme, which includes many gardens and artworks around the hospital, as well as exhibitions, displays, and the built environment.

In Spring 2023, rb&hArts launched the Harefield Heritage, Nature, and Wellbeing Walk, designed to improve health and wellbeing by inspiring patients, staff and visitors to explore the wonderful outdoor spaces that Harefield Hospital has to offer. This year, we also completed the wildflower meadow at Harefield, which has now been handed over to a group of dedicated volunteers.

Patients enjoy live music across the hospitals, with veteran Harefield comedy-violinist Adrian Garratt providing weekly live music on Harefield wards and online. At Royal Brompton, Live Music Now provides diverse musical performances of exceptional quality by the bedside, including harp, hand-pan and theorbo.

rb&hArts is supported by a committed and passionate group of volunteers. We are so grateful to everyone who has donated their time to help patients through creative health.





355 people engaged in the Vocal Beats programme



Singing for Breathing engaged **1,374** adults with respiratory conditions at Royal Brompton Hospital, Harefield Hospital, and online



Live Music Now engaged over **2,300** people in live music concerts at Royal Brompton Hospital and Harefield Hospital



Musician in Residence engaged **363** patients with online violin concerts



Crafternoons engaged **262** staff, patients and visitors across both sites with monthly crafting sessions



55 one-to-one hourly art sessions have been delivered at patient's bedsides



30 art boxes full of craft materials were distributed for patients who cannot have a one-to-one session



2 exhibitions took place in the Royal Brompton Café Gallery



10 participants took place at the first Harefield Heritage, Nature, and Wellbeing Walk



NHS 75th anniversary was celebrated with a streamed performance of a new song inspired by Royal Brompton staff, sung by staff from the clinical team



800 staff photos were taken during the celebrations, and **57** participants took part in Kerry Lemon NHS 75 Weave workshops, which led to the creation of artworks that are now displayed at both hospitals



To celebrate the NHS's 75th birthday, we commissioned artist Kerry Lemon to create two new permanent artworks for our hospitals. Kerry began by running staff and patient workshops to meet and talk about the NHS.

She used the materials and ideas generated in these workshops to develop new collages that represent the strands of the NHS weaving together in strength and purpose, which were installed in both hospital sites in September.



Singing for Breathing

Our three Singing for Breathing groups continue to meet weekly, developing techniques that support lung health as well as participant wellbeing. Participants tell us that joining these choirs help them manage their lung conditions. This year, we were pleased to join a feasibility study for clinical trials into the practice.



RBC Communities Together Fund

Helen Barnes nominated the Charity for her employer Royal Bank of Canada's RBC Communities Together Fund, which is a grant of £1,500 that went towards the work of rb&hArts.

In July 2001, Helen's father suffered a minor heart attack and Helen has raised funds for the Charity, including running the was referred to Harefield for further investigations. It was Royal Park's Half Marathon in October 2022 and nominating revealed he had serious and extensive damage to the heart the Charity for the RBC Communities Together Fund. in the form of an aneurism. He then had life-saving open The funds from this went towards supporting the work of heart surgery, including a quadruple bypass. rb&hArts in improving the patient experience and patients' mental wellbeing.



"

The cheering and encouragement on the day from the charity cheer points were such a source of encouragement and really spurred me on. It has been wonderful to be able to give something back to an institution that has done so much for my family and I."

Helen on the Royal Park's Half Marathon

Research and innovation

£1,963,000

TOTAL AMOUNT GRANTED OUT TO RESEARCH AND INNOVATION

Research and innovation today can lead to the treatments of tomorrow, which is why we have funded a wide range of research and innovation projects that will advance care for people with heart and lung conditions

The Charity is deeply committed to advancing care for people with heart and lung conditions. Research and innovation can unlock the future of healthcare and both hospitals have a world-class reputation for this, as well as groundbreaking medical advancements. It is in this spirit that we will be launching Think Beyond - Heart + Lung Innovation Fund.

Think Beyond will stand as a cornerstone of our future endeavours. We fervently believe that Think Beyond will catalyse transformative breakthroughs, paving the way for unparalleled advancements in the treatment of heart and lung patients.







In the 2023/24 financial year, grants were provided
to clinicians, such as Consultant in Respiratory and
Transplant Medicine, Professor Anna Reed's research into
Chronic Lung Allograft Dysfunction (CLAD) to help patients
with lung transplants live longer.Reed said: "This is a huge project, and the bit that the
Charity is funding is fundamental to getting it to the
next stage."We also funded a new frontier for women with cystic

"The problem with CLAD is that it's an irreversible condition," Professor Reed said, adding that 50% of patients will not survive more than five years due to CLAD.

The research we have funded will lead to collaborations with other institutions, including Imperial College, Cambridge University, Harvard University and Newcastle upon Tyne Hospitals NHS Foundation Trust. Professor

"

This is a huge project, and the bit that the Charity is funding is fundamental to getting it to the next stage."

We also funded a new frontier for women with cystic fibrosis (CF) with a first of its kind, dedicated CF maternal health clinic. The need for this arose following the widespread availability of the highly effective CFTR modulator drug KAFTRIO[™] in mid-2020, which has been associated with increasing numbers of women with CF pursuing pregnancy. The Charity has funded a unique fellowship in CF Reproductive and Maternal Health to expand the work of this dedicated service. This new service will help women with CF and health care providers navigate therapeutic decisions relating to emerging issues in reproductive health.

Dr Imogen Felton, Consultant in Adult CF and Respiratory Medicine at Royal Brompton, said:

"The CF Maternal Health Fellows are extending our scope of clinical and academic innovation in this topic. We're now looking at improving support and understanding of the full female reproductive life-course and its interplay with aspects of CF health and service provision. We're looking at contraception, pre-conception health, the impact of parenthood, as well as the menopause."

We supported the infrastructure necessary to guarantee the success of research projects delivered at Royal Brompton and Harefield hospitals, providing a core grant towards Royal Brompton and Harefield Hospitals Cardiorespiratory Biobank. We provided a transitional grant, helping the biobank move towards cost recovering funding and ensuring its future.

The biobank houses a vast collection of over 90,000 blood and tissue samples and associated clinical data sets from cardiovascular and respiratory disease patients for use in research. With its established procedures and relationships with surgical and medical teams, the biobank is in a unique position to collect valuable samples.

In addition to this core activity, it also provides samples from its existing storage, supporting a wider spectrum of research initiatives in cardiorespiratory research.



With the support of the Charity, in 2022/23, the biobank provided samples and data to 33 research projects, recruited more than 250 patients, and collected 886 blood samples and 490 tissue samples. The biobank has distributed a total of 364 tissue samples and more than 1,000 blood samples. This has also included the distribution of 4,500 clinical datasets for use in research.

Utilisation of the biobank, its samples, and data has led to numerous publications in prestigious journals and the creation of worldwide guidelines. The biobank has had a significant impact on these achievements, enabling informed decision-making in cardiovascular and respiratory disease management and treatments.

We also continued to fund clinicians who are early in their careers to ring fence time for research via our Early Careers Fund. We would like to thank WCO Girdlers for their support for the Early Careers Fund.

These pioneering projects are helping with our mission to provide better care for people with heart and lung conditions.

CASE STUDY

How Dr Richard Hewitt's research is helping save the lives of people with IPF

Dr Richard Hewitt, a respiratory consultant specialising in idiopathic pulmonary fibrosis (IPF), is the inaugural fellow for the Sir Robert Finch Fellowship.

IPF, a form of interstitial lung disease (ILD), causes scarring
in the lungs, leading to debilitating breathing difficulties.While anti-fibrotic medications can decelerate scarring,
they fail to halt or reverse fibrosis, rendering the disease
incurable. Dr Hewitt's aim is to detect early immune cell
abnormalities in airway linings indicative of IPF, potentially
enabling intervention at an earlier stage. His research could
revolutionise IPF diagnosis, leading to earlier treatments
and enhanced life expectancy.

During his doctoral research at Imperial College London, Dr Hewitt unearthed immune cell irregularities in the airways of individuals newly diagnosed with IPF. There are often delays in diagnosing IPF due to symptoms being ascribed to other causes.

"

The CF Maternal Health Fellows are extending our scope of clinical and academic innovation in this topic. We're now looking at improving support and understanding of the full female reproductive life-course and its interplay with aspects of CF health and service provision."

Dr Imogen Felton, Consultant in Adult CF and Respiratory Medicine

"

I'm hugely grateful to the charity and to Sir Robert Finch's family who have committed to support this research. I hope to be able to share the findings as I progress over the next few years."



Funding to ring-fence research time for healthcare professionals like Dr Hewitt enables them to explore innovative medical solutions, develop novel treatments, and ultimately enhance patient outcomes. Initiatives such as the Sir Robert Finch Fellowship provide crucial support to healthcare professionals undertaking research beyond clinical duties.



Heart of West London partnership

Now in its second year, the partnership has raised more than £90,000 to fund crucial research into early detection of heart conditions in young people and athletes that may put them at risk of sudden cardiac death.

This unique partnership takes heart health directly into communities with our Brentford Football club collaboration alongside other leading heart health charities. A huge thank you to all those at Brentford FC for providing such a great fundraising opportunity.



Staff support

£153,000

TOTAL AMOUNT GRANTED TO STAFF SUPPORT

350

TOTAL NUMBER OF CHRISTMAS MEALS DISTRIBUTED

Royal Brompton and Harefield Hospitals Charity supports staff who do amazing work caring for heart and lung patients

The amazing work of Royal Brompton and Harefield hospitals in caring for people with heart and lung conditions is only possible because of the dedicated staff who provide world-class care around the clock. We provide recognition for these exceptional NHS staff members through several programmes, including recognising longserving employees with special awards and organising festive meals for staff working during Christmas.

In the financial year 2023/24, we also funded the first RBH Charity award at the Guy's and St Thomas' NHS Foundation Trust awards. We were delighted to present the award to the rb&hArts team in recognition of their exceptional These efforts are aimed at assisting our staff in navigating the demanding task of caring for heart and lung patients, ensuring they can continue delivering optimal care.





TOTAL NUMBER OF STAFF BURSARIES AWARDED

fundraising efforts, for improving patient experience and promoting wellbeing through creative health.

We also allocated substantial funds for staff bursaries, enabling our NHS colleagues to participate in conferences and study days. Investing in staff development is essential for maintaining the hospitals' global leadership in heart and lung disease research, diagnosis, and treatment. A 3D printed model of a heart from Royal Brompton's Morphology Museum

CASE STUDY

Helping trainees with a library of virtual 3D models of congenital heart disease

The Charity helped staff training by supporting Royal Brompton's Morphology Museum with their programme to create a library of virtual 3D models of congenital heart disease

In early 2024, the Charity announced its funding for a project aimed at digitising the specimens in Royal Brompton's Morphology Museum. These specimens, crucial for training clinicians who treat congenital heart disease, can deteriorate rapidly with frequent use.

This innovative project will digitise the specimens, enabling the production of 3D printed models. These models will be more durable, ensuring the preservation of the original specimens and extending their usability for training purposes. Dr Li Wei, Consultant in Adult Congenital Heart Disease Echocardiography, who leads the project, said: "These specimens are very precious now; it's very hard to get new ones. So, we would like to scan them in a CT scanner and then do a 3D reconstruction to make them look like a real heart again. Then we plan to print so we will have several."

"

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Dr Li Wei, Consultant in Adult Congenital Heart Disease Echocardiography



Get in touch

If you want to find out more about the work of Royal Brompton and Harefield Hospitals Charity, donate, fundraise for an event or support an appeal, then you can get in touch via the numbers below or find more information on our website and social media profiles.

Find out more

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