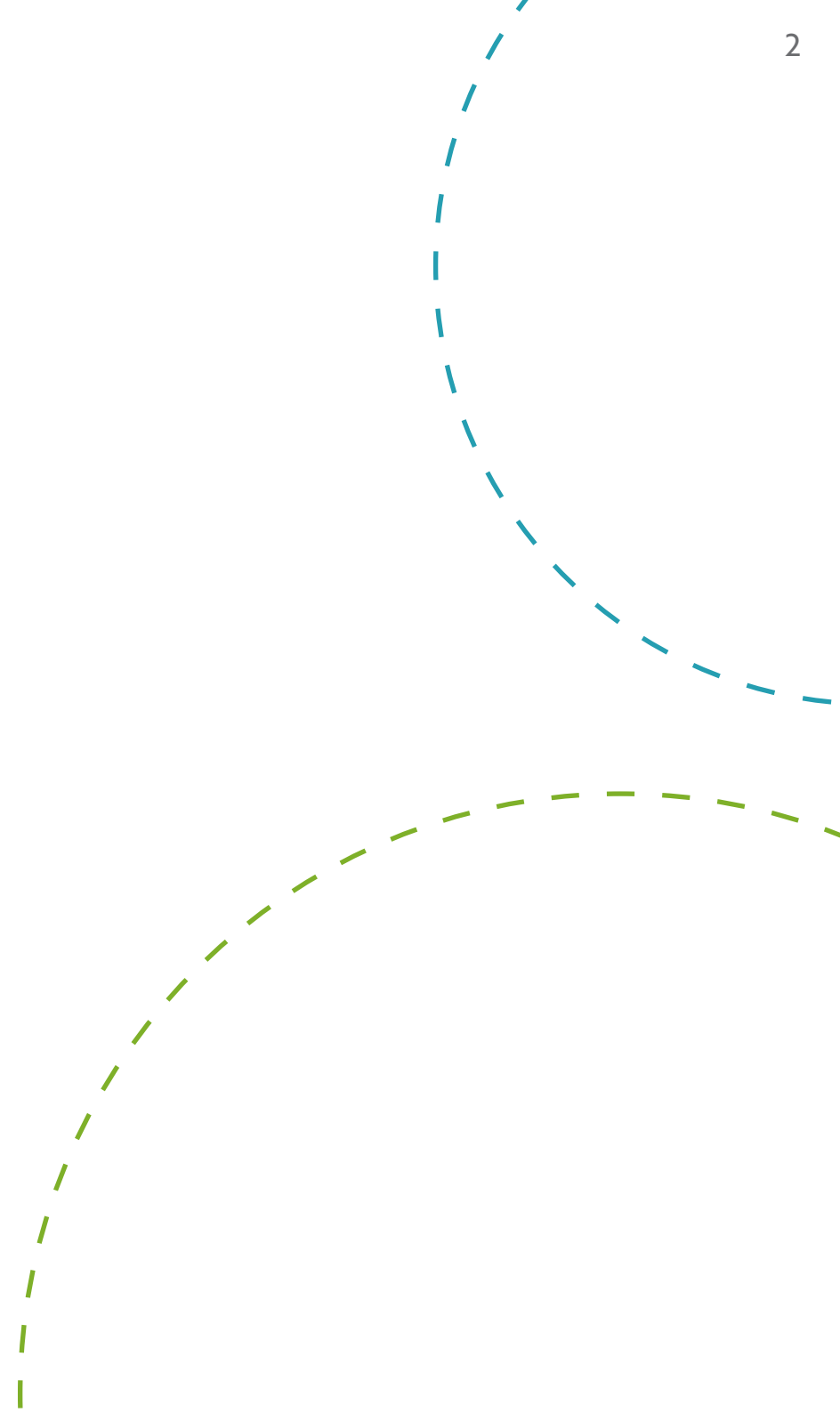




BHP Annual Review of Activity 2023-24

Contents

- 03 [Introduction](#)
 - 04 [About us](#)
 - 05 [Our strategy](#)
 - 07 [Case studies](#)
 - 14 [Research awards](#)
 - 16 [Flagship projects](#)
 - 19 [BHP services](#)
 - 21 [Training and development](#)
 - 23 [Summary financial information](#)
 - 24 [Next steps](#)
 - 25 [Appendices](#)
- 

Introduction

This year marks a watershed moment in the Birmingham Health Partners timeline.

With our partnership now the most expansive it has ever been, we are pleased to have put in place a new and ambitious strategy which combines all our members' strengths and demonstrates that we are far greater than the sum of our parts. This strategy launched in January and is very much in action – evidenced not only by the creation of our new, refreshed website, but also the progress being made in several key workstreams.

One particularly exciting initiative is our flagship 'Reducing bureaucracy in clinical trials' project. Established to respond to the challenges identified in recent reviews by Professor Adam Tickell and Lord O'Shaughnessy, our project also builds on recommendations of our Clinical Trials working group, led by Professor Pam Kearns since it was set up in 2018.

Launching the project, BHP Board Sponsor Sir David Nicholson said: "This pivotal initiative is based on BHP's shared belief that all patients should have the opportunity to take part in research, and the knowledge that research-active healthcare organisations perform better. We are all committed to working together to reduce bureaucracy and duplication of effort in clinical trials through this project, which will offer patients access to trials sooner and ensure innovations reach the clinic more quickly. The fantastic diversity of our regional population also means that our research, and the commercial innovations which result from it, will be applicable nationally and globally." You can read more about this project and our other workstreams on page 15.

The strategy is underpinned by the idea of 'diversity creating impact'.

Birmingham is a truly diverse city and thanks to this, advances developed collaboratively here have the potential to deliver positive impact worldwide. Additionally, we are committed to addressing the unique health challenges faced by our population, ensuring equity and improved health outcomes across the region.

Through this new strategic direction, we are dedicated to improving cancer outcomes, tackling inflammation and chronic diseases, enhancing maternal and perinatal health, and advancing mental health research. Our efforts will not only elevate the health standards within our community but also position Birmingham as a leader in health innovation, driving economic growth and fostering a skilled workforce ready to meet future health challenges.

Within these pages you'll also find updates on the progress we've made this year with our flagship services – Research FIRST and BHP Evaluation Service (page 18), and our training and development programmes which empower clinicians and healthcare professionals to embed research into their daily practice.

As ever, we extend our thanks and gratitude to all our partners, organisations of which the city is rightly proud. Their collective willingness to collaborate and share best practice is the cornerstone of our success, enabling us to break down barriers, drive innovation, and deliver transformative healthcare solutions that benefit not only Birmingham but also the wider world.

We are excited about what we have achieved this year, the future, and the positive impact this strategy will have on the health and well-being of our community. Together, we will create a healthier, more equitable Birmingham.

Chair, Jonathan Pearson and Executive Director, Professor Neil Hanley

About us

First established in 2015, we are a strategic alliance between nine University and NHS members who collaborate to deliver groundbreaking translational research, world-class education and training, and the highest quality patient care.

With over 55,000 staff, more than 7 million patient contacts annually and a combined turnover of £5 billion, we operate in one of the UK's most socially, ethnically and economically diverse areas.

Through our partnership, we aim to create a vibrant, equitable community which thrives on collaboration. We believe that by working together, we can achieve significant breakthroughs in medical research and patient care, translate research into practice and speed up the adoption of these innovations in the clinic.

Research is at the heart of what we do. Our dedicated researchers are exploring new treatments, diagnostics, and preventative measures to address the pressing health challenges we're facing as a city, region and nation.

We're also committed to nurturing the next generation of healthcare professionals and researchers, providing them with the skills and knowledge they need to make a lasting impact in their fields.

We're proud of what we've accomplished so far, but we know that there is always more to be done. We envision a future where health outcomes continually rise, and our population benefits from being at the forefront of healthcare advancements and research.



We operate in one of the UK's most socially, ethnically and economically diverse areas.



Our dedicated researchers are exploring new treatments, diagnostics, and preventative measures.



We're proud of what we've accomplished so far, but we know that there is always more to be done.

Our strategy

About

Launched in January 2024, our strategy is unapologetically ambitious and seeks to transform Birmingham's healthcare through high-impact innovation and research. Our ambition is to be the leading health and life science ecosystem in the UK.

Over the past year, BHP has demonstrated the benefits of collaboration across our organisations. The addition of our sixth NHS member – Birmingham Community Healthcare NHS Foundation Trust – and of course the launch of our new strategy offers new opportunities for BHP to continue to develop and deliver real value to the region.

By translating our combined research into clinical practice, integrating the latest technologies, and building the workforce of the future, we're committed to improving health equity and driving economic growth for our region.

Professor Lorraine Harper
BHP Managing Director



Objectives

Improve health outcomes: Our high-impact research and innovation will improve health outcomes with fairness for all, through clear, sustainable pathways both in communities and in hospitals.

Increase life science competitiveness: Our shared ambition is to make Birmingham increasingly attractive to industry partners in the health and life sciences sector. We will drive health and wealth by being the destination of choice for commercial partnerships rooted in our health innovation campuses, cutting-edge research and ability to translate evidence-based innovation into practical application.

Collaborate and develop careers: By working seamlessly across our diverse healthcare ecosystem, including six NHS trusts, two universities, and the Health Innovation Network West Midlands, our strategy harnesses collective expertise, resources, and insights to develop careers. We work in wider partnership and synergise with national and international collaborators and funders to set policy and develop careers.

Research themes

Our four cross-cutting themes ensure that research enables genuinely impactful change – directly improving patient care and the everyday lives of the communities we serve. This is made possible by the strong links between academics and frontline staff which allow translation of discoveries into patient care, and by working closely with industry partners.

Early detection and diagnosis

Experimental medicine

Clinical trials

Health inequalities

About our research themes

Early detection and diagnosis

Early detection – both in the community and in hospital – saves lives and reduces burden on health systems. Using our expertise in immunology, genomics, health data and regulatory science, we are driving the translation of evidence-based innovation into practical implementation, working across our membership and with commercial partners.

Experimental medicine

We are working together across our partners to drive innovation in promising areas such as cell and gene therapy and personalised medicine. We will specifically improve care in areas of high unmet need, such as mental health, cancer, ill health and multi-morbidity associated with chronic diseases and inflammation, and maternal and perinatal health.

Clinical trials

Our capability in clinical trials is nationally leading, and we've hosted one of the largest Cancer Research UK trials units in Europe for over 30 years. With extensive experience in novel trial design, we are delivering studies that are inclusive and representative of our population – from early phase to international, multi-centre randomised control trials.

Health inequalities

We are developing and prioritising initiatives that promote equal access to both research and healthcare across all the communities that we serve, ensuring that the latest innovations positively impact all segments of the population.

BHP activity in 2023/24 Case studies: Early detection and diagnosis

Ten minutes to diagnosis

Research led by UoB and Newcastle and Aston Universities, with Birmingham Children's Hospital as the lead clinical centre, has led to a quicker and less invasive method of determining which type of tumour young people with medulloblastoma have.

This highly malignant form of brain cancer presents as one of four different subgroups of tumour, with treatment highly specialised to each group. Typically, tumour biopsies can take several weeks to analyse – and while children awaiting their results can be given chemotherapy, the most appropriate treatment depends on their precise diagnosis.

Using cell samples from 86 tumours, the team developed a laboratory test to accurately identify metabolic markers including chemicals specific to the different tumour groups.

This research could pave the way for using MRI scanning combined with machine learning to assess medulloblastomas without invasive biopsy and could rapidly reduce the current 3-4 week wait from presentation to full diagnosis – potentially returning results within 10 minutes.

Lead author Professor Andrew Peet of UoB and BWC, said: "Time is so important in cancer diagnosis so our findings on different types of medulloblastoma having a detectable signature metabolism could be game changing for quickly diagnosing, and then offering the best possible treatment for children." The study was funded by Children with Cancer UK and Cancer Research UK.

Ovarian cancer

Symptom triggered testing, prompted by symptoms such as pain, abdominal bloating/swelling, and feeling full soon after starting to eat, can pick up early-stage aggressive ovarian cancer in 1 in 4 of those affected, according to new research at SWB's Pan-Birmingham Gynaecological Cancer Centre and UoB. Funded by NIHR, the study found that the UK's protocol for picking up early-stage disease in women with high grade serous ovarian cancer—the most common, aggressive, and lethal form of the disease— is an effective way to diagnose even early-stage ovarian cancer.

The findings also show that complete surgical removal of the cancerous tissue is possible even in more advanced disease, providing that women with suspicious symptoms are fast-tracked for investigation and treatment.

BHP activity in 2023/24 Case studies: Early detection and diagnosis

Periodontal biomarkers

The NIHR Birmingham Biomedical Research Centre (BRC)'s Oral, Intestinal & Systemic Health theme has collaborated with Unilever and Phillips on developing saliva-based periodontal diagnostics for early case detection in non-dental settings.

Severe gum disease (periodontitis) is a significant risk factor for mortality, diabetes, cardiovascular and several other non-communicable diseases (NCD). The BRC team identified biological signatures in saliva that differentiate oral health from gingivitis/periodontitis, leading to 15 patents granted for saliva-based periodontal diagnostics for early case detection in non-dental settings – mainly pharmacies and medical practices – facilitating onward referral for prevention and treatment.

Predictive tools for NCDs for primary care dental settings have also been developed, with the BRC receiving £1.2m funding (2024) from Haleon to validate one tool in 10,000 people UK-wide. In addition, UoB, Aston University and the BRC has established a joint-funded studentship to explore the pathophysiological links between periodontal disease and inflammatory bowel diseases.

Brain injury biomarkers

The Mild Traumatic Brain Injury Biomarker Study, a biomarker study of military and civilian participants funded by The Cabinet Office (Office of Veterans Affairs), is running collaboratively between UoB PhD students, Aston University and the NIHR Birmingham Clinical Research Facility (CRF) trauma research team, supported by UHB and the Royal College for Defence Medicine (RCDM).

As part of the study, a seven-year contract by the U.S. Department of Defense – with an award amount of up to \$15.5m – has been allocated to the mTBI-Predict study which will look at biomarkers to enable faster diagnosis and assessment of a concussion, leading to improvements in treatment and long-term management, enabling a quicker return to play, work or duty.

Some 890 people aged 18 to 60 will take part, as researchers measure the effectiveness of various methods to predict outcomes of mTBI after six, 12 and 24 months.

BHP activity in 2023/24 Case studies: Experimental medicine

Novel bone cancer therapy

Researchers from Aston University's Advanced Materials Research Centre and the ROH's Dubrowsky Regenerative Medicine Laboratory have formed a partnership to explore new ways to treat bone cancer, focusing on how the metal element gallium could be used to support the treatment of bone tumours due to its cancer-killing properties.

Previous work by the team proved that primary bone cancer cells are four times more sensitive to gallium than normal cells, with lab tests finding that bioactive glasses doped with the metal have a 99% success rate of eliminating cancerous cells and can even regenerate diseased bones.

The next phase of this study is exploring the use of gallium against bone metastases, to see whether this treatment could be used as an adjuvant medicine to control metastatic growth in the treatment of other types of cancer that usually metastasise to bone, such as breast, lung, and prostate cancer. The research has attracted considerable media coverage, including the BBC News website and BBC Midlands Today broadcast, and is currently ranked as the number 1 publication on the journal Biomedical Materials. The study was funded by Sarcoma UK.

Childhood obesity

Obesity in children is a major concern in Birmingham. STEP-TEENS, co-ordinated by the NIHR Birmingham CRF in partnership with Novo Nordisk and BWC, evaluated the safety and efficacy of weekly semaglutide on weight management in overweight or obese adolescents and a 5% or more reduction in weight was seen in 73% of those treated with semaglutide compared to placebo, with many participants commenting on the positive experience taking part in the study had on both their physical and mental health. The study was reported in the New England Journal of Medicine and the drug was FDA approved for adolescents in December 2022.

Following the success of the trial, it has been expanded to address obesity in other age groups: STEP-YOUNG uses semaglutide in younger children (from 6 years) while PIONEER TEENS is specifically for adolescents with type 2 diabetes – both are currently recruiting.

The CRF has also hit recruitment targets to a study employing another weight loss drug called setmelanotide in children with 'hypothalamic' obesity; in this form of obesity, the weight regulation centre in the brain is damaged due to brain tumour damage.

BHP activity in 2023/24 Case studies: Experimental medicine

Spinal cord injuries

A team from the ROH and Aston University, working with the University of Edinburgh, have been awarded a joint research fellowship to develop a working 3D model of the spinal cord to improve understanding of the management of compressive spinal cord pathology. The fellowship is funded by Orthopaedic Research UK (ORUK), the British Association of Spine Surgeons (BASS) and the British Scoliosis Society (BSS) and will run for three years.

The model will be made up of a 3D printed, fully articulated vertebral column and use tuneable pneumatic pressure to replicate the spinal cord. Adjustable to reflect various spinal conditions, the model would enable spinal teams to test the likely impact of different procedures on patients with Degenerative Cervical Myelopathy, a common yet under-researched condition.

BHP activity in 2023/24 Case studies: Clinical trials

e-MOTIVE

The landmark E-MOTIVE study, led by UoB and coordinated by the Birmingham Clinical Trials Unit, has received the 'David Sackett Trial of the Year Award' by the Society of Clinical Trials.

This annual prize is awarded to one randomised, controlled trial that could lead to substantial, beneficial change in healthcare.

E-MOTIVE identified a new care bundle reduced severe post-partum haemorrhage (PPH), postpartum laparotomy or maternal death by 60%, and has since been adopted by WHO international guidelines, as well as being identified by the Bill and Melinda Gates Foundation as 1 of only 7 interventions that could save 2 million lives by 2030.

PPH, or severe bleeding after birth, is the leading cause of maternal deaths worldwide. It affects an estimated 14 million women each year and results in around 70 000 deaths – mostly in low and middle-income countries – equivalent to 1 death every 6 minutes. The simple- low-cost approach validated by E-MOTIVE involves objectively measuring blood loss using a collection device called a 'drape' and bundling together WHO-recommended treatments – rather than offering them in sequence.

BHP activity in 2023/24 Case studies: Clinical trials

Nerve Block for Chronic Pain After Knee replacement Surgery – the BaCPAKS trial

BaCPAKS is a multi-centre randomised controlled trial (RCT), sponsored by UHB in collaboration with the ROH and BCTU, and funded by the Human Tissue Authority (HTA). This trial will investigate the clinical and cost effectiveness of local adductor canal nerve blocks in patients undergoing total knee replacement. A multi-centre, sham-controlled RCT, BaCPAKS will compare clinical outcome measures of persistent pain for those undergoing local nerve block at the point compared to those receiving sham intervention.

Rheumatoid arthritis

Rheumatology medics and researchers at SWB and UoB are working together to transform the care of rheumatoid arthritis (RA) patients by developing an app which links to the Fitbit – a popular activity tracker – through a groundbreaking clinical trial. Funded by the National Rheumatoid Arthritis Society and NIHR, the app is being developed for and by people with RA via a series of interviews, co-design studies and workshops. Then, artificial intelligence will be used within the app to provide personalised support for people living with RA, based on symptoms such as pain, fatigue and mobility. It is expected the app will be available to download for free so it can be used on a Fitbit in the future.

BHP activity in 2023/24 Case studies: Health inequalities

STANDING Together

STANDING Together – an international initiative led by UHB and UoB through the NIHR Birmingham BRC – has released new standards ensuring that medical AI systems are developed with inclusive and representative datasets. This is imperative as AI health technologies are less likely to work well – and may even be harmful – for people who aren't properly represented in datasets.

People who are in minority groups are particularly likely to be under-represented in datasets, so the recommendations provide guidance on collecting and reporting details such as age, sex, gender, race, ethnicity, and other important characteristics. Guidance is also given on how to identify those who may be harmed when medical AI systems are used, allowing this risk to be reduced. This work was announced by the Secretary of State for Health as part of the UK's AI Summit in November 2023, and the project won a CRN West Midlands PPIE Award in 2023. It was funded by The Health Foundation and NHS AI Lab.

Chronic illness

Over 65% of the population in the West Midlands are considered within the most deprived 20% of the UK population. Individuals who experience high levels of deprivation are also more likely to experience disease and ill health than their more affluent counterparts. Under the Innovation for Healthcare Inequalities Programme (InHIP), HIWM was able to address local healthcare inequalities through providing targeted health checks and testing initiatives in the communities facing deprivation. The programme engaged 2,200 people across six ICSs, providing over 3,800 tests and screenings targeting cardiovascular disease, asthma and general health, with 450 people being referred to further care.

Research in medication optimisation in severe mental illness (SMI)

An NIHR-funded collaboration between Aston University and BSMH have seen researchers work on two linked projects to improve the way that medication is used in people living with severe mental illness (SMI). People living with SMI die between 15 to 20 years before the general population. Much of this excess mortality is due to physical health problems exacerbated by their medication – particularly their adherence to medication, with potentially devastating consequences, both for the individual and society in general. The projects are:

- **MEDIATE:** a programme development grant which used a realist approach to understand how medication could be optimised people living with SMI.
- **RESOLVE:** an ongoing realist synthesis of non-pharmacological interventions for antipsychotic-induced weight gain in people living with SMI, which will result in guidance for both service users and practitioners

BHP activity in 2023/24 Exemplar case studies

Lister's Cardiovascular Research Group

Listers Cardiovascular Research Group (LCRG) is a collaboration between SWB and Aston University, focused on heart and circulatory diseases – the biggest killers globally accounting for nearly 1 in 3 deaths. More than half of the UK's population will experience cardiovascular disease and over a quarter will die from heart and circulatory diseases. Initially, a cohort of four PhD students has been established working in areas ranging from basic science to prevention. Key themes in the group – matching BHP's research priorities – are experimental medicine, early detection and diagnosis, and health inequalities. Specific projects include: disease markers; Computed Tomography Coronary Angiography (CTCA); drug-coated balloon treatment; and the role of community pharmacy in the prevention of cardiovascular disease in minority ethnic communities.

SPARK The Midlands

2024 saw the launch of SPARK The Midlands, a network which aims to bridge the gap between medical research discoveries of novel therapeutics, medical devices and diagnostics, and real-world clinical use. It is the first UK branch of Stanford University's prestigious global SPARK programme and has been facilitated by our active involvement the West Midlands Health Tech Innovation Accelerator (WMHTIA) – a government-funded project aimed at helping companies drive their innovations towards market success. Based at Aston University, it will support multiple projects across the West Midlands from other BHP members including UoB and BWC; other regional institutions including Warwick University; and a number of regional companies. The SPARK scheme helps to provide mentorship and forge networks between researchers, those with technical and specialist knowledge and potential sources of funding. SPARK members have access to workshops led by industry experts, covering topics such as medical device regulations, establishing good clinical trials, and creating an enticing target product profile to engage future funders.

NIHR Birmingham Biomedical Research Centre

NIHR's Biomedical Research Centres are collaborations between leading universities and the NHS which aim to turn lab-based scientific breakthroughs into new treatments, diagnostics and technologies. In Birmingham, our BRC is delivered in partnership between UoB, Aston, UHB, BCHC, BWC and SWB, working with the Universities of Oxford and Keele. During the financial year 2023/24, the BRC:

Leveraged £71.6m of external funding

Supported 436 studies

Published 624 papers

Recruited 1,816 patients to early-phase experimental medicine studies

Research awards

Across our partnership, our researchers have successfully bid for significant funding in 2023/4, with awards including:



Midlands-Wales Advanced Therapy Treatment Centre (MW-ATTC)

Part of a national network of three centres, the MW-ATTC is jointly led by UoB and UHB, with clinical sites from Nottingham to Southampton and from Swansea to Cambridge. The network received £17.9m from the NIHR in March, funding a further four years of advanced therapy medicinal product (ATMP) research and clinical trials and ensuring the UK maintains its position as a globally attractive location for advanced therapy research. MW-ATTC will continue to work with BHP member Trusts to increase access to advanced therapy trials.



NIHR HealthTech Research Centre

In April, UHB and UoB were awarded almost £3m funding by the NIHR to become one of 14 HealthTech Research Centres driving lifechanging research into health technologies over the next five years. Its core themes include medical devices, digital and data, and robot and autonomous systems and will see the team collaborate with partners including Imperial College London. Each theme covers cross-cutting areas of human factors and usability, health economics and value propositions, and regulations, with leads from UoB and HIN-WM.



LifeArc Centre for Acceleration of Rare Disease Trials

Rare disease researchers at UoB, UHB and BWC received funding in April to create the £12m LifeArc Centre for Acceleration of Rare Disease Trials, pooling Birmingham expertise with researchers at Newcastle University and Queen's University Belfast. The centre will focus on improving the efficiency of rare disease trials and increasing the number of opportunities for patients to take part, through developing a rare disease trial recruitment portal, as well as designing and delivering trials in partnership with patients.



Research awards



Regulatory Science & Innovation Network Phase 1

UHB (AI) and UoB (cell and gene therapies) each received £50k funding from Phase 1 of this scheme, with Phase 2 bids submitted for more substantial funding in August. The aim of this competition is to support the development of proposals for virtual networks of expertise in regulatory science that generate research-based evidence and insights. Both successful bids were submitted as part of the BHP Centre for Regulatory Science and Innovation.



National Collaborative of Research Support Services

In February, UoB was selected to run the National Collaborative of Research Support Services (RSS), providing strategic and operational leadership across eight individual NIHR RSS hubs. The £7m award will allow the team to identify, develop and share standards of good practice, as well as encourage a coordinated national approach to inclusion and involvement.



Institute of Health and Neurodevelopment

Aston University's Institute of Health of Neurodevelopment (IHN) and Birmingham Children's Hospital (BWC) have received £800,000 from the Medical Research Council towards a new child-friendly brain imaging facility. The new magnetoencephalography (MEG) brain scanner will be used for research, diagnostics and for planning surgery for children with epilepsy and brain tumours. The funding has been supplemented by the University giving a total budget of £2.5m to purchase the equipment and construct a new, magnetically shielded laboratory in the IHN building to house it. Conventional MEG scanners require the patient to remain very still which can be unpleasant or difficult for children. The new MEG machine uses an adjustable cap containing sensors which is placed on the patient's head, which is more convenient and comfortable especially for children, as it allows some degree of movement.



Flagship projects

Reducing bureaucracy in clinical trials

Launched in 2024, this ambition project - in response to the Tickell and O'Shaughnessy reports - will enable us to build a community of knowledge, expertise and resource, improving the experience of research teams and facilitating access to a diverse range of patients by driving efficiencies in clinical trial delivery across BHP.

Our focus is on academic clinical trials sponsored or led by a BHP member which involve at least one other BHP organisation. By addressing overarching processes and systems, we aim to positively impact the setup of clinical trials and academic studies.

Our progress during 2023/2024:

- Senior Programme Lead commenced in post; programme brief, objectives, metrics and governance structure established
- Co-created a forum with the Clinical Research Network West Midlands, bringing together project leads undertaking similar projects and sharing regular updates on project outputs/ plans.
- BHP suite of template agreements has been initiated with a collaboration agreement now finalised, aimed at providing agreed best practice-based templates for all partners, reducing time spent negotiating
- Grant/pre-award task and finish group is developing tools aimed at supporting signposting and navigation, and aligning processes across HEI and NHS
- Survey undertaken to understand the experience of those navigating and facilitating the setup of academic clinical trials within BHP
- Current state review of the study setup processes has been undertaken, and recommendations developed to support increased efficiency

In progress and next steps include:

- Development of a BHP NHS academic costing model
- Template data sharing, material transfer and Chief Investigator agreement
- BHP grant/pre-award Standard Operating Procedure (SOP)
- Piloting a single point of entry for grant/pre-award support
- Agree and implement recommendations on study setup processes, supporting alignment and increased efficiency



**LAUNCHED
IN 2024, THIS
AMBITIOUS
PROJECT...
WILL ENABLE
US TO BUILD A
COMMUNITY OF
KNOWLEDGE,
EXPERTISE AND
RESOURCE.**

Flagship projects

Health data integration

In 2024, we appointed Professor Simon Ball with a brief to optimise data integration across the partnership. A Consultant Nephrologist at UHB, Simon has had a range of clinical, managerial and research roles in Birmingham. He currently chairs the Health Data Research UK Midlands Strategy Board and is Senior Responsible Officer for the West Midlands Secure Data Environment (WMSDE).

“NHS Trusts in Birmingham were among the first to adopt electronic health records systems, meaning we have access to a wealth of data – including blood tests, scans and biopsies – spanning several decades. This can provide valuable insight into an array of diseases, health conditions and care pathways – but only if it is integrated to reflect the continuum of healthcare as experienced by the patient, rather than that delivered by individual providers. BHP has an opportunity to work with a range of partners, including the WMSDE, to ensure that our healthcare data is used to support discovery, innovation and improvement in the way that care is delivered locally, regionally and nationally.”

Professor Simon Ball, BHP Academic Lead for Health Data

Simon will work with partner organisations to ensure that opportunities to curate, link and harmonise data are realised – all supported by a unified ethical framework and high levels of public engagement and deliberation. He will support researchers in the optimal use of health data assets to promote discovery science and health services research across BHP’s priority areas – particularly early detection and diagnosis, developing clinical trials, and understanding and addressing health inequalities.



**WE HAVE
ACCESS TO A
WEALTH OF
DATA [WHICH]
CAN PROVIDE
VALUABLE
INSIGHT INTO
AN ARRAY
OF DISEASES,
HEALTH
CONDITIONS
AND CARE
PATHWAYS –
BUT ONLY IF IT
IS INTEGRATED.**

Flagship projects

Health inequalities

Also in 2024, we appointed Professor Joht Singh Chandan as our Health Inequalities Lead. Joht is a Clinical Professor in Public Health at UoB where his research focuses on identifying and addressing health inequalities – with a particular interest in abuse and violence prevention inspired by many years of working as a voluntary police officer.

As the UK's third-poorest city, with a diverse ethnic profile and socioeconomic demographics, Birmingham experiences significant health disparities. Joht will develop a detailed action plan for improving population health in the city, underpinned by his experience of issues that impact widely on health and wellbeing; factors that prevent early detection; and barriers to accessing healthcare.

"We shouldn't see reducing health inequality as just the responsibility of public health bodies. The determinants of inequality are so interlinked that not only can we not tackle issues in isolation, we can't tackle them as one institution. Working across the partnership and linking health data platforms, we'll be able to work in a much more representative and inclusive way to improve physical and mental health outcomes for our local communities."

Professor Joht Singh Chandan, BHP Health Inequalities Lead

The BHP health inequalities strategy will serve as a framework for coordinating our partners' activities over the next two years, ensuring strategic alignment and the development of key performance indicators for monitoring progress.

The strategy will be co-developed with partners aligning closely with the priorities set out in the newly published NHSE Core20PLUS5 strategy, beginning with an initial engagement event and a workshop with BHP partner organisations. In autumn 2024, Joht will be finalising the strategy with our partners and will then oversee the adoption of the initial activities chosen through this consultation process in pilot sites within the 12-month period.



**BIRMINGHAM
EXPERIENCES
SIGNIFICANT
HEALTH
DISPARITIES.
JOHT WILL
DEVELOP A
DETAILED
ACTION PLAN
FOR
IMPROVING
POPULATION
HEALTH IN
THE CITY.**

BHP services

Evaluation service

The BHP Evaluation Service brings together considerable expertise from across its member organisations, providing formative evidence on innovations in healthcare and capacity building. Following publication of its first report – Learning from the pandemic shift of outpatient services to a remote footing – in 2023, its current projects include:

Implementation of virtual wards

This project evaluated and analysed the experiences and outcomes for patients admitted to virtual wards, and the experience of staff at UHB where virtual wards were implemented.

Patient outcomes analysis was facilitated by PIONEER, the Health Data Research UK hub for acute care. An economic analysis of virtual wards is in progress, assessing the associated costs and impacts of implementing virtual wards across different patient populations vs usual care. We expect to be able to provide our final report in October 2024.

Sparkbrook Children's Zone (SCZ) early intervention project

SCZ is a specialist service helping children and young people to live happy, healthy lives, through its medical and family support specialists working together to provide social, emotional and medical advice and expertise in one place. Its weekly clinics take place at Balsall Heath Health Centre and Sparkbrook Health and Community Centre, where children can see GPs and paediatric nurses to discuss health concerns, and families can receive support with housing, food, money, abuse, wellbeing, bereavement, addiction, parenting and sexual health.

This initiative was established in 2022 by BWC, and we began work in April 2023 to interview staff and patients, produce an economic evaluation, and complete a quantitative analysis of patient outcomes. The preliminary findings of the economic evaluation suggest the service is cost effective. This work has been shared with NHSE and is influencing future development of integrated services.

Additional commissioned projects in 23/24 include supporting Birmingham City Council and Solihull Metropolitan Borough Council to evaluate their Fairer Futures Fund, and engaging underserved communities to provide feedback on medtech evaluations working with the WMCA Healthtech Innovation Accelerator.

BHP Services

BHP Research FIRST

BHP Research FIRST provides a flexible and innovative approach to supporting research projects that are not a Clinical Trial of Investigational Medicinal Product (CTIMP). The team support a wide range of research methodologies, from observational studies to surveys and screening studies, and can also assist with non-research projects, including clinical audits, evaluations and operational and/or management processes.

In 2023/24, the service provided support to BHP partners including support for a number of high-profile projects including:

STRAVINSKY

STRAVINSKY, (Stratification of Clinically Vulnerable People for COVID-19 Risk using Antibody Testing), a large multi-centre NIHR study that aims to understand the risk of COVID-19 to people with a range of underlying conditions.

ELSA

ELSA, (Testing the Feasibility and Acceptability of Early Surveillance for Autoimmune Diabetes), a national children's screening programme that will establish their risk of going on to develop diabetes in the future with 11,000 children currently recruited against a target of 20,000. ELSA is jointly funded by Diabetes UK and Breakthrough T1D UK (formerly JDRF).

Training and development

Giving all healthcare staff the opportunity to undertake research for patient benefit is essential for improving patient care and developing NHS services. BHP is proud to provide a route into research for NHS staff at all career stages through a series of tailored training opportunities and fellowships.

BHP Fellowships

We offer four programmes designed to provide a launch pad for clinicians interested in translational research:

- BHP Starter Fellowships, allowing individuals to start their research career providing cost to cover one year's salary to undertake a Master's by Research
- Clinical Academic Research Partnerships (CARP), to support individuals continue their research careers while delivering clinical service providing salary funding for two programmed activities (PAs) – or 8 hours per week – of protected research time for two years
- New Consultant CARP Scheme, providing salary funding for two programmed activities (PAs) – or 8 hours per week – of protected research time for three years
- BHP Clinician Scientist, 50:50 appointments providing an academic consultant post linked with one of our NHS trusts to develop individuals as successful independent clinical researchers

Three BHP Clinician Scientists have been appointed this year, jointly funded with UoB by UHB and BWC – one post in paediatric haemato-oncology, one in adult GI surgery and one in ENT surgery.

Four BHP CARP fellows, including two new consultants, have been funded covering specialties in pathology, renal medicine, renal surgery and haematology. Four BHP starter fellows have been funded, covering medical trainees in ENT surgery, haematology and a dietician. Funding for these posts was generously provided by Metchley Park Medical Society, BWC Charities and UoB.

Training and development

NMAHPs research development

There has been considerable success across the Nurses, Midwives and Allied Health Professionals (NMAHPs) community involving our partner organisations over the last year.

The regional West Midlands INSIGHT submission, led by UoB in partnership with Aston, Birmingham City, Coventry, Keele, Staffordshire and Warwick Universities and NHS partners was awarded in April 2024 for £2.7m, as part of the NIHR INSIGHT: Inspiring Students into Research scheme – an initiative which will accelerate the numbers of nurses, midwives, pharmacists, social workers and allied health professionals (AHPs) leading research and generating evidence to underpin care.

The West Midlands NIHR INSIGHT Consortium will provide fully-funded master's courses to early career healthcare professionals and social workers at UoB, Aston and other regional partners, working with NHS members including BHP's UHB, BWC, SWB, BSMH and BCHC. At the time of writing, partners are in the final stages of recruitment to 25 part-time and five full-time places, with extended eligibility to five years post-qualification as agreed with NIHR.

Two successful applications were made to NIHR Research for Patient Benefit (RfPB): Underrepresented disciplines and specialisms: Nurses and Midwives:

- Updating patient debriefing guidelines and support for patients in mental health settings who have received restrictive interventions (Hallett – UoB and BSMHFT)
- Exploring ways to improve end-of-life decision making, care and support for patients and their families in intensive care units (UoB and SWB)

Partners have been successful in creating organisational opportunities for aspirant NMAHP researchers, such as the scheme funded by BWC Charities, and Chief Nurse Scholars and Fellows Scheme (UHB).

Summary financial information

Funding source	Activity	Value (£)
New direct income 2023/24 for BHP led activity		
UHB	Additional funding for Virtual Wards evaluation	60,000
UHB/Metchley Park Medical Society	Funding for 2 BHP CARP Fellows post doc and 1 BHP Starter fellow	200,000
BWC	Funding for 1 BHP CARP Fellow and 1 BHP starter fellow	140,000
UoB	Funding for 1 BHP CARP fellow	60,000
BHF Accelerator Award funding	Funding for 2 BHP CARP fellows	120,000
UHB/BWC	BHP Leadership Training (cohort 4)	42,000
Total		622,000
New indirect income to the wider partnership 2023/24 (example of major bids awarded)		
NIHR	Vaccine Innovation Pathway	500,000
NIHR	INSIGHT	2,500,000
NIHR	Midlands and Wales Advanced Therapy Trials Centre	17,900,000
NIHR	HealthTech Research Centre	3,000,000
NIHR	LifeArc Centre for Acceleration of Rare Disease Trials	12,000,000
Total		38,400,000

Partner direct contributions		
All partners	Core team costs	456,000
All partners	Non pay costs	26,000
Direct costs to each BHP partner organisation in 2023/24*		
N/A	Core costs of BHP team	68,800

* in 23/24 core costs were divided by 7 partners.

The year ahead

Through our new strategy, we are committed to driving innovation, fostering collaboration, and ultimately transforming healthcare for the betterment of Birmingham and beyond.

In 2024/25 we will:



Develop a cross-BHP framework for public and patient involvement and engagement, ensuring diverse participation in research.



Understand and work to increase our collaborations with small- and medium-sized enterprises through initiatives such as Birmingham Health Innovation Campus, the West Midlands Health Technologies Innovation Accelerator and the NIHR Healthtech Research Collaboration.



Agree and implement our approach to engagement with our primary care colleagues across the city.



Develop the research leaders of the future by expanding on our clinical-academic fellowship programme.



Host the first BHP annual meeting, bringing our board together with clinical academic leaders and research teams to celebrate our impact and continue planning for the future.

Our success will be measured by key indicators, including increased grant funding, expanded collaborations with industry partners, growth in clinical trials, and enhanced patient recruitment across our diverse population.

Appendix: Board composition 2023/24

Name	Role
Mr Jonathan Pearson	Chair
Professor Sir Robert Lechler	Non-executive director
Professor Neil Hanley	Pro-Vice-Chancellor and Head of the College of Medicine and Health, UoB
Professor Adam Tickell	Vice-Chancellor and Principal, UoB
Professor Michael Sheppard	Chair, HIWM
Mr Matt Boazman	Chief Executive Officer, BWC
Professor Sir Bruce Keogh	Chair, BWC
Mr Jonathan Brotherton	Chief Executive Officer, UHB
Professor Aleks Subic	Vice-Chancellor and Chief Executive Officer, Aston University
Professor Anthony Hilton	Pro-Vice-Chancellor and Executive Dean of the College of Health and Life Sciences, Aston University
Mr Richard Beeken	Chief Executive Officer, SWB
Sir David Nicholson	Chair, SWB
Ms Jo Williams	Chief Executive Officer, ROH
Mr Tim Pile	Chair, ROH
Ms Roisin Fallon Williams	Chief Executive Officer, BSMH
Mr Philip Gayle	Chair, BSMH

Appendix: Glossary

Abbreviation	Meaning
AI	Artificial intelligence
ATMP	Advanced therapy medicinal product
BCHC	Birmingham Community Healthcare NHS Foundation Trust
BCTU	Birmingham Clinical Trials Unit
BHP	Birmingham Health Partners
BRC	NIHR Birmingham Biomedical Research Centre – delivered in part-nership between UoB, Aston, UHB, BCHC, BWC and SWB, working with the Universities of Oxford and Keele
BSMH / BSMHFT	Birmingham and Solihull Mental Health NHS Foundation Trust
BSol ICS	Birmingham and Solihull Integrated Care Service
BWC	Birmingham Women’s and Children’s NHS Foundation Trust
CARP	Clinical-Academic Research Partnership
CRF	NIHR/Wellcome Trust Clinical Research Facility – delivered in part-nership between UoB, UHB and BWC
CRN	Clinical Research Network
CTIMP	Clinical Trial of an Investigational Medicinal Product
ENT	Ear, nose and throat
FDA	U.S. Food and Drug Administration
HDR UK	Health Data Research UK

Abbreviation	Meaning
GI	Gastrointestinal
HIN-WM / HIWM	Health Innovation West Midlands
ICSs	Integrated care systems
MHMTCC	Mental Health Mission Midlands Translational Centre
mRNA	Messenger ribonucleic acid
MW-ATTC	Midlands-Wales Advanced Therapy Treatment Centre
NCDs	Non-communicable diseases
NIHR	National Institute for Health and Care Research
NMAHPs	Nurses, Midwives and Allied Health Professionals
PPIE	Patient and public involvement and engagement
REDCap	Research Electronic Data Capture
ROH	The Royal Orthopaedic Hospital NHS Foundation Trust
SAS	Specialist, associate specialist, and specialty doctors
SWB	Sandwell and West Birmingham NHS Trust
UHB	University Hospitals Birmingham NHS Foundation Trust
UoB	University of Birmingham
WHO	World Health Organisation
WMSDE	West Midlands Secure Data Environment



birminghamhealthpartners.co.uk

