

EMBRACING CHANGE, PROUD TO CARE – OUR 2025 STRATEGY

UH BRISTOL CORE RESEARCH & INNOVATION STRATEGY 2020-2025

OUR VISION 20 25

Respecting everyone
Embracing change
Recognising success
Working together
Our hospitals.



Research: Our Mission and Vision

Our Mission To undertake world-class translational and applied health services research and innovation in collaboration with our regional partners, that generates significant health gain and improvements in the delivery of our clinical services and increases the participation of patients and staff in research

Our Vision : To improve patient health through our excellence in world-class translational and applied health services research and our culture of innovation

The delivery of our Mission and Vision is underpinned by our values, which provide the principles of how we behave as individual members of staff and as an organisation.

Our Values are

- Respecting everyone
- Embracing change
- Recognising success
- Working together

Background and changing environment

1.1 National context

- 1.1.1 The way applied health services and translational research is funded in NHS trusts and universities in the UK has radically changed over the last twelve years. The previous Government's research strategy, Best Research for Best Health (BRfBH), was launched in January 2006 with the goal of securing and encouraging the pursuit of clinical (defined as near-patient and near-service) research. The strategy explicitly identified health services research and clinical trials as priorities, since they offer the prospect of a more immediate impact on clinical care, and culminated in the establishment of The National Institute for Health Research (NIHR). In essence, BRfBH changed Department of Health funded research from being a supportive funding stream (which covered mainly the NHS costs of hosting externally funded non-commercial activity and provided for some 'own account' research), to a directed and commissioned research programme with an explicit emphasis on research excellence. These commissioned and response-mode research funding streams are coordinated and managed by the NIHR Central Commissioning Facility (CCF) and the NIHR Evaluation, Trials and Studies Coordinating Centre (NETSCC). The NIHR has also managed a series of infrastructure initiatives that include awarding a number of trust and university partnerships with additional funding for Biomedical Research Centres and Units and Collaborations for Leadership in Applied Health

Research and Care (CLAHRCs). The NIHR Trainees Coordinating Centre manages a series of progressive fellowships, aiming to develop research careers and increase research capacity in the NHS.

1.1.2 As part of the changes to the way research funds are distributed by the NIHR, the previous Culyer block grant has ceased and trusts are now funded on the basis of the quality and volume of the research they actually undertake. To facilitate the transparent distribution of funds to underpin clinical research in NHS trusts, and to stop research funds being used to subsidise direct clinical service provision in a trust, the NIHR has established 15 Clinical Research Networks (CRNs) that provide comprehensive coverage of the whole of England, and there are similar systems in the devolved nations.

1.1.3 In parallel, the government's *Innovation, Health and Wealth* report of 2011 issued three challenges to the NHS:

- Improve the implementation of proven good practice and innovation
- Become better at generating research, enrolling patients and putting research into practice
- Work more effectively with industry to benefit patients and the economy

1.1.4 To meet these challenges 15 Academic Health Science Networks (AHSNs) across England were established in 2013, and relicensed in 2018, with the aim of bringing together local NHS, university and industry partners to accelerate the spread of innovative, evidence-based care to improve health and care quality.

1.1.5 Most recently, Sir John Bell published the Life Sciences Industrial Strategy in August 2017 followed by the Government's response in December 2017 entitled "Industrial Strategy: Life Sciences Sector Deal", which aims to: (a) continue to expand the support for the science base, maintaining strength and international competitiveness; (b) produce an environment that encourages companies to start and grow, building on strengths across the UK, including expansion of manufacturing in the sector; (c) facilitate and stimulate NHS and industry collaboration, facilitating better care for patients through better adoption of innovative treatments and technologies; (d) make the best use of data and digital tools to support research and better patient care and (e) ensure that the sector has access to a pool of talented people to support its aims through a strong skills strategy. Innovate UK will deliver the challenge on behalf of UK Research and Innovation, with input from the Office for Life Sciences

1.1.6 All of the above changes in funding have encouraged and facilitated academics and NHS researchers to work closely together in larger multi-disciplinary teams. This integration and the focus on translational and applied health services

research has attracted additional infrastructural and programme grant funding and has also highlighted the need to promote the clinical research skill base in professions other than medicine. A number of recent initiatives reflect efforts by funding bodies to ensure opportunities are provided to prepare both medical and non-medical professionals to undertake and lead research, often in previously under researched and neglected areas of significant NHS activity.

1.2 Local Context

- 3.2.1 The response by the Bristol healthcare research community over the last ten years to the above changes in the national applied health services and biomedical research agenda has been transformational. University Hospitals Bristol (UH Bristol) worked with its partner universities, NHS trusts and City Council in the region to form a novel collaboration called the Bristol Research and Innovation Group for Health (BRIG-H); this has since developed into Bristol Health Partners (BHP) which was formally launched in May 2012. The aims of BHP are to generate significant health gain and improvements in service delivery in and around Bristol by integrating, promoting and developing local strengths in health services, research, innovation and education. The way BHP is delivering these aims is to form Health Integration Teams (HITs). HITs include commissioners, public health and NHS specialists working with world-class applied health scientists and members of the public to develop NHS-relevant research programs and drive service developments to improve health, well-being and healthcare delivery. Patient and public involvement (PPI) are essential to all aspects of HIT structure and function and that the methodologies used must include evaluation. Each HIT is sponsored by one of the partner organisations to ensure commitment to removing barriers and bottlenecks to change. There are currently 20 approved HITs with more in development.
- 3.2.2 The strengths of BHP and its HITs directly led onto the award of the NIHR Collaboration for Leadership in Applied Health Research and Care for the West of England (CLAHRC West) in 2014 that is focused on research targeted at chronic diseases and public health interventions. This was re-awarded as the NIHR Applied Research Collaboration (ARC West) in 2019. CLAHRC West has substantially increased the scale and pace of research into practice and implementation of the novel applied health research findings that the HITs generate. This in turn has strengthened our strategic relationships with a broader group of organisations covering a wider geographical area, providing an implementation and an applied research structure to further our collective aims.
- 3.2.3 The research and implementation themes of BHP and CLAHRC West dovetail with the stated aims and objectives of the West of England AHSN (WEAHSN) and the Bristol, North Somerset and South Gloucester (BNSSG) Sustainability and Transformation Partnership (STP), called Healthier Together, articulating the need for robust research to inform and accelerate the adoption and diffusion of

evidence of best care. All of these organisations/partnerships are committed to active dialogue and reciprocal communication, seeing research and implementation as symbiotic. Research (through, for example, BHP and CLAHRC/ARC West HITs) is needed to establish robust evidence. Evidence will be used by the HITs, WEAHSN and STP, accompanied by evaluation to ensure that service/public health developments and changes bring the desired benefits to public health and patient outcomes - or to inform understandings about barriers and how interventions or methods of implementation can be improved. BHP, CLAHRC/ARC West, WEAHSN and the BNSSG STP are working very closely together to facilitate these developments, and encourage the development of more and broader HITs, host 'Implementation showcases', award implementation internships and fellowships, and initiate other similar events and developments. They have produced a joint strategy for PPI, through People in Health West of England (PHWE), and are jointly supporting capacity building to increase research, evaluation and implementation literacy and skills in the NHS and academic workforce. There will be other joint functions, such as a common approach to showcasing work and engagement with stakeholders; a partnership approach to Health Education South West, workforce and continuing professional development and a joint approach to working with NHS England and strategic clinical and operational networks.

- 3.2.4 The above research and implementation workstreams are facilitated and further strengthened by the NIHR West of England CRN, hosted by UH Bristol. The CRN allocates funds to hospitals and GP surgeries to pay for research nurses, scans, X-rays and other costs associated with delivering clinical research in the NHS. The network also provides a focus for collaborative working involving GPs, mental health practitioners and secondary care clinicians in research and service improvement for people with dementia, neurodegenerative diseases or mental health problems. In addition, the Network helps to increase the opportunities for patients to take part in clinical research, ensures that studies are carried out efficiently, and supports the Government's Strategy for UK Life Sciences by improving the environment for commercial contract clinical research in the NHS. Recent developments enable the CRN to also support research in non-NHS settings (public health and social care research). This allows research to occur across patient care pathways but could also provide opportunities for hospitals to focus on wellness (for example by reducing lifestyle risk factors for patients and staff) as well as illness.
- 3.2.5 Taken together, these and other collaborative and cross-organisational activities have contributed to a very significant increase in the number of successful NIHR infrastructure grants that include the award of the NIHR CLAHRC West in 2014 (followed by NIHR ARC West in 2019), the NIHR Bristol Biomedical Research Centre in 2017, the renewed registration of the two UKCRC-registered Clinical Trials Units – the Bristol Randomised Trials Collaboration (BRTC) and the Clinical Trials and Evaluation Unit (CTEU) – and their recent combination to form a single Bristol Trials Centre (BTC), and the Royal College of Surgeons-funded

Bristol Surgical Trials Centre. These awards and the successful bid to host the West of England CRN have further cemented the role played by UH Bristol as the regional specialist hospital that is recognised for the excellence of its clinical services, the international standing of its research portfolio, the skills and dedication of its staff, and the quality of its teaching and learning.

3.3 Organisation of Research & Innovation

Research & Innovation comprises a core team, with research and delivery staff located within clinical divisions. Alongside these, the Trust hosts the following National Institute for Health Research (NIHR) infrastructures.

NIHR CRN West of England (hosted by UH Bristol) is one of 15 Local CRNs (LCRNs) that, starting on 1 April 2014, have been awarded five-year contracts from the Department of Health, to act as the NIHR Clinical Research Network's (CRN) local branches. This hosting arrangement has now been extended to 2022. CRNs operate across England through a national Coordinating Centre and local branches, and provide funding to hospitals and surgeries to pay for research nurses, scans, x-rays and other costs associated with delivering clinical research in the NHS. The Network helps to increase the opportunities for patients to take part in clinical research, ensures that studies are carried out efficiently, and supports the Government's Strategy for UK Life Sciences by improving the environment for commercial contract clinical research in the NHS. Most recently, the CRN has widened its remit to specifically promote opportunities for research collaborations by working across primary and secondary care and public health and social care. The LCRNs take responsibility for performing the remit of the NIHR CRN at local level and, collectively, distribute £280 million of NIHR/year, to support the delivery of clinical research studies in their area.

NIHR Biomedical Research Centre (hosted by UH Bristol) is a partnership between UH Bristol and the University of Bristol. The BRC conducts innovative translational medical science research to drive through improvements in health and healthcare and encourage closer working with industry. The NIHR Bristol BRC brings together existing research excellence in Cardiovascular Research, Nutrition, Mental Health, Perinatal and Reproductive Health and Surgical Innovation. The Research Themes are underpinned by Cross cutting Themes in Translational Population Science and Biostatistics, Evidence Synthesis and Informatics.

NIHR ARC West (hosted by UH Bristol) builds directly on the strong track record of collaborative working between the Universities, NHS organisations, providers of NHS services, local authorities, local commissioners, the life science industry, other NIHR-funded infrastructure, AHSNs and patients and the public. These groups have collectively formed BHP and its HITs, and CLAHRC/ARC West has substantially increased the scale and pace of research into practice and implementation of the novel applied health

research findings that the HITs generate.

3.4 Our Current Position

- 3.4.1 Consistent with the very substantial increase in the breadth and depth of research undertaken at UH Bristol and across BHP, an extensive portfolio of research projects and trials have already resulted in findings and outcomes that been implemented into routine clinical care that is provided across the City. Examples (see appendix 1 for case histories) span neonatal care through paediatrics and into care for the elderly and encompass the vast majority of the clinical disciplines.
- 3.4.2 Whilst the above successes emphasise the advantages of a strategic approach in the way research and innovation at UH Bristol is undertaken, supported and monitored, we cannot afford to become complacent nor should we stop striving for even greater success and on a larger scale. The calls for NIHR CLAHRC (now re-awarded as Applied Research Centres, ARC) and Biomedical Research Centres, in 2018 and 2021 respectively, require the Trust to further build capacity to allow it to submit optimised bids for these large infrastructure awards and to also bid for an NIHR Clinical Research Facility (CRF) in 2021.

3.5 The Case for Change

- 3.5.1 Of note, the 2018 announcement by the NIHR that they will be reducing Research Capability Funding (RCF, a quality-driven funding stream to trusts allocated annually in proportion to the total amount of NIHR income received by that organisation) by 60% over the next 5-years will inevitably reduce the Trust's ability to pump-prime and support new researchers and nascent research programmes, mitigated in part by other funding streams.
- 3.5.2 An update to the UH Bristol research and innovation strategy is therefore timely and emphasises the importance of continuing to focus on and foster those areas of translational and applied health services research and innovation where we are, or have the potential to be, world-leading (Aim 1). In parallel, we must train, mentor and support research-active staff to deliver high quality translational and applied health services research of direct patient benefit (Aim 2). These activities will continue to develop a culture across UH Bristol in which research and innovation are embedded in routine clinical services leading to improvements in patient care (Aim 3). Lastly, we will work with our regional partners (principally BHP, ARC West, the West of England AHSN, West of England CRN and BNSSG STP) to strategically and operationally align our research and clinical strengths and support the delivery aims of BHP Health Integration Teams (Aim 4). SWOT and PESTLE analyses to support this strategy are attached as appendices.

Engagement Development

This strategy has been informed through a review of the current strategy, which has been in place since 2014. The strategy has been tested through use over the last 10 years, and revision of this updated strategy was carried out in consultation with:

Internal

- Research Leads
- Clinical Chairs
- Divisional Directors
- Trust Research Group

External

- NIHR Biomedical Research Centre
- NIHR Local Clinical Research Network
- NIHR Applied Research Collaboration
- Bristol Health Partners
- Academic Health Science Network
- CCGs
- North Bristol NHS Trust
- Avon and Wiltshire Mental Health Partnership NHS Trust
- University of Bristol
- University of the West of England

The Key Strategic Priorities and Objectives

TRUST PRIORITIES FOR RESEARCH

- We will focus on and foster those areas of translational and applied health services research and innovation where we are, or have the potential to be, world-leading.
- We will train, mentor and support research-active staff to deliver high quality translational and applied health services research of direct patient benefit.
- We will develop a culture in which research and innovation are embedded in routine clinical services leading to improvements in patient care
- We will work with our regional partners to strategically and operationally align our research and clinical strengths and support the delivery aims of BHP Health Integration Teams.

OUR ENABLERS FOR RESEARCH

- Provision of time, resources, equipment and facilities to deliver high quality research.
- Skilled support to develop grant applications, and to navigate regulatory and approval processes for delivery of research
- Effective partnerships to ensure efficient and seamless working
- Consolidation, alignment and prioritisation of research infrastructure and investment across partners
- Divisional understanding of the role of research and innovation in high quality care.
- Patient and public involvement for all clinical studies.
- Identification and support of emerging talent, and provision of academic mentorship.

Research Strategic Initiatives

<p>Focus on and foster those areas of translational and applied health services research and innovation where we are, or have the potential to be, world-leading</p>	<p>Train, mentor and support research-active staff to deliver high quality translational and applied health services research of direct patient benefit.</p>
<ol style="list-style-type: none"> 1. Continue to work with our regional academic partners to build critical mass in world-class translational and applied health services research. 2. Provide protected time for research 3. Provide skilled support for grant applications; navigation of regulatory and approval processes and delivery of studies, including where these span different organisations and sectors. 	<ol style="list-style-type: none"> 1. Provide state-of-the-art clinical research facilities and infrastructure, and enable access to them. 2. Increase participation in NIHR portfolio clinical studies 3. Identify emerging talent and provide academic mentorship. 4. Promote and develop patient/public involvement for all clinical studies
<p>Develop and maintain culture in which research and innovation are embedded in routine clinical services leading to improvements in patient care.</p>	<p>Work with our regional partners to strategically and operationally align our research and clinical strengths and support the delivery aims of BHP Health Integration Teams.</p>
<ol style="list-style-type: none"> 1. Provide Divisions with appropriate financial resources to deliver research and support the implementation of best research evidence for optimal clinical care. 2. Continue to increase Divisional understanding of the role of research and innovation in high quality clinical care. 	<ol style="list-style-type: none"> 1. Continue to generate critical mass by aligning our research infrastructure and investment priorities across the partnerships 2. Maximise external funding for research and innovation 3. Establish agreements with our regional partners to ensure efficient and seamless working, maximising research productivity and income, and removing bottlenecks and delays at project start-up and during delivery of research projects.

OUR ENABLERS

Provision of time, resources, equipment and facilities to deliver high quality research that is relevant to the NHS

Facilities

- Work towards bidding for a NIHR Clinical Research Facility in 2021
- Work with regional partners to develop shared research facilities and infrastructure and scope out the establishment of an early stage trials unit to facilitate translational phase I and IIa proof-of-concept clinical studies and complement the work of the Bristol BRC.

Funding opportunities and awards

- Strategic approach across all partners to identifying and bidding for funding opportunities
- R&I (including finance) core infrastructure to support funding bids and management of awards
- Conduct joint horizon scanning for funding opportunities and disseminate resulting information across our regional partners.
- Ensure large strategic grant applications involving our regional partners are assessed and modelled for impact on Trust RCF and HEI QR funding.
- Implement internal funding calls available to all Trust staff, for small grants and dedicated research time using Research Capability Funding and other available funds (e.g. local charities) in order to generate the evidence for new research proposals.

Commercial opportunities

- Ensure commercial partnerships are proactively identified, encouraged and flagged to appropriate research active staff. Market UH Bristol staff and facilities to commercial partners.
- Ensure commercial studies that are undertaken fit the research priorities and strengths within UH Bristol and contribute funds to increase capacity for further research.
- Increase the revenue from commercialisation and innovation by better and more effective collaborative working with our regional partners.
- Ensure transparent revenue allocation of income from commercial studies and intellectual property exploitation.

Research infrastructure

- Identify ways of maximally protecting existing research infrastructure from reducing budgets by identifying new funding streams and reviewing staffing structures
- Support divisional staff to make the case for research and associated infrastructure
- Identify suitable studies and oversee the NIHR portfolio to ensure resources are appropriately deployed to support research so we can increase participation in NIHR portfolio clinical studies
- Ensure divisions are aware of the research funding within their hospitals and that it is

managed effectively to deliver research through divisional research structures and with matrix management from the core R&I team

- Undertake a transparent annual review of all research and researchers at UH Bristol to comprehensively identify areas of current research activity and infrastructure and ensure funds are optimally placed to maximise delivery of research
- Develop trust-wide structures for the optimal delivery of clinical studies. This will include: divisional research units and a trained and appropriately managed research workforce.
- Make explicit and transparent the allocation of research funding to each Division, based on activity and strategic priorities.
- Ensure R&I works with Divisions to ensure appropriate spend of research monies.

Time

- Where possible, fund research time within job plans (through RCF whilst it allows), and ensure we support divisions to recognise research in job plans (through CRN delivery funds)
- Ensure that recruitment of patients into appropriate NIHR portfolio studies forms part of the core job descriptions for all research active staff.
- Provide research training appropriate to the level of research activity.

Support

- Work with regional partners to ensure sufficient methodological input to developing, submitting, running and disseminating clinical research.

Finance

- Develop best practice in costing all elements of research, including treatment costs and excess-treatment costs.
- Work with Divisions and Commissioners to identify excess treatment costs associated with research and how these can be met.

Implementation

- Ensure robust research generated by HITs and regional and national partners informs and accelerates the implementation, adoption and diffusion of evidence of best care.
- Actively work with our regional partners to foster the embedding, implementation and evaluation of research and research evidence into clinical care across the region.
- Ensure alignment with the Trust Innovation and Improvement Framework and QI approaches.

Skilled support to develop grant applications, and to navigate regulatory and approval processes for delivery of research

- Provide skilled support to assist researchers to:
 - Identify all resources required to deliver research. For example: all direct research costs, support costs, excess treatment costs, appropriate access to support departments, staff, and sites.
 - Help secure all necessary research approvals and ensure compliance with

relevant regulations and statutory instruments.

- Provide appropriate facilitation and performance management of individuals who receive pump priming and small grant funds.
- Ensure a culture of sharing information and intelligence (e.g. master-classes, workshops, one-to-one mentoring and grant reviews) between applicants and previously successful researchers
- Provide access to complex methodological support for writing grant applications and research protocols e.g. Research Design Service and methodologists in the CLAHRC/ARC and the various trials units.
- Ensure robust governance of research: audit compliance with all patient safety aspects of research; monitor trial conduct and ensure compliance with all regulatory/statutory requirements.

Effective partnerships to ensure efficient and seamless working

- Support the work of the STP through HITs and other work streams as appropriate
- Maximise research productivity and income and remove bottlenecks and delays at project start-up. / Ensure where appropriate that research governance is seamlessly delivered across the partnership in an integrated and efficient manner.
- Core R&I function working closely with partners to reduce delays and standardise working where possible.
- Work with regional partners to ensure sufficient methodological input to developing, submitting, running and disseminating clinical research.
- Provide all staff with knowledge and information about the advantages of collaborative working with our regional partners to maximise our research and clinical service strengths.
- Work with all the organisations that collaborate under BHP to ensure transparency in financial costings.
- Put in place over-arching contract and sub-contract framework agreements.
- Provide agreed mechanisms for efficient intellectual property management and exploitation.

Consolidation, alignment and prioritisation of research infrastructure and investment across partners

- Support the BRC and the CLAHRC/ARC to deliver its objectives
- Encourage the work of BHP HITs and alignment with the STP and AHSN workstreams.
- Close partnership working under memorandum of understanding with UoB, UWE and NBT to support senior leadership of all organisations working together and joint posts/funding where appropriate
- Align our research themes with the priority areas of our regional academic partners
- Ensure each priority research area at UH Bristol has a coherent strategy to deliver world-class translational and applied health services research.
- Ensure all pump-priming research funds allocated by the Trust are in priority research areas, with a focus on: (a) applied health services research projects that directly lead onto NIHR grant applications, and (b) translational research projects that are directly

related to the work undertaken by the Bristol NIHR Biomedical Centre (BRC)

- Align research with clinical services prioritisation and ensure these activities complement and inform each other and are appropriately evaluated.
- Work with regional partners to develop shared research facilities and infrastructure.
- Ensure robust research generated by HITs and regional and national partners informs and accelerates the implementation, adoption and diffusion of evidence of best care.
- Actively work with our regional partners to foster the embedding, implementation and evaluation of research and research evidence into clinical care across the region.
- Attract the very best clinicians and researchers across all health professional groups, maximising the dissemination of knowledge among staff and students, leading to better clinical delivery and health outcomes.

Divisional understanding of the role of research and innovation in high quality care

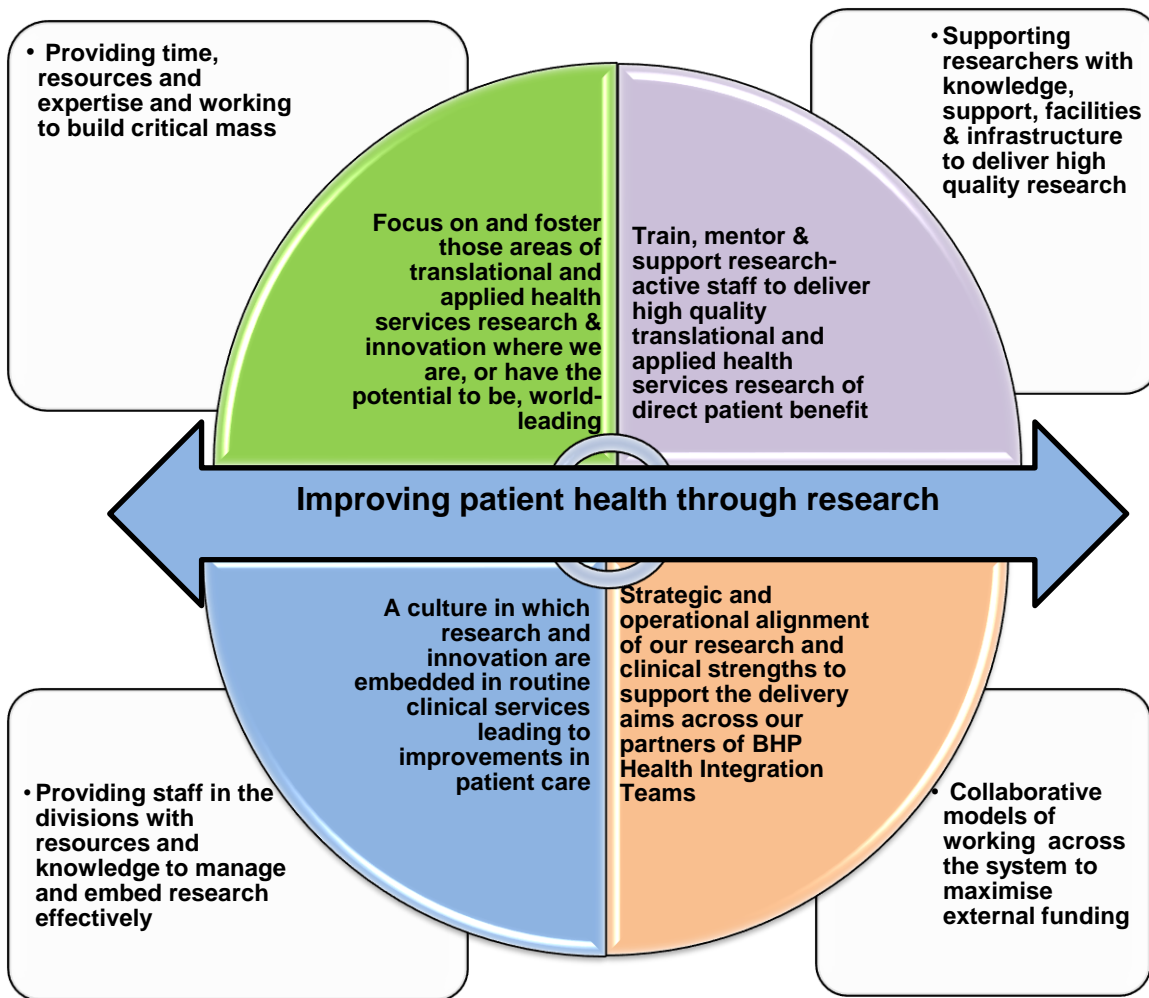
- Support close integration of research into daily business of the trust: research teams working alongside clinical teams; rotational posts where appropriate.
- Identify and widely publicise the impacts of translational and applied health services research at UH Bristol on patient care.
- Support Divisions to allocate dedicated research time to individuals who are consistently performing research at a high level and/or provide pump-priming support to those staff who have the potential to achieve that level of activity.
- Where appropriate, ensure research facilities and units are embedded in clinical divisions/departments thus ensuring maximal integration of research with clinical services.
- Divisions to provide protected research time and/or funding for research nurses, clinical trial coordinators and administrators where appropriate, to maximise patient recruitment
- Promote membership of divisional research leads on Divisional boards and Trust Research Group and their function as conduits to ensure regular two-way information flow.
- Ensure regular and accurate reporting of all Divisional research activity.
- Develop and regularly update Divisional KPIs to allow for appropriate performance management of research
- Identify appropriate Divisional reporting structures for research.
- Ensure Divisional research units provide a physical base for research staff and a clinical space to conduct studies.
- Promote sharing of best practice between divisional research units
- Facilitate early engagement with all clinical and non-clinical staff to promote research embedment into clinical practice
- Advocate rotational appointments of research and clinical team members, where appropriate
- Increase patient recruitment to appropriate NIHR portfolio studies.
- Identify and protect intellectual property arising from research within the Divisions, where appropriate, managing it with external partners as required.
- Ensure any commercial income appropriately accrues to the researcher, Division and the Trust.

Patient and public involvement for all clinical studies.

- Tap into expertise across Bristol and the region to deliver the PPI agenda across our NIHR infrastructure (BRC, CLAHRC/ARC) as well as working with the trust's PPI team.
- Ensure that the trust-approved PPI strategy dovetails and integrates with the PPI strategies and activities of our regional partners.
- Work with our regional partners to maximise available resources to support research PPI through existing Trust and regional partner information systems.
- Coordinate access to existing support across the region for researchers and monitor use and usefulness of these.
- Work with existing PPI leads (Trust and regional partners) to develop sustainable support infrastructure for PPI – cost reimbursement, training, access.
- Ensure researchers engage PPI at earliest stages of research study development through education and monitoring.

Identification and support of emerging talent, and provision of academic mentorship.

- Where possible, fund research time within job plans (through RCF whilst it allows)
- Work with NHS and university colleagues to identify and encourage new staff to develop and deliver research through the Grants Manager and NIHR Research Design Service.
- Ensure that nursing/AHP researchers are identified and supported alongside medical staff, as appropriate.
- Increase the numbers of new Trust appointments with dedicated research time.
- Work with HEIs to support talented individuals to apply for personal research awards/fellowships and mentor potentially research-active staff via local and/or national support systems
- Provide funds and work with regional partners to encourage and support research training.
- Ensure funds for pump-priming funds to facilitate engagement, generate preliminary data and to allocate dedicated research time.
- Increase the visibility of underrepresented professions such as AHPs and nursing by strengthening their research capacity and capability.
- Make use of best practice and national examples of success



How the strategy will be delivered

Once this strategy has been approved by Trust Board then an implementation plan which will include actions against individuals/teams and time-lines for delivery, will be developed by R&I and approved by Trust Research Group.

How we will assure ourselves of the effectiveness and success of this strategy

This strategy and its associated workplan will be monitored through Trust Research Group, a subgroup of the Senior Leadership Team.

Appendix 1: Impact of Research on Clinical practice - Case Histories

Why do we do research in the NHS?

Research helps the NHS and UH Bristol to meet their primary objective, to improve patient care. The research we undertake helps to answer important questions about which methods of diagnosis and treatments have the most beneficial outcomes for patients, in terms of curing, controlling or preventing disease. Patient involvement in clinical research is vital, and public involvement is much needed and greatly appreciated. New and better treatments for many diseases would not have been possible without research, and the participation of patients and their families. Research is the only way we can continue to improve prevention and treatment of diseases and patient care.

Examples of how research has made a difference are on our website:

<http://www.uhbristol.nhs.uk/research-innovation/our-research/impact-of-research/>

Appendix 2 – R&I Strategy PESTLE analysis

Political/Policy Drivers	Economic
<ul style="list-style-type: none"> • Best Research for Best Health (2006, previous Government Health Research Strategy) • NHS Operating Framework – commitment to double the number of patients recruited into trials within five years • Patient choice, competition and plurality • Care closer to home, less reliance on hospital based care • Expectation that outcomes improve and become amongst the best in Europe • NHS long term plan and its priority areas 	<ul style="list-style-type: none"> • Global economic downturn and period of significant UK austerity • Uncertainty of funding models for delivery of trials • Change from activity based model to proportion of fixed funding model for research activity • Change from block allocation of research support funding to competitive grant funding and activity/quality driven allocations for NHS support costs • Reduced RCF allocation from DHSC reduces funding and capacity to support and pump-prime research. Reduced funding to NHS and other public sector bodies with whom we work closely (particularly the Higher Education Sector) • NHS Tariff uncertainty and historic volatility impact on treatment costs for research • Uncertainty over impact of Brexit on commercial opportunities and investment in the UK
Social	Technological
<ul style="list-style-type: none"> • Growing patient expectation of both the quality and experience of care and expectations of participation in research • Developing litigation culture • A more health literate public driving both demands and concerns about healthcare and research • Ageing population and consequent demands upon healthcare providers • Significantly changing local demographic notably in context of ethnicity profile 	<ul style="list-style-type: none"> • Advancements in technology leading to new practice and improved life expectancy • Pharmaceutical progress and reliance upon NHS for adoption and spread • IM&T System development and requirements • Linkage of data from a variety of routine sources (e.g. HES, primary care, etc).
Legal	Environmental
<ul style="list-style-type: none"> • Legal framework for regulation of clinical trials of investigational medicinal products – creates a large burden and slows the productivity of research. Uncertainty in relation to Brexit. • Very significant increase in litigation claims across NHS • Applying for use of anonymised, linked routine datasets • GDPR regulation may slow or negatively impact on the delivery of research 	<ul style="list-style-type: none"> • Areas of inadequate estate and links to disability access / privacy & dignity • Restricted access to parking • Requirement and aspiration to reduce carbon footprint of estate and services • Merger with WAHT provides new opportunities for joint research

Appendix 3: R&I SWOT Analysis

Strengths	Weaknesses
<ul style="list-style-type: none"> • Active and increasing close collaborative working with our regional partners to continue to build research excellence in the following areas: <ul style="list-style-type: none"> ▪ Population health ▪ Cardiovascular biology and cardiac surgery ▪ Surgical Innovation ▪ Nutrition and metabolism ▪ Health of children and young people ▪ Ophthalmology ▪ Oncology • Talented and committed research workforce including R&I and productive research units embedded in Divisions • Position as the leading research-intensive teaching hospital Trust in the South West • One of the most successful and productive regional research-intensive teaching hospital Trusts outside the “golden triangle” • Improving focus and achievement on all priority research performance measures • Host to large infrastructure awards and partnerships e.g. CLAHRC/ARC, BRC, BHP and CRN 	<ul style="list-style-type: none"> • Under-exploited research potential in some areas of clinical services e.g. diabetes, respiratory and dermatology • Lack of academic investment in some clinical services, resulting in less resilient model for research staffing • Still some lack of transparency in the detailed costs of our research • Along with most Trusts in England, no clear “pathway to impact” at the end of research grants • Lack of capacity and risk averseness limits opportunities to do things differently (eg IT) • External partners (pharma) confused about services/identity because of close geography with NBT
Opportunities	Threats
<ul style="list-style-type: none"> • Bid for NIHR CRF in 2021 • Further align our research strengths with our regional partners, generating a significant increase in research funding to the Trust and our reputation locally, nationally and internationally • Work as a system across existing organisational boundaries to undertake research that will be embedded locally through the BHP, ARC and the STP • Align research prioritisation with the clinical service rationalisation and ensure these activities complement and inform each other, leading to improved patient care and outcomes • Greater use of routine data (e.g. patient data linkage especially from primary care and local authorities) for research • Aim to increase research grant funding into the Trust based on our growing research infrastructure • Improve the timeframes and more accurate costings for setting up research studies during grant development 	<ul style="list-style-type: none"> • Financial constraints in research funding (reductions in CRN and RCF allocations) leading to reduced activity and income, with associated loss of research active staff, research support staff and consequent impact on clinical performance • Continuation of the current duplication in some clinical services across Bristol leading to a lack of critical mass in research and researchers • Insufficient release of clinical time to allow our research active staff to maximise their research potential and thus the income to the Trust • Increase in number and proportion of complex and high intensity trials with much longer time for follow-up in tertiary care with no associated increase in research support income • Transfer of clinical services in and out of the Trust requires agile allocation of research resources to meet the changing opportunities • Increased demand for methodological input into research, leading to mismatch between supply and demand

Appendix 4: Glossary

- 1.1 **West of England Academic Health Sciences Network (WEAHSN)** is a network of providers of NHS care across the West of England working with universities, industry, NHS Commissioners and a wide range of partners (<http://www.weahsn.org.uk/>). The vision of the WEAHSN is to be a vibrant and diverse network of partners committed to equality and excellence. The WEAHSN will accelerate the spread of innovative, evidence-based practice to improve health and care quality. This will deliver economic benefits through increased regional investment, job creation, effective procurement and health improvement. Its strategic goals are to: (a) deliver measurable gains in health and well-being across the West of England, (b) make a meaningful contribution to the West of England and UK economies, and (c) build a learning and delivery Network to accelerate the adoption and spread of innovation and improvement.
- 1.2 **Bristol Health Partners (BHP)** is an innovative partnership (hosted by UH Bristol) launched in May 2012 (<http://www.bristolhealthpartners.org.uk/>) comprising UH Bristol, NBT, AWP and the combined BNSSG CCG, working in partnership with the Universities of Bristol and West of England and Bristol City Council, which now includes the remit of Public Health. The BHP partner organisations are currently working to maximise their joint research potential through its shared research strategy, joint enabling infrastructure and common goals and aspirations for translational and applied health services research. The aims of BHP are “to generate significant health gain and improvements in service delivery in Bristol by integrating, promoting and developing Bristol's strengths in health services, research, innovation and education”. The way BHP is delivering these aims is to form Health Integration Teams (HITs). HITs include commissioners, public health and NHS specialists working with world-class applied health scientists. With members of the public, HITs decide which aspects of health and healthcare need to be improved, and then carry out the research to show the changes that could make most difference to people’s health and well-being.
- 1.3 **NIHR Biomedical Research Centre** (hosted by UH Bristol) is a partnership between UH Bristol and the University of Bristol. The BRC conducts innovative translational medical science research to drive through improvements in health and healthcare and encourage closer working with industry. The NIHR Bristol BRC brings together existing research excellence in Cardiovascular Research, Nutrition, Mental Health, Perinatal and Reproductive Health and Surgical Innovation. The Research Themes are underpinned by Cross cutting Themes in Translational Population Science and Biostatistics, Evidence Synthesis and Informatics.
- 1.4 **NIHR CLAHRC/ARC West** (hosted by UH Bristol) builds directly on the strong track record of collaborative working between the Universities, NHS organisations, providers of NHS services, local authorities, local commissioners, the life science industry, other NIHR- funded infrastructure, AHSNs and patients and the public. These groups have collectively formed BHP and its HITs, and CLAHRC West has substantially increased the scale and pace of research into practice and implementation of the novel applied health research findings that the HITs generate.
- 1.5 **NIHR CRN West of England** (hosted by UH Bristol) is one of 15 Local CRNs (LCRNs) that, starting on 1 April 2014, have been awarded five-year contracts from the Department of Health, to act as the NIHR Clinical Research Network’s (CRN) local branches. This hosting arrangement has now been extended to 2022. CRNs operate across England through a national Coordinating Centre and local branches, and provide funding to hospitals and surgeries to pay for research nurses, scans, x-rays and other costs associated with delivering clinical research in the NHS. The Network helps to increase the opportunities for

patients to take part in clinical research, ensures that studies are carried out efficiently, and supports the Government's Strategy for UK Life Sciences by improving the environment for commercial contract clinical research in the NHS. Most recently, the CRN has widened its remit to specifically promote opportunities for research collaborations by working across primary and secondary care and public health and social care. The LCRNs take responsibility for performing the remit of the NIHR CRN at local level and, collectively, distribute £280 million of NIHR/year, to support the delivery of clinical research studies in their area.

- 1.6 **Healthier Together** is the BNSSG STP, comprising 13 local organisations which have come together to form a vision and deliver the strategic change required for health and care services. The vision for health and social care in the region is to: (a) Create 6 community based localities who will deliver an integrated model of care to keep people well at home and connected to their communities; (b) Networked general hospital care – delivering standardised outcomes across all three acute trusts, reducing variation in clinical care and improving value and (c) Maintaining and growing specialist care, associated research and innovation. The STP is developing ten programmes of work which will contribute towards the delivery of these aims: Integrated Community Localities; General Practice Resilience and Transformation; Acute Care Collaboration; Maternity; Prevention; Urgent Care; Mental Health Strategy; Workforce; Digital and Healthy Weston.
- 1.7 **Innovation** relates to “The adoption of new-to-the-organisation or new-to-the-NHS technology products and/or service delivery processes, comprising step- or incremental-change, and resulting in a significant improvement in patient outcomes, experiences, safety and potentially cost-effectiveness”. An implication of this definition is that the benefits of the introduction of the technology/service delivery processes are proven (National Innovation Centre 2008). Innovation also includes alignment with the trust Innovation and Improvement Framework and QI approach.
- 1.8 **Regional Partners** includes but is not limited to the member organisations of BHP, CLAHRC West, West of England AHSN, West of England CRN and BNSSG STP.
- 1.9 **RCF** is a quality-driven funding stream allocated annually by the NIHR to all research-active NHS trusts that allows for local discretion and management of people to support and develop patient and people driven research. It is allocated in proportion to the total amount of other NIHR income received by that organisation, and on the number of NIHR Senior Investigators associated with the organisation.
http://www.nihr.ac.uk/infrastructure/Pages/research_capability_funding.aspx.
- 1.10 **Translational and Applied Health Services Research** leads to benefits in the care provided for patients and encompasses a range of activities that include research going: (a) from bench to bedside, where theories emerging from pre-clinical experimentation are tested on patients – first in small-scale studies and then through formal research evaluations in large numbers of patients, covering acceptability, clinical effectiveness and cost-effectiveness, and (b) from clinical efficacy to health improvements, whereby a better understanding and then evaluation of health services results in an improvement in outcomes.

Trust Research Staff or “Researchers” are used throughout this document to encompass all clinical researchers and includes the following professional groups: Medical, Nursing, Midwifery, AHPs, Clinical Scientists and Pharmacists.