Birmingham Community Healthcare **NHS**

NHS Foundation Trust

Research and Innovation Strategy for BCHC 2019 - 2022

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Better Care: Healthier Communities

Research & Innovation

Birmingham Community Healthcare **NHS**
NHS Foundation Trust

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Summary	Research Strategy for BCHC 2019 – 2022 The 5 strategic aims are to : 1. Prepare research and innovation leaders and improve knowledge transfer 2. Prepare for the future by priority-setting 3. Make BCHC fit for purpose to attract and retain high quality research and industrial collaborations 4. Make BCHC a credible collaborator and competitor in national funding 5. Develop a secure operational infrastructure for research and innovation

Commencement of Consultation **Date** 16/4/2019
Consultation History:
The following Committees, groups or individuals have been consulted in the development of this version of this policy:

Name:	Date:
Keele University - Impact Accelerator Unit (Critically Appraised Topics)	16/4/19
Meetings with governor and researchers	1/5/19
Non-executive directors	7/5/19
Academic Partners Aston University	10/5/19
Divisional Research Leads, Patient Research Ambassador and Governor	15/5/19
Academic Partners University of Birmingham and volunteers	15/5/19
Clinical Research Network West Midlands	24/5/19
Clinical Council	24/5/19

Previous Version History

Version No.	Lead	Date Change Implemented	Reason for Change
BCHC Research Strategy 2010-2015	Dr Clive Thursfield	4/1/2016	Update
Research and Innovation Strategy for BCHC 2016 - 2018	Dr Clive Thursfield	7/10/2019	Alignment with renewed Trust values, vision and strategy, as well as the Fit for 2022 Improvement Programme

Contents

1. Introduction

This is the Research and Innovation Strategy for Birmingham Community Healthcare NHS Foundation Trust (BCHC). The primary goal is the improved healthcare of our patients. It aligns to the *Trust's Vision, Values and Strategy* [1] and the *Fit for 2022 Improvement Programme*[2]. It also builds on the previous Research and Innovation Strategy and reflects the government directives for Community Trusts as described in the [NHS Long Term Plan](#) [3]. The digital elements of the innovation strategy that already sit within the Digital Strategy[4] will be achieved in collaboration with the Digital service and will not be repeated in this document. All other innovation plans are described within this document.

2. Purpose

The purpose of this document is to:

i) Describe our research and innovation strategy and seek active personnel or financial support where required.

ii) Demonstrate how the research and innovation strategy aligns to the Trusts Vision, Values and Strategy and.

iii) Outline and justify the essential steps required to gain Trust-wide support for this ambitious strategy to be achieved.

3. Scope

This strategy will require whole organisation engagement plus external collaboration. It has undergone consultation across corporate services, divisional groups and a selection of external stakeholders.

In 2019/20 the Research and Innovation team was placed as a risk on the Board Assurance Framework BAF19/15:

> *If we fail to implement a clear strategic direction for research and innovation due to lack of commitment and/or resources, we will lose and/or fail to attract research activity and income and the ability to contribute to evidence based care* (12).

This strategy is intended to address these issues.

4.   National Context

The National Institute for Health Research (NIHR) is the nation's largest funder of health and care research. It is a multi-faceted organisation funded through the Department of Health and Social Care to improve the health and wealth of the nation through research. The NIHR Clinical Research Network (CRN) is the research delivery arm of the National Health Service (NHS).   When comparing research performance nationally over the last 3 years from 2016 – 19, BCHC is the highest performing Community Trust.

It has been well documented that the time lag in translational research can take up to 17 years from concept to implementation [6]. Ideas such as test beds, accelerator programmes and other enterprises have been introduced to hasten the process of research and innovation and BCHC fully intends to engage in these initiatives where appropriate.

The recent formation of the new NHSX [7] as lead organisation for digital health and social care transformation and the vision set out in the newly published Topol Review [8] on readiness of the workforce to deliver the digital future, all signal the ambitions for NHS-wide digital innovation and transformation, mandating all provider organisations of healthcare to take steps towards digitisation and being open to innovative healthcare.

The recently published *Long Term Plan* [3] identifies specific goals for Community Trusts and recognises that they are a largely an untapped resource well suited to engage with these directives. Against the backdrop described above, although challenging, the time is ideal for BCHC to maximise its research and innovation activity and strive to reap the healthcare benefits.

5.   Justification for Research and Innovation

Over the past few years BCHC has grown and developed its research function. It is now at an important place where an intentional Trust wide decision is essential to fully embrace research along with the evidence based quality improvements that will improve care for patients within BCHC.

Established research studies (i.e. studies external to BCHC where we adhere to the protocol and recruit on the study team's behalf) are the main source of participant recruitment. While this activity is good and should be encouraged to continue, it does not:
- Recognise that many studies are not suitable for the community setting
- Generate home grown researchers
- Provide the skills for designing relevant bespoke research

To combat these issues BCHC needs a significant change in approach to research. This new approach will engage patients, carers, public members, corporate and healthcare staff and external stakeholders. The strategy set out within this document intends to:

1. Prepare research and innovation leaders and improve knowledge transfer
2. Prepare for the future by priority-setting
3. Make BCHC fit for purpose to attract and retain high quality research and industrial collaborations
4. Make BCHC a credible collaborator and competitor in national funding
5. Develop a secure operational infrastructure for research and innovation

6. How the Research and Innovation Strategy aligns to the Trust's Vision, Values and Strategy.

BCHC Vision - "**Best Care: Healthy Communities**" is mirrored perfectly by the Research and Innovation Strategy. The NHS has a duty to provide the best healthcare possible to its patients and current literature confirms that Research and Innovation plays a large part in achieving that goal within a community context.

BCHC Values – have been co-created with colleagues across the Trust to guide actions and underpin behaviours. These values will be reflected by R&I practices.

BCHC Strategy – This refers to our diverse population, the two local Sustainability and Transformation Partnership's (STP's), the changing and developing infrastructure of Birmingham and the NHS Long Term Plan. This Research and Innovation strategy aligns to the Trust strategy and focuses on the developments required to make BCHC research and innovation fit for 2022. It also provides a robust, structured, research and innovation responsive platform to drive aspirations for growth.

7.   Alignment of Research to the Trust's Objectives

Safe, High Quality Care	All research and innovation activities will align to this objective. Current literature indicates that research-active Trusts have better healthcare outcomes improving safety and quality [5] The Care Quality Commission (CQC) plans to introduce research indicators to observe how well led and integrated research is within the NHS. This initiative is welcomed by the Research and Innovation team. In addition, on the journey of innovative digital transformation, one of the main 5 missions declared by NHSX is improving patient safety across the NHS and this will remain a focal point at the heart of all innovative endeavours.
A Great Place to Work	Organisations that are innovative and forward thinking create a more positive work environment and attract good staff [5] Research can positively enhance staff retention. When staff feel valued they are inspired to pursue healthcare challenges and contribute to solutions. Training opportunities offered to staff plus the opportunity to engage in research and innovation forums support this objective.
Integrated Care in Communities	Providing evidenced based analysis of integrated care remains a challenge to the NHS as a whole. Community Trusts are best suited to tackle this problem in collaboration with academic partners. The solution will involve cross-divisional, cross-organisational collaboration and co-creation in new areas. In addition, use of innovative technologies can enable true integration and collaboration in the delivery of health and social care in the region.
Making Good Use of Resources	Once established, research and innovation can bring in funding that will cover staff salaries, allow backfill and training. In addition, treatment of patients on clinical trials is associated with considerable cost savings and it is estimated that each NHS Trust received £6,658 in revenue from life science companies for each patient recruited into commercial research[6] Research and innovation has the potential to assist with streamlining resources of staff/equipment/process by evidence-based improvements or cost savings.

8.　　　Research Objectives
This section describes the five objectives of the BCHC research strategy.

Objective 1 Create Research & Innovation Leaders & Improve Knowledge Transfer.

This objective is focused on the training and skills required for research, protected time for staff and the unique development of research pathways. Implementation must also be in collaboration with academic partners.

BCHC Strategic Objectives Alignment	What we want to do (our intentions)	How we will do it (our agreed principles)	How we will deliver (our actions)	Dates	What will help us to deliver (our enablers)	What success will look like (our measures of success)
1a	Work with the Education, Training and Research Committee to introduce research and innovation training opportunities to BCHC	• Adapting to a changing environment • Making good decisions in a timely manner	Use the virtual campus as a platform for promoting research training	2019 onwards	Virtual Campus and support from Learning Development Education Training Committee IT/teleconference facilities Academic Health Science Network	• Establish a baseline number of clinical staff with MSc/PhD training (perhaps on ESR). • >30 staff undergoing research and innovation training
1b	Develop a process to review audit and service evaluations to identify new research ideas	Collaborative working approach	Use the divisional audit leads and research leads to review Audit/SE	2019 onwards	Support from Clinical Governance and audit leads	1 study developed from audit/SE route/year.
1c	Establish research pathways for Clinical & non-clinical academics and other researchers	Adapting to a changing environment	• Pathway planning • Trust-wide consultation • Develop clear list of benefits for establishing researchers • Develop Clinical	By 2022	Evidence of Trust board and senior management support for the clinical academic pathway concept.	30-50 staff requesting research training as initial indicator.

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			Research Practitioners			
1d	Establish academic collaborations to support training/mentoring.	Academic collaboration	• Continue to develop collaborations with academics, SME's & the 3rd sector and nurture the on-going ones. • Use virtual campus to promote training opportunities	By 2022	Academic and industry partnerships IT/teleconference facilities	2 academic collaborations with evidence of training support
1e	Expand the network of BCHC Research Leads to encompass all clinical and non-clinical areas.	Adapting to a changing environment	Without additional resource this will be phased over a few years	Start in 2020	Backfill 1 day/week/ division In first instance IT/teleconference facilities	Number of research leads within the Trust 1 Research lead by Mar 2020 2+Research leads or deputies by Mar 2022
1f	Establish "innovation champion" roles in services	Ownership of innovative and transformative initiatives at service level for successful deployment	Work with Digital Transformation Service (DTS) to identify innovation champions in services	Start in 2020	Partnership with DTS	Number of Innovation Champions within the Trust 1 Innovation Champion by Mar 2021

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						2 Innovation Champions by Mar 2021
1g	Introduce a multidisciplinary, trust wide research forum	Adapting to a changing environment	Identify research leads / researchers and innovators to support/run the forums	Start in 2020	• Learning Development team and Quality Improvement team support • IT/teleconference facilities	Vibrant meetings generating discussion Ebrief link to updates
1h	Introduce a trust-wide Research and Innovation Steering Committee	Adapting to a changing environment	Identify research leads / researchers and innovators to support/run the forums	Start in 2019	• Learning Development team and Quality Improvement team support • IT/teleconference facilities • Input from AHSN • Utilising the model deployed at Birmingham & Solihull Mental Health Trust	Active forum instigating Trust-wide culture change Minutes of reports
1i	Introduce a continuous improvement process such as the Critically Appraised Topics (Keele University) into one or more services.	Adoption of accelerated learning for clinicians to think critically.	Select a division to trial this concept with agreed support from Keele University	Start 2019/20	Academic Partnerships IT/teleconference facilities	1 service using critically appraised topics effectively and generating outcomes Measure no of CATS

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1j	Introduce an R&I Conference	Adapting to a changing environment	Discuss style and content of conference with research leads and innovation champions	Start in 2020	Work with Learning Development and Quality Improvement teams	Annual conference starting from 2020/21 Minutes of R&I reports
1k	Arrange honorary contracts for academic partners with a view to developing academic leadership roles at BCHC.	Academic collaboration	Identify appropriate academic staff and draw up contracts to outline required activity.	2019 onwards	Work with HR to develop an agile process	Evidence of 2 academic partnerships Number of Honorary Contracts

Objective 2. Prepare for the future by supporting BCHC Research and Innovation Priority-Setting

This Objective is aspirational against the NHS Long Term Plan and significantly engages staff, patients and carers using James Lind Alliance principles.

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2a	Develop a process and platform to explore the research and innovation opportunities outlined in the long term plan for Community Trusts. *Examples from Long Term Plan.* 1. *Increase in regional Public Health studies* 2. *More shared responsibility for long term conditions* 3. *More digital devices in the home* 4. *Increase in children's studies* 5. *Tangible patient benefit* 6. *An aim for more recruits into studies* 7. *Improved economy - more staff employed through research* 8. *A greater assessment of clinically effective interventions*	• Collaborating with staff and stakeholders • Making good decisions in a timely manner • Using Trust platforms to communicate progress to all • Adapting to a changing environment	▪ Use James Lind Alliance principles to establish clear criteria for priorities with divisions, corporate staff and the public. ▪ Use forums like the Clinical Council/LiA/ Digital Technology Steering Group and R&I Steering Group to identify and prioritise ▪ Create working groups with relevant staff, academic partners and additional stakeholders to scope and refine research and innovation ideas based on the priorities and the needs of services for technological	Complete 2021	Ability to run SMART meetings using IT and teleconference facilities for all meetings. Engagement with staff and external Partners e.g. Academic, Other Trusts, Social Care, Public Health and SME's Close liaison with DTS	At least 2 working groups in progress with significant public input scoping new research and innovation ideas. Healthcare priorities identified 1 pilot programme complete and published. Work on-going for the research application.

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	9. *Population health management*		transformations. ▪ Develop research or innovation bids in collaboration for multi-centred research in new areas or innovative digital deployments in various areas of community care			

Objective 3. Make BCHC fit for purpose to sustain and attract high quality research and to deploy the appropriate innovations

This objective introduces the concept of an evidence based quality improvement process anchored in methodologies and tools from improvement science. This would be introduced one project at a time and is referred to as Research and Innovation Quality Improvement (RIQI) and would span across Research and Innovation.

The phrase 'research responsive' in this aim describes a division or service where staff and line managers understand the research procedure and can assess their capability and capacity to engage in the process.

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3a	Introduce the new Research and Innovation Quality Improvement (RIQI) initiative to BCHC	Work with divisions and senior managers through open consultation to clearly outline the RIQI offering of R&I	Offer to do market surveys for required technologies and produce technology comparison reports for services	2020-21 Consult-ation	Staff encouraged to engage with discussions

Support from AHSN and Midtech and Medilink | Successful collaboration between R&I and other Trust division or team.

One or two examples of R&I support provided. |
| 3b | Activate a culture change towards research and innovation and ensure it becomes embedded at all levels | Collaboration with services

Adapting to a changing environment | A visible R&I team, Improved & exciting communication

Use of all media tools

Training & transfer of knowledge | 2019 onwards | Promotion from Executive Team 'top down' influence

IT/teleconference facilities & meeting room availability | • Number of workshops conducted
• Number of Trust-wide communications
• Measure the increase in research and innovation activity |
| 3c | Support the Trust to become 'Research Responsive' and 'innovative' and | Collaboration with services | Activities to embed a research culture

Training & transfer of | 2019 onwards | Promotion from Executive Team 'top down' influence | Number of workshops conducted |

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	understand the importance in providing evidence-based research		knowledge		IT/teleconference facilities & meeting room availability	Measure the increase in research activity
3d	Work more closely with services that support research and innovation e.g. Library, HR, IG to improve agility and efficiency.	Understand the demand and capacity of services	Discussions and research training to identify what support is required and how knowledge transfer can be improved.	2019 onwards	Capacity of staff IT/teleconference facilities & meeting room availability Close working with the Library and other services	Interaction recorded in R&I minutes For e.g quarterly measure of staff supported by these services.
3e	Establish significant relationships with the service transformation team and STP initiatives to remain informed and be able to add value.	Sharing committee updates Regular discussions	Discussions and collaborative working	2019 onwards	Regular updates of meetings with the STP's and Service Transformation Team	Minutes of R&I reports will reflect activity
3f	Develop a horizon scanning process to identify new research, bidding opportunities	Adapting to a changing environment	Train staff within divisions to horizon scan against their identified priorities	By 2020	Assistance from iDox Grantfinder volunteers IT/teleconference facilities & meeting room availability	Number of new bids identified and developed through this process. Aim minimum 5/year
3g	Develop a horizon scanning process for proven technologies to be piloted and	Adapting to a changing environment	• Scope for emerging technologies through networks	By 2020	DTS partnership Assistance from iDox Grantfinder	Number of new bids identified and developed through this process.

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	adopted, in line with Digital Strategy.		and publications • Discuss and evaluate to ensure fitness for purpose for staff and patients • Apply for funding to test technologies • Arrange pilots with proper evaluation workstreams in place • Develop business plans for wider adoption		volunteers IT/teleconference facilities & meeting room availability	Number of technologies adopted as a result of this process
3h	Use of AI and chatbots for automation (specific strand of the above objective)	Adapting to a changing environment and rising demand for services	• Scope for emerging technologies through networks and publications • Discuss and evaluate to ensure fitness for purpose for staff and patients • Apply for funding to test technologies • Arrange pilots with proper evaluation workstreams in place • Develop business	By 2020	DTS partnership Digital Technology Steering Group R&I Steering Group	Set up a pilot in at least one new area

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			plans for wider adoption			
3i	Support staff for app developments	Adapting to a changing environment	Set up a process of collating and assessing of ideas and requests, through to product spec, developer selection, product development phase, roll-out and training	By 2020	Partnership with DTS Charity for funding purposes iDox for funding	1 app developed every year

Objective 4. Make BCHC a credible collaborator and competitor in national funding.

This objective describes the academic, small to medium enterprise (SME) and third sector partnerships that BCHC has or plans to establish.

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4a	Explore partnership development opportunities with commerce and industry Clinical Research Organisations.	• Develop strategic partnerships, take part in national schemes • Adapting to a changing environment • Making good decisions in a timely manner	Outline the nature of the collaborative relationship and Identify impact and benefits to BCHC	On-going discussions	Agile consultation process prior to significant decisions	Evidence of successful partnership or reasons why the partnership did not progress
4b	Lead on CHART (Community Healthcare Alliance of Research Trusts) the national Community Trust Alliance partnership.	• Adapting to a changing environment • Making good decisions in a timely manner	• Establish Terms of Reference, logo & mission statement • Use the selected CHART working group: Kent, Surrey, Derby & Leeds Community Trusts • Use social media & NIHR Google hub platform for communication. • Use R&D national forum as a communication platform (agreed) • Use CHART to develop multi-centred community health research.	On-going will continue to 2022	• Ability to run SMART meetings using IT and teleconference facilities for all meetings. • Protected time to grow this initiative. Research & Innovation Steering committee	• Evidence of growing social media use R&D Forum newsletter CHART national conference in November 2019. • By 2022 there should be >1 collaborative Community Trust bids in progress, evidenced in the R&I report.
4c	Collaborate with the BSOL STP	• Adapting to a changing	• Establish a working arrangement with the STP	By end of 2019	STP partners	Evidence of involvement on that

		Strand of Wearable Technology in Health	environment	• Continue to collaborate with commissioning arms of the local authority for assistive technologies • Identify fit for purpose technologies in areas of wearable monitoring equipment, remote monitoring and self-care • Arrange for testing • Wider adoption		DTS	STP strand Set up pilots
4d		Explore partnership development with other regional organisations	Develop strategic partnerships, take part in national schemes Adapting to a changing environment Making good decisions in a timely manner	Investigate a relationship with Birmingham Health Partners; clearly identify what BCHC can offer.	Start 2020	Research Responsive organisational discussions	Project partnerships reported to CEC Trust wide partnerships undergo consultation and sanction first then reported via CEC.
4e		Establish a new ethos for BCHC starters that establishes research as a component of their jobs alongside clinical work.	Adapting to a changing environment	Scoping and consultation exercises with HR and the Executive Team.	Start 2020	Executive level decision	Evidence of number of new JD's including research component
4f		Ensure BCHC involvement in the new CLAHRCs now branded Applied Research Collaborations or 'ARCs'	• Develop strategic partnerships • Participate in national schemes	• Scoping within ARC themes to identify areas of engagement, review capability and clinical capacity and financial implications.	From 2019	Staff able to collaborate with academic partners	Minutes of R&I reports
g		Investigate BCHC's aspiration to become a Teaching	• Adapting to a changing environment • Develop strategic	• Develop R&I infrastructure, create academic/training structures • Develop academic partnership	By 2022 clear understan ding of	• Embed R&I culture at BCHC • Demonstrate academic/other	• Executive board decision informed by the R&I team and stakeholders

		Community Healthcare Trust.	partnerships,	for bids • Final decisions made following evidence of working relationships and outputs.	what approach BCHC will take	partnerships	
4h		Celebrate exemplary projects/teams/individuals to encourage further R&I involvement and gain regional and national reputation	• Value the outstanding work of staff in research and innovation projects	• Nominate projects.teams and individuals for regional and national awards, for their achievements in areas of research and innovation	Start in 2019	• R&I team with input from divisions	• Make a minimum of 3 nominations a year

Objective 5. Develop a secure operational infrastructure for research and innovation.

This aim is focused on the operational processes and communication across both internally and externally to the organisation.

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5a	Introduce and further define the research operational process to improve performance.	• Complete Standard Operating Procedures (SOPS).	Produce SOPS for the Research Website	End of 2020	Staff Resource	A set of ratified SOPs in use - from 2020 onwards
5b	Establish the EDGE research database as an efficient financial, operational and KPI reporting tool across the Trust	• Support from the CRN WM • NHS Trusts who use the tools and can share best practice	• Weekly operational review of studies • Introduce EDGE finance tool Introduce work flows into our processes	End of 2020.	Research staff working with corporate finance team knowledge & capacity	• Accurate finance reporting directly from the EDGE database • CRN monthly reports & annual reports including the High Level Objectives (HLO's)
5c	Introduce an internal peer review process for non-portfolio research	• Develop strategic partnerships • Adapting to a changing environment •	• Work with academic partners and BCHC research leads to establish a process • Identify suitable panel of reviewers	End of 2019	Academic Partners	Minutes of R&I reports
5d	Work closely with the library services to establish an efficient knowledge transfer system	• Create a flow diagram of where knowledge is held and how it is shared	• Work with the library services to develop a robust structure for knowledge transfer • Establish ways to promote library service support for research and innovation	2019 onwards	Timely access to BaseDocs and Open Athens accounts	Quarterly measure of staff support for research and/or innovation projects Quarterly measure of publications/posters per division.
5e	Set up an "Innovation Pipeline" to nurture ideas for innovation and address clinical challenges	• Ensure that all innovative ideas to address challenges are assessed and supported	• Use the models available from AHSN and other Trust to set up an evidence based pipeline • Have ideas with potential reviewed at R&I Steering	March 2020	AHSN	Pipeline process to be available on intranet

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			appropriately Group			
5f	Improve internal and external research communication	• Adapting to a changing environment • Increase the use of social media	• Use all Trust communication platforms, meetings • Trust induction presence • Articles in external journals/ Newsletters • Improved presence across the Trust	End 2019 onwards	• Support from communication team • Introduction of an R&I website	Evidence – R&I Website, use of all other Trust communication platforms Weekly R&I updates Monthly Health Tech Newsletter
5g	Introduce an 'opt-out' (rather than opt-in) policy and practice for all patients at BCHC. To enable assigned research staff to approach patients directly to invite them into studies	• Adapting to a changing environment	• For discussion via CEC and QSE • Listing the appropriate policies that need to be changed and suggest wording as suggested by the Health Research Association	By 2020	For discussion at the quality and safety committee Work with Clinical Assurance Manager	Evidence of Trust Policy and changes required
5h	Establish the Patient Public Involvement (PPI) and Patient Research Ambassador (PRA) roles at BCHC to add significant value to research and innovation.	• Adopt the principles of *NIHR Involve* team for public participants regarding recognition and financial compensation for work and travel	• Work with the CRN to have a clear outline of the PRA role • Advertise for volunteers who can provide a minimum of one day per month to contribute towards supporting research. • Have PPI and PRA roles involved in design, testing and embedding of innovative technologies	On-going with establish-ed roles by 2022	• Collaboration with Patient Experience • Collaboration with CRN and existing patient groups • Collaboration with the Governor and Membership Manager	Evidence of 6 PRA's one within each division and one corporate. Monthly activity reports
5i	Develop a finance strategy that will:	• Introduce new ways of	• Collaborate with corporate finance to	On-going from	• CRN Acord trainers	Evidence of IDox Grantfinder working groups

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Safe, High Quality Care Making Good Use of Resources	• Provide stability for R&I staff • Introduce a robust model to drive the annual increase of Activity Based Funding (ABF) and Research Capability Funding (RCF).	working with corporate finance staff • Suggest training opportunities for research staff and finance staff	streamline and, improve responsiveness for research bids and efficiency in keeping detailed records. Within the R&I team • *NIHR Acord* finance training introduced • Shadowing other finance teams in academic and NHS organisations. • Seek guidance to enable transparent 'carry-over of legitimate income' across year end boundaries • Introduce iDox Grantfinder into the research process to encourage more non-portfolio studies to be added to the BCHC portfolio • Provide iDox Grantfinder training • Establish iDox Grantfinder working groups	2019	• Collaboration with Finance Department	and measure of i) access to grant finding sites and ii) applications to funding bodies

9. Financial Overview

There are two prominent funding incomes for research

    i)   **Activity Based Funding (ABF)** - generated via portfolio research activity and recruitment to studies. This funding can only be used to promote recruitment to portfolio studies.

    ii)   **Research Capability Funding (RCF)** – this can generate a maximum of £20k/year if >500 participants are recruited to research studies. It is possible to increase the RCF significantly by the successful submission of NIHR bids, which can generate an additional 28% against each research sum.

The ABF can only increase by 10%/year if the recruitment target is achieved and will decrease by 5%/year if the target is not. Other portfolio and non-portfolio funding streams are available which do not generate RCF but will provide funds for research activity such as charities, National Funding bodies and commercial companies. The aims of this strategy will be to prepare BCHC to capitalise on a variety of opportunities.

NIHR Finance Model

Within the NIHR finance model the costs are divided into 3 area[9]

1. **Research Costs** – Costs requested within the bid to conduct the research. This is the only sum provided by the NIHR or funding body
2. **Support Costs** – Costs for the activity required to support research e.g. pre-screening, letters of invitation to engage in research. These costs are absorbed within the service or where possible supported via ABF funds.
3. **Excess Treatment Costs** – Costs to be covered by the NHS Trust. The *Accord Document* provides guidelines on this complex process. The R&I team works closely with the CRN Early Contact Team who provides guidance and advice for each project.

New Model for Excess Treatment Costs

Historically, BCHC has excluded studies that required large ETC's to avoid requesting additional funds from the Trust. From October 2018 the Department of Health and Social Care have introduced a new ETC model. Each Trust is required to provide an ETC pot to the value of 0.01% of organisational operational income (£28k). Once that threshold has been passed, the CRN will provide a per-patient ETC which has been pre-calculated before the study begins based on portfolio recruitment activity. The research team are working closely with the corporate finance team to bring improvements to this transactional process.

Summary of Finances

Over the last three years the R&I team have won:

Sum	Funding Source
£462,000	Strategic funding - CRN
£42,000	Commercial funding
>£4m	Research funds - NIHR Bids
£82,000	*Creative Digital Healthcare Solutions
£184,702	*Innovation Engine 2

*Innovation funding from European projects: these funds cover the costs of the Innovation Manager and more recently the Innovation Facilitator.

As an example of the timeline for successful research projects, an unsuccessful Research for Patient Benefit application submitted in 2015/16 was re-submitted to the NIHR as an Health Technology Assessment bid in 2017/18. It was successful, but will take approximately 10 years from concept of the research question to completion of the study.

Estimated bid projections for 2019-2022

By April 2021, 5 NIHR bids should be submitted, at least one per division (subject to resource being in place). While predictions are difficult in this workspace we estimate the following:

3 RfPB at £250,000 each
2 Larger NIHR funds e.g. HTA at approximately £1m each
1 innovation project in collaboration with other partners

For example:
Success with one RfPB = £ 70,000 RCF over the duration of the bid
Success with one HTA = £280,000 RCF over the duration of the bid. The R&I team estimates 1/5 success rate not as an accurate assumption but as an estimate.

Plan for financial stability

- RCF gained against a particular project exists to ensure it is completed successfully and this is the first priority.
- RCF can also be used to support new researchers and provide academic support to submit new bids.
- New NIHR bids will bring more RCF to repeat the process with other staff, this process can be used strategically to grow the RCF and gain stability.
- Following initial success with new bids in 2020-22 the R&I team can introduce new initiatives with RCF to backfill clinicians for training, mentoring and teaching for the growth and development of BCHC staff.
- There are other initiatives for financial growth such as commercial research however it would be vital for BCHC to become research responsive before

exploring this option as the process requires trust-wide agility that is currently only under development.
- Success with one innovation project that will provide costs for activity &/or backfill for innovation staff

For further details of the finance summary see Tables 1a and 1b in the Appendix.

10.   Duty of Candour

The Trust recognises it has a duty of candour under the Health and Social Care Act 2008 (Regulated Activities) Regulations 2014: Regulation 20. Under this duty it has a responsibility to be open and transparent with patients, families and carers in relation to their care and treatment and has specific requirements when things go wrong. This will include informing people about any clinical incident, providing reasonable support, providing truthful information and an apology when things go wrong. If an incident occurs which involve a breach of the requirements of this policy, staff and managers should consider following the guidance set out in the Being Open incorporating Duty of Candour Policy available on the trust intranet site.

11.   References

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12. Glossary

ABF	Activity Based Funding
AHSN	Academic Health Science Network
BCHC	Birmingham Community Healthcare NHS Foundation Trust
BCU	Birmingham City University
CAIP	Clinical Academic Internship Programme
CRN	Clinical Research Network
DTS	Digital Transformation Service
HSDR	Health Service Delivery Research
HLO	Higher Level Objectives
ICAP	Integrated Clinical Academic Programme
iDox Grantfinder	Grant Funding Database
MSK	Musculoskeletal
NIHR	National Institute for Health Research
R&I	Research and Innovation
RfPB	Research for Patient Benefit
RCF	Research Capability Funding
SME	Small to Medium Enterprise
STP	Sustainability and Transformation Partnership's
UK	United Kingdom
UOB	University of Birmingham
WM	West Midlands
WTE	Whole Time Equivalent

13. Accountability

This strategy will be audited through; the monthly R&I meetings, CEC committee, the new R&I Steering Committee and the Trust-wide Improvement plan reports.

14. Appendices

The Current Research Structure

Research Team's Organisational Structure
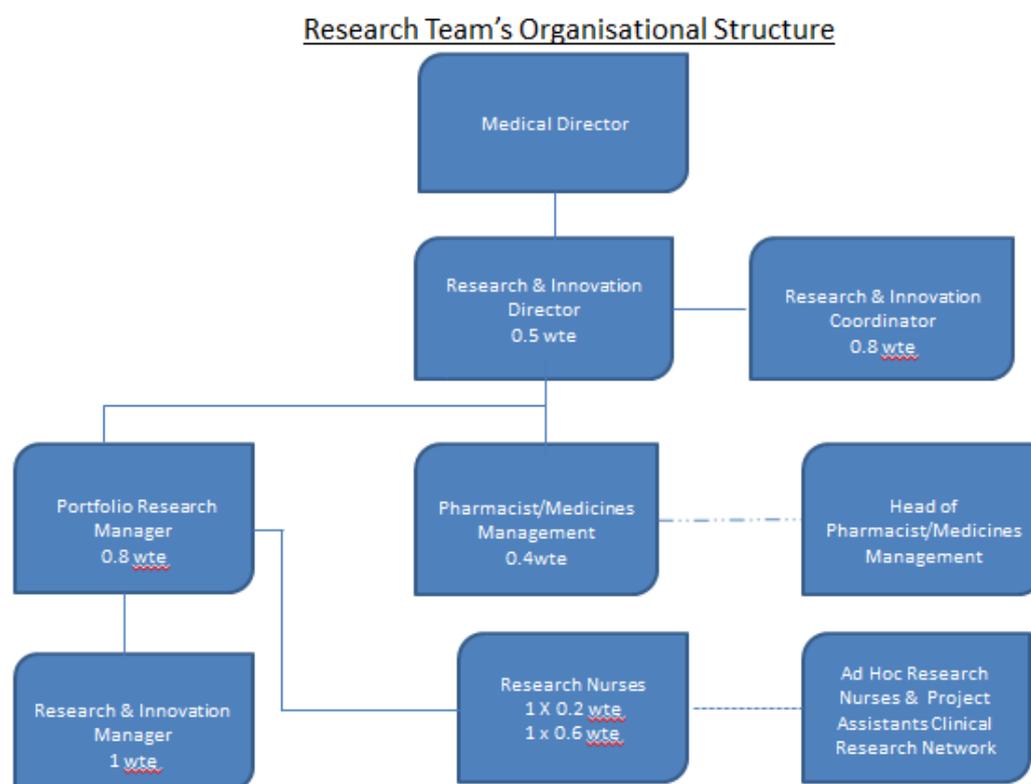
Immediate Changes to the current R&I structure are required to achieve this strategy. In the first instance it is essential to bring stability to the core R&I team. All staff except the Director 0.5wte and the Innovation Manager 1.0wte and the R&I Manager 1.0wte are employed via ABF, RCF, strategic funding income or other awards. These income streams MUST be spent within the financial year, they are not stable and have no on-going guarantee.

Two key additional roles required for essential growth are i)experienced researchers as facilitators within the divisions and ii)academic partners with protected time to engage with research at BCHC. It would also be prudent to establish the academic career pathway and training opportunities structure with assistance from academic partners.

Whilst the ideal position would be to have one full time research facilitator in each division, we propose a phased approach starting with the most research responsive divisions and building over time. Additional resource to support R&I governance, database management and innovation facilitation will also be required as research and innovation increases.

A business case will be submitted to request financial support for the R&I team. The current team is extremely small and lacks capacity to cater for significant research and innovation growth.

Summary of Performance from Previous Strategy 2015-18

The previous strategy has brought significant success to the organisation summarised below:

Research governance – this process was brought in-house and embedded within the Research and Innovation team in 2016 and a research database (EDGE) was introduced.

Research performance targets - have been surpassed by an average of >300% on an annual basis leading to a 10% uplift in national funding.

National KPI's - referred to as High Level Objectives have been met on most occasions with legitimate explanations provided when not met, although notable is the lack of commercial research which will be a priority for the coming years.

Development - BCHC has reported its activity through the national Performance in Initiating and Delivering Research process. In total there have been 7 Clinical Trials, 2 were commercial 3 portfolio, 3 were in the dental service, 3 in ASR/MSK and 1 in ACS. >10 additional studies were home grown and/or sponsored non-CTIMP (Clinical Trial of Investigational Medicinal Products).

100,000 Genome project - BCHC was the first Community Healthcare Trust to participate in this national rare diseases project.

Academic Training- through the Birmingham Health Partners Clinical Academic Programme. >10 candidates have been accepted through a rigorous selection process for the following opportunities i)internship programme ii) Pre-doctoral clinical academic fellowship (MSc) iii) the PhD Bridging programme & iv) the NIHR Doctoral Fellowship (PhD). Growing research staff is slow with low numbers however these staff along with other researchers will develop a critical mass for change within the next few years (Ref). Growing researchers - the shift has begun from externally defined research to research generated within and with direct relevance to BCHC patients. The true impact of this activity will not be realised for a few more years and will be clearly identified as outcomes.

Training Success - the GCP (Good Clinical Practice) course, how to take informed consent and the PI (principal investigator) Master class are some of the more popular courses recommended for new researchers. The research nurses have undertaken phlebotomy training. In the future these figures will be recorded and reported quarterly.

Staff growth – is self-funded from income generated by increased performance or winning strategic funding. The R&I team has grown from one research manager and a part time director to:
- 1 part time admin/ R&I co-ordinator
- 1 part time pharmacist for research with medications and commercial research,
- 3 part time research therapists/nurses to recruit patients into studies,
- 1 patient research ambassador (PRA),
- 2 patient volunteers (former academics),

Financial Stability – the research activity based funds (ABF) were slowly increasing from year to year, the research capability funding (RCF) was rapidly decreasing and was combated by submitting NIHR research bids. Extensive work around bid submission has taken place however success was not realised until year three (2018/19). The Trust agreed to provide a one off cost pressure payment of £135.00 and the two successful NIHR bids in collaboration with Loughborough University and Swansea University (£3.5m) will provide RCF from 2019/20 for 4 years.

New areas of research – there is limited research leadership in the divisions and corporate services and capacity to engage with research is a challenge however significant efforts have been made to engage several services. Trust wide, corporate or cross divisional studies have aided the recruitment target particularly with staff surveys.

Academic partnerships -there has been significant advancement in partnerships and infrastructure building.
- o Birmingham City University – a relationship has existed for a few years where early stage researchers have the opportunity to apply for 1:1 mentoring. A small number of staff members have developed projects or contributed to publications.
- o University of Birmingham – BCHC has forged good relationships with the Institute for Applied Health Research, Department of Psychology and School of Sports and Exercise Physiology.
- o Aston University – BCHC has collaborated on one NIHR HSDR (Health Service and Delivery Research) project and is fully engaged in the development of the next study.

Collaborations - BCHC have been invited by a Commercial Research Organisation to submit an application to establish a Clinical Trials Unit within Birmingham, discussions are on-going.

CHART @Community HART – is a national alliance of research active Community Healthcare Trusts and was initiated by BCHC. This has gained national attention from the NIHR, CRN and AHSN and other organisations. The alliance will be an operational tool to share best practice, share information and provide a platform for generating new bespoke research within a community setting as a national priority.

Strategic Funding (CRN) – a collaboration was established with the Institute for Applied Health Research at the University of Birmingham which will pave the way for BCHC clinical staff to gain access to academic help and for opportunities for academic development. The success of the programme grant 'Snacktivity' was borne from this collaboration. Success with strategic funding enabled the recruitment of R&I staff and provided backfill for researchers to conduct portfolio research.

Public and Patient Involvement - patients and carers were significantly involved in the development and design of 3 home grown research projects, a greater focus on developing involvement is required in the coming years.

Research Pathway - scoping has begun to identify the development and training needs of staff, the potential pathways required and the challenge of protected time for research in order to generate high quality research bids.

"Smart Phone App for Migrants", A Dorset Health Visitor worked in collaboration with BCHC to validate his smart phone App designed to help explain to migrants, refugees and visitors to the UK health care system.

Balance Games Project E-learning studios have submitted a funding application to the European Institute of Innovation & Technology (EIT) Health, Knowledge and Innovation Community (KIC) proof-of-concept fund to carry out the balance games

Kinect Game technology. The R&I team supported with the application and will be involved in the delivery if the application is successful.

Step Right Buddy: Falls prevention project was successful in securing the Innovation Award of the Academic Health Science Network (AHSN). The prize was £100 for educational products.

BabyCheck App Launch at Parliament: Hosted by Diana Johnson MP, this app was officially launched at the Houses of Parliament June 2018. The launch event that was organised by Lullaby Trust

Innovation Projects: The R&I team has supported many Trust initiatives for e.g. Traffic Life game for participants with learning disabilities, and the Clinical App handbook for the patient safety team.

Assistive Technologies in the new dementia friendly Willow House Unit: the R&I team conducted evaluations and submitted a report to the Department of Health and Social Care.

Creative Digital Health Solutions (CDHS) project: This successful European project funded by the European Regional Development Fund. over achieved by 25%.

Innovation Engine 2: European project was also successful.

Awards
- High Commendation in the category of "Innovative Organisation of the Year 2016
- High Commendation in the category of "Innovator of the Year 2016
- VIP runner up - Dr Christine Burt for her contribution to research initiating and writing the Department of Health Report for the Dementia Friendly Unit at Willow House 2017
- CRN Highly Commended – Best Overall Performance Award 2017.
- CRN BCHC contribution to research - in the area of older adults 2017
- CRN Dr Thomas Dietrich (Dental) – Researcher of the Year 2017
- Dental School was ranked first I the country for dentistry research in the Research Excellence Framework 2017
- VIP finalist - Mr Hamid Zolfagharinia) for his contribution to the Trusts "Quality" standard
- CRN Highly Commended – Best Overall Performance Award 2018.
- CRN New Research Category – MSK Service Runners up 2018
- CRN Clinical Trials Scholar programme – Dr Joanne Garstang C&F 2018
- VIP runners up in the 'Inclusive' category 2019
-

The success of the last 3 years is due to the hard work of the dedicated researchers at BCHC, the support of the CRN WM and the hard work of our R&I team, thank you to all.

Table showing research income and bids over the past 3 years

Table 1a reflects the income generated over the past 4 years.

Table 1b reflects the bids submitted over the past 4 years.

Year	ABF	RCF	Other Income Strategic Funding	Trust Funded Posts	Commercial Funding
2015/16	110,668	318,039	0	80	-
2016/17	125,815	256,712	124.39	80	-
2017/18	125,815	256,712	43.33	85	£42,000
2018/19	163,164	76,338	£92.53	85	-
Total	**£525,462**	**£907,501**	**£462**	**£330**	**£42,000**

Note: Clinical Academic awards are not recorded via Research and Innovation but within each division.

Year	NIHR Bids Applications	Bid Sum	Success
2015/16	1 x NIHR Fellowship 1 x RfPB	£203k £250	Yes No
2016/17	2 x RfPB 1 x HSDR Horizon 2020 partner Strategic Funding	£500 £200 £2m £261	No Yes No Partial
2017/18	1 x RfPB 1 RfPB NIHR Fellowship Strategic Funding	£220 £247 £221 £43.33	No No Yes Yes
2018/19	1 x Clinical Scholar 1 x Pre Doctoral 1 x NIHR Fellowship Strategic Funding 1 x HTA Programme Grant	£24k £53,506 £250k £92.53 £1.2m £2.2m	Yes Yes Yes Yes Yes Yes

Note: The Strategic Funding can have partial success BCHC are entitled to a total of three bids /yr and not all of them may be funded