

Item 4.4a

# **Research & Innovation Strategy 2015/16 to 2017/18**

**Dr Mark Jackson, Director of Research & Informatics  
Dr Marga Perez, Head of Research & Innovation  
Dr Jay Wright, Clinical Lead for Research & Innovation**

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## **1. Introduction**

Liverpool Heart & Chest Hospital NHS Foundation Trust (LHCH) Research & Innovation Strategy is a three year plan that outlines the key priorities for research and innovation within the Trust until 2018.

## **2. Background**

Research aims to generate new knowledge using systematic and rigorous methods whilst innovation involves the local implementation of research findings in order to establish their effectiveness.

Participation in research and innovation brings many benefits for the NHS. Through advances made, quality of care and health outcomes are improved for our patients whilst the United Kingdom's position in the international science industry is strengthened and economic growth and investment promoted (Department of Health, 2011). Furthermore, research active NHS Trusts tend to have better patient outcomes and benefit from the competitive advantage gained through improved knowledge management and in particular, the ability to use and generate research knowledge (NHS Confederation, 2010). Research & innovation also builds a reputation of excellence with the public, commissioners, primary, secondary and community care, and places us in the driving seat to become thought leaders in the development of our services.

## **3. The Research & Innovation Landscape**

### **3.1 NHS England Research and Development Strategy**

The NHS England draft Research and Development Strategy 2013-2018, identifies priorities for the promotion of research through:

- Visible leadership
- Research into clinical interventions and innovations that have the greatest impact on outcomes
- Supporting the NHS as a good place for both commercial and non-commercial research
- Promoting health system policy research as a means of improving outcomes
- The establishment of clear links with clinical leaders across all professions, with academia, industry, and with non-clinical researchers in health and social care
- The development of clear governance structures (NHS England, 2013).

### **3.2 The National Institute for Health Research and Clinical Research Networks**

The National Institute for Health Research (NIHR) is a nationally distributed organisation, funded through the Department of Health, concerned with maintaining a system in which the NHS supports those conducting research to meet the needs of patients and the public (National Institute for Health Research, 2014a). The NIHR Clinical Research Network (CRN) consists of 15 local Clinical Research Networks across England, delivering research across 30 clinical specialties. These are managed within 6 divisions:

Division 1: Cancer

Division 2: Diabetes, stroke, cardiovascular disease, metabolic and endocrine disorders, renal disorders

Division 3: Children, genetics, haematology, reproductive health and childbirth

Division 4: Dementias and neurodegeneration, mental health, neurological disorders

Division 5: Primary care, ageing, health services and delivery research, oral health and dentistry, public health, musculoskeletal disorders, dermatology

Division 6: Anaesthesia/peri-operative management, critical care, injuries/emergencies, surgery, ENT, infectious diseases/microbiology, ophthalmology, respiratory disorders, gastroenterology, hepatology.

LHCH's local network (North West Coast) is hosted by The Royal Liverpool and Broadgreen University Hospitals NHS Trust. It is responsible for ensuring the effective delivery of research in the Trusts, primary care organisations and other qualified NHS providers throughout the North West Coast area.

LHCH has two specialty research group leads on its staff: Dr Jay Wright (Cardiology) and Dr Nigel Scawn (Anaesthesia). This role involves the promotion of research across the North West Coast footprint.

### **3.3 Academic Health Science Networks**

The UK Government has identified Life Sciences and Healthcare as important sectors to generate new economic growth as well as increasing the quality of care for patients within the NHS.

Academic Health Science Networks (AHSNs) present a unique opportunity to align education, clinical research, informatics, innovation, training and education and healthcare delivery. Their goal is to improve patient and population health outcomes by translating research into practice, and developing and implementing integrated health care services. They will support knowledge exchange networks to build alliances across internal and external networks and actively share best practice, and provide for rapid evaluation and early adoption of new innovations.

## **4. Key Partnerships**

### **4.1 North West Coast Clinical Research Network (NWCCRN)**

This organisation provides our core NIHR funding which is used to support our research nurses and administration staff.

### **4.2 The Brompton & Harefield Hospitals NHS Foundation Trust (RBH)**

As co-founders of the Institute of Cardiovascular Medicine (ICMS), RBH are our natural research allies. With them comes access to their expertise and facilities (e.g. the biomedical research unit) together with the research staff and facilities of Imperial College London as their principal academic partner.

### **4.3 University of Liverpool**

Following their agreement to join the ICMS Board in 2014, the University of Liverpool are now emerging as strong research partners and are to be the primary vehicle for the creation of an academic staff base at LHCH. They are now our principal academic partner in ICMS.

### **4.4 Liverpool School of Tropical Medicine (LSTM)**

A strategic partnership now exists between the Trust and LSTM embodied in our Clinical Senior Lecturer in Respiratory and mycobacterial infection.

### **4.5 Liverpool Health Partners (LHP)**

LHP is Liverpool's Academic Health Science System, and is collaboration between local Universities and Trusts charged with generating new knowledge in four areas of strength –

cancer, infection, drugs and musculoskeletal research. LHCH is a founding partner of LHP, and is collaborating strongly in their infection and cancer priorities. Moreover, LHP are likely to be a strong voice in major service configuration in the City, strengthening the importance of LHCH being at this table.

#### 4.6 North West Coast Academic Health Science Network (NWCAHSN)

The NWCAHSN are our primary partner for implementing innovations in practice.

#### 4.7 Collaboration for Leadership in Applied Health Research and Care

Collaborations for Leadership in Applied Health Research and Care (CLAHRC) are partnerships between a University and surrounding NHS organisations in undertaking high quality applied health research focused on improving patient outcomes. The North West collaboration, based at the University of Liverpool, has been awarded £9 million as well as a further investment of £12.5 million from NHS, local authority and university partners for 2014-2019. Its primary theme is health inequalities, supported by evidence synthesis, knowledge exchange, engagement and effective implementation, public health, mental health, managing complex needs and delivering personalized health and care.

#### 4.8 TrusTECH

The Trust has a contract with TrusTECH, the North West NHS innovation service that supports the exploitation of intellectual property and assists with raising the cultural awareness of innovation and the identification of small & medium sized enterprises wanting to test innovative products in the NHS.

### **5. Research & Innovation Activity at LHCH**

#### 5.1 Previous Performance

Our previous research strategy has delivered much, including (summarised against the principal objectives):

Development of the Institute of Cardiovascular Medicine & Science – two academic partners now compliment ourselves and the Royal Brompton & Harefield Trust. Another Trust is soon to join.

Development of Patient Reported Outcome Measures – we have a national profile with this work and are soon to report to NHS England on the utility of PROMS in revascularisation.

Strengthening our links with Academia – we have secured two academic appointments.

Increasing Recruitment to Clinical Trials – Our performance to the NWCCRN recruitment targets has been met and surpassed year on year. Our clinical trial “pipeline” for 2015/16 is strong and we are attracting more all the time.

Disseminating Research Activity Internally and Externally – we have an active twitter account and contribute to the Trusts Knowledge Hub where research opportunities and activity are posted regularly.

Research Training & Development – we have put in place research and clinical training programmes for our research staff.

Improving the Quality of Our Clinical Trials Unit – we have successfully delivered three in house trials.

Improving the Outcomes of Our Research Laboratory – progress here has been slow, but the laboratory are not leading some own account research whilst supporting our clinical trials activity.

Tripling Research Income – whilst income has improved, we have not achieved the targets set. This will be a focus for this strategy also.

## 5.2 Research studies at LHCH

LHCH is a research active organisation. Most research conducted at the Trust is commercially funded with a small number of studies being NIHR (e.g. CASA-AF, TAVI trial, Mendelian) funded.

In 2012/13, 2748 patients receiving NHS services provided by the Trust were recruited to participate in research approved by a research ethics committee. In 2013/14, the number was 1386, the reduction driven by the cessation of two high recruiting trials (HEAT PPCI and UKLS). That said, we consistently outperform the recruitment targets set by the Clinical Research Network.

The Trust recruited participants to 21 National Institute for Health Research (NIHR) adopted studies in 2014/15; 33% of studies were Clinical Trials of medical devices.

The research portfolio is increasingly diverse with a growing number of specialties able to offer research to suitable patients. This includes: cancer, cardiovascular disease, critical care, respiratory disease, radiology and surgery. Whilst our research portfolio is dominated by research led by medics, there is a small but significantly growing core of non-medical research led by nurses. Our historical commercial strategy has delivered with our “pipeline” of future studies being particularly strong running to 11 projects awaiting implementation.

## 5.3 Innovation Activity

Innovation has not been exploited in a structured way at LHCH, so offers fertile ground for development. That said, amongst our peers we are known as a very innovative Trust, with our Amsterdam day case lounge and our community care model being good examples. Over the past twelve months, we have worked closely with the NWCAHSN to begin innovation partnerships with a few small & medium sized enterprises in addition to winning three innovation grants.

## 5.4 Research & Innovation Resources

Resource	Amount
Head of Research & Innovation	1.0 WTE
Clinical Trial Coordinator	0.4 WTE
Data Manager	1.0 WTE
Administration support	1.0 WTE
Research active Consultants	18 (various PA's)
Research Nurses	12.8 WTE
Head of Clinical Trials	1.0 WTE
Planned income (15/16)	£1100K
Planned expenditure (15/16)	£1000K

Much of our research involves collaboration with key support services and the Research Department works closely with cardiac diagnostics, informatics, pharmacy, pathology and radiology to ensure that the Trust has the capacity and capability to set up and effectively run our studies.

## 5.5 Research Funding

Funding is received from the CRN to cover the costs of working on National Institute for Health Research (NIHR) adopted studies e.g. research nurses, research administrative staff and key-service support departments' research-related activities. The Trust also receives income from industry-sponsored research; the majority of which goes directly to the specialty undertaking the research, though the Research Department does retain a proportion to cover costs and for capacity building. Total income for 2013/14 was £900,000 with £400,000 being generated from trials.

## 5.6 Research and Innovation as Priorities

One of the Trust's current strategic priorities is to maximise research, innovation and enabling technologies.

In addition, as a tertiary centre reliant upon being at the cutting edge of its services to preserve market advantage, innovative service redesign, development and innovative practice are being prioritised across all Directorates to improve patient care.

## 6. **Our Vision for Research & Innovation**

The Trust recognises that research and innovation are necessary to keep LHCH at the cutting edge of technology and the development of future services. As such, by 2018, our ambition is that research and innovation will have directly contributed to the Trusts overall vision of LHCH being recognised as the best cardiothoracic integrated healthcare organisation. This vision calls for improved reputation building of LHCH as a centre of excellence for research & innovation.

Key Measure	Target 15/16	Target 16/17	Target 17/18
Citation of research and innovation as a recognised strength of LHCH by our membership	5%	10%	20%
No. media citations for research & innovation	4	6	8

## 7. **Strategic Objectives**

Realisation of this vision will be evidenced from the achievement of the following strategic objectives:

### 7.1 Promote Research & Innovation in our Priority Areas

Our existing priority areas are:

- The themes adopted by the Institute of Cardiovascular Medicine & Science, namely Interventional Cardiology, Heart Failure, Arrhythmia and Aorta & Valve Surgery
- Respiratory and mycobacterial infection
- Cystic Fibrosis
- Critical Cardiothoracic Care
- Cardiothoracic Anaesthesia

We have horizon scanned possible / probable future developments in medicine and believe that expansion of our research and innovation into the following areas will help promote LHCH as a leader in its service offerings. As such, we wish to expand our work in the following areas over the lifetime of this strategy:

- Personalised Medicine (including genomics) - proposes the customization of healthcare - with medical decisions, practices, and/or products being tailored to the individual patient. It is often employed for selecting appropriate and optimal therapies based on the context of a patient's genetic content or other molecular or cellular analysis.
- Regenerative Medicine - is a branch of translational research in tissue engineering and molecular biology which deals with the "process of replacing, engineering or regenerating human cells, tissues or organs to restore or establish normal function". This field holds the promise of engineering damaged tissues and organs via stimulating the body's own repair mechanisms to functionally heal what was previously irreparable.
- Digital Healthcare (also known as digital health) - is an upcoming discipline that involves the use of information and communication technologies to help address the health problems and challenges faced by patients. These technologies include both hardware and software solutions and services. Generally, digital healthcare is concerned about the development of interconnected health systems so as to improve the use of computational technologies, smart devices, computational analysis techniques and communication media to aid healthcare professionals and patients manage illnesses and health risks, as well as promote health and wellbeing.

<b>Key Measures</b>	<b>Target 15/16</b>	<b>Target 16/17</b>	<b>Target 17/18</b>
No. projects in each research priority area:			
Interventional Cardiology	5	6	6
Heart Failure	6	7	8
Arrhythmia	3	3	4
Aorta & Valve Surgery	2	2	3
Respiratory and mycobacterial infection	2	3	4
Lung Cancer	5	5	6
Cystic Fibrosis	3	3	4
Critical Cardiothoracic Care	1	2	2
Cardiothoracic Anaesthesia	2	2	3
Personalised Medicine	1	2	3
Regenerative Medicine	1	2	3
Digital Healthcare	2	3	4

## 7.2 Build a culture that promotes supports and values research and innovation activity within the Trust

Research and innovation activity will be considered as core business within the Trust and will be seen as part of everybody's job whether clinical or non-clinical.

There will be continuing executive support for research and innovation in the Trust, evidenced from exhibiting the following behaviors:

1. Leading continuous innovation and improvement, developing and communicating a compelling narrative
2. Encouraging partnerships and collaboration
3. Promoting research and innovation by providing physical space and time
4. Recognising and promoting the success of adopters and diffusers of innovation
5. Rewarding innovative thinking
6. Using and sharing knowledge
7. Managing risk and tolerating failure
8. Promoting learning and development

## 9. Engaging with the academic community

An increased awareness of the value of research and innovation in the Trust will be promoted to staff via:

- Improved visibility of leadership for research and innovation. We have recently invested in the creation of a new position – Clinical Lead for Research & Innovation. The specific remit of this post is to improve engagement of clinical staff in research & innovation and ensure this activity improves clinical practice. Additionally, the leadership for research & innovation will drive the initiatives described in this strategy many of which require direct interaction with staff.
- An annual multidisciplinary Research and Innovation Forum aimed at employees who are either active or wish to become active in research and innovation. One of the principal roles of this forum will be to review ideas proposed by staff for major advancements in the service offer of the Trust (a so called “innovation pipeline”). This pipeline will be reviewed by the Executive Team at a time in the year synchronized with the submission of service development requests to Commissioners.
- Appointing one medical and one non-medical research & innovation champion as part of the new Divisional structure. The role of these staff will be to promote research & development across their workforce.
- The annual forum will be supported by and an on-going open electronic exchange where information can be posted and ideas shared. Its function will be:
  - To provide opportunities to share research and innovation best practice. Suggesting improvements from outside the NHS will be encouraged (new thinking).
  - To share knowledge of upcoming and current research and innovation opportunities and discuss ways to optimise current research and innovation projects
  - To raise awareness of new developments in research and innovation, resources available, funding and governance locally and nationally in order to ensure that joint resources are used efficiently.

Ideas for improvement put forward will be evaluated by the Research & Innovation Committee. Feedback on every idea will be rigorous, whether the idea is to be supported or not. Where not, help and support in developing the idea will be provided. There will be a cash prize for those ideas that deliver an evidenced improvement in either quality, efficiency or both.

- A Research & Innovation Support Group Meeting held quarterly to provide practical advice and assistance to clinicians and other researchers in setting up and supporting research and innovation projects. In particular, in areas where research and innovation have been judged relevant to our stated priorities (see above) or critical to future business success through annual or strategic planning, amongst staff groups that currently have a small research and innovation portfolio or where interests may be linked to the priorities of our research and innovation partners.
- Use of internal communications (e.g. Weekly eBulletin and quarterly "Pulse" magazine) and our Twitter account to raise the profile of local research and innovation opportunities.
- A monthly report presented to each Directorate reporting on research and innovation activity (e.g. trial recruitment, innovations being supported by TruSTECH) within each area.
- Annual recognition for research and innovation as part of the annual awards (e.g. Innovator of the year)
- Incorporate the participation in and promotion of innovation within appraisal and PDP systems.



- A change to our present innovation policy that affords a greater share of the profits from innovation flowing to the innovator rather than the Trust.

Other initiatives will include:

- The implementation of our own research into clinical practice
- Changing the way we work so that recruitment into clinical trials becomes business as usual
- The setting of an innovation challenge to each directorate linked to their business plan that if realised would improve quality or efficiency
- Holding of a multidisciplinary innovation workshop to complete the innovation compass, which will serve as a baseline assessment for measuring the impact of our innovation work across the lifetime of this strategy

Furthermore, it is well recognised that identifying best practice and implementing evidence based recommendations (e.g. as recommended by NICE guidance) with respect to service delivery and individual patient care enhances the quality of our services and improves outcomes for our patients. Thus, a strong evidence-based decision-making culture within the Trust, aiming to put research and innovation into practice, will be fostered through continuing support for audit, evaluation and subsequent service improvement.

There will be improved visibility of leadership for research and innovation who will design and personally deliver the cultural reforms described.

<b>Key Measures</b>	<b>Target 15/16</b>	<b>Target 16/17</b>	<b>Target 17/18</b>
No. major service developments evaluated for potential Commissioner support	0	1	1
No. "hits" (annually) on research & innovation e-information exchange	100	200	300
%. Patients recruited into research studies as % activity; overall and by directorate	10%	15%	20%
Publications - Overall; (split by medics and non-medics)	90	100	110
Organisational <i>h</i> index (measure of citations)	45	46	47
No. of research & innovation "re-tweets"	50	75	100
No. innovative ideas contributed, and number implemented	24/1	24/1	24/1
Number of LHCH "own account" research project findings or innovations implemented into clinical practice	1	1	1

### 7.3 Develop capacity and capability for research and innovation within the Trust

There is a need for more staff to be engaged in research & innovation and to ensure that relevant staff have the necessary knowledge, skills and confidence to carry out high-quality work in these areas. This will be promoted by:

- The development of a new Department of Integrated Clinical Evaluation (ICE) whose remit will be the advancement of education and research in quality, patient safety and prevention medicine. This will be a major undertaking requiring the generation of income from

fundraising and conducted in partnership with the Trusts fundraising team as part of the Trusts overall fundraising strategy.

- Clinical Trials Developments – we will establish LHCH as a satellite of the Liverpool Cancer Trials Unit, leading on cardiovascular trials. This will result in us becoming a unit capable of running multicentre clinical trials for other sponsors (via ICE). We will also contract out for statistical support from the Liverpool Cancer Trials Unit, and make this support available to all via statistics clinics held on site.
- Education and Training – we will develop on-line research and innovation training, facilitating easy access and "bite sized" learning. We will ensure the clinical skills of research nurses are kept as up to date as their research skills. We will also support and ensure the completion of Good Clinical Practice training by staff members involved in, or wanting to become involved in, research.
- Personal Development – We will encourage career development of research talent e.g. by encouraging staff members to become committee members of NIHR research specialty groups and considering research activity within appraisals and job plans where funding permits, particularly when linked to grant seeking. We will also embed the enhanced career structure for research nurses, ensuring the successful candidate is supported in the development of a programme of research led by nurses. We will encourage the shadowing of research nurses by other nurses, and promote opportunities to take short term (e.g. three months) secondments to research roles for all staff. We will also encourage participation of staff in developing small research, innovation and practice development projects (e.g. as part of personal development reviews linked to the Trusts overall service improvement plan). Promoting the completion of higher education and training in research & innovation will also be advanced.
- Academic Staffing – We will continue the growth of our academic staff base and ensure our they receive appropriate administration support freeing them to do what they do best. We will also explore the possibility of appointing further Research Fellows to the Trust.
- Innovation – We will identify a senior member of staff to act as the "Innovation Scout", and ensure they receive training from the NWCAHSN. This person will then lead the recruitment of innovation champions throughout the trust who will help identify opportunities and ensure needs are raised so we can ensure appropriate support and development is given.
- Including research roles and responsibilities into job descriptions of newly appointed clinical staff where appropriate.
- Devising a new rewards system for leading research linked to recruitment and income (grants or commercial).

<b>Key Measures</b>	<b>Target 15/16</b>	<b>Target 16/17</b>	<b>Target 17/18</b>
Fundraising income for the Department of Integrated Clinical Evaluation (ICE)	£1m	£3m	£5m
Number of externally sponsored clinical trials managed by in-house team	1	1	2
Number of staff completing the on-line research & innovation training	0	10	20
Percentage of staff trained in Good Clinical Practice	>98%	>98%	>98%
Number of job descriptions including a research role and responsibility	4	5	6
Number of staff with a formal academic position	2	3	4
Number of additional staff with an academic role	5	7	10
Number of Research Fellows	3	4	5
Number of Research Nurses	15	16	18
Number of innovation champions	6	6	6
Number of higher degrees registered in research & innovation	3	4	5

#### 7.4 Maximise opportunities for our patients to take part in research

The Trust will offer more opportunities for patients, and where appropriate their relatives, to become involved in research to ensure that more patients are engaged in research and that there is equity of access to opportunities.

There is a need to ensure that the population served by LHCH is aware that it is a research active organisation. This will be achieved by:

- Ensuring the Trust research internet pages are accurate and up-to-date.
- Supporting and participating in NIHR campaigns and initiatives which aim to encourage patient awareness and participation in research (e.g. the 'Ok to Ask' campaign')

Opportunities for income generation in relation to NIHR funded and commercial studies will be maximised by:

- Improving overall performance with respect to NIHR targets.
- Increasing awareness and capability of principal investigators to meet NIHR targets.
- Exploring research funding opportunities from non-NIHR sources
- Maintain our current high levels of NIHR adopted & commercial studies, growing where additional resources can be provided.
- Increasing the number of studies which the Trust acts as a Participant Identification Centre (PIC), where the Trust approves and identifies potential participants for studies conducted elsewhere.
- There will consequently be a robust process for ensuring that relevant staff members are aware of potential NIHR research studies that the Trust could potentially participate in and active support for participation where reasonable. In addition, there will be support for projects which are not defined as primary research but which aim to put research into practice.

Key Measures	Target 15/16	Target 16/17	Target 17/18
Research income (sub-accounted by source; grants, commercial trial etc.).	£1.1m	£1.2m	£1.4m
Innovation income	£50K	£75K	£100K
Research recruitment time line:			
Site specific information completion to research approval	80%	80%	80%
Research approval to time of first patient recruited	80%	80%	80%
Percentage of NIHR adopted studies	70%	70%	70%
Number of studies which the Trust acts as a Participant Identification Centre	3	4	5
Percentage of Patients offered research participation	15%	20%	25%

### 7.5 Maximise opportunities for research and innovation collaborations with external partners

Collaboration with industry and academic partners can bring significant benefits for the Trust and its patients. These include sharing of resources, both financial and non-financial (e.g. skills, technologies), that ultimately enable more rapid translation of research ideas into innovative solutions in patient care. Consequently, in addition to and building upon our current partnerships, the following will be explored:

- Potential research partnerships within our community (such as with primary care, community care providers and local commissioners and academic units) with a long-term aim to promote the LHCH economy for research and innovation
- Collaboration with the CLAHRC particularly where opportunities exist to address the North West Coast's CLAHRC themes.
- Formal partnerships will be developed with relevant Departments at the University of Liverpool as part of either the Institute of Cardiovascular Medicine & Science or in pursuit of priorities that lie outside the cardiovascular umbrella.
- In collaboration with the NWCAHSN and TrustTECH, facilitate the engagement with industry, particularly Small & Medium Enterprises who are usually willing and eager to test their new technology in real world settings.

LHCH has created a formal partnership with Edge Hill University in the development of a clinically led cardiothoracic degree programme and is the first in the North of England to do so. This multiprofessional programme is delivered by a range of LHCH specialist clinicians and provides a framework for both LHCH staff and external staff to access specialist evidence based education. The full programme includes specific modules on Patient Safety, Patient and Family Centred Care and Developing Innovation in Practice. Our strategic intent is to become a leading national provider of specialist education achieving growth year on year of clinicians accessing our education programmes and thus contributing to the national profile for research and education.

The wider agreement of the partnership facilitates the exchange of honorary contracts between University Academic Staff and LHCH Specialist Staff. This will enhance opportunities for all staff to collaborate with respect to audit, research, innovation and service evaluation. It will support the multiprofessional team to gain academic credit for the work they are already leading on or have already completed.

This Practice Development and Research & Innovation Partnership will have the following objectives:

- Facilitate evidence-based practice development and critical reflection.
- Conduct practice relevant research & innovation and disseminate its findings (for example, through audit, publications, local intranets and practice networks and conference presentations).
- Facilitate staff development opportunities for all staff involved in the partnership.
- Facilitate the delivery of evidence based care through staff accessing high quality, up to date and relevant education.
- Link all projects with service improvement plan run by the LHCH Programme Management Office.
- LHCH also needs to be promoted to potential external partners as a research capable organisation. Key to this will be ensuring that the NIHR R&D Operational Capability Statement is reviewed, updated and disseminated to relevant external organisations annually and posted on the Trust website.
- Participate in the shared Innovation Delivery Framework across the NWC that aims to provide a robust, coherent and embedded infrastructure to encourage, manage, measure, report and share innovation. This will enable the rapid adoption and diffusion of innovations for improved delivery of care and provide reliable and productive engagement with Industry, Universities and other key stakeholders.
- Proactively seek problems being experienced by the Trust that could possibly be solved by implementation of an existing innovative solution. Raw data for this initiative should come from staff, patients, families and carers.

<b>Key Measures</b>	<b>Target 15/16</b>	<b>Target 16/17</b>	<b>Target 17/18</b>
Number of research & innovation portfolio projects that involves at least one an external partner	2	3	4
Number of staff registered with the Practice Development and Research & Innovation Partnership	2	5	7
Number of industrial partners engaged in collaborative work with the Trust on innovation	3	4	5

## 7.6 Governance

Managing research and innovation is the responsibility of the Research and Innovation Committee. Assurances and risks are escalated to the Trusts Operational Group via the Trusts standard exceptions report, which in turn are reported to the Board of Directors. There is a need to ensure that high standards of governance are maintained. In order to achieve this, the Trust will:

- Maintain an ongoing audit of all Trust research at project level, reviewing governance arrangements and rectifying any gaps and risks identified.
- Ensure all research is conducted in accordance with the Standards of Good Clinical Practice (GCP).
- Be subject to a MHRA inspection once every three to five years dependent upon risks raised from previous reviews (last MHRA review resulted in only minor recommendations).

This Research and Innovation Strategy will be subject to annual review.

Key Measures	Target 15/16	Target 16/17	Target 17/18
Percentage of research governance audit plan delivered	>95%	>95%	>95%

## 8. Conclusions

This strategy:

1. Recognises the importance of innovation for the Trusts future success, and ensures it receives appropriate management time accordingly.
2. Develops our established research strengths, and seeks new ones in accord with the Trusts clinical developments.
3. Invests appropriately in staff capability and knowledge to help keep our Trust at the cutting edge of service delivery.
4. Ensures communications are robust, allowing all who wish to take part to become involved.

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