

## **BRIEF OVERVIEW OF THE NATIONAL INSTITUTE FOR HEALTH RESEARCH**

### **Introduction**

The National Institute for Health Research (NIHR) is funded through the Department of Health to improve the health and wealth of the nation through research. It is a large, multi-faceted and nationally-distributed organisation. Together, NIHR people, facilities and systems represent the most integrated clinical research system in the world, driving research from bench to bedside for the benefit of patients and the economy.

Since its establishment in April 2006, the NIHR has transformed research in the NHS. It has increased the volume of applied health research for the benefit of patients and the public, driven faster translation of basic science discoveries into tangible benefits for patients and the economy, and developed and supported the people who conduct and contribute to applied health research.

The Health and Social Care Act 2012 placed a statutory duty to promote research, and powers to support it, on the Secretary of State and on all levels of the NHS including NHS England and Clinical Commissioning Groups. The NIHR provides a key means through which the Secretary of State discharges this duty.

The NIHR plays a key role in the Government's strategy for economic growth, attracting investment by the life-sciences industry through its world-class infrastructure for health research.

Together, the NIHR people, programmes, centres of excellence, and systems represent the most integrated health research system in the world.

## VISION

To improve the health and wealth of the nation through research.

## MISSION

To provide a health research system in which the NHS supports outstanding individuals working in world-class facilities, conducting leading-edge research focused on the needs of patients and the public.

## AIMS

- Establish the NHS as an internationally recognised centre of research excellence.
- Attract, develop and retain the best research professionals to conduct people-based research.
- Commission research focused on improving health and social care.
- Strengthen and streamline systems for research management and governance.
- Increase the opportunities for patients and the public to participate in, and benefit from, research
- Promote and protect the interests of patients and the public in health research
- Drive faster translation of scientific discoveries into tangible benefits for patients
- Maximise the research potential of the NHS to contribute to the economic growth of the country through the life sciences industry
- Act as sound custodians of public money for the public good.

The NIHR works in partnership with many sectors including the public and service users, the NHS, public health, other Government funders, the academic and third sectors and industry

## STRUCTURE

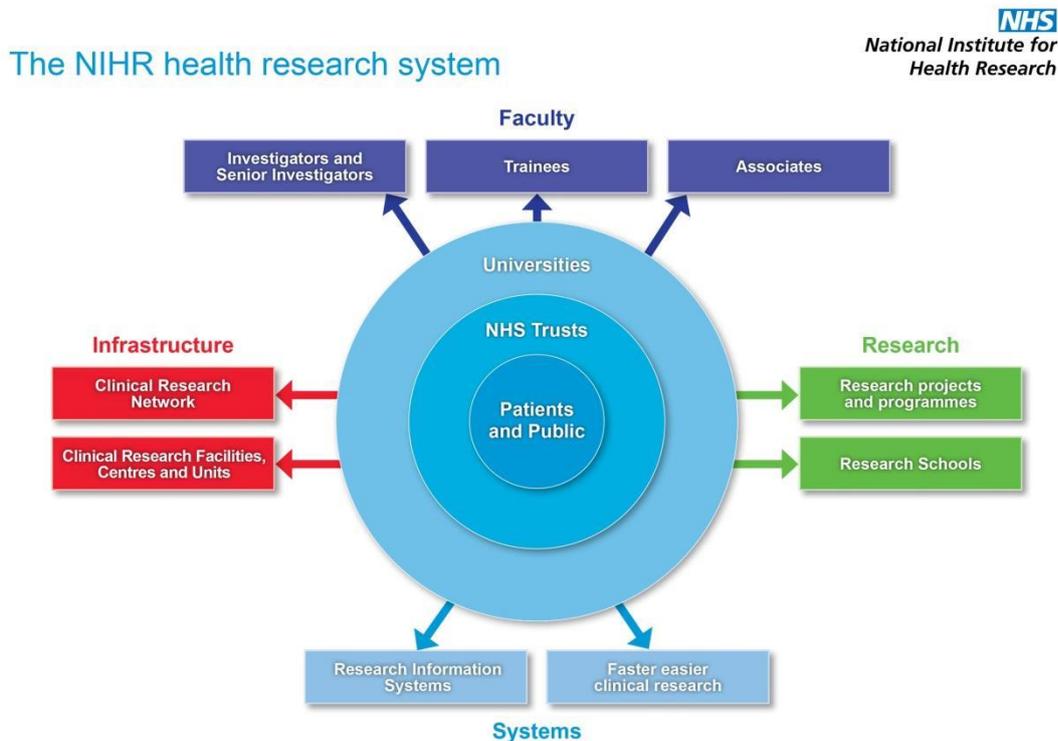
The NIHR funds leading-edge scientific research, driving faster translation of basic science discoveries into tangible benefits for patients and the public and creating the best possible conditions for inward investment by the life-sciences sector. It works in partnership with many sectors including other Government funders, academia, charities and industry.

The NIHR manages its health research activities through four main work strands:

- **Infrastructure**: providing the facilities and people for a thriving research environment.
- **Faculty**: supporting the individuals carrying out and participating in research.
- **Research**: commissioning and funding research.

- **Systems:** promoting faster, easier clinical research through unified, streamlined and simple systems for managing ethical research and its outputs.

The following diagram shows the NIHR health research system, with the interests of patients and the public at its heart.



## PATIENT ACCESS TO NHS RESEARCH

NHS patients and their families or carers are a key partner in NIHR's mission to improve the health and wealth of the nation. The NHS Constitution pledges that NHS patients will be informed about research in which they may be eligible to take part. NIHR supports this by providing accessible information about clinical studies through the **UK Clinical Trials Gateway**. The **NIHR Journals Library** provides people with easy-to-use research evidence to inform decisions about care and treatment

A growing number of patient leaders now work with the NIHR to improve the quality of the research and champion its delivery in local care settings through the '**Ok to Ask**' campaign and other initiatives.

The **James Lind Alliance (JLA) Priority Setting Partnerships (PSPs)** is funded by the NIHR and brings patients, carers and clinicians together in partnerships to identify and

prioritise treatment uncertainties which they agree are the most important for research to ensure that researchers and those who fund health research, are aware of what matters to both patients and clinicians.

## RESEARCH

The NIHR funds leading-edge scientific research focused on improving quality and patient outcomes, and supporting decisions about service investment and disinvestment. It plays a critical role in the development of better approaches, which lead to improved health outcomes

### Research programmes

The NIHR has a comprehensive range of research programmes in both commissioned and response mode. They offer a focused source of funding for researchers with the aim of improving health and care by providing evidence to inform clinical professionals, NHS managers, patients and the public, and where appropriate, policy makers.

- **Efficacy and Mechanism Evaluation (EME)** programme supports 'science driven' studies with an expectation of substantial health gain. It is jointly funded by the NIHR and MRC and aims to support excellent clinical science with an ultimate view to improving health or patient care.
- **Health Services and Delivery Research (HS&DR)** programme funds a broad range of research to produce rigorous and relevant evidence on the organisation and quality of health services, including costs and outcomes.
- **Health Technology Assessment (HTA)** programme funds research to ensure that healthcare professionals, NHS managers, the public and patients have the best and latest information on the effectiveness, costs and broader impact of developments in health technology, including new medicines, diagnostics, surgical and other interventions
- **Invention for Innovation (i4i) programme** supports and advances the development of innovative medical technologies or devices that could have a potential impact if applied in a healthcare setting. i4i funds collaborative research and development between partners from industry, NHS organisations and universities or other Higher Education Institutions.
- **Programme Grants for Applied Research (PGfAR)** are prestigious awards of up to £2.5 million over a period of three to six years, directed towards leading researchers who can demonstrate an impressive track-record of achievement in applied health research. Each programme funds a series of related projects, which form a coherent theme in an area of priority or need for the NHS.
- Nested within the PGfAR programme is the Programme Development Grants scheme. This initiative offers investigators the opportunity to undertake preparatory research that will position them to submit a competitive Programme Grant for Applied Research application.

- **Public Health Research (PHR)** programme commissions research to provide new knowledge on the benefits, costs, acceptability and wider impact of non-NHS interventions to improve the health of populations or groups of people. This programme in particular, has a strong focus on health inequalities.
- **Research for Patient Benefit (RfPB)** is a national response-mode programme for high quality investigator-led research projects that address issues of importance to the NHS. RfPB funding is on a smaller scale and the scope of each award is more focused than a Programme Grant award.

### Reviews programmes

- **The Dissemination Centre** supports NHS decision-making by producing:
  - **Signals** - short, accessible summaries of the latest research which have been identified as particularly important to clinicians, patients and managers
  - **Highlights** - compact digests of research evidence addressing significant health service issues
  - **Themed Reviews** - summaries of the state of the evidence on key health and social care issues, developed with a steering group of professional, patient and carer experts.
- **Technology Assessment Reviews** are commissioned by the HTA programme on behalf NICE and other policy-makers to support evidence-informed policy and practice.
- **UK Cochrane Centre and Cochrane Review Groups** support the preparation, maintenance and accessibility of systematic reviews of the effects of healthcare interventions produced by twenty one NIHR-funded Cochrane Review Groups. The Centre is part of the International Cochrane Collaboration.

**Health Protection Research Units** are partnerships between universities and Public Health England (PHE) and act as centres of excellence in multidisciplinary health protection research in England.

**Horizon Scanning Research and Intelligence Centre** appraises new developments to provide the Department of Health and policymakers with information on their implications to the NHS both in clinical and economic terms. The Centre's appraisals include new medicines, medical devices, diagnostic tests and procedures, surgical and other interventions, rehabilitation measures and new public health and health promotion approaches.

### INVOLVE

INVOLVE supports greater public involvement and participation in and engagement with NHS, public health and social care research. The organisation brings together expertise, insight and experience to help create a research community that undertakes NHS, public health and social care research, which reflects the needs and views of patients and the public.

### Research Design Service

The Research Design Service provides support for health and social care researchers to develop and design high-quality patient-focused and population-based research proposals, for submission to NIHR and other national, peer-reviewed research funding competitions.

## Research Schools

The NIHR supports national research schools that bring together top academics and practitioners to conduct leading-edge research to increase the evidence base for effective practice that benefits patients and the public. The three research Schools are in: Primary Care Research; Social Care Research; and Public Health Research.

## Surgical Reconstruction and Microbiology Research Centre

This NIHR Centre brings military and civilian trauma surgeons and scientists together to share advanced clinical practice in the battlefield and innovation in medical research to benefit all trauma patients in the NHS. The centre carries out research into acute responses to injury, microbiology and regenerative and reconstructive medicine. It is a partnership between the NIHR, the Ministry of Defence, University Hospitals Birmingham and the University of Birmingham.

## INFRASTRUCTURE

The NIHR provides the support and facilities the NHS needs for first-class research by funding a range of infrastructure facilities. The NIHR infrastructure includes:

- **Biomedical Research Centres and Units** – eleven Biomedical Research Centres (BRCs) and twenty Biomedical Research Units (BRUs) conduct and support translational research to transform scientific breakthroughs into new treatments for patients.
- **BioResource** – brings together volunteers, patients and their relatives (associated with six NIHR Biomedical Research Centres and one NIHR Biomedical Research Unit) who have consented to be approached about experimental medicine studies on the basis of phenotypic and genotypic data.
- **Biosample Centre** – robotic biosample repository, enhancing the nation's capacity to support research into disease mechanisms, diagnosis and treatment.
- **Clinical Research Facilities for Experimental Medicine** – provide purpose-built environments for patient-centred research. Clinical researchers make use of cutting-edge clinical facilities, technologies, expertise and have access to patients. Collaborations between basic and clinical scientists are facilitated so that advances in research can lead to improvements in healthcare
- **Clinical Research Network (CRN)** – makes it possible for patients and health professionals to participate in relevant research. The networks support the set-up and timely delivery of commercial and non-commercial studies in the NHS in England. This includes advice on study feasibility, streamlined NHS permissions and effective patient recruitment.

- We provide the infrastructure that allows high-quality clinical research to take place in the NHS, so that patients can benefit from new and better treatments. We help researchers to set up clinical studies quickly and effectively; support the life-sciences industry to deliver their research programmes; provide health professionals with research training; and work with patients to ensure their needs are at the very centre of all research activity.
- **Collaborations for Leadership in Applied Health Research and Care** – bring together universities and their surrounding NHS organisations including primary care, to conduct applied health research that is transferable across the NHS to provide the highest quality patient care and outcomes.
- **Diagnostic Evidence Co-operatives** – new infrastructure being established to act as centres of expertise to catalyse the generation of evidence on in vitro diagnostic medical devices (IVDs) that is required by the NHS and by industry, and which demonstrates the benefit to patients and the healthcare service.
- **Experimental Cancer Medicine Centres** – in partnership with Cancer Research UK, focus on speeding up the process of cancer drug development and the search for cancer biomarkers to diagnose cancer, predict the aggressiveness of the disease, or show whether a drug will be effective in a specific patient and at what dose.
- **Healthcare Technology Co-operatives** – clinical research infrastructure to develop concepts, demonstrate proof of principle and devise research protocols for new medical devices, healthcare technologies or technology dependent interventions to improve patients' quality of life and the effectiveness of healthcare services.
- **MRC/NIHR National Phenome Centre** - enables scientists to better understand and tackle diseases that are triggered by environment as well as genetic causes, and to develop strategies for their prevention and treatment. It uses nuclear magnetic resonance and mass spectrometry technology to give the most accurate readings to date of the exact chemical make-up of people's blood and urine.
- **Patient Safety Translational Research Centres (PSTRCs)** – conduct and support research to investigate ways to improve patient safety and the safety of NHS services.
- **Translational Research Collaborations in Dementia and Rare Diseases** – Bring together world-class health researchers within designated Biomedical Research Centres and Units to effectively pull discoveries from the country's world-leading basic and translational research into real benefits for patients, share their considerable resources and world-leading expertise to improve treatment and care, and to maximise the impact of NIHR investment. The Collaborations also play an important role in collaborating with the life sciences industry.
- **Translational Research Partnerships** – bring together world-class investigators in leading academic and NHS centres to support collaboration with the life sciences industry in early and exploratory development of new drugs and other interventions.

The NIHR Biomedical Research Centres and Units form the bedrock of these partnerships.

## THE OFFICE FOR CLINICAL RESEARCH INFRASTRUCTURE

NOCRI is a valuable resource for research partners including global life sciences industry and medical research charities, bringing simplicity to the clinical research environment, and promoting opportunities for partnership and collaboration with NIHR infrastructure.

NOCRI simplifies access to the nation's world-leading clinical research infrastructure, providing research partners by:

- simplifying access and enabling rapid connections to world-leading investigators in world-class facilities providing a doorway to well characterised cohorts of NHS patients
- providing access to unique multi-centre collaborations in experimental medicine enabling early phase clinical research in selected therapeutic areas
- facilitating operational delivery of multi-centre clinical trials through the NIHR Clinical Research Network.

NOCRI's offer to research partners includes signposting companies or charities to the appropriate parts of the NIHR, making introductions, and supporting the set-up of collaborations between research partners and NHS/academic centres partners.

In order to support the set-up and delivery of successful collaborations, NOCRI can provide streamlined and efficient business processes, using standard contracts and unified operating procedures which include Non-Disclosure Agreements and a suite of model commercial contracts covering contract and collaborative research.

## FACULTY

The NIHR Faculty brings together and supports the growing NIHR community of health research professionals, including clinical and support staff from all relevant fields and professional backgrounds.

There are four types of Faculty members who lead, undertake and deliver health research.

- **NIHR Investigators** are Faculty members who are directly engaged in undertaking NIHR, PRP or HICF funded research. This includes all research staff working on a research project including lead researchers, other senior researchers, and research assistants.
- **NIHR Senior Investigators** are drawn from the most pre-eminent NIHR-funded researchers selected through annual competitions. PRP and HICF funded researchers are also eligible to apply (if employed by an NHS Trust, university or charity based in England).
- **NIHR Associates** support research led by others. They undertake such activities as enrolling patients in studies, collecting or processing data and analysing tissue

samples. Associate members include clinical and clinical support staff, and scientific, laboratory, technical and administrative staff.

- **NIHR Trainees** are either award holders of NIHR Trainees Coordinating Centre research and career development training schemes:
  - Medical Doctors and Dentists through the Integrated Academic Training Pathway
  - Non-medical/dental health professionals through the Integrated Clinical Academic Training Pathways
  - Methodologists through Masters level awards

Trainees are also supported in the Biomedical Research Centres and Units, Collaborations for Leadership in Applied Health and Social Care, Patient Safety Translational Research Centres and the Schools for Primary Care and Public Health.

The NIHR Faculty also provides a range of research training and career development programmes and individual schemes to provide support for the academic training paths of all health care professionals and other key disciplines involved in health and social care research:

- **Integrated Clinical Academic (ICA) Programme** for non-medical/dental healthcare professionals.
- **Integrated Academic Training Programme** for Doctors and Dentists.
- **Fellowships Programme**: including Doctoral, Post Doctoral, Career Development, Senior and Transitional Research Fellowships
- **Research Professorships**
- **Research Methods Programme** for methodologists
- **Clinical Trials Fellowships**
- **Knowledge Mobilisation Research Fellowships**
- **NIHR Infrastructure Doctoral Training Exchange Scheme**
- **Leadership Support and Development Programme** – provides support and development for leaders across the NIHR, at different career stages.

## SYSTEMS

One of the NIHR's objectives is to make research faster and easier with a focus on outcomes so that research findings can benefit patients and the public more quickly. The NIHR is doing this by developing integrated systems for the NIHR and its partners to streamline and simplify approvals and permissions. This will support this country's competitive advantage in life science industry research and assist the NIHR in realising its vision to improve the health and wealth of the nation through research.

### **Faster Easier Research – supported by research management**

The NIHR's approach to making research faster and easier in the NHS is to:

- Make NHS providers' performance in starting and delivering research transparent and accountable, through new NIHR contracts, including the introduction of a 70 day benchmark for initiation of research.
- Provide support to help the NHS improve performance, for example through facilitating NHS providers to share learning about achieving improved performance, encouraging:
  - the board, researchers and managers to work together in a partnership, developing and engaging others in a clear, integrated approach to research;
  - organisations to measure how long it takes to start studies and their progress with recruitment against target, and to use this data to monitor performance, identify issues needing attention and plan and take action;
  - organisations to develop a research management culture that understands and promotes the benefits of research to patients, is pragmatic and proportionate about risk (for example, accepting credible assurances from others) and proactive in planning and managing studies throughout their life cycle, including recruitment.
- Provide a **Research Support (RSS) Services** framework - a set of tools and guidelines that enable providers and in particular their research managers to take a consistent, streamlined and risk-proportionate approach to considering their participation in research.
- The **NIHR Co-ordinated System for gaining NHS Permission (NIHR CSP)**, which involves a single study-wide review to consider compliance issues, allowing local reviews to focus on whether individual sites can deliver a study.
- **Work with the Health Research Authority (HRA)** to simplify approval processes for ethical research, for example by supporting a smooth implementation of HRA Approval.

## RESEARCH INFORMATION AND INTELLIGENCE

The NIHR provides information systems and policies to speed up the research process and maximise the use of information collected in routine NHS care:

- **Clinical Practice Research Datalink (CPRD)** – partnership with the Medicines and Healthcare products Regulatory Agency (MHRA) provides a secure and safe access point to patient electronic health records, collected routinely by the NHS, to support research.

- **Information Systems** – including the NIHR Hub, which uses cutting edge ‘cloud’ based technology to help researchers work collaboratively and more efficiently wherever they are based.
- **Management Information systems** – including the NIHR Dashboard, a standardised reporting system that provides information about research that has been funded and its impact.
- **National assessment tool - Researchfish** – that captures the progress of commissioned research on an annual basis and provides the NIHR with insight into its funded activities.

The NIHR also engages with a wide selection of stakeholders to communicate the benefits of research

## SUPPORTING GROWTH

The UK life sciences industry is a strong driver of economic growth. It contributes to the delivery of high-quality healthcare through the development of innovative medicines and medical technologies. The NIHR aims to develop the reputation of the NHS as a world-class environment for collaborative research in the public interest and to establish NHS as the preferred host for multi-centre clinical research in partnership with and for industry.

The **NIHR Office for Clinical Research Infrastructure** facilitates industry’s engagement with the NHS clinical research infrastructure by providing expert advice to life sciences research partners including pharmaceutical, biotechnology, contract research organisations and device and diagnostic companies. It also works with other funders and supports collaboration across the infrastructure.

## SUPPORT FOR NHS ORGANISATIONS THAT SPONSOR OR HOST RESEARCH

The NIHR **Research Capability Funding** provides funding to research-active NHS organisations or NHS health care providers in receipt of NIHR income to enable them to maintain research capacity and capability. Funding is allocated: in proportion to the total amount of other NIHR income received by that organisation, and the number of NIHR Senior Investigators associated with the organisation; and to organisations which recruit more than a set number of patients to eligible research studies.

Funding is also allocated to the NIHR Clinical Research Network for local research networks, via the NHS organisations that host each local network.

## **NIHR STRATEGIC ADVICE AND GOVERNANCE**

### **Advisory Board**

The Advisory Board's role is to advise on improving the culture and performance of health and social care in supporting, conducting and hosting research. The Board supports the NIHR to meet the research needs of health and social care and to play its part in contributing to the country's economic growth. The Advisory Board includes NHS chief executives, representatives of key bodies in health and social care as well as leaders of academic organisations and representatives from patient focussed organisations

### **Strategy Board**

The NIHR Strategy Board advises on strategic issues relating to the management of NIHR and the implementation of NIHR's strategic plans. It helps to ensure that the NIHR acts as one entity and communicates effectively both externally and internally. The Board includes directors of the NIHR coordinating centres, programmes and infrastructure and the senior management team of the Department of Health's Research and Development Directorate

### **Further information**

Further information is available on the NIHR website ([www.nihr.ac.uk](http://www.nihr.ac.uk)).