



Pursuing excellence.

An independent analysis of Leeds' research
and innovation in health and care

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Leeds Academic Health Partnership.
The study team extends its sincere
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I Executive Summary

The health and care research and innovation landscape in Leeds is more vibrant and better connected than ever. This report shows that Leeds is a leading UK location for health and care research and innovation, and that it is already competing internationally as a healthtech start-up hub.



A woman with curly hair is laughing heartily while talking to a man in a blue shirt. The scene is set in a warm, indoor environment with soft lighting. The woman is wearing a grey cardigan over a dark top. The man is partially visible on the right side of the frame, wearing a blue shirt.

“Leeds is a big city region, but it still has a strong community and a good healthtech scene – so you have the benefit of both scale and community.”

Healthtech Business Representative

I.1 Key Findings

Leeds has a strong legacy of health and care research and innovation. Since Charles Thackray worked with surgeons at Leeds General Infirmary in the early 1900s to design and manufacture surgical instruments, Leeds has been at the forefront of medical technology research and innovation.

Health and care research and innovation has been a key focus of policy development in Leeds for over two decades. In recent years, this sustained focus has fostered new strategic partnerships and secured investment in state-of-the-art physical infrastructure. These new developments offer unique opportunities to boost health and care research and innovation, in everything from new architectural designs for health and care services, to new test beds for medical devices and AI-enabled diagnostics.

System leaders are committed to economic growth that is inclusive – benefitting people in all local communities.

To harness these opportunities, 59 Leeds-based ecosystem assets provide research and innovation capacity and expertise across health, academia, education and civic society. This includes national NHS offices, the Department of Health and Social Care's (DHSC's) second headquarters, and NHS England, including what was NHS Digital.

Since 2018, Research Organisations (ROs) in Leeds have secured over £200m in funding for health and care research and innovation, including over £80m from the National Institute for Health and Care Research (NIHR). More recently, further investment has been secured for two major NIHR health and care research co-ordinating centres. As well as supporting nationally leading health and care research, this funding has been a catalyst for nine NIHR translational research centres and initiatives.

These initiatives help to ensure broad stakeholder engagement in, and translation of, health and care research and innovation in Leeds and beyond. Leeds is at the heart of a vibrant regional healthtech sector that includes more than 250 locally headquartered companies. These companies generate more than £3bn in turnover and employ around 16,000 people. The city is a hub for innovative, high-growth companies, has a high concentration of healthtech employees, and a growing investment landscape.

Local healthtech companies benefit from pro-active enterprise and innovation support. This includes Nexus – a state-of-the-art 6-floor innovation hub – and tailored digital health acceleration support like Health Innovation Yorkshire and Humber's (HIYaH's) Propel programme.

Education and skills providers across Yorkshire provide a sustainable, end-to-end pipeline of health and care talent and skills. There are novel and varied routes into health and care roles, including more than 10,000 learners involved in relevant T-Level and apprenticeship courses. Leeds-based universities enrol more than 11,000 undergraduates and train around 3,000 postgraduates each year on courses relevant to health and care research and innovation. This includes eight doctoral training initiatives spanning numerous disease specialisms, clinical research expertise and data science techniques.

Skills development extends into the health sector, where Leeds-based NHS Trusts employ almost 12,300 professionally qualified clinical staff and have more than 1,000 staff involved in training (NHS Workforce Statistics, 2023). Leeds Health and Care Academy (LHCA) – the first of its kind in the UK – offers a diverse range of education and skills development programmes for local health and care staff.

Benchmarking analyses suggest that Leeds is already a leading location for health and care research and innovation. Compared to national benchmarking cities, Leeds:



Has the **highest number** of health and care related patents applied for or granted (n~200).

Enrols the **highest proportion** of undergraduate students in bioscience courses.



Has one of the **highest concentrations** of healthtech employees – equivalent to around 2 in every 100 working age people.

Has the **largest proportion** of high-growth healthtech companies securing equity investment.



Compared to eight international benchmark cities, Leeds accounts for 14% of investment raising companies, ranking it third behind Dublin and Zurich.

Ecosystem leaders have brought Leeds health and care research together under the unifying banner of Health Innovation Leeds. This underpins their work towards a shared vision – one in which Leeds is recognised as a leading city, nationally and internationally, for health and care research and innovation. In support of this vision, five high-potential opportunities and corresponding actions have been identified through this study.

1.2 High Potential Opportunities & Actions

Research undertaken to inform this report has identified a number of high potential opportunities and actions, as summarised below.



1. Maintain a collaborative focus on health and care research and innovation.

	Opportunity:		Action:
<p>Strong leadership and effective co-ordination were highlighted as key foundations of the health and care research and innovation ecosystem in Leeds. At a time when so many strategic initiatives are being delivered, stakeholders should be supported to maintain a unified and collaborative strategic focus.</p>		<p>Agree clear mandates for ecosystem co-ordination, back the organisations chosen to deliver, and expand programmes that connect ecosystem stakeholders.</p>	

2. Extend start-up and acceleration support to help scale dynamic, high-potential companies.

	Opportunity:		Action:
<p>Local and international healthtech companies highlighted the quality and effectiveness of start-up support delivered across the ecosystem. Extending this support to help high-potential scale-up companies can deliver further economic growth and capitalise on recent investment trends.</p>		<p>Design and deliver a comprehensive, targeted programme of scale-up support that builds on the success of existing acceleration support. Raising awareness of investment opportunities in innovative local healthtech companies could help increase Leeds' share of investment.</p>	

3. Further leverage healthtech industry sector specialisms.

	Opportunity:		Action:
<p>Leeds has sectoral strengths in medical technology, digital health, software development, data analytics and artificial intelligence. Involving private sector networks in start-up and scale-up activities can help future entrepreneurs benefit from existing sectoral knowledge.</p>		<p>Involve existing private sector collaborations such as the Healthtech Cluster and Leeds Digital Health in the design and delivery of start-up and scale-up support.</p>	

4. Continue building capacity across the ecosystem to support research and innovation activity.

Opportunity:

Effective access to clinical networks was highlighted as an ecosystem strength. There must be sufficient capacity to facilitate research and innovation across the ecosystem in future – from clinical environments to local communities.

Action:

Ensure that provision is made to enable research and innovation across organisational boundaries. This should include adequate clinical time to support research and innovation.

Opportunity:

Leeds is well placed to use data to better understand, plan and deliver care-related research and innovation, particularly across care pathways and organisational boundaries.

Action:

Explore opportunities to raise awareness and use of key datasets, such as the Leeds Data Model, for understanding, planning and delivering care-related research and innovation.

5. Heighten the scale of ambition within research and innovation funding applications, ensuring that research aspirations are informed and guided by the city’s highest health needs.

Opportunity:

Research organisations in Leeds already secure significant levels of funding for health and care research and innovation, but there is some scope to increase the scale of research funding awards.

Action:

Support research organisations to identify and scope a small number of larger scale strategic health and care research and innovation funding opportunities that clearly address the city’s most pronounced health and care needs.



