



INNOVATION AGENCY
Academic Health Science Network
for the North West Coast

Our forward view 2016-18



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WHO WE ARE

By Dr Liz Mear and Gideon Ben-Tovim

What are Academic Health Science Networks? We are often asked this question and it is a challenge to describe our role as catalysts and collaborators on innovation in health and care.

This is one reason why we have taken the step of renaming ourselves the Innovation Agency, to emphasis our core purpose of being an agent of change through innovation. We proudly remain an Academic Health Science Network, one of 15 set up by NHS England who work together nationally as well as within our own regions. This will be reflected in our branding and in all our communications.

We cover Cheshire, Merseyside, Lancashire and South Cumbria, which collectively have around 4.1 million residents. Within our geographical footprint we have 25 NHS providers, 15 CCGs, nine universities and a large number of life science industry partners.



Dr Liz Mear Chief Executive

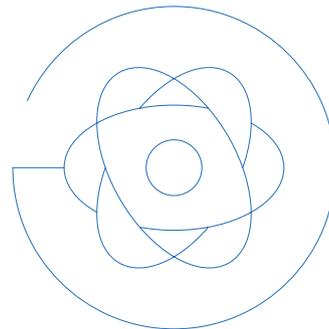


Gideon Ben-Tovim OBE Chair

The new name also reflects a business plan for the next two years which has a tighter focus on driving innovation - supporting both businesses and clinicians who have developed new systems, new devices or new technology. Our academic partners continue to play a key role, providing expertise in many areas, not least evaluation so that we can test these new ways of working before helping them to spread.

We are grateful to all our partners and stakeholders who are part of a fantastic network of talented and farsighted individuals, driving innovation with the aim of improving the health and wellbeing of residents in the North West Coast region.

This brochure describes our work so far and our future plans; we hope you will enjoy working with us to achieve the goals we have outlined.



WHAT WE DO

Spreading innovation, improving health, generating economic growth

- **We are catalysts** for the spread of innovation at pace and scale - improving health, generating economic growth and helping facilitate change across whole health and social care economies
- **We connect** regional networks of NHS and academic organisations, local authorities, the third sector and industry - responding to the diverse needs of our patients and populations through partnership and collaboration
- **We create** the right environment for relevant industries to work with the health and social care system.

Our core purpose is **to spread innovation, improve health, generate economic growth**

These are our Innovation Agency values



How we will do it – our four goals

We have developed a business plan which focusses on four goals, which are the result of consultation with our partners and key stakeholders about the needs of our region matched with our capabilities and complementing other organisations.

What we aim to do:

- Improve health outcomes
- Increase the impact of every £ spent
- Increase economic growth
- Provide equal access to innovation
- Provide a relentless focus on innovation
- Develop networks and collaborations
- Highlight significant opportunities
- Bring multiple funding streams into the region

Accelerate delivery of safer, better care

Develop a network of health innovation centres

Support economic growth through SMEs and industry

Drive digital innovation, empowering citizens and workforce

Clinical programmes – reducing strokes, adoption and spread of genomic medicine, treating back pain, reducing alcohol misuse, medicines optimisation, dementia, patient safety, reducing infection, mental health, chronic obstructive pulmonary disease

Supported by our recognised capabilities:

1 A broker of collaborations and networks

2 Showcasing high impact innovations

3 Improving skills in adopting and evaluating innovation

GOAL ONE:

Accelerate the delivery of better, safer care

In order to create a world class safety culture in the North West Coast and beyond, a new Innovation Agency Safer and Better Care Strategy is being developed through the Patient Safety Collaborative, which we co-ordinate. This will bring together knowledge and evidence, data intelligence and local expertise to determine areas of focus. Our approach is to build robust action plans around the collective commitment to:

- Build skills and knowledge;
- Create space and time to work on safety issues;
- Identify opportunities to continually learn from each other;
- Improve patient safety leadership.

To deliver this strategy we will focus on accelerating change through greatly improved access to education, tools, guidance, national and international best practice. We will develop new tools and work alongside national regulators to influence their approach to licensing organisations with regard to patient safety training and measurement. There will be a strong emphasis on collaborations, for example by working with Healthwatch on 'Enter and View' activities.



Example: Fylde Coast Vanguard – moving specialist care out of hospitals into the community

One of the first steps towards delivering NHS England's Five Year Forward View and supporting improvement and integration of services is the creation of Vanguard sites.

For the Fylde Coast Vanguard, one of the biggest challenges is ensuring sufficient numbers of staff with the right values and behaviours. It is anticipated that an additional 420-430 full time equivalent staff are required across the Extensive Care Service and Enhanced Primary Care provision.

The Vanguard has sought support from the Innovation Agency in co-ordinating workforce planning processes, taking account of the new models of care and/or changes arising from the transformation projects across the system.

Along with interpreting the workforce requirements there is a need to influence the commissioning of the education and training provision to meet those requirements. Support to develop a training hub across the Fylde Coast that meets the educational needs of a multi-disciplinary workforce is also required.

A software based system, Simul8 has been commissioned by the Innovation Agency to model patient flows through the health and social care system and test the impact of new models of care including:

- Admission avoidance and out-of-hospital schemes supporting patients in their own home or closer to home
- Offering services at accessible times
- Identifying and supporting patient groups at risk through integrated care teams

This will help to identify the cost of services; the capacity required in community and primary care services; and consequent reduction in hospital activity, cost and bed capacity.

Health Education North West is providing financial support to roll out the Workforce Repository and Planning Tool to vanguard sites.



GOAL TWO:

Develop a network of health innovation centres

Across the North West Coast, clusters of NHS, academic, local government and commercial stakeholders have formed Health Innovation Centres, seven of which have been part-funded by the Innovation Agency. Facilities are being built, existing estate is being renovated and governance frameworks are developing to attract investment and support people with the skills and passion to work together to create and drive adoption of innovation.

There are currently ten such centres across the region, all at different stages of development and with distinct purposes:

- Liverpool Bio Innovation Hub
- Chorley Digital Hub
- Lancaster Health Innovation Campus
- Centre of Integrated Health Science, Chester
- The Accelerator, Liverpool
- Alder Hey Institute in the Park and Innovation Centre
- NWC Genomics Medicine Centre
- Liverpool Community Laboratories
- Sensor City, Liverpool
- Centre of Excellence in Infectious Diseases Research

The Innovation Agency has played a role in developing these centres, working in partnership to strengthen capabilities and helping to capture grants and attract investors.

Example: Alder Hey

Alder Hey Children's Hospital in Liverpool has built an Institute in the Park, in which we have invested pump prime funding of £150,000 to help attract a further £12 million of European funding. The new facility allows researchers and clinicians to work with industry to develop safer, better medicines and therapies for children to use in the NHS and throughout the world. This helps to secure Alder Hey's reputation as a national and international leader in the development of safer and more effective medicines for children and young people.

An example is 3D LifePrints UK, which produces 3D medical models in an intensive study with Alder Hey to help in the planning and preparation for surgery.

We invested a further £280,000 in an Innovation Centre at Alder Hey – a large space in which clinical settings are simulated for clinical and commercial innovators to try out new technologies and devices.



GOAL THREE:

Support economic growth through SMEs and industry

We enable companies to grow and create jobs by enabling them to engage more productively with NHS and care organisations.

We do this by providing a wide range of services to innovators in industry and in health and care; and we are working in partnership with our Local Enterprise Partnerships to develop business support programmes for small and medium sized companies in the health sector.

For example we:

- Act as a single point of contact, building relationships with companies and helping to navigate the complex health system
- Provide advice about issues such as the required evidence base, evaluation methods and gaining access to markets
- Run the Small Business Research Initiative (SBRI) Healthcare programme, which provides both seed funding and visibility within the healthcare system
- Help to secure major European funding and pump prime funding through our own Innovations With Impact competition.

Through our Business Connect programme, in our first two years we have:

- Actively engaged with 543 companies
- Provided intensive support to 81 companies
- Jobs safeguarded – about 50
- Jobs created – about 50
- New products or services introduced - 76
- Further investment leveraged - £5,832,685

Example: How we helped Leanvation break into the NHS

North West firm Leanvation succeeded in breaking into the multi million pound NHS market for surgical gloves, with help from the Innovation Agency.

The St Helens company uses the latest advances in material technology to develop gloves suitable for use in most surgical procedures, removing the need to stock a wide product range.

Exposure to latex can lead to the development of latex allergy in both staff and patients. To combat this Leanvation developed a range of latex-free gloves; as they are suitable for use across most surgical procedures, this can reduce significantly the number of product lines stocked.

Following help from the Innovation Agency, Leanvation is now on the NHS Supply Chain framework - the largest supplier of surgical gloves to the NHS.



Managing Director Dr Jonathan Day said: "This was the breakthrough we were waiting for; there is strict governance in the health service which means that only a limited number of approved companies are allowed to provide supplies.

"It was a massive achievement for us and it has helped us to attract more investment so that we are able to step up production and continue to invest in delivering value and innovation to the NHS."



European Union

European Regional
Development Fund

European programmes

Over the last three years we have successfully applied to be partners in four European projects, bringing investment into the North West and making a major contribution to the Northern Powerhouse.



Example: STOPandGO

We are part of STOPandGO - Sustainable Technologies for Older People – Get Organised, a pilot procurement project funded through the European Union.

The target population is frail and dependent older people and their carers and the aim is to identify and evaluate a standard specification to be used across the EU to secure cost-effective, telehealth and telecare services to improve health outcomes.

The coordinated procurement process which will be used in diverse localities in four EU nation states will bring tested products and services to a much wider market, starting with a target of 5,000 users.

The project began in April 2014, runs for 36 months and will illustrate real improvements in quality of life, care and carer programmes and hospital inpatient stays. By adopting an innovative procurement approach, this pilot project will show that the benefits can be translated from small populations to wider ones, showing how the spread of technology has a direct impact in reducing pressure on services.

GOAL FOUR:

Drive digital innovation that empowers citizens and the workforce

Our role is to identify innovations which have the potential to be spread widely - and to accelerate their spread to benefit as many people as possible, as quickly as possible.

We will actively support the introduction of digital technology to bridge the gap between what citizens are demanding and what health and care systems are capable of providing.

We will also adopt digital products from the National Innovation Accelerator that fit with this goal. An example is the use of simple hand-held technologies and mobile phone applications which can be used by people to monitor their health and manage long term conditions.

Example: Atrial fibrillation campaign

An Innovation Agency campaign was held to raise awareness of the importance of checking blood pressure and pulse by using small devices attached to mobile phones to detect atrial fibrillation. A five per cent reduction in atrial fibrillation related strokes over three years will equate to 100 fewer strokes and a saving of £2,331,500 per year.

In the campaigns in Merseyside and Lancashire:

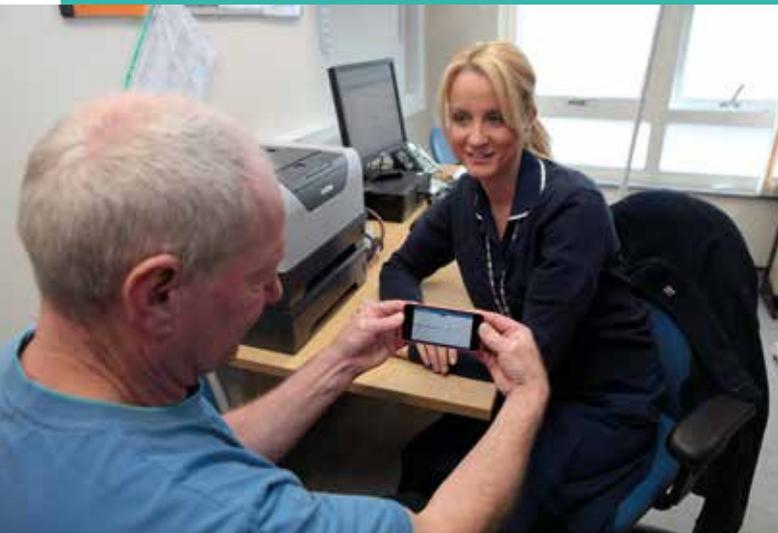
- 900 pulses were tested and 46 abnormal pulses detected
- Workshops, drop-in events, symposia for clinicians were held

New ways of testing and prescribing for atrial fibrillation are being shared across 11 AHSNs, while partner projects led by the Strategic Clinical Network – a commissioning toolkit and a clinical pathway for atrial fibrillation - are being rolled out in community healthcare.

We are supporting Francis White, whose company developed a mobile heart monitor, 'AliveCor'; Francis is a Fellow with the National Innovation Accelerator programme.

Supporting digital health systems

We are helping to shape regional solutions to sharing data so that health and care providers have access to a single record for each citizen - a key aim of NHS England and of the Connected Health Cities programme. We have played a leading role in developing the Connected Health Cities bid as part of the Northern Health Science Alliance, helping to secure £4 million for our region. The aim is to use the 'Ark' concept with digital and people



Pictured, is Specialist heart failure nurse Linda Hilton with patient Albert Edwards, using an AliveCor.

themes, to develop a learning health system across the North West Coast region, using our health data; and to develop clinical pathways in keeping with the 5-Year Forward View, by shifting services from hospitals into the community.

Example: Lancashire Personal Record Exchange System

We invested £400,000 and helped to secure another £1 million for a 3-5 year programme to establish the Lancashire Personal Record Exchange System, with the goal of connecting all health, care and other public sector organisations' data systems in Lancashire and to run cross boundary connections to Merseyside, Cumbria and Manchester and beyond.

Test Beds

We have supported three bids for Test Beds where innovative technologies offering both better care and better value for taxpayers, are tested along with new ways in delivering NHS services.



Consultant plastic surgeon Mr Rowan Pritchard of St Helens and Knowsley NHS Trust is also a healthcare app developer



Example: Lancashire and Cumbria – innovations to support the frail and elderly

A pioneering Test Bed to develop innovations to support frail and elderly people is led by Lancashire Care NHS Foundation Trust, with partners including the Lancaster Health Hub, Philips, local small businesses, social enterprises and the voluntary sector.

Together they form the Lancashire and Cumbria Innovation Alliance, which over the next two years will enable frontline health and care workers in Lancashire to use a range of technologies and interventions to support frail and elderly and people living with long-term conditions and dementia to be cared for outside hospital, to improve their care.

The bid for Test Bed funding was backed by the Innovation Agency, with support in putting together the proposal and in introducing some of the commercial partners. We continue to support the Test Bed by connecting innovators with health and care providers; and with helping to spread the lessons learned so that other areas benefit.

Dr Tony Naughton, Clinical Chief Officer of Fylde and Wyre Clinical Commissioning Group said: “The impact has to be that we stop people going into hospital, because hospitals are being overwhelmed with elderly and sick people who perhaps live alone and don’t look after their medical conditions very well.”



GP Tony Naughton with patient Ian Paterson

CLINICAL PROGRAMMES

Our work to drive the adoption and spread of innovation supports a number of clinical programmes:

- Reducing strokes
- Personalised medicine
- Treating back pain
- Reducing alcohol misuse
- Medicines optimisation
- Dementia
- Patient safety
- Reducing infections
- Mental health
- Chronic obstructive pulmonary disease

Example: North West Coast Genomic Medicine Centre

We provided bid writing and match funding for posts to secure £1.1 million to support the introduction of the



North West Coast Genomic Medicine Centre, one of 13 established by NHS England to help gain a better understanding of the genetic causes of cancer and rare diseases.

It is part of the Government's 100,000 Genomes Project, which aims to sequence, or analyse, 100,000 genomes from around 70,000 people. Participants are NHS patients with a rare disease, plus their families, and patients with cancer.

The aim is to create a new genomic medicine service for the NHS – transforming the way people are cared for. Patients may be offered a diagnosis where there wasn't one before. In time, there is the potential of new and more effective treatments.

To get involved

If you would like to find out more about our work and get involved, whether as a health and care professional, a local business or a local citizen, please sign up for our newsletter and/or contact us as below.

www.innovationagencynwc.nhs.uk

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