Academic Health Science Networks: engaging with innovation and improvement

Key points

- AHSNs are being created to drive innovation in the NHS – and create wealth for the UK economy.
- Their core functions include informatics, service improvement, procurement and engaging the NHS with research.
- Effective cross-sector governance and partnership working will be key to the success of AHSNs.
- The pace of designation is rapid and may be at odds with the time required to establish productive partnerships.
- Local variation in the configuration of AHSNs is to be encouraged.

This Briefing provides an update on the development of Academic Health Science Networks (AHSNs) – a new tier of organisations to improve the identification, adoption and spread of innovation in the NHS. It explores some of the forms that AHSNs could take, what contributions different sectors need to make and, building on the experience of other local innovation partnerships, how AHSNs will need to be supported as they emerge.

This Briefing is part of a series on the NHS innovation landscape. It is accompanied by Lessons from Health Innovation and Education Clusters and Integrating research into practice: the CLAHRC experience. Later this year a summing up paper will be released, updating our 2009 publication Making sense of the new innovation landscape.

Context, continuity and change

Although announced as recently as November 2011, the ideas behind AHSNs have grown out of an approach to innovation that goes back at least as far as Lord Darzi's 2008 Next Stage Review. This acknowledged that although the NHS is good at research, discovery and invention, it is not so good at adopting and spreading new ideas. Darzi supported strong partnerships with industry and
operation this. Around the same time, and with a similar ethos of supporting innovation through collaboration, nine NIHR CLAHRCs (Collaborations for Leadership in Applied Health Research and Care) were established across England. Both HIECs and CLAHRCs have substantial experience of driving and spreading innovation in the NHS. As such, the lessons from these organisations, detailed in the two briefings accompanying this one, will be of great value to emerging AHSNs.

Innovation, Health and Wealth: de-cluttering and delivering growth

Innovation, Health and Wealth, a review launched in November 2011 by the Prime Minister, once again put innovation at the top of the service agenda. The review maintained the focus on the need for innovation through local collaborations, but re-contextualised this for a period of deepening austerity, radical reform and rising demand.

The review insists that innovation is central to the future of the NHS for three important reasons:

- innovation transforms patient outcomes
- innovation can simultaneously improve quality and productivity
- innovation is good for economic growth.

There are wider economic and strategic imperatives at work here. The Government’s Plan for Growth, published in March 2011, aims to transform the UK health innovation and life sciences sectors with a particular focus on speeding up adoption and diffusion of innovations across the NHS. At the same time, Lord Heseltine’s overarching review for the Department of Business, Innovation and Skills (due to be published in autumn 2012) on how the public and private sectors interact, will specifically assess the capacity of the public sector to deliver pro-growth policies.

What do we mean by innovation?

"An idea, service or product, new to the NHS or applied in a way that is new to the NHS, which significantly improves the quality of health and care wherever it is applied."

Innovation, Health and Wealth (2011)

Innovation can refer to changes in thinking, products, processes or organisations, and may involve research, discovery or invention. It is as much about applying an idea, service or product in a new context or organisation as it is about creating something entirely new.
The role and functions of AHSNs

Since their announcement as part of Innovation, Health and Wealth, the core function of AHSNs – to support the identification, adoption and spread of innovation and best practice – has been significantly expanded. They are now expected to be given responsibility for informatics, engagement with research, service improvement and procurement. Although formal designation guidance on the role and functions of AHSNs has yet to be issued, the following six functions are believed to form their core scope:

1. Supporting integration of NHS organisations and partnerships between NHS and academia, industry and education. AHSNs will aim to generate shared visions and goals between their partners and through collaboration help to deliver the strategic priorities of each. They will provide a strong active link to strategic clinical networks and clinical senates.

The rationale for AHSNs

Innovation, Health and Wealth (Department of Health, 2011) recommended the creation of “a more systematic delivery mechanism for diffusion and collaboration within the NHS by building strong cross boundary networks”. The aim of this mechanism, dubbed Academic Health Science Networks, is to “align education, clinical research, informatics, training and education and healthcare delivery” and “to improve patient and population health outcomes by translating research into practice and developing and implementing integrated health care systems”.

The NHS contributes significantly to the UK economy in four important ways:

- through the services it provides, a healthy population is more productive, and more economically active
- by adopting innovation to improve its own productivity, it can deliver more health benefit for a given public resource
- by accelerating adoption and diffusion of innovation, it supports growth in the health-related industry, helping to create new jobs
- by exporting innovation, ideas and expertise, in partnership with UK industry.

AHSNs were announced as part of the recommendations of Innovation, Health and Wealth. A key reason behind their establishment was to broaden the purpose of innovation in the NHS beyond the health economy and productive population. One of their core functions is to drive growth in the wider economy through health sector innovations. AHSNs are expected to both broker such opportunities and provide technical support to implement pro-growth strategies.

By establishing AHSNs, Innovation, Health and Wealth recognised that it was superimposing a new architecture onto an existing one. Finding that the old system was cluttered and confused, the review initiated a ‘sunset review’ of current innovation organisations and functions funded or sponsored by the Department of Health. This ‘de-cluttering’ exercise is expected to last 6–9 months. Although it is not yet clear which organisations will be in scope, it is thought that most of the innovation functions of the bodies included will be concentrated into AHSNs.

Figure 1. Role of AHSNs

- Innovators
- Implementers
- Evidence producers
2. Promoting participation in research and translating findings into practice. Also to work alongside NIHR initiatives and clinical research networks to promote and support research.

3. Collaborating on education and training, developing a close relationship with local education and training boards (LETBs), which will receive funding from Health Education England. AHSNs will have particular interests in professional development and increasing innovation, skills and capacity.

4. Driving service improvement by developing capacity, capability and skills to allow the adoption and spread of service improvement within the network and translating to other networks.

5. Creating a patient-centred informatics service to act as a catalyst to improve services (for example, assistive technologies) and facilitate data sharing across the network. They will promote shared electronic records.

6. Working closely with industry partners to provide a portal for better procurement which supports getting innovations into mainstream use more quickly – a key part of wealth creation.

In addition, a number of other functions may form part of their work (see Figure 3), although it is not yet known which are requirements and which are suggestions.

What forms will AHSNs take?

There is no prescribed format or configuration for AHSNs. Their shape and size will be heavily influenced by local factors such as patient flows, existing relationships and local expertise – particularly where an AHSN, HIEC or CLAHRC is present.

From discussions with formative AHSNs, there appear to be at least
AHSNs and AHSCs

There are currently five Academic Health Science Centres (AHSCs) across England: Cambridge University Health Partners, Imperial College, King’s Health Partners, Manchester and UCL Partners. All are located in major teaching hospitals and focus on invention and discovery of new ideas for high-tech, mostly acute care. They are less focused on adoption and spread – which is a core purpose of AHSNs – and do less on out-of-hospital care – also a likely AHSN priority.

Perhaps the most important difference is that AHSCs are characterised by excellence in that they are world-leading institutions in invention and research. AHSNs are characterised by universality – they provide a safe environment for innovators, evidence producers and implementers to work together in a broad partnership across a large geographic area.

Although different in function, AHSCs are likely to play an important role in their local AHSN. All AHSCs will be required to ‘nest’ within an AHSN in order to be redesignated in 2014.

three types of configuration emerging – though these will not become clear until after expressions of interest have been submitted (expected deadline in July 2012):

1. Discovery focused: Led by a 'nested' AHSC, and with a focus on invention/discovery in technology, biotech and/or drug developments. Local authorities and social enterprise organisations are not seen as key members.

2. Whole system acute led: Non-teaching, acute hospital led, with involvement from organisations across the whole system including local authorities and third sector organisations (see South West London case study below).

3. Whole system community led: Close involvement of local authorities and third sector organisations. Education and training would be a primary focus.

South West London Academic, Health and Social Care System

The SWL System grew out of the local HIEC. Since 2012, the SWL System has been funded through a subscription model with a range of members from NHS, local authority and Kingston and Roehampton Universities. It is led by St George’s Medical School, University of London and has over 650 active participants at all levels of member organisations.

It is a low-cost, high-impact knowledge exchange mechanism that seeks to bring university research into practice by enhancing relationships and building connections between universities and their local area. It aims to develop knowledge exchange that goes beyond translating research into better professional practice, by identifying research questions that are important to local decision-makers and bringing the need for new skills to the attention of higher education. It is an example of how cross-fertilisation of ideas enables greater preparedness for a rapidly changing health and care economy. Greater knowledge of local issues and a new willingness to host research studies have helped academics focus on local issues with national impact. Early initiatives have included:

- **Knowledge exchange**: Providing access to e-learning technology and teaching has enabled the pharmacy team at the local mental health trust to devise an evidence-based learning course to enhance the role of unqualified staff in safe medication management and reducing risk to patients.

- **Patient outcome benefits**: Research shows that involvement in heritage and cultural activities improves people’s mental and physical health. Local health professionals can ‘prescribe’ access to heritage and cultural activities for therapeutic benefit. This feeds through into education, where involvement of student volunteers exposes them to a new way of supporting patient recovery.

- **Co-production** between academics and four NHS trusts provided 50 employer-funded places in an academic programme to facilitate the rapid and safe introduction of new healthcare roles.
How are AHSNs being set up?

Timetables for the establishment of AHSNs will be included in the designation guidance which, at the time this Briefing went to print, had not yet been published. Provisional timetables that we believe AHSNs will be designated according to are in three stages:

1. An expression of interest from each AHSN (potentially required by mid-July 2012)
2. A prospectus and business case (September 2012)
3. Interview panels (October 2012).

Successful first wave AHSNs will be announced late in 2012 with the remainder being announced before the end of March 2013. Once designated, there will be a 15-month development programme of recruiting staff, holding events, starting projects and building special interest groups. All AHSNs should be fully operational by October 2013.

How will AHSNs be governed?

The participants in an AHSN should work together to design their own governance model which meets the national requirements of an incorporated body with a clear public interest. There will be an independent chair, accountable officer and the board should have governance links with LETBs and clinical research networks.

It is not yet clear how industry, local authorities or social enterprises will participate in AHSNs. For industry, there could be conflicts of interest if specific companies are involved. Patient-focused organisations need to be included as they are essential in creating demand for improvements and the implementation of best practice.

How can my organisation get involved?

AHSNs are multi-faceted organisations with many different functions and partners, so there are many different ways in which organisations can get involved.

NHS organisations will be able to participate as members in their local AHSN. They cannot be part of more than one, but could be affiliated to others for particular themes or projects. Participation is voluntary, but there may be some sanctions for not participating – such as inability to access CQUIN payments.

NHS commissioners must participate in their local AHSN. Participation will help ensure that they are commissioning services that are state of the art, safe, effective and represent feasible best practice.

For healthcare providers, the AHSN will offer ways to work within and across organisational boundaries in developing and testing innovations and in learning from others to ensure they deliver state of the art services.

Higher education institutions will be able to benefit from increased opportunities to cross-fertilise ideas between themselves and healthcare organisations, and improve the quality and impact of their research and expertise.

For industry, AHSNs will provide a local portal from discovery to procurement and help them avoid the duplication of marketing to every trust.
Local authorities and social enterprises will help ensure good community engagement and communication. More than this, their participation will help ensure that innovations are patient focused, or even patient led.

Network of networks: AHSN Forum

To maximise the benefits of these regional partnerships, AHSNs will need to work together. Such a ‘network of networks’ would have to embody cross-sectoral collaboration on a national platform, bringing together representative organisations from the NHS, education, industry, local government and the third sector. The benefits of such a ‘network of networks’ would be:

- to support emerging AHSNs around issues of member engagement, relationship building and governance
- to act as a knowledge exchange mechanism for the AHSNs – speeding up the identification, diffusion and scaling of innovations on a national scale
- to act as national interface with industry, education, research, social innovation and international comparators.

The NHS Confederation is working in partnership with the Young Foundation as well as with Universities UK, the Association of University Teaching Hospitals, ABPI and ABHI to develop an AHSN Forum. The forum will enable emerging AHSNs to share information rapidly, learn from others and have a collective voice at a national level.

Viewpoints

"Many of us in the service like to be innovative implementers. We know if we can generate a research culture then we are likely to strive for quality and innovation. Providing high-quality services is about patient involvement and clinical engagement – these two ingredients need to be centre stage in Academic Health Science Networks, so that they are inclusive. We must build on our learning from CLARHCs – which really have helped accelerate diffusion and reach of ideas – to give more clinicians a chance and the stimulus to stay up to date with latest practice in larger numbers."

Professor Mike Cooke CBE, Chief Executive, Nottingham Healthcare NHS Trust

“This is a transformative time for healthcare: forming and sustaining collaborations to develop, test and spread new ideas will be critical to thriving in the new environment. That is why I welcome the proposed Academic Health Science Networks which for the first time will establish local partnerships between service organisations, universities and industry on a national scale and translate our intellectual capital into dividends for the sector and the economy as a whole.

I welcome the emphasis on engagement and local variation. It’s essential to align interests within the NHS and across sectors. Winning confidence around the core..."
function of driving adoption and spread will be the biggest challenge faced by the new networks. A challenge that the NHS Confederation is committed to helping them meet.”

Mike Farrar CBE, Chief Executive, NHS Confederation

“Collaboration and combining perspectives and expertise across different professions, institutions and sectors is vital to innovation within the NHS. I hope AHSNs will provide effective routes to do this and I’m encouraged to see a variety of configurations emerging for AHSNs, from those led by world-class research to others grounded in communities and the patient experience.”

Simon Tucker, Chief Executive, The Young Foundation

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References

Health Services Research Network
The Health Services Research Network (HSRN) is a membership network for organisations and bodies across the UK with an interest in health services research. We aim to connect all universities, commercial and professional organisations, charities and NHS bodies with an interest in HSR. We define health services research as all research that underpins improvements in the way health services are financed, organised, planned and delivered, including health technology assessments and health policy research. For further details about HSRN’s work, visit www.nhsconfed.org/HSRN

The Young Foundation
The Young Foundation brings together insight, innovation and entrepreneurship to meet social needs. We have a 55 year track record of success with ventures such as the Open University, Which?, the School for Social Entrepreneurs and Healthline (the precursor of NHS Direct). We work across the UK and internationally – carrying out research, influencing policy, creating new organisations and supporting others to do the same, often with imaginative uses of new technology. We have over 60 staff, working on more than 40 ventures at any one time, and work both nationally and internationally. For more information about the Young Foundation and its work, go to www.youngfoundation.org