

Innovating the NHS – Now or Never

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Context

Healthcare providers across the world have to deal with a rapidly growing demand; more people live longer due to advances in medicine and improved welfare. Patients have better access to knowledge and expect a higher level of service. Clinical and administrative processes are more complex with an increased use of advanced technology. Clinicians, doctors and nurses, are becoming technology specialists. The world-wide economic crisis has a significant impact on healthcare providers such as the NHS. With the banking system in crisis governments are generating less income through taxation, which causes an escalating deficit. They have no choice than to reduce public sector expenditure –with severe cuts in health. Healthcare providers have developed a culture of ‘damage repair’ with expensive hospital interventions that depend heavily on management structures. In order to remain sustainable they need to become more effective and reduce costs, which means focusing on ‘wellness’; prevention of illness and providing care in the community.

The only way they can deal with this challenge is by innovating their services. Merely increasing productivity – doing the same things better – and cutting costs is not enough. There are many aspects that have to be integrated in order to deliver innovation – developing new, more effective services will drive the use of new technologies and products but also change the attitudes of employees, organisational structures and leadership. So far any initiative to bring about innovation was unsuccessful because each of these aspects was dealt with in isolation and not integrated. The policies of the Coalition government in the UK have created an immediate need for a more effective, integrated approach to innovation.

The National Health Service

With 1.4 million employees the NHS is the largest healthcare provider in the world. Seemingly one large public sector organisation, it actually is a complex group of disparate public sector, ‘third sector’ and private sector organisations and individuals. Hospitals, ambulance trusts and dentists for instance deliver patient care. Other organisations such as PCTs and SHAs provide management and administration support whereas ‘Arms Length Bodies’ (NICE; NHS Institute) provide guidelines on clinical practice and ‘products’ for service improvement. The private sector owns some of the infrastructure (PFI hospitals) or provides outsourced

patient services (elective surgery). Subject to continuous political influence (interference), the NHS is centrally led by the Department of Health with rigid hierarchical ‘top-down’ and bureaucratic structures (‘governance’). In its own word “The Department of Health controls England’s 10 Strategic Health Authorities (SHAs), which oversee all NHS activities in England. In turn, each SHA supervises all the NHS trusts in its area.” Delivery organisations such as hospitals and GP practices have to meet ambitious targets covering aspects such as reducing waiting time and improving financial performance. Paradoxically they have a considerable amount of operational freedom on how these targets are met and governance is dealt with locally, which partially explains why there are considerable differences in efficiency and effectiveness in services.

The focus is on target setting and monitoring, not on identifying and diffusing better ways of working. There are no mechanisms to force or encourage Trusts to adopt new processes or products. Measures such as awarding Foundation Trust status to financially sound organisations; outsourcing services to the private sector and PCT commissioning has actually led to competition between Trusts. Good practice or mistakes are not shared.

It is important to stress that the NHS is ‘top-down’; there are no established lateral structures between Trusts. PCTs have developed ‘commissioning’ relationships with Acute Trusts but there are no structural connections amongst PCTs. Likewise there are no formal connections between Trusts. People of different Trust use their own initiative, for instance there are examples of successful collaborations between PCT and Acute Trusts i.e. to deliver COPD services in the community, based on local initiatives. Although successful these have not been adopted in many other places. Corrective action by the ‘Centre’ is only taken in extreme cases and after a long time of failing to meet targets (C.Diff. outbreak at Maidstone and Tunbridge Wells NHS Trust; high death rate at Mid Staffordshire NHS Foundation Trust). The Chief Executive gets the blame and is dismissed but it takes a lot of effort and a long time –if ever- before root causes are identified and dealt with.

Culture and people

As the NHS is a large disparate organisation its culture is complex. There are common

characteristics. Staff is cautious when it comes to taking risks. There is a strict hierarchy and leadership style and a tribal culture. This leads to tensions between managers and clinicians and between different functions and is not conducive to sharing information and working together. Because of what the NHS does – patient care – it attracts staff with different values and motivation than industry or commerce. At an individual level the NHS employs good people with world-class understanding and experience of leadership, the latest clinical research, commercial practices and technical innovations. Staff is focussed on providing operational healthcare services. Due to the increasing demand, the lack of time, funding and supporting structures they do not develop and implement service improvements. There is an immature relationship between managers and clinicians, with lack of trust and respect on both sides. Clinicians are disadvantaged in working together with others in large organisations as they did not receive any education in team working, leadership, finance, management, entrepreneurship, technical innovation and service development at Medical School.

Relationship with private sector

The previous government allowed the NHS to work with the private sector on new builds (PFI hospitals) and the outsourcing of patient care. This meant that ‘traditional’ private hospital groups such as BUPA and Nuffield deliver care on behalf of the NHS, but it also led to organisations such as Circle Health and investment from overseas companies. The NHS has become increasingly dependent on companies such as Tribal for a range of management services and management consultants such as KPMG and McKinseys. By the nature of their business model these private organisations are motivated by their own financial gains and are not interested in developing the NHS ‘in-house’ capability.

The NHS is trying to implement lean thinking, as pioneered by Ford in the 1930’s and further developed by Toyota, to increase productivity. It does not realise that unlike Toyota it is not working in a predictable ‘steady-state’ manufacturing environment but has to deal with emergencies and disasters. It has not recognised the value of partnerships with its suppliers, as pioneered by Toyota, for developing new technologies or services. When it comes to products the NHS still uses adversarial procurement principles of driving down prices, especially now NHS Logistics has been privatised to DHL and is now NHS Supply Chain.

Policy

The previous government has doubled taxpayers’ investment in all aspects of the NHS over a 10-year period. This included increased funding for GPs, management, buildings and facilities and IT infrastructure (NPfIT). It set ambitious targets for all

aspects of healthcare, which led to increased layers of management for monitoring and reporting. The government encouraged successful ‘Foundation’ Trusts to become relative autonomous. Recognising the importance of innovation, it set up joint committees and task forces with large medtech companies (HITF). The recommendations in their reports led to the regional NHS Innovation Hubs, with the Medilinks supporting industry. Government set up national support structures for innovation and improvement. It merged the Modernisation Agency with the NHS Leadership Centre and NHSU into the NHS institute for Innovation and Improvement. The National Innovation Centre took over the Innovation Hubs and set up an Adoption Hub. It is important to realise that this whole structure is focussed on product innovation.

Innovation in the NHS – the story so far

The attempt to combine different aspects of innovation (leadership, education, service improvement) into the NHS Institute was frustrated and has not led to an improved innovation capability. ‘The Institute chose to focus on developing ‘products’ – for productivity improvements based on Toyota’s lean principles e.g.’ The Productive Ward. Trusts could take our leave these products; there was no way of forcing adoption. The product focused National Innovation Centre (NIC) effectively split off from the Institute; it is now 3-man ‘strong’ and has decided to focus on developing website gadgets to support innovators. The regional Innovation Hubs were set-up to support NHS Trusts in managing their intellectual property (IP). That means that they will try to secure and commercialise IP to industry but do not have the capability to further develop ideas for new product or services. It is no surprise that the hitherto affluent medtech industry is not interested in taking on under-developed, unproven ‘risky’ IP. After Lord Darzi’s review “High Quality Care for All”, the SHAs became responsible for innovation. But they had no experience or capability as supporting innovation was not something they had to do before.

It is hard to get access to patients, clinicians or other NHS staff during the development of their concepts. This applies to large and small companies and to academics. When it comes to the evaluation of new products or indeed services Trusts have considerable freedom. That means that companies have to test their concepts to different protocols in each Trust with limited acceptance of results by other Trusts. This makes the development of new products expensive for large companies and impossible for small. The combination of local flexibility and lack of ‘joining-up’ has also led to a slow adoption and diffusion of new product and services.

In summary the current support for innovation is:

- Complex (if not chaotic) and full of holes (Fig 1)

- Is product focussed, ignoring service and organisational aspects
- Considers that innovation needs to be outsourced and bought, ignoring the change in people's attitude that is required
- Favours large established medtech companies,
- Fragmented; product and service innovation is not integrated and there is no single track for development and commercialisation

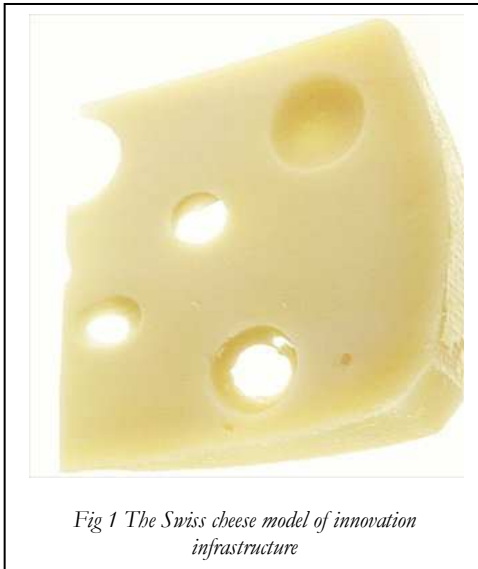


Fig 1 The Swiss cheese model of innovation infrastructure

The result is too little innovation, too late and too expensive.

Impact of coalition government

The new coalition government seems to have decided to face all the lobbies at once, using a big axe to cut public spending across all Departments. Businesses are affected by scrapping Regional Development Agencies and Business Links, the NHS is affected by scrapping SHAs and the NHS Institute. This has effectively decimated the already fragile innovation infrastructure overnight.

The government want to decentralise the NHS and dismantle management structures such as SHAs and PCTs. It wants GP consortia to commission care. The white paper for Health 'Equity and excellence: Liberating the NHS' is based on three principles:

1. Focus on patients' choice and control
2. Focus on clinical outcomes
3. Empowering clinicians

It specifically mentioned the need to innovate to improve care for patients: *"The Government will liberate the NHS from excessive bureaucratic and political control, and make it easier for professionals to do the right things for and with patients, to innovate and improve outcomes."* And *"Puts clinicians in the driving seat and sets hospitals and providers free to innovate, with stronger incentives to adopt best practice"*¹. Although this was a 'white paper' with suggested measures being implemented in 2012-2013, the impact was immediate and across the NHS. Managers have already received offers of early

retirement. Fig 2 shows the time line of the proposed changes to NHS organisations and RDAs.

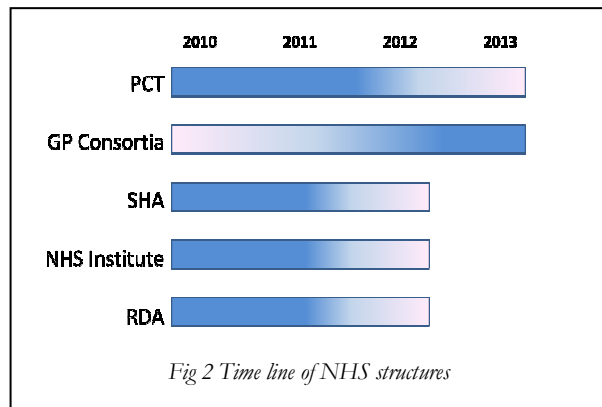


Fig 2 Time line of NHS structures

Our insights of the NHS

The NHS is a large conglomerate of different centrally controlled organisations, which together focuses on delivering operational healthcare services. The NHS is a SERVICE not a product organisation, focussed on delivering patient experiences. As such it's more like BA, Ryanair or Virgin than Toyota; however unlike customers of BA and Virgin, patients will not drive innovation. It is not strategic; it does not have to be because it is top down controlled. That means that its leaders are focussed on managing operations, not on entrepreneurship and service innovation. There's no lateral connecting 'joined-up' structure between Trusts; any initiative of successful change remains at local level and takes a long time to diffuse. The NHS doesn't have a history or capability to innovate; it never had to be innovative – just provide patient care. So far it has only considered innovation to be product related. NHS procures products, unlike Apple it is not focussed on technical innovation or new products. It needs to build partnerships with technology and service providers, like BA with Boeing in developing the Boeing 777 or like Toyota with its technology providers. Although the NHS as an organisation is behind developments in the private sector; it employs good people with up-to-date experience and expertise in different areas of clinical practice and management including leadership, finance, procurement, HR and marketing.

Patients' insights

We agree that health services have to be patient centred but feel strongly that patients will not (be able to) drive innovation in the same way as consumers do in the private sector. Something changes in people when they become patients. As consumers they are informed and empowered and can easily assert their choice by shopping elsewhere, buying other products or changing service providers. Somehow when they get a diagnosis of a disease there is a change in their behaviour. They seem to readily accept inefficient services and ineffective products; they are not up to date with the latest developments in their conditions and with new

products that could support them better. Consequently patients are not able to drive product or service innovation. Patients are reluctant in engaging with market research; they feel that they are owed the best medication, products and services but do not want to support their development. This makes it difficult for the health service and for companies to develop better products and services.

Industry insights

Compared to for instance the car industry, the medical technology sector has benefitted from a growing demand and lack of competition. Medtech companies are more affluent than others and can afford to be complacent. Healthcare providers were not driving industry to develop new products; they were focused on operational services and patients were not demanding better services. As in a Darwin ecosystem NHS was breeding companies that are satisfied with supplying goods but not able to become partners in developing new products or services. Large companies can still afford to ignore requests for modified, customised products from clinicians or opportunities for licensing in new technologies. Procurement systems are geared towards high value and high-volume products, not to potentially disruptive innovations.

Academia insights

The NHS is used to working with Universities on the education of its clinical, nursing and management staff. But between Business Schools, Medical Schools and Engineering Departments the capability to support innovation in academia is as disjointed as in the NHS itself. NHS management is the subject of research (Health Services Management Centre at University of Birmingham). When it comes to developing and commercialising new healthcare technologies, universities are experiencing the same problems as companies and NHS Trusts – it's difficult to get a broad engagement with patients and NHS Trusts for market research and evaluation. Universities were able to get funding for research without clear practical application – 'technology push' rather than 'market pull'. Like the Darwin effect on industry they did not need to develop a true innovation capability; they were not focussed on the needs of the health service or industry – academics were 'inventing' rather than innovating. The consequence is that industry is also not keen to take on IP coming out of Universities. Now universities are faced with budget cuts and an increasing demand for relevant outcomes. Funding for medical research in the UK is centrally coordinated and academics have to work together in collaborative projects with the health service and industry. These are big changes that will require time to become effective.

Summary of challenges

- Demand ↑↑↑
- Funding ↓↓↓

- 180° political shift

This leaves a health service in desperate need of innovative services and products on a scale not seen before and established industry and academia that are unlikely to satisfy that demand.

Need

In order to deal with these challenges the NHS needs to change fast. Already the health service had to cope with a rapidly increasing demand; having to deliver a lot more with a lot less means that simply doing the same things more efficiently is not enough. We know from industry that just cutting costs does not work (Apple) nor does blindly increasing productivity (Toyota). It's time for radical innovation - doing things the NHS has never done before. In order to remain sustainable healthcare providers need to become capable to develop and implement: incremental and breakthrough innovations; integrated product, service and organisational innovation including changing people's attitudes and behaviours. But the NHS finds itself without experience, expertise and support.

Opportunity

Trusts have to change rapidly and innovate their services. But there is a vacuum being created with the removal of SHA and Department of Health's direction with regards to innovation. Trusts can no longer afford to buy in management consultants. That did not really work for them in the past anyway. They can no longer rely on the NHS Institute, the National Innovation Centre, SHA or the Innovation Hubs as their future is uncertain. Even if these were to survive, they only provide part of the services that Trusts need. There is a window of opportunity to lead the way in a new model of innovation and collaboration. This has to: be internally driven and focus on services, integrated with new products and organisational change. This has to be equitable and deliver bottom line impact.

ⁱ Equity and excellence: Liberating the NHS – July 2010