



Creating an Innovation and Research Culture in a Complex System

Introduction

This position paper summarises the results of an inquiry workshop with research, clinical and managerial leaders in June 2016. The enquiry focused on how to create a culture of innovation and research in complex systems.

For the purposes of this paper ‘systems’ relate to health and social care systems organised around populations and places. For these systems it is not clear who leads the system, or how they differ in terms of capacity and culture, or how they address the issues of generating an innovation and research culture.

Innovation is a situated practice, balancing individual and collective capacities to innovate, best realised through network and collaborative relationships. There are significant challenges with moving from local (team/ organisation) innovation, where there is more tacit knowledge, to systems-wide innovation.

We considered the role of disruptive and incremental innovation in systems, and the underlying cultures that create readiness at policy, system and team levels.

Summary of Issues

Making evidence available is not enough to secure innovation and adoption. (Greenhalgh et al 2004¹) The health and social care system does not operate through an evidence-based culture. The evidence for this is the lack of data made available to support the consistent use of evidenced-based clinical decision-making, change approaches and evaluation. However curiosity and inquiry is critical for innovation.

Contexts play a role in enabling or inhibiting innovation. The dilemmas prevalent in the health and social care context at systems level (changing population health, political churn, interdependence of multiple organisations, financial constraints) appear to predicate against social innovation.

¹ Greenhalgh T, Robert G, Macfarlane F, Bate P, Kyriakidou O. (2004). Diffusion of innovations in service organizations: systematic review and recommendations. *Milbank Quarterly*, Vol 82, no 4, pp 581–629

Key Principles

Health Innovation² should:

- Be person centred and population based.
- Be informed by evidence and experience.
- Engage all the stakeholders relevant to the issue
- Be collaborative and participative in its approach
- Be achieved through both incremental (adaptive) and disruptive approaches

Whilst disruptive innovation will generate adaptation and change, most social innovation is incremental requiring curiosity, inquiry, testing, adaptation and contextualisation. Innovation will usually be achieved through learning incorporating experimentation/ testing and iterating potential solutions.

Creating Systems Innovation

Systems Innovation requires:

At systems level:

1. Collaboration across organisational and professional boundaries and with local people, which is then rewarded.
2. Leaders that hold their nerve allowing change to mature and driving out inappropriate short termism, who are possibility focused, and who are as skilled in the tools for innovation as their teams are.
3. Nurturing innovators, creating space for experimentation and accepting risk, and incubators for new ideas.
4. Enabling policies – recognising and mediating the policies which oppress innovation.
5. Building capacity for evidence-based inquiry and decision-making – both data science and professional/people's ability to utilise data to generate information and knowledge.

At policy level:

1. Engaging 'the publics' in health so that they can directly design solutions that best address local issues.
2. Growing and valuing the science capacity across all socio-economic groups, so that there is an evidence-based approach to change in the health and social care sectors.
3. Strong association of research and innovation with the goals of life sciences, targeting therapies to generate value.

The Challenge

There is no doubt that across health and social care leaders know the system has to change. In most places and across the professional disciplines (clinical and managerial) there is agreement about what the overall future will look like (more coproduced care, resourceful communities,

² Adapted from Canadian Foundation for Healthcare Improvement: Atlantic Healthcare Collaboration Improvement Model. December 2014.

generalists better supported by specialists, care closer to home, integration, digital support for care and decision-making). Alongside this picture, the possibilities of science to generate new treatments, adopt new technologies the power of data to shape our future and change services is difficult to imagine, yet has the potential to be the solution to many challenges we seek to face.

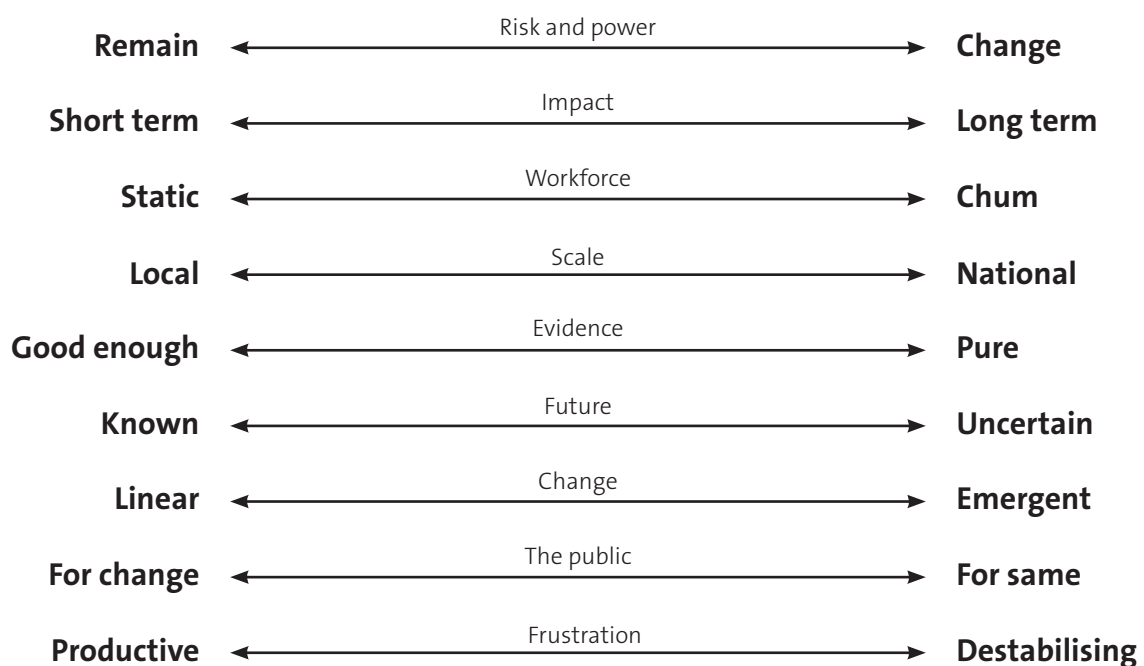
Getting from here to there is not simple, and in frustration about the complexity of leading change the old world bites back – the NHS puts in structures, hierarchical governance and project management, the sort of processes that work for ‘tame’ problems not for ‘wicked’ problems. The space to carry out research and innovation is increasingly squeezed.

What Gets in the Way?

We believe that there are a number of key issues that get in the way of generating an innovation culture in the UK health and social care system. These are:

1. The over-reliance on performance management and metrics for regulation and control; and not enough attention, energy, resources and measurement capacity directed at innovation and improvement.
2. The tension between hierarchies and central control and networks and devolution.
3. Clinical leadership which has not generated a clinically focused, learning service.
4. The over-reliance on the usual voices in both strategy and delivery.
5. The need to bring in citizens with more diverse professional views (e.g. young professionals) to generate space and energy for new ideas.
6. The lack of value given to evidence.
7. The lack of clarity and rigour in change methods.

There are also a number of underlying tensions at play in terms of capacity in systems that can be helpful or mitigate against innovation. At the inquiry workshop these were identified as:

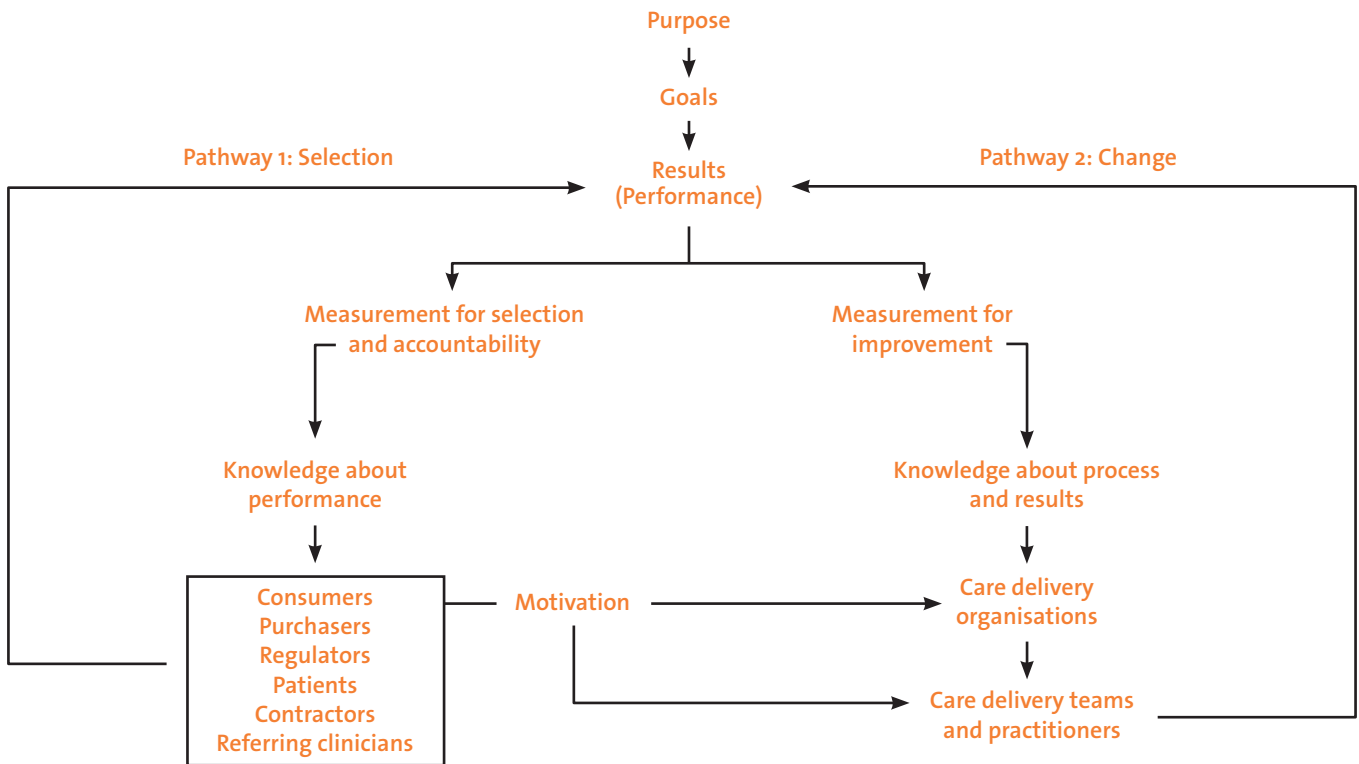


There are also discrepancies between capacities in systems to incorporate clinical/technical innovations, and social/organisational/ relational innovations.

Assumptions Explored

The tensions between performance management and improvement

The literature from high-performing health systems tells us that the process of data generation and measurement, and associated knowledge generation is different for performance measurement than it is for innovation. High performing health systems invest in, and give significant attention to measurement for improvement and innovation.



This widely cited model from Berwick et al (2003) demonstrated the difference between these two modes of operating.

In the UK this becomes translated into the management of risk – the tension between safety / assurance and innovation. There is less discussion of the nature of professionalism in health and social care. In high performing health systems, professionals lead innovation. Improvement, scrutiny, review are all actions of professional practice. A recent ipso Mori poll for the Future-Focused Finance Initiative of finance and clinical staff in the UK, cited 24% of respondents were able to take time to reflect on how they were doing as a team³.

Recently Peter Lees (2016)⁴ identified that in his view “Reluctance by doctors to engage in management and leadership at other than the clinical team level is prevalent”(p5).

An example of a symptom of the balance of attention in the UK between the power of performance management for change versus the power of innovation and improvement for change is evident in the work of data analysts and scientists. In Intermountain Healthcare⁵, data underpins all clinically facing decisions as well as managerial decisions. Every clinical directorate team is supported by data scientists.

In the UK our data capacity is clearly focused on performance management data generated by analysts, not data to support great decisions between professionals and citizens supported by scientists.

³ <http://www.publicfinance.co.uk/opinion/2015/11/crossing-nhs-boundaries-fff-talking-toolkit>.

⁴ Lees P 2016. Clinical Leadership- are clinicians up for it. Clinical Medicine. Journal of the Royal College of Physicians. February 1, vol. 16 no. 1 5-6.

⁵ <https://intermountainhealthcare.org/about/transforming-healthcare/intermountain-healthcare-leadership-institute/>

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National, Local and the Role of networks

Health and social care struggles between the need for local solutions and locality based provision and delivering a national service. It is an age-old dilemma but in the context of innovation it comes into sharp relief. The devolution agenda hints at more localism and self-determination, but the structural and governance models emerging feel more like a centralist response. Devolution should mean thriving local economies with real citizen involvement (NEF 2016)⁶. In fact in a return to high performing health systems – localism (local population based needs approaches) are at their heart from Nuka⁷ to Burtzoog⁸ to Jonkoping⁹.

A recent paper on integration (Hussein and Dornhost 2016¹⁰) for the Royal College of Physicians Future Hospital Programme explores the early work on population-based integration bringing hospitals into the population model, requiring local collaborative networks, and the challenges for medicine. The Accountable Care Systems, Alliance Contracting, Sustainability and Transformation Plans, Vanguard Academic Health Science Networks and Collaboratives all emerging across the health and social care system, demonstrate a move to networked organisations and delivery models. This is a global trend with many organisations have both hierarchical working and agile network working (Shuman and Twombly 2009)¹¹. Moreover interviews with CEOs in the UK (unpublished Leadership Indaba report) shows that there is a real struggle in one of the key factors required in leading networks, and critical from the evidence from high-performing health systems (Baker & Denis 2011¹²) –ceding territory and power.

Working out how to do this in the context of a politically charged service and a range of ideologies about 'localism' is a challenge.

The cultural conditions for innovation

The context described points to a number of cultural causalities that shape the innovation landscape:

1. The reluctance to move from a performance management model of securing change to an innovation model.
2. The impact of policy, and the internal dynamics of the (clinical) professions in terms of the nature of professional leadership and practice in the UK.
3. The move too more agile networks as organising forms.
4. The tension of national and local accountability.

⁶ <http://www.neweconomics.org/blog/entry/three-things-that-must-happen-for-devolution-to-be-a-success>

⁷ <https://www.southcentralfoundation.com/nuka/>

⁸ <http://www.buurtzorgnederland.com/>

⁹ <http://plus.rjl.se/infopage.jsf?nodeId=41212>

¹⁰ Hussein, S, Dornhost, A. (2016) Integrated care – taking specialist medical care beyond the hospital walls. A report to the Royal College of Physicians Future Hospital Programme. Royal College of Physicians.

¹¹ Shuman J & Twombly J, 2009, Collaborative Networks are the Organisation. An Innovation in Organization Design and Management. CollaborativeBusiness (July): pp 2-24. Volume 8 in White Paper Series. Newton MA: The Rhythm of Business

¹² Baker GR, Denis JL. (2011) A Comparative Study of Three Transformative Healthcare Systems: Lessons for Canada. Canadian Health Services Research Foundation

Innovating Systems

There are some key characteristics of innovating systems:

- They learn continuously - they lift their eyes to find intelligence from other places to inform their practice.
- They know their own system - with a level of data driven analysis of what is really happening.
- They work with the assets of their communities – they really engage as partners with local communities and citizens. They are not threatened by diversity but see it as strength.

Creating a culture of Innovation

We identified a number of features of innovation cultures at systems level:

- Reasonable timescale – recognising the pace of change for social innovation.
- Consistency of vision – and ability to reframe to multiple audiences and situations
- Relationships over time (but not complacency) – recognising the need to commit over the medium and long term
- Space for ideas and testing – in terms of people’s capacity to think and generate ideas, and then work on them in their workplace
- Perturb the status quo using data- data can illuminate what is really going on in a system, to generate new possibilities.
- Possibility orientation – focusing on the potential and future.
- Protective incubators for experimentation – creating places for teams to experiment and fail in order to iterate and achieve
- Rewards collaboration- between teams, organisations.
- The system leaders are as skilled in innovation methodology as the frontline
- Support for translation – taking ideas other teams/ organisations/ systems and translating them to the local context
- Curious about evidence- using data and peer review as a fundamental way of working in the system

Conclusion

Bringing evidence into all aspects of inquiry, review, and decision-making is key for innovation. This requires a radical shift from data provided purely for performance management purposes to data in support of clinical and managerial learning and change efforts.

Innovation requires a system leadership culture of enabling, permission granting, collaborating and scrutinising using evidence-based discourse that rewards innovation; a skill set in systems leaders of quality and innovation methods; capacity development within systems for peer-review, and a dedicated data resource and headroom for inquiry and learning.

At policy level there needs to be a focus on value through wider participation, a commitment to strengthening the science community and an evidence-based approach to change.

