Response to NHS Chief Executive’s Open Call for Evidence and Ideas

Respondent ID: 199

Organisation name: Peninsula College of Medicine and Dentistry

Type of response: Online
Innovation in the NHS: call for evidence and ideas

Innovation – especially in a system as big as the NHS – demands excellent people with excellent ideas. The NHS has both of these, but diffusion of new ideas in large, disaggregated organisations like the NHS is notoriously difficult. Now more than ever before, innovation has a vital role to play if we are to continue to improve outcomes for patients and deliver value for money services.

Much has of course already been achieved, but more need needs to done to systematically identify and spread the very best ideas. Innovation must be encouraged and nurtured by everyone in the NHS. This requires a fundamental change to the way people currently work. At the heart of this is strong leadership – both clinical and managerial at all levels in the system. It will require all leaders to identify and tackle the behaviours and cultures that stand in the way of innovation.

Tell us what you think

The NHS can learn much from other sectors and from other countries. We would like to hear your views, your ideas and your recommendations. This could include actions for government, the Department of Health, industry, the National Commissioning Board, the NHS, and other sectors. In responding, you might wish to think about the questions below. If you want to send us any documents please email them to health.innovation@dh.gsi.gov.uk

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**Information about your organisation**

Please complete this section if you are responding on behalf of an organisation.

**Organisation name:**
Peninsula College of Medicine and Dentistry

Please choose the description below that best fits your organisation’s main role:

**Academic Institute**

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**Learning from elsewhere about adoption and spread**

What can the NHS and NHS Commissioning Board learn from national and international best practice to accelerate the pace and scale of adoption of innovations throughout the NHS? Please include relevant examples, published papers or other evidence you have found useful.

In 2007, the Chief Medical Officer’s High Level Group on Clinical Effectiveness reviewed the international evidence regarding how best to spread effective practice within the health service. The group’s report ([http://www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH_079799](http://www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH_079799)) recognised the lag between evidence and widespread implementation and the relative paucity of evidence about effective methods to promote innovative practice. One of the group’s suggestions was that promotion of closer partnership between clinicians and managers who deliver the services and academics would increase the likelihood of both the production of evidence to address key issues of importance to services and increase the likelihood that this evidence would change practice. This conclusion was based on observations from organisations such as Kaiser Permanente in the USA and the Amsterdam Medical Centre where partnership working has driven improvements in clinical practice as well as high quality research, and on evidence of improved clinical outcomes amongst patients treated in research active centres. This recommendation has led to initiatives through NIHR such as the establishment of Academic Health Centres and Collaborations for Leadership in Applied Health Research and Care (CLAHRCs).

The Peninsula College of Medicine and Dentistry (PCMD) is fortunate that the NIHR Collaboration for Leadership in Applied Health Research and Care for the Southwest (or Peninsula CLAHRC) has been established with our parent universities, Exeter and Plymouth, and NHS partners in the region. This has given us the opportunity to further develop our close NHS/academic collaboration and to demonstrate its impact on spreading innovative practice amongst the local health economy. The appendix to this submission contains a number of examples drawn from this collaboration and PCMD.

We have also made a substantial effort to encourage partnership with service users in the selection, design and conduct of research and in the design of services (see case study 1). Patients are the final arbiters of the decision whether or not to use recommended interventions. This has been described as the “third gap” in translation. Unless innovation takes account of their views and priorities, which do not always coincide with those providing the service, it is unlikely to be successful. Informed service users can also act as powerful drivers for improvement at a local level. National NHS bodies need to continue and expand their efforts to ensure that local commissioners and providers pay careful heed to the views of service users through national requirements, incentives and through disseminating good
We believe there is good evidence to support the recommendation to build further these links between the NHS and academia as a way of promoting innovative practice and its more rapid adoption.

**Actions at national level in the NHS**

What specific actions do you think national NHS bodies, such as the NHS National Commissioning Board, need to take to encourage and stimulate the successful and rapid adoption and spread of innovations throughout the NHS?

Successful innovation of effective practice requires that the evidence to underpin change is easily accessible to decision makers and that they have the skills an opportunity to evaluate it for validity and applicability. The development of [NHS Evidence](#) has already made a substantial contribution is this regard. The addition of evidence related to service re-design within the QIPP process to NHS Evidence has been a particularly welcome development. NHS Evidence needs to be further supported and its widespread use within the NHS encouraged. Similarly, the work of [NICE](#) in producing the new evidence based, topic oriented, Quality Standards will clearly support this endeavour.

Innovation without adequate assessment of relative cost effectiveness can lead to the displacement of other more effective interventions. There is evidence that people often make decisions despite being aware that they lack the information needed. Many of those involved in undertaking commissioning are reported to be unaware of the methods of cost effectiveness analysis and report that they rely heavily on local information e.g. on local population statistics, benchmarking data and on the experience of others in making commissioning decision rather than on formal assessment of cost-effectiveness.

National NHS bodies need to make clear their support for the explicit use of evidence in decisions about commissioning and service design. Consideration needs to be given to the development of mechanisms to incentivise local commissioning and provider organisations to make transparent the role that the assessment of evidence has played in decision making. Ensuring that such organisations have access to people with the appropriate skills should be seen as a key performance requirement. Commissioning groups should be encouraged to collaborate to develop locally relevant assessments of cost effectiveness (see, for example, case study 2).

Innovation needs to be carefully evaluated to ensure that actual impacts reflect those predicted. At a national level the NHS needs to encourage and incentivise local providers and commissioners to build rigorous, real-time evaluation into service innovation. Partnerships with academic institutions in the development of assessments of evidence and of evaluations of change should be strongly encouraged. This also requires that appropriate incentives are put in place to encourage research funding councils and universities to appropriately value such work.

Such evaluation also requires the easy availability of the necessary data. At a national level the NHS must ensure that all providers of care are required to make available appropriate epidemiological data to allow such evaluation possible. Furthermore, there should be a requirement that all providers be expected to participate in research studies.

There is considerable evidence that innovation practice spreads most rapidly in clinical areas where there is collaboration across organisations in networks which include clinicians and
researchers (and often representatives of patient groups). The examples of childhood cancer and neonatal intensive care provide particularly strong evidence in this regard. Nationally the NHS should strongly encourage the development of such networks and ensure that providers support participation of staff in these activities.

**Actions at a local level in the NHS**

What specific actions do you think local NHS bodies, such as providers and Clinical Commissioning Groups, need to take to encourage and stimulate the successful and rapid adoption and spread of innovations throughout the NHS?

The evidence suggests that successful innovation in organisations requires leadership, the capacity to manage change and the availability of skills to assess the validity and applicability of evidence.

Local organisations need to develop the leadership capacity of both clinicians and managers and help them to develop their understanding of successful strategies for change management (see case study 3). They also need to develop the abilities of their staff to effectively use evidence to underpin service design. Both the development of these skills and the assessment of evidence for local use are often be best carried out collaboratively between organisations and in partnership with higher education institutions. Organisations need to visibly value these activities. Commissioning organisations should consider pooling resources to provide high quality, locally relevant assessments of cost-effectiveness.

Service users should be integral to the design and evaluation of services and service innovation. Not only can they bring an important perspective to the process but in addition can act as drivers for improvement.

Local organisations should consider the advantages of participation in networks bringing together clinicians, researchers and service users to drive service improvement and the implementation of evidence.

Commissioners may need to consider longer timescales when commissioning innovative services but should insist that such innovation includes explicit evaluation of impact.

**Actions by NHS Partners**

What specific actions do you believe others, such as industry, academia, patient groups or local authorities, could take to accelerate adoption and spread, and what might encourage them to do so?

Academic institutions can make a significant contribution to successful innovation in the NHS. The conduct of patient focussed research which addresses the development and evaluation of interventions designed to answer questions of importance to the NHS can make a significant contribution to effective practice. Encouraging translation into practice should be seen as an integral part of the research process and, along with research which addresses how best to ensure translation, should be highly valued by Higher Education Institutions. The increasing prominence of the NIHR in the commissioning of research and the inclusion of “Impact” within the Research Excellence Framework has contributed to this
development. The encouragement of closer partnership between academics and those who work in the NHS can help to ensure the greater relevance of research and increase the likelihood of impact. Similarly, closer working with members of the public in the design and conduct of research can increase both the feasibility of delivery of research projects and their relevance to the service.

**Any other comments**

Do you have any further comments about accelerating the adoption and spread of innovation in healthcare?

**Permissions**

We would like to be able to follow up interesting comments and case studies.

Can we contact you for this purpose? * Yes

Do you want to be kept in touch with the next steps in this process? * Yes

Do you want to be included in a wider community of interest? * Yes
Case studies

1. Patient and Public Involvement in Research

This Peninsula CLAHRC project aims to ensure that research addresses patients’ and carers needs and enable patients and members of the public drive the implementation of research evidence in practice.

To support these aims, the following workshops have been developed:

- Question Generation /Shaping ideas workshops (including work with seldom heard groups e.g. people with dementia)
- An introduction to finding reliable research on the internet
- Introduction to research
- ½ day Introduction to, and full 1 day, Evidence Based Medicine (EBM) workshops.

Over 100 service users have been engaged in research question generation. This resulted in six service user initiated projects and one which was jointly initiated by clinicians and service users.

Service users have commented about the workshops:

“... the information I had gained from the EBM workshop were useful in designing a community learning workshop for Take Part Cornwall, looking at how newspaper reporting of research can mislead lay readers.”

“... I have used the research techniques for my personal queries and used the PICO with my GP and consultant”.

Involving the public in health services research can drive innovation in the way that health care is delivered:

- Patient and carer groups with appropriate support can inform the agenda of health services research via the generation and prioritisation of research which reflects patient needs.
- Patients can manage their clinical interactions by using focused questions which reflect their concerns.
- These skills can be used as an aid to locating appropriate evidence to support shared decision making.
- Service users have a strong voice in the establishment of priorities for the Peninsula CLAHRC collaborative work programme and have identified several innovations which are being developed with support from clinicians and academics e.g.
  - A training package to support more effective communication between NHS staff and families with disabled children
  - A new intervention for late rehabilitation following stroke

2. Peninsula Health Technology Commissioning Group

Commissioning organisations face a challenge in making best use of evidence in decisions about the use of new technologies. Research carried out locally by Peninsula Medical School identified insufficient capacity, quality issues and weak links to Commissioning Process. In response, four Primary Care Trusts established a coordinated framework for making single commissioning policy decisions regarding important new technologies through the Peninsula Health Technology Assessment Commissioning Group (PHTCG). This innovation has reduced variation in commissioning decisions between local PCTs, achieved
economies of scale in the evaluation of such technologies and established a robust process at low cost.

Since April 2009, the PHTCG has worked with Peninsula CLAHRC to provide locally relevant cost-effectiveness analyses to underpin consistent joint decisions about the use of new technologies. With academic input, NHS staff carry out reviews of available effectiveness data and develop decision analytic model-based economic evaluations. The incorporation of economic evaluation allows value for money to be considered in the commissioning decision. The use of explicit methods for such evaluations provides the NHS with a firmer basis for concluding that technologies should not be commissioned in cases where value for money is poor.

This work had a direct impact on the quality of specific commissioning decisions. The PHTCG Annual Report for 2010/11 estimated that £1.2M of cost minimisation had resulted directly from decisions taken. The group’s work has also helped to increase receptivity amongst NHS partners to the explicit use of evidence in decision making. Continuous improvements to the process, including a new Peninsula Commissioning Priorities Group working in parallel, delivers a whole system approach that is fit for purpose in the future commissioning landscape.

3. Leadership in Innovation & Diffusion Program.

Even where clinicians and managers are convinced by evidence to underpin service redesign, personal, organisational and cross-disciplinary conflict can prevent change. Peninsula CLAHRC, supported by NHS South West, aimed to create a responsive faculty of business coaches able to support close learning in clinical pathway redesign toward QIPP to address this problem and evaluated its effectiveness.

Coaching faculty was provided by the University of Exeter Business School and the model was developed in partnership between Peninsula CLAHRC and the NHS.

The approach was evaluated within the redesign of the frail elderly care pathway and is currently being trialled in acute paediatric redesign. Clinical teams delivered a new clinical service across geriatric and liaison psychiatry within three months rather than the projected year. An initial return on investment of £115K was demonstrated by admissions avoided and discharges facilitated, with continuing financial benefits thereafter.

Preliminary evaluation suggests that this model can successfully help clinicians to deal more effectively with conflict as a barrier to implementation. It also highlighted three other key needs for implementation of service redesign:

- Visible board level support
- Rapid availability of NHS data during implementation
- Connecting leadership development and work place based coaching

The project facilitated change in one service pathway, developed a potentially effective model now being further evaluated and produced research outputs to inform implementation. Subsequently, the approach has been adapted and incorporated into NHS leadership development programs in Devon and for the Royal College of General Practitioners.

4. Innovative education brings modern genetic breakthroughs into clinical practice in the diabetic clinic

Bringing genetic scientific advances into widespread clinical practice requires novel education methods as well as excellent clinical science. Professor Hattersley of PCMD heads an international research team working on monogenic diabetes. They have not only
found new genetic causes of diabetes but importantly have shown that these genetic subgroups have very marked differences in how they respond to tablet treatment. The clearest example has been patients with the commonest form of familial genetic diabetes due to mutations in the HNF1A gene can replace their insulin treatment with sulphonylurea tablets and achieve better glucose control.

Over 90% of patients with monogenic diabetes are misdiagnosed as Type 1 or Type 2 diabetes resulting in patients receiving incorrect treatment. The team recognised considerable education was needed if genetic testing was going to be appropriately used in routine clinical practice, especially as most healthcare professionals working in diabetes had never heard of the genetic subgroups.

Education about genetic forms of diabetes has used educational lectures, workshops, an informative website for patients and professionals (www.diabetesgenes.org). A novel approach was to develop a national network of Genetic Diabetes Nurses. These experienced specialist diabetes nurses received intensive education from the team, then roll out local training programmes and act as a key regional contact for patients, their families and medical staff. The success of this is shown by a 500% increase in referrals in 6 years and 35% increase in the pick-up rate.

5. Developing a faster pathway to thrombolysis for patients with acute stroke

Peninsula CLAHRC has established a group to use operational research (OR) methods with the NHS to improve processes of care and achieve better health outcomes from innovations. The first project is maximising the health gain from the innovation of thrombolytic treatment following stroke by informing reorganisation of the patient pathway after arrival at hospital. The use of OR allowed a series of options to be explored using local data and provides a focus for collaboration between key players in the hospital setting, allowing rapid movement towards implementation of change.

The project has demonstrated that (a) carrying out a simple test of all potential stroke patients by ambulance services, (b) prior notification of hospital services (emergency department and stroke unit), and (c) coordinating the response from acute hospital services (either by taking the patient to the stroke unit or by alerting the stroke unit of the imminent arrival of a possible stroke patient in the emergency department) are likely to decrease the time to thrombolysis by between 27 and 42 minutes.

Such improvements in the timeliness of treatment are likely to increase the proportion of people with stroke who receive thrombolysis locally from 5% to 15%, reducing the burden of mortality and disability suffered by victims of stroke and, consequently, the impact on the NHS and social services.

6. Evaluation of the operational implementation of the Venous Thrombo-Embolism (VTE) prevention strategy in the South West

The project identified organisational, cultural and relational factors acting as accelerants or barriers to the implementation of the strategy for VTE prevention in hospitals in the South West and, taking account of these, promoted the systematic uptake of VTE prevention. The project increased awareness of the national VTE strategy, its importance, and alignment with the local Patient Safety agenda.

The evaluation compared hospital practice for implementing NICE guidance on VTE prevention before and after the study across four sites using mixed methods. The activity of evaluation reinforced awareness of the NICE guidance, of the Department of Health
checklist, and of the value of sharing learning about VTE prevention between specialties and between hospitals.

The findings show:
- Increased compliance with the strategy, and the development of different local models for implementing VTE prevention for in-patients.
- The importance of clinical documentation,
- The trade-offs that are made in clinical decision-making about VTE prevention, and some reasons for the differences in level of adherence between certain areas of clinical work.

The project has:
- Accelerated adoption, spread and diffusion of best practice by connecting clinicians and managers working experience of implementation, and harvesting and sharing their innovative ideas for local implementation
- Published learning points early in the Health Services Journal to promulgate lessons throughout the NHS, as well as generating publications of scientific value.