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

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Spreading Innovation in the NHS: Call for evidence

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Introduction
NTAC has been involved in the adoption of innovative technologies since 2007. It was originally established by the Department of Health with a brief to understand the barriers to technologies entering the NHS. This involved working with technologies that:

- Represented a “step change innovation”
- Had a clear adoption issue i.e. had clearly demonstrated improved patient outcomes and/or systems efficiencies but had minimal NHS adoption.
- Supported a clinical area of major focus in the NHS
- Supported national policy priorities

As a result of this experience NTAC has gained a great deal of expertise. NTAC has recently remodelled it operations. In recognition of the fact that the NHS will continue to change NTACs will continue to evolve to allow it to support the wide scale diffusion of technology, which remains an unsolved challenge.

This response focuses solely on those parts of the innovation pathway with which NTAC has been most closely involved. In particular we have not commented upon the “invention” stage of innovation.

NTAC was not established or funded to support wide scale diffusion however we believe our experience and understanding of the systematic approaches needed to spread innovation and measure its impact will be of great value to this Review.

It is very clear that the “innovation landscape” is overcrowded and confusing for those organisations offering their products to the NHS. The opportunity this review presents to streamline and simplify the process of innovation is welcome.

Key factors in diffusion
As is identified in the “call for evidence” innovation can be divided into three phases. In NTAC’s experience there is a plethora of innovation both within and outside the NHS but lack of a “pull” culture, together with the absence of a co-ordinated clear and resourced pathway prevents translation of this into systematic uptake. We suggest that diffusion will only occur when evidence is available, adoption issues related to innovations have been tested and resolved, there is a standardised mechanism to measure benefits and a strategy by which to communicate success.
NTAC strongly believes that as part of spreading innovation there is a need for a central capability/resource for the NHS which understands and has the experience and expertise to guide, assist and support the front line NHS to adopt, diffuse and measure innovation uptake. Successful delivery of this capability requires the ability to work in partnership with others who are crucial to the delivery of innovation e.g. Front line NHS personnel, Academic Institutions, Industry (including SMEs), Clinical collaboration mechanisms e.g. clinical networks, Patient Associations, NICE and those setting policy.

As has been well documented by others previously, including Derek Wanless¹ (2004) and Sir David Cooksey² (2006), the NHS is exceptionally slow at adopting new technologies let alone spreading them at pace and scale.

Whilst there are occasion’s mechanistic reasons for this e.g. financial disincentives, lack of de-commissioning and implementation expertise NTACs experience since 2007³ has shown that overwhelmingly it is failures in the effective management of the process of technology adoption which prevents achievement of successful innovation. This is due to the lack of transformational skills and necessary experience in those staff expected to deliver change in many NHS organisations.

Likewise the knowledge, skills and time to seek, collect and analyse evidence for healthcare technologies are not widely available amongst senior NHS managers. This results in poor or delayed decision making and insufficient allocation of the resources needed for the sustainable implementation necessary to release long term benefits, including improved patient outcomes. Most regrettably NICE appraisals and guidance often appears to be ignored.

Due to the operational pressure that NHS managers operate under, and the fact that successful technology adoption is usually seen in isolation from mainstream service transformation or organisational development, delivering innovation is usually set against the challenge of achieving the broader NHS management agenda. This is a further reason for the need for an experienced and knowledgeable organisation whose sole job is to support the NHS to improve its innovation adoption & diffusion capability.

Planning for Wide scale Innovation Diffusion
NTAC recognises each of the “factors which need to be taken into account” in the call for evidence. As is documented above however our experience shows that it is support, advice and simple systematic standardised methods that will improve wide scale diffusion.

Whilst the need for a strong policy steer is essential, the use of incentives such as best practice tariffs, recognition and reward of excellence and harnessing the enthusiasm of clinical champions are all contributors to the creation of the innovation culture we are striving to achieve. The following paragraphs document in more detail those factors NTAC feel deserve particular attention.

Proven Systematic Processes
Using its experience of operating in the field of innovation adoption NTAC has now developed and published its Generic Adoption Process (GAP)⁶ which is available to NHS organisations on our website www.ntac.nhs.uk
Recently published The GAP has been compiled and will evolve and develop in response to the developing innovation landscape. One of its strengths is the analytical tools it contains that will allow organisations to structure their innovation and adoption activities to support successful implementation. NTAC intends to continually review and update its GAP tool as circumstances change, new insights are gained and knowledge added.

Whilst historically NTAC has developed How2Why2 Guides™ that have been described as a rich resource for NHS organisations, and which contain much practical advice and support related to specific technologies, we recognise that additional types of support are required to achieve dissemination.

We believe that in order to support successful innovation the “centralised” capability we are advocating should provide both NHS and non NHS organisations with access to expertise and advice during the implementation process in the first instance the form of “assembled” adoption packs containing critical information e.g. standardised metrics, outline business cases, documented evidence, model clinical pathways, training requirements etc. We advocate that this support should also be made available through a variety of routes including the use of online forums, teleconferencing; access to innovation skills training and most importantly on the ground practical assistance to expand this skill set in front line organisations.

Key elements of the adoption diffusion process are -

**Metrics/Effective data**

Working in partnership with both academic and other NHS organisations NTAC has developed a degree of expertise in the setting and collection of metrics to measure change, uptake and improvement on a large scale. NTAC strongly advocates that at the point when any technology has been identified as being suitable for wide scale dissemination then standardised metrics should be established on a national basis, baseline measurements taken and robust comparative feedback mechanisms be put in place. NTAC proposes that this standardised data should compiled through a single “reporting” mechanism to provide simple but effective benchmarking feedback to all stakeholders on a regular basis. It is suggested that this powerful feedback will support/drive the development of an “innovation culture” in the NHS as in the era of choice and increased competition is strengthened.

As part of this approach we suggest industry partners seeking diffusion of their products should be required to share the uptake of their technologies (by volume not sales) so that this can be mapped against outcome measurements. Gaining this information has proved difficult until now as suppliers are clearly cautious about competitors. As a result it has been very difficult for the NHS to truly understand the scale of diffusion. In response an undertaking should be given at a “policy” level that company specific information will not be published.

Initiatives such as NHS Evidence are an extremely valuable resource; they rely however upon organisations understanding what their needs are and therefore seeking the right information, as well as having a supportive organisational culture and people with the capacity and capability to support change. Innovation in the NHS not only needs high quality
information to be readily accessible to all (as per NHS Evidence) but once again a centralised capacity to advise and support organisations about how to “pull” innovation effectively.

**Champions**

NTAC’s most successful adoption projects have all benefited from us engaging strong champions, both clinical and managerial, including national clinical directors. NTAC believes that the leadership gained through this approach is crucial in the harnessing of professional enthusiasm, and gaining peer influence and co-operation as described in the forces of “bottom up” & “horizontal pressures” in the review document. NTAC recommends that to achieve wide scale diffusion of technologies clinical champions and inspirational managerial leaders should be identified and their time resourced. The influence of the Royal Colleges and National Clinical Directors should also be harnessed.

**Leadership**

In the crowded and pressured environment of the NHS and particularly at the current time when retaining the status quo is not an option NTAC suggests that the NHS will benefit from strategic guidance through policy and support from the senior leadership of the NHS. This requires clear definition of expectations in relation to outcomes, using mechanisms such as the NHS Operating Framework and recognition of excellence. This must however also be in conjunction with the provision of support to the service as described above.

**Patient groups, professional bodies and media**

The promotion and recognition of innovation should not remain within the domain of public services and manufacturers. At the point when an innovation is ready for systematic uptake then the “push” power of other groups should be harnessed. This includes working with patient groups, and the media all of whom have a role in creating a bottom up culture.

**Cascading innovation through the NHS**

This response has endeavoured to outline the essential elements of the innovation pathway needed to secure adoption and dissemination. There remain a number of “operational” barriers that slow innovation and which therefore need to be addressed. NTAC suggests that solutions to these problems must be found at a policy level. They include:-

1. **Financial Barriers linked to tariff.** Whilst the potential of local tariff arrangements are currently possible, wide scale implementation currently requires multiple negotiations between NHS organisations. A mechanism to rapidly introduce “innovation related tariffs” whilst awaiting confirmed PBR tariff would overcome this problem on a national basis.

2. **Procurement.** Technology Procurement continues to be subject to multiple duplication across the NHS and attempts to procure at scale e.g. across a whole Commissioning Consortia rapidly cross the threshold for OJEU tendering resulting in time delays and additional expense. Dissemination of Innovation would be better served by ensuring Supply Chain (or a similar single organisation) is able to develop contracts within shorter timeframes

3. **Understanding Clinical Evidence and Quality.** As referenced above NTAC’s research has shown that few NHS managers have the time or expertise to seek, collect or analyse evidence about the clinical effectiveness of innovative technologies. NICE’s publications, particularly related to quality standards, are of crucial importance and should be maintained and further promoted.
4. **Acquiring Innovation Skills.** Linked to point 3 the acquisition of the skills necessary to deliver innovation within the NHS is currently ad-hoc and often reliant upon the culture of organisations. NTAC has previously worked with academic institutions to develop courses related to innovation for both the NHS and Industry but has sadly lacked the resources to deliver this. Nevertheless acquisition of these skills is crucial to the success of future innovation and extending the competencies within the “Encouraging Improvement and Innovation Section” of the NHS Leadership Framework should be explored.

5. **Developing Diffusion Incentives & Recognition of Excellence.** There are already many NHS organisations who are committed to and are successfully innovating. Whilst they may receive recognition through initiatives such as Innovation Funds and Challenge Prizes there is no national scheme. NTAC has previously suggested that it should take a role in defining the successful attributes of an organisation that is leading the way in technological innovation and that this should be recognised through the awarding of “Technology Trailblazer Status”. We suggest that this definition work should be undertaken and seek NTAC’s involvement. In future this status could for example be awarded by the NHS Commissioning Board and the achievements of these organisations therefore widely promoted. NTAC has been in discussion with leading high performing foundation trusts, and has also held some preliminary discussions with the NHS Confederation to consider how this might be achieved.

6. **Stopping Pilotitis.** Culturally the NHS appears to have accepted the notion of “not invented here” which results in multiple trials of proven technologies before even small scale roll out e.g. across a PCT population occurs. NTAC suggests that this should be addressed by ensuring clear timeframes are attached to outcome “targets” and that national clinical and managerial leaders work across the service to discourage this practice.

**Summary**

NTAC’s experience of working with Front line NHS organisations and industry partners since 2007 has demonstrated that the innovation landscape is crowded and confusing for many. We propose therefore that in order to support adoption and diffusion a dedicated centralised adoption and diffusion “function” which will provide the NHS with simple standardised methods to create “innovation pull” and the “know how” about how to sustainably adopt should be established and resourced.

NTAC’s Generic Adoption Process © is an evolving and developing tool that provides NHS organisations with a systematic method to support their adoption of innovation.

Alongside this the importance of strengthening policy which requires all NHS organisations to innovate through both incentivisation and the setting of outcome requirements is essential. This must be aligned with the provision of support as it will be insufficient on its own.

The measurement of outcomes related to innovation diffusion has eluded the NHS to date. Part of the role of the centralised function described above must be the establishment of standardised metrics and a single” mechanism to collate and publish benchmarked progress
in delivering innovation. In the same way industry should be required to participate in this approach.

The role of Clinical and Managerial Leadership should not be underestimated in providing peer support. Royal Colleges and National Clinical Directors should be encouraged to further promote innovation and inclusion of “demonstrating innovation skills” should be added to the NHS Leadership Framework.

Some of the practical barriers to adoption and innovation remain barriers to diffusion and result in unnecessary duplication of effort by the NHS and industry. Solutions to overcome these include the need for rapid generation of “innovation tariffs”, speeding up the operations of Supply Chain, Developing a national recognition scheme for innovative NHS organisations’ – “Technology Trailblazers, discouraging pilotitis at a policy level.

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