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

Respondent ID: 213

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

**Encourage industry to drive forward innovation**

Nationally, we believe that innovation should be encouraged by adopting policies and strategies which encourages industry to participate as active partners in creating innovation. If the NHS wants to accelerate the pace and scale of adoption of innovation it may wish to study the National Health Information Network’s (NHIN) Direct project in the United States and encourage working practices between the NHS and private sector suppliers in a similarly collaborative manner. NHIN was setup by the US government to facilitate the development of systems, standards and processes that would tie together various health information exchange projects across the country into a “network of networks”. Whilst NHIN is making considerable progress down the “connect all” path they recognised through feedback from Cerner and the industry (who recognised this from their engagements with clients) that there was no single simple/secure way to transfer patient information from one healthcare professional to another and agreed to facilitate an industry-wide consortium of volunteers to draft a new “simple interop” standard that would be as easy to implement and adopt as email.¹

In less than 12 months, 50 different organisations and more than 200 individual participants had come together to “specify a simple, secure, scalable, standards-based way for [Direct project] participants to send authenticated, encrypted health information directly to known, trusted recipients over the Internet”. ² Whilst many of the participants are also working on more advanced ways of exchanging health information (e.g. interoperable electronic health records, health information exchanges and personal health platforms) they appreciated that one size was never going to fit all and recognised that simple (albeit

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¹ [http://www.cerner.com/blog/cerner_and_the_direct_project/?langType=1033](http://www.cerner.com/blog/cerner_and_the_direct_project/?langType=1033)
secure) point-to-point transfer of health information using existing technologies (i.e. email clients like Microsoft Outlook) had the potential to offer a large number of healthcare professionals with the benefits they have been longing for very quickly. Pilot projects⁴ (using the Direct standard) are on-going across the United States and feedback from healthcare professional has been very positive to date.

The success of these pilots is driving the legal, political and information governance discussions forward in a meaningful way. For example, Cerner is working with Heartland Regional Medical Center in Missouri to replace all scenarios where health information is exchanged by phone or fax. As of February 2011, healthcare professionals caring for patients with long term care needs in St Joseph are receiving health information documented in Heartland’s Cerner Millennium electronic medical record via the direct standard. Furthermore, although Cerner has developed its own more advanced ways of exchanging health information, it has integrated the Direct standard into all its workflows where communicating with an external recipient is key (e.g. Referral Management, Prescribing). All of this has happened without the need for cumbersome and complex “assurance” structures in place which in the case of NHS Connecting for Health (NHS CFH) can seem to stifle innovation and slow down adoption rather than promote it.

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?

**Helping NHS build the business case for improving quality and reducing cost of health care**

The very existence of this consultation recognises that the NHS has been slow to adopt innovation. Healthcare IT has long been capable of delivering significant innovation and improvements in:

- Preventative care (encouraging and supporting healthy life styles)
- Condition management

³ [http://directproject.org/content.php?key=pilots&sub=mpls](http://directproject.org/content.php?key=pilots&sub=mpls)
• Care co-ordination (between primary, acute, community care and the home)
• Clinical practice (encouraging and supporting evidence based decisions and practices)

One of the main barriers to wide spread implementation and adoption of healthcare IT enabled innovation is the risk averse nature of the NHS itself. Cerner believes that NHS providers and staff need a stronger ‘business case’ for improving quality and reducing costs. Cerner believes that the NHS should consider introducing an incentive programme that reward providers and staff (and by extension, the industry) for improving quality and costs by adopting innovative technologies. An obvious example of incentivising innovation and improvement in healthcare is the United States Meaningful Use (MU) programme funded by the HITECH stimulus package. MU does not seek to mandate a specific system, nor impose a rigid contractual structure around the procurement of IT (unlike the National Programme for IT) but rather rewards healthcare providers for adopting and making “meaningful use” of appropriate technology it once they have purchased it.

Implementing a ‘meaningful use-like’ programme would give the NHS an opportunity to steer NHS providers/staff towards adoption of innovative technologies of tactical/strategic value without the need for massive government procurement programmes or the overhead they create. For example, the NHS would likely see a large increase in the adoption of electronic prescribing in the acute setting if they incentivised trusts to actually implement it rather than spending time and resource creating detailed specifications for how a system ‘must’ behave or setting up large testing assurance programmes but never articulating to the trusts the business and patient care benefits. The value of the available reward is a crude, albeit effective, way of enabling providers and staff to make the business case for improving quality and reducing costs.

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?

**Automating innovative evidence-based practices**
Building upon the actions taken at the national level (to help build the business cases for quality and cost improvement), Cerner believes that the NHS could encourage and stimulate the successful and rapid adoption and spread of innovative evidence-based practices by integrating them into NHS systems to reduce the mean time to adoption. For example, the BMJ Group has partnered with Cerner to integrate their evidence based ‘action sets’ into the Cerner Millennium electronic patient record system. This has allowed Trusts like the Royal Free in North London to quickly implement a fully auditable set of evidence-based guidelines and actions for patients with gastro-intestinal (GI) bleeding from within the patient’s record.

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?

**Enabling the development of innovative evidence-based practices and medical technologies**

Cerner believes that it is imperative that the NHS has the means to develop innovative new evidence based practices and medical technologies supported by robust research efforts. We believe that the life sciences industry and academic research community should be calling out for and working with the NHS and healthcare information technology industry to help facilitate clinical trials and research in the UK. We have provided two examples of ways in which this could be achieved below.

Facilitating Clinical Trials:

Healthcare relies on controlled clinical trials and studies to ensure the development of safe and effective pharmaceuticals and medical devices. Unfortunately, connecting healthcare professionals and patients with clinical trials can be challenging. Research sponsors often struggle to find research sites, and some sites have a hard time meeting patient enrolment goals and timelines. Recent surveys show that problems associated with the recruitment of clinical trial participant’s

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[^1]: [http://group.bmj.com/media/action-sets/1963_BMJ_Action_Sets.html](http://group.bmj.com/media/action-sets/1963_BMJ_Action_Sets.html)
delay approximately 75% of all clinical trials. At the same time, many healthcare professionals are reluctant to take on the burden of additional processes and documentation required by the clinical trials. In partnership with our clients, Cerner has leveraged its electronic medical record system to develop a research network that provides healthcare professional and patients with increased opportunities to contribute to the development of new pharmaceuticals and medical devices. Cerner recommends that the NHS helps connect healthcare professionals and patients across England with relevant clinical trials. Not only will this accelerate the availability of new medical technologies but it will encourage the life science industry to increase their investment in the UK.

Facilitating Research:
The clinical data contained in the NHS’s electronic medical records and other health information systems has the power to fundamentally change the discovery of new knowledge, the way new drugs and devices are tested and the way medicines in active use are studied. When handled correctly, these advances have the potential to improve healthcare outcomes for patients by helping to improve and promote evidence-based practice, prevent dangerous errors, as well speeding up the development of lifesaving drugs and devices. Many of Cerner’s US clients contribute data from their electronic medical records to Cerner’s Health Facts® data warehouse. To date, our clients have contributed more than 84 million visits, 1.3 billion laboratory results and more than 151 million orders for nearly 4,500 drugs by name and brand. This data is de-identified and used by our clients and partners to gain deep insights into real world clinical practice. For example, researchers can use the data to facilitate the study of medications; including associated complications or side effects, tracking of drug usage, and understanding how and when a specific drug is used during an episode of care. Cerner recommends that the NHS promotes the collection of de-identified clinical data from NHS providers and makes it available to healthcare professionals, academic researchers and the life sciences industry to facilitate research and innovation.