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

Respondent ID:

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NHS Chief Executive Innovation Review: Call for evidence and ideas

Comments from NICE

Introduction and summary

1. NICE is the organisation responsible for providing national guidance and Quality Standards on the promotion of good health and the prevention and treatment of ill health. NICE also provides other evidence-based services, including NHS Evidence and medicines information through the National Prescribing Centre.

2. We welcome this review and its objective of contributing to a strategic approach to innovation in the NHS. In the following sections we summarise NICE’s role in supporting innovation. We then comment on the specific questions posed in the call for evidence. These comments draw on NICE’s experience of encouraging the uptake of guidance recommendations and other high quality evidence. The annex provides more detail on the various ways in which NICE supports the uptake of innovation.

NICE’s role in supporting innovation

3. Supporting innovation is integral to NICE’s role of improving the quality and value for money of NHS care by:
   
   • increasing the uptake of cost effective medicines, medical and diagnostic technologies, clinical treatments, pathways of clinical care, and public health interventions and services – through the range of NICE guidance and through Quality Standards;
   • giving professionals access to high quality information – through NHS Evidence;
   • advising on the effective management of medicines – through the National Prescribing Centre (NPC).

4. In relation to the stages of innovation identified in the call for evidence, NICE’s work particularly supports the stages of adoption and diffusion. In addition, we believe that the concept of innovation in the NHS should explicitly recognise the importance of a sound approach to evaluating products at market entry, to ensure that the NHS and industry invest in the development and use of high-quality, evidence-based products that
will be of benefit to patients and the health system. By operating according to consistent principles, methods and procedures when developing guidance, we also give those engaged at the invention stage an important level of understanding about the criteria for achieving uptake of their products by the NHS.

5. We welcome the reference to NHS Evidence among NHS initiatives aimed at increasing the scale and pace of innovation. NHS Evidence continues to enhance its service – by expanding the content available and making access easier. Of particular relevance to innovation are the collection of QIPP (quality, innovation, productivity and prevention) case studies, aimed at identifying evidence-based innovations that improve quality and productivity. However, all types of NICE guidance and the resources available from NHS Evidence and the NPC encourage the uptake of interventions which are innovative, enhance service quality, improve productivity, and reflect wherever relevant the importance of prevention.

6. Research and development is crucial to innovation. NICE contributes to the R&D agenda by identifying important gaps in the evidence for treatments and medicines and in methodologies for assessing their costs and benefits, and by making the case for funding of the necessary research.

Comments on specific questions

Q1: 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.]

7. Much of what we have learned in helping the NHS to adopt effective and cost effective new technologies is contained in our guidance and advice on uptake for NHS and other organisations. In developing these guides, we have drawn on the published literature as it relates to our work¹.

8. As a complement to evidence on innovation by organisations, a programme at the NPC has been considering the role of decision-making by individual clinicians in the adoption of evidence-based

change. It has examined why research findings get incorporated into clinical practice, why they often do not get incorporated, and what clinicians and managers can do to improve the use of evidence. There are indications from this work that improving professionals’ understanding of the nature of decision-making in general could help in achieving more rapid uptake of innovation.²

**Q2: What specific actions do you think national NHS bodies, such as the NHS Commissioning Board, need to take to encourage and stimulate the successful and rapid adoption and spread of innovations throughout the NHS?**

9. At a national level, NICE has developed a range of approaches for encouraging uptake of guidance recommendations, and these methods will be useful for the NHS Commissioning Board in thinking about how to encourage uptake of other innovations. These are:

- provision of credible, trusted advice;
- effective communication and awareness raising;
- use of systematic mechanisms (‘levers’) to facilitate uptake, for example the QOF (quality and outcomes framework) for primary care and the funding direction that supports use of drugs approved by NICE;
- practical support tools, such as guides for commissioners;
- regular monitoring using routine data to track progress.

10. We would expect the NHS Commissioning Board to set out expectations that commissioners and providers should ensure effective systems for the adoption and diffusion of innovation. This should include a clear signal that it expects commissioners and their providers to adopt and apply NICE guidance, including its Quality Standards, either on publication or, if that is impractical, to set out a robust plan for migrating to full concordance with the guidance.

11. The NHS Commissioning Board can also encourage a corresponding awareness among national NHS bodies and industrial sponsors of innovation that speed of adoption may in part depend on how readily the innovation can be processed in the commissioning cycle and by providers’ quality management systems, as discussed in sections 17–20 below.

Q3: 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?

12. As with the NHS Commissioning Board, commissioners should send a clear signal that they expect their providers to adopt and apply NICE guidance, including its Quality Standards, either on publication or, if that is impractical, to set out a robust plan for migrating to full concordance with the guidance.

13. NICE has invested heavily in supporting commissioners and provider organisations to implement guidance and Quality Standards, and to use evidence and accredited guidance from NHS Evidence. The review’s call for evidence describes six barriers to diffusion of innovation. In our approach to implementation we provide support in overcoming four of these barriers:

- Commissioners lack the tools or capability to drive innovation
- Leadership culture to support innovation is inconsistent or lacking
- Lack of effective and systematic innovation architecture
- Poor access to evidence, data and metrics.

14. NICE’s guides for commissioners are an example of resources that aim to help in overcoming these barriers. These guides accompany specific items of NICE guidance. They help in:

- making the case for commissioning the intervention in question;
- specifying service requirements;
- determining local service levels; and
- ensuring corporate and quality assurance.

15. The guides are accompanied by a commissioning and benchmarking tool for use in determining the level of service that might be needed locally and calculating the cost of commissioning the service.

16. NICE’s experience of implementation may be of more general relevance to the problem of surmounting barriers and achieving uptake of innovations aimed at improving quality and efficiency.

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3 See [www.nice.org.uk/usingguidance/commissioningguides/bytopic.jsp](www.nice.org.uk/usingguidance/commissioningguides/bytopic.jsp) for more on NICE’s guides for commissioners.
Lack of tools or capability to drive innovation among commissioners – the role of innovation sponsors

17. While commissioners may lack tools or capability, there is also a responsibility on the sponsor of an innovation to understand the objectives and processes of the commissioning process and to demonstrate how the innovation can contribute to them. Sponsors should therefore consider and highlight the innovation’s relevance to stages in the performance improvement cycle and to relevant priorities such as CQUIN improvement and innovation goals:

- **Strategic planning** (including, for local commissioners, the joint strategic needs assessment with partners): Does the innovation help in determining priorities for long-term strategic commissioning and service provision?
- **Specifying outcomes and procuring services**: Does the innovation help in clarifying the components of services, the standards to be achieved, workforce and skill requirements, and the likely benefits and return on investment?
- **Managing demand and performance**: Does the innovation help in setting criteria and thresholds for treatments, enabling fair and equal access to care, and clarifying opportunities for service integration, improvements in referral management, early diagnosis and intervention, and prevention and health promotion?
- **Patient and public involvement**: Does the innovation provide opportunities for individual patient and carer engagement in their healthcare, or a focus for public engagement in discussions about quality?

18. Innovators in medical technologies are typically small companies (99% of the sector being small and medium-sized enterprises). NICE works with a number of organisations in the field – Medilinks, Knowledge Transfer Network etc. – that aim to improve the medical technology industry’s engagement with the NHS. However, there is a need for continuous education of, and engagement with, these companies, to ensure that they are capable of presenting their products in a way that usefully demonstrates their potential to influence treatment and care beneficially.

Poor access to evidence, data and metrics

19. Similarly, sponsors should consider how they might help in overcoming the barrier of poor access to evidence, data and metrics by considering how uptake of the innovation might be audited and outcomes measured.
20. NHS Evidence gives access to a huge range of evidence-based advice and guidance, including all available specific and general guides on commissioning.

Leadership culture and effective innovation architecture

21. An unsupportive leadership culture and the lack of an effective innovation architecture are interrelated barriers. Commissioners and providers need to have systems in place for assessing and, where appropriate, implementing innovation, including innovation from the bottom up in their own organisations. From our experience, and the evidence on the subject, we have identified key generic principles of successful implementation in provider organisations that may be applicable to innovations other than NICE guidance:

- **Board support and clear leadership**: Evidence shows that successful implementation models have a person on the board, such as a medical director, who drives the implementation agenda forward, and a clear implementation policy approved by the board. The board should receive regular reports on implementation, including audits and evaluation, highlighting areas of non-compliance and risk.

- **An innovation manager or coordinator as part of the quality management system**: The responsibilities of the manager should include horizon scanning and forward planning, dissemination of the innovation to key groups, coordinating financial plans, ensuring effective processes for monitoring and feedback, and producing regular board reports. (Many provider organisations already have NICE leads or managers to support local implementation of NICE guidance.)

- **Support from a multidisciplinary team**: This team should comprise various disciplines, including clinical medicine and clinical audit, medicines management, public health, finance and commissioning. To achieve coordinated implementation of innovation along the whole care pathway, the team should also encourage collaboration across health communities. It should work with the innovation manager to provide overall coordination, planning and monitoring of implementation.

- **A systematic approach to financial planning**: Implementation teams will need to consider how to operate financial planning for implementation. They should assess how much it will cost and save to implement the innovation.

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4 See 1 above.
• **A systematic approach to implementation**: Effective models build on an environment where everyone understands the benefits of evidence-based practice and continuous improvement. Professional involvement and use of resources provided by sponsors of innovation and of implementation case-studies, such as the QIPP evidence collection on NHS Evidence and the NPC’s database of Shared Practice Examples, are part of a systematic approach.

• **A process to evaluate uptake and gather feedback**: Effective models of implementation incorporate processes for evaluation, audit and feedback to the board.

22. These principles for NHS providers do not map exactly to commissioning functions but they highlight the need for high-level leadership, including board involvement, and a role that includes responsibility for coordinating or managing the process of building evidence on innovation into the commissioning process. The role should also include working with the innovation managers we suggest for provider organisations, so contributing to negotiations between commissioners and providers about CQUIN quality and innovation goals.

**Q4: 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?**

23. Given their new responsibilities for public health, and existing responsibilities for children’s health and wellbeing, social care, and general community wellbeing, local authorities need a systematic approach to implementing innovation, perhaps informed by the principles for effective implementation set out in sections 21–22 above in response to question 3. The transfer of public health expertise to local authorities should strengthen the professional base for quality management systems enabling uptake of innovation. Directors of public health can be advocates of evidence-based innovation on health and wellbeing boards.

24. For actions by industry etc, see sections 17–20 above in response to question 3.

National Institute for Health and Clinical Excellence (NICE)
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Annex

NICE's support for innovation

NICE guidance and innovation

1. All types of NICE guidance support the various dimensions of innovation. We discuss below those where the focus on innovation is most explicit.

Technology appraisals

2. Technology appraisals are concerned with new medicines. In making recommendations about them, NICE's appraisal committee must take account of directions from the Secretary of State to take account of the potential for long-term benefits to the NHS of innovation. There has been considerable debate (which is ongoing, as the responses to the recent consultation on value-based pricing of medicines illustrate) about how innovation in these circumstances should be defined and valued. This prompted NICE to commission a study on valuing innovation from Sir Ian Kennedy\(^5\).

3. In response to the study findings, our appraisal committee now identifies at an early stage the unique characteristics supporting any claim that innovation is a specific and identifiable benefit of the technology, and subsequently investigates the technology’s potential to make a significant and substantial impact on health-related benefits, and how it might improve the way that a current need is met. Also in response to the Kennedy study, we have advised our appraisal committees that it is appropriate to have regard to the importance of supporting the development of innovative treatments that are anticipated to be licensed for small groups of patients who have an incurable illness.

Medical technologies guidance

4. The Medical Technologies Evaluation Programme (MTEP) and Diagnostics Assessment Programme (DAP) are the most recent additions to NICE’s work. The MTEP programme selects new or innovative medical technologies and assesses the case for take-up, by reference to effectiveness and value, in the NHS. The Diagnostics Assessment Programme (DAP) produces guidance to support consistent and timely adoption of diagnostic technologies. These

\(^5\) For more information on the study by Sir Ian Kennedy, ‘Appraising the value of innovation and other benefits’, and NICE’s response to it, see [www.nice.org.uk/aboutnice/howwework/researchanddevelopment/KennedyStudyNICEResponse.jsp](http://www.nice.org.uk/aboutnice/howwework/researchanddevelopment/KennedyStudyNICEResponse.jsp)
programmes enable adoption of technologies which are shown to offer particular benefits for patients or the NHS to be promoted more quickly and consistently. Up to June 2011, MTEP had reviewed 54 technologies to determine eligibility for consideration by the programme. Four items of medical technology guidance have been published; a further ten are under development. Seven items of guidance on diagnostics are under development.

**Interventional procedures**

5. NICE’s Interventional Procedures programme produces guidance on how safe a (usually new) surgical procedure is and whether it works well enough for use in the NHS. Apart from providing advice on the efficacy and safety of the procedures, the programme fosters innovation by facilitating data collection and analysis, arranging systematic reviews, and recommending training. We will shortly be publishing the 400th piece of guidance since the programme was introduced in 2002.

**Quality Standards**

6. Quality Standards are an innovative form of guidance designed to help NHS and social care organisations deliver a consistently high standard of clinical care, patient safety and patient experience. They are sets of specific, concise statements that act as markers of high quality, cost-effective patient care. Quality Standards are central to supporting the government’s vision of an NHS focused on delivering the best possible outcomes for patients. They are derived from the best available evidence, particularly NICE’s clinical guidelines but also other evidence sources accredited by NHS Evidence. They are developed independently by NICE, in collaboration with health professionals and service users. The aim is to produce a library of 150 Quality Standards by 2015.

**Using digital technology to bring guidance to professionals’ fingertips**

**NICE Pathways**

7. NICE Pathways is an online tool for health and social care professionals that brings together all related NICE guidance and associated products in a set of interactive topic-based diagrams. They provide an easier and more intuitive way to find, access, and use NICE guidance. Visually representing everything NICE has said on a particular topic, including implementation support, the pathways enable
professionals to see at a glance all of NICE’s recommendations on a specific clinical or health topic and how they relate to each other.

8. **NICE Pathways** is part of a wider initiative to fully digitise NICE guidance and resources. The ultimate aim is to make our guidance available through enhanced internet access, mobile devices and third-party products, allowing more user-friendly access to guidance. NICE Pathways will also expand to reflect NICE’s new role in providing social care advice and Quality Standards.

**Supporting the QIPP programme: evidence-based advice**

9. NICE and NHS Evidence support the QIPP programme in the following ways.

10. **NICE do not do recommendations database**: Advice on eliminating ineffective treatments extracted from NICE clinical guidelines and technology appraisals published since 2007; and recommendations on optimal practice from guidance published between 2000 and 2006 which state that particular clinical practices should be either discontinued or not used routinely. These are available within an online searchable database. See www.nice.org.uk/usingguidance/donotdorecommendations/index.jsp.

11. **NICE referral advice recommendations database**: Advice on increasing efficiency through more effective referrals from primary to secondary care derived from recommendations on referral from NICE clinical guidelines, cancer service guidance and public health guidance. These are available within an online searchable database. See www.nice.org.uk/usingguidance/referraladvice/index.jsp.

12. Learning from good practice:

   - NHS Evidence’s QIPP collection of examples of how health and social care staff are improving quality and productivity across the NHS and social care. See www.evidence.nhs.uk/qipp.
   - Evidence from Quality and Productivity Cochrane Topics, also provided by NHS Evidence at www.evidence.nhs.uk/qipp.
   - The NPC’s database of Shared Practice Examples of implementation or improvement in the areas of prescribing and medicines management. See www.npc.co.uk/shared_practice.php.
   - The Shared Learning Database on NICE’s website: where local organisations can reveal the innovative ways they have overcome problems in implementing NICE guidance. See
NHS Evidence

13. NHS Evidence enables access to authoritative clinical and non-clinical evidence and best practice through a web-based portal. It helps people from across the NHS, public health and social care sectors make better decisions by providing them with easy access to high quality evidence-based information. Earlier this year, NHS Evidence launched a new and improved service which includes a greater focus on medicines information. Users can now access the British National Formulary, key resources collated by the National electronic Library for Medicines, the electronic Medicines Compendium and products developed by the NPC. The new service includes access to clinical topic pages providing the latest guidelines, high quality patient information, research uncertainties and other selected information across a wide range of conditions.

14. The NHS Evidence Accreditation Scheme supports professionals in recognising which sources of guidance can help them deliver the highest standards of care. Work is underway to expand the scope of the scheme to include commissioning and social care information and to assess the clinical content of decision support systems.

15. NHS Evidence hosts the QIPP (Quality, Innovation, Productivity and Prevention) collection, which includes access to a database of best practice examples to help staff meet the efficiency challenge (see sections 9–12 above).

National Prescribing Centre (NPC)

16. The purpose of the NPC, which is now part of NICE, is to support the NHS in improving quality, safety and value for money in the use of medicines. Its publications, e-learning resources and other services are aimed at individual NHS professionals, commissioners, and NHS provider organisations. They also support decision-making with patients.

Support for implementation of evidence-based, cost-effective practice

17. It is important for patients and the public that the guidance we produce is put into practice consistently and effectively. Guides for commissioners aim to help local commissioners provide the right level of service appropriate to the needs of people in their area. We publish
them in electronic format so that they are now fully interactive and easy to use locally.

18. Our field team of seven implementation consultants help commissioners and providers get the most out of NICE guidance and support, as well as providing us with valuable feedback on how we can make NICE guidance even easier for people to work with.

19. Professional education initiatives are another way of supporting implementation, for example, our collaborations with BMJ Learning and Nursing Times on topic-based online educational tools. The purpose of the tools is to make professionals more aware of recent evidence as summarised in the relevant NICE guidance, and better able to challenge misconceptions about putting the guidance into practice, apply their newly acquired knowledge in practice, and reflect and compare their practice with NICE’s recommendations.

20. NICE’s Fellows and Scholars programme aims to foster a network of NHS health professionals committed to improving the quality of patient care within their local health and professional communities, as well as supporting the core values that underpin NICE’s work.

**Highlighting important gaps in evidence**

21. Research and development is crucial to innovation. NICE contributes to the R&D agenda by identifying important gaps in the evidence for treatments and medicines, and in methodologies for assessing their costs and benefits, and by making the case for funding of the necessary research. We work closely with the National Institute for Health Research (NIHR) and the Medical Research Council (MRC). See NICE guidance research recommendations at www.nice.org.uk/research/index.jsp?action=rr.

**Supporting innovation internationally**

22. The NICE International team works on a fee-for-service, not-for-profit basis with policy makers and clinicians around the world to promote the use of evidence-based decision making in healthcare. The team provides hands-on support for overseas government health departments to produce specific care pathways and guidelines, and more generally to develop programmes that promote more effective and equitable use of healthcare resources.

23. During 2010/11 NICE International worked on over 30 projects in 21 countries, including China, Jordan, Colombia, Canada and Japan. It is collaborating with the BMJ Group on ‘Global Health 2011: policy for
sustainable and effective healthcare’, a two-day forum enabling funders, donor organisations, policy makers and government leaders to share experiences of how healthcare systems and institutions in their countries use clinical and economic evidence and values to improve healthcare outcomes for their populations.