Introduction to Theme 3: Innovation and the Health System

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Overview

• Context and background
• Defining needs, value and willingness to pay
• Partnership with pharmaceutical industry
• Partnership with device industry
• Motivating, enabling and rewarding health system staff to support and adopt innovation
• Key messages
Context

Health care systems in developed countries are typically facing:

• Tightly constrained budgets
• Rising demands from:
  – Ageing population
  – Diseases of affluence
  – Increasing public/patient demands:
    • Rise of consumer perspective in public services
    • Marketing to patients and public (direct and indirect)
Innovation: problem or solution?

• Innovation as a problem
  – Many in the health system see innovation as a cost driver and part of the problem ("tidal wave" of new technologies)

• Innovation as a solution
  – Health systems need to prevent and treat disease in more effective and efficient ways
  – This calls for innovation – in products and in processes
Innovation and health systems

• Health systems need to engage with innovation to promote, shape and exploit it
• They need to:
  – Define and articulate their problems and needs, what they value, and what they are prepared to pay for
  – Work in partnership with manufacturers to help them develop innovative products which meet health system requirements
  – Work with their staff and external experts to promote, support and adopt process innovations
  – Motivate, enable and reward staff for supporting, developing and adopting innovation
• And manufacturers needs to see the health system as the customer and not the problem, and work with the system
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Value and willingness to pay

- To define value and value for money you need to consider outcomes as well as costs.
- Health Technology Assessment seeks to assess health and other benefits of technologies as well as their cost and system impact. Systems are increasingly turning to HTA.
- Various techniques are available within HTA to compare or quantify value for money, e.g., incremental cost-effectiveness; QALYs and incremental cost per QALY.
- There are some attempts to apply these consistently across a health care system, e.g., PBAC/MSAC system in Australia.
- Can help to give clearer signals to industry about what (new) technologies system will (and will not) pay for.
Dialogue

• Assessing value and value for money is complex and systems vary – for good and less good reasons
• Some payer/coverage/HTA bodies are working regionally and internationally to harmonize methods and requirements
• There is increasing dialogue between these bodies and regulators to improve coordination and avoid unnecessary barriers to valuable innovation
• Also increasing dialogue between payer/coverage/HTA bodies and industry prior to market launch
• Scope for more dialogue between industry and health system about what new treatments system can pay for
UK examples

• 1994 NHS HTA Programme: delivered clear information on value for money, but multiple decision makers led to “post-code prescribing”

• 1999 National Institute for Clinical Excellence: National level decisions (advice) for high impact/profile technologies. Remit includes support for innovation. Range of technologies considered has grown and approach has developed in response to patient, public and industry concerns; all three play clearly defined role in development and application of procedures

• Work in hand to introduce Value Based Pricing for all new pharmaceuticals by 2014

• Industry initially hostile to NICE but many now see it as a preferred model internationally. Concerns about VBP

• NICE provides extensive technical guidance and offers scientific advice to manufacturers, jointly with MHRA (the regulator) if appropriate. NICE is also part of EU level coordination of HTA through EUnetHTA, and is involved in joint advice between EMA and EU HTA agencies

• NICE and MHRA have played leading role in international discussions between regulators and HTA/coverage bodies (as has CADTH)
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Partnership with pharma (1)

- Biomedical research
  - Links with world class universities and research institutes still key for pharmaceutical companies; biotech start-ups increasingly important

- Translational research – lab to clinic
  - Increasing emphasis on clinical drivers and early translation of biomedical research
  - Requires health service to be active in 3-way partnership with industry and academia, with appropriate facilities available in patient care settings

- Trials
  - Trials of new treatments within a health care system can help to promote: inclusion of patient groups of relevance to system; early access for patients to promising new treatments; understanding and appropriate uptake of new treatments
  - Requires efficient systems for ethics review, patient identification, enrollment and tracking, and adherence to GCP standards
Partnership with pharma (2)

- Development, refinement and operation of HTA, coverage and payment arrangements
- Managed Entry/Risk Sharing Agreements for promising new treatments of unproven value and/or impact
UK Examples

- Pharmaceutical Industry Competitiveness Task Force (PICTF) – pointed to need to improve quality of and access to NHS trials infrastructure
- UK Clinical Research Collaboration – pointed to need to improve NHS engagement in and support for biomedical and translational research
- NHS National Institutes for Health Research now supports/promotes:
  - Clinical Research (Trials) Networks, and streamlined ethics and contracting processes
  - Biomedical Research Centres and Academic Health Sciences Centres
  - Recently announced Academic Health Sciences Networks
- Department of Health agrees Patient Access Schemes, and is negotiating VBP, with industry (with NICE advice)
- Overall policy to make/retain UK as best place for research
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Medical device industry

• Medical device sector is diverse
  – Many different types of product, eg: equipment, devices, biologics, diagnostics
  – Differing regulatory requirements (within and between jurisdictions)
  – Differing procurement and coverage/reimbursement systems (within and between jurisdictions)
  – some businesses international and comparable in size to pharmaceutical sector, but many very small
• Sector has traditionally seen client/customer as clinicians and technical experts in system
• Sector is beginning to understand need for wider interaction with system (eg managers and payers) but often lacks skills and resources to pursue this
Partnership with device industry

- Development/adaption/application/explanation of value assessment systems for non-pharmaceuticals
- Initiatives to create new industry/scientist/clinician/manager networks
- Projects to develop and/or identify and/or procure products addressing specific health system problems
- Review and improvement of procurement systems
UK examples

- Association of British Health-care Industries (ABHI) has played leadership role
- Longstanding government commitment to innovation for health and wealth
- 2004: Healthcare Industries Task Force (HITF) – pointed to need to include devices in biomedical research systems, improve NHS involvement in device innovation, streamline and coordinate evaluation and make procurement innovation and small business friendly
- Regional initiatives: eg Yorkshire and Humber Medilink and White Rose Health Innovation Partnership – linking industry clusters with academic and NHS staff and facilities
- MATCH: EPSRC/industry funded project to develop and apply HTA for devices
- 2008-12: Innovation Funds and Prizes; Innovative Technology Adoption Procurement Programme (iTAPP); Design-led Innovation; Small Business Research Initiative (SBRI); Health Innovation and Education Clusters
- 2012 Innovation, Health and Wealth: Academic Health Sciences Networks; Procurement Strategy (still awaited) and SBRI; High Impact Innovations; culture of innovation (see next section); de-clutter (!)
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Motivating, enabling and supporting staff

• Health system managers do a lot of innovation but, unlike clinicians, they do not see themselves as innovators, and often do not have systems in place to manage innovation effectively.

• Managers need to be formally tasked to innovate and supported to do this.

• Budgets need to be managed to support innovation, for example through top-slicing and/or systematic disinvestment to create headroom for new investment.

• Reward systems need to be re-aligned:
  – Some honest failure must be accepted.
  – Rewards must be linked to achieving/maximizing defined health outcomes from given resources, rather than staying within budget.
  – Will require looking and working across traditional “silos”.
UK Examples

• Legal duty to promote innovation (previously for Strategic Health Authorities, now for Clinical Commissioning Groups)
• Innovation Funds and Prizes; NICE “Don’t Do’s” to help create headroom
• Innovation, Health and Wealth: Innovation Scorecard and consumer campaigns; include innovation in competence frameworks; industry/NHS training and education programme and CEO network; NHS Innovation Fellowships; shared savings formula; payment for outcomes
Key messages

• Innovation is essential if a modern health system is to meet public expectations within available funding
• Innovation needs to be seen as an integral part of a health system and wider economic system – duties, recruitment, training, budgets and rewards need to be organised to promote this
• Health systems need both process and product innovation; for the latter they need to work proactively in partnership with industry, universities and economic development agencies
• Health systems and governments need to
  – Give clear and consistent messages to industry about what they need and what they are prepared to pay for
  – Help industry access the scientific, clinical and evaluation infrastructure to respond to those needs
  – Ensure that procurement and coverage policies support and reward the development of high value affordable technologies
  – Manage budgets and spending to allow headroom for innovation
Further information

• My email
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• National Institutes for Health Research
  – www.nihr.ac.uk

• Innovation, Health and Wealth (2011 Call for Evidence and December 2011 Report)