Evidence, adoption and diffusion: The UK’s emerging telecare programme

Conference on ‘Evidence based policies and indicator systems’
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Overview

• Background and issues
• ‘Evidence’ and innovation in healthcare delivery
• The evidence base for telecare and its quality
• Mainstream adoption and diffusion of telecare
• Conclusions and further research
Telecare: technology + service innovation

- Information & advice
- Safety & security monitoring
- Vital signs monitoring
- Lifestyle monitoring
Government and other official reports mentioning telecare published annually
Telecare …the time has come?

- Over 20 **government reports** since 1998 have called for telecare, including the White Paper: Our Health, our care, our say: a new direction for community services

- **Targets** in *Delivering C21 NHS IT Support* (reiterated by ODPM in Nov 2005)

- £80m+ via **Preventative Technology Grant** for telecare and more from **Partnerships for Older People Projects**

- Wider **policy agenda** provides impetus: focus on capacity, chronic disease, prevention and self care

- And there are important factors driving the demand for telecare …
Overcoming labour shortages …

‘Thanks to the smarter home, a home help is only required once a year to adjust the clock’
… reducing pressure on the acute sector

"Age? You mean now or when we first sat down?"
NURSE ‘TRIED TO KILL PATIENTS’

‘She gave overdoses to elderly in ruthless attempt to free beds’

By Valentine Low

A HOSPITAL nurse was so obsessed with "ruthless efficiency" she tried to kill four elderly patients to free their beds, a court heard today.

Barbara Salisbury was even heard urging one patient, “Give in, it’s time to go”, as she administered an overdose, the jury was told.

Determined to get patients off her ward quickly - alive or dead - she “overslept the line between humourous nursing and callous dispatch”, prosecuting barrister Robin Spencer QC said, taking it upon herself to hasten the death of four very ill patients at Leighton Hospital, Crewe.

Salisbury, 47, from North Wales, denies attempting to murder Hannah Thompson, 82, Frank Owen, 90, James Byrne, 79, and Frances May Taylor, 88. The alleged offences took place between 1999 and 2002.

Mr Spencer said Salisbury, who was working as a ward sister, tried to kill Mr Byrne and Mrs Taylor by "unnecessary and inappropriate" administration of diamorphine.

Chester Crown Court heard she was seen repeatedly pressing the hoist button on the deceased delivering the drug to Mr.
Current position

• Lots of pilots
• Most die
• Some struggle on
• Some mutate into new projects
• All have provided valuable lessons for project design and implementation …
It’s not the technology!
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Research on health service innovation

Major recent studies show that innovation adoption & diffusion in health services is ‘ambiguous, non-linear and disorderly’ (Greenhalgh et al 2005; Ferlie et al 2005; Kimberly & Rye 2005)

Explanations for adoption & diffusion are paying attention to:

- **boundaries** between professional groups involved
- **complexity** of the innovation and/or its context
Boundaries, complexity and evidence

- **Boundaries** have been shown to impede healthcare innovation because of social and cognitive differences, in knowledge creation and what constitutes benefits and evidence.

- In **complex service innovations** like telecare different professional groups and distinct communities of practice are involved, e.g. social care, health, housing.
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## Existing evidence: outcomes and impact

<table>
<thead>
<tr>
<th>Focus of telecare scheme included in systematic review</th>
<th>Evidence on:</th>
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<tbody>
<tr>
<td><strong>Individual outcomes, i.e. clinical or QOL improvement</strong></td>
<td><strong>Systemic outcomes, i.e. economic impact or impact on processes</strong></td>
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<tr>
<td><strong>Specific application, e.g. telecare aimed at patients with diabetes</strong></td>
<td>Relatively good, growing – numerous individual studies on which to build systematic reviews</td>
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<tr>
<td><strong>General application, e.g. aimed at a heterogeneous population (‘frail older people’)</strong></td>
<td>Largely anecdotal, growing – not yet peer reviewed</td>
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The evidence: summary of current position

- Growing evidence of **clinical** effectiveness of some specific telecare applications
- Virtually no **cost-benefit** evidence
- Relatively little published on telecare (rather than telemedicine) that meets orthodox quality standards for healthcare evaluation
The evidence ‘problem’ in telecare

- For telecare, conventional HTA and RCT approaches to evaluation and evidence creation are very difficult because of its complexity (it involves service re-engineering and the number of control variables is high)

- Almost all past telecare studies have reported on small pilot projects and there is often misplaced optimism over the likelihood of their success (cf. Bate & Robert 2003, Sanderson 2002, Maguerez et al 2001)
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A lack of evidence hasn’t always been a barrier to telecare policies and pilot projects …

… but there is a concern over evidence based policy and decision making in healthcare
Medium term challenges?

- However, mainstreaming telecare will involve a **wider range** of professional groups and communities of practice than for pilot projects.
- More robust evidence may be needed at two levels:
  - telecare **investment decisions** will need a business case (hard when data are limited).
  - local care providers will require a better understanding of the benefits to **integrate telecare** into care pathways.
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Conclusions

• **Meeting government aspirations** for the mainstream expansion of telecare services may be constrained by the lack of a strong evidence base, especially for its costs and benefits.

• Better evidence on the impact of telecare will be needed when it begins to embrace **new stakeholders across the care system** and when significant financial investment needs to be made.
Further research

• 24 month project from June 2006
• Focus on the current government programme telecare projects
• Explore role of evidence and policy mandate in influencing telecare development and adoption path at the local project level
Thank you for listening!

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