The National Picture

Assistive Technology: releasing the potential

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Points to cover

Setting the context
- ageing population
- policy background and outcomes
- tackling health inequalities
- understanding definitions

Developing a better understanding
- Good practice examples, R&D
- The business case
- sources of information
Implementing Telecare

- 150 social services departments, 303 PCTs, 238 district councils, housing associations, alarm service/ independent providers, demonstration facilities
- 138 community equipment services – health/social services (some housing/education links) majority with S31 agreements and pooled funds, single point of contact, equipment tracking, some contracted services etc
- Seven day delivery for most equipment incl telecare
- Various forms of funding to date, mostly pilots/projects, £80m for 2006-2008
- Policy Collaborative, Getting Started Pack
Impact of an ageing population

- Significant age shift
- Changing users’ aspirations
- Diverse range of needs
- 16% of the population not in “good health” or with a limiting long-term illness
- 60% of people aged over 60 take up 40% of the NHS budget
- 40% of people in community hospitals could be cared for at home
Users’ aspirations

- I want to stay in my own home
- I want enabling care at home or close to home
- I want to be part of the community
- I want to live near family and friends
- I do not want to enter residential care
- I want better information on local services
- I want to use the internet to contact “old” friends and family
- I want greater choice and access to services
Housing & Older People

- 90% of older people live in their own home
- Majority of older people live alone
- 70% are homeowners
- 500,000 occupy sheltered housing
- 500,000 live in residential/nursing care
- 600,000 receive home support/care
- 1.4m people linked to a community alarm
The policy context

National policy context: some of the drivers

• Green Paper on Adult Social Care (DH 2005)
• Prevention Technology Grant (2006-2008)
• Improvement, Expansion and Reform: The Next Three Years, Priorities and Planning Framework 2003/06 (DH 2002)
• Quality and Choice for Older People and Preparing Older People’s Housing Strategies
• National Service Framework for Older People
• Supporting People
The policy context

National policy context: some outcomes

• promote health and independence
• provide person-centred services that meet individual needs
• help people to live in the community as far as possible
• support carers and assist staff
• modernise and integrate services
• deliver value for money
Tackling Health Inequalities: the evidence

Housing Quality

- poorly designed, equipped - inaccessible, unsafe, risk of accidental falls, fires
- dampness, a lack of adequate heating - respiratory infections, hypothermia, strokes
- Overcrowding - stress, asthma and spread of infections
- the built environment - poor access to health and social services, fear of crime, social isolation
3 generations of AT

First generation systems
- Social alarm platform, responses to personal alert

Second generation systems
- Social alarms with additional “intelligent” sensors to actively detect alerts and monitor continuously eg falls sensors, fire, gas or water detection, ambient room temp and building management systems
- Safety and security devices
- Health and lifestyle monitoring, electronic patient records and home care information

Third generation systems
- builds on 2nd generation with access to teleservices eg home banking, shopping, tele/video-conferencing, further health diagnostic and treatment
Figure 4.2: The positioning of telecare in the health, care and support system
Figure 4.3: Possible telecare provision

SUPPORTIVE

Assistive and smart home technologies
- Smart wheelchair
- Pacemaker
- Therapy units
- Personal heating systems

Reminder unit (dementia)
- Video 'doorbell'
- Spiral lift

Drug dispenser/compliance unit
- 'Keyless' entry systems

Predictive deductive systems
- Activities of daily living (ADL)
- Fall prediction
- Event monitoring
- Chair occupancy monitor
- Gradual general decline
- Room occupancy monitor

RESPONSIVE

Alarm systems
- Gas monitor
- (In)Activity monitor
- Fall detector
- Incontinence monitor
- Blood pressure monitor
- 'Panic' pendant
- Smoke detector

PREVENTATIVE

PREVENTATIVE
## Aiding the delivery of care using AT

<table>
<thead>
<tr>
<th>Personal Situation</th>
<th>Care Provision</th>
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<tbody>
<tr>
<td>A person discharged from home following cardiac surgery</td>
<td>Blood pressure Monitor</td>
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<td>Fall detector</td>
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<td>‘Panic’ pendant alarm</td>
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<td>A person assessed for living alone following a change of circumstance</td>
<td>Activities of daily living</td>
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<td>Older Person living at home</td>
<td>Walking aids</td>
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<td>‘Panic’ pendant alarm</td>
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<td>Fall detector</td>
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<td>Video/CCTV entry phone</td>
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<td>Drug dispenser/compliance unit</td>
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<td>Older person with mild dementia</td>
<td>Reminder Unit</td>
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<td>Movement detector and monitoring equipment</td>
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<td>Light sensors</td>
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<td>A person post stroke</td>
<td>Activities of daily living</td>
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<td>Chair occupancy monitor</td>
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<td>Room occupancy monitor</td>
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<td>Mattress sensors</td>
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<td>Vital sign monitoring</td>
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Some examples of AT and monitoring & safety

• Passive devices to actively detect falls, wandering and other hazards such as fire or gas to trigger a human response or shutdown of equipment
• electronic prompts and memory aids
• lifestyle and well-being monitoring eg physiological changes (blood pressure, pulse, temperature, weight)
• reliable emergency response and crisis intervention eg social alarms
• reminder notification eg to take medication or to prevent distraction burglary
Some examples of AT and security

- CCTV and entrance control
- anti-theft devices
- door opening
- night and route lighting
Making the business case

- Empowerment of users eg, better information, involvement in the management of condition, care or housing needs - choice of treatment/service
- better use of staff time eg response to specific needs, alerts or circumstances
- quicker diagnosis and treatment/service
- reduce no. of hospital inpatient stays/outpatient attendances
- delay or reduce admission to residential care
- support and/or manage independence at home and give individual control
But…

- poor compatibility of existing AT equipment
- services often fragmented - better co-ordination of services needed
- Initial capital investment and ongoing revenue costs
- need for effective evaluation of the cost-benefit of AT
- take into account growth of mobile technology and plan for future technologies to be “care ready”
- workforce development and staffing issues
- the management of change has been slow
- need for greater user control
- many buildings can not be retrofitted
Some final thoughts

• Is the AT fit for purpose, what is the specification?
• Is it reliable and easy to use and maintain by older people, carers and professionals?
• Who pays - housing, social services, health or other?
• Impact of Supporting People reviews and other Govt policy KPIs
• Need to overcome fears of “big brother” and ethical issues
• Is the right AT available “off the shelf”? Who decides?
Sources of information

Useful websites
- www.icesdoh.org/telecare
- www.changeagentteam.org.uk
- www.fast.uk
- www.ricability.org.uk
- www.intertek-rtc.com
- www.equal.ac.uk

Useful literature
- Building Telecare in England (Department of Health, 2005)
- Telecare Implementation Guide - ICES/CAT (Care Services Improvement Partnership, 2005)
- Implementing Assistive Technology (Audit Commission, 2004)
- The use of ICT to support independent living for older and disabled people (Department of Health, 2002)
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