Can smart homes meet the needs of our ageing population? The challenges of implementation

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How does the provision of advanced, predictive telecare and smart home technology for older people affect its outcomes?

Evidence about the provision of advanced, predictive telecare and smart home technology for older people

How advanced telecare services are coordinated, and how this might impact on the benefits that such technology can offer

The data

Primary data about how the coordination of advanced, predictive telecare services works in practice

Interviews were conducted with those involved in the design and delivery of smart assistive technology in England

- suppliers of advanced telecare technology

- housing, health and social care providers

- local authorities at the centre of care provision

- other stakeholders, both public and private sector, otherwise involved in providing, catalysing or assessing access to predictive telecare technologies

Research questions

- What are the dynamics and challenges experienced by those involved in the coordination and provision of advanced telecare technology for older people?

- How do these affect the outcomes of digital telecare provision for older people?

- How might coordination be improved to further develop positive outcomes for older people?

Data raised four central themes

What is advanced telecare technology for, and how does it work?

How are advanced telecare services coordinated?

How does the broader national and local institutional landscape affect the outcomes of advanced telecare provision?

How does the network of responders that contribute to predictive telecare use affect its outcomes?

What is advanced telecare technology for and how does it work?

Update of older telecare technology

Digital advances in telecare technology meant that others could be alerted automatically

Advances in passive sensor technology led to creation of predictive telecare platforms: certain health problems can be identified in advance, without the need for users to have identified these problems or to raise an alarm themselves

Three potential benefits

By predicting certain conditions, advanced telecare technology may be able to prevent the need for people to move into residential care

Deliver cost efficiencies in the provision of care, by streamlining in-person care

Its digital functionality, thereby making use possible after the analogue 'switch-off' in 2025

But there are tensions and trade-offs

How are advanced telecare services coordinated?

Provision of digital telecare technology is a collaborative effort between technology manufacturers and suppliers, housing and care providers, local authority social workers and care professionals, call centre operators, medical professionals, family members, and users of technology themselves

Various constraints can act as an obstacle to effective coordination

Creating user-centred telecare services through trials can be difficult

How does the broader national and local institutional landscape affect the outcomes of advanced telecare provision?

Policy drive for digital telecare based on a 'preventative agenda', moving on from the reactive telecare of the analogue age

But exploiting this preventative capacity of advanced telecare requires the development of infrastructure for the creation and maintenance of services

Telecare has also been framed as a solution that will allow spending on adult social care to be reduced and made more efficient

Pressure on local budgets for adult social care services means that local authorities can lack the funding and additional capacity for building the infrastructure that is required

How does the network of responders that contribute to advanced telecare use affect its outcomes?

Telecare interacts with users' lives and is embedded in social relationships

Involves the engagement of others - impact on the quality of outcomes experienced by users

Friends and family members are not always available to act as responders

Some housing providers and call centres do not have the capacity required to make use of the advanced functionality of digital interfaces

Provision of additional in-person care may be required on account of digital monitoring by family members

Design and evaluation of telecare products should be accompanied by design and evaluation of entire telecare services, starting with individuals' initial needs assessments and finishing with the network of responders in contact with individual users

Recommendations at the national level

Greater clarity on the purpose of advanced telecare technology

Creation of a national level strategic vision for advanced telecare provision and use

If the success of digital telecare rests on the benefits felt by users, it should be recognised that this may be at odds with the search for cost efficiencies in care

Given the lack of funding available for small telecare manufacturers and suppliers to trial their technology, seed funding should be made available

Recommendations at the regional and local level

Ensure that effective coordination can be built and maintained between those involved in the provision of local telecare services

Efforts for greater coordination, in the form of business accelerators and industry networks

Local authority capacity to play this role should be extended in order to achieve stronger local coordination of services

Technical capacity of local authority teams involved in telecare provision should also be advanced

Dedicated contact points should be established within local authorities

Integration that impacts on the provision of telecare is required for local policy making

Recommendations at the level of specific services within local adult social care

Advanced telecare product design and service delivery should be accompanied by service design

Service design should take place at the local level, through coalitions of interest groups including housing and care providers

Training and support should be extended to family members and other informal responders responsible for monitoring older users of advanced telecare

Capacity should be built amongst call centres and other formal telecare responders

If the preventative capacity of advanced telecare is to be optimised, this will require that pressures are removed from funding for in-person care

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