The Innovative Use of Assistive Technology in Care Homes

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National Issues

‘Care in Crisis’ report, Age UK 2014:
• People aged over 85 years has increased by 30%
• Day centre attendances has reduced by 49%
• People needing care homes has increased by 20%
• 15.4m people in the UK have one or more long term condition

We have an Ageing population, limited resources
Every 10 years, we gain 2.5 years of life
NHS England

TECHNOLOGY ENABLED CARE SERVICES (TECS)

3 Million Lives

2014-17 National Delivery Plan

• To support Integrated Care
• Management of long term conditions and the enablement of seven day services
• Work with NHS, Social Care, Housing and other key stakeholders to simplify procurement and commissioning processes
Opportunities

• NHS could be one of the best places in the world to test innovations that involve staff, technology and funding

• We must *combine* different technologies and ways of working to transform care delivery

• Combinatorial Innovation
THE STAFFORDSHIRE STORY

By 2033, 28% of the Staffordshire population will be over 65.

That’s a population of over 242,300.

And by 2030, 50% of over 65s will have a limiting long-term illness that may require some sort of care.

But, in Staffordshire...

We’re leading a huge cultural and infrastructure change to tackle this.
Social Care & Health Pressures in Staffordshire
Focus on Prevention & Early Intervention

- Healthy Individuals
- People with a lifestyle risk factor
- People with long term conditions
- Number of people dying

Health care spend (£ millions)

0
100,000
200,000
300,000
400,000
500,000
600,000
700,000
800,000
900,000
1,000,000
1,100,000
1,200,000
1,300,000
1,400,000
1,500,000
1,600,000
1,700,000
1,800,000
1,900,000
2,000,000

Staffordshire County Council
Virtual Clinic: Primary care enhanced service to care home

• 23% reduction in A/E attendances after intervention
• 29% reduction in A/E admissions
• No change in comparator care homes
• Staff education, sustained benefit
• Not perceived as threatening
Reducing the Incidence of Falls in Nursing Homes: Does it work?

>100 people supported with AT / 14 Nursing Homes.

Feedback from early adopters:

> 90% staff satisfaction

30-40% reduction in falls in 1 early adopter home

Relatives feel people cared for in a safer environment

Night staff happy that it removed need for hourly checks

• Difficulties in introducing and sustaining technologies
Roomba, the vacuum cleaner
Timer pill dispenser
Promoting Independence: reducing falls in care homes

Door Sensors
Trigger an alert to the carer via wireless pager when movement detected. Placed on doors to alert carer when people entering or leaving rooms.
To Promote Continence / Promote Dignity

The system alerts the carer to a build up of moisture via a detector unit. The cotton sheets can be washed.
Increasing Staff Capacity through Remote Monitoring and reducing falls in care homes

Care Assist Portable alarm
Receives alerts & displays the type of sensor activated and its location or the name of the person assigned to.
To Monitor and Manage Epilepsy / Promote Dignity

The system alerts carers to Epileptic seizure activity through registering a combination of BPM, movement, sound and / or moisture.
Stakeholders need to take into consideration patients needs and care priorities:
Packages personalised around needs and benefits

- Dementia package
- Falls package
- Learning difficulties package
- Safe and secure at home package
- Winter chills package
- Personalised to meet individual need

Do we need to make it part of Comprehensive Geriatric Assessment?
Assistive Technology: benefits

- Reassurance and safety
- Confidence and self management
- Early safer discharges from hospitals
- Timely medication
- Improve dignity
- Improve independence
- Sense of well being
- Reduced readmissions
- Remote areas consultation
- Monitor drug effects
- Help in recreational, household activities or personal care
- No travelling or parking chaos
- Reduced loneliness
- Reduced health care associated infections
- Reduced waiting times
- Lesser follow ups
- Help with 7 day working

Patients want to be at home, not in hospitals
But then, what are the barriers?
Success of AT?

Patient’s willingness - perception, choice and personal views about outcomes
Costs, availability, personal identity, accountability and governance??

Ready for change???
Most find it enabling; Some may find it a hindrance or intrusive
Legal clarity and Bottlenecks

Lack of legal clarity

– Licensing, Accreditation
– Registration of telemedicine services and professionals
– Data protection, Liability, Reimbursement
– Jurisdiction – e.g. cross border provision of telemedicine services also require legal clarification with regard to privacy
– Broadband access, standardization
– Information Governance issues
Conclusion

• Tele Care may not transform the health of its users but it may afford small relative benefits on psychological and health related Quality of Life outcomes relative to users who only receive usual care. *Age and Ageing* 2014

• A Cochrane review of published research evidence found telehealth and telecare technologies to be reliable, non-detrimental and well-accepted by patients. However, the review found little firm evidence of benefits, safety or cost-effectiveness.
Next Steps

National Guidance
AT In care homes and hospitals
?Patient homes
Benefit realization
Better Health Using Technology To Support Outcomes

Not a one size fits all
Start of an exciting time
Getting widely available and cheaper
Think beyond traditional ways, be a part of the change

‘The opportunity is Huge and the Time is Now’
And a word of Caution

- The victory should be for science and patients, not just for the industry
- Should be based on benefits and needs
- Modern systems will make life possible but the aim should be to make it worthy

Add Life to Years, not years to life!
Living Longer and Ageing better—the best is yet to come