

Hospital to Community: HealthTech and our Ageing Society

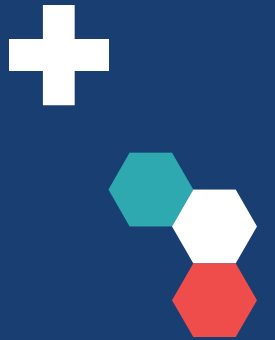
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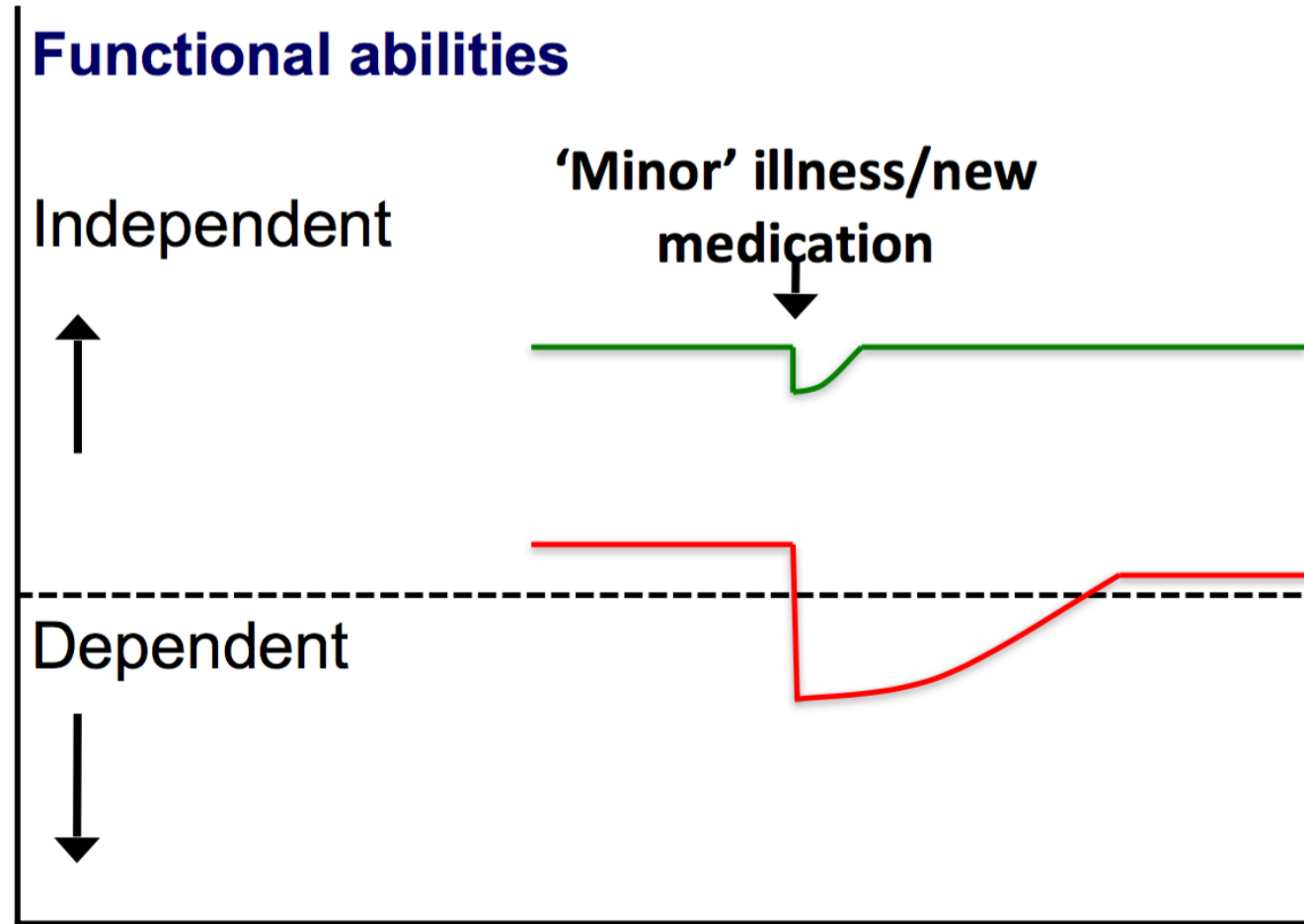
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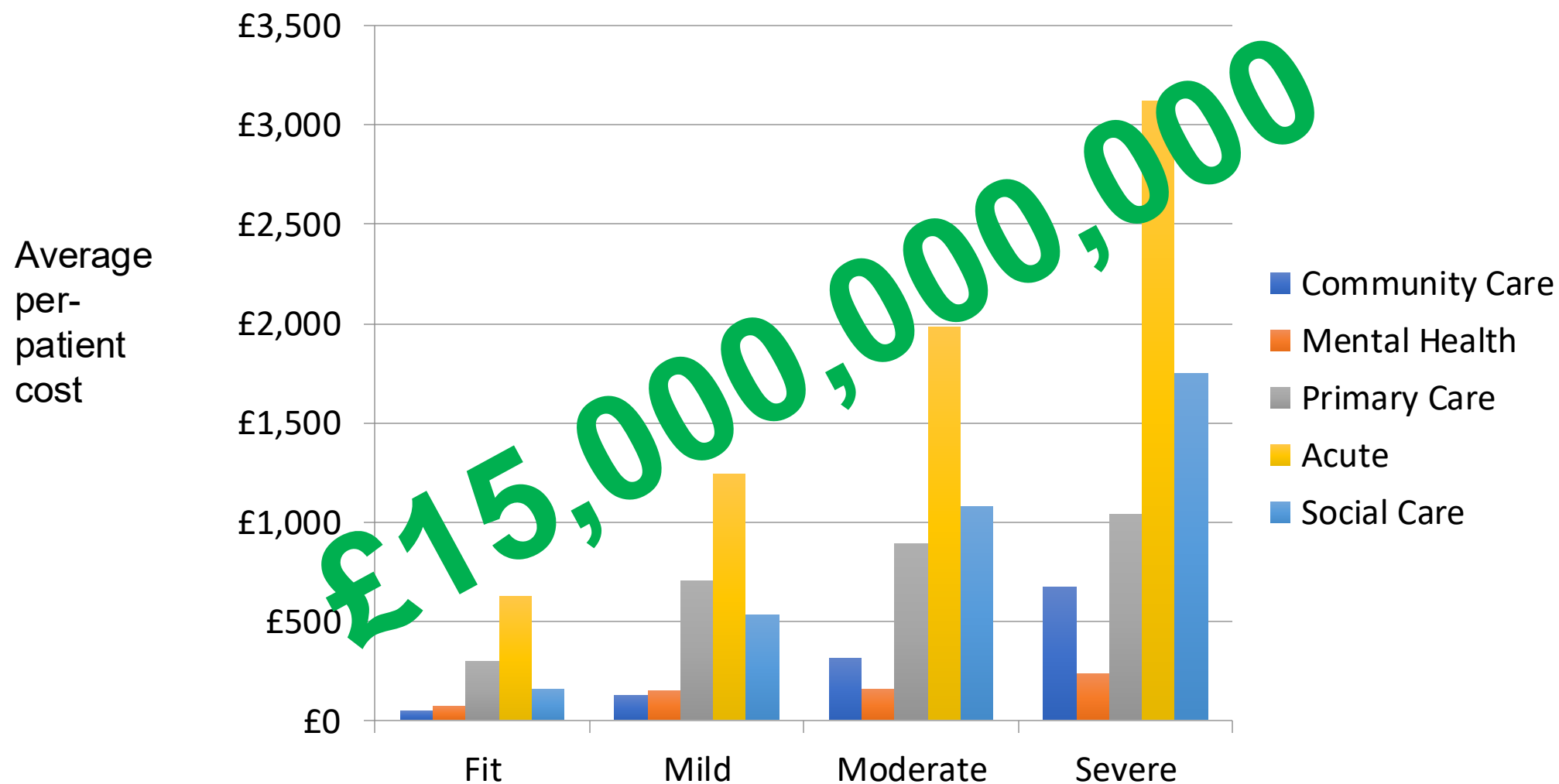


HealthTech solutions for our ageing society will come from older people, particularly those living with frailty, their families and carers, in partnership with practitioners with experience of working with older people as part of a wider interdisciplinary team

Frailty



Health and social care costs of frailty



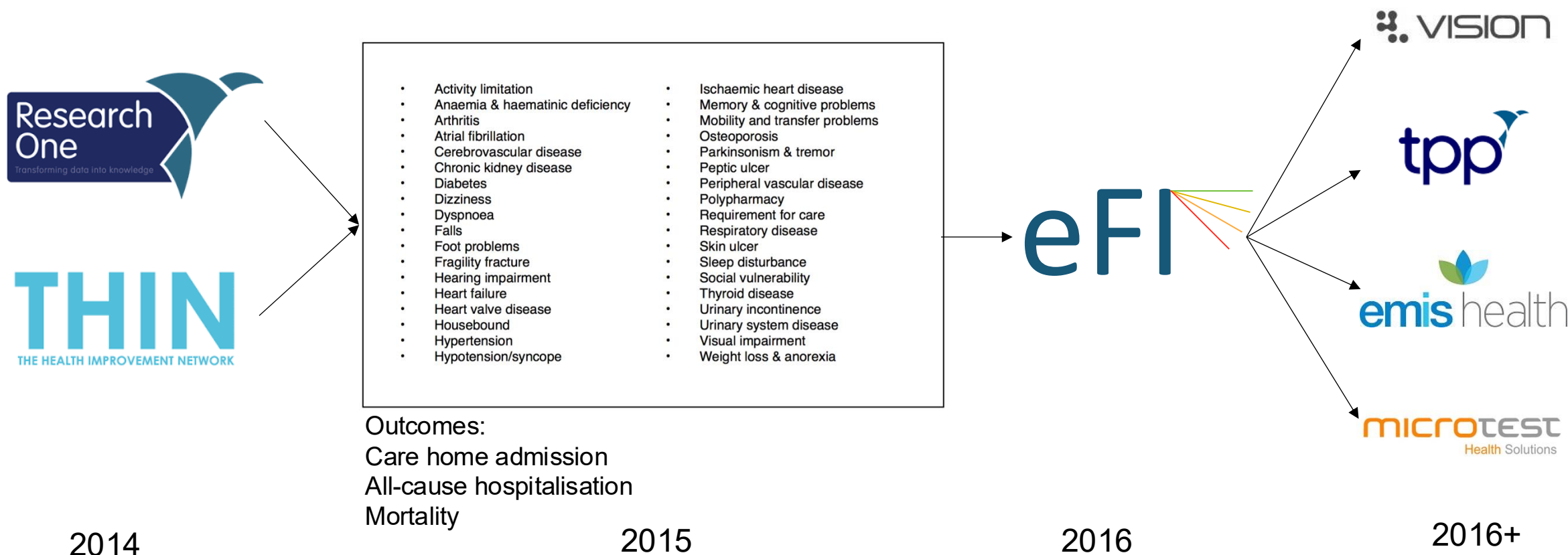
Frailty syndromes – the ‘geriatric giants’

The common, unifying reasons for presentation of older people to hospital

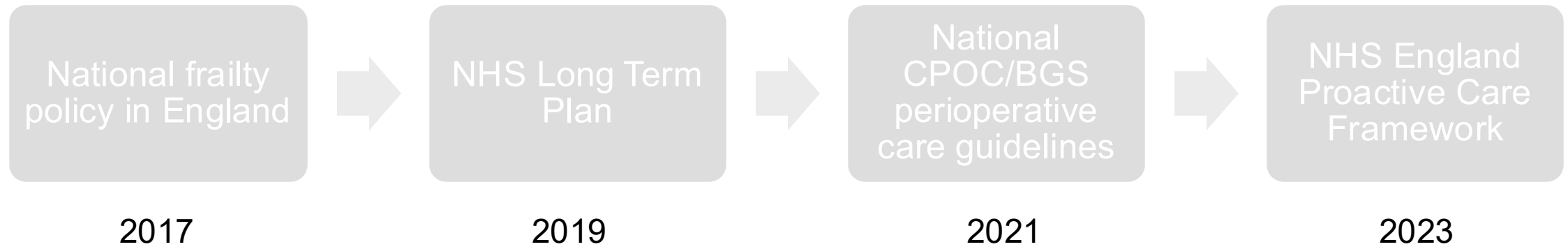
- Immobility/loss of independence – often relate to the very basic mobility skills required for functioning at home (getting out of a chair; walking to/from the toilet; getting on and off the toilet; climbing stairs)
- Falls
- Delirium
- (Incontinence)

HealthTech solutions for older people that shift care from hospital to the community must take account of these core frailty syndromes

Digital technology to support frailty identification and management based on EHR data – the eFI

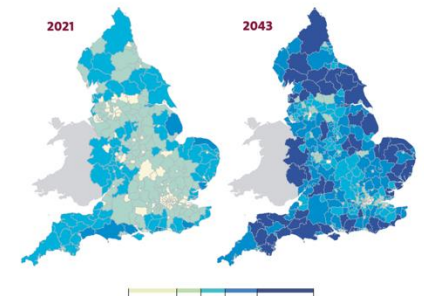


eFI policy & operational impact



Chief Medical Officer's
Annual Report 2023
Health in an Ageing Society

NICE National Institute for
Health and Care Excellence



The evidence base – perioperative care for older people

Randomized clinical trial

Randomized clinical trial of comprehensive geriatric assessment and optimization in vascular surgery

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Mean LoS 3.3 days intervention, 5.5 days control

Improvement largely driven by reductions in postoperative delirium, dysrhythmia, cardiac complications, wound infection

Notable that 25-30% of intervention (CGA) patients received targeted modification of risk of functional decline, OT input, social worker input, indicating considerable unmet need

Potential role for novel technology to support these care pathways

RESEARCH PAPER

Preoperative comprehensive geriatric assessment and optimisation prior to elective arterial vascular surgery: a health economic analysis

JUDITH S. L. PARTRIDGE^{1,2,†}, ANDREW HEALEY^{3,†}, BIJAN MODARAI^{4,5}, DANIELLE HARARI^{1,2}, FINBARR C. MARTIN², JUGDEEP K. DHESI^{1,2,6}

Cost-effective, with costs on average £1,165 lower for CGA patients

Discharge to assess models of care

Original Research | 20 April 2021

Is Comprehensive Geriatric Assessment Admission Avoidance Hospital at Home an Alternative to Hospital Admission for Older Persons?: A Randomized Trial

Authors: Sasha Shepperd, MSc, DPhil , Chris Butler, FMedSci , Andrea Craddock-Bamford, BSc , Graham Ellis, MD , Alastair Gray, PhD , Anthony Hemsley, BMedSci, MD , Pradeep Khanna, MBBS , ... [SHOW ALL](#) ... , and John Young, MSc 

[AUTHOR, ARTICLE, & DISCLOSURE INFORMATION](#)

Publication: Annals of Internal Medicine • Volume 174, Number 7 • <https://doi.org/10.7326/M20-5688>

Similar proportion of people living at home at 6 months

Similar mortality rates

Reduction in proportion of people admitted to care home

JOURNAL ARTICLE

Is comprehensive geriatric assessment hospital at home a cost-effective alternative to hospital admission for older people?

Surya Singh, Alastair Gray , Sasha Shepperd , David J Stott, Graham Ellis, Anthony Hemsley, Pradeep Khanna, Scott Ramsay, Rebekah Schiff, Apostolos Tsiachristas, Angela Wilkinson, John Young

Age and Ageing, Volume 51, Issue 1, January 2022, afab220,
<https://doi.org/10.1093/ageing/afab220>

Published: 31 December 2021 **Article history** ▼

Evidence cost-effective, with average health and social care costs £2,265 lower in intervention (CGA) arm (95% CI £4279 to 252 lower)

Trust develops a virtual ward and an integrated hub to provide care closer to home for frail older people, improving their quality of life and the ability to self-care

CATEGORY: **VALUE IN HEALTHCARE AWARDS 2017 / IMPROVING VALUE
IN THE CARE OF FRAIL OLDER PATIENTS**

AWARD: **WINNER**

Health Services Journal Awards

Following introduction, length of stay for geriatric medicine inpatients reduced from 6.2 days to 4.9 days
Estimated annual bed day saving of 4,612 days, at a cost saving of £400 per bed day
Equivalent to cost-saving of £1.85M annually
Improvements in all domains in health-related quality of life (EQ5D)
Patient reported experience measure indicated satisfaction very high

Opportunities to extend existing successful models to incorporate useful HealthTech, based around the needs of patients and practitioners

The role of AI in supporting our ageing society – series of workshops with older people

Area of concern	Example
Accessibility	• Concern that widespread adoption of AI may make healthcare less accessible • Potentially increase health inequity for people with sensory impairments, low digital literacy, limited financial resources
Content	• Need to be informed if an AI tool is assisting a medical decision • Transparency considered important and human oversight considered essential to ensure holistic approach and act as a safety net
Data	• Experiences of how errors in medical records had not been corrected over time • Concerns about representativeness of the data used to train AI models
Value	• Questioned if some AI applications were simply using ‘AI for AI’s sake’, emphasizing the need for AI to add value to care and to improve caregiver interactions rather than simply replace them • Need to maintain the vital social and emotional connection that individuals often have with health and care practitioners

HealthTech solutions for our ageing society will come from older people, particularly those living with frailty, their families and carers, in partnership with practitioners with experience of working with older people as part of a wider interdisciplinary team