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Frailty: an individual and societal perspective

RCP Linacre Lecture 2018

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Recent advances in life expectancy

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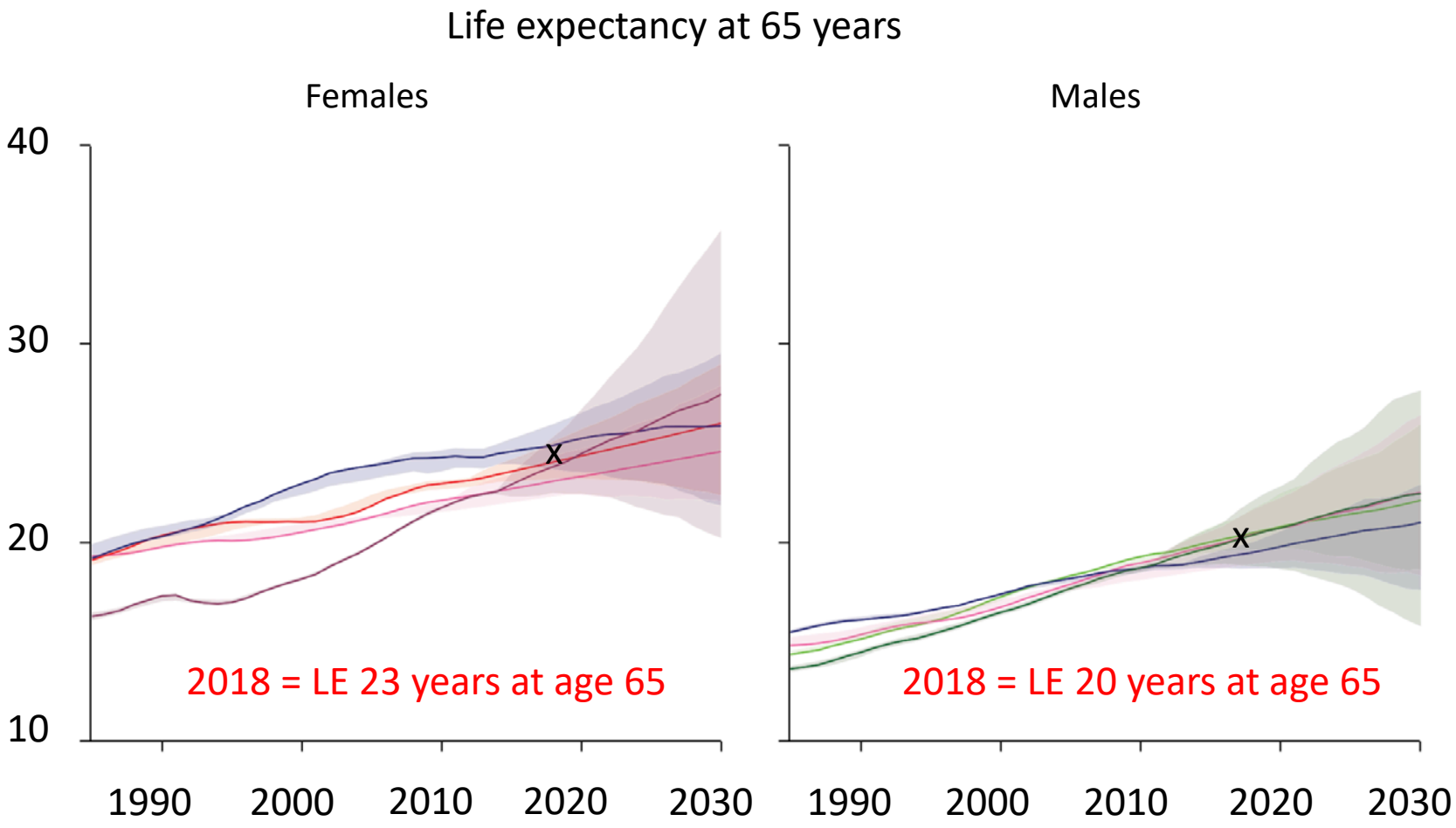

Kontis Lancet 2017

Potential implications

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The ageing demographic has profound implications for the planning and delivery of health and social care in the UK and globally

Frailty is the most profound implication of population ageing

What is frailty?

A condition characterised by loss of biological reserves, failure of homeostatic mechanisms and vulnerability to adverse outcomes

Prevalence 10% in over 65s, rising to between a quarter and a half of over 85s

Clinical presentation

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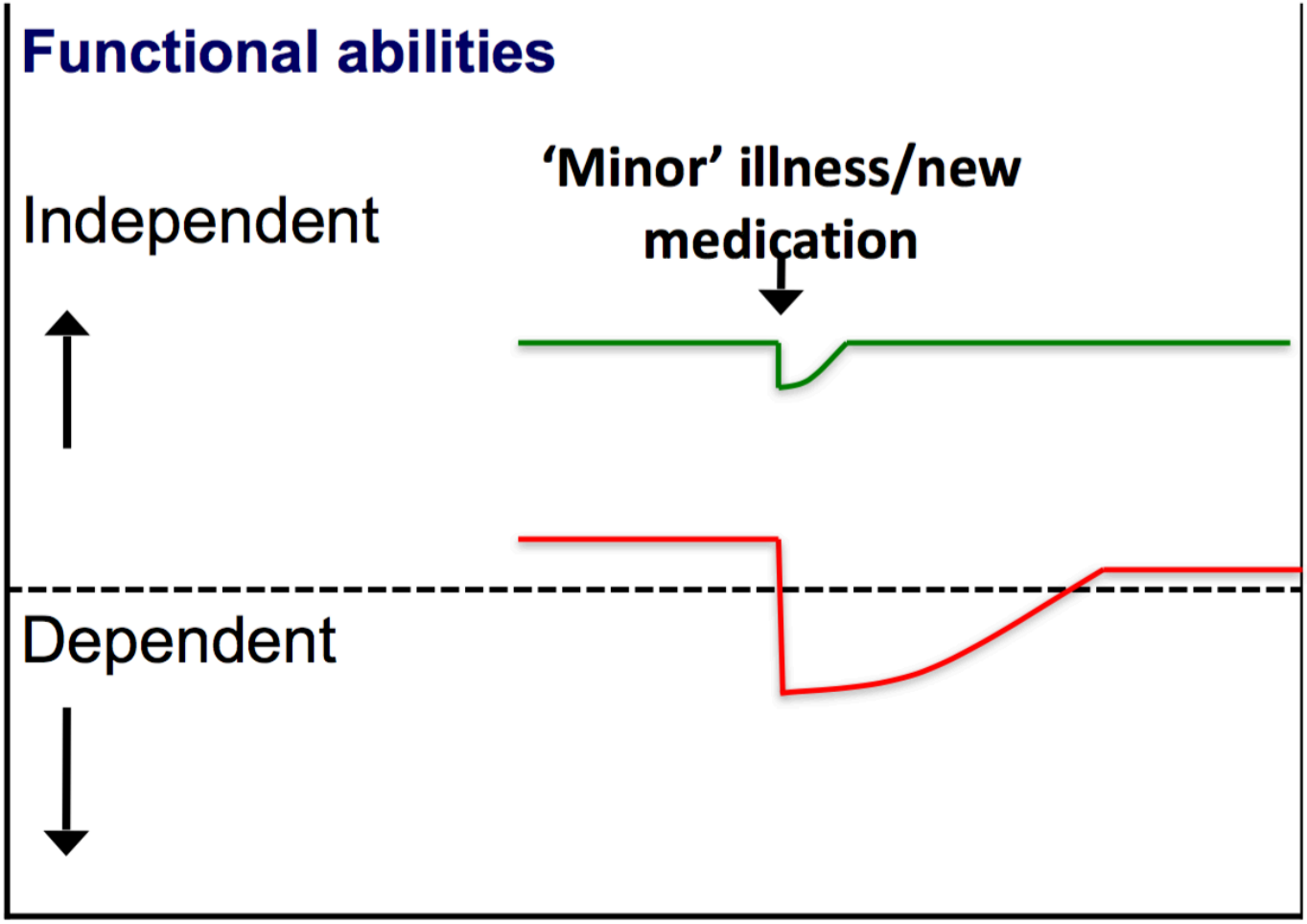
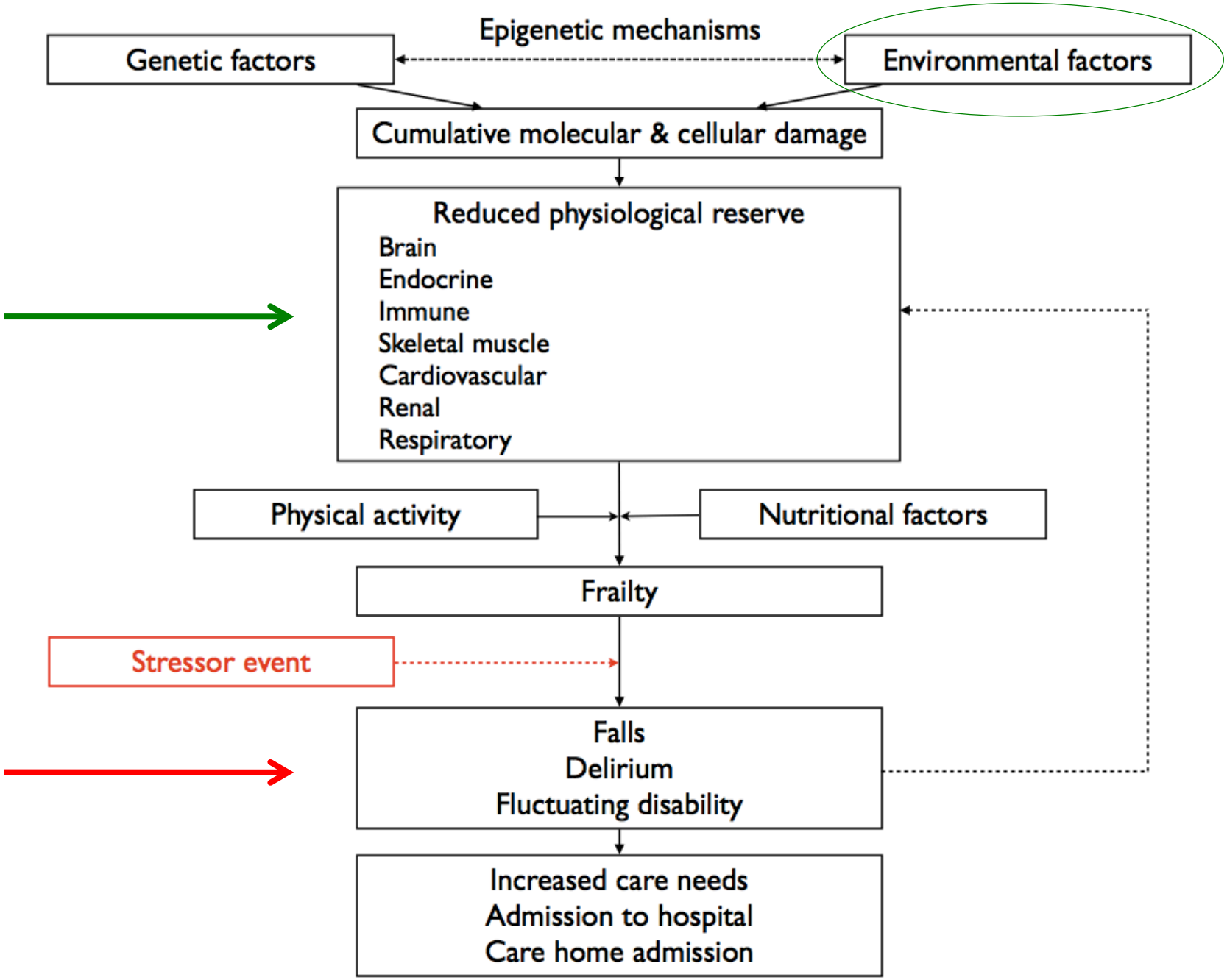


Clegg, Young, Iliffe, Olde-Rikkert, Rockwood. Lancet 2013

To understand frailty we must consider **pathophysiology** and associated **events**



Clegg, Young, Iliffe, Olde-Rikkert, Rockwood. Lancet 2013

Considering the environment: social determinants of frailty

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1. Income inequality

Potential impact on physical health, mental health and social isolation

2. Loneliness and social isolation

Key drivers of ill health and mortality in older age

3. Local environment

Traffic concerns, fear of crime, degraded infrastructure, lack of amenities can lead to reduced physical activity and exacerbate social isolation

To truly understand frailty we must view it through the lens of those who experience it

Frailty: the individual perspective

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At 1.30am Mrs Bridget McGoldrick aged 86 rose from bed in her home in Glasgow's East End to use the toilet, and fell. She struggled to rise to her feet, but was too weak to do so, and soon became exhausted.

She did not try to shout for help because there was no one to hear her. Her limbs ached, she was sick with the pain and shock of her fall, exhausted by her struggles and desperate to pass water. So she offered up a prayer and composed herself for the long, lonely vigil on the cold floor of the unheated room.

Prof Bernard Isaacs
Survival of the unfittest

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How can we improve outcomes for older people living with frailty?

Key barriers to implementation of available evidence

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Q1. How do we make frailty visible at national policy level?

A1. Conceptualise frailty as a long-term condition.

Q2. How do we enable frailty identification as part of routine care?

A2. Use routinely available data.

Frailty as a long-term condition

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Frailty shares the features of the typical long-term conditions

- Common
- Costly as an individual and societal level
- Typically progressive (but not always!)
- Episodic crises
- Potentially modifiable

If we consider frailty as a long-term condition we can begin to apply internationally established models to implement the available evidence

Harrison Age Ageing 2015

Applying models of LTC management in frailty

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1. Identify relevant subpopulations of people with frailty for proactive care
2. Mobilise community resources to meet the needs of people with frailty
3. Empower and prepare people with frailty to self-manage their condition(s)
4. Embed proactive planned interactions which incorporate individual goals
5. Embed evidence-based guidelines into practice & integrate specialist expertise

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NHS
National Institute for Health Research

The NIHR CLAHRC Yorkshire and Humber

Cumulative deficit model of frailty

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Development cohort
N = 250,000

→

Internal validation cohort
N = 250,000

→

External validation cohort
N = 500,000

Research One
Transforming data into knowledge

200,000 Read codes

↓

8,000 Read codes

↓

2,000 Read codes

↓

36 deficits

Research One
Transforming data into knowledge

Outcomes:
Care home admission
Hospitalisation
Mortality

The Health Improvement Network
cegedim strategic data

Outcomes:
Hospitalisation
Mortality

Clegg Age Ageing 2016 (open access)

Survival curves

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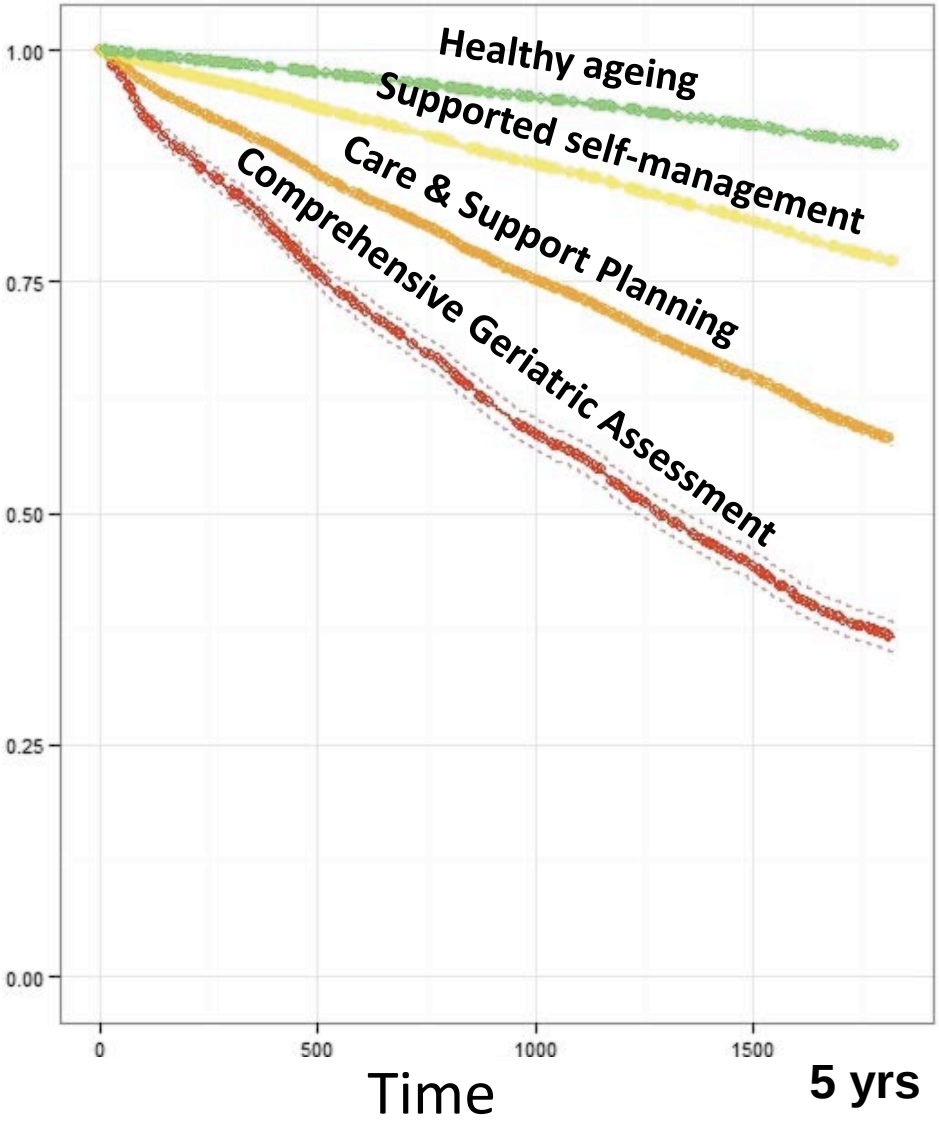
Proportion alive



Fit

Mild frailty

Moderate frailty

Severe frailty

Clegg Age Ageing 2016

National implementation

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NICE National Institute for Health and Care Excellence

Building research infrastructure

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Availability of the eFI in large research datasets & national implementation in primary care provides a critical link between research and practice

Ongoing big data frailty research projects using eFI in:

1. health economics
2. cardiovascular health
3. renal medicine
4. perioperative care

Health and social care costs of frailty: the wider societal perspective

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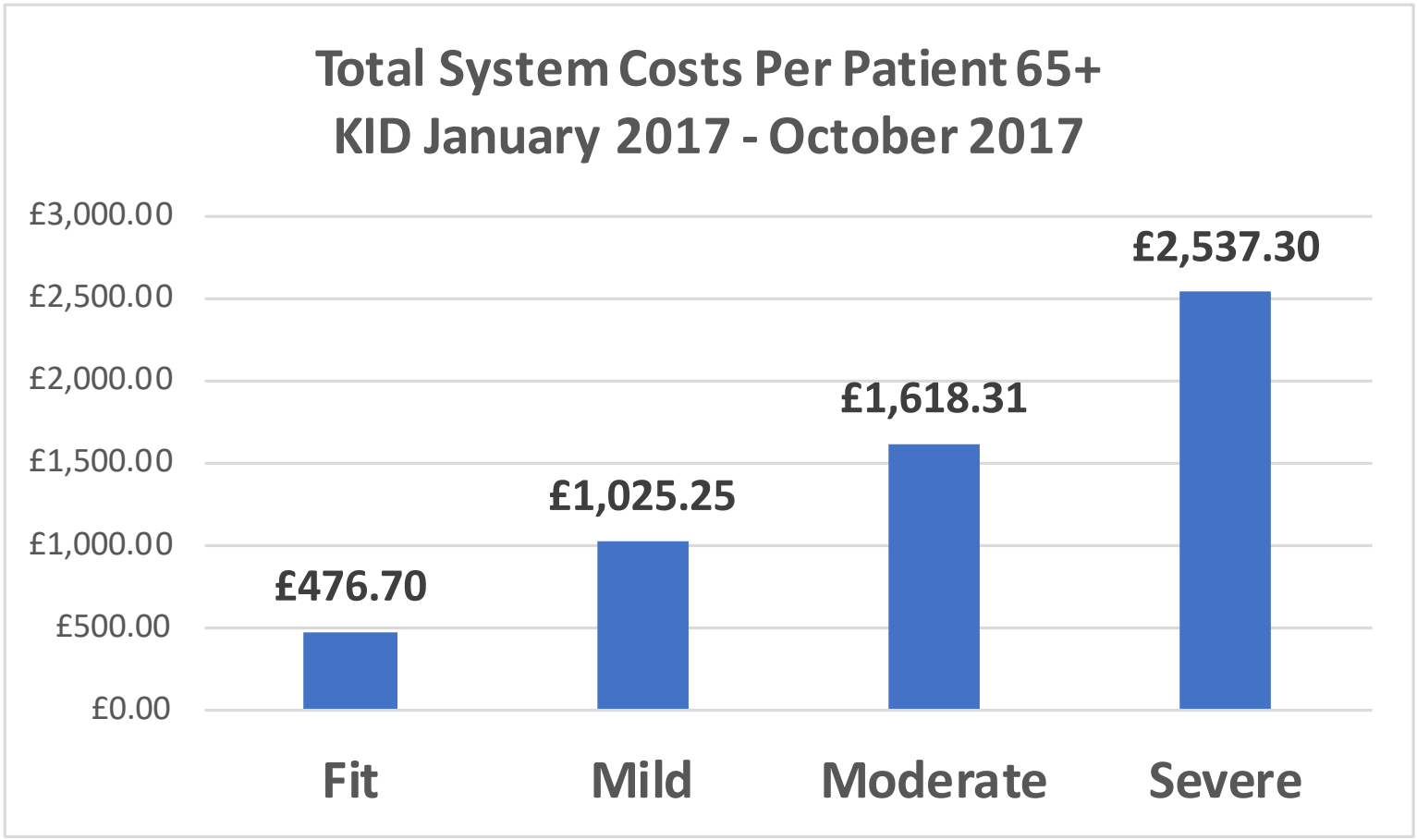

Unpublished data, thanks to Kristin Bash

Personalised care planning for older people with frailty

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NIHR Programme Grant for Applied Research

Work Package 1
Refining the target population by exploring QoL & health/social care resource use in frailty, using the eFI (ResearchOne; CARE 75+; ELSA)

Work Package 2
Optimising the Age UK integrated care service to deliver PCP for older people with frailty

Work Package 3
Feasibility study (cluster RCT, 8 general practices, 400 participants)

Work Package 4
Definitive cluster RCT, 40 general practices, 2,000 participants

Next steps for research

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1. Development and evaluation of interventions targeted at modifiable components of frailty

2. Evaluation of alternative approaches to organising care for older people with frailty

3. Optimising care for older people with frailty in the specialty context

4. Medicines optimisation for older people with frailty

Thank you

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Prof John Young

Prof Anne Forster

Prof Steve Iliffe

Prof Alex Brown

Dr Maj Pushpangadan

NHS
National Institute for
Health Research