Professor Finbarr Martin Professor of Medical Gerontology, KCL

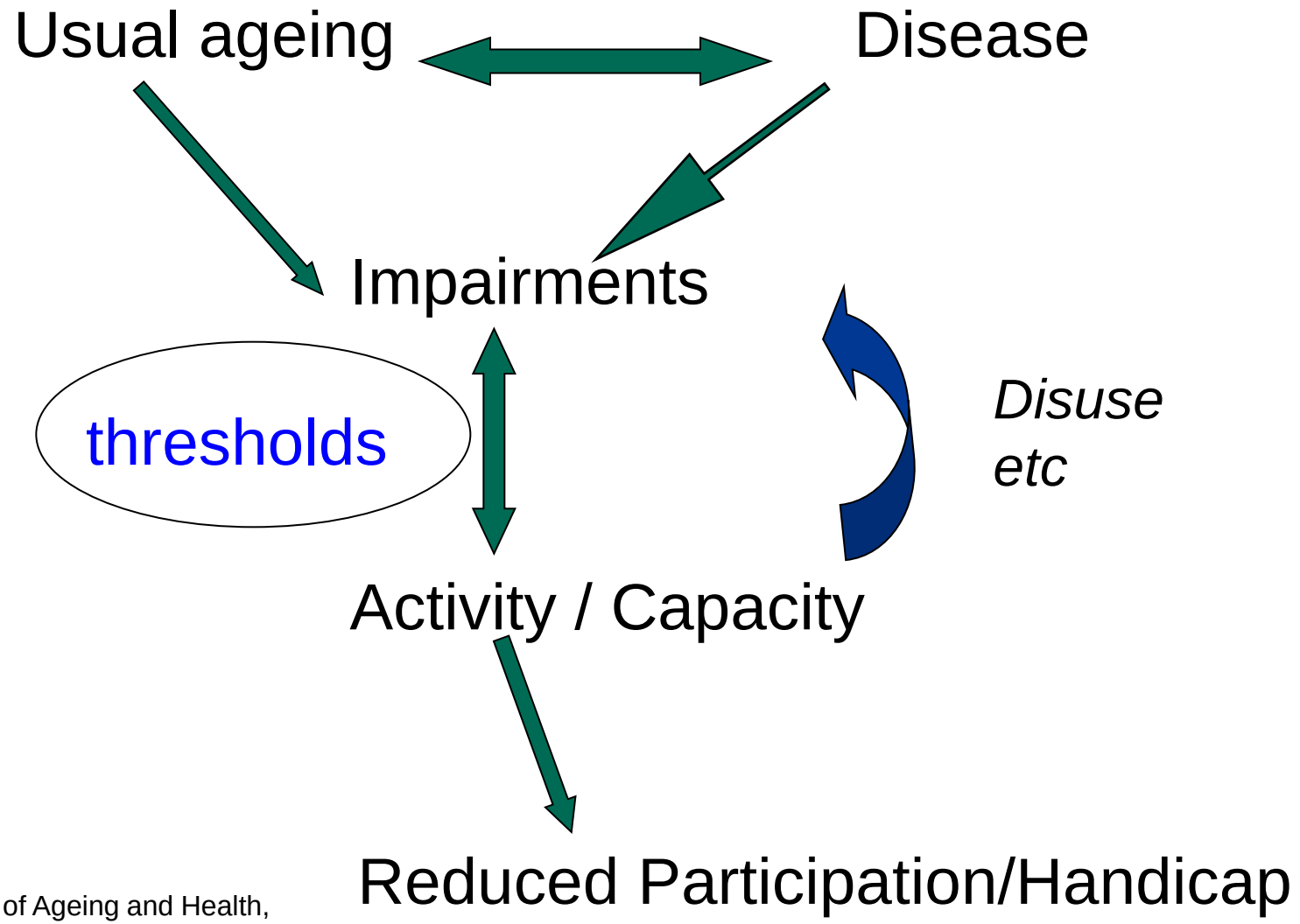
Frailty Perspective

NW London CLAHRC Collaborative Learning

Frailty – can it help?

Ageing and Health
Guys and St Thomas' Hospitals

WHO model of
Functioning, Disability and Health (ICF)



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Frailty and unstable disability

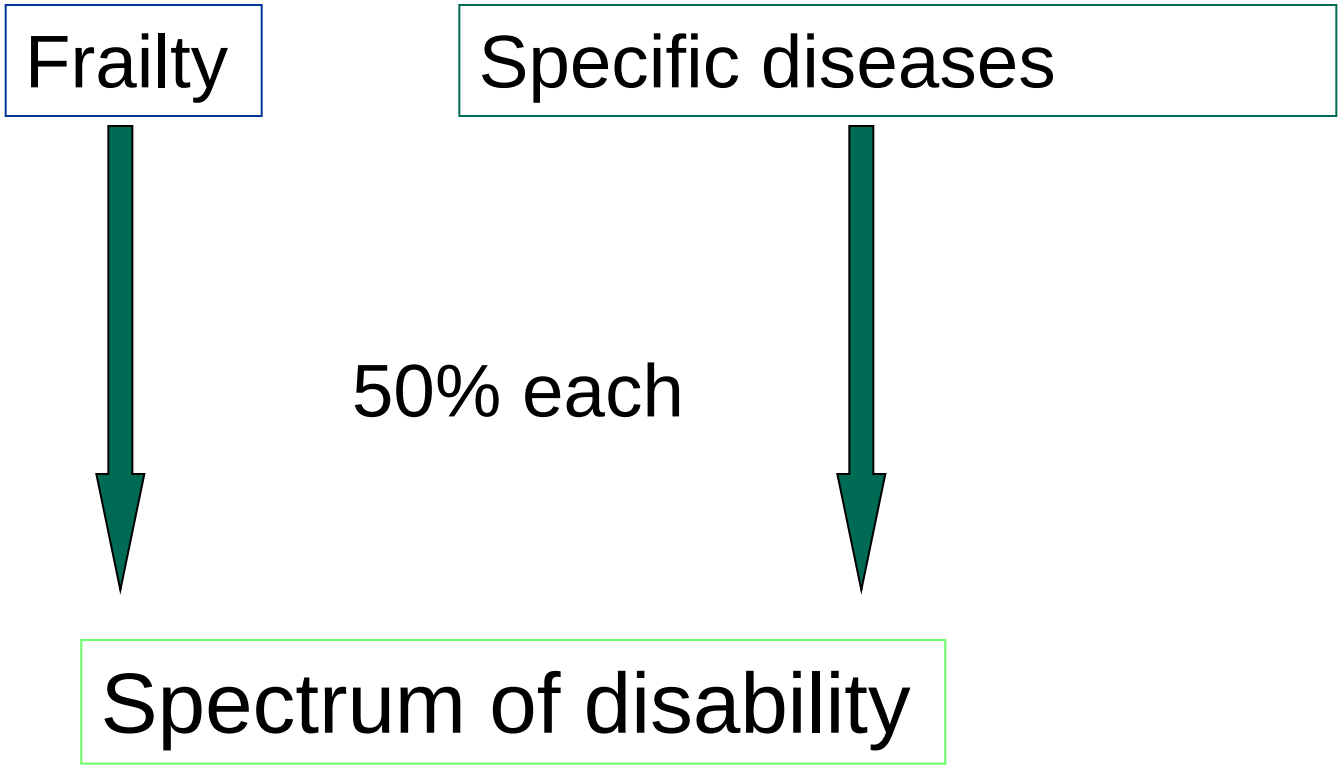
(*Campbell and Buchner, 1997*)

‘a condition or syndrome which results from a multi-system reduction in reserve capacity

.....to the extent that a number of physiological systems are close to, or past, the threshold of symptomatic failure, so that.....

the frail person is at increased risk of disability or death from minor external stresses’.

From a longitudinal perspective



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So, can we measure it??

Development of an NHS Primary Care Electronic Frailty Index (eFI)

Existing EHR ("SystmOne")

Read Codes (>80,000 → 8,000 → 2,200)

Read codes map onto 43 Candidate 'DEFICIT' Variables

Tested in ResearchOne (n=226,988 >65y)

Validation Process (n=227,063 >65y)

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Deficits constructed for the eF

NHS England

- Memory & cognitive problems
- Cerebrovascular disease
- Dizziness
- Parkinsonism & tremor
- Mono/hemiparesis
- Weakness
- Sleep disturbance
- Visual impairment
- Hearing impairment
- Hypertension
- Ischaemic heart disease
- Atrial fibrillation
- Heart valve disease
- Hypotension/syncope
- Heart failure
- Peripheral vascular disease
- Dyspnoea
- Respirator disease
- Peptic ulcer
- Faecal incontinence
- Weight loss & anorexia
- Urinary incontinence
- Urinary system disease
- Chronic kidney disease
- Osteoporosis
- Fragility fracture
- Arthritis
- Diabetes
- Thyroid disease
- Skin ulcer
- Anaemia & haematinic deficiency
- Falls
- Foot problems
- Housebound
- Problems with bathing
- Problems carrying out personal grooming and toileting
- Mobility and transfer problems
- Unable to manage medications
- Activity limitation
- Social vulnerability
- Environment problems
- Requirement for care
- Polypharmacy

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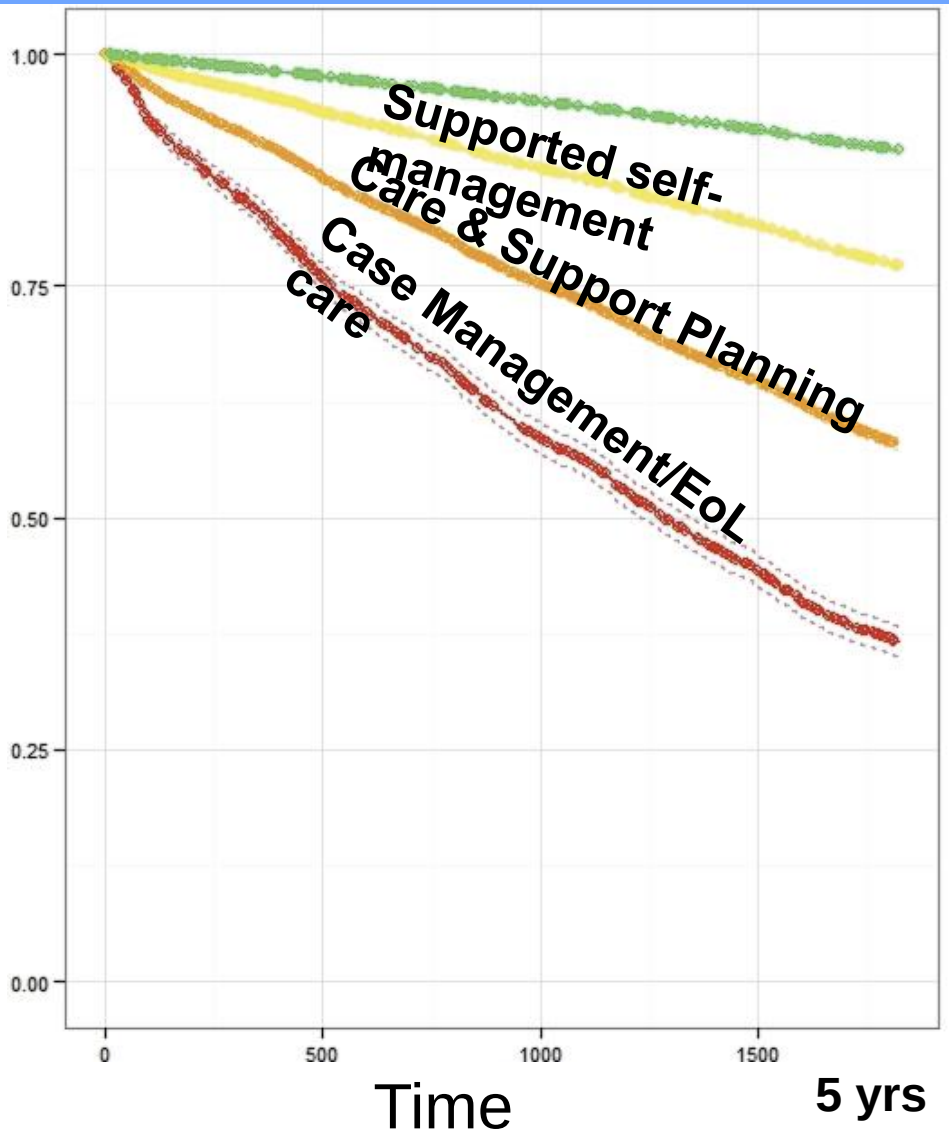
Not surprising, just a lot of relevant things

And it does what you would think.

Primary care electronic Frailty Index (eFI): survival plots *(n=227,648; >65y)*



Fit

Mild frailty

Moderate frailty

Severe frailty

So, what now?

- Underlying beliefs are
  - Gradual deterioration is the norm
  - Case finding can identify those likely to be problematic
  - prevention is possible, surely
  - Generic but targeted interventions may be enough

- Bring it on!

Some evidence so far

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Primary care strategies to maintain independence of frail older people

setting	12 general practices in Holland
design	RCT Cluster (practice level)
intervention	CGA + individual MDT plans + regular F Up
control	Usual care
patients	346 frail 70+ on Groningen frailty index
Outcomes	6, 12, 24 months
Results	NS difference in disability, hospital use, LTC More GP use, 20% more costs
Comments	Oops!

Primary care strategies to maintain independence of frail older people

setting	39 GP practices in Holland
design	3 arm cluster RCT
intervention	1. U-PRIM = CGA + practice risk register 2. U-PRIM + 21 RGNs trained to provide nurse delivered individualised plan including referrals (U-care program)
control	Usual
patients	3092 patients: Inclusions: 60 + Polypharmacy OR Frailty Index OR no GP contact for 3 yr
Outcomes	At 1 year: ADL, costs, contacts
Results	Both interventions produced marginal ADL preservation + costs 12% lower Patients and GPs thought it feasible
Comments	The added intervention added no value U-PRIM may be cost effective

Primary care strategies to maintain independence of frail older people

setting	59 GP practices in Holland
design	RCT clusters (i-SCOPE study)
intervention	Postal questionnaire; 4 domains: functional, somatic, mental, social.
control	Usual GP care
patients	11,476 eligible, 63% screened. 26% problems in 3 domains, care plans made on random 25% =225 patients
Outcomes	1-2 year
Results	No effect on health, healthcare, QoL, costs More satisfied patients (98v94%)and GPs
Comments	Not cost effective

Primary care strategies to maintain independence of frail older people

setting	GPs in Amsterdam
design	RCT clusters at practice level
intervention	CGA + individualised plans and treatments: nurse led 12 months
control	usual
patients	2277 scoring >2 on ISAR-PC Age 83, 60% F, 44% lived alone
Outcomes	12 months, on KATZ ADL score
Results	No significant differences
Comments	Maybe light touch interventions

Discussion points

- Underlying beliefs are
  - Gradual deterioration is the norm
  - Case finding can identify those likely to be problematic
  - prevention is possible, surely
  - Generic but targeted interventions may be enough
- Policy and face validity are strong levers!!

- What we need to do next is find the method.... to find the right people....who benefit....when we do the right thing!

➢ **the search goes on**