Healthcare, hospitals and the challenges of an ageing population

Prof David Oliver

Vice President, RCP, London
Past President, British Geriatrics Society
Senior Visiting Fellow, King's Fund
Consultant in Geriatrics & Internal Medicine
Columnist, British Medical Journal

Hong Kong Hospital Authority Convention
May 16th 2017

The King's Fund

Ideas that change health care

BRITISH GERIATRICS SOCIETY

Pop.	7.3m	65m
GDP per capita	$56,428 (10th)	$44,000 (25th)
Health $ per capita	$2,200	$4,003
% Spend private / vol.	53% (higher for hospitals)	18%
Hospital beds / 1000 *[OECD Average 4.4]*	4.2	2.7 *(2.4 England)*
Bed Occupancy Gen Beds *[OECD Av 79%]*	90% +	*93% in 2017)*
Mean LOS Gen Hosp	4	7.1
Doctors / 1000	1.7	2.8
Nurses / 1000	6.8	8.3
% Female Drs	32%	46%
Geriatricians (2015)	?	1450
% of Drs are GPs	?	36%

To cover

- I: Population ageing
- II: Implications for population health – the upside
- III: The downside – including frailty
- IV: What this means for health services
  - Especially for hospitals
- V: How we need to adapt for ageing

I Population ageing

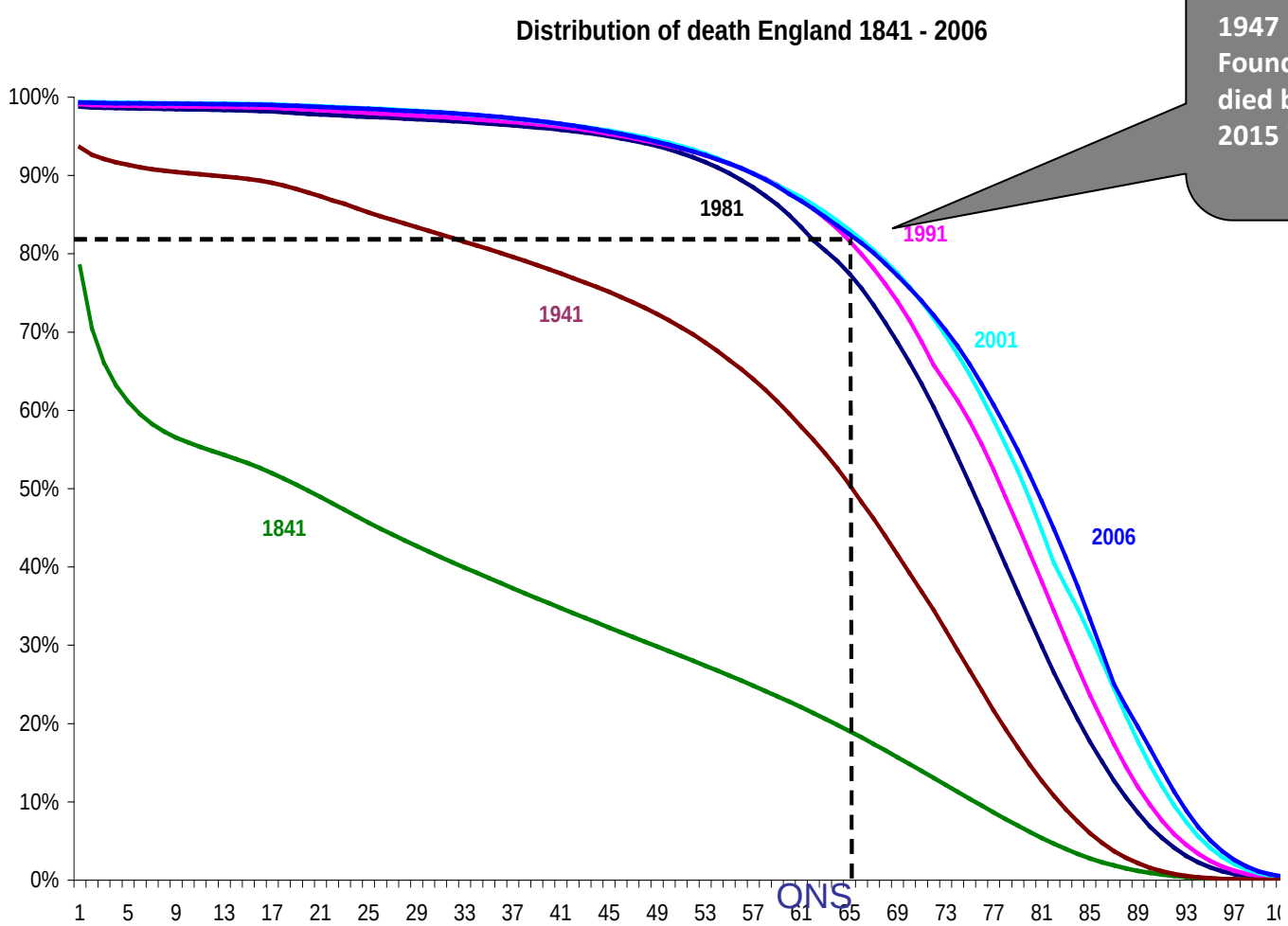
UK and Hong Kong

The King's Fund

Ideas that change
health care

BRITISH GERIATRICS SOCIETY

UK: From “rectanguralisation” to “elongation” of survival curve.

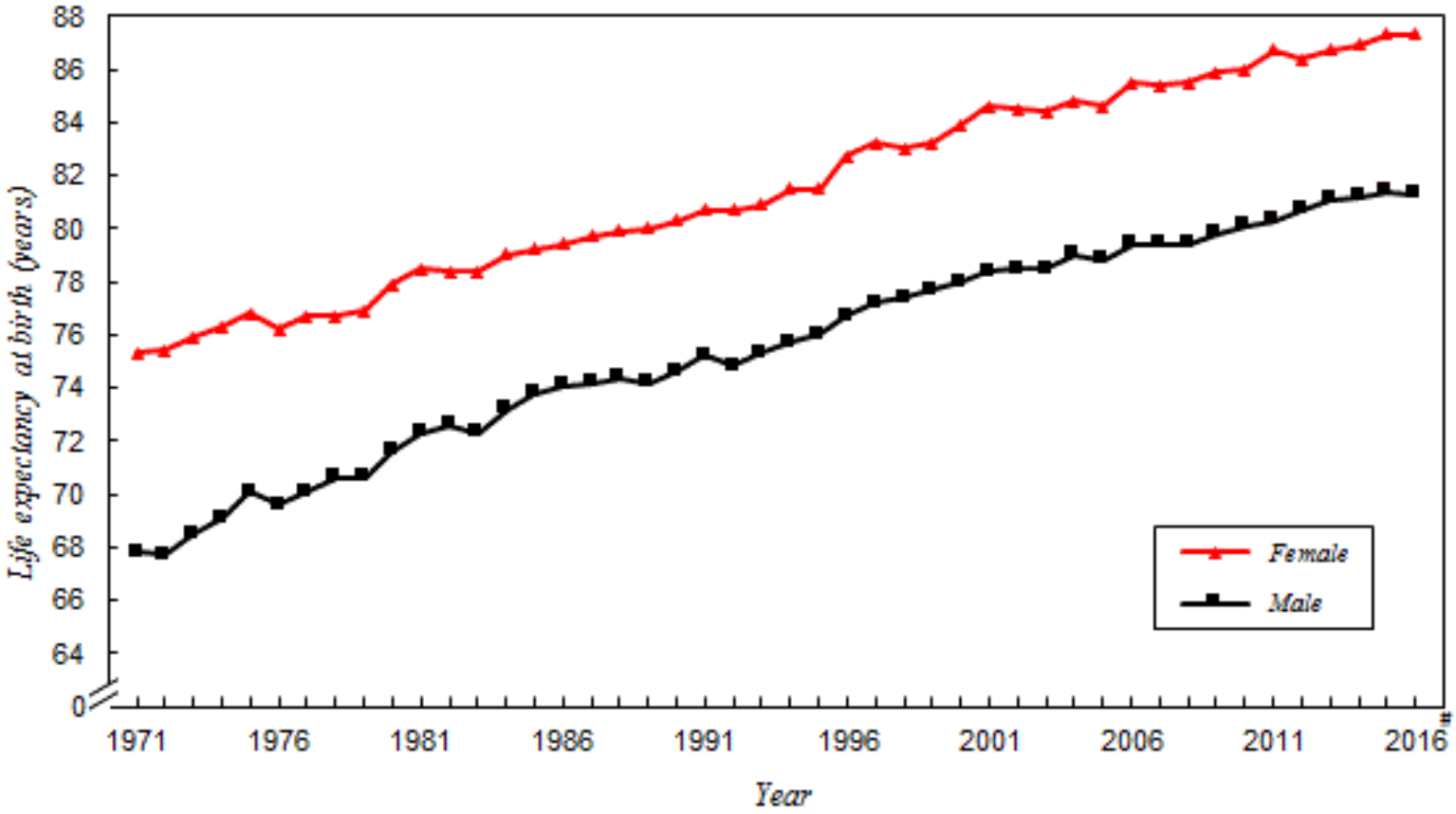


1947 NHS Founded, 48% died before 65. In 2015 its c 12%

The King's Fund
Ideas that change health care

BRITISH GERIATRICS SOCIETY

Life expectancy rise Hong Kong



The Kings Fund

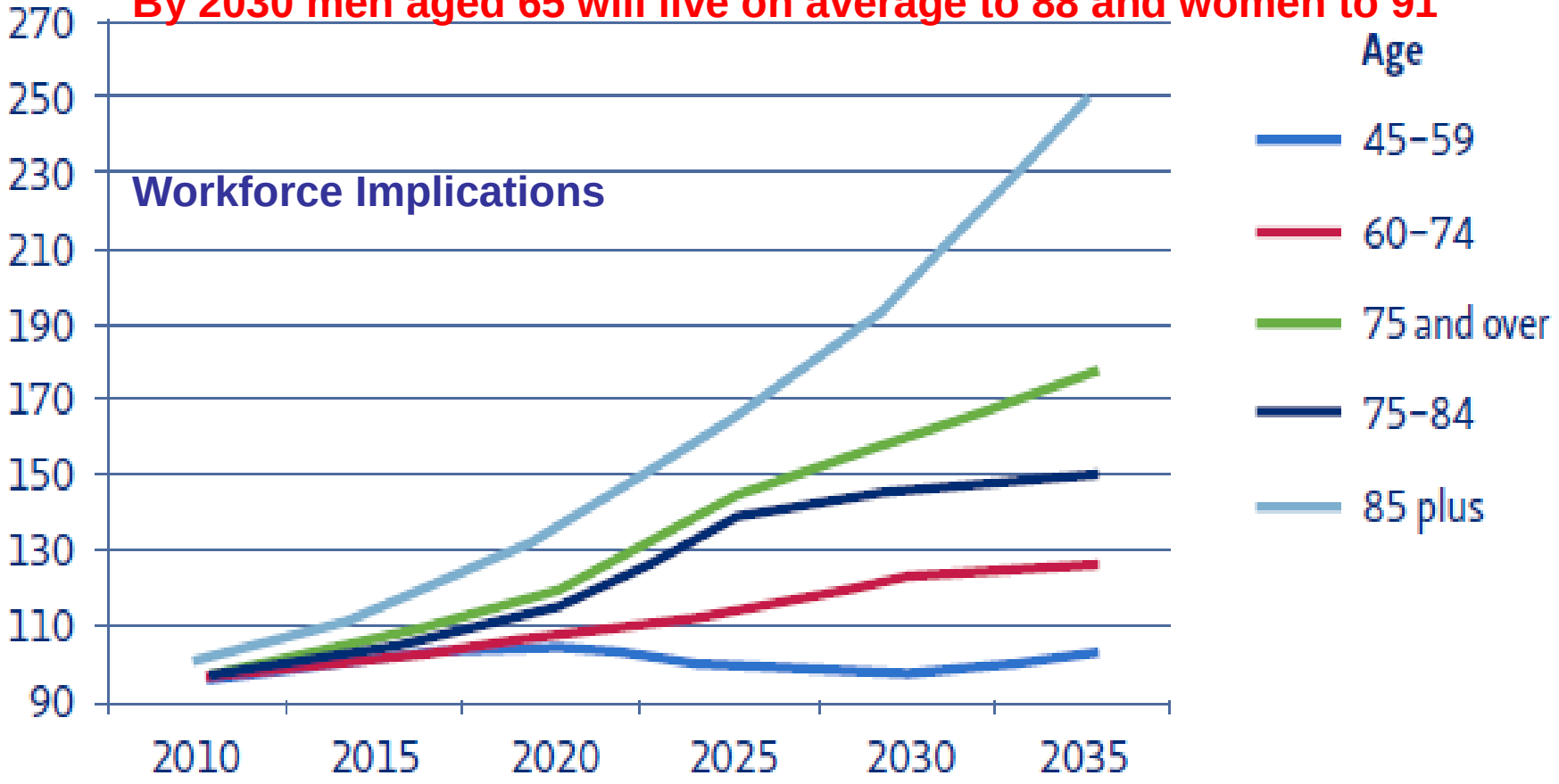
Ideas that change health care

BRITISH GERIATRICS SOCIETY

Figure 1. Projected population by age, United Kingdom, 2010–35 (2010 = 100)

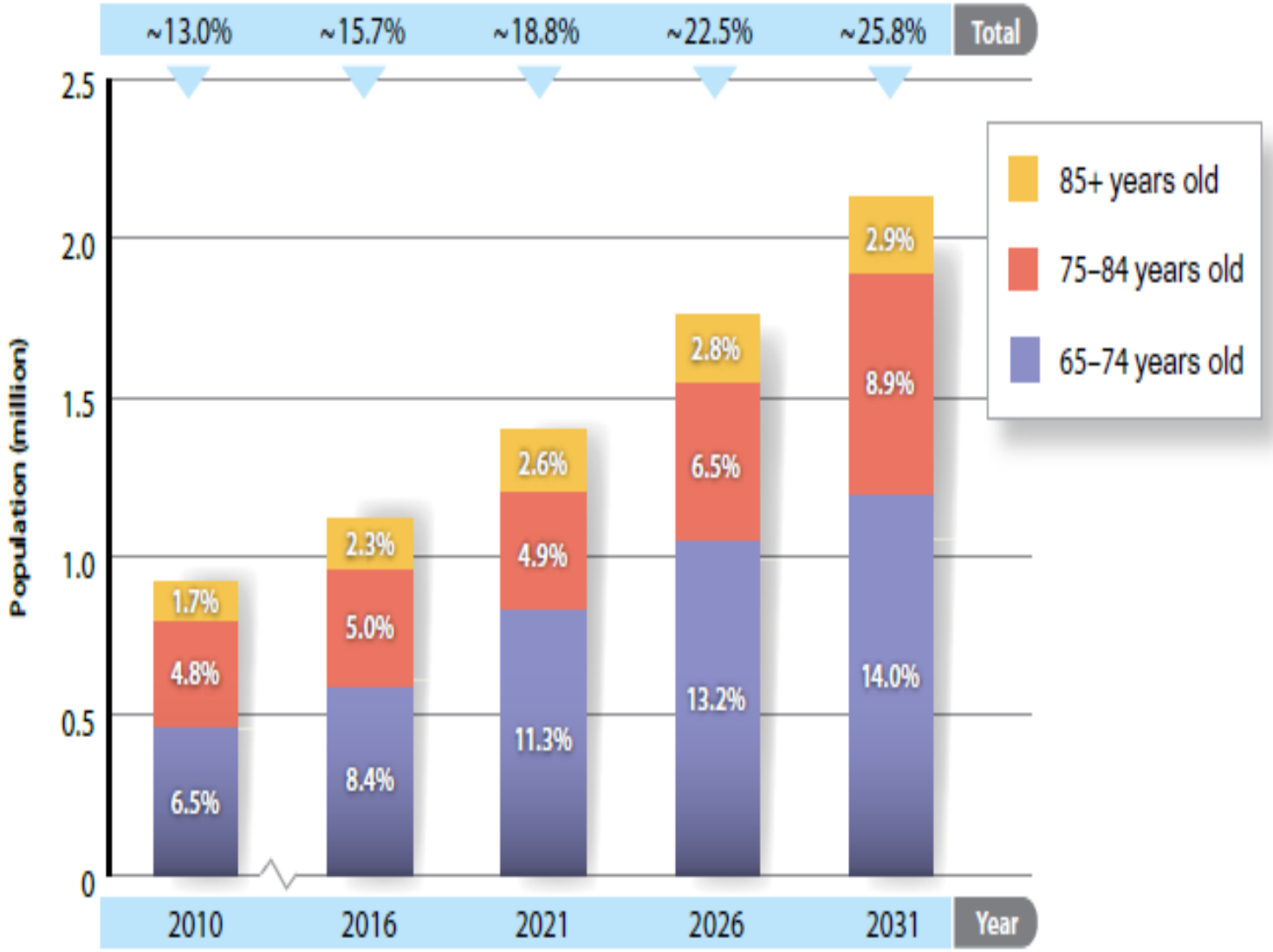
By 2030 men aged 65 will live on average to 88 and women to 91

Workforce Implications



Source: Office for National Statistics (Oct 2011) National Population Projections 20
Statistical Bulletin.

Figure 1. Population estimates and projection for people aged 65 years or over and percentage of total population by age group in Hong Kong (2010 to 2031)



Carers (UK): Parallels Hong Kong?

- 6.4 million carers for person over 65 in UK
- 2 million are over 65
- c. 0.5 million over 80
- Intensity of caring markedly increased in a decade
- 50 hours work not unusual
- Poor mental/physical health, worsened by caring role
- "Most care provided informally by family & friends"
- Carers make c £100bn contribution to economy
- Crucial to keeping older people at home, leaving hospital

[House of Lord's "ready for ageing" and "Age UK Health & Care of Older People]

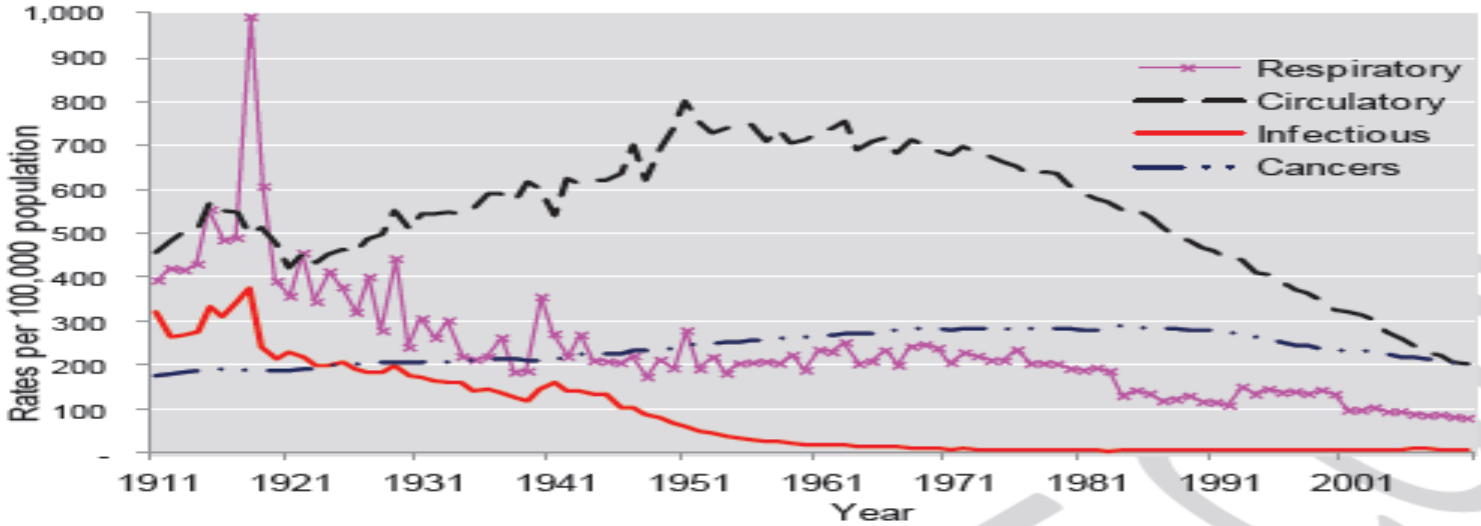
II: Implications for population health: The Upside

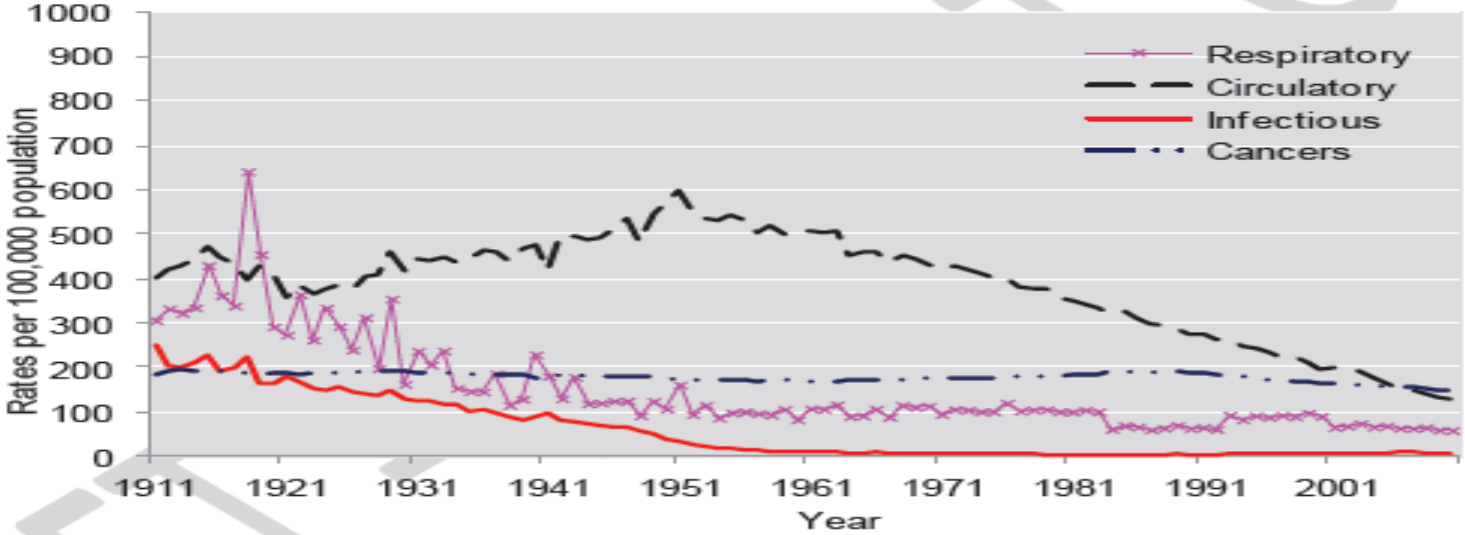
The King's Fund

Ideas that change health care

BRITISH GERIATRICS SOCIETY

Ageing a success for preventative & curative medicine & for *our* longevity



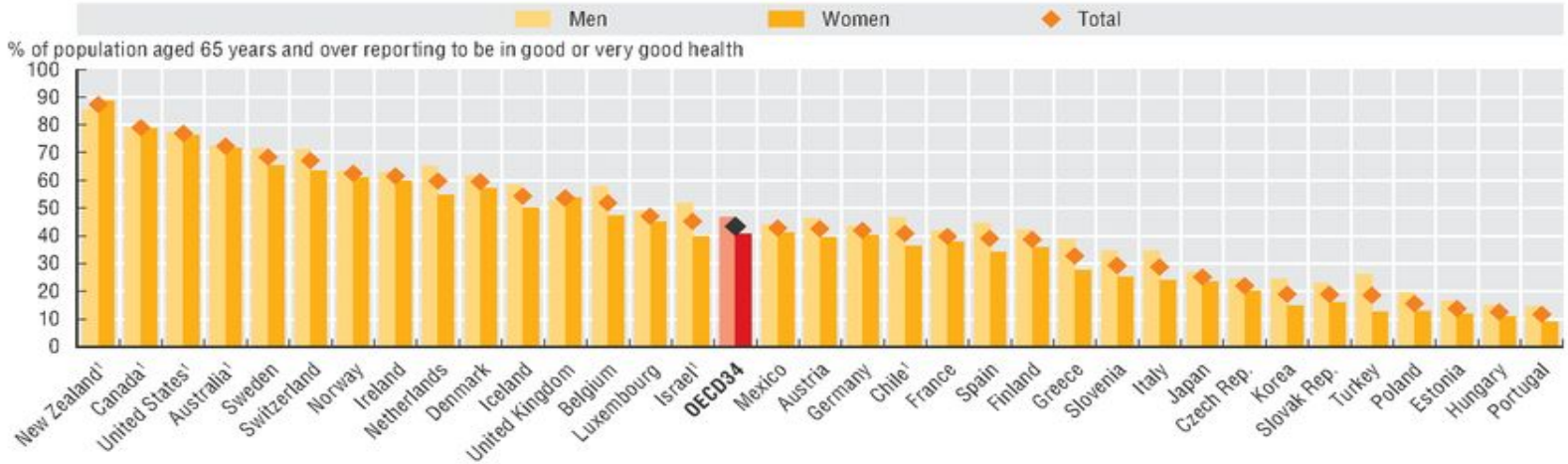


Source: ONS, 2011

Mortality by major cause, in men and women (all ages), England and Wales, 19

OECD Self-rated health status

11.6. Perceived health status in adults aged 65 years and over, 2013 (or nearest year)

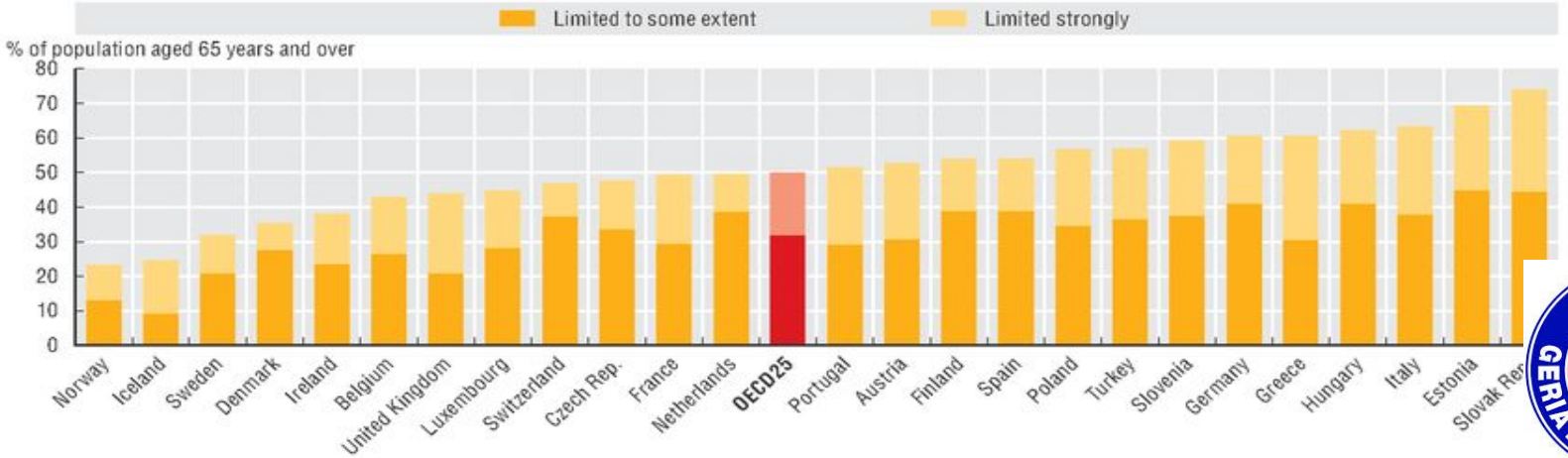


1. Results not directly comparable with other countries due to methodological differences (resulting in an upward bias).

Source: OECD Health Statistics 2015, http://dx.doi.org/10.1787/health-data-en.

StatLink http://dx.doi.org/10.1787/888933281398

11.7. Limitations in daily activities in adults aged 65 years and over, European countries, 2013

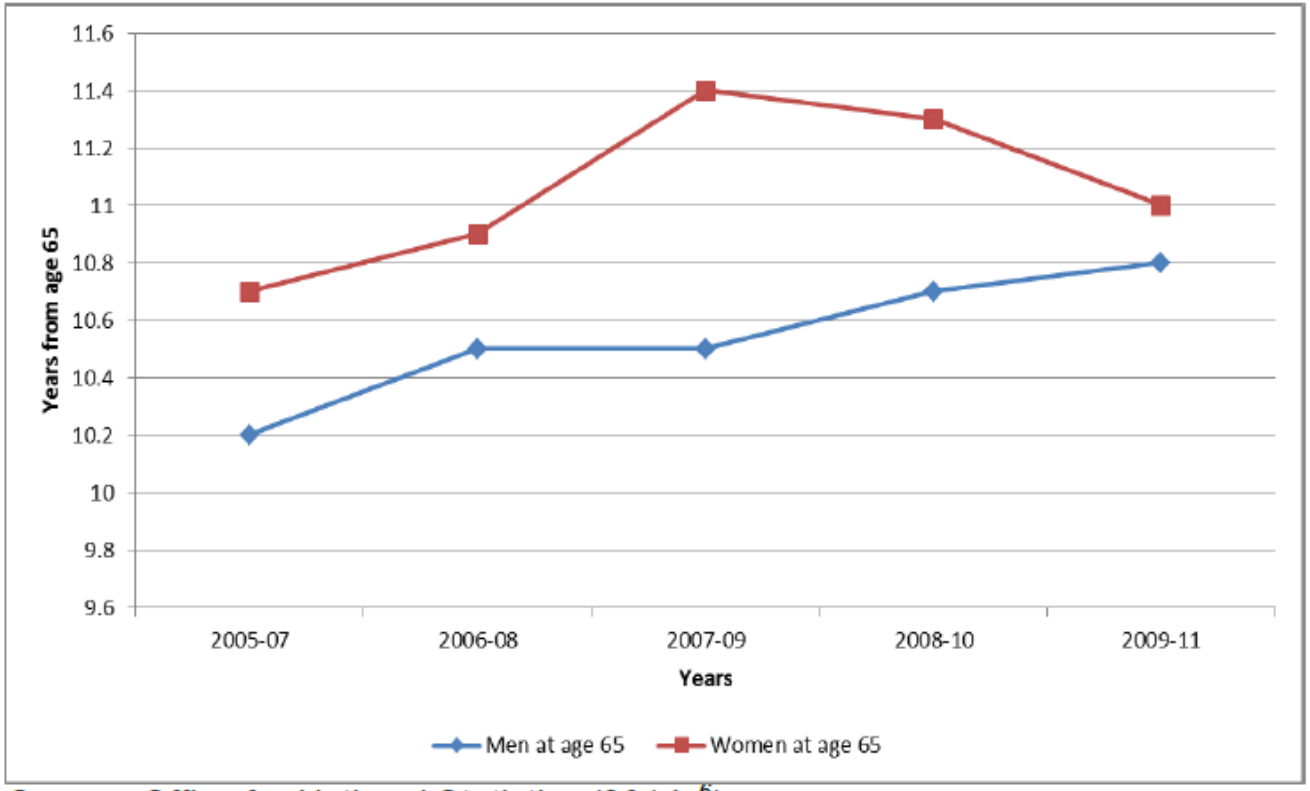


Source: Eurostat Database 2015.

StatLink http://dx.doi.org/10.1787/888933281398

Disability-free life expectancy

Figure 4: The average number of years that people live free of disability at age 65 in England, 2005-07 to 2009-11



Source: Office for National Statistics (2014a[6])

Age UK Health & Care for Older People 2015

The Kings Fund

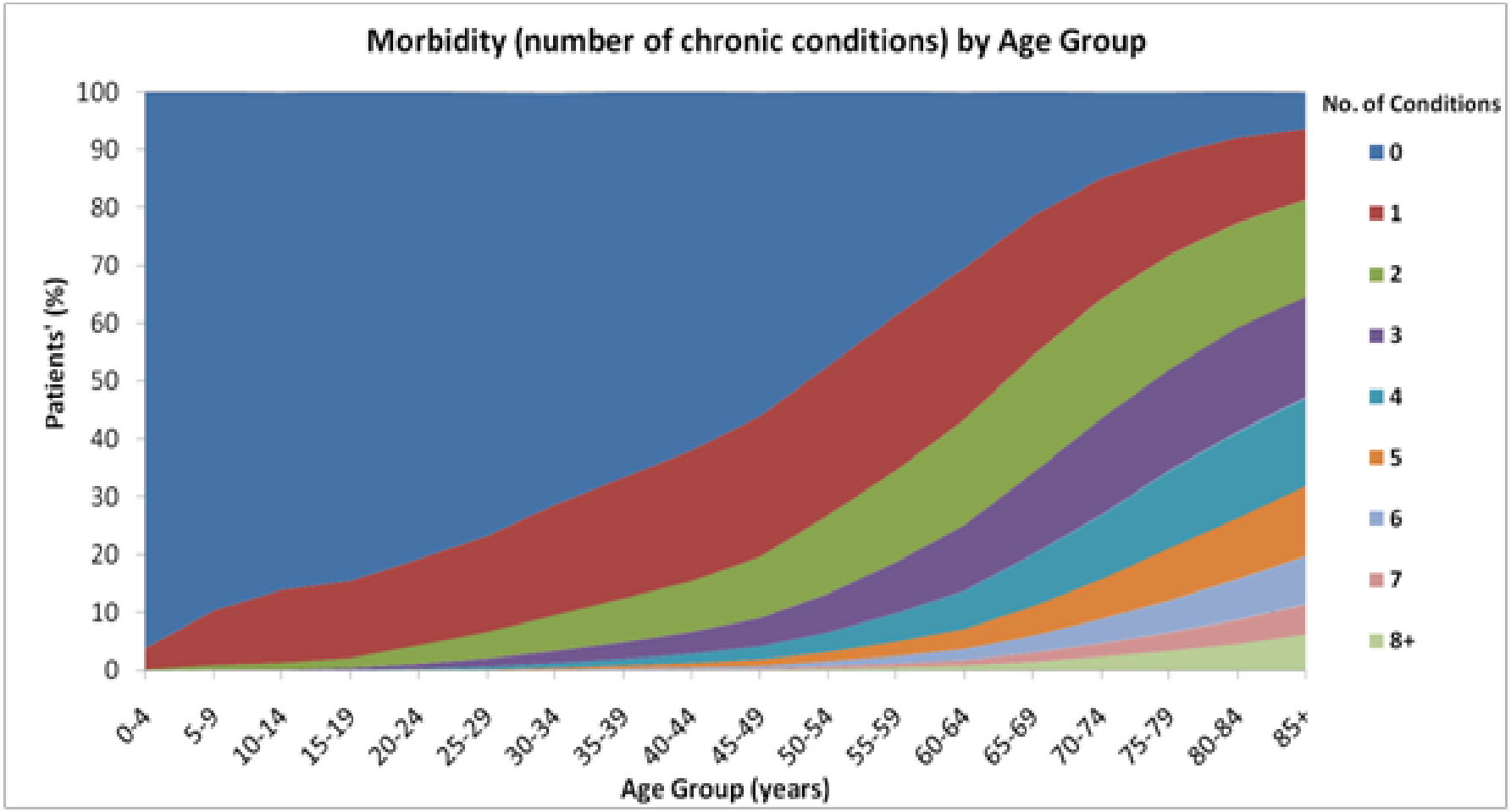
Ideas that change health care

BRITISH GERIATRICS SOCIETY

III: And the downside?

Multimorbidity (Scotland)

(Scottish School of Primary Care Barnett et al Lancet May 2012)



The Kings Fund

Ideas that change health care

BRITISH GERIATRICS SOCIETY

So Single disease services often unfit

Scottish School of Primary Care Study Guthrie BMJ 2012

% of patients with this condition…

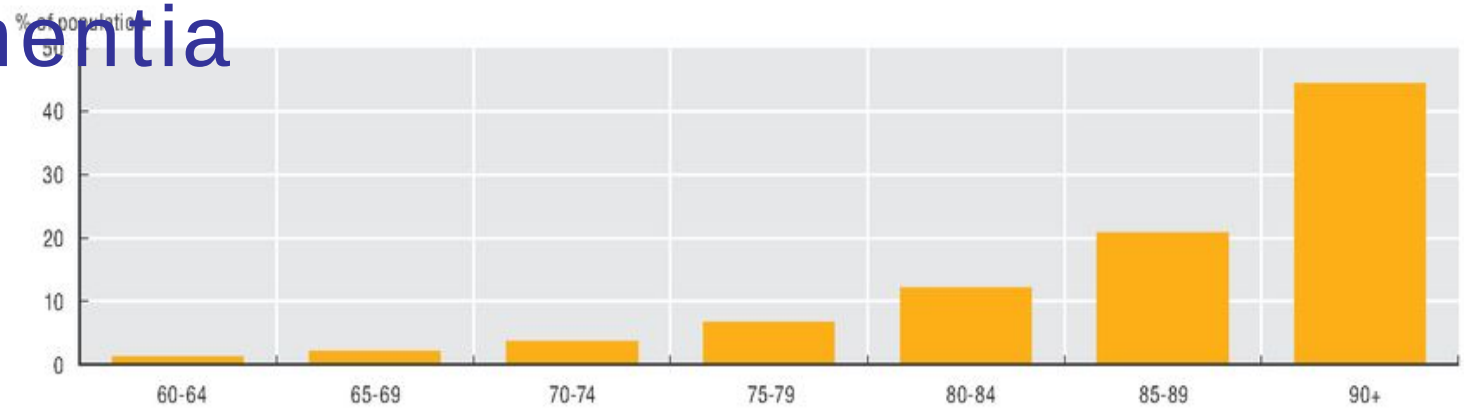
…who also have this condition (% = % of all patients with the condition)

	CHD (4.7%)	Hypertension (13.4%)	Heart failure (1.1%)	Stroke/TIA (2.1%)	Diabetes (4.3%)	COPD (3.2%)	Cancer (2.5%)	Painful condition (7.2%)	Depression (8.2%)	Schizophrenia/bipolar(0.7%)	Dementia (0.7%)	Any other (30.5%)
Coronary heart disease		52	14	13	22	13	8	24	17	1	3	71
Hypertension	18		5	10	18	8	7	19	14	1	2	61
Heart failure	59	57		16	23	18	9	23	17	1	4	81
Stroke/TIA	29	61	8		19	12	8	22	21	1	5	63
Diabetes	23	54	6	9		8	6	21	18	2	2	63
COPD	19	33	6	8	11		7	23	18	1	2	70
Cancer	14	34	4	7	10	8		19	14	1	2	60
Painful condition	16	36	3	6	13	10	7		31	2	3	70
Depression	10	23	2	5	9	7	4	27		4	3	64
Schizophrenia or bipolar	6	16	2	4	9	6	3	15	45		3	75
Dementia	21	41	6	18	13	9	8	19	32	3		83
Any other condition	11	27	2	5	9	7	5	17	17	2	2	

Th

Dementia

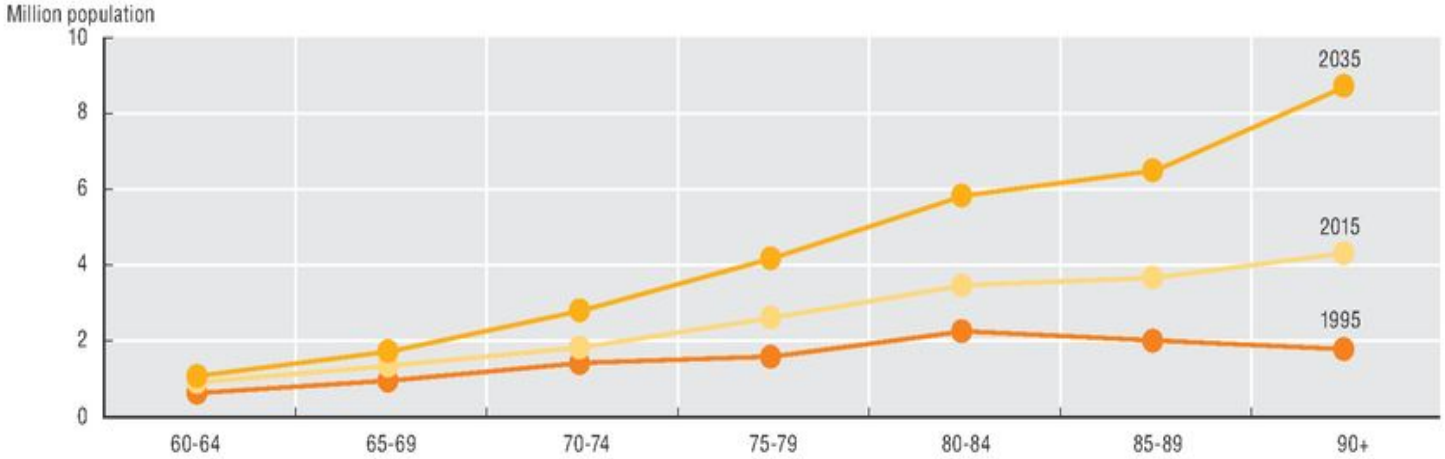
11.10. Age-specific prevalence of dementia across all OECD countries, 2015



Source: OECD analysis of data from Prince et al. (2013) and the United Nations.

StatLink http://dx.doi.org/10.1787/888933281401

11.11. Estimated number of people with dementia in all OECD countries, by age, 1995, 2015 and 2035



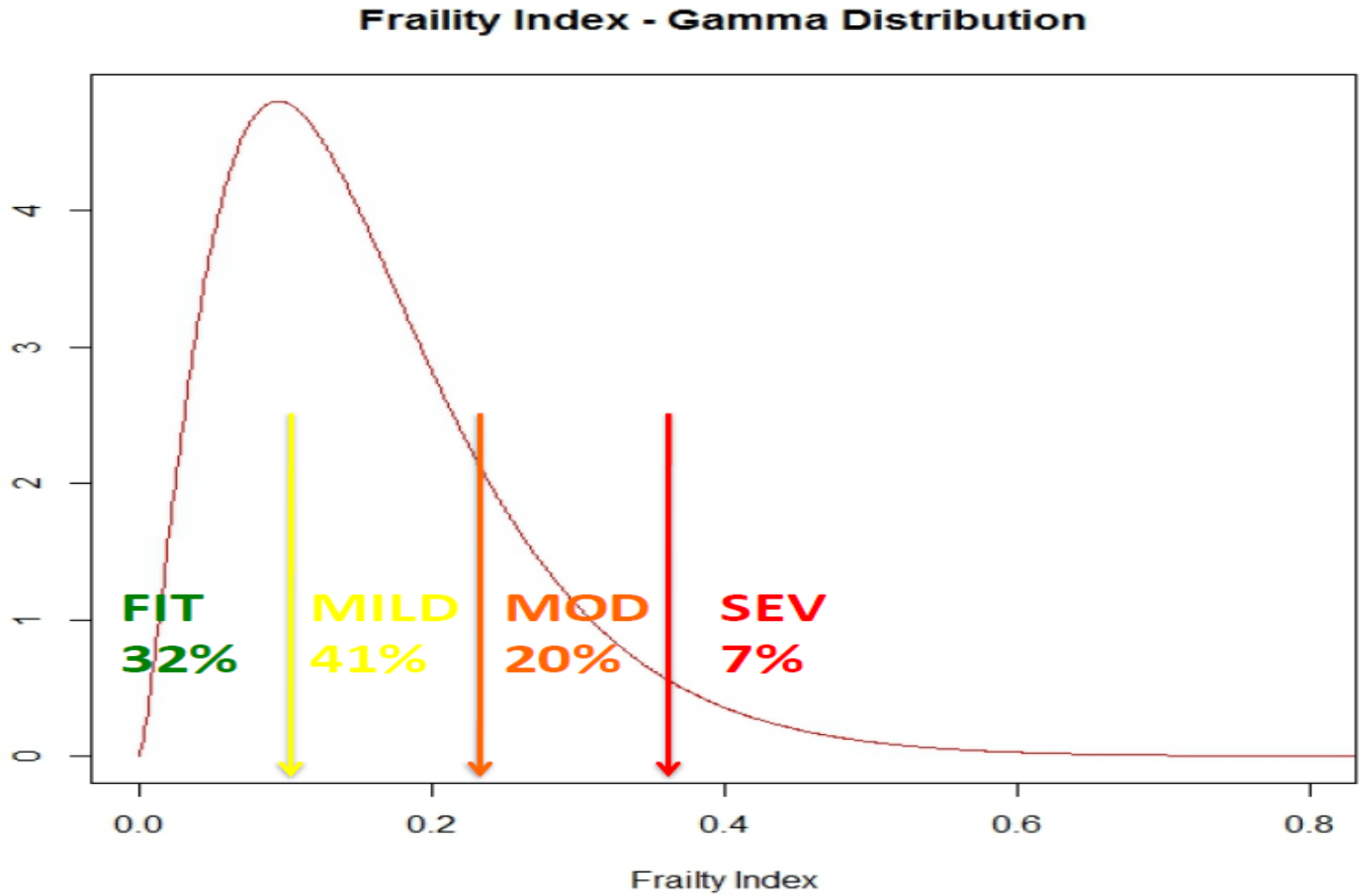
Source: OECD analysis of data from Prince et al. (2013) and the United Nations.

StatLink http://dx.doi.org/10.1787/888933281401

Information on data for Israel: *http://oe.cd/israel-disclaimer*

Distribution of Electronic Frailty Index Codes (England) pop. C 227,000 >65

Clegg, Young et al Age Ageing 2016



The Kings Fund

Ideas that change health care

BRITISH GERIATRICS SOCIETY

Electronic Frailty Index (England) n = c 227,648 (Clegg et al Age Ageing 2016)

Outcome	Mild frailty (HR, 95% CI)	Moderate frailty (HR, 95% CI)	Severe frailty (HR, 95% CI)
1 yr care home admission	2.00 (1.68 to 2.39)	2.70 (2.41 to 3.04)	5.94 (4.61 to 7.64)
3 yr care home admission	1.52 (1.37 to 1.69)	2.70 (2.41 to 3.04)	3.42 (2.84 to 4.12)
5 yr care home admission	1.56 (1.43 to 1.70)	2.34 (2.10 to 2.61)	3.00 (2.42 to 3.70)
1 yr hospitalisation	1.85 (1.81 to 1.88)	2.96 (2.90 to 3.02)	4.62 (4.50 to 4.74)
3 yr hospitalisation	1.71 (1.69 to 1.73)	2.54 (2.51 to 2.58)	3.64 (3.57 to 3.70)
5 yr hospitalisation	1.63 (1.61 to 1.64)	2.43 (2.40 to 2.46)	3.59 (3.54 to 3.65)
1 yr mortality	1.91 (1.78 to 2.04)	3.39 (3.15 to 3.65)	5.23 (4.73 to 5.79)
3 yr mortality	1.74 (1.68 to 1.81)	3.02 (2.90 to 3.14)	4.56 (4.29 to 4.84)
5 yr mortality	1.66 (1.62 to 1.71)	2.73 (2.64 to 2.81)	3.88 (3.68 to 4.09)

Clegg et al Lancet 2013 Frailty

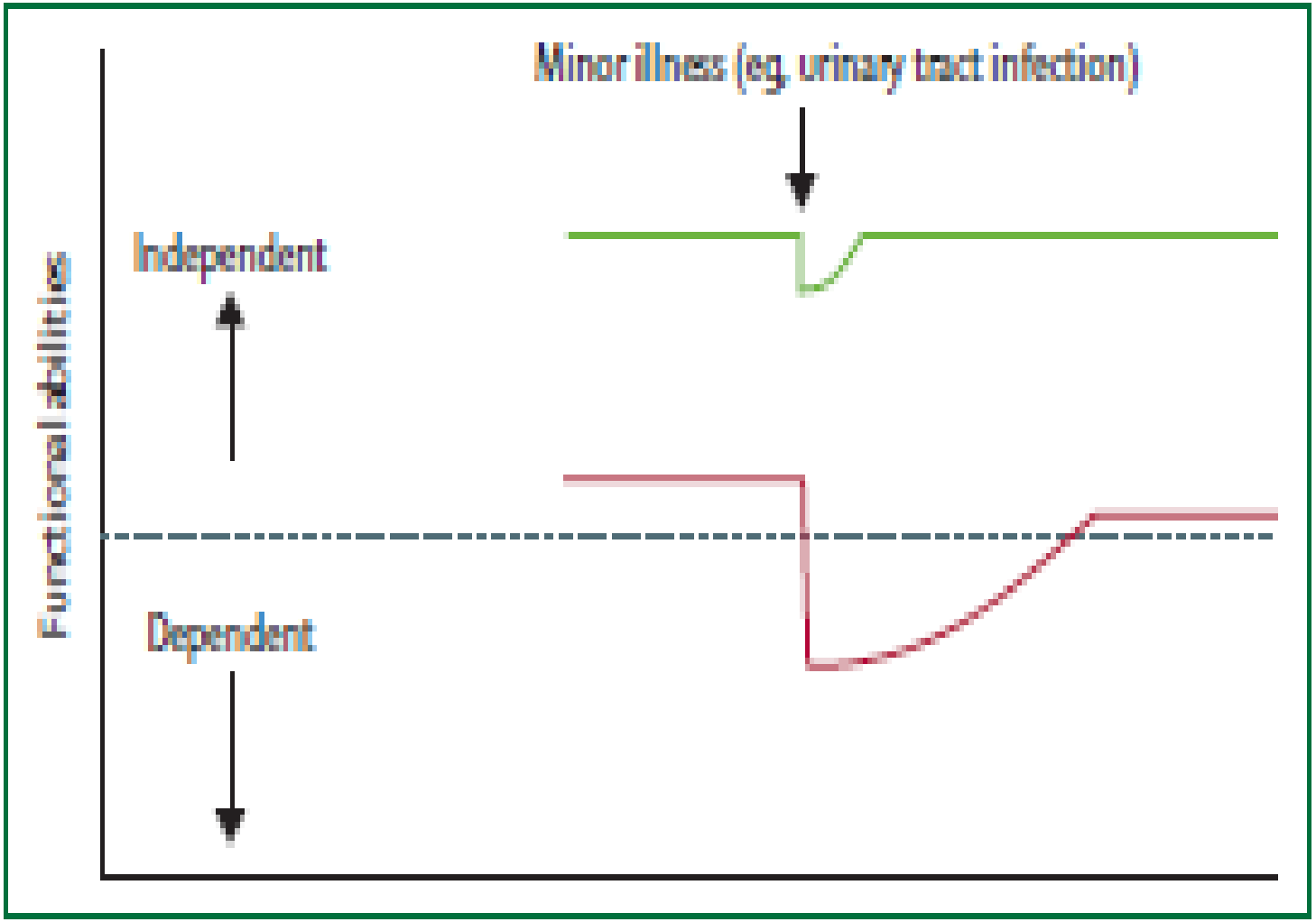


Figure 1: Vulnerability of frail elderly people to a sudden chang
status after a minor illness

Frailty Syndromes (how people with frailty present to services).

Clegg A et at Lancet

- "Non-specific"
  - E.g. fatigue, weight loss, recurrent infection
- Falls/Collapse
- Immobility/worsening mobility
- Delirium ("acute confusion")
- Incontinence (new or worsening)
- Fluctuating disability
- Increased susceptibility to medication side effects
  - e.g. Hypotension, Delirium

IV: Ageing and frailty and hospitals

And why hospitals aren't islands but depend on rest of health and care system

The King's Fund

Ideas that change health care

BRITISH GERIATRICS SOCIETY

Following the money.

NHS Constitution Technical Annexe 2013

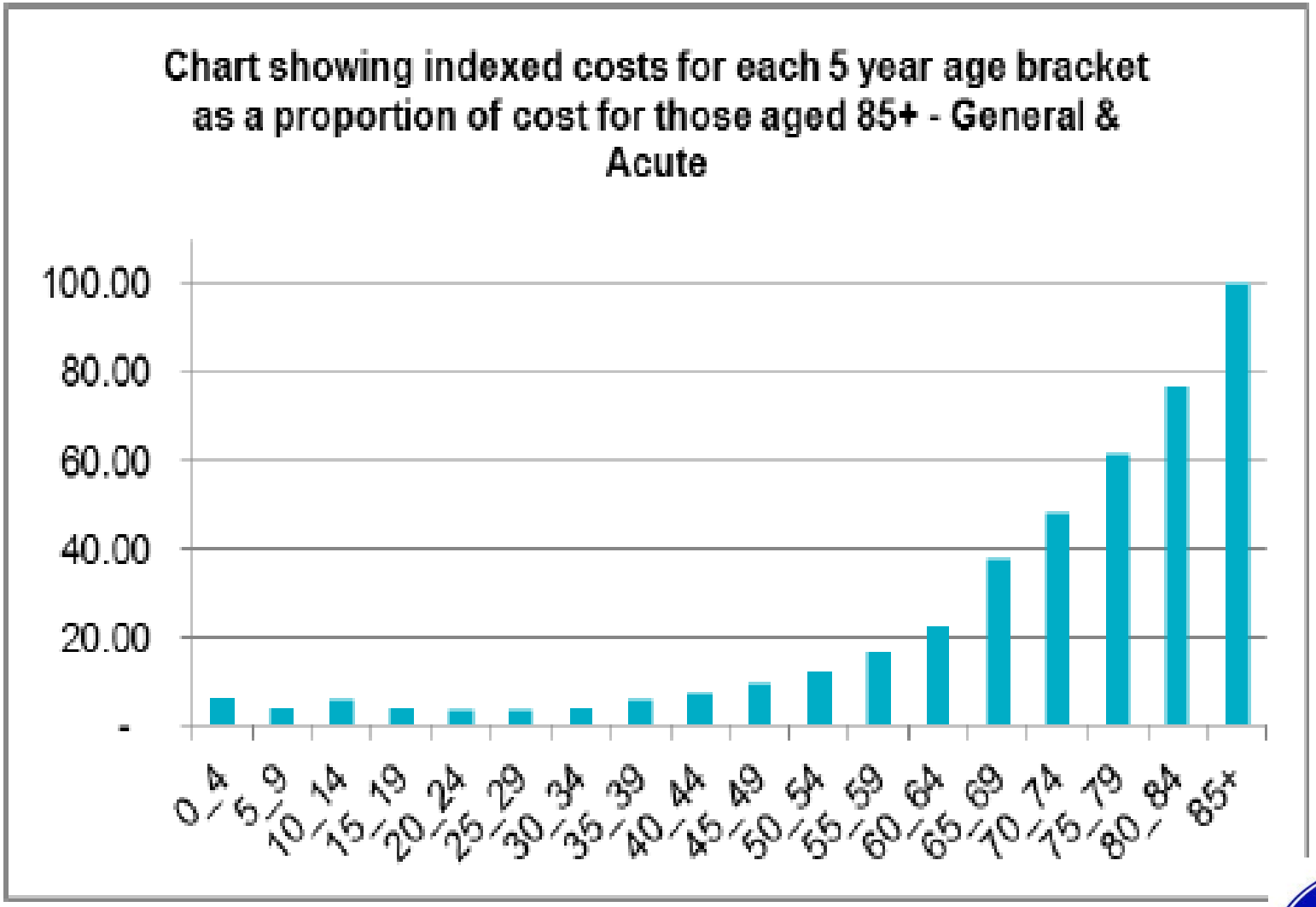
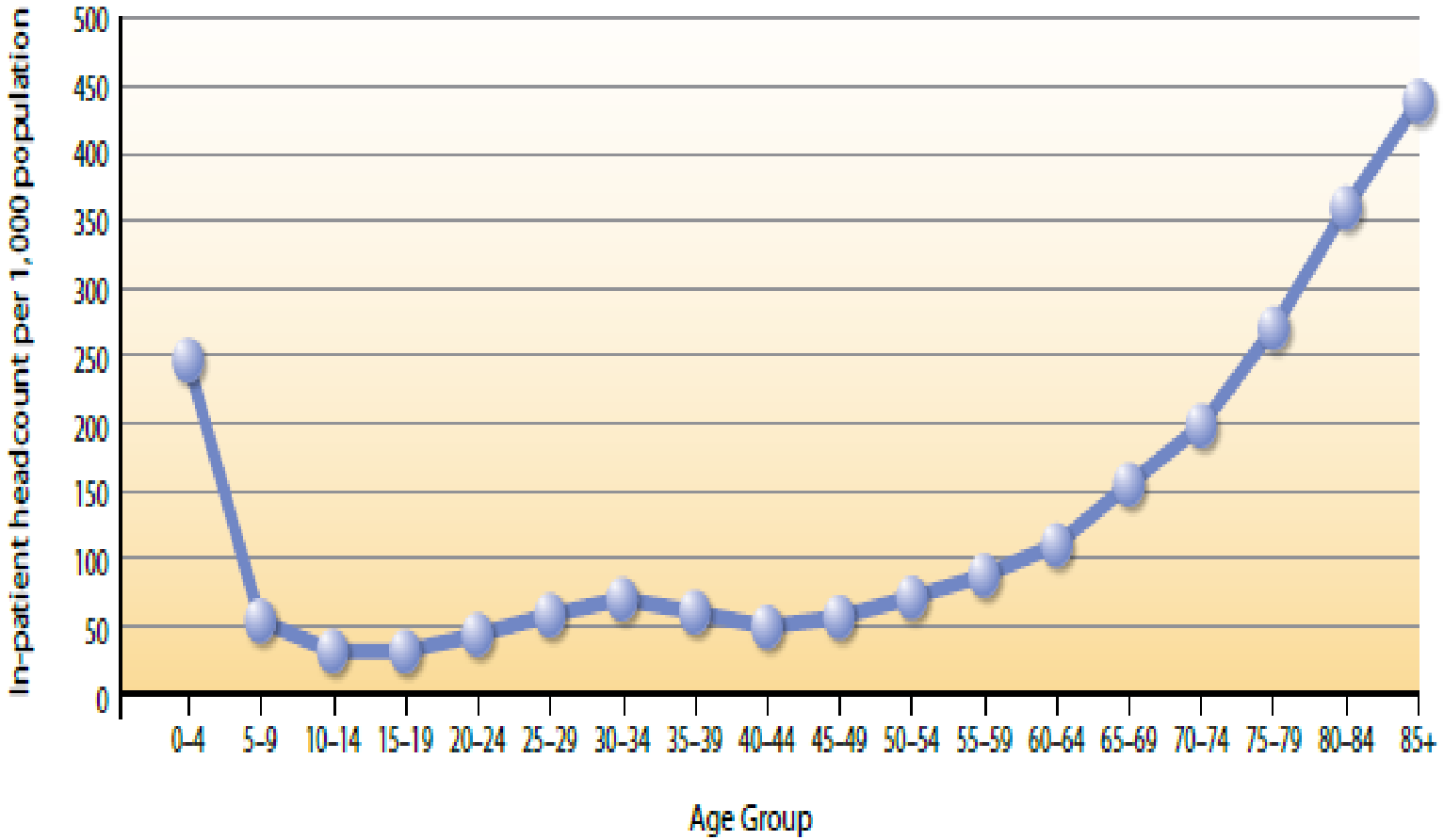


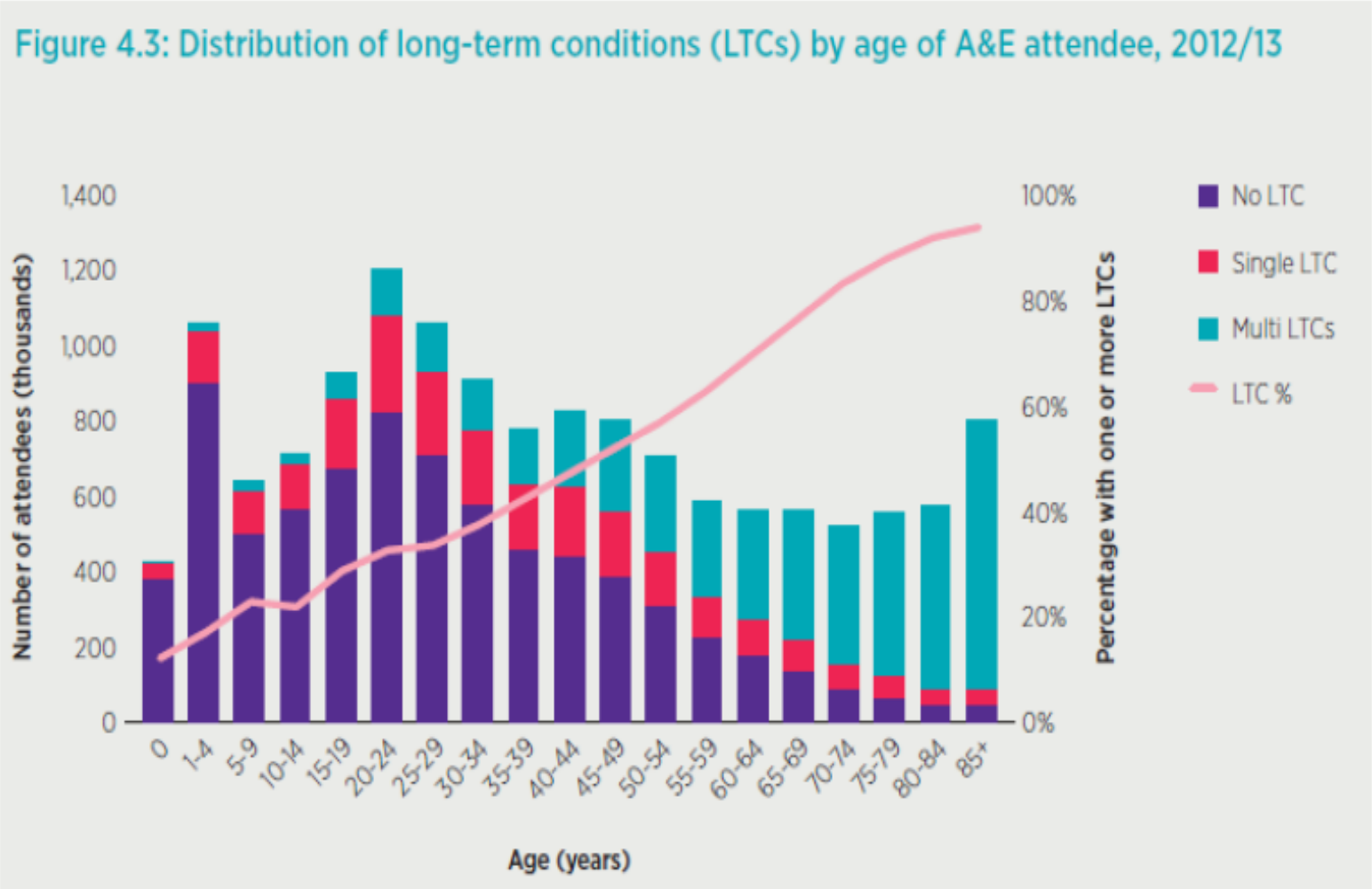
Figure 13 - Chart showing indexed costs for each 5 year age bracket as a proport those aged 85+ (General and Acute)

Figure 3: Population ageing increases healthcare services consumption – Average number of in-patients in HA hospitals by age (2010)



Source: Hospital Authority Administration System, 2010

Image 1: Distribution of long-term conditions by age of A&E attendee 2012/13, Focus on A&E attendances, QualityWatch[106]



Source: Nuffield Trust and Health Foundation (2014)

The Kings Fund

Ideas that change health care

BRITISH GERIATRICS SOCIETY

Functional decline in acutely admitted patients > 75

So post acute rehab in and out of hospital Core

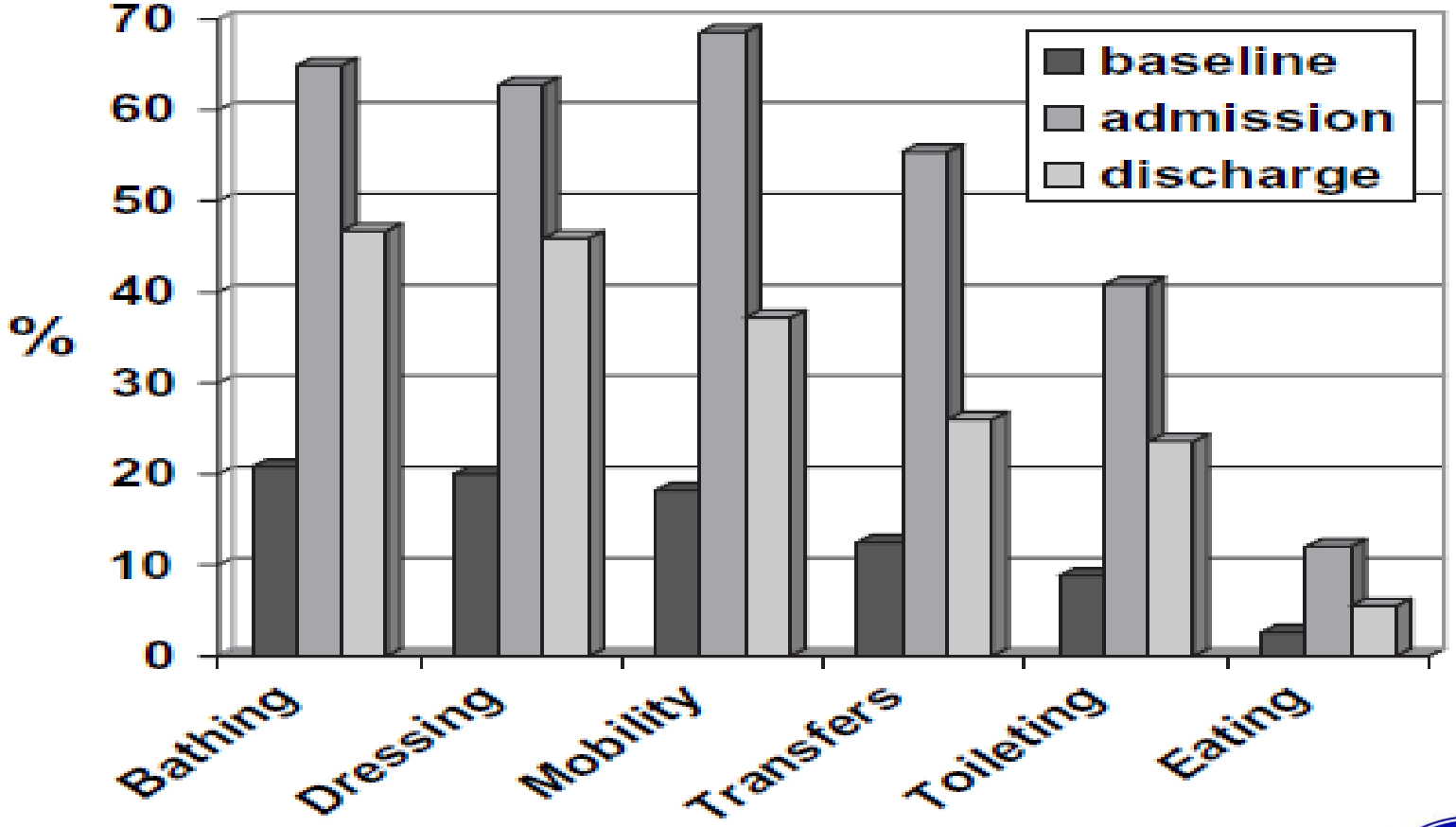
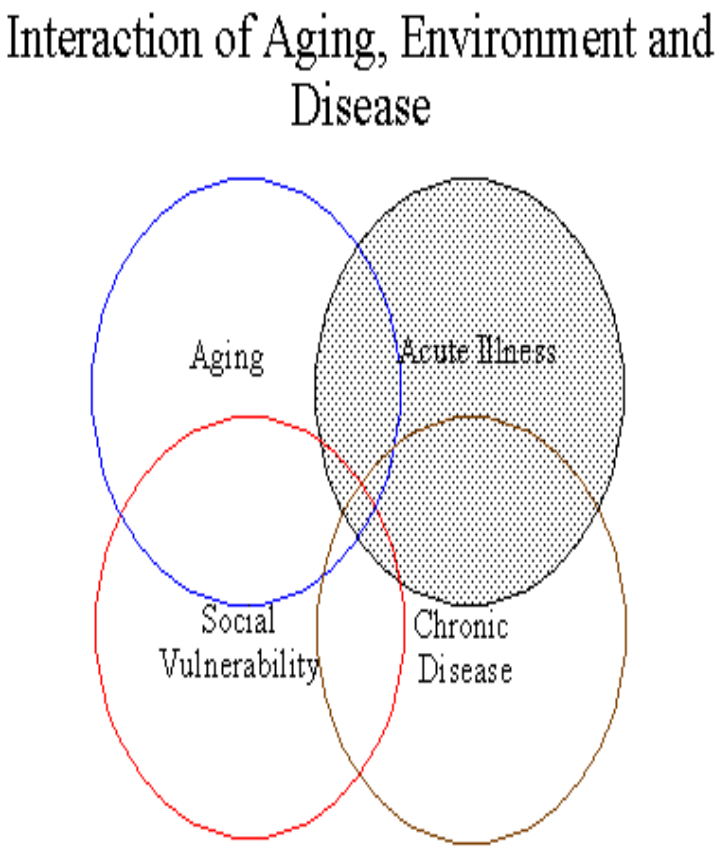


Figure 1. Percentage of study participants (n = 615) requiring hu
sistance in each activities of daily living, at baseline, hospital admissi
hospital discharge.

Modern Hospital Case mix



- Family Caregivers also crucial to many
- Older people suffer most poorly co-ordinated care
- Multiple care transitions poor communication & information-sharing
- Potential benefits from integration

The Kings Fund
ideas that change health care

V: How we need to adapt to be fit for ageing

The King's Fund

Ideas that change health care

BRITISH GERIATRICS SOCIETY

Older people with complex needs/frailty as "core business" in modern healthcare

- Any practitioner training 2015 with the youngest case-mix they'll ever see
- Have they realised?
- Our values, priorities & "prestige hierarchy" haven't caught up with ageing population
- Training, workforce planning, skills likewise
- Research priorities

- Most of all, services & systems need to be geared up to the people who actually use them

The King's Fund

Ideas that change health care

BRITISH GERIATRICS SOCIETY

10 key components of care

Oliver D et al King's Fund 2014

Interventions *outside* hospital

- Patients with complex needs identified, care planning & care co-ordination “anticipatory care”
- Support for carers
- End of life care planning and support
- Rapid access multidisciplinary ambulatory care models
- Medical support in nursing homes to prevent admission
- Rapid crisis assessment & multidisciplinary support at home
- Intermediate care (home or community hospital)
- “Discharge-to-assess” and community “in-reach”
- Joint working with ambulance practitioners to prevent conveyance to hospital (e.g. for falls)

H.I. Scotland OPAC Standards for *In-Hospital Care*

Care of Older People in Hospital Standards 9

Standard 1: Involving older people: "What and who matters to me" 9

Standard 2: Maintaining patient dignity and privacy 11

Standard 3: Decision-making, consent and capacity 13

Standard 4: Initial assessment on admission to hospital 15

Standard 5: Comprehensive geriatric assessment 17

Standard 6: Pharmaceutical care 19

Standard 7: Assessment and prevention of decline in cognition 21

Standard 8: Delirium 23

Standard 9: Dementia 25

Standard 10: Depression 27

Standard 11: Falls prevention management 29

Standard 12: Rehabilitation 31

Standard 13: Pre-discharge planning 33

Standard 14: Care transitions 35

Standard 15: Patient pathway and flow 37

Standard 16: Skills mix and staffing levels 39

HOSPITAL AUTHORITY STRATEGIC SERVICE FRAMEWORK for ELDERLY PATIENTS

1. Develop multi-disciplinary integrated elderly services across the continuum of HA care.
2. Promote patient-centred care and engage patients and their carers as active partners in their healthcare.
3. Greater collaboration with partners involved in elderly care outside of HA.
4. Enhance HA workforce capacity and engage staff.
5. Develop quality, outcomes-driven HA elderly services.

Th

BRITISH GERIATRICS SOCIETY

Comprehensive Geriatric Assessment.

Benefits well beyond hospital stay Systematic Review & Meta-Analysis of RCTs. Ellis G et al BMJ 2011

- 22 trials, 10,315 participants, 6 countries
- Older adults admitted to hospital
- Those undergoing CGA
- Median follow up 12 months
- **More likely to be alive OR 1.16 (1.05, 1.28)**
- Median follow up 6 months
- **More likely to be in own home OR 1.25 (1.11, 1.42)**
- **Less likely to be in residential care OR 0.78 (0.69, 0.78)**
- **Less likely to die OR 0.76 0.64, 0.90)**
- Ward based team outperformed mobile teams

Working together?..

The Kings Fund

Ideas that change health care

BRITISH GERIATRICS SOCIETY

Thankyou. And questions/comments?

D.oliver@kingsfund.org.uk
David.Oliver@royalberkshire.nhs.uk
President@bgs.org.uk
@mancunianmedic

The Kings Fund

Ideas that change health care

BRITISH GERIATRICS SOCIETY