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# Disability-free life expectancies at age 65, Great Britain, 1980-2001

Claudia Breakwell, Madhavi Bajekal

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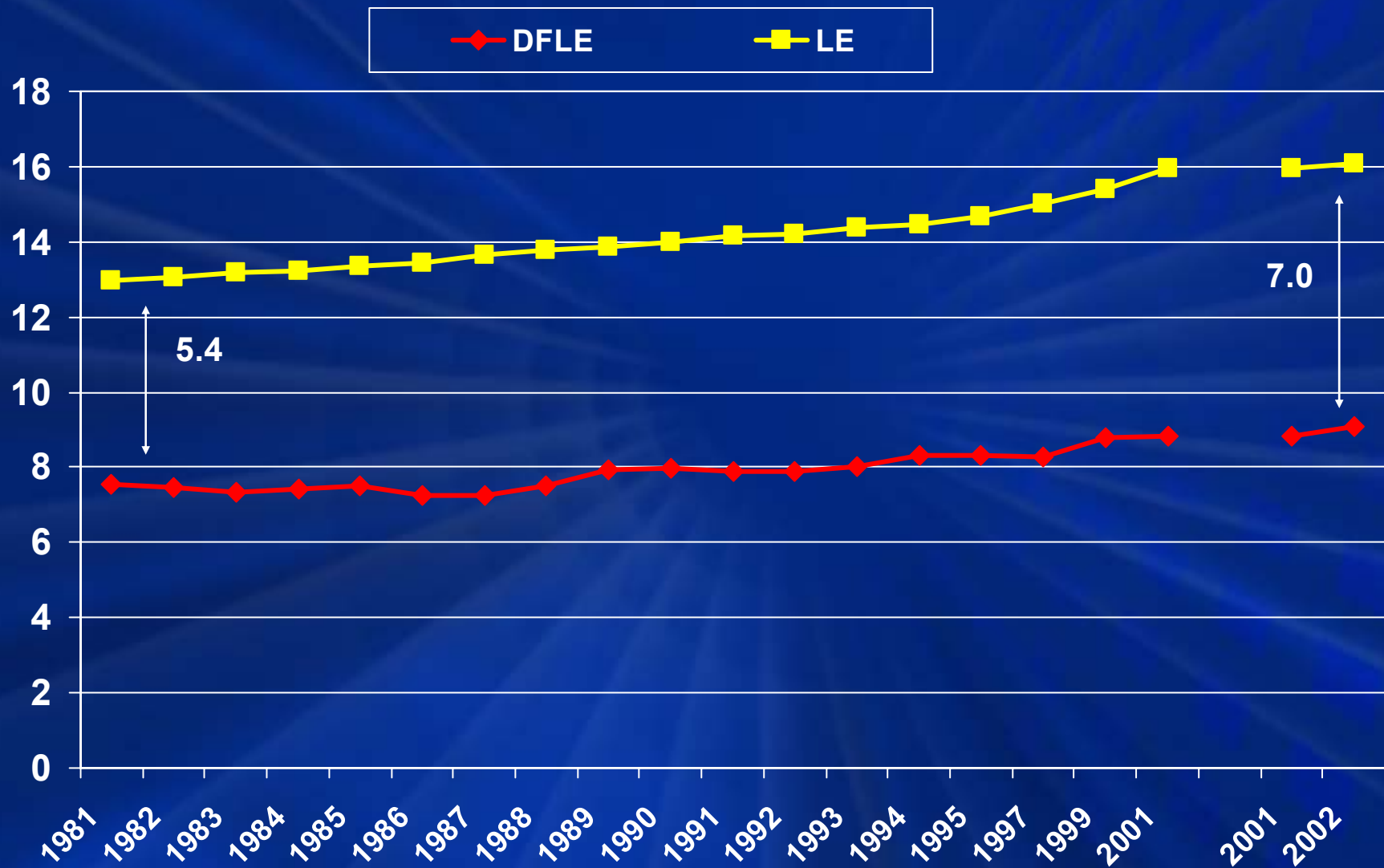
- Update work carried out by Bone and Bebbington.
- Previous work looked at different types of DFLE based on ADLs and LLSI.
- Bebbington showed some evidence for a dynamic equilibrium, while LE increases DFLE doesn't show the same improvement but health expectancies based on more severe levels of disability remain either constant or were compressed.

# Structure of the presentation

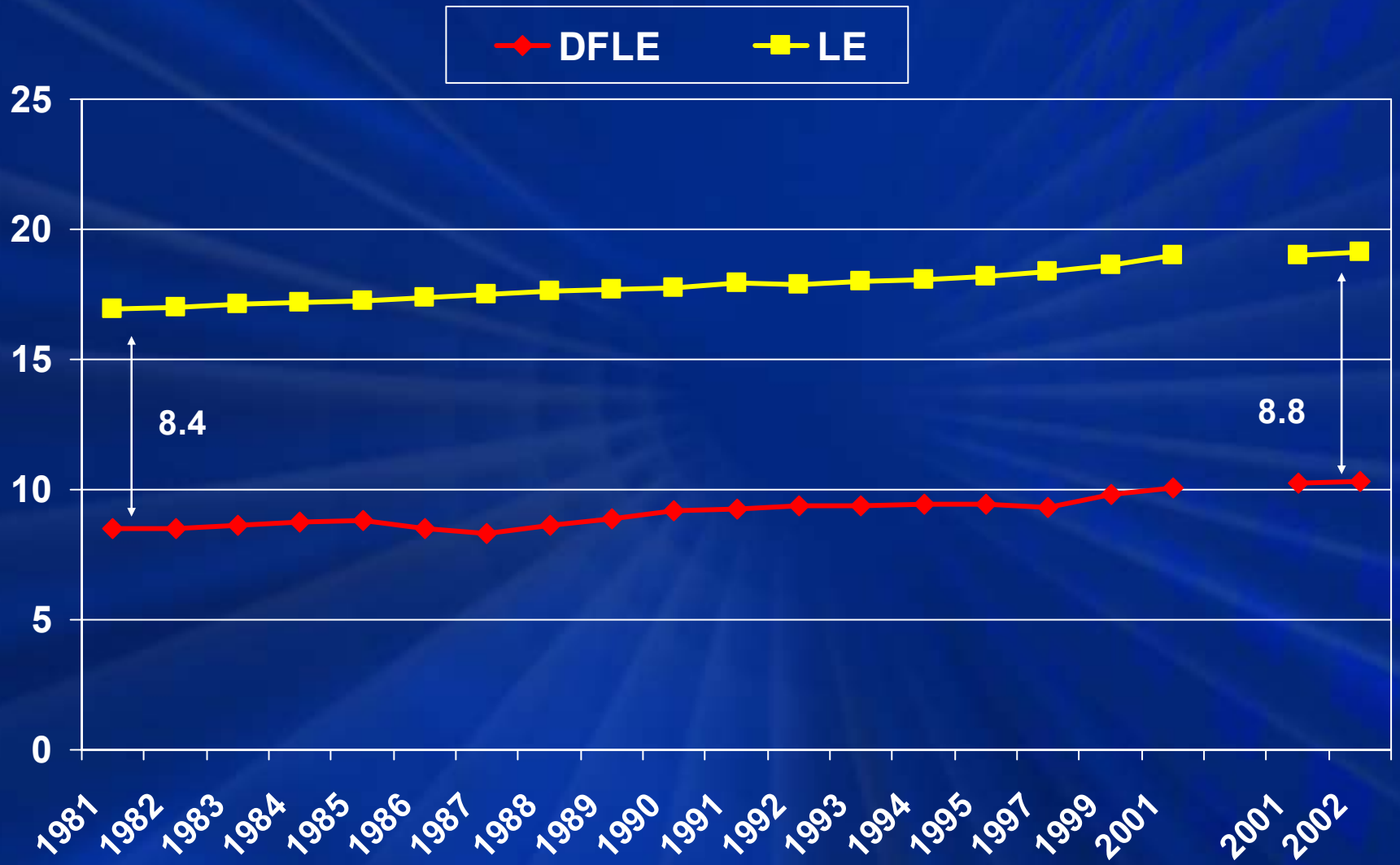
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- Great Britain annual estimates: what we already know and what the recent results show
- Results: 3 types of DFLE at age 65 for men and women in Great Britain between 1980 and 2001
- And finally: what conclusions can be drawn and how do these results compare with the rest of the world...

# LE and DFLE for men at age 65 in Great Britain, 1981-2002



# LE and DFLE for women at age 65 in Great Britain, 1981-2002



# Mild, moderate and severe disability-free life expectancy

- **Disability-free life expectancy (DFLE)** based on self reported no limiting longstanding illness (this indicator used for national monitoring)
- **Active life expectancy** based on ability to perform Instrumental Activities of Daily Living (IADLs e.g. shopping, preparing meals and cleaning windows) without human assistance
- **Dependency-free life expectancy** based on ability to perform Activities of Daily Living (ADLs e.g. bathing, feeding and getting in and out of bed) without human assistance.
- **NB: Findings of this research are tentative and must not be reported or circulated without authors permission**

# Sources & Methods

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- Data sources:
  - Mid-year population estimates provided by ONS
  - Life tables provided by GAD (3 year average)
  - Health status in households: rates of limiting longstanding illness and dependence in IADLs and ADLs, GHS (1980,1985,1994,1998,2001)
  - Health status and population in communal establishments, Census (1981, 1991, 2001) and UK Disability Survey (1986-8)
- Method:
  - Sullivan's method to calculate health expectancies

# Definitions: Mild DFLE (1)

- **Mild Disability-free Life Expectancy**

‘Do you have any long-standing illness, disability or infirmity? By long-standing I mean anything that has troubled you over a period of time or that is likely to affect you over a period of time.

If ‘Yes’:

(a) What is the matter with you?

(b) Does the illness or disability (Do any of these illnesses or disabilities) limit your activities in any way?”

	<b>Men</b>	<b>Women</b>	<b>Persons</b>
• Yes	40.1%	40.9%	40.6%
• No	59.9%	59.1%	59.4%

- Communal establishment disability rates based on the Census:  
‘Do you have any long-term illness, health problem or disability which limits your daily activities or the work you can do?’



# Definitions: Moderate DFLE (2)

- **Moderate disability-free life expectancy**

Private household disability rates based on the GHS questions on ability to perform Instrumental Activities of Daily Living without human assistance...

- Shopping
- Cooking a hot meal
- Cleaning windows inside
- Vacuuming
- Washing a small amount of clothes by hand

Dependent in one or more of the above activities:

	<b>Males</b>	<b>Females</b>	<b>Persons</b>
Yes	18.1%	28.1%	23.7%
No	81.9%	71.9%	76.3%

- No available IADL dependence rates for people who live in communal establishments, they were estimated as being half way between the rates for LLSI and ADL dependence.

# Definitions: Severe DFLE (3)

- Severe disability-free life expectancy

Private household disability rates based on the GHS questions on ability to perform Activities of Daily Living without human assistance...

- Bathing
- Getting to and from the toilet
- Getting in and out of bed
- Feeding

Dependent in one or more of the above activities:

	<b>Males</b>	<b>Females</b>	<b>Persons</b>
• Yes	5.5%	9.0%	7.5%
• No	94.5%	91.0%	92.5%

- Communal establishment disability rates are based on the UK Disability Survey 1986-8 which asked the same questions.

# Overview of analysis

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- **Gender differences**: overall difference by sex using 2001 estimates as example
- **Trends** between 1981 and 2001 (estimated using data for five time points - 1980, 1985, 1994, 1998, 2001).

# Gender Differences at age 65 in years **Without** disability: 2001, Great Britain

(NB: findings not to be quoted or circulated without authors permission)

<u>Years</u>	Men	Women
Life Expectancy	15.9	19.0
Mild DFLE	9.2	10.6
Moderate DFLE	12.6	12.8
Severe DFLE	14.7	16.3

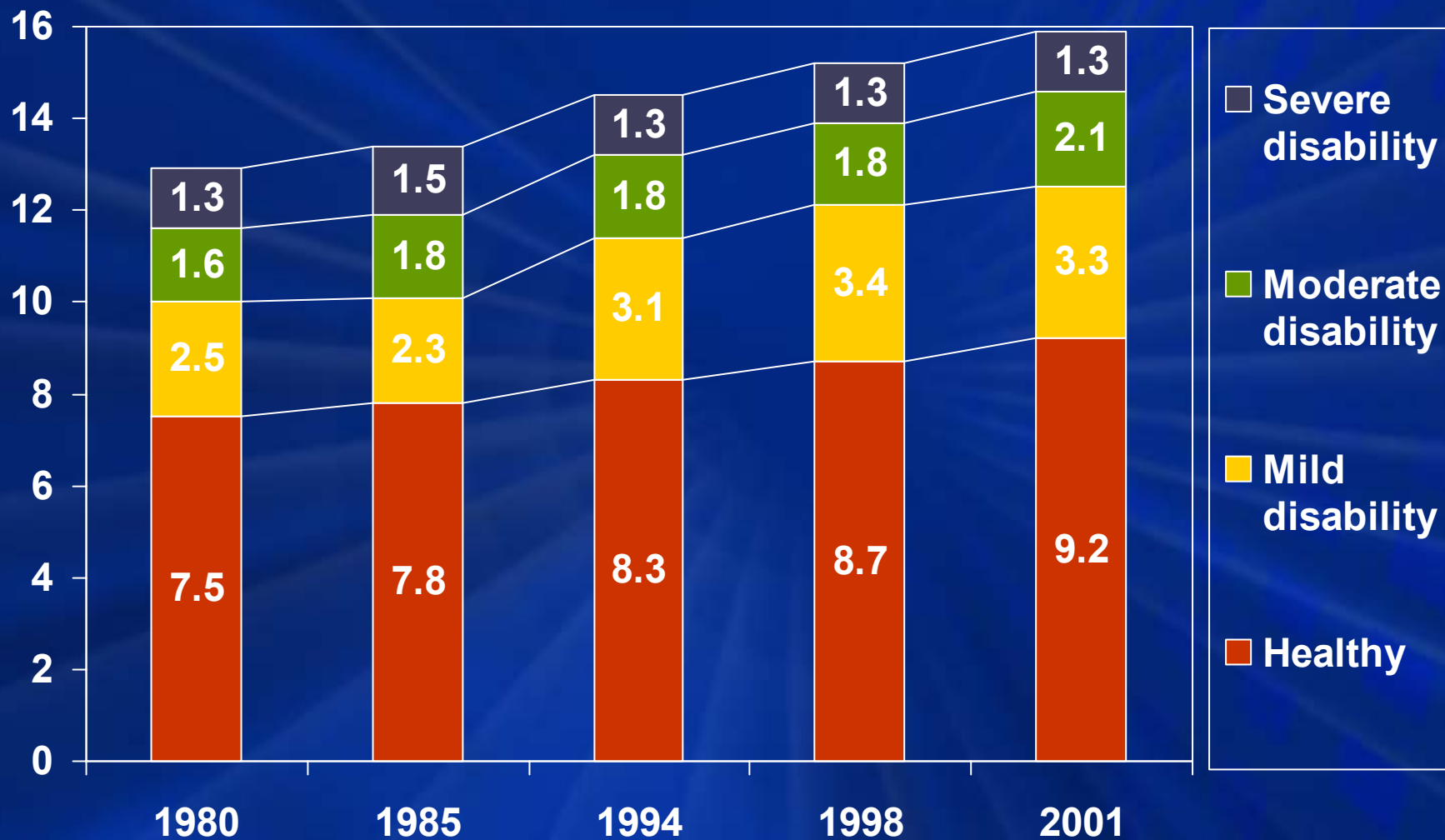
# Expected years and proportion of life spent with different levels of disability at age 65 by sex. 2001, Great Britain

(NB: findings not to be quoted or circulated without authors permission)

<u>Years</u>	Men	Women	<u>Proportion of expected life</u>	Men	Women
Life expectancy	15.9	19.0			
Healthy	9.2	10.6	Healthy	57.8%	55.5%
Mild disability	3.3	2.2	Mild disability	20.9%	11.6%
Moderate disability	2.1	3.6	Moderate disability	12.2%	18.8%
Severe disability	1.3	2.7	Severe disability	8.0%	14.1%

# Trends (by \_in\_ \_share\_ \_of\_ \_total\_ \_number\_ \_of\_ \_expected\_ \_years\_ \_in\_ \_each\_ \_health\_ \_state. 1980-2001, GB

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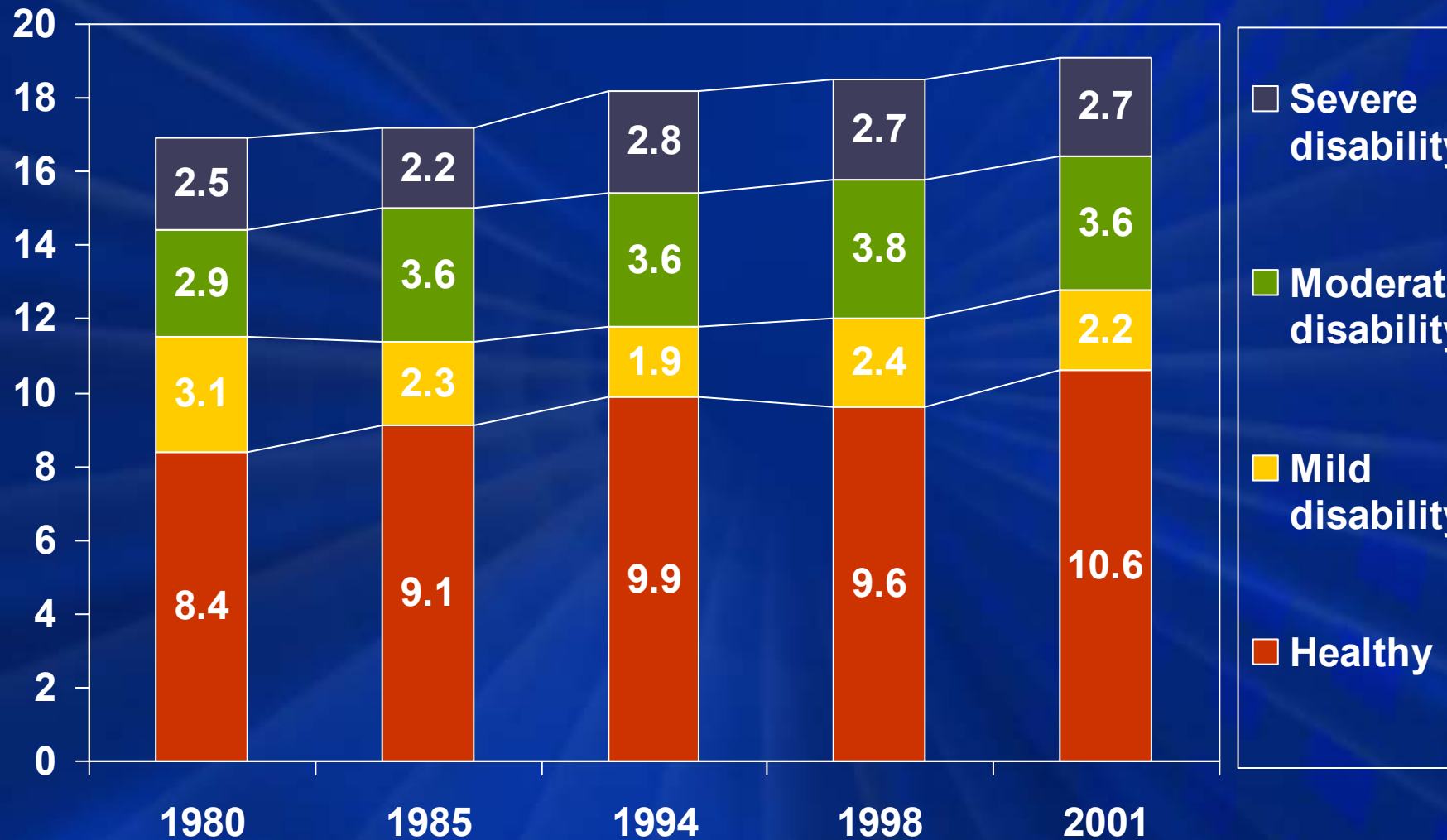
# Trends (1b) - males @ 65+ - proportion of expected life in each health state. 1980-2001, GB

(NB: findings not to be quoted or circulated without authors permission)



# Trends (2a) - Females @65: Number of expected years in each health state. 1980-2001, GB

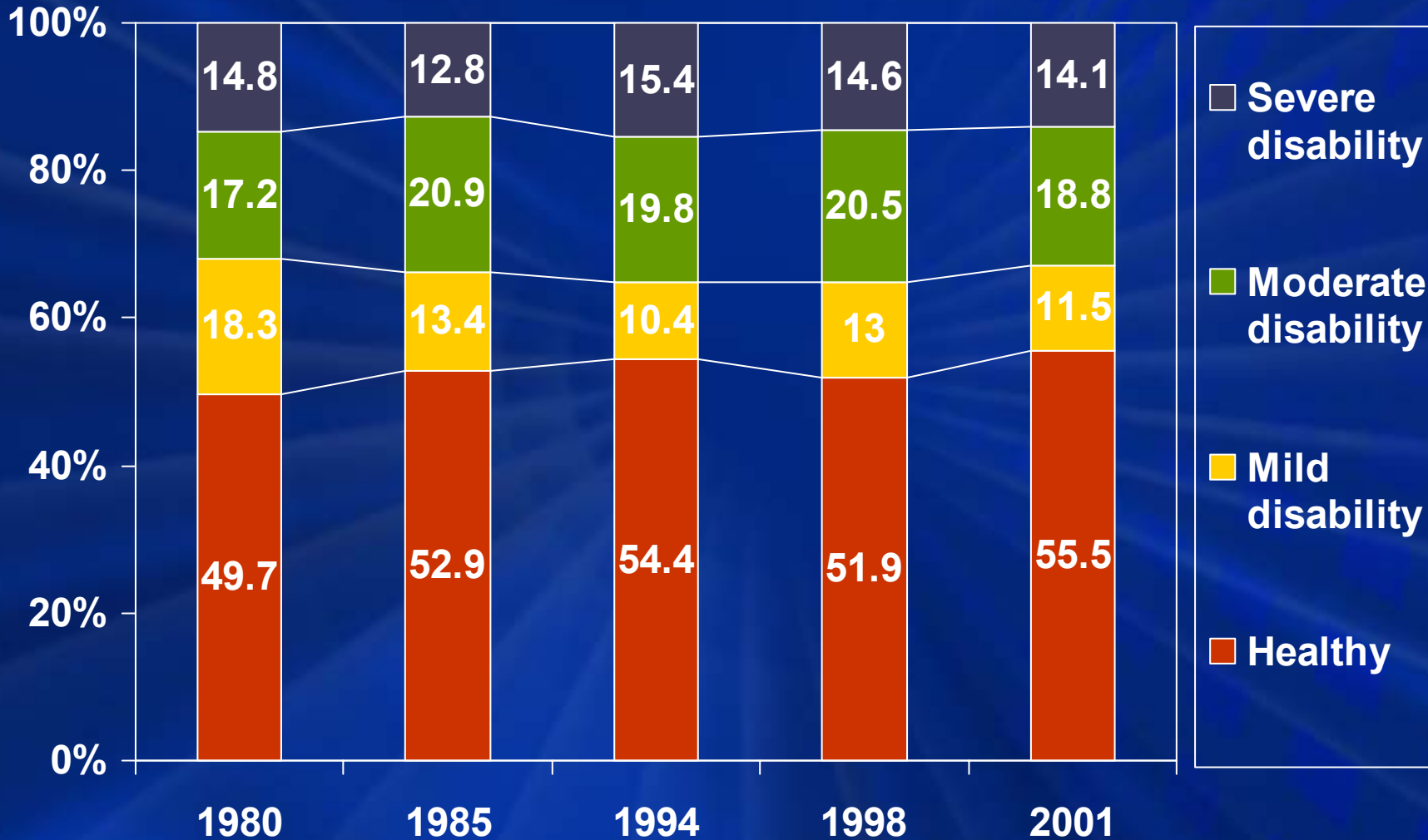
(NB: findings not to be quoted or circulated without authors permission)





# Trends (2b) - Female @65: Proportion of expected life in each health state. 1980-2001, GB

(NB: findings not to be quoted or circulated without authors permission)



# Proportion of expected life in each health state. by sex, 1980 vs 2001

(NB: findings not to be quoted or circulated without authors permission)

Men	1980	2001	Women	1980	2001
Healthy	57.6%	57.8%	Healthy	49.6%	55.5%
Mild disability	19.5%	20.9%	Mild disability	18.5%	11.6%
Moderate disability	12.5%	12.2%	Moderate disability	17.0%	18.8%
Severe disability	10.4%	8.0%	Severe disability	14.8%	14.1%

# Preliminary conclusions:

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- Gender Differences:
  - Men can expect to spend a larger proportion of their remaining life free from disability compared to women.
  - Men can also expect to spend a higher proportion of remaining life with a mild disability, whereas women spend more time with a moderate or severe disability
- Trends: are not the same for men and women.
  - The amount of time spent healthy for women has increased since 1980, supporting the theory of compression of morbidity
  - For men, the magnitude of the change less marked: proportion of life with mild disability has increased and severe disability decreased, supporting the theory of dynamic equilibrium.

# Limitations

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- Uneven time points
- Not enough time points to see a definite trend
- Need to check consistency of finding with other survey sources (e.g. Health Survey for England)
- Response rate for the GHS is falling
  
- Assumptions had to be made about the health of those in long-stay care homes
  
- Severe disability definition fairly objective, but moderate/mild disability definitions more likely to vary with social factors, cultural norms and environmental factors.

# International comparisons

- European Countries

- Trends in DFLE at age 65 across the EU countries have been shown not to be consistent – Data from the ECHP for the years 1995-2003 (Robine, Jagger et al 2005).
  - France and Greece were also showing a stable trend in DFLE for men.
  - Belgium, Spain, France, Italy, Austria and Sweden were also showing an increasing trend for women.

- USA

- Crimmins et al (1989) reported that for people at age 65 in the USA there was no improvement in the proportion of life spent free from a disability, but there was a marked improvement in the proportion of life spent with more severe disability.

- Australia

- Unlike other developed countries, health expectancies trends suggest an expansion of morbidity is occurring at all level of disability (Mathers 1991).



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