

Life expectancy is increasing – does the experience of older people change with it?

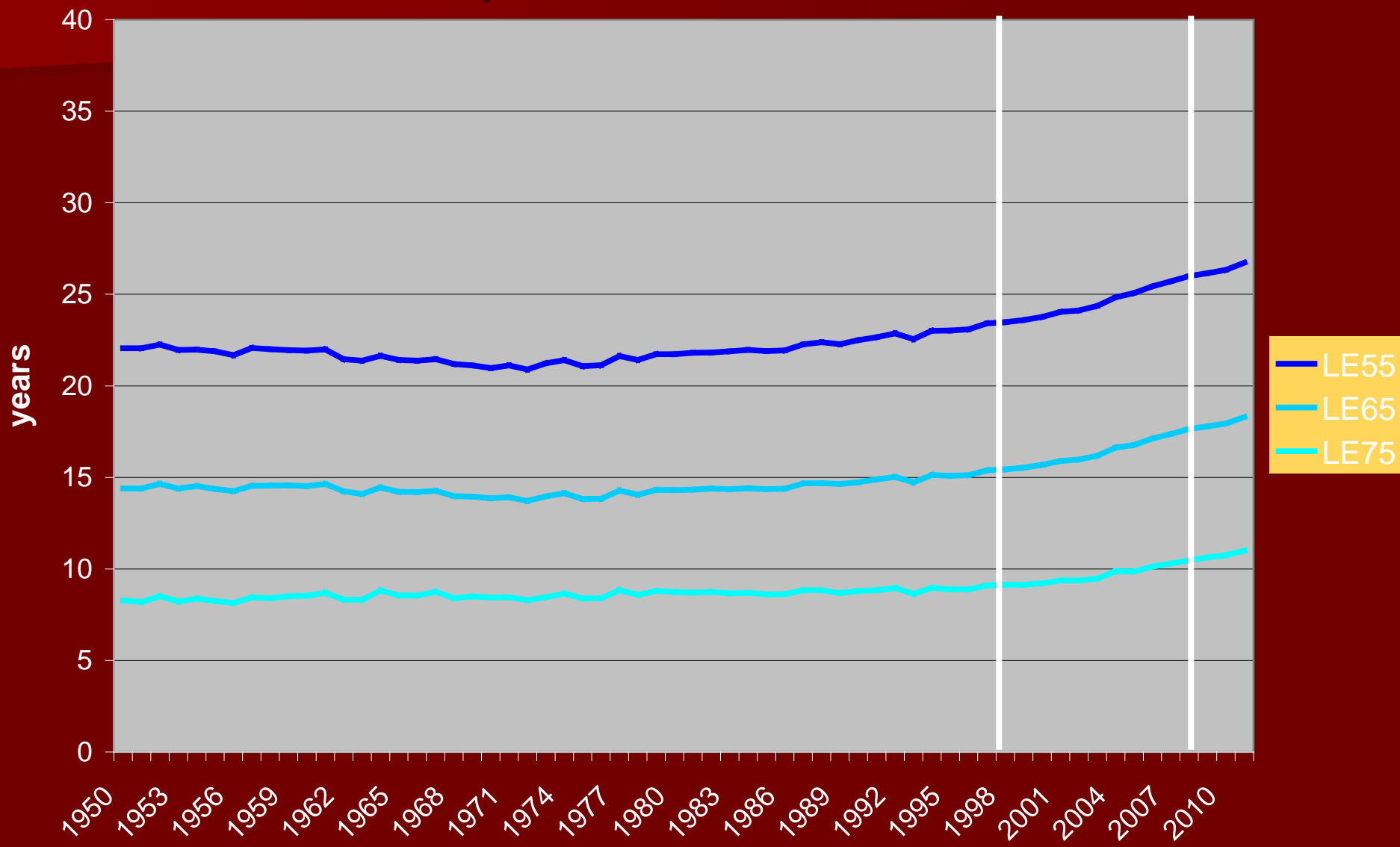
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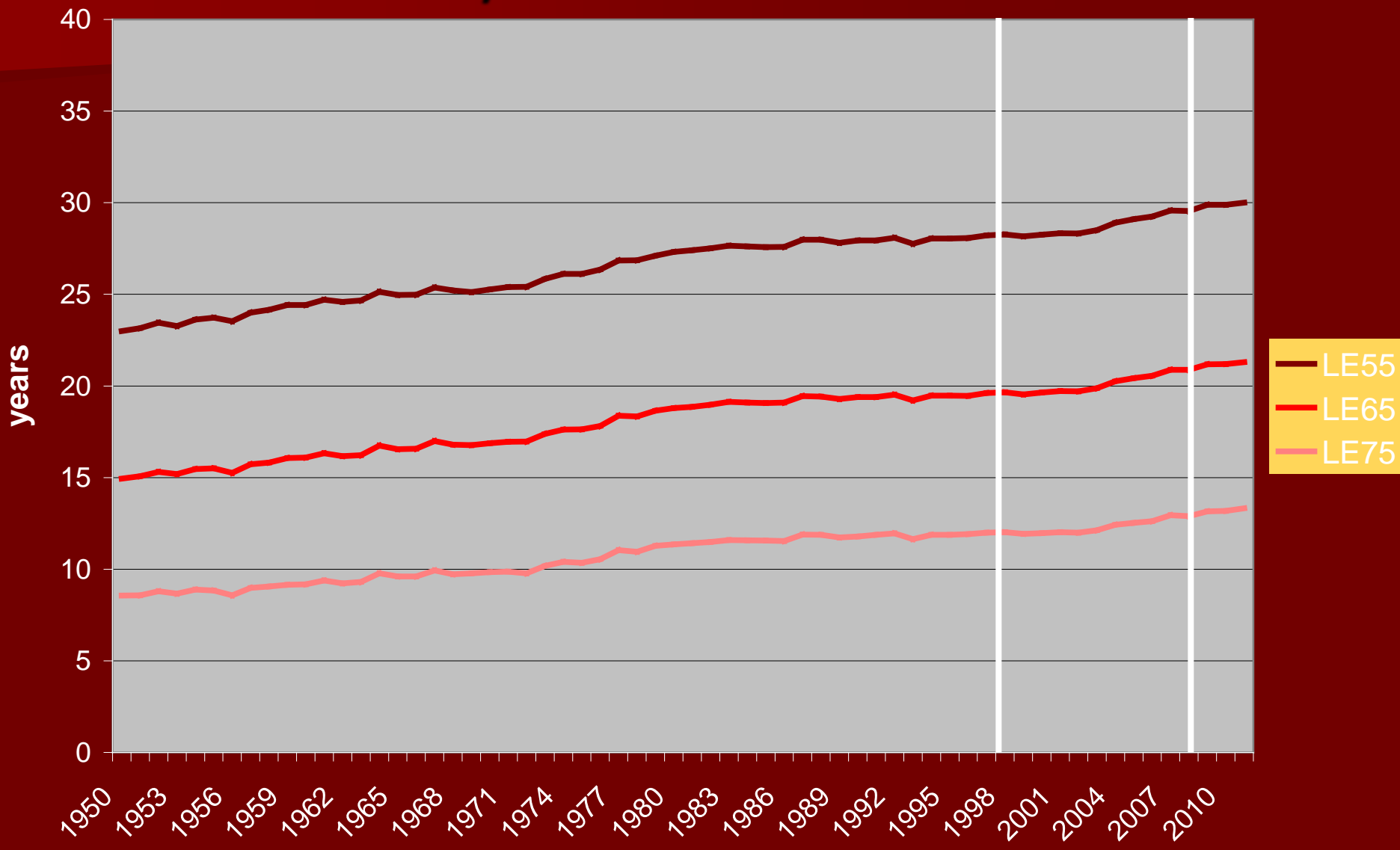
² Spatial Sciences/ Demography, University of Groningen

The Netherlands

Male life expectancy by age since 1950, the Netherlands



Female life expectancy by age since 1950, the Netherlands



Life expectancy: facts

- ... is rising, from 2002 increasingly due to mortality decline at older ages
- From 1999, rise in men is more constant, in women first years no rise
- **Objectively, older people have a prospect of increasingly longer lives**

Life expectancy: older people's personal experience

- Parent generation lived longer, more and more age peers still alive
- Perception that more years ahead than previous generations at same age → feel younger?
- Why of interest? *Literature*: Subjective life expectancy predicts better survival

Subjective life expectancy: questions

- What is older people's subjective experience of their remaining life time?
 1. Is self-perceived life stage becoming younger?
- Meanwhile, more older people with chronic diseases
 2. Do personal and health characteristics matter?

Self-perceived life stage (SPLS)

This line represents your life line:



“Please indicate with a cross where you are on your life line at this moment”

Self-perceived life stage (SPLS)

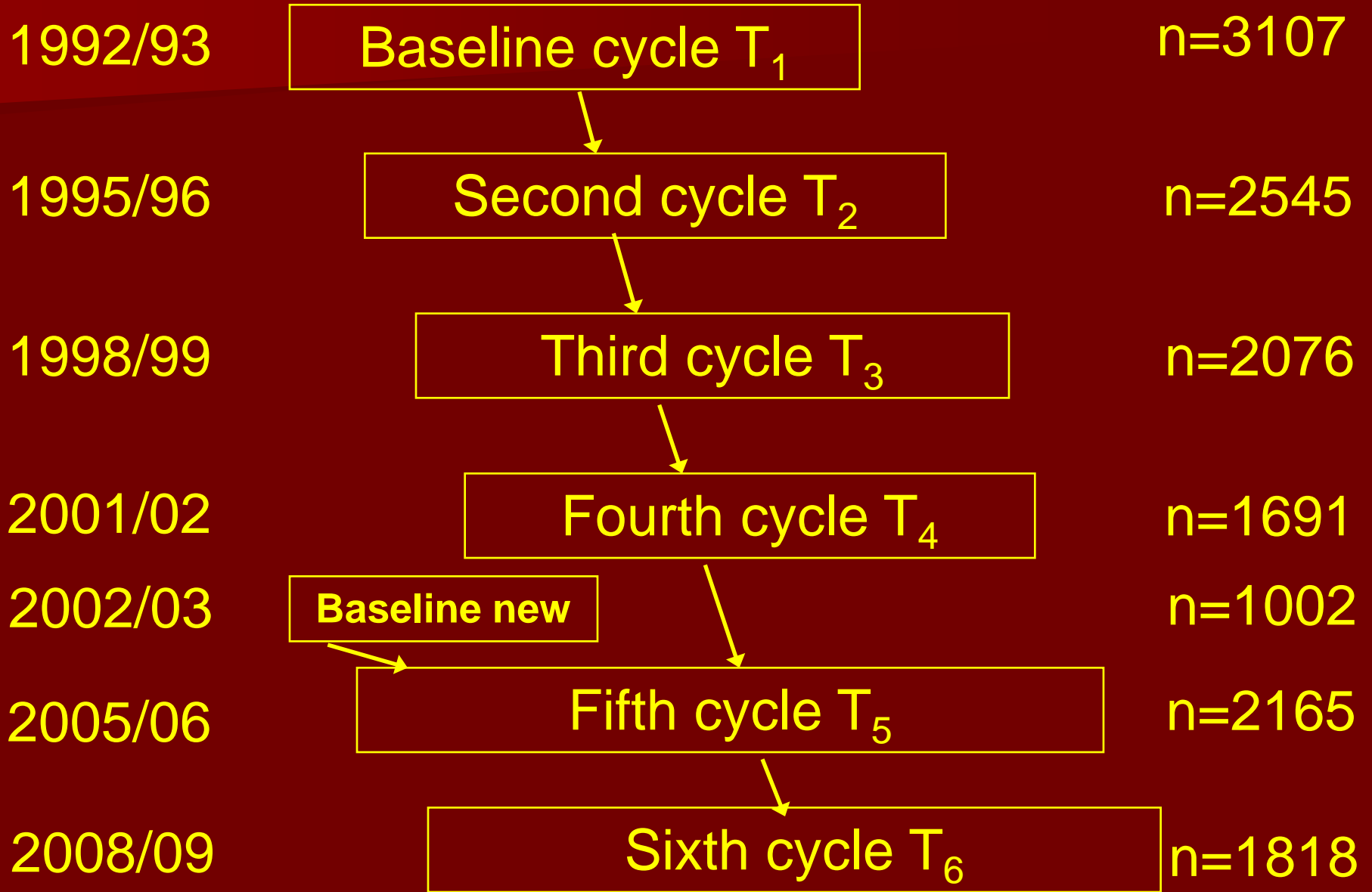
Calculation:



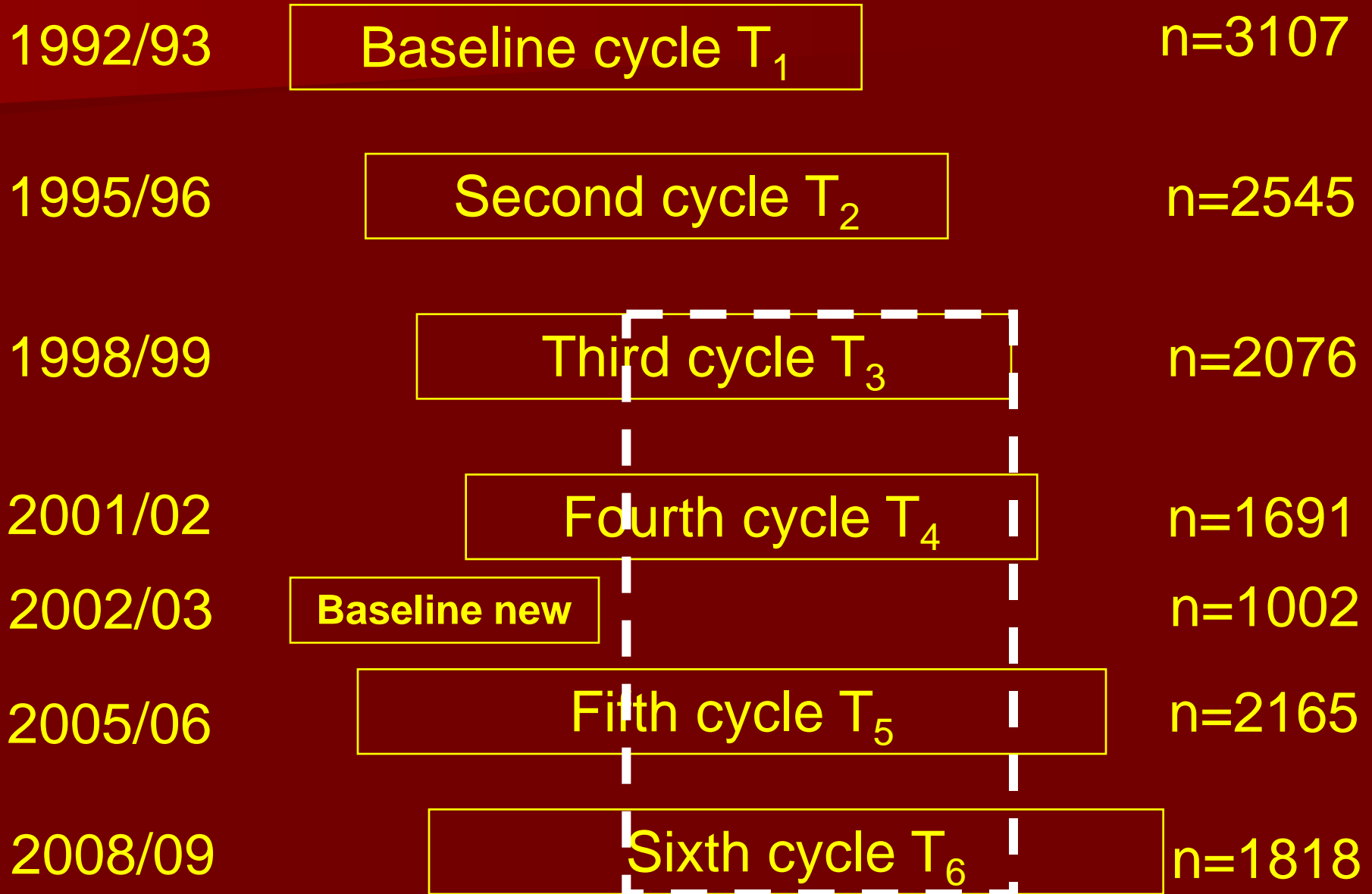
Score = 71.4

Combination of 'subjective age' ($r > 0$) and
'subjective remaining life years' ($r < 0$)

LASA design: longitudinal



LASA: repeated surveys ages 65-90



Research question

- Is self-perceived life stage becoming younger as life expectancy is increasing?
- Do older people aged 65-90 years in 2009 feel they are in an earlier stage of life than older people aged 65-90 years in 1999?

Descriptive findings (1)

Total N = 6153 across 4 waves

	N	Age
No data on life line	1203*	79.1
Life line < 39 excluded	181**	76.1
Valid data on life line	4769	75.1

*** 19.5% ** 2.9%**

Descriptive findings (2)

Mean age = 75.1

men: 74.8; women: 75.4

Mean SPLS = 75.5

men: 77.5; women: 74.2

- At age 75, individuals feel they are at $\frac{3}{4}$ of their life
- Women younger SPLS than same-age men

Descriptive findings (3)

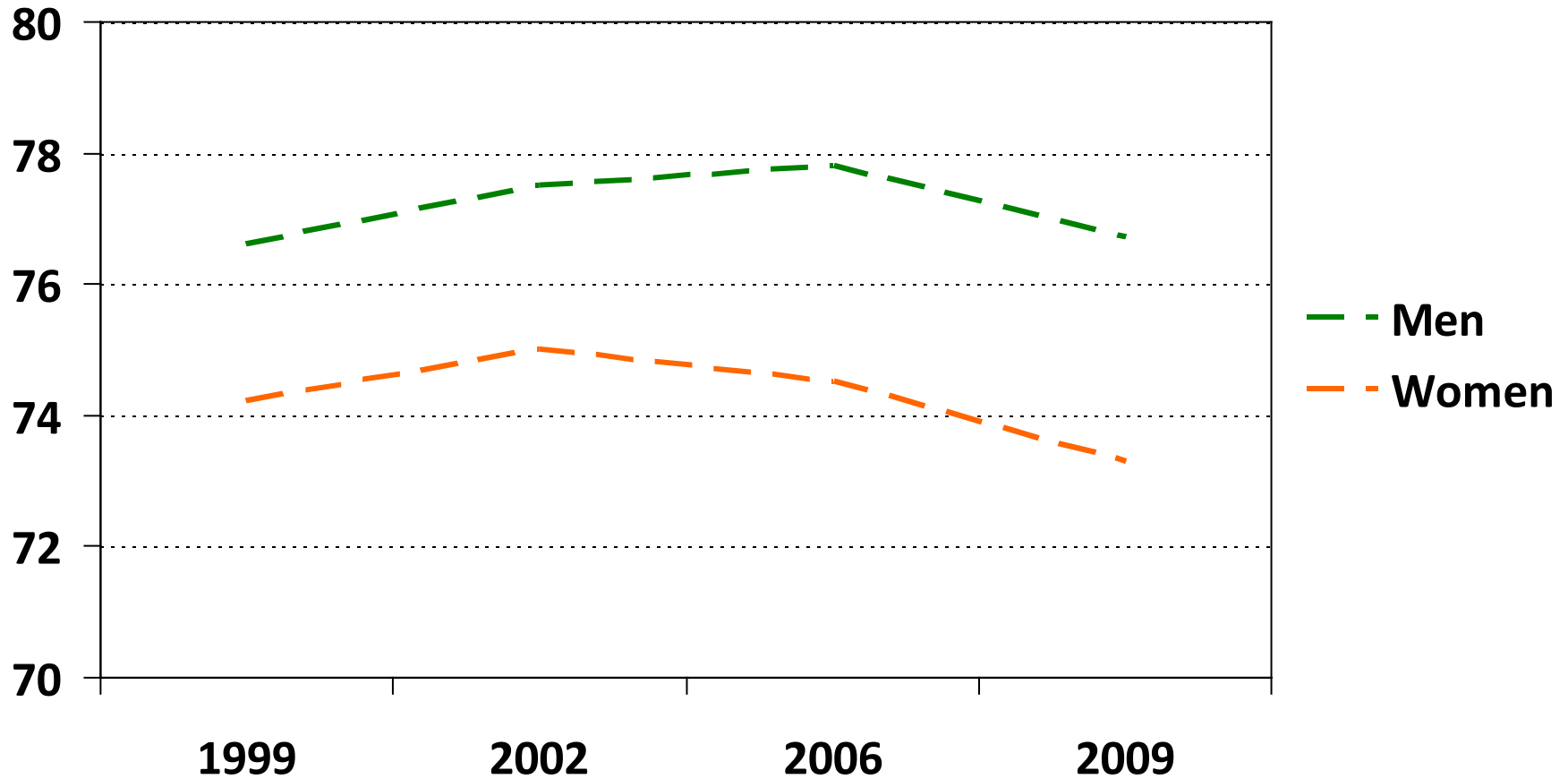
Correlation of SPLS with age:

men and women: $r = +0.34$

- Older ages have older SPLS

SPLS, Trends 1999-2009

Men and women, ages 65-90 years (1)



Marginal means from GEE, interrupted line adjusted for age

Trend in SPLS

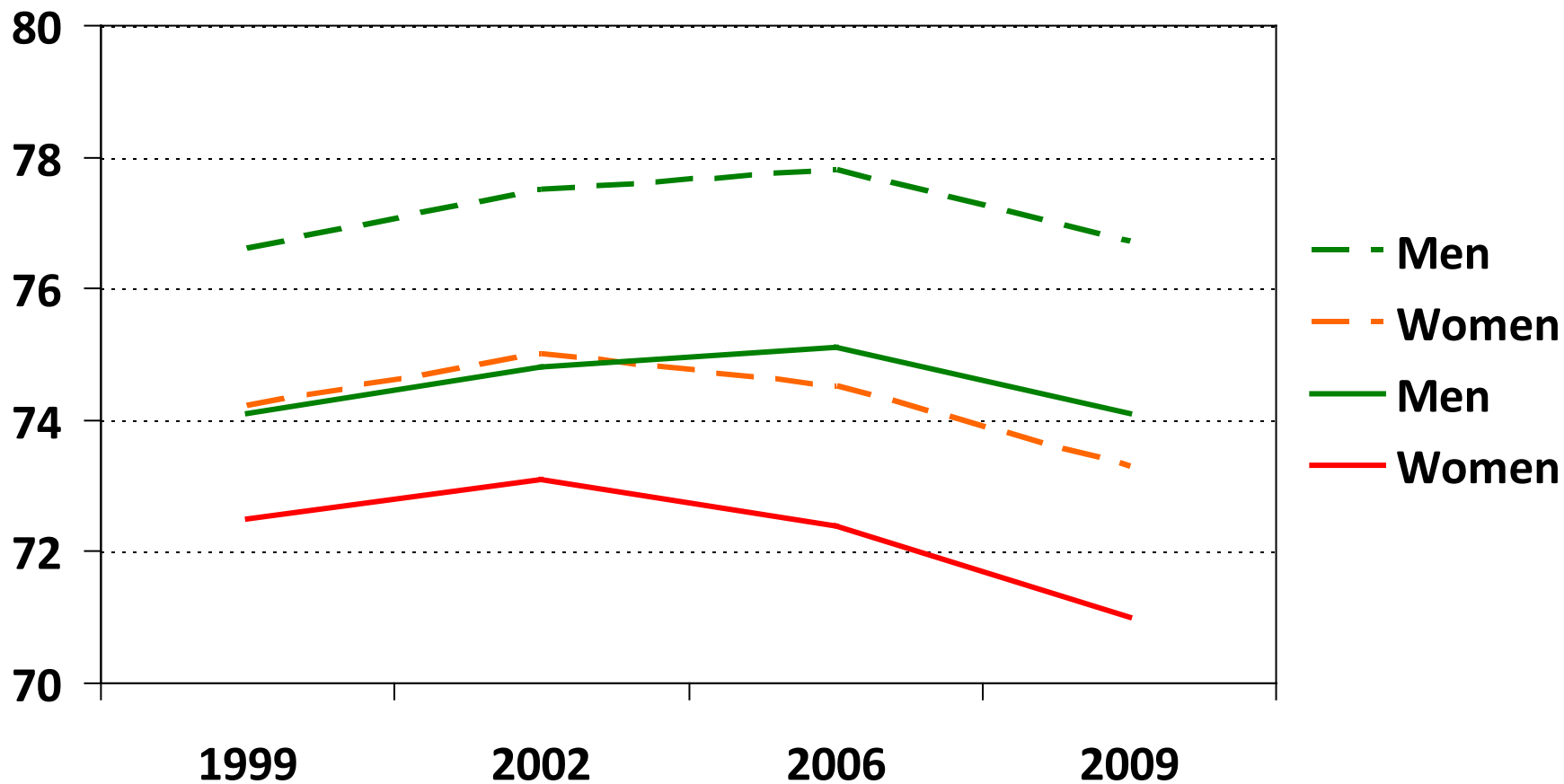
- Initial increase, followed by decline
- Decline in women seems to start earlier

Do personal and health characteristics matter?

- Change over time in education (↑), chronic conditions (↑)
- *Personal*: education
- *Health*: chronic morbidity, self-reported limitations (GALI), performance-based limitations, depressive symptoms, cognitive impairment

SPLS, Trends 1999-2009

Men and women, ages 65-90 years (2)



Marginal means from GEE, interrupted line adjusted for age; continuous line fully adjusted

Trend in SPLS

Significant effects of time: B (se) from GEE

	Men	Women
<i>Model including age*</i>		
Time	0.501 (0.192)	0.394 (0.186)
Time-squared	-0.048 (0.018)	-0.048 (0.018)

*Women 21% less increase than men → longer decline

Trend in SPLS

Significant effects of time: B (se) from GEE

	Men	Women
<i>Model including age</i>		
Time	0.501 (0.192)	0.394 (0.186)
Time-squared	-0.048 (0.018)	-0.048 (0.018)
<i>Fully adjusted model+</i>		
Time	0.412 (0.190)	0.309 (0.187)
Time-squared	-0.041 (0.018)	-0.046 (0.018)

+Less increase: both men (18%) and women (22%);
Men: 15% flattening

Do personal and health characteristics matter?

- *Adjusted SPLS* is younger, but trend over time not different – except slightly flatter in men
- *Personal characteristics*: Older people with lower education are more optimistic (younger SPLS)
- *Health characteristics*: only depressive symptoms (+) and cognitive impairment (-) associated with SPLS

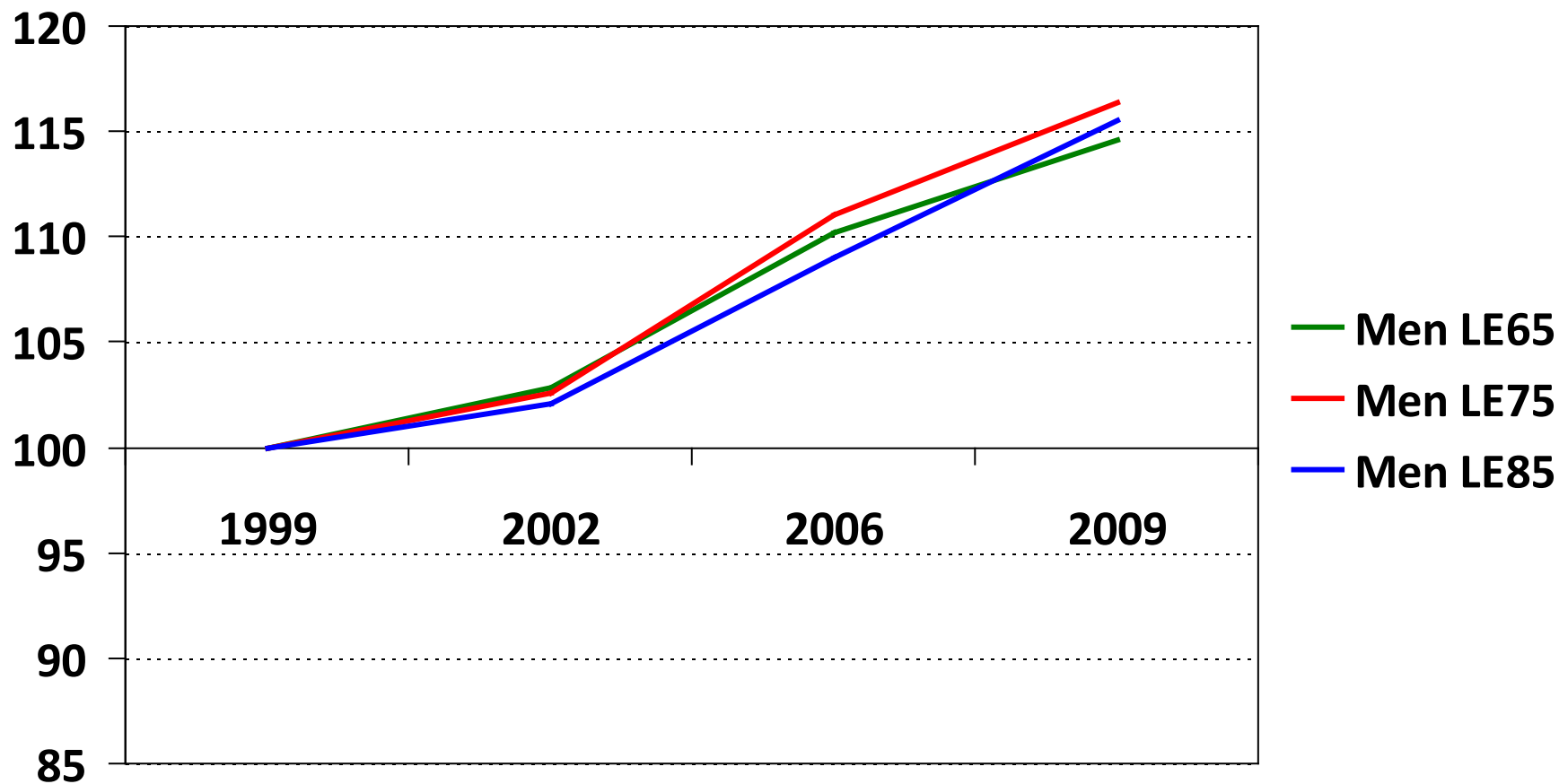
What about main research question

Is self-perceived life stage becoming younger as life expectancy (LE) is increasing?

- Transform SPLS so that same direction as LE $\rightarrow 100*(1/SPLS)$

Relative change LE and SPLS 1999-2009

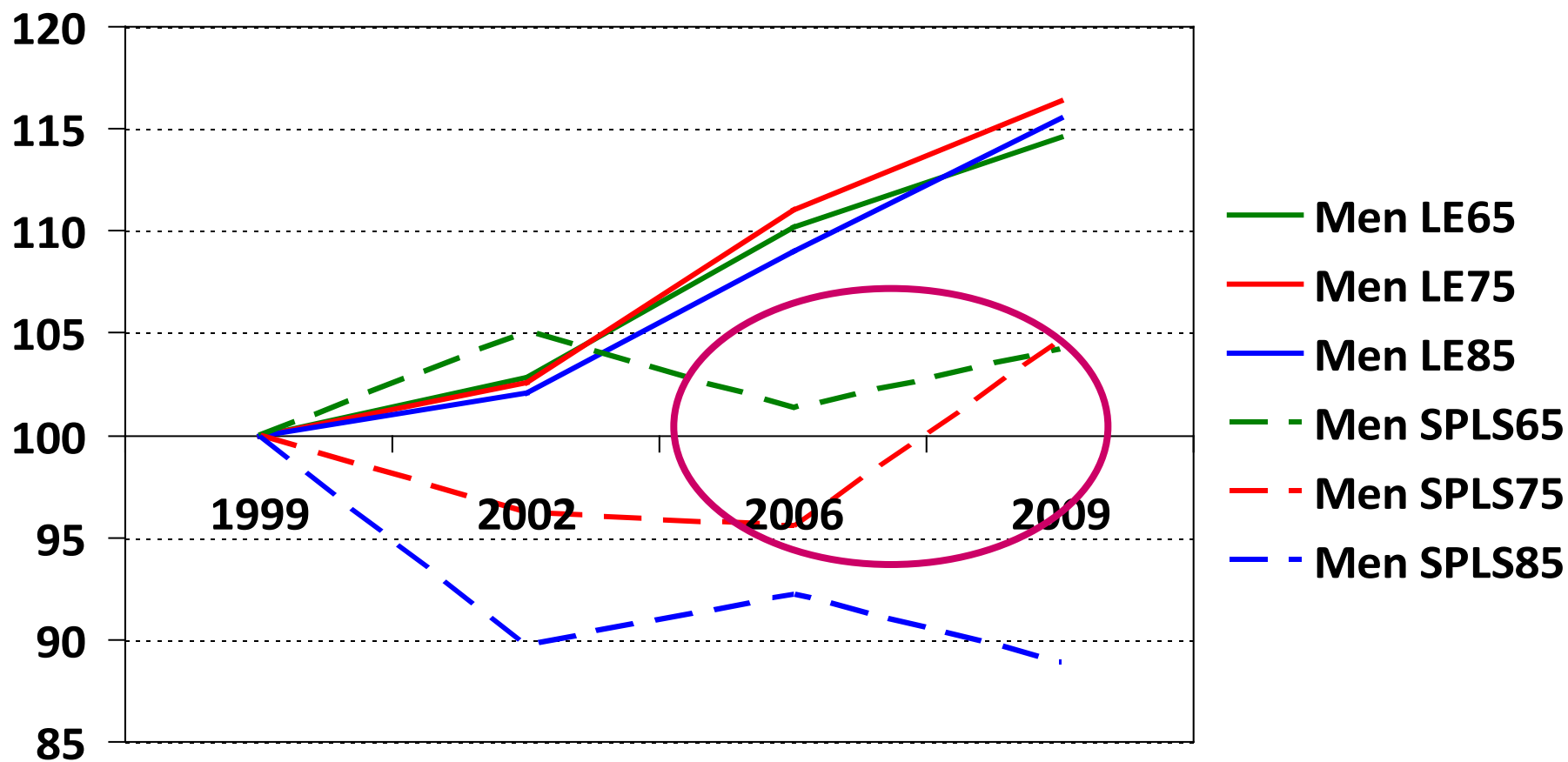
Men, ages 65, 75, and 85



Change relative to 1999, LE

Relative change LE and SPLS 1999-2009

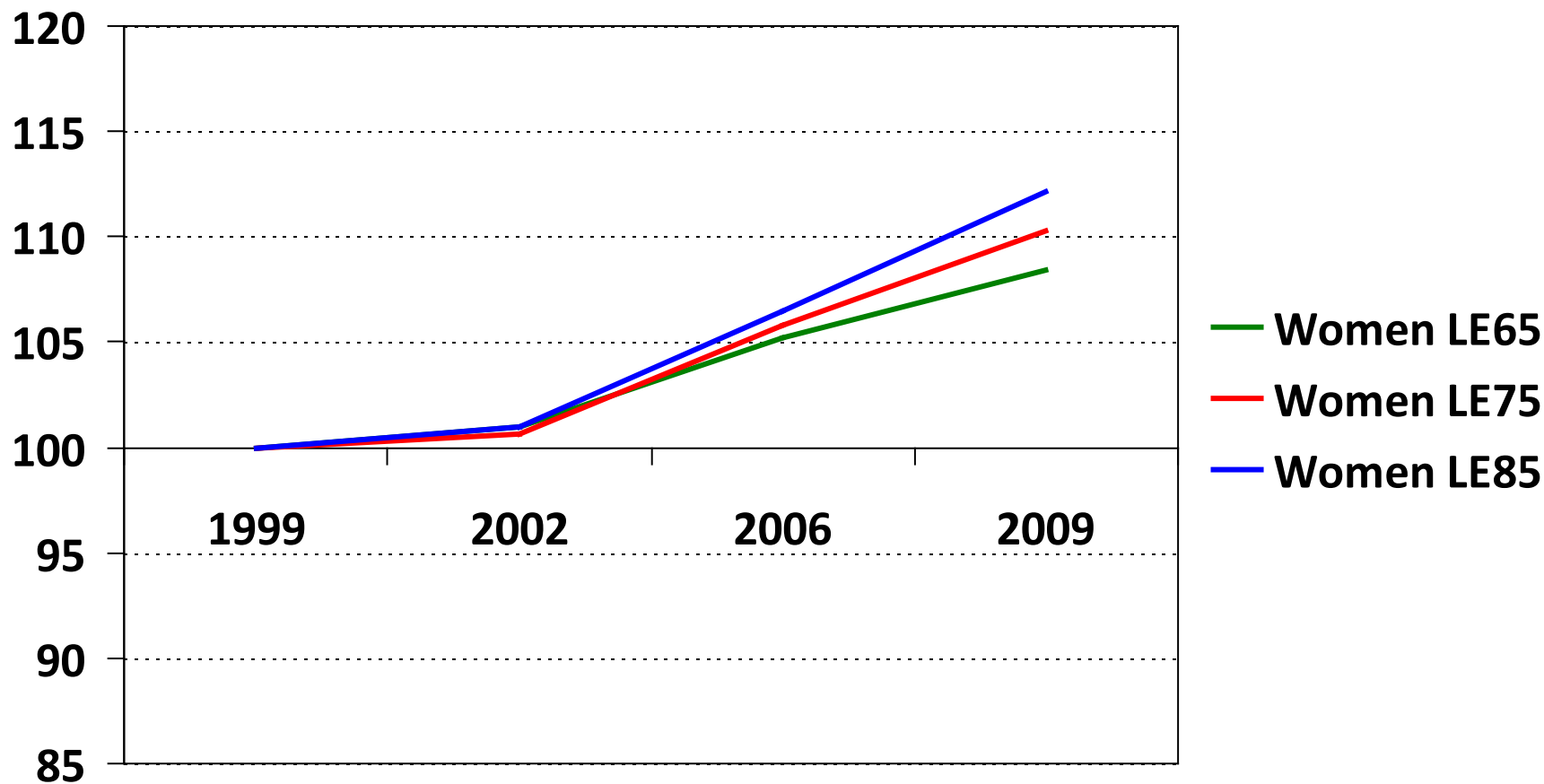
Men, ages 65, 75, and 85



Change relative to 1999, LE and $100 \times (1/SPLS)$

Relative change LE and SPLS 1999-2009

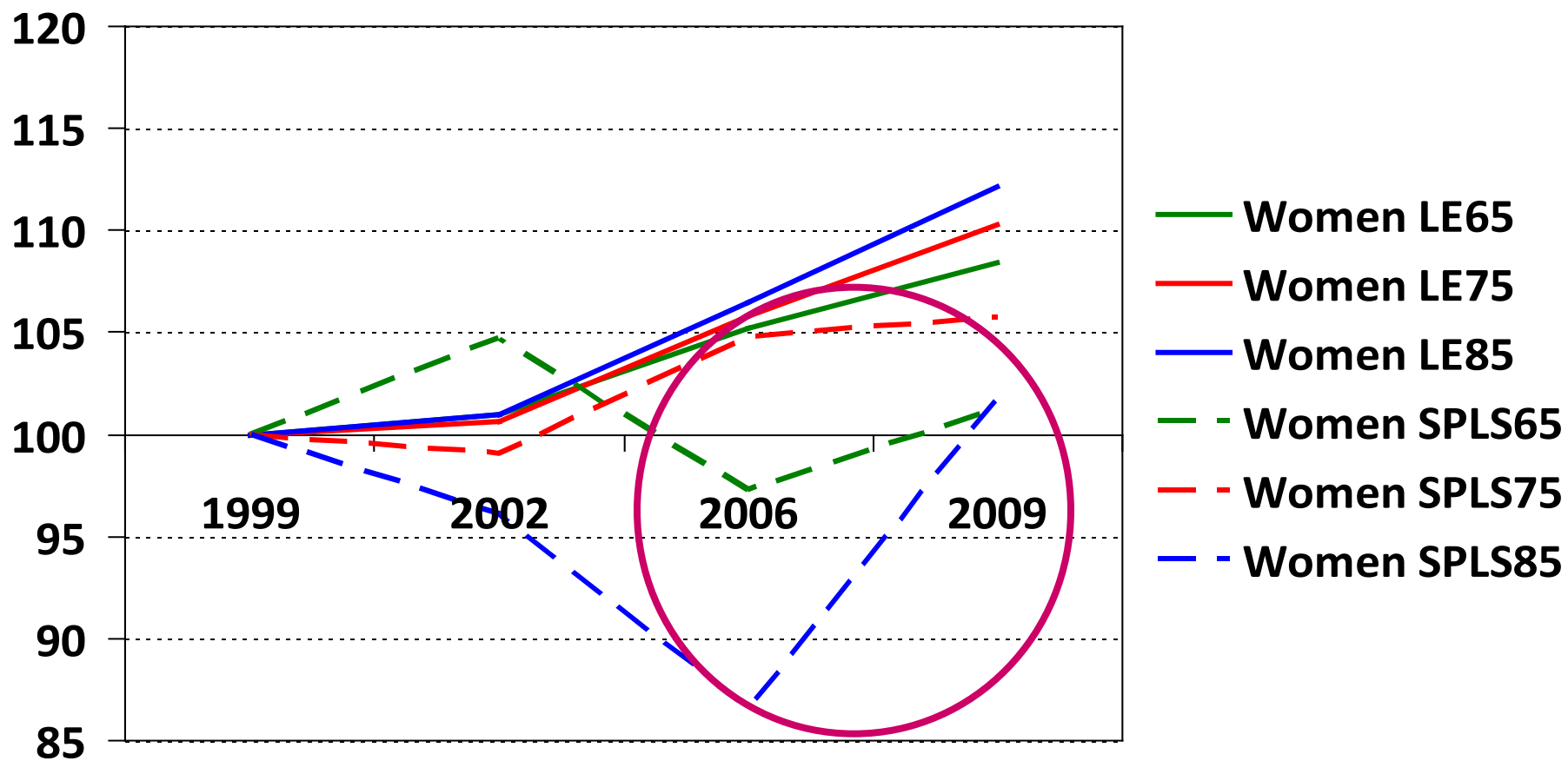
Women, ages 65, 75, and 85



Change relative to 1999, LE

Relative change LE and SPLS 1999-2009

Women, ages 65, 75, and 85



Change relative to 1999, LE and $100 \cdot (1/\text{SPLS})$

Correlation of SPLS with LE

Include actuarial life expectancy in dataset for each age year and sex;

Calculate B-coefficient from GEE regression of SPLS on LE

- Interaction with time:

1999: B=0.59

2002-2009: B=1.06

→ After 2002, SPLS more closely associated with LE

Conclusions

- The trend in SPLS weakly corresponds to the trend in actuarial life expectancy 1999-2009
- It does so more closely from 2002 → follows with a delay (in men)
- The trend in SPLS is hardly explained by (trends in) personal and health factors

Lots of remaining/emerging questions

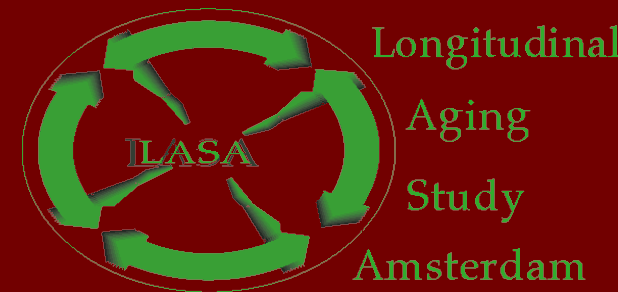
- What drives the trend in SPLS – is subjective age more important than subjective remaining life expectancy?
- Why do the lower educated and the cognitively impaired feel they are in a younger SPLS?
- Other personal factors than education and health must affect SPLS – motivational?

Literature: *agency*

Thank you !

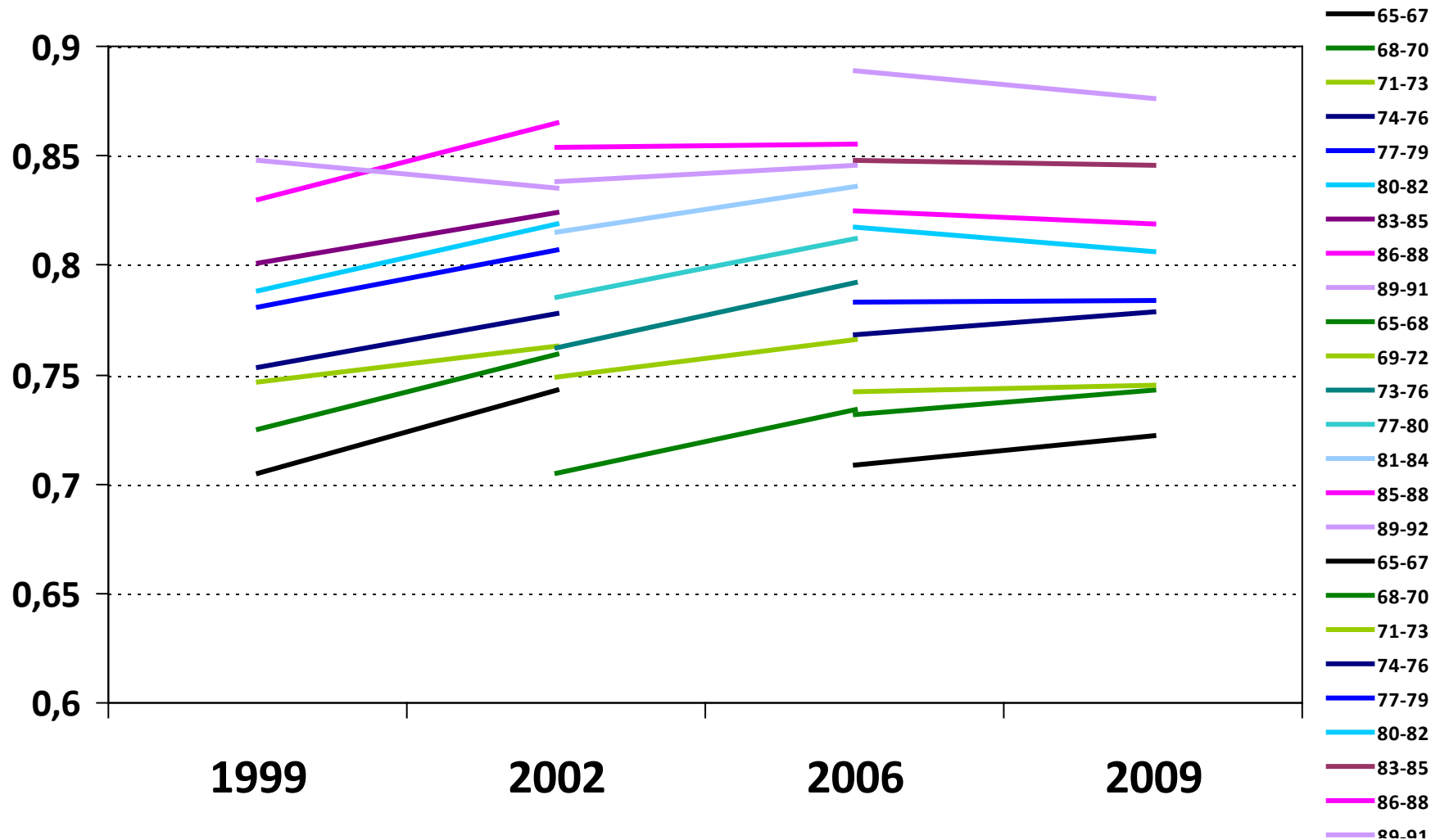
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Self-perceived life stage, 1999-2009

3-year change by 3-year age groups*



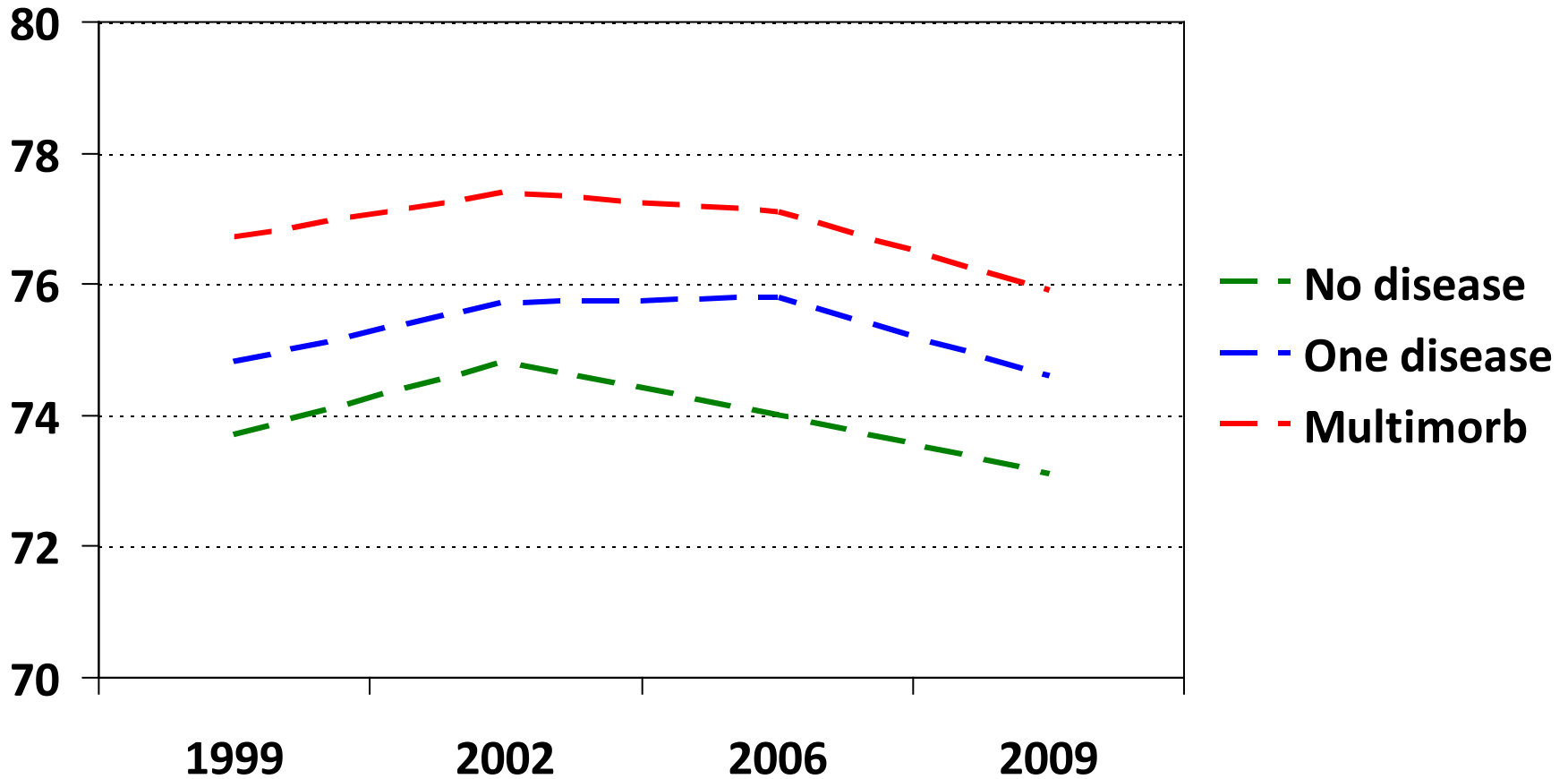
*For the interval 2002-2006, 4-year age groups are presented

SPLS longitudinal

- Up to 2002, increase in SPLS parallel to increase in age
- 2002-2006, less increase in SPLS even though not 3- but 4-year age increase
- **2006-09, no more increase in SPLS**

SPLS, Trends 1999-2009

By disease state, age group 65-90 years (1)



Marginal means from GEE, adjusted for age and sex

Trends do not differ by disease state

Effect of time: B (se) from GEE

	No chr. disease	One chr. disease	Multimorbidity
<i>Model including age, sex*</i>			
Time	0.396 (0.291)	0.472 (0.242)	0.365 (0.216)
Time-squared	-0.048 (0.028)	-0.049 (0.023)	-0.045 (0.020)

*Longer **increase** with one chronic disease;
Less **decrease** with multimorbidity