Is the nature of chronic diseases changing over time?

A study among 55-64-year-olds in the Netherlands in 1993 and 2003

Dorly Deeg, Ph

Department of Psychiatry a
Institute for Research in Extramural Medic
Vrije Universiteit Amsterdam, The Netherla

Background

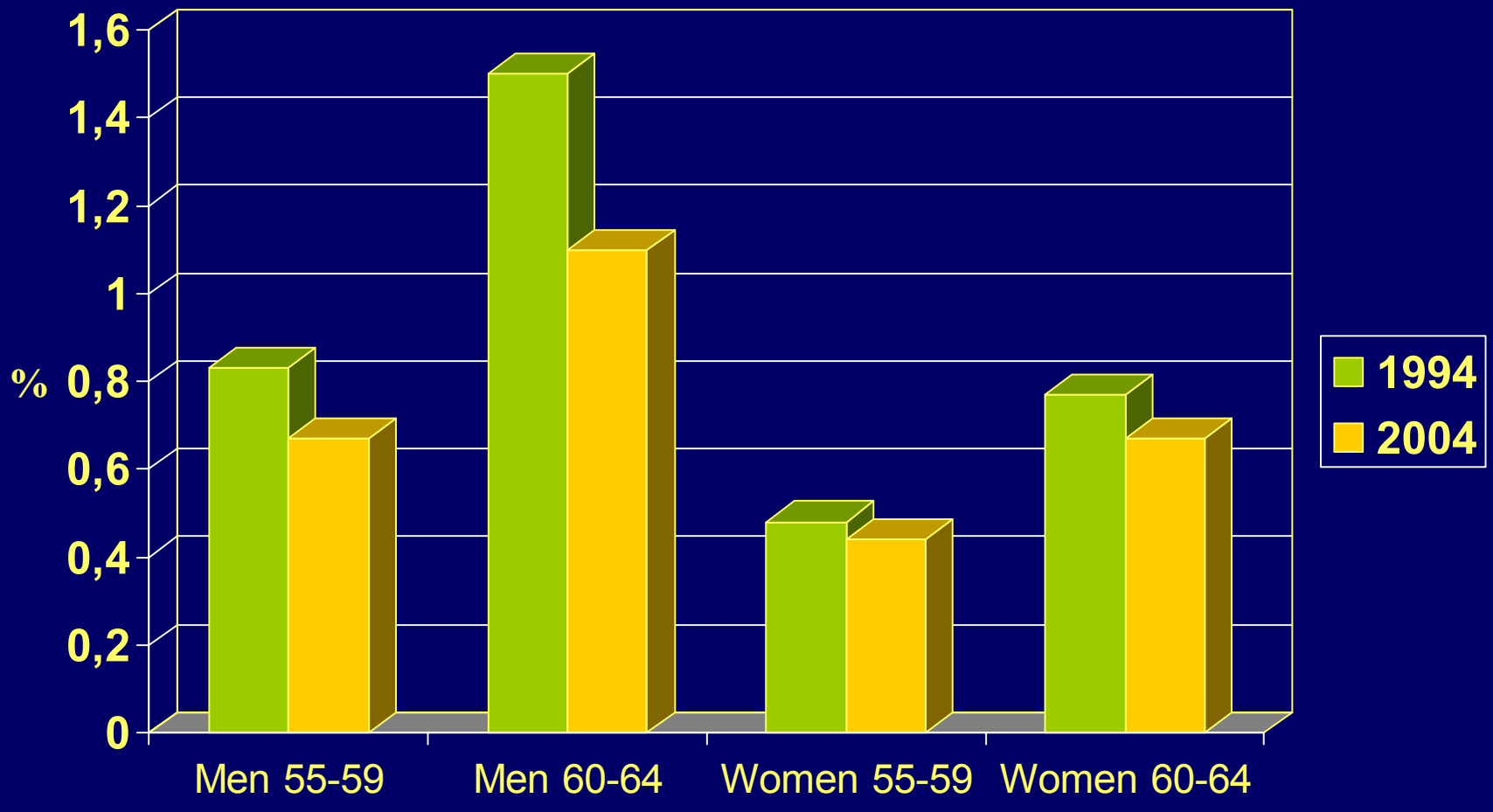
- Most developed countries: Increase in prevalence of chronic diseases
- = Gains in life expectancy especially among the chronically ill?
- Many developed countries: Declining prevalence of disability
- = Milder course of diseases, less associated disability?

Research question

Is the nature of chronic diseases changing?

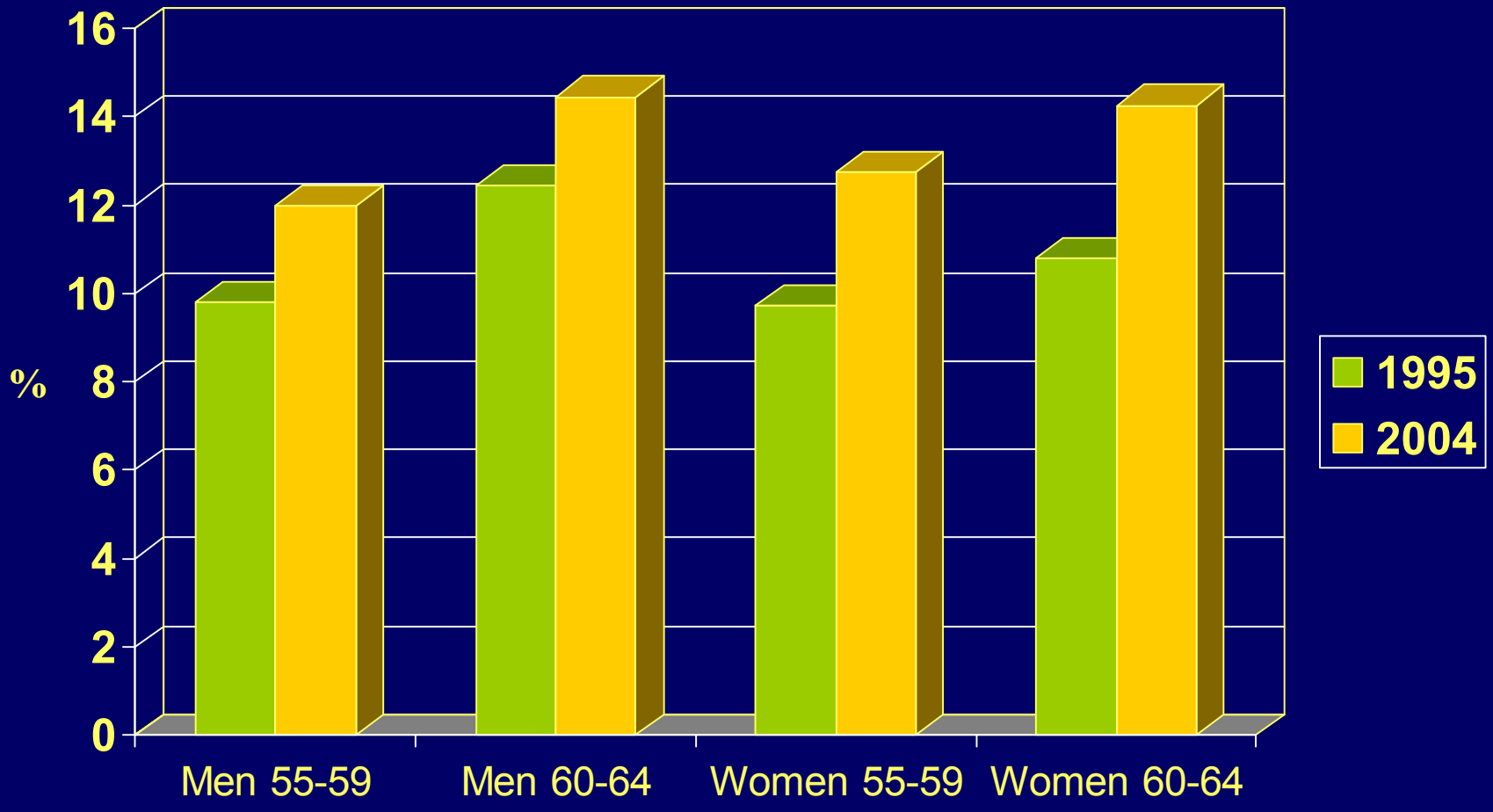
Different fatality and/or associated disability?

Population 55-64 yrs: shift in mortality



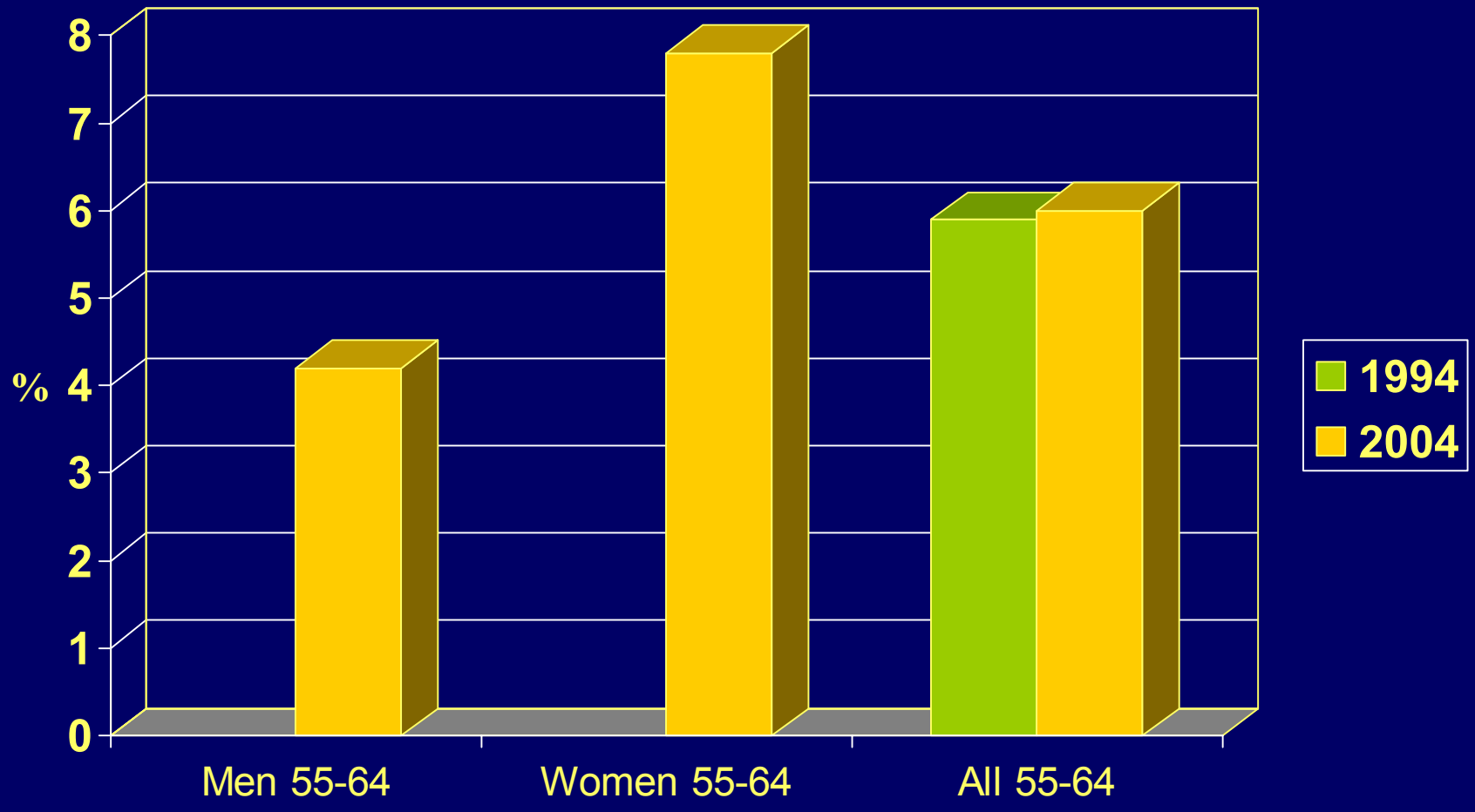
: Statistics Netherlands

Population 55-64 yrs: shift in % persons with >1 hospital admissions



: Statistics Netherlands

Population 55-64 yrs: shift in % persons with >1 ADL limitations



: Statistics Netherlands

Longitudin
Aging
Study
Amsterdam

Longitudinal Aging Study Amsterdam

Random sample

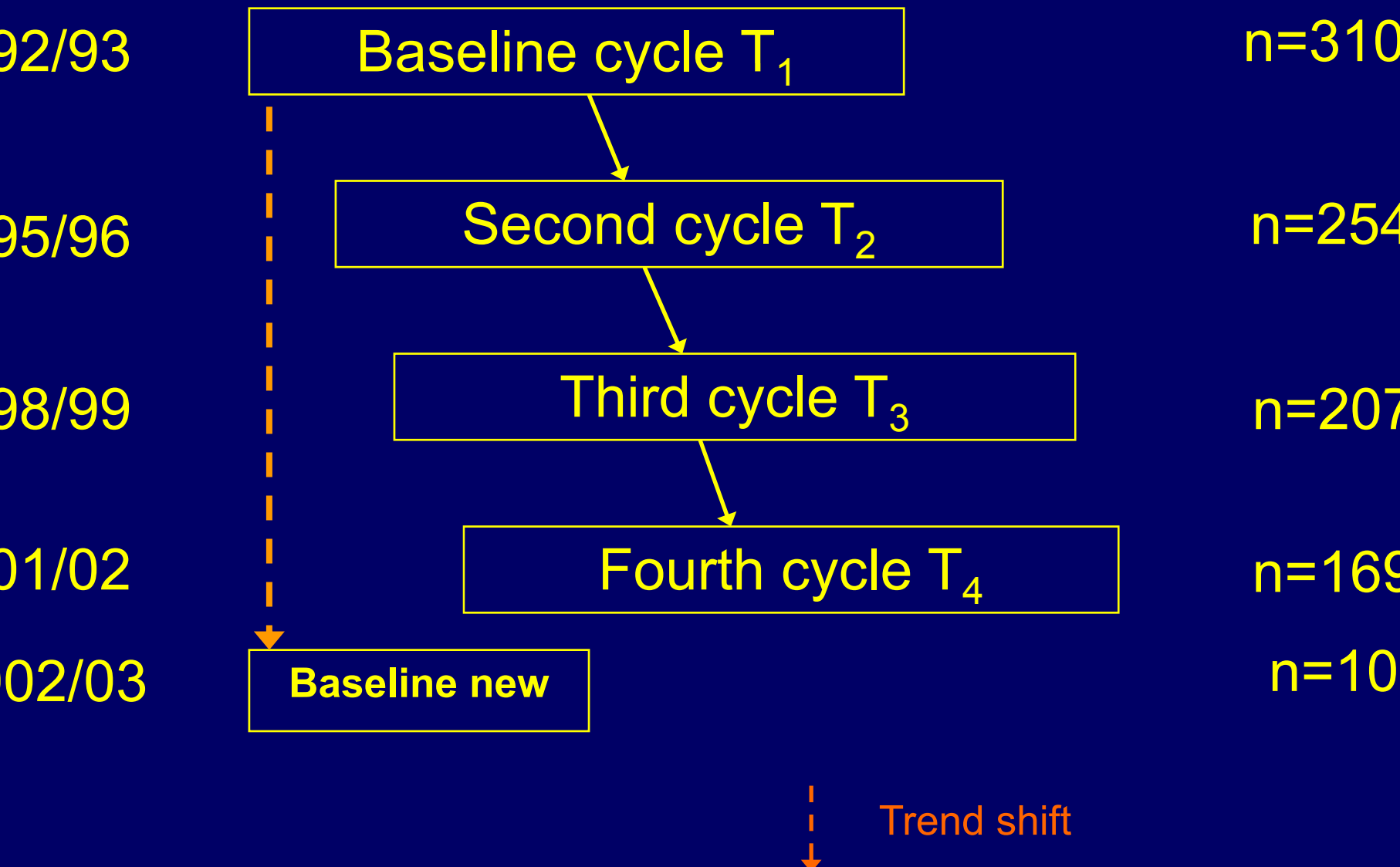
3107 men and women

Ages 55-85

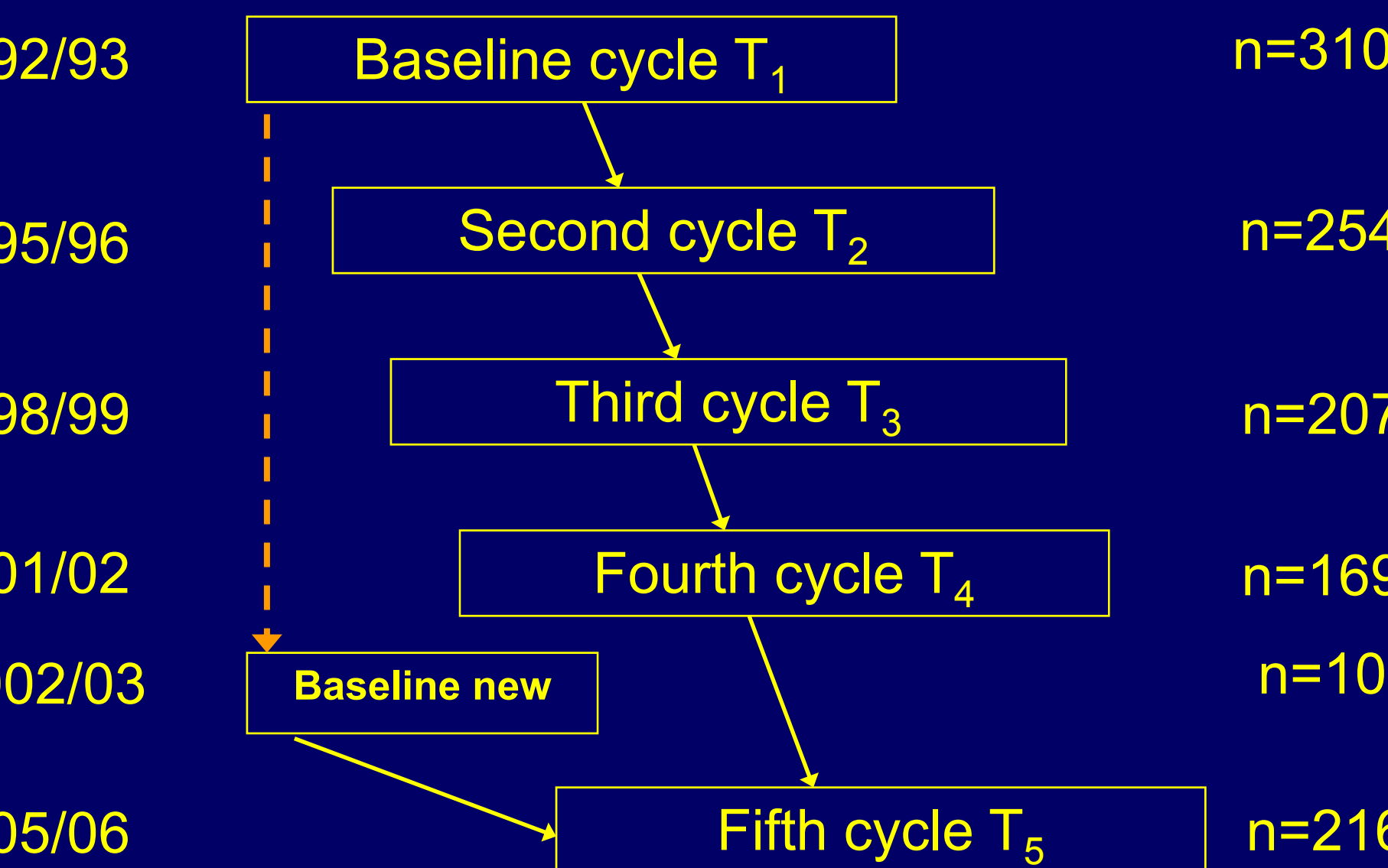
Start 1992

3-year intervals

LASA time schedule



LASA time schedule



Comparison 1992/93-2002/03

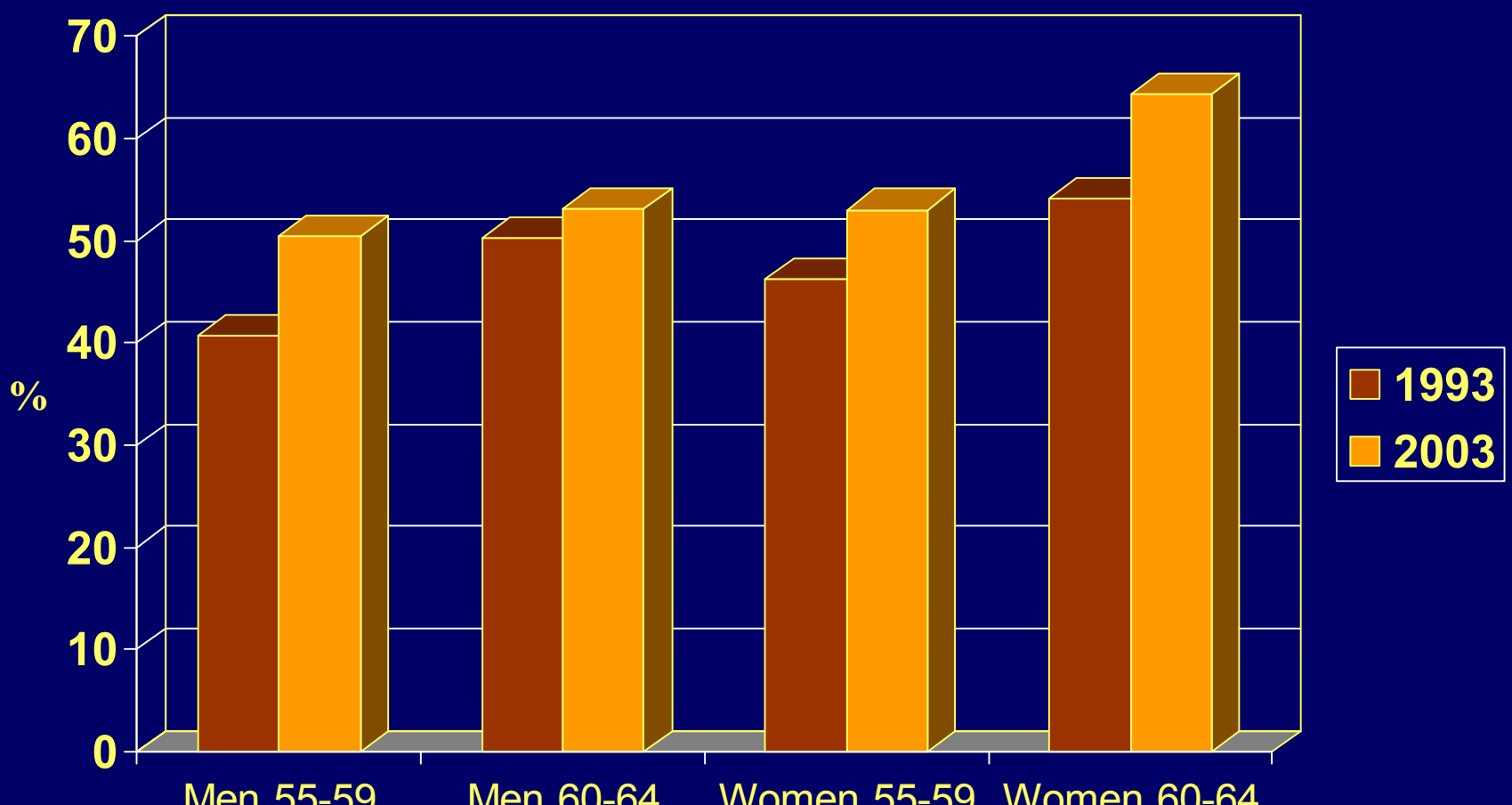
Ages 55-64 years

	N	3-year mortality
Year:		
1992-03	966	3.8
2002-03*	1001	2.5

new vs old cohort: 0.63

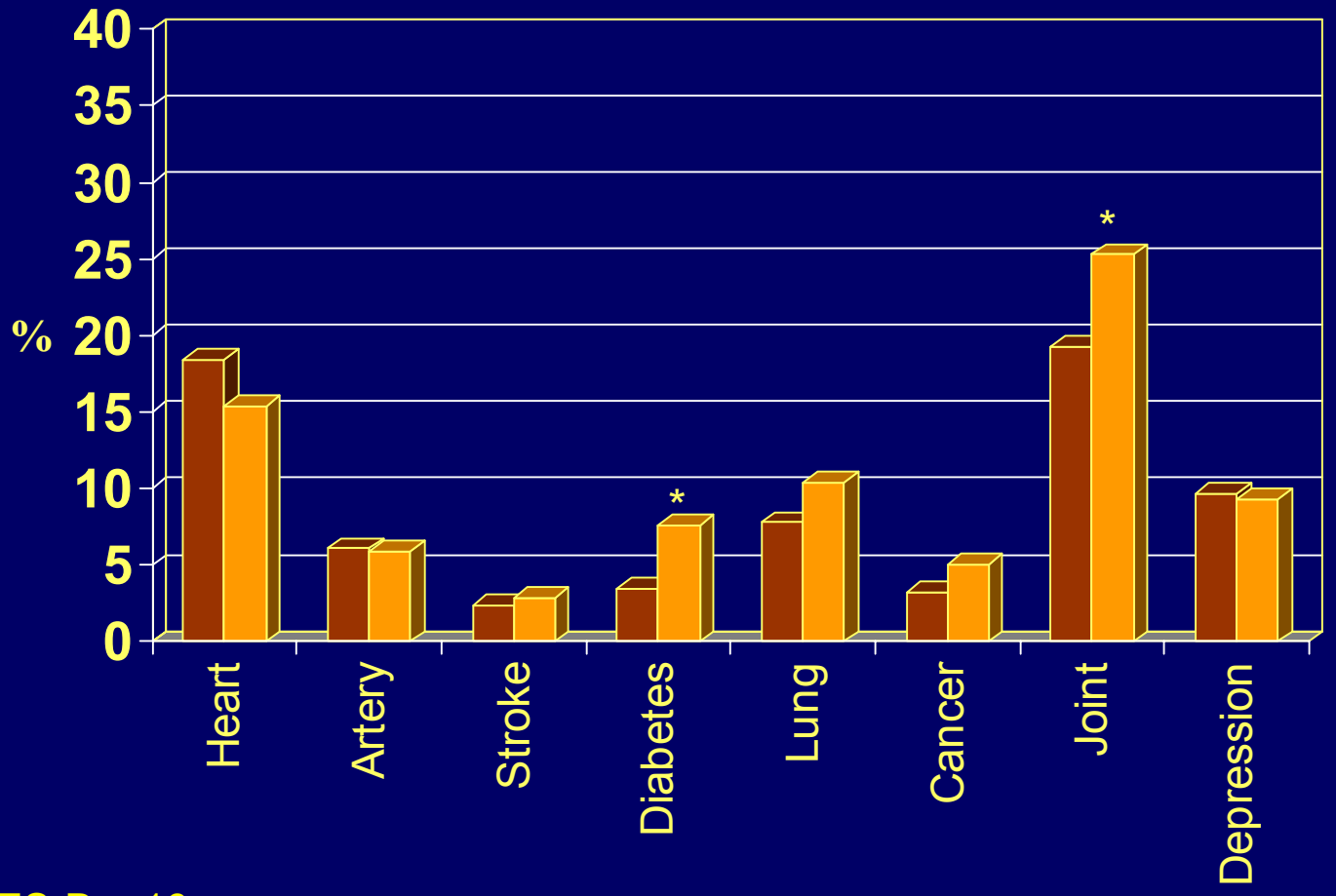
2002-03 weighted to age-sex distribution of 1992-03

Ages 55-64 yrs: shift in % persons with >1 chronic diseases*



diseases, Peripheral artery disease, Stroke, Diabetes, Lung diseases, Cancer, Joint di
LASA

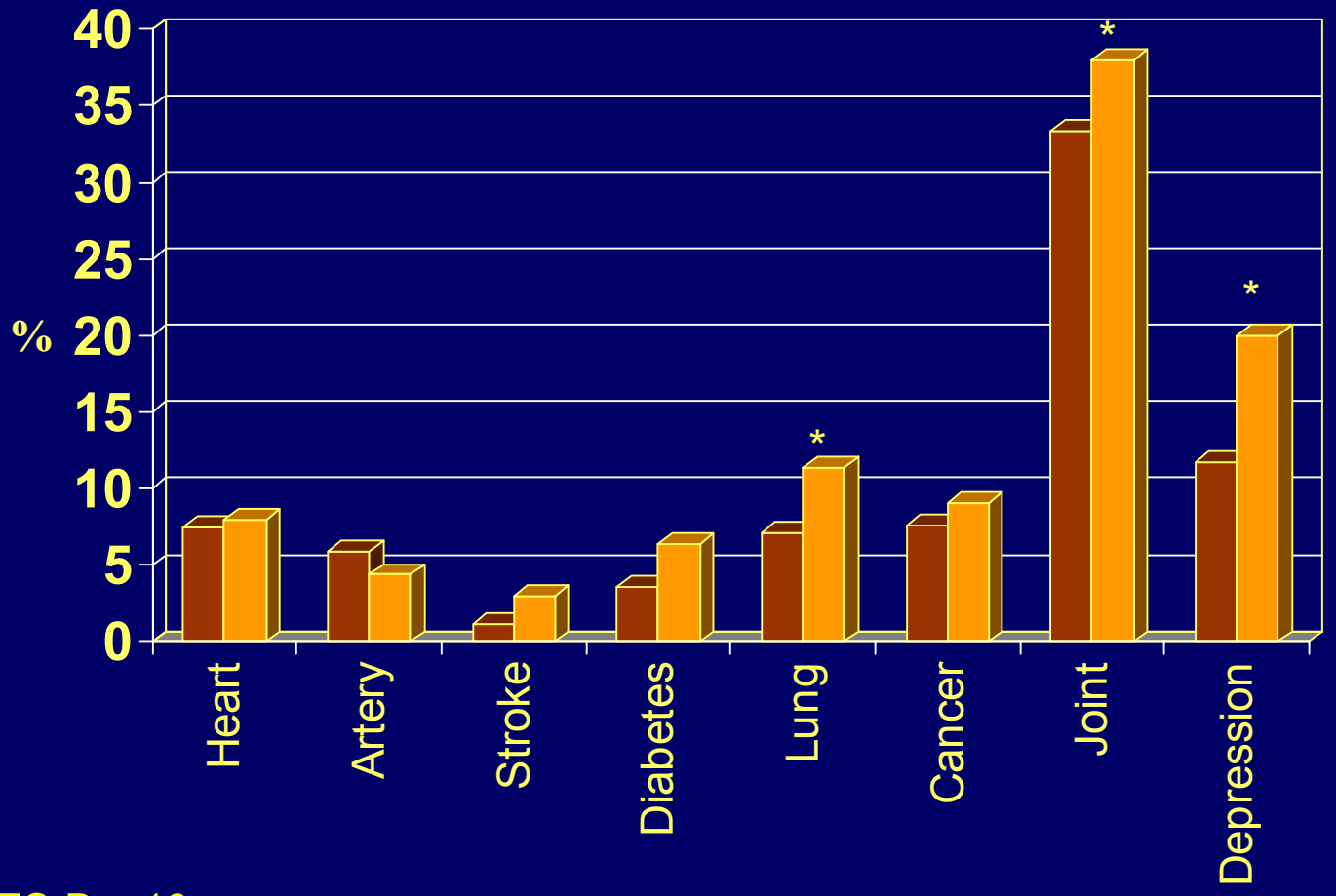
Ages 55-64 yrs: shift in % men with specific chronic diseases



ion: CES-D ≥ 16

< 0.05

Ages 55-64 yrs: shift in % women with specific chronic diseases



ion: CES-D ≥ 16

< 0.05

Compative analysis of mortality

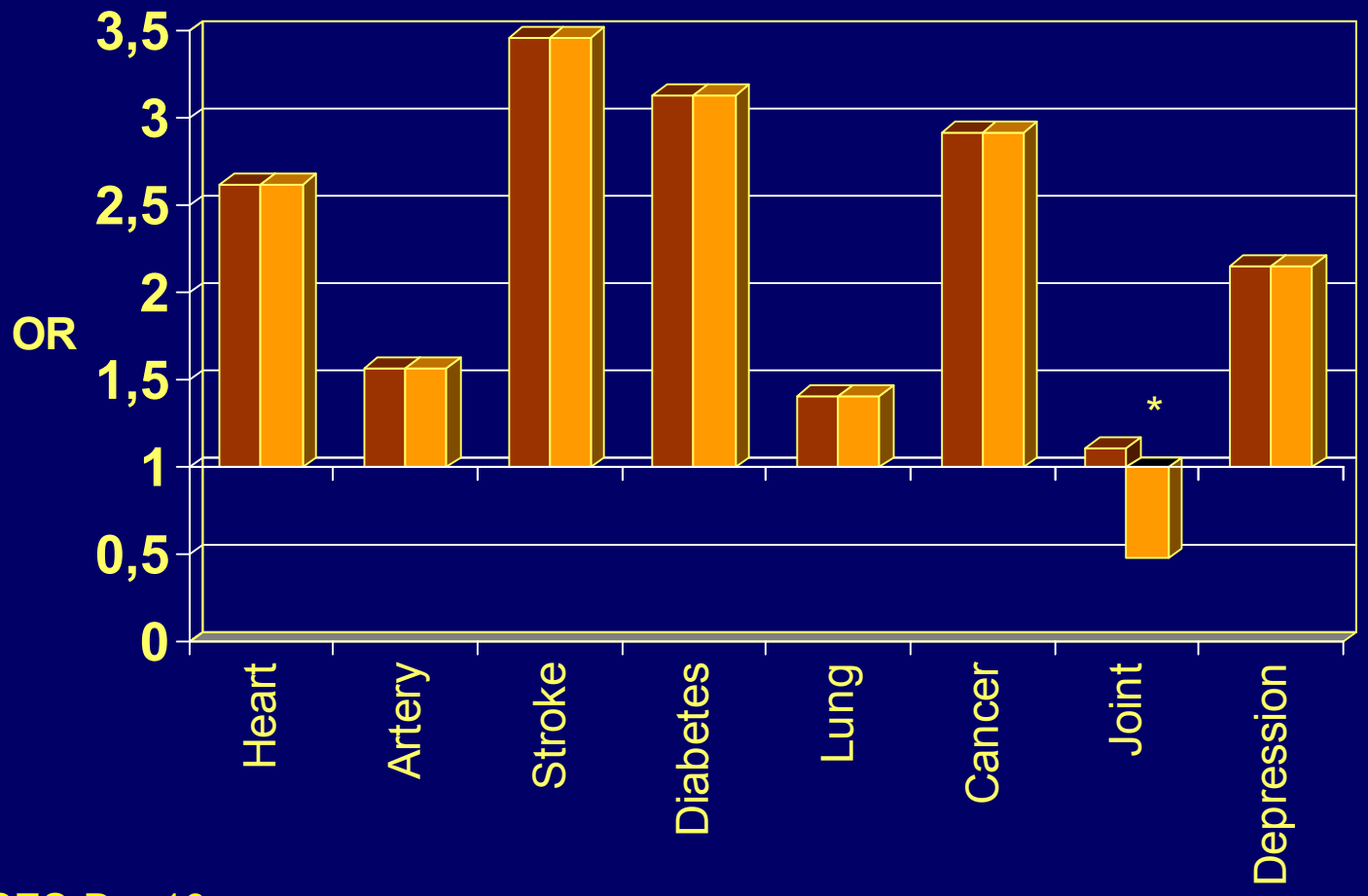
Logistic regression analysis -> OR

- Dummy for Cohort: 0 = 1992, 1 = 2002

  test of OR(Cohort) -> mortality
- Adjustment for age, sex
- Interaction Cohort*Condition one by one

  test of Interaction -> shift in fatality

Ages 55-64 yrs: shift in fatality of specific chronic diseases



ion: CES-D ≥ 16

< 0.05

Disability measure

Self-reports

no difficulty / difficulty / only with help / not able to:

Going up and down a stair case

Cutting one's toenails

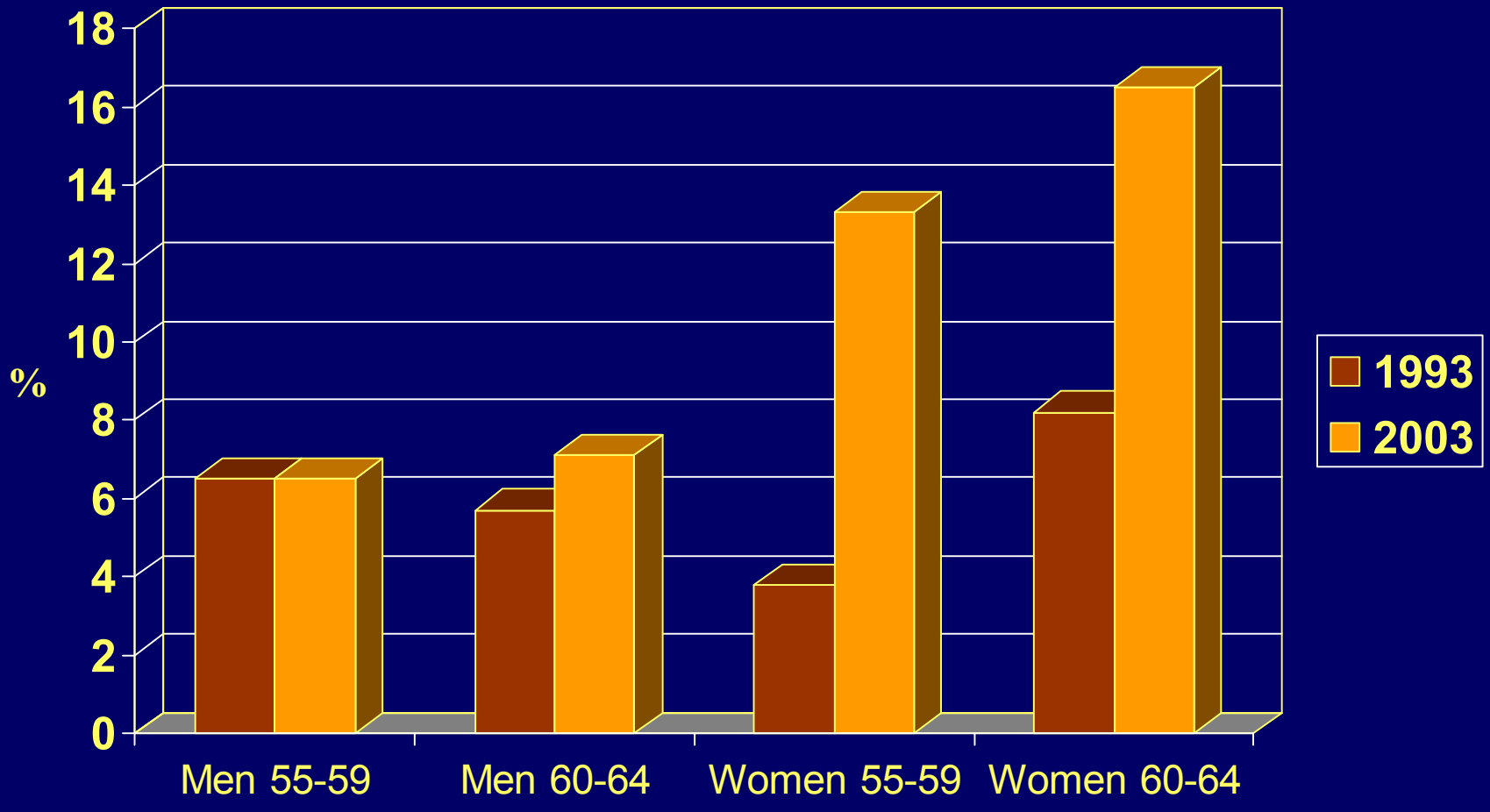
Using own or public transportation

Score: 0 (none) … 9 (maximum)

Mild disability: >= 1 and < 3

Severe disability: >= 3

Ages 55-64 yrs: shift in % persons with ‘severe’ disability



LASA

Compative analysis of disability

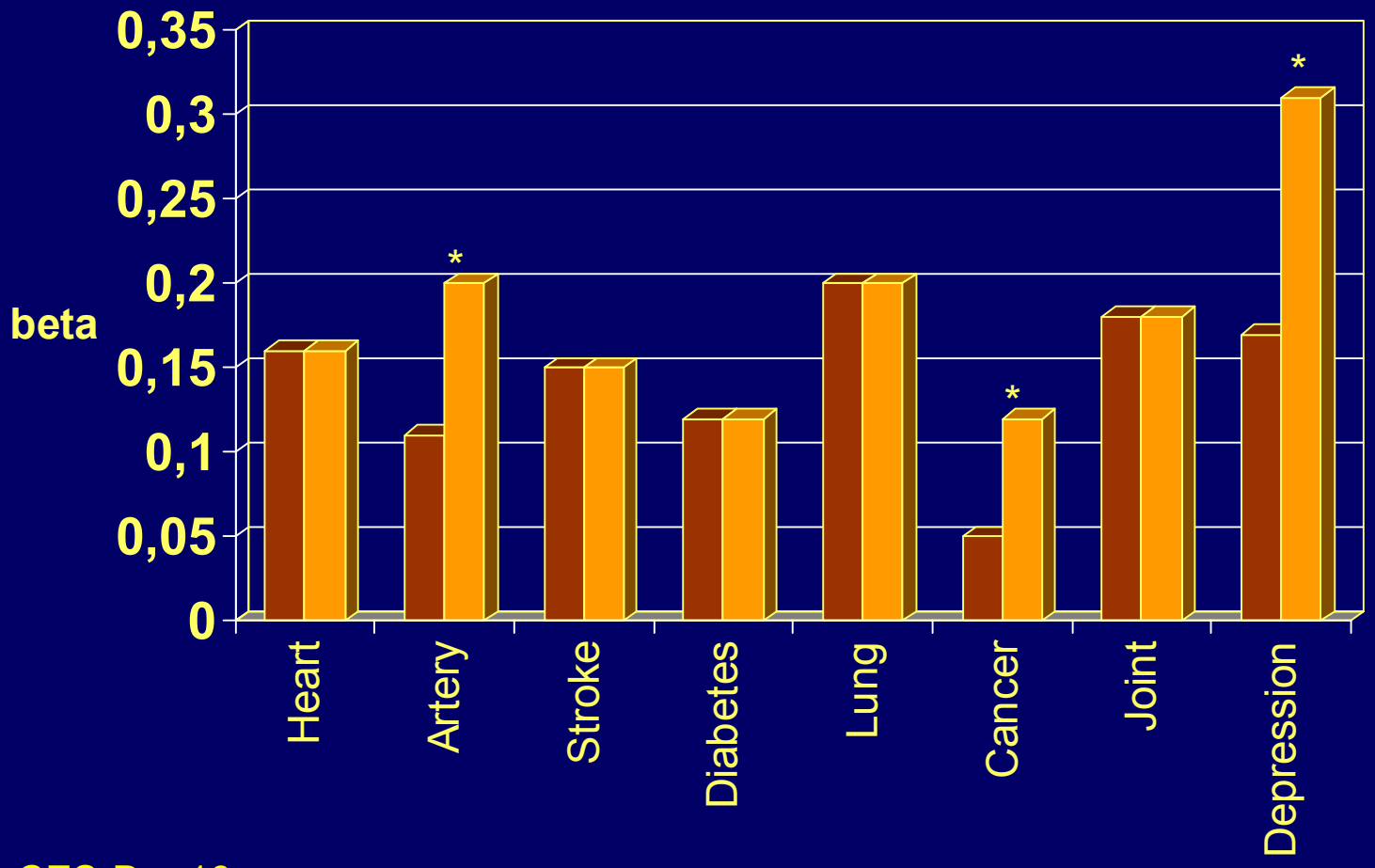
Linear regression analysis -> beta

- Dummy for Cohort: 0 = 1992, 1 = 2002

  test of beta(Cohort) -> disability
- Adjustment for age, sex, education, partner status
- Interaction Cohort*Condition one by one

  test of Interaction -> shift in associated disability

Ages 55-64 yrs: shift in disability associated with specific chronic diseases



ion: CES-D ≥ 16

< 0.05

Conclusion on shifts

- Decrease in mortality
- Increase in morbidity, in particular arthritis, diabetes (men), lung diseases (women), subthreshold depression (women)
- No change in fatality
- Increase in disability, mild more than severe
- Increase in disability associated with artery disease, cancer, subthreshold depression

Discussion

- 3-year mortality very low -> ‘healthy-cohort’ effect?
- Arthritis: highest prevalence
- Arthritis: ‘fatality’ decline ~ less or milder comorbidity (life style, earlier diagnosis other diseases)
- Associated disability: increase in some fatal diseases -> longer life with diseases, subjects recruited at mor severe stages
- Better disease management!