

**CENTRE OF COMPETENCE
BIOSCIENCES**

Impact of longevity and ageing

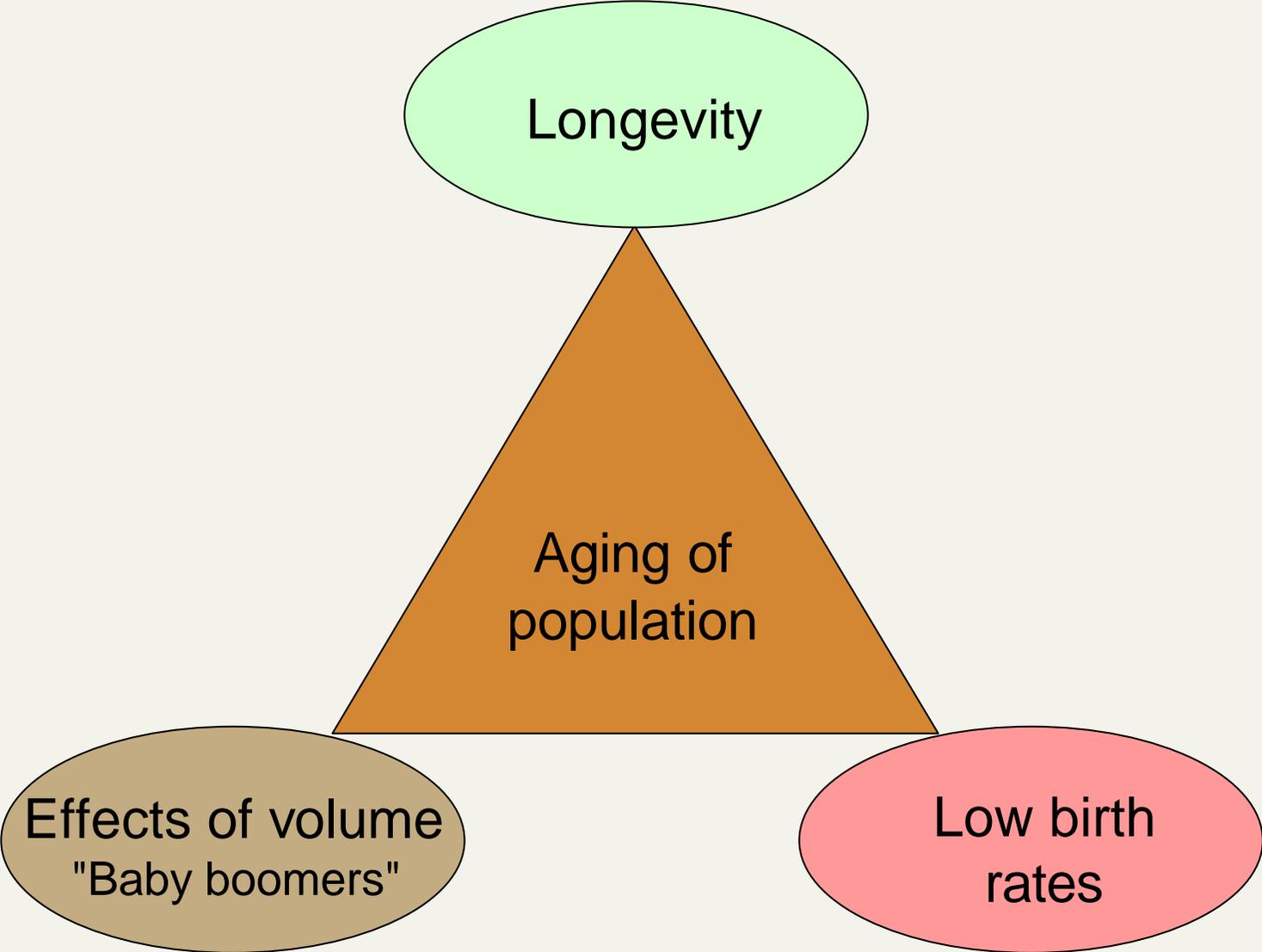
Compression or extension of morbidity and costs?

Dr. Jürgen Becher

**IAAHS Colloquium 2004
April 28 – 29, 2004, Dresden**

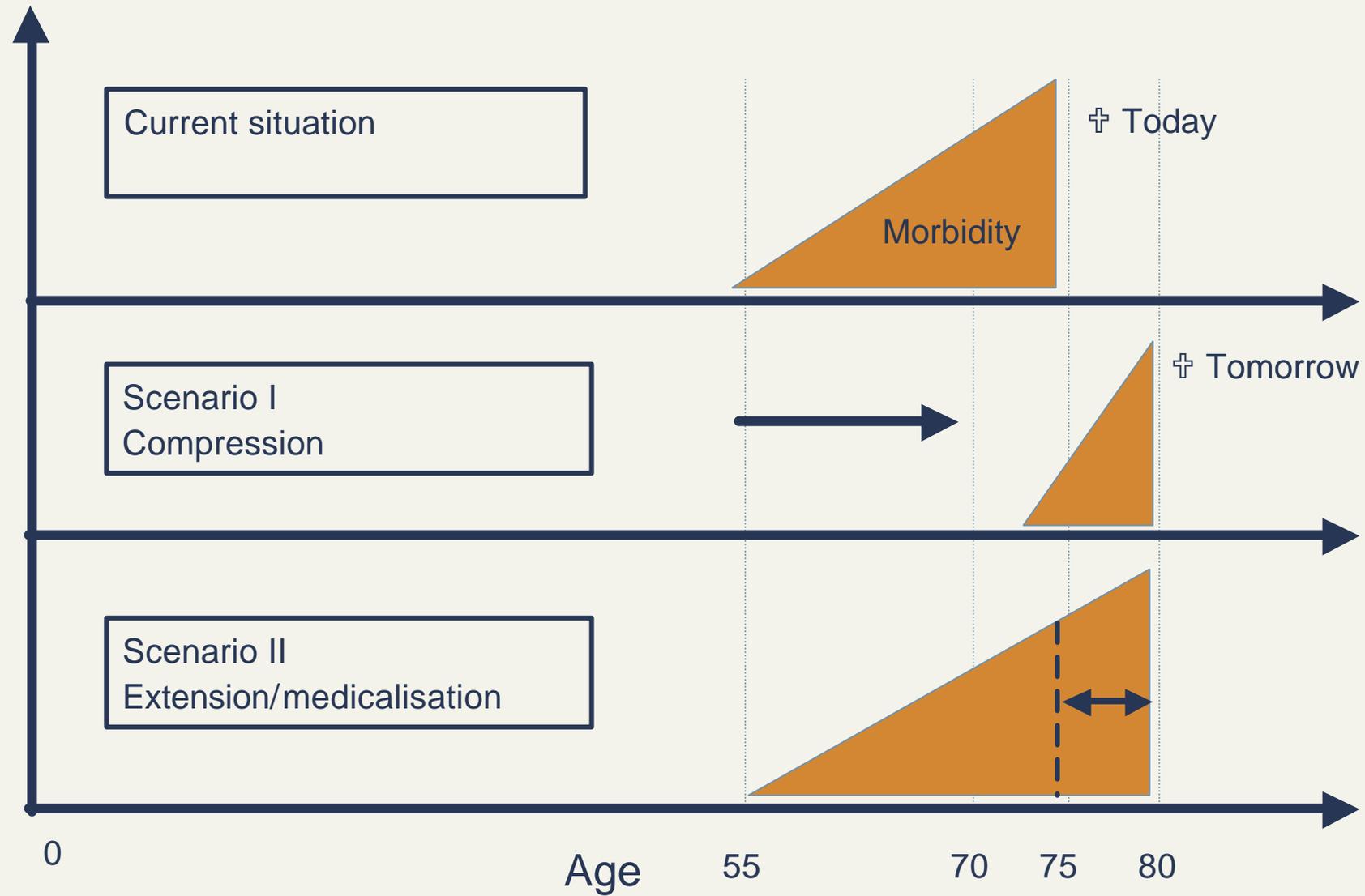


**Münchener Rück
Munich Re Group**



**Theory:
compression or extension of morbidity?**

The impact of longevity on morbidity



What kind of evidence is available?

How the information is presented to the public

Süddeutsche Zeitung, 21 January 2003, „Price of ageing“

„Increasing life expectancy could even disburden health insurance funds because only the last months before death are expensive“

Der Preis des Alters

Eine höhere Lebenserwartung könnte Krankenkassen sogar entlasten, denn nur die letzten Monate vor dem Tod sind teuer

Von Klaus Koch

Nichts ist sicher auf dieser Welt, außer Tod und Steuern.“ Als der Erfinder und Politiker Benjamin Franklin den Satz im Jahr 1789 prägte, ahnte er kaum, wie eng die Beziehung zwischen Tod und Steuern einmal werden würde. Weil Amerikaner wie Deutsche immer später sterben, prognostizieren Experten seit langem eine Explosion der Abgaben – insbesondere für die Krankenversicherung. Alte sind eben teuer, lautet das Klischee.

Alte Menschen wird es künftig noch weit mehr geben: Heute ist etwa ein Viertel der Deutschen über 60, in 30 Jahren dürfte es jeder Dritte sein. Auf 30 Prozent, so die Horrorprognose wirtschaftsnaher Experten, könnten die Krankenkassenbeiträge bis 2040 ansteigen. Gerade erst wurde der durchschnittliche Beitrag auf über 14 Prozent angehoben. Und Gesundheitsministerin Ulla Schmidt sucht nach Wegen, die Finanzierung der Krankenversicherung „zukunftsfest“ zu machen.

Die Frage aber, wie sich die steigende Lebenserwartung auf die Gesundheit der Bevölkerung (und damit auf die Beiträge) auswirkt, ist noch gar nicht beant-



Available evidence

Existing publications are often limited to a specific detail such as

- subjective health (Doblhammer 2001)
- severe disability (Jacobzone 2000)
- death-associated cost (Yang 2003).

Our aim:

A survey providing an overview from several perspectives

Munich Re survey

Aspects considered in the Munich Re survey

- Medication
- Out-patient benefits
- In-patient benefits
- Need for long-term care
- State of health
- Specific diseases
- Total health expenditure

Methods used in the Munich Re survey

- MEDLINE and internet research (Google and websites of specific institutions)

- Combined search terms from the categories
 - Age (e.g. ageing, old age)
 - Healthcare factors
(State of health, in-patient/outpatient services, medication, long-term care)
 - Use/prevalence (e.g. costs, use, visits, prevalence)

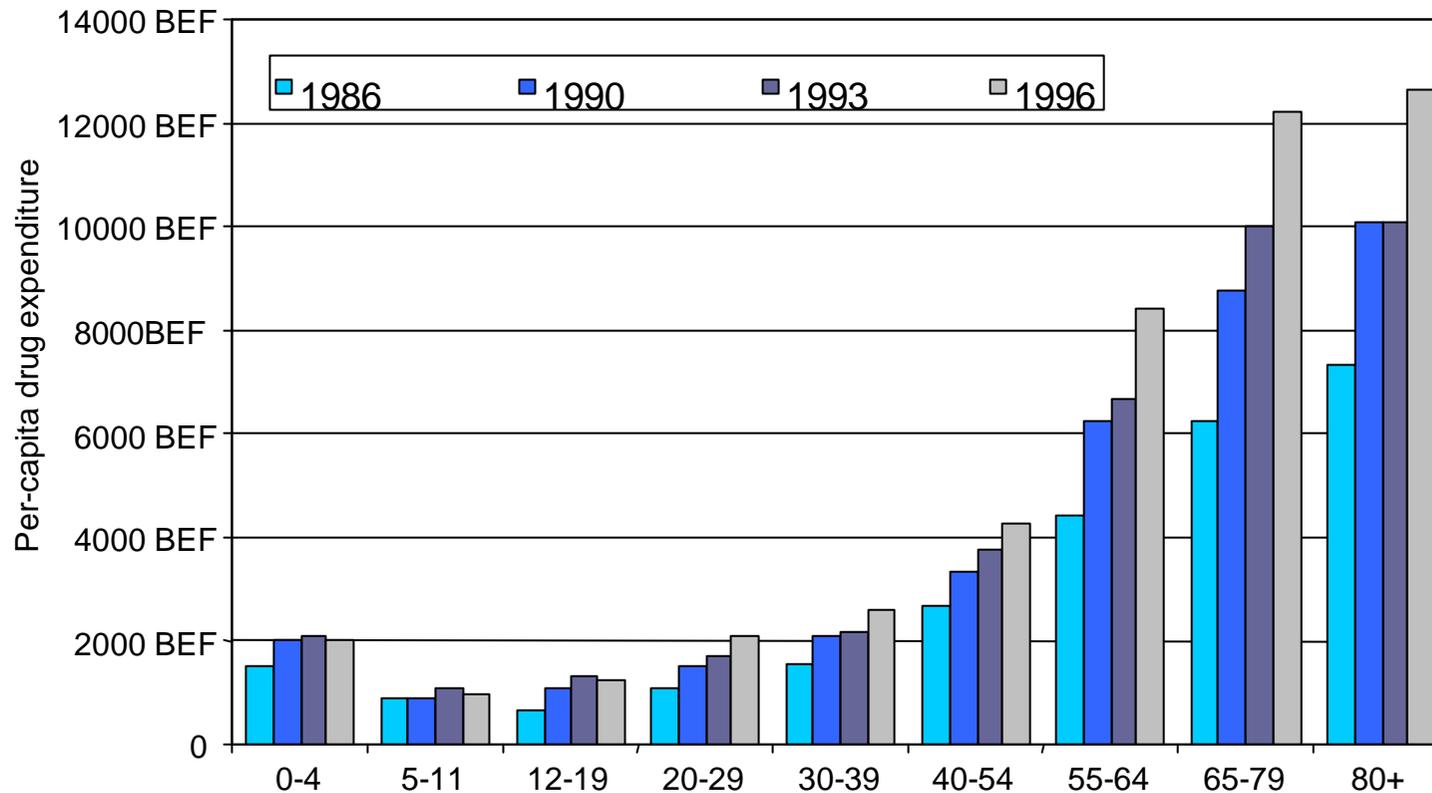
- 54 publications were included (1990 – 2003)

Results (in extracts)

Results – Medication

- Increasing number of prescriptions
- Seniors' per-capita expenditure shows highest rate of increase
- Disproportionate increase of high-cost cases
- Expensive newly approved drugs mainly for seniors

Per-capita drug expenditure (Belgium)



Source: Van Tielen 1998

Results – Outpatient benefits

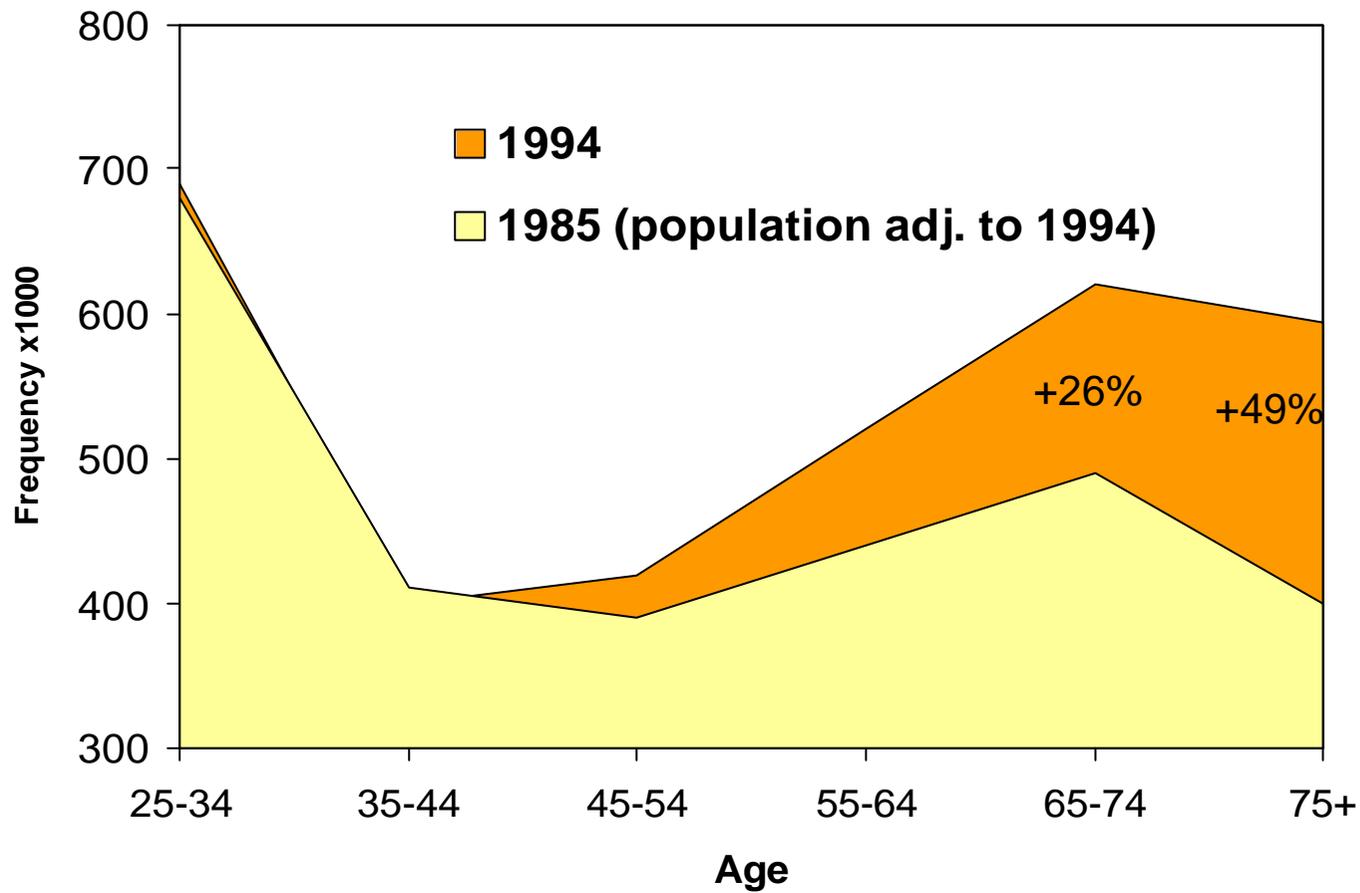
Seniors (over 65) show a considerable increase in all areas (data from the USA)

- Visits to the doctor (+30%, 1990-98)
- Home visits (+300%, 1990-98)
- Outpatient surgery (+100%, 1980-89)
- Lab tests (+57%, 1980-89)

Results – In-patient treatment

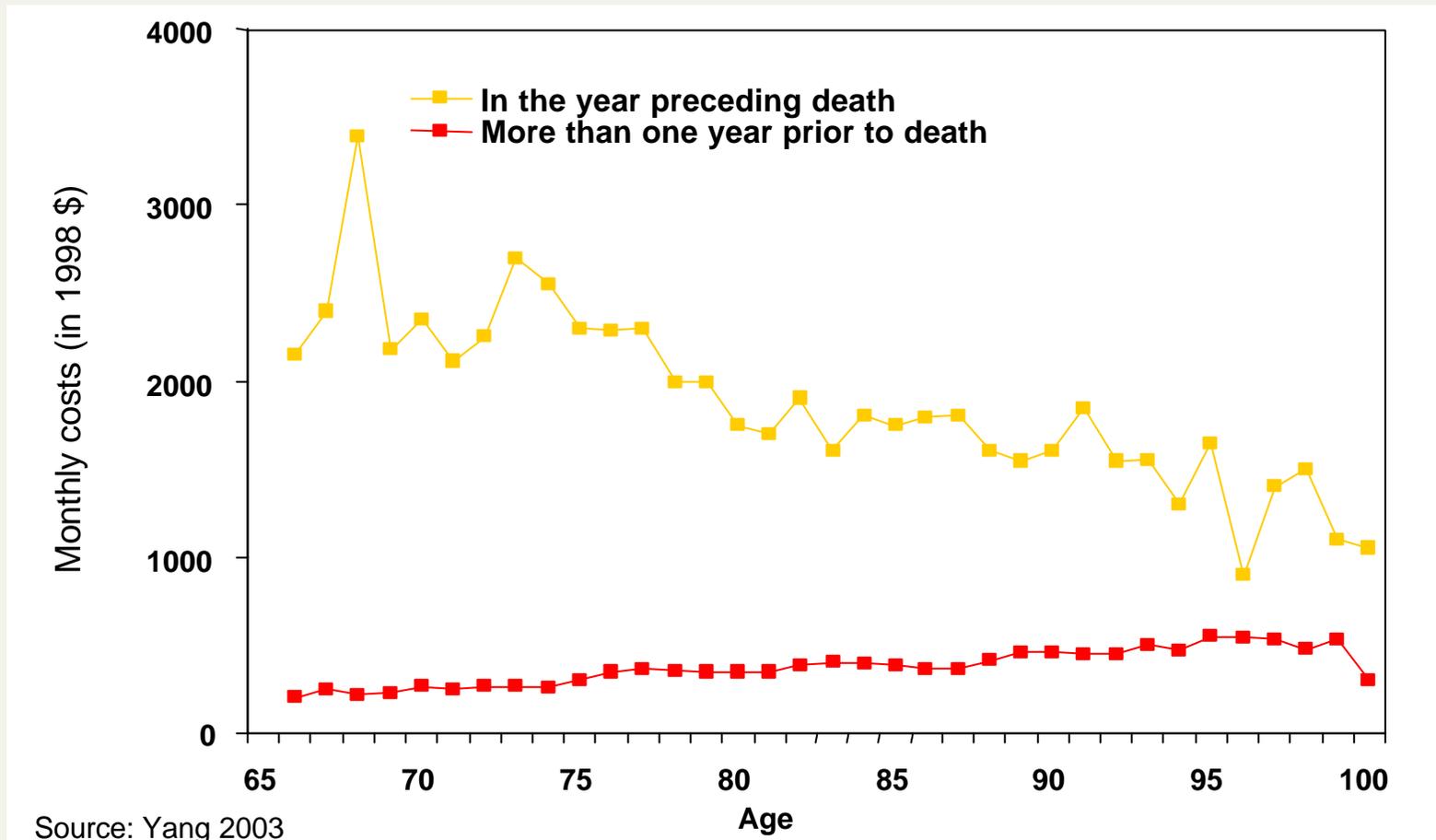
- Increase of per-capita hospital admissions
- Longer duration of stay (+65% compared to younger ages)
- Seniors' per-capita costs
 - Much higher than for younger age groups,
 - Showing a disproportionately high increase
 - 40% to 64% readmissions (“revolving door” effect)
- Possible attenuating effects
 - In-patient treatment costs in the year of death decrease with increasing patient age (over 70-75y.)
 - Old seniors cause lower costs for the same disease

Frequency of hospital admissions (Spain)



Source: Gornemann 2002

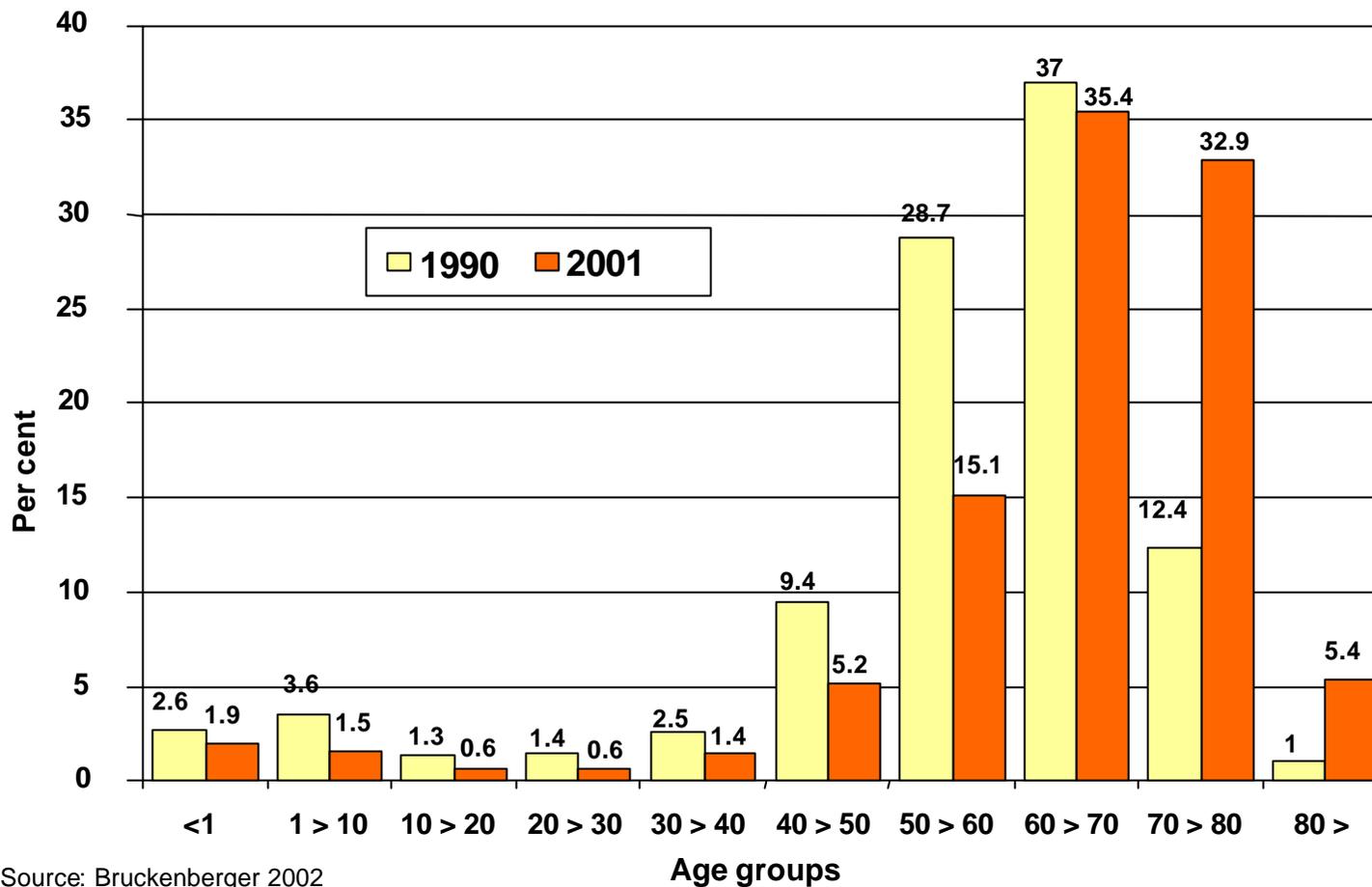
Monthly in-patient treatment costs (USA, Medicare)



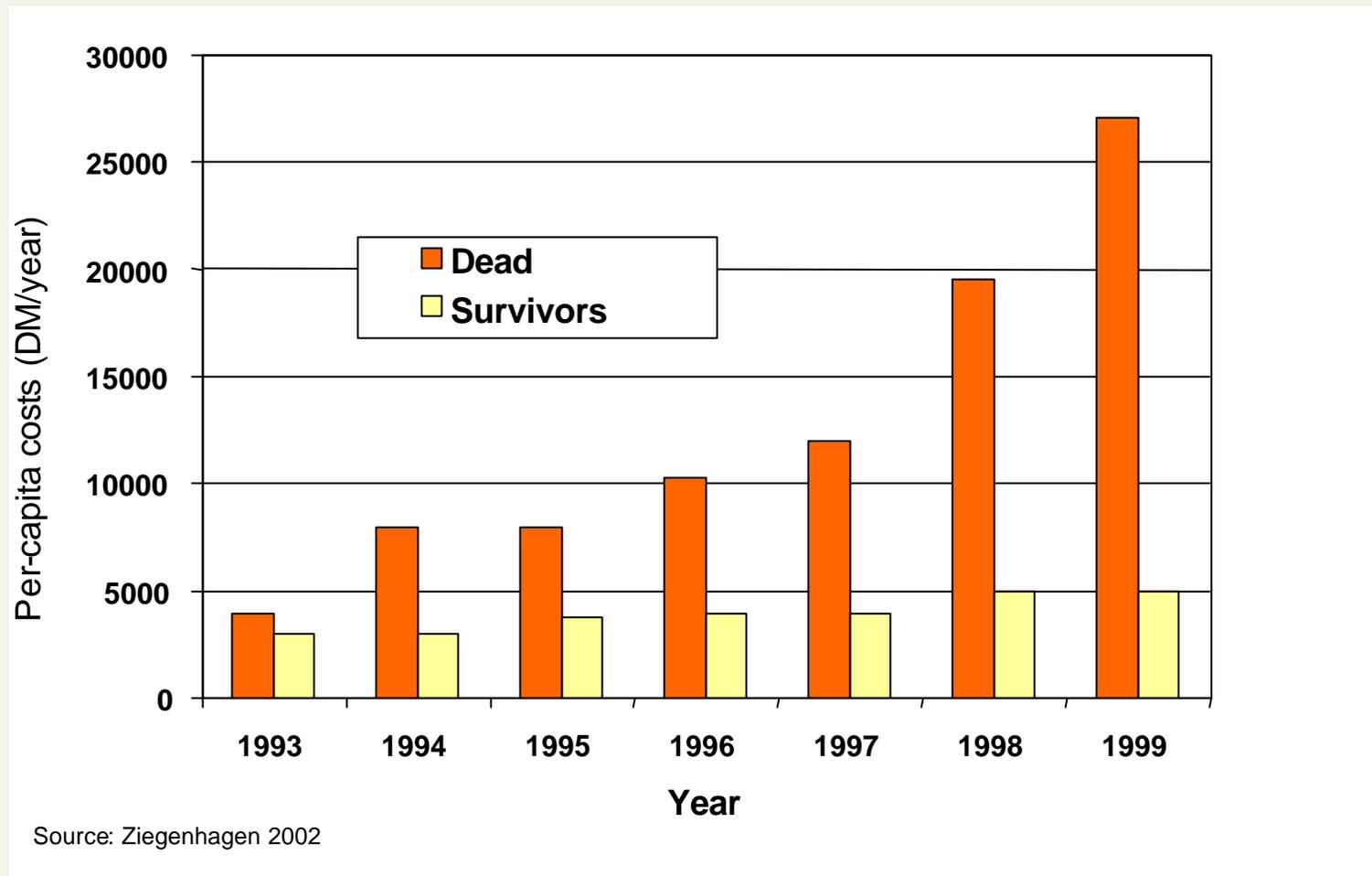
Source: Yang 2003

**Costs for patients close to death :
development over time**

Age distribution of heart surgery 1990-2001 (D)

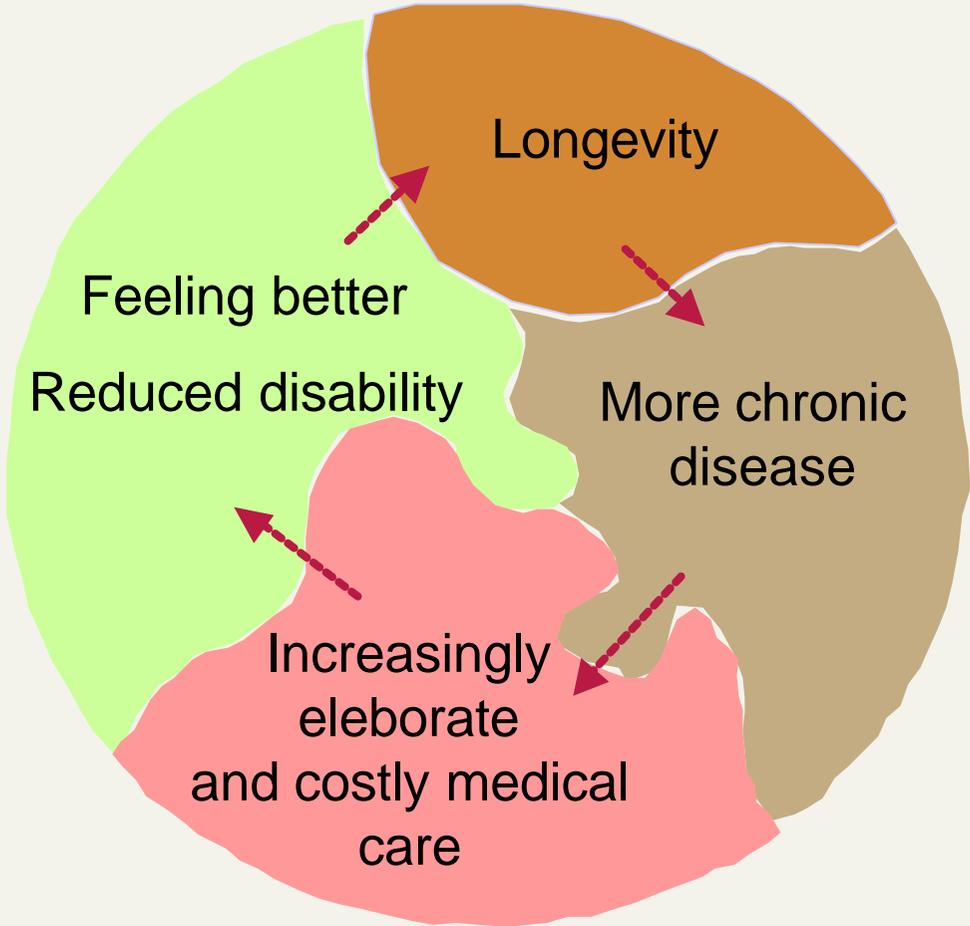


Per-capita in-patient costs by survival status (DKV, full-coverage plan, age group 75-79 years in 1999)



Conclusions

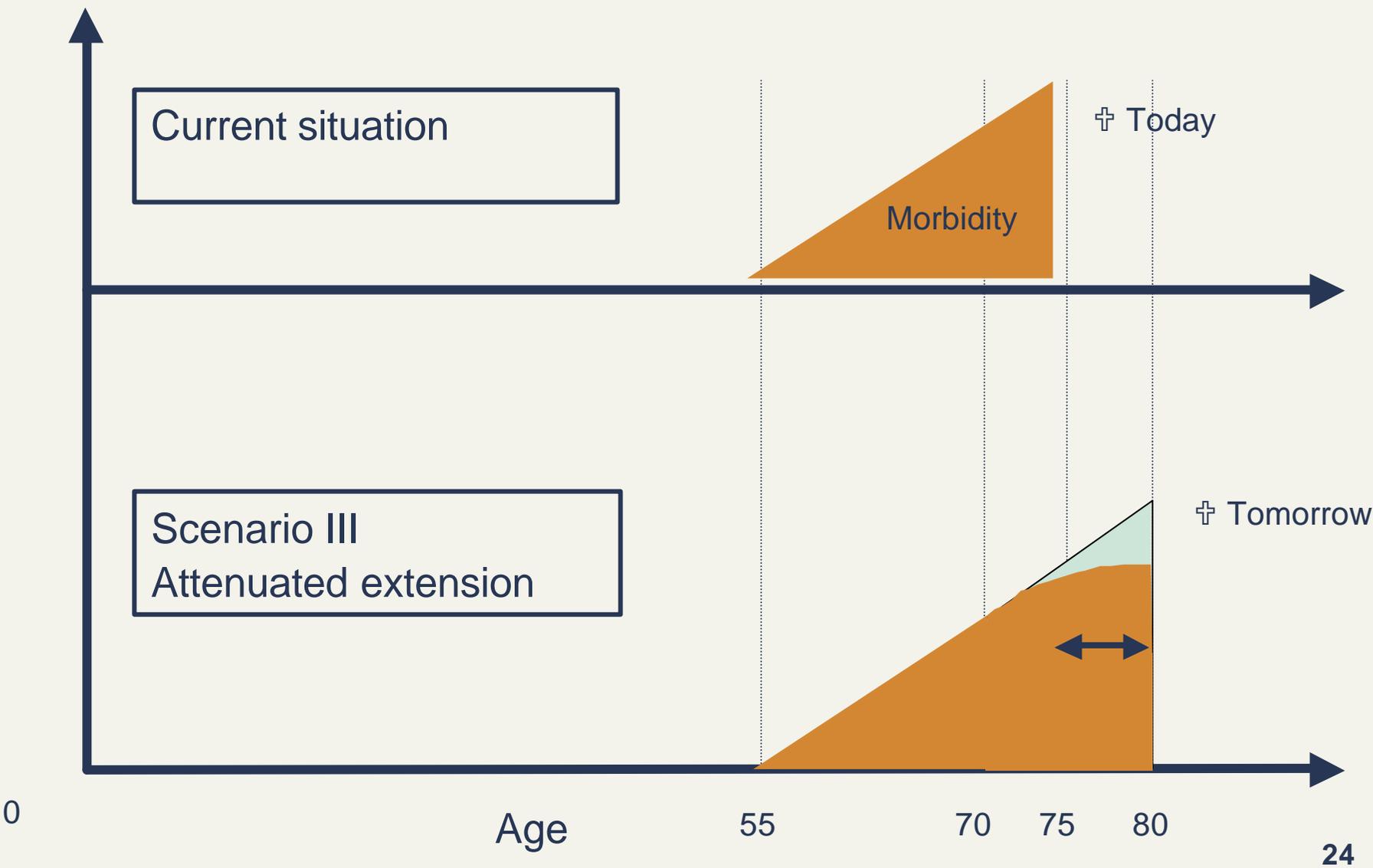
Missing links



Is there compression?

- Only with regard to some single aspects
 - Subjective health
 - Disability in younger seniors
 - Near death costs (but long term effect doubtful)
- Higher impact on quality of life
- Limited influence on costs

The impact of longevity on morbidity/costs



Medicine and quality of life in old age

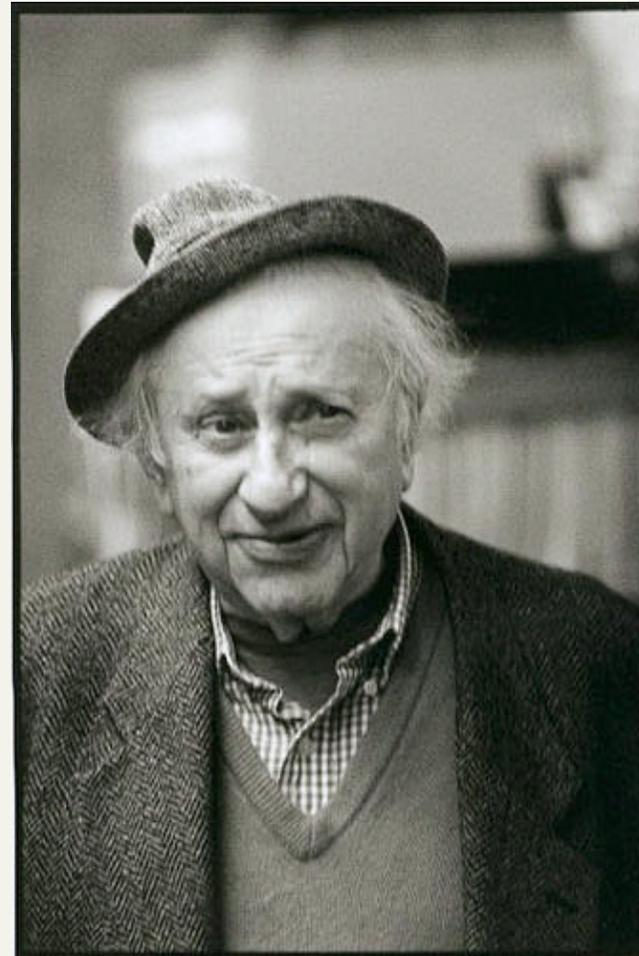
Studs Terkel

(*May 16, 1912)

Famous American journalist
and author (Pulitzer Prize
1985)

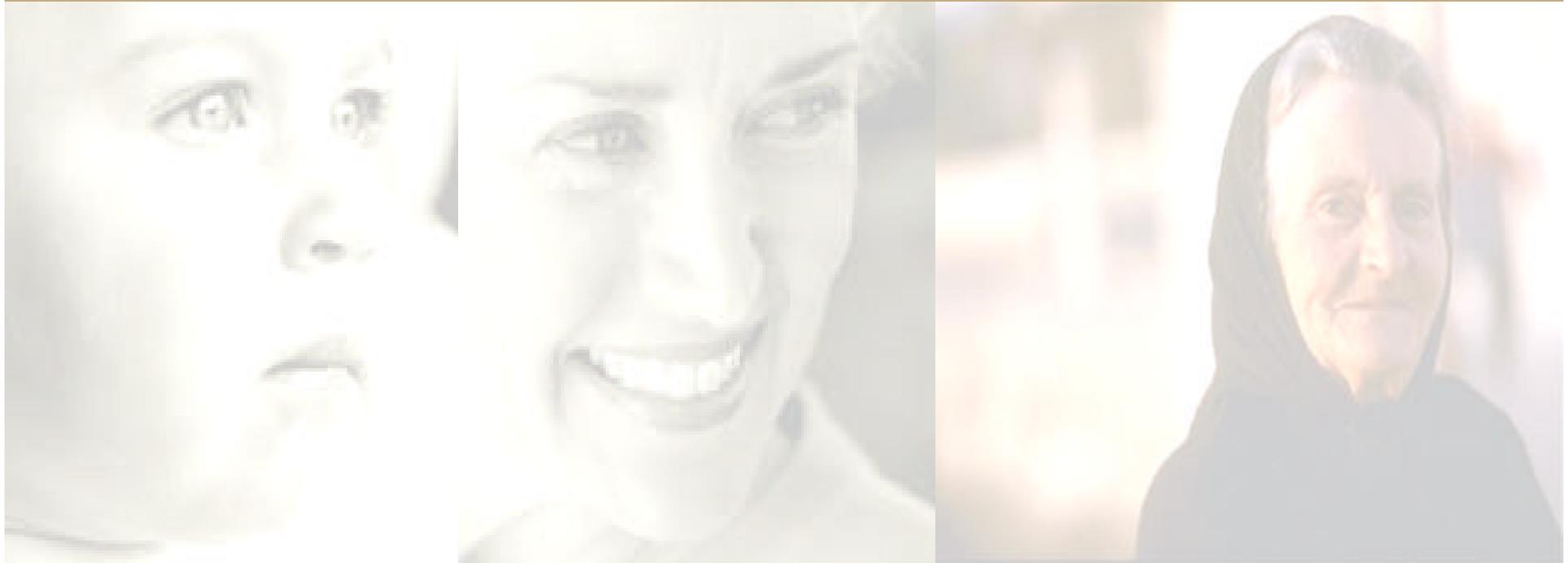
1996 5x coronary bypass at
age 84 saved his life

Today still busy (Last book
appeared in 2001)



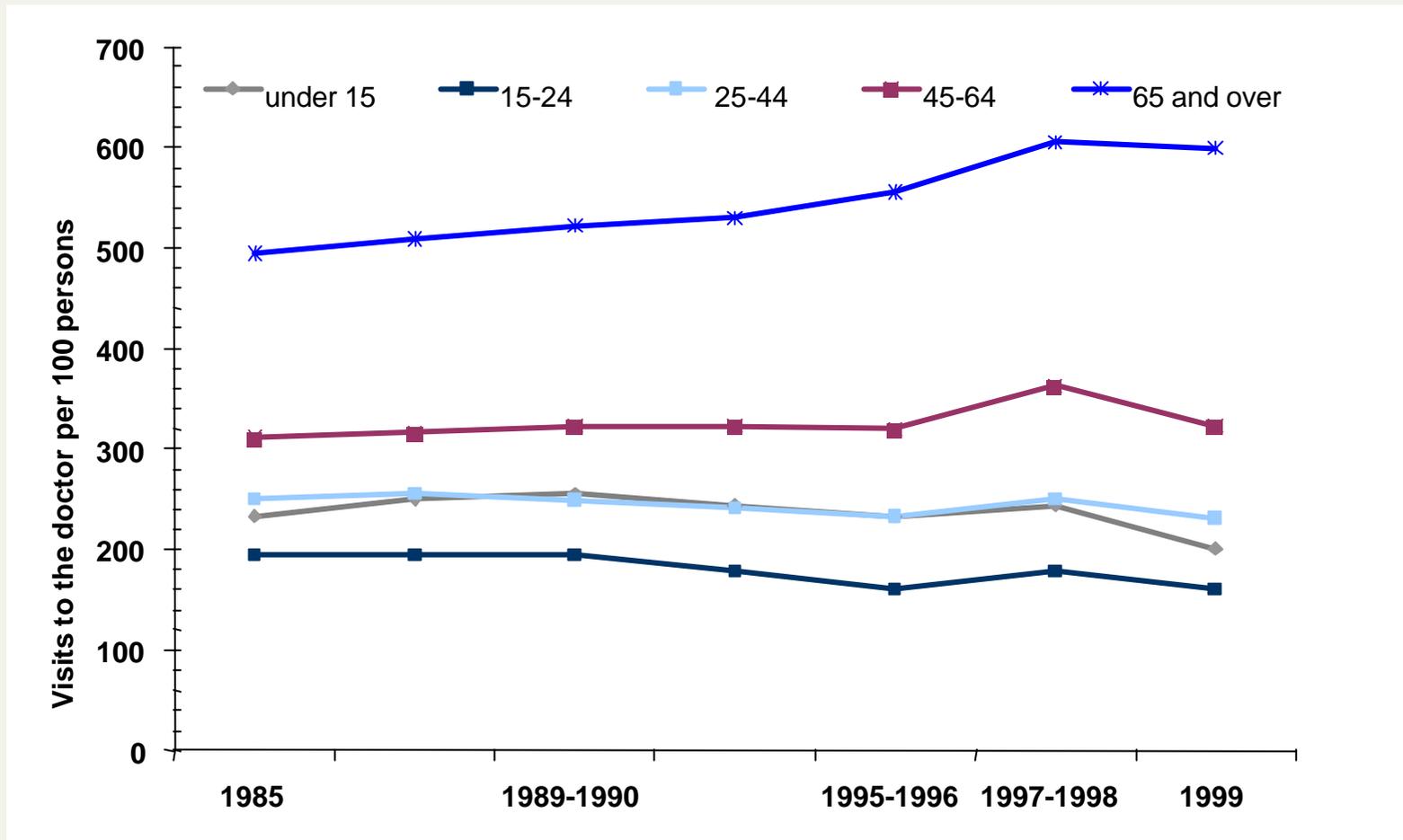
Thank you for your interest

Dr. Jürgen Becher



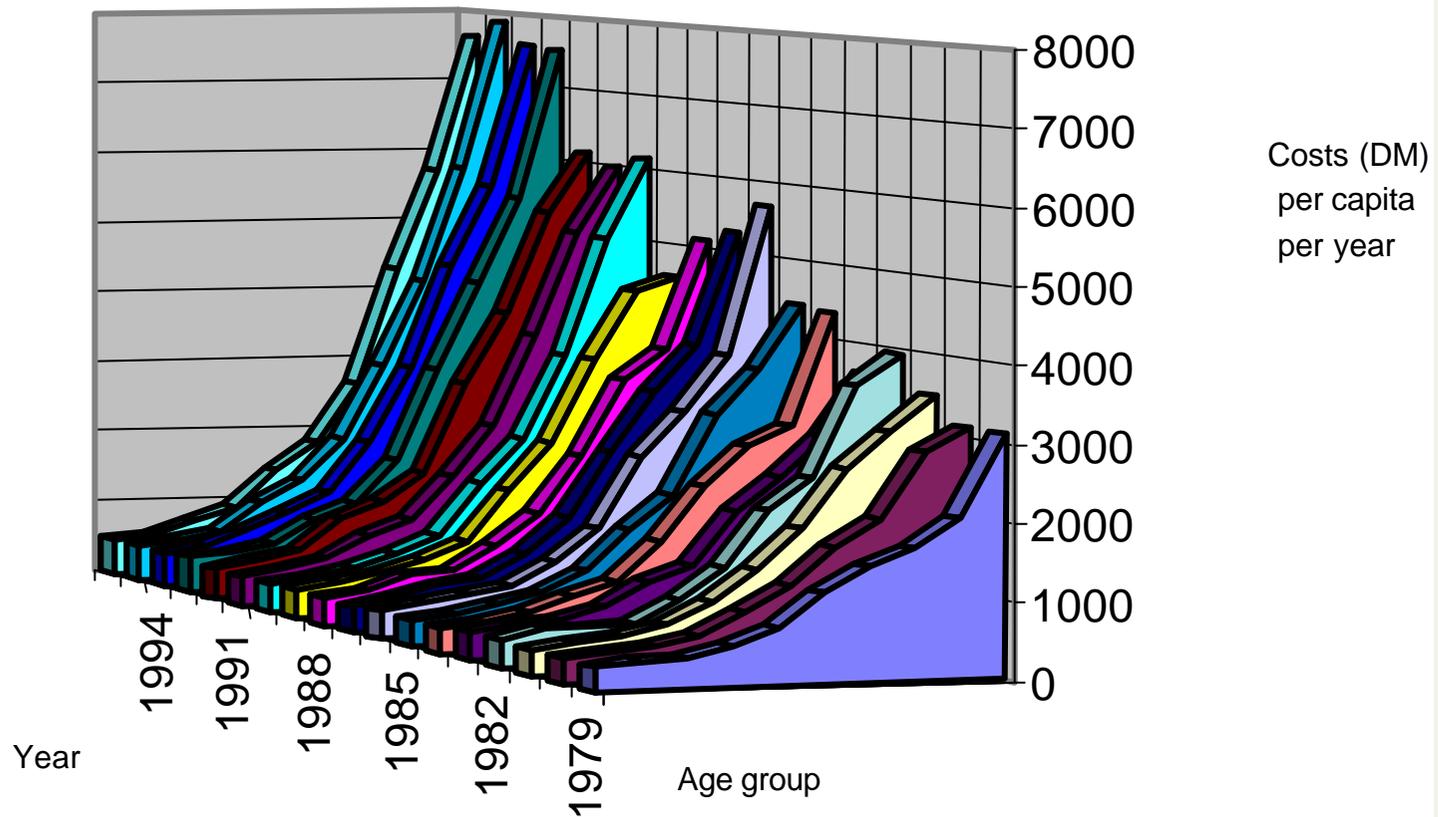
Münchener Rück
Munich Re Group

Visits to the doctor by age (USA)



Source: Cherry 2001

In-patient costs for male patients (Germany, private health insurance)



Source: Buchner 2002

Age distribution of health expenditure over time (USA 1953-1987)

