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Study of Insurance Economics

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Conference on**

“Chronic Conditions and Insurance”
Vienna, 6 – 7 November 2006

&

**4th Congress of the European Union
Geriatric Medicine Society**

**Special session on
“The Financing of the Longevity Risks”**
Geneva, 24 August 2006

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Layout & Distribution: Valéria Kozakova

Long Term Treatment for Chronic Disease

Fred Paccaud

Content

- **Epidemiology of age-related diseases**
- **Main issues for public health**
- **Conclusions**

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Epidemiology (i)

- **Incidence of chronic and degenerative diseases tends to strongly increase with age**
- **In terms of public health, the most relevant conditions are :**
 - **Cardiovascular disease**
 - **Cancer**
 - **Arthrosis**
 - **Neuropsychiatric conditions**

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Epidemiology (ii)

- **The most relevant diseases are :**
 - **Cardiovascular disease**
 - **Acute myocardial infraction**
 - **Heart failure**
 - **Cerebrovascular disease**
 - **Cancer**
 - **Breast**
 - **Lung**
 - **Colorectal cancer**
 - **(Prostate)**
 - **Arthrosis**
 - **Backache**
 - **Lower limb arthrosis**
 - **Neuropsychiatric conditions**
 - **Alzheimer and other cognitive disorders**
 - **Depression**
 - **Parkinson and other movement disorders**

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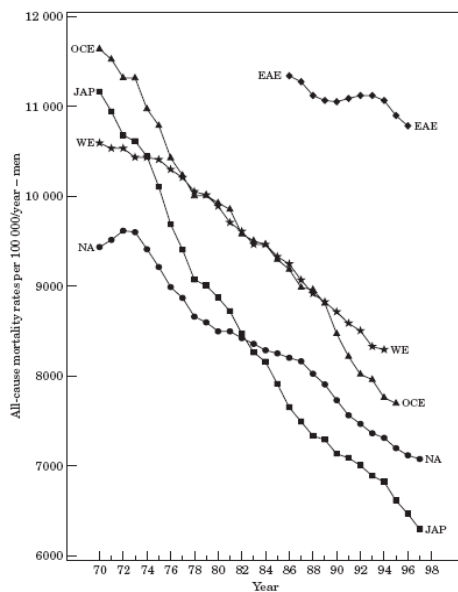
Epidemiology (iii)

- Improved vital prognosis of severe disease (like acute myocardial infarction, cancer) implies more people with chronic sequels (eg, cardiac insufficiency) and more surveillance (e.g., remission of cancer)**

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Trends in mortality between 75 and 84 yrs, 1975-1996

EAE= Eastern Europe
JAP= Japan
OCE=Oceania
WE=Western Europe NA=North America
Eur Heart J 2002;23:384

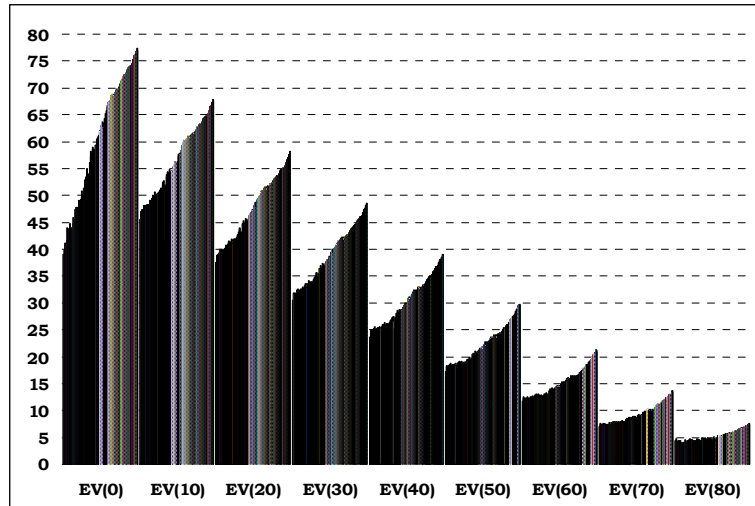
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Life expectancy

Switzerland, 1876-2001 [OFS Tableau F_06_04]



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In terms of public health, two major questions :

- **What are the causes of the improved health and the increased longevity ?**
- **What sort of rearrangement of resources is needed ?**

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1. Causes of improved health/increased longevity

- **Three large groups of causes (not mutually exclusive) can be investigated**
 - **Improvement of the social environment of aged people**
 - Housing, diet, income, ...
 - **Improvement of medical care**
 - ... including the access to medical care
 - **Improvement of the social environment of aged people when they were younger**
 - Working environment, diet

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1. Causes of improved health/increased longevity (ii)

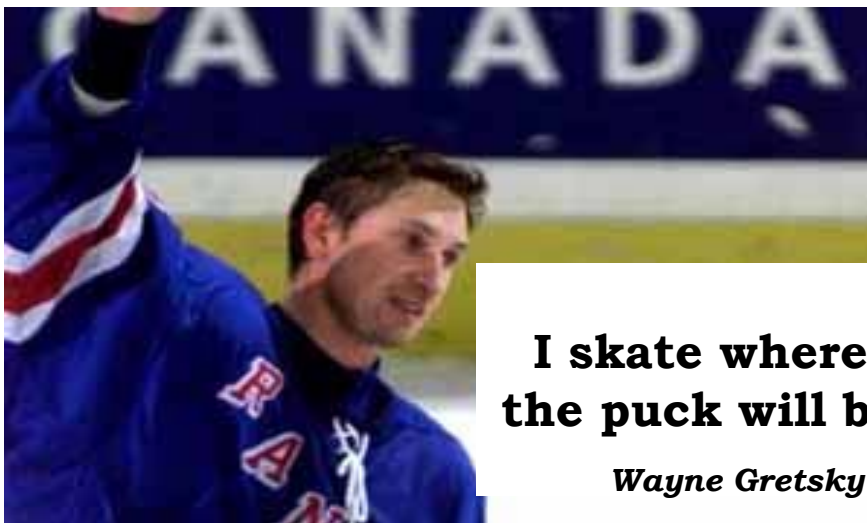
- **Getting answers is important to make sound decision to arbitrate between social and medical expenses in the future**

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2. Rearrangement of ressources



**I skate where
the puck will be**

Wayne Gretsky

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Rearrangement of ressources

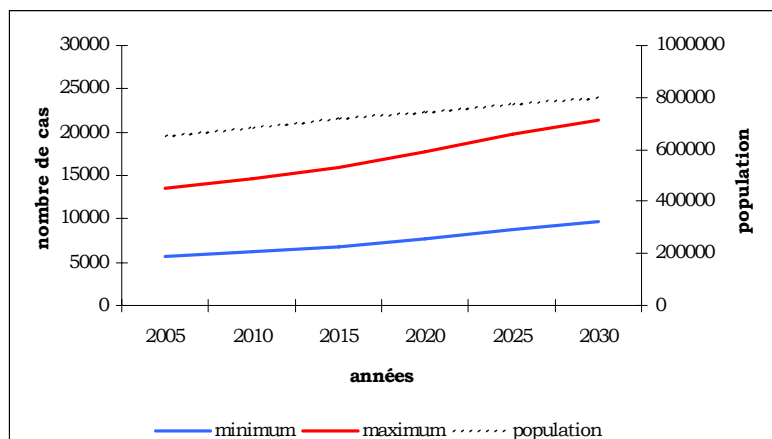
- **Ageing population requires :**
 - **More long term care**
 - **More acute care**
 - **More preventive care**

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Projected prevalence of heart failure Vaud, low and high estimates, 2003-2030



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More long term care

- **Development of technologies, e.g., prosthesis (mechanical, metabolic, ...)**
 - **If successes remain scarce, the problem of transplantation will need to be reconsidered in the future (including financial incentives for post mortem donors)**

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Technical and cultural change

- **Euphoria**
 - **possible medicine produces major breakthroughs in the field of chronic diseases**
 - **confidence in technological contribution to solve medical and social problems**
 - **focus on high tech cures rather than on care**
 - **information systems applied in quality assurance, drug monitoring, patient compliance**
- **Scepticism**
 - **likely if failure of medical care to solve substantial problems**
 - **general mistrust of technology, public concern about health hazards and environmental issues**
 - **medical practice highly defensive and conservative**
 - **focus on empathy and behavioural medicine**
 - **“natural” remedies increasingly popular because of their supposed safety**

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More long term care

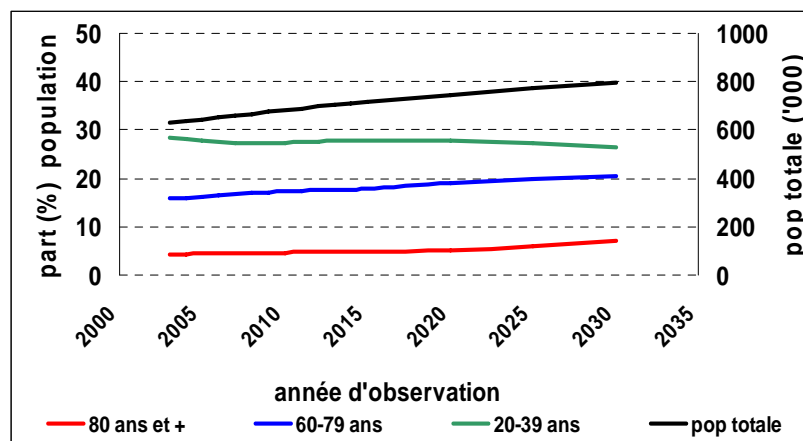
- **Development of technologies**
- **The main issue will be the availability of health workforce**
 - **The major problem in developed countries is the decline in the number of young adults**

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Evolution de la population vaudoise 2003-2030



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Working lifespan strategies WHR 2006



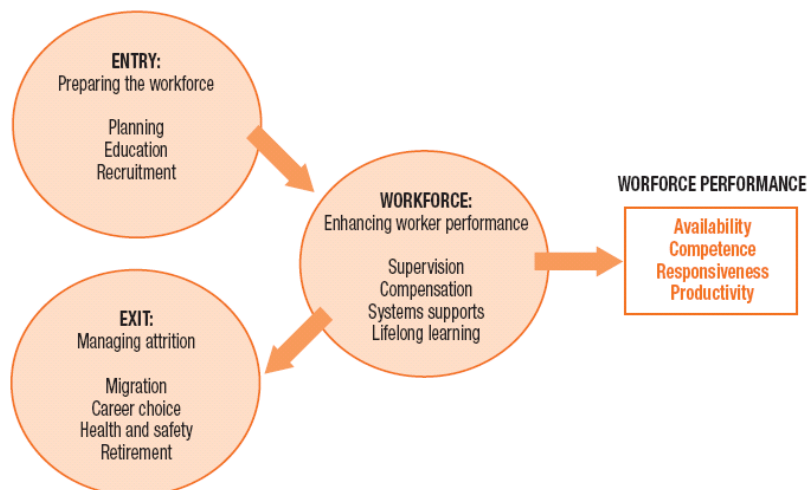
■ 59 mio health workers worldwide

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Working lifespan strategies WHR 2006



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More long term care

- **Offsetting the local shortage of health workforce can be addressed through a limited number of strategies:**
 - **To increase the productivity of health care services (i.e., to decrease the demand for health workforce);**
 - **To attract health workforce from countries enjoying a demographic surplus and short of jobs;**
 - **To increase the age of retirement to increase the size of the health workforce;**
 - **To turn to « informal carers », i.e., non professional persons from the close social environment;**
 - **To outsource health care for chronic disease to countries with abundant health workforce**

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About outsourcing of care

- **Health market (public or private) is likely to be dominated by payers (and not by professionals)**
- **Payers are likely to develop strong links with providers and other sectors of health care (« megacorporate health care »)**
- **Internationalisation is a key feature (health services are directly concerned by the WTO negotiations)**

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Rearrangement of resources

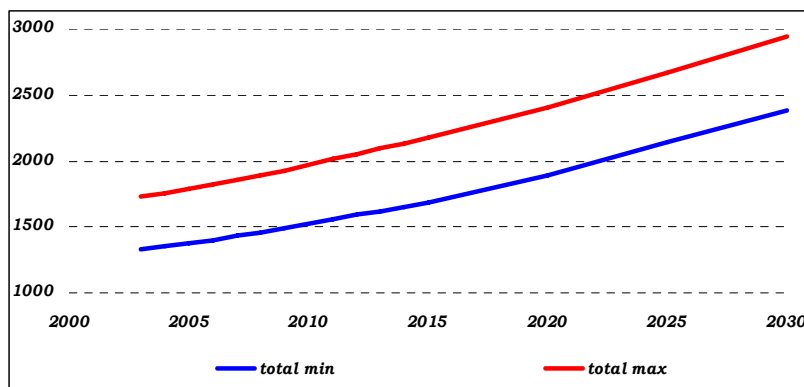
- **An ageing population requires :**
 - **More long term care**
 - **More acute care**
 - **More preventive care**

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Projected annual number of acute myocardial infarction Vaud, low and high estimates, 2003-2030

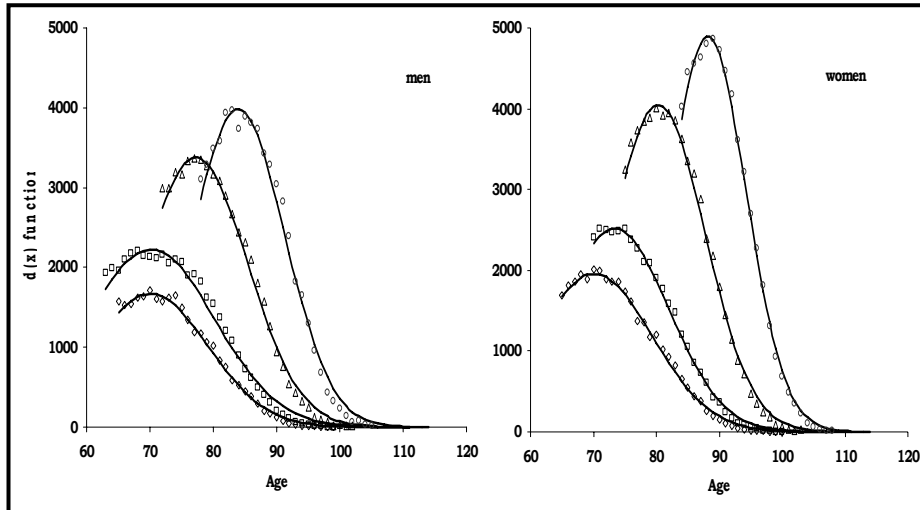


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Distribution of age at death, by gender. Switzerland, 4 periods
(from left to right: 1876-80, 1906-10, 1956-60 et 2001-2)



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More acute care



Rubens: Seneca's death, 1611-5

- **Development of health care for end of life situations**

... including aid for suicide ?

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Rearrangement of resources

- **An ageing population requires :**
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 - **More preventive care**

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More preventive care

- **Systematic screening (= secondary prevention)**
 - **Degenerative diseases are ideal for early diagnosis (long incubation period)**
 - **Many proposals are currently developed, more will come**
 - **A growing problem is the upper limit of age for screening**
 - **Careful evaluation is needed to avoid huge waste of resources with inadequate strategies**

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More preventive care

- **Primary prevention**
 - **The leading causes of death (e.g., ischemic heart disease, lung cancer) have well defined risk factors**
 - **A number of preventive interventions are effective in the late part of life**
 - **Several factors have to be addressed through lifelong strategies**

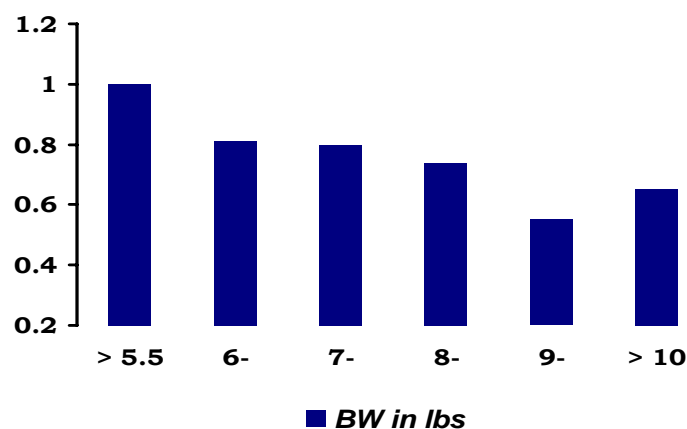
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Cardiovascular mortality (relative risk) as a function of birthweight (in pounds)

Hertfordshire, men (BMJ 1993;307:1519)



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More preventive care

- **Primary prevention**
 - **Careful evaluation is needed to avoid huge waste of resources with inadequate strategies**

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Conclusions

- **Most relevant conditions are :**
 - **Cardiovascular disease**
 - **Cancer**
 - **Arthrosis**
 - **Neuropsychiatric conditions**
- **More long term care**
- **More acute care**
- **More preventive care**

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