

*Assessing an indicator of
“Healthy Working Life Expectancy”
for France using a longitudinal survey*

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The Project

Previous study

Review and assess the existing surveys and data on health and employment in 10 European countries in order to get comparable sources of data

results : Only a few comparable indicators (self-reported health, employment status,...)

New study

Calculation of a **Healthy Working Life Expectancy** in European countries from European Household Panel.

First step

Preliminary work on French data from Survey on Health Care and Health Insurance (IRDES)



Healthy Working Life Expectancy

- ✓ 4 States: combining working and health dimensions
 - Employment state : working *vs* non working
 - Health status : healthy *vs* unhealthy
- ✓ Total Life Expectancy =
LE healthy & working + LE healthy & non working
+ LE unhealthy & working + LE unhealthy & non working
- ✓ Calculation with IMaCh software 0.98 (Brouard, Lièvre)

Context

Ageing population

- The populations of industrialised countries, and European countries in particular, are getting older
- Causes an imbalance between generations

A new Life Cycle

- In order to ensure the equilibrium of the Pay-As-You-Go retirement system, European countries have essentially increased retirement age or contribution period
- Pathways during activity life and from working life to retirement is changing (unemployment, disability, ...).

Links between health status and labour force participation

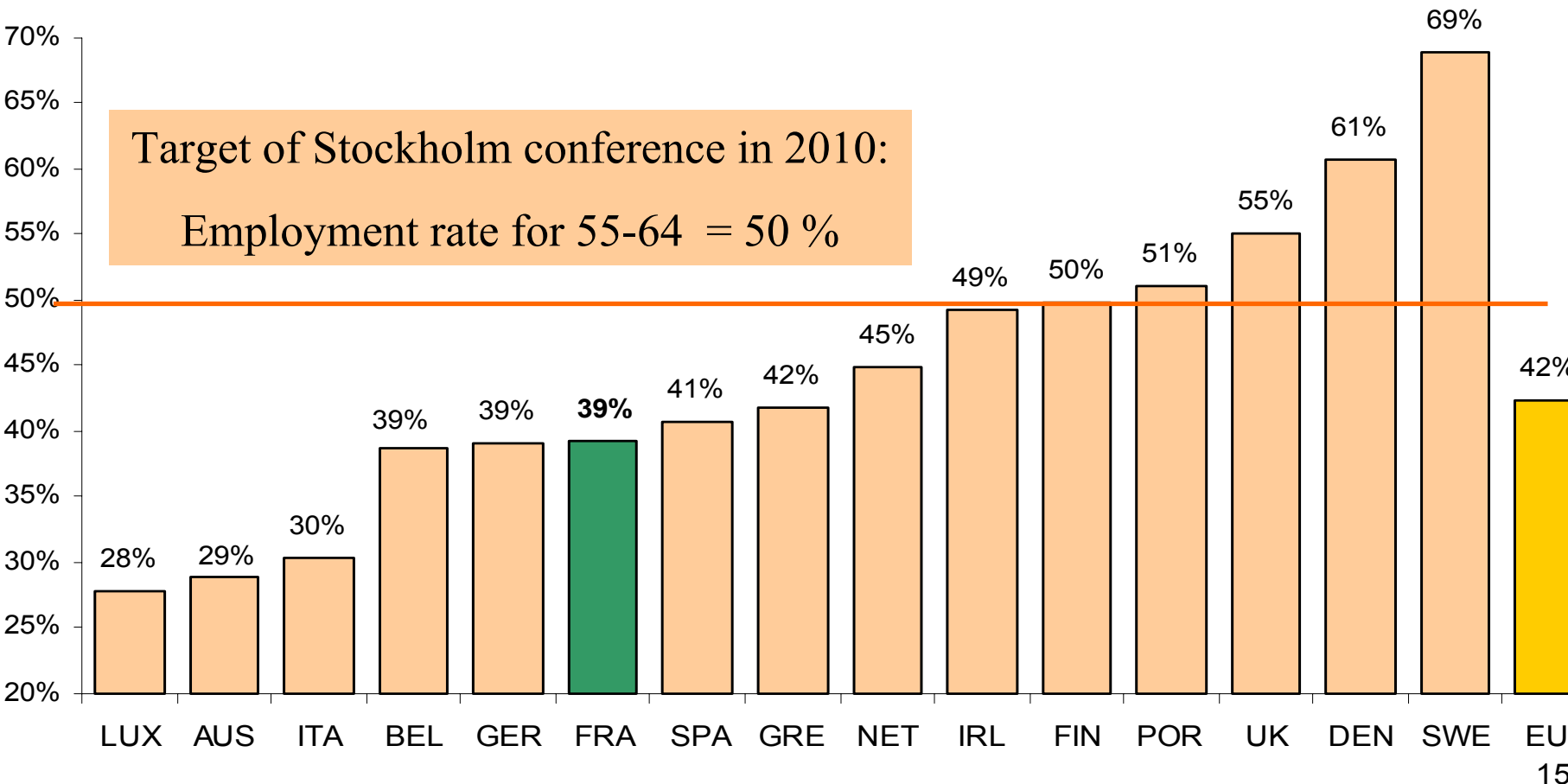
Links between health status and labour force participation appear obvious but causal relations are ambiguous (Strauss and Thomas, 1998)

Hard working conditions may have a negative effect on people's health status towards the end of working life (Volkoff and al., 2000)

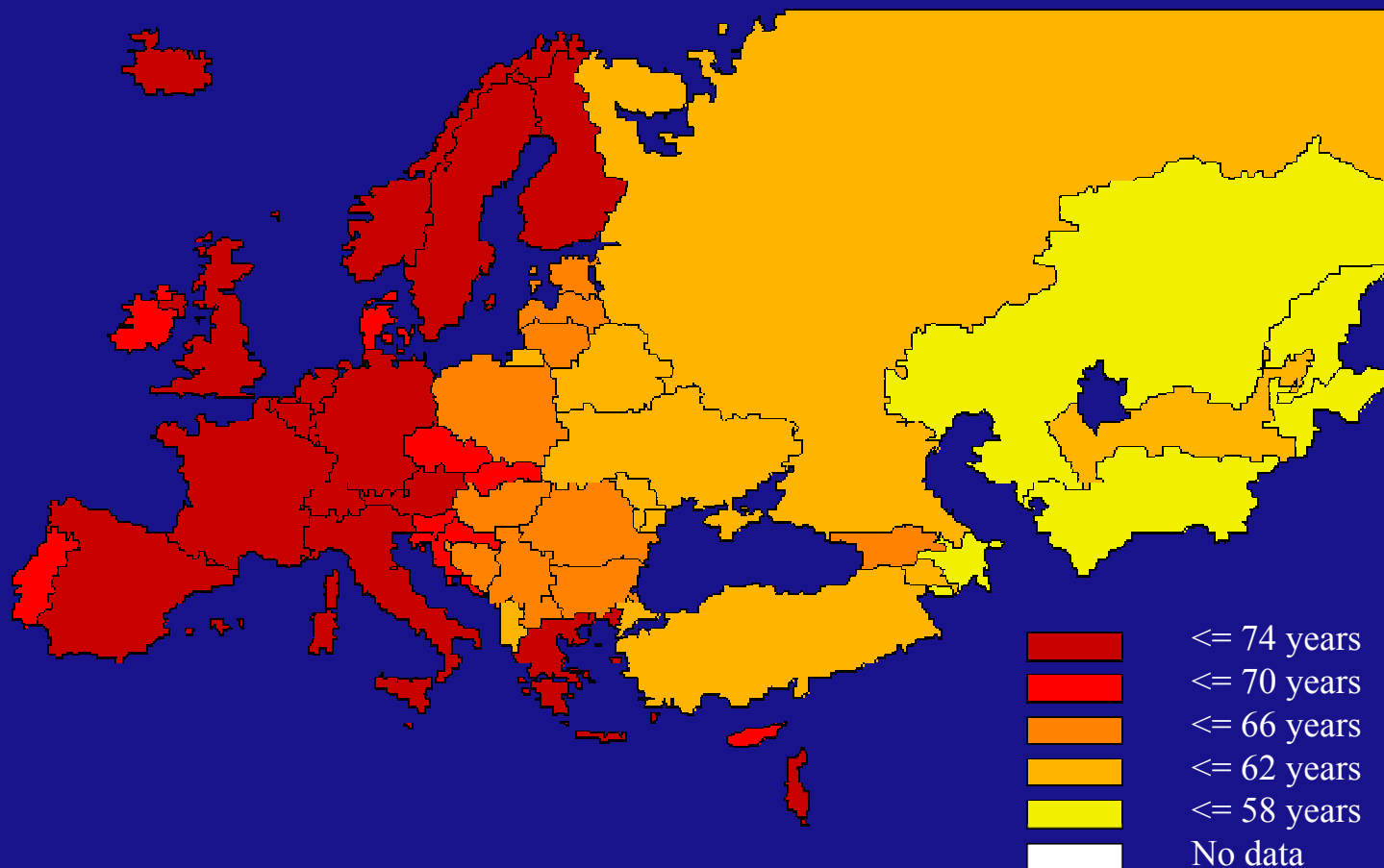
Poor health may result in early departure from the labour market (Currie and Madrian, 1999)

Health Working Life Expectancy indicator can allow to analyse states' pathways due to changing in labour market structure and health status deterioration with age.

Employment rate of 55-64 in Europe in 2003 (OECD, 2004)



Disability-Adjusted Life Expectancy in 2002



Source: WHO/Europe, European HFA Database, January 2006

Health Care and Health Insurance Survey

✓ ***Coordination*** : IRDES and the statistics department of the National Health Insurance Fund for Salaried Workers (CNAMTS)

✓ ***Focus*** : Reported diseases and disorders; public coverage and private supplementary health insurance; recourse to a physician; consumption of medical goods and services; care and services administered by non-physician clinicians, and hospitalization.

✓ ***Sampling base*** : Households including at least one beneficiary of one of the main national health insurance funds (for salaried workers, farmers, or the self-employed) and who live in France.

Health Care and Health Insurance Survey (ESPS)

✓ Other characteristics: periodicity, coverage and size

- 4 waves : 1988-91, 1992-95, 1996-98 and 2000-02
- More than 95 % of French households
- 14.000 households (40.000 persons)

✓ Limits

- Institutionalized and homeless groups are not included in the survey. Thus, the most sick persons are subrepresented.
- High Attrition rate (50 % between each wave)
- No distinction between dead and lost individuals

⇒ **Problem of mortality**



Health Care and Health Insurance Survey (ESPS)

✓ Available Health measures

New survey (2004) contains standardised indicators (self-perceived health, limiting longstanding illness,...) but these aren't included in previous surveys, that's necessary to have an available measure for all waves

⇒ **Disability index**

Elaborated by physicians who give a note (8 degrees) according to health module's answers of respondent.

⇒ **Vital risk**

Elaborated by physicians and is based on seriousness in long term of the diseases declared by the respondent (6 degrees of seriousness)

⇒ **Activity Daily Living**



Defining health states in ESPS

- ✓ Minimal disability index associated with the most serious disease [coded by physicians group]

Healthy

0 : no difficulty

1 : very small level of difficulty

2 : small level of difficulty

3 : experiences difficulties but lives normally

Unhealthy

4 : must diminish his/her domestic or professional activity

5 : diminished activity

6 : no domestic autonomy

7 : confined to bed

Defining work states in ESPS

Working

- full and part-time workers
 - persons temporarily not at work because of illness or injury
-

Non- working

- retired
- widowed benefiting from a survivor pension
- unemployed
- homemaker
- disabled
- student

Defining vital status in ESPS (1)

✓ To take into account the vital status (dead or alive), we use vital risk.

✓ 6 levels of vital risk:

0 : level zero of vital risk

1 : very low negative
prognoses

2 : low negative prognoses

3 : possible risk

4 : probably negative prognoses
(50 % of death at 10 years)

5 : surely negative prognoses
(death at 5 years)

Defining vital status in ESPS (2)

We defined a vital status by considering 2 conditions:

- ✓ Mortality could be different according to the initial state.
- ✓ The total mortality rate by age and sex must match the national estimates

⇒ We assume that a person is considered as dead if the vital risk is *probably negative diagnosis* or *surely negative diagnosis*

Transitions across work-health states

Time 1

Time 2

Healthy & working

Unhealthy & working

Healthy & non-working

Unhealthy & non-working

Healthy & working

Unhealthy & working

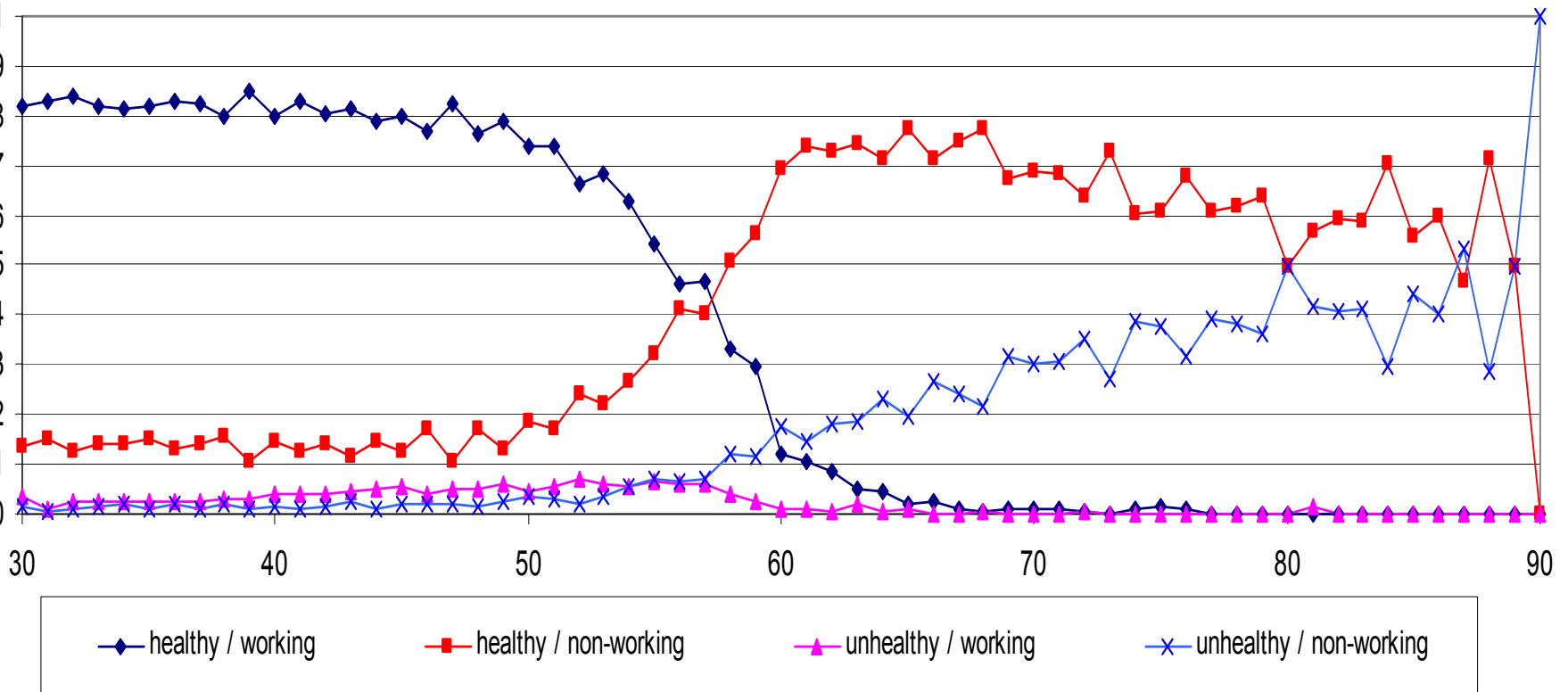
Healthy & non-working

Unhealthy & non-working

Death

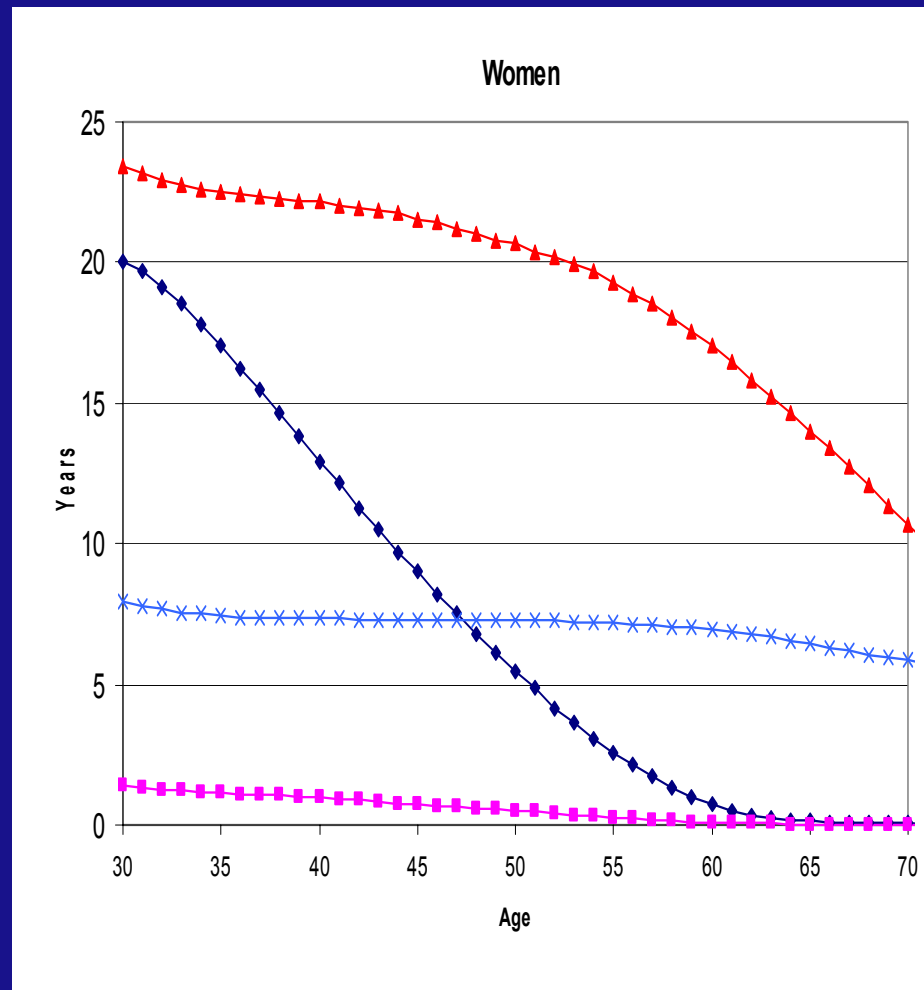
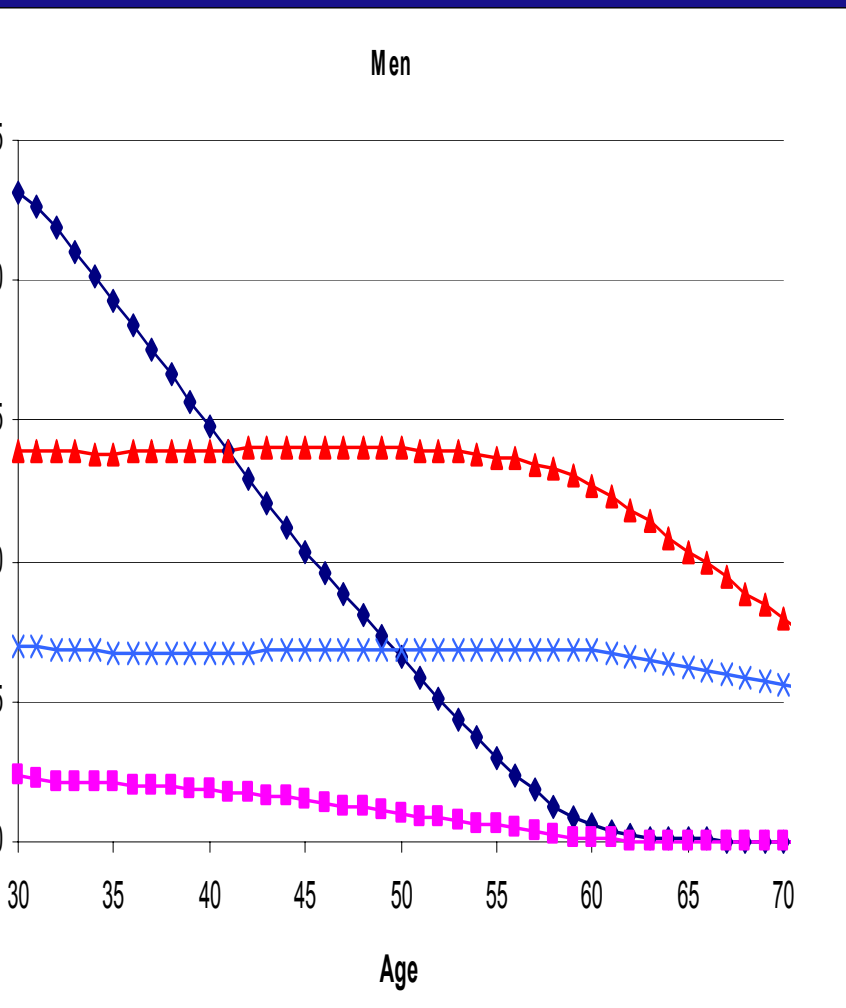
Total : $4 \times 5 = 20$ transitions

Prevalence in each state



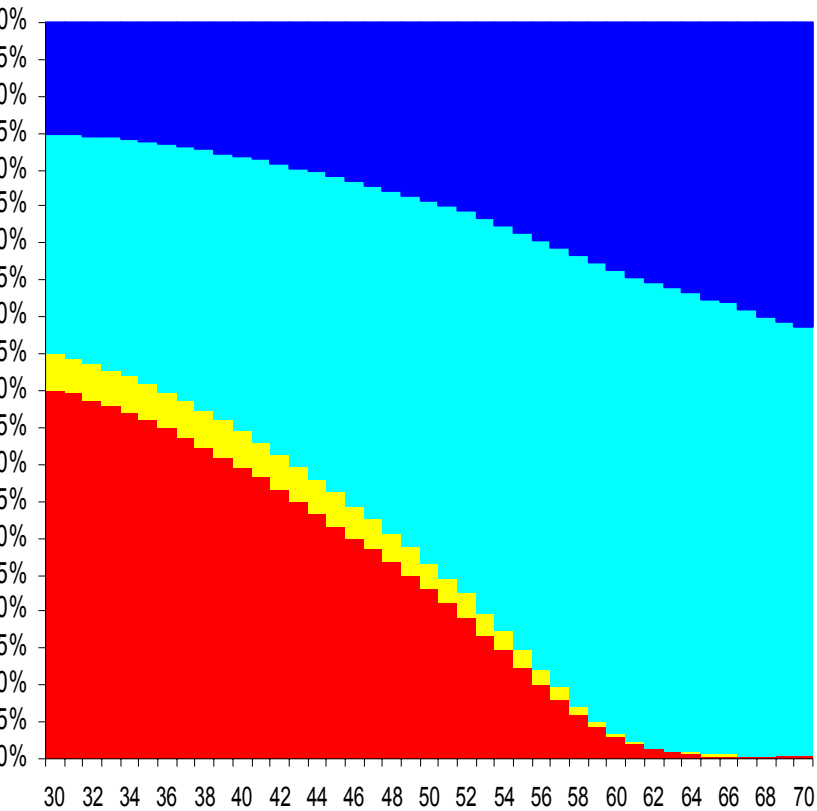
Health status = Disabling diseases index

Health and Working Life Expectancies

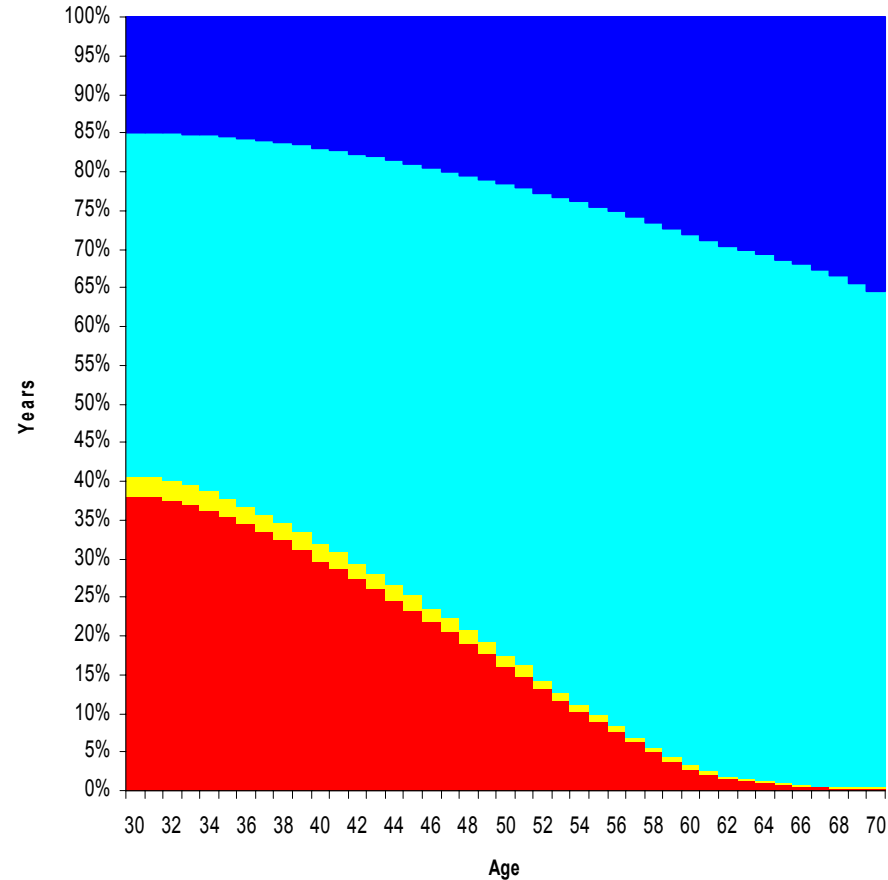


Proportion of LE in each state

Men



Women



Healthy / working Unhealthy / working
Healthy / non-working Unhealthy / non-working

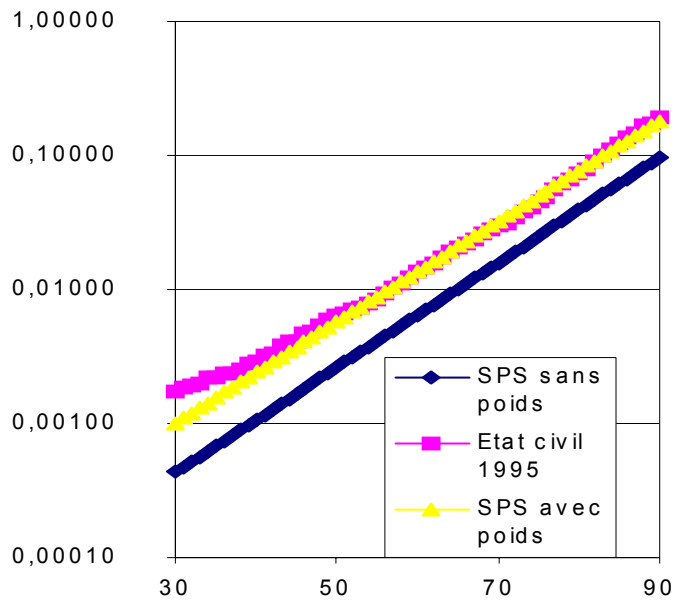
Main results

- ✓ The prevalence of working people starts to decline from age 55, corresponding to preretirement system and unemployment for seniors in France (in addition, retirement age is 60)
- ✓ Men are expected to spend more time healthy and employed than women, for all ages
- ✓ Women are expected to live in a non-working state longer than men (31 years vs 21 years for men at age 30) and often healthy (non working women are 75 % in healthy state vs 66 % for men at age 30), this difference remains true with age.
- ✓ Small proportion of unhealthy-working people : confirm the assumption of causality between poor health and exit from the labour market ?

Methodological discussion

- ✓ Health Indicator choice
 - Using different health indicators such as self-rated health and ADL to validate different proportions of LE
- ✓ Methodological issues
 - Lost to follow-up (attrition, death)
 - Community dwelling population
 - Age range : only 30-70 ?

H o m m e s



F e m m e s

