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Interpreting international evidence on the evolution of morbidity and disability prevalence over time and perspectives for extended healthy life expectancy

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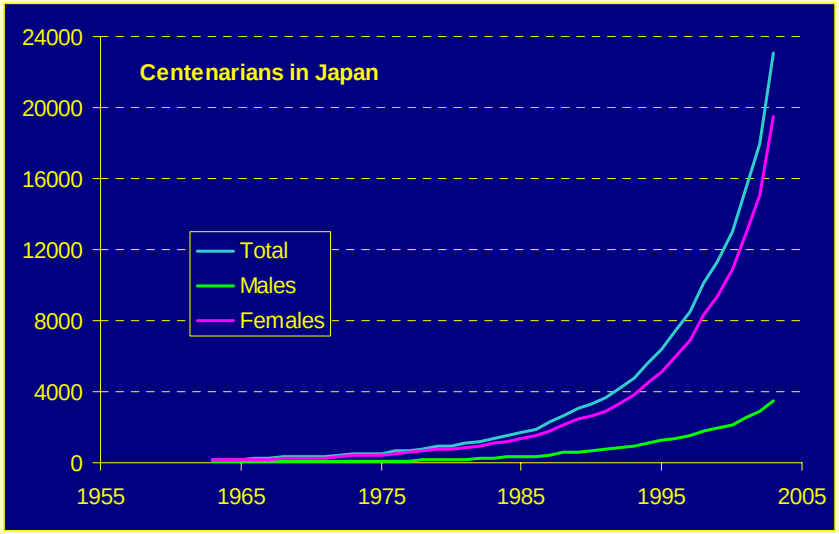
Background 1: increase in the number of oldest old

- Huge increase in the number of oldest-old persons, especially in Japan, France and Switzerland;
- Significant disparities between low mortality countries (Robine et al, 2005)



Background 2: significant increase in independence

- In Japan
  - significant decline between 1950 and 2000 in the proportion of young mothers who, when elderly, expect to depend on children (from about 65% to less than 10%)
  - significant decline in the proportion of those considering it is the custom or natural duty to care for the elderly (from 80% in 1965 to less than 50% in 2000) (Ogawa et al, 2004)
- Similar observations in the US (Spillman and Pezzin, 2000)

Background 3: significant decline in the proportion of elderly receiving help

- In Sweden between 1980 and 1995
  - significant decline in the proportion of elderly people who receive help, 5% per year for the 65-79 and 2.5% for the 80+ but
  - decline in the proportion with ‘severe ill-health’ from 2% to 1.2% per year, suggesting that the receipt of help declines faster that the need for help (Lagergren and Batljan, 2000)

Background 4: significant improvment in the built and technical environment

- IADLs (shopping, managing money, doing laundry, preparing meal or using the telephone) are easier to perform today than 10 or 20 years ago (Spillman, 2004)

Background 5: What do we measure?

- Is the elderly population healthier (Cutler 2001) or are individuals
  - more independent and less helped by children
  - using more technical devices
  - in a more favorable environment?
- Need to better distinguish the numerous concepts of disability (functional limitations, activity restriction, difficulty to do, use of technical device, need and receipt of help)

Background 6: Observations from the US

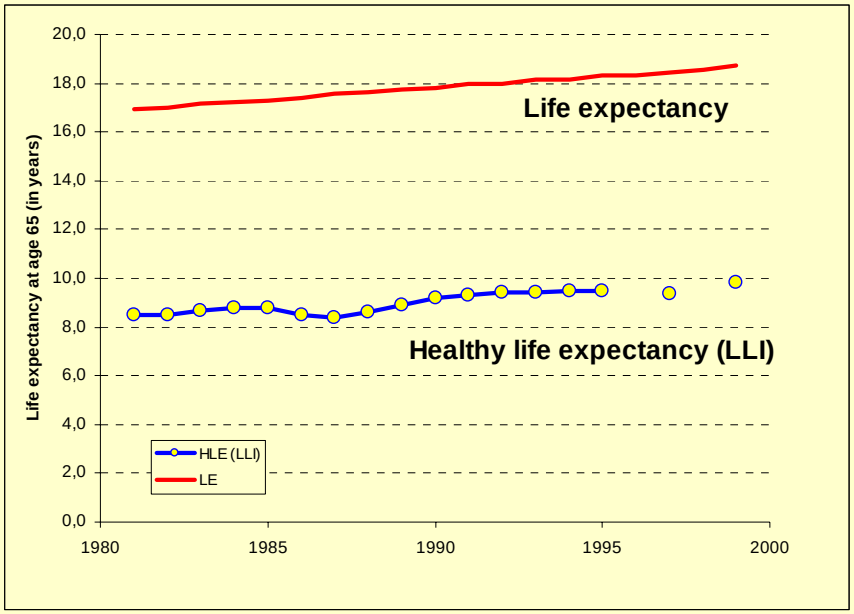
- Consistent declines in
  - any disability (-1.6% to -0.9% per year),
  - instrumental activities of daily living (IADLs -2.7% to -0.4% per year),
  - functional limitations.
- Limited improvment of cognitive functioning (Rodgers et al, 2003)?
- Consistent declines of 1%-2.5% per year in difficulty with daily activities (ADLs) and help with daily activities among the population aged 70+ during the mid- and late 1990s (Freedman et al, 2004)
- Generally, more improvement in less-severe disability (Crimmins, 2004)
- Decline in disability at younger ages (70-74) was 2.8% annually while the decline at older age (85+) was 1.1% (Schoeni et al, 2004)

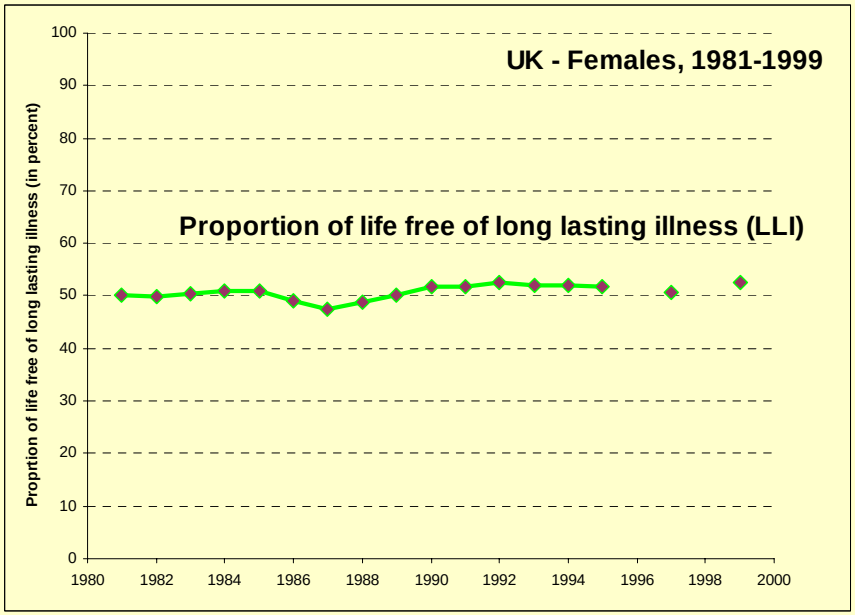
Background 7: Observations from Australia

- In Australia, the age-standardized prevalence rate of disability increased from 1981 to 1998. Much of the increase took place between 1981 and 1988 (AIHW, 2003)

Background 8: Observations from Europe

UK: Increase in life expectancy free of long lasting illness at age 65 (ONS, 2004) but…





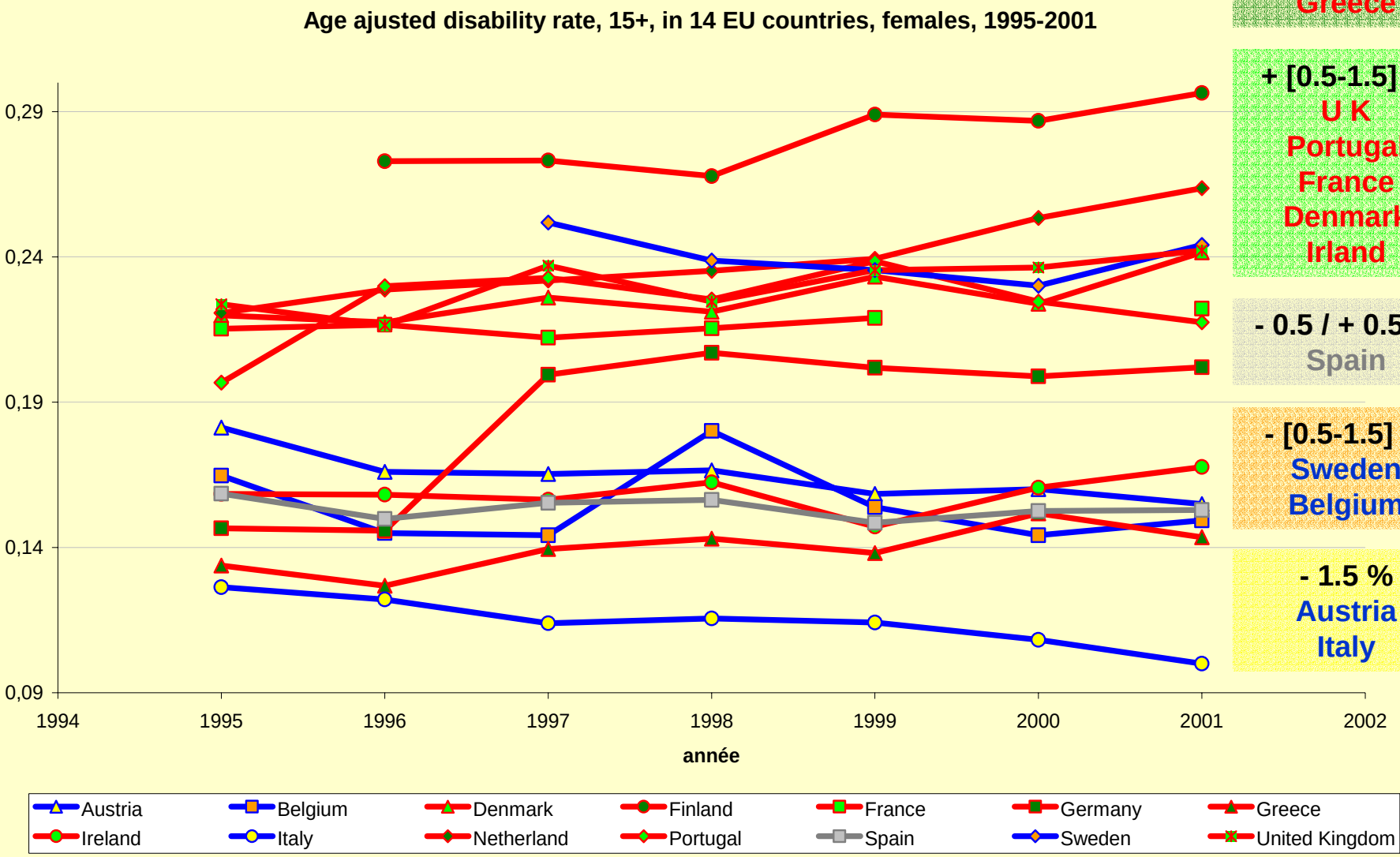
Austria: Increase in life expectancy in good perceived health at age 65, from 1978 to 1998 (Doblhammer et Kytir, 2001)

Denmark: Increase in disability-free life expectancy at age 65, from 1987 to 2000 (Bronnum-Hansen, 2005)

Data

- European Community Household Panel (ECHP), a longitudinal, multi-subject survey covering many aspects of daily life.
- The sample covers some 60 000 households comprising 130 000 adults aged 16 or over.
- The first wave took place in 1994.
- From 1995 to 2001
- PH002 "*Do you have any chronic physical or mental health problem, illness or disability?"* and if yes:
- PH003 "*Are you hampered in your daily activities by this physical or mental health problem, illness or disability?"*

Age-adjusted disability rate, 15+, in the European Union, females, ECHP, 1995-2001



+ 1.5 %
Finland
Netherlands
Germany
Greece

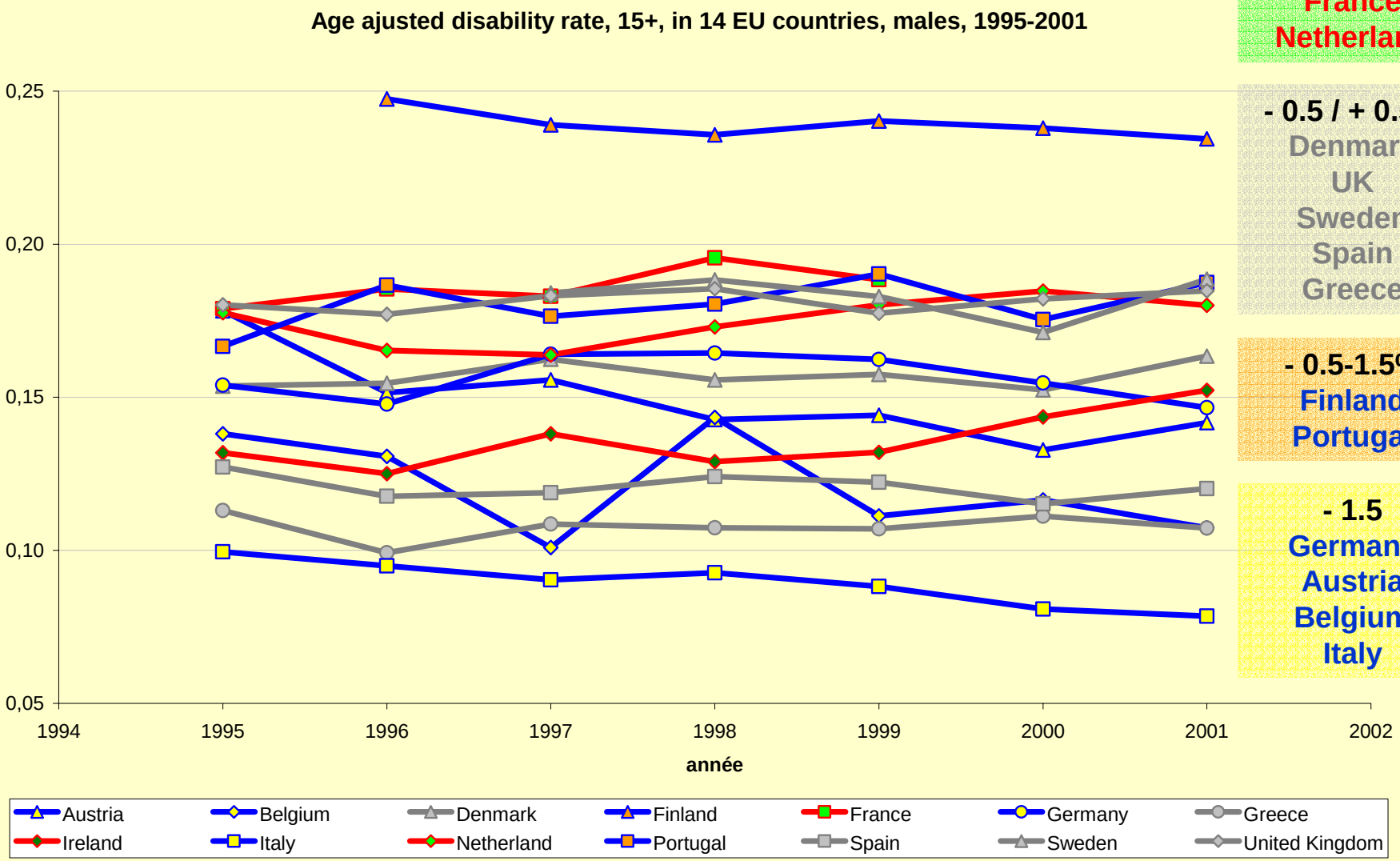
+ [0.5-1.5] %
U K
Portugal
France
Denmark
Irland

- 0.5 / + 0.5 %
Spain

- [0.5-1.5] %
Sweden
Belgium

- 1.5 %
Austria
Italy

Age-adjusted disability rate, 15+, in the European Union, males, ECHP, 1995-2001



+ 1.5%
Ireland

+ 0.5-1.5%
France
Netherland

- 0.5 / + 0.5%
Denmark
UK
Sweden
Spain
Greece

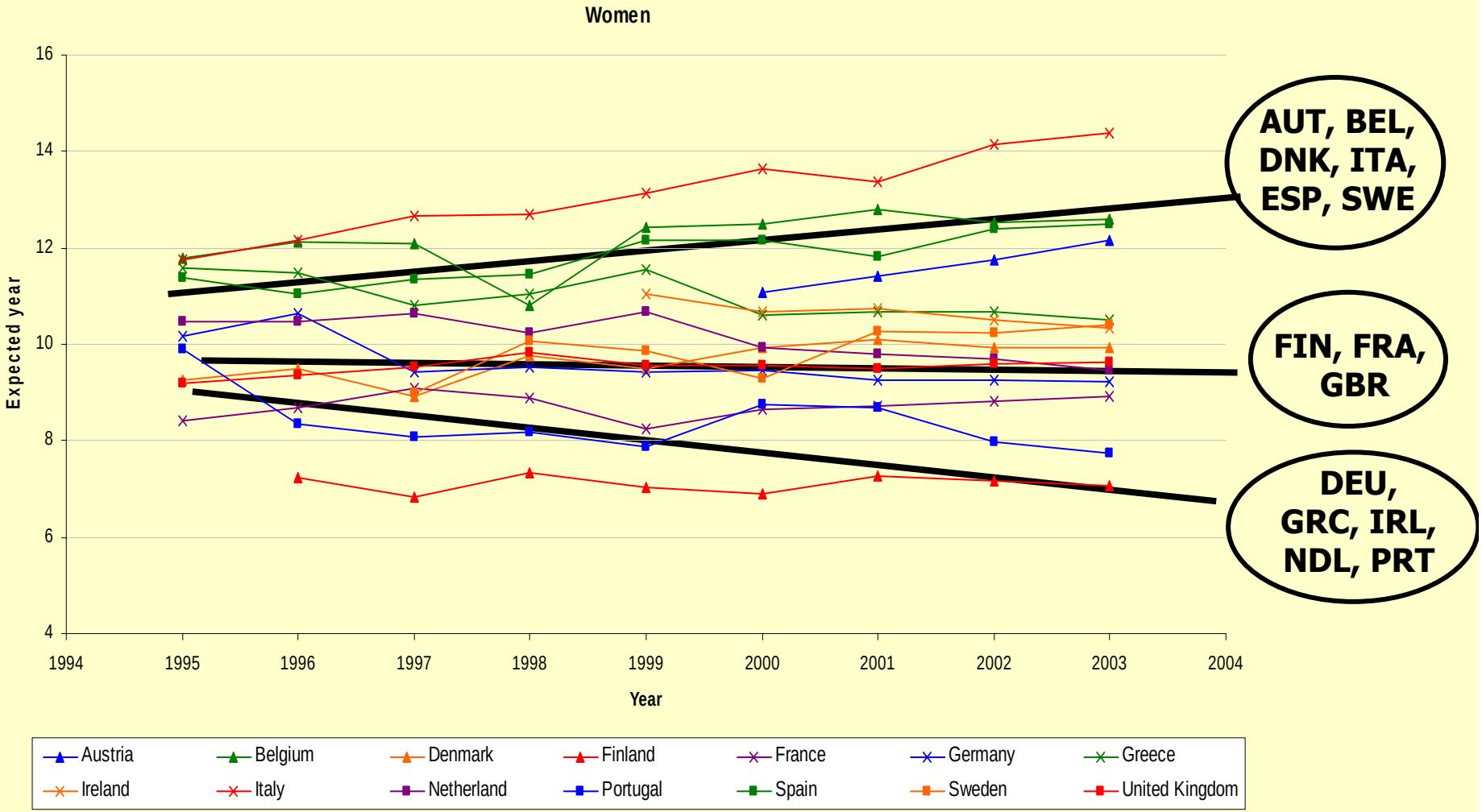
- 0.5-1.5%
Finland
Portugal

- 1.5
Germany
Austria
Belgium
Italy

Annual change in the age-adjusted disability rate, 15+, in the European Union, ECHP, 1995-2001

Males		Females	
Country	%	Country	%
Austria	-3,7	Austria	-2,1
Italy	-3,7	Italy	-3,3
Belgium	-3,2	Sweden	-1,0
Finland	-0,8	Belgium	-0,9
Spain	-0,7	Spain	-0,4
Sweden	-0,4	Ireland	0,5
Germany	-0,2	France	0,6
U K	0,0	Portugal	0,9
Greece	0,2	Denmark	1,4
Denmark	0,5	U K	1,5
France	0,7	Finland	1,8
Portugal	1,1	Greece	2,0
Netherlands	1,3	Netherlands	2,8
Ireland	2,5	Germany	5,5

Trends in expected life free of disability at age 65



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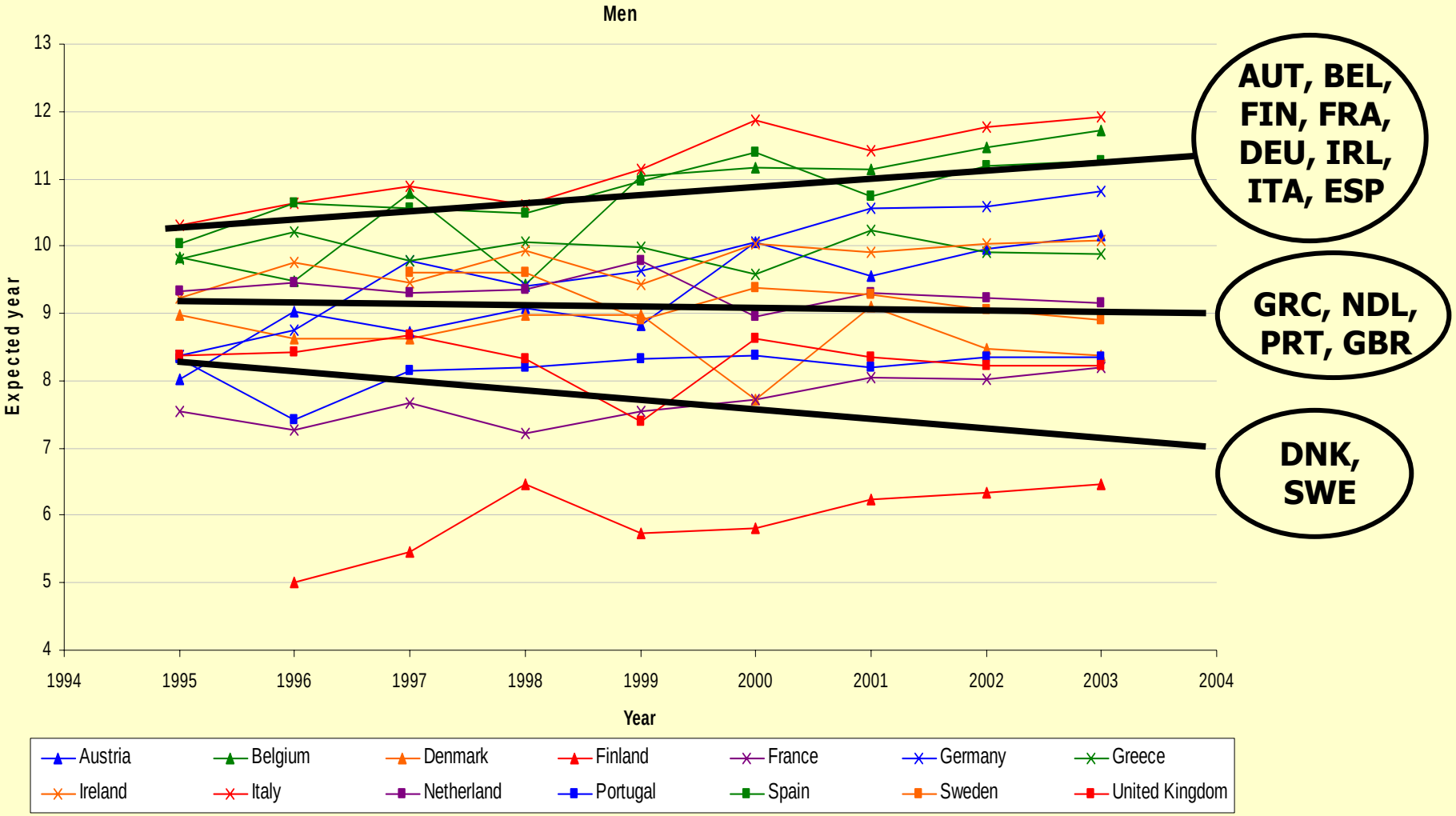

Conclusion

Need for

- robust indicator(s)/question(s)
- conceptually well defined
- distinguishing functional limitations (FL) and activity restriction (AR)
- identical for OECDE countries: EU, Jap, US…
- long chronological series