22d RVES meeting in Havana, 19-21 may 2010

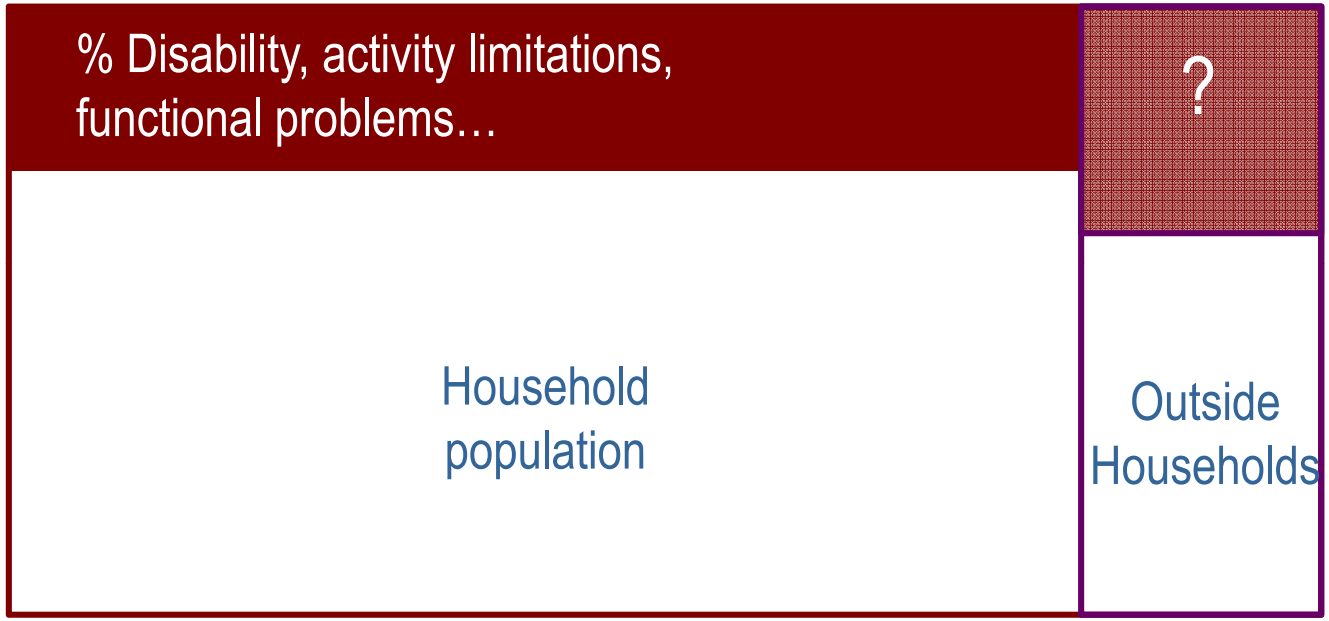
The impact of including or not the population living in institutions

Emmanuelle Cambois (INED, France)
for the EHLEIS programme

Funding by the European Commission
DG SANCO (EHLEIS 2006-109)

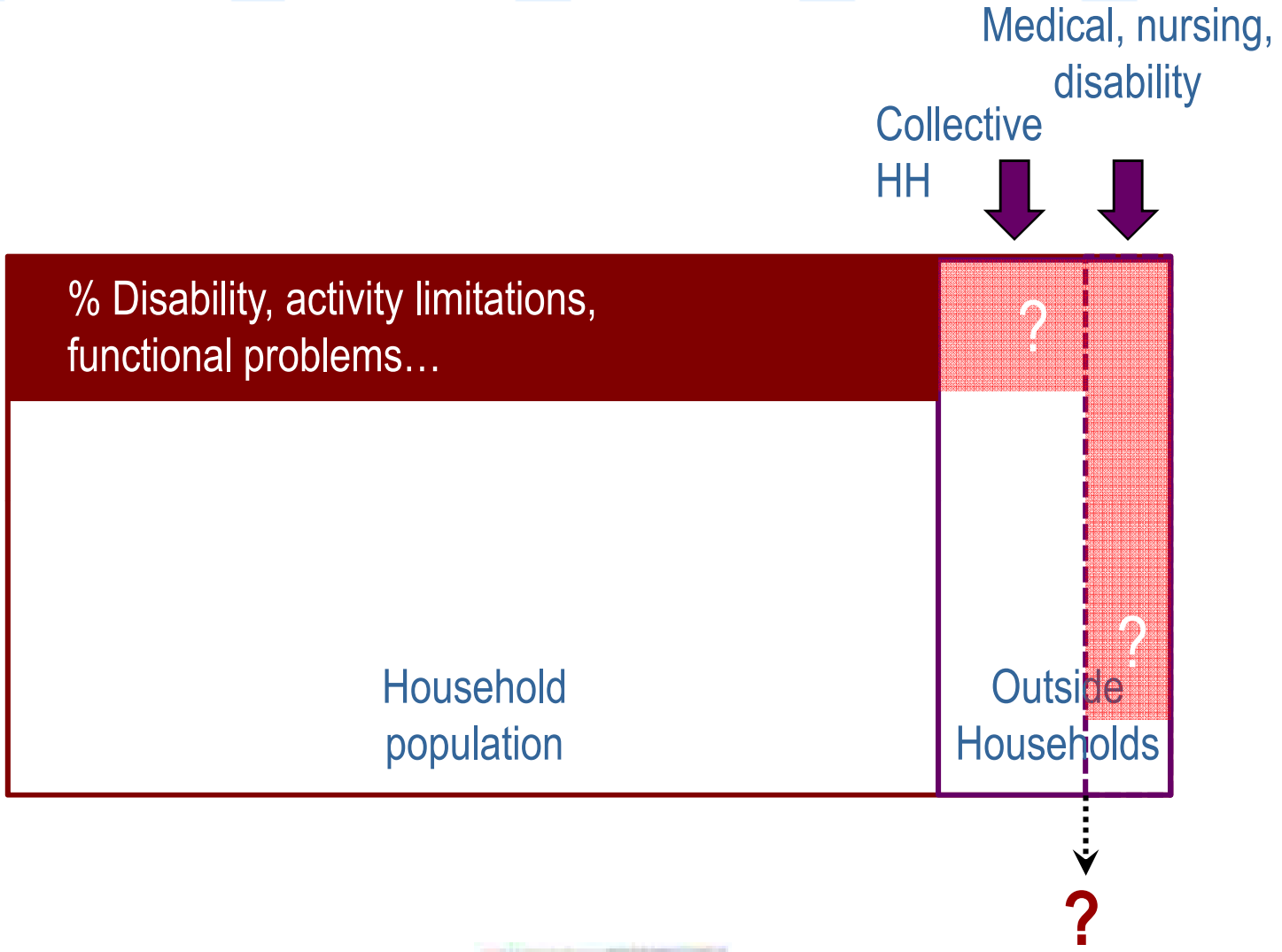
Context: Are disability statistics representative of the whole population?

The health of the population is measured by health surveys that are most of the time only based on household population: difficulty to organise a survey in institution, various situation worldwide.



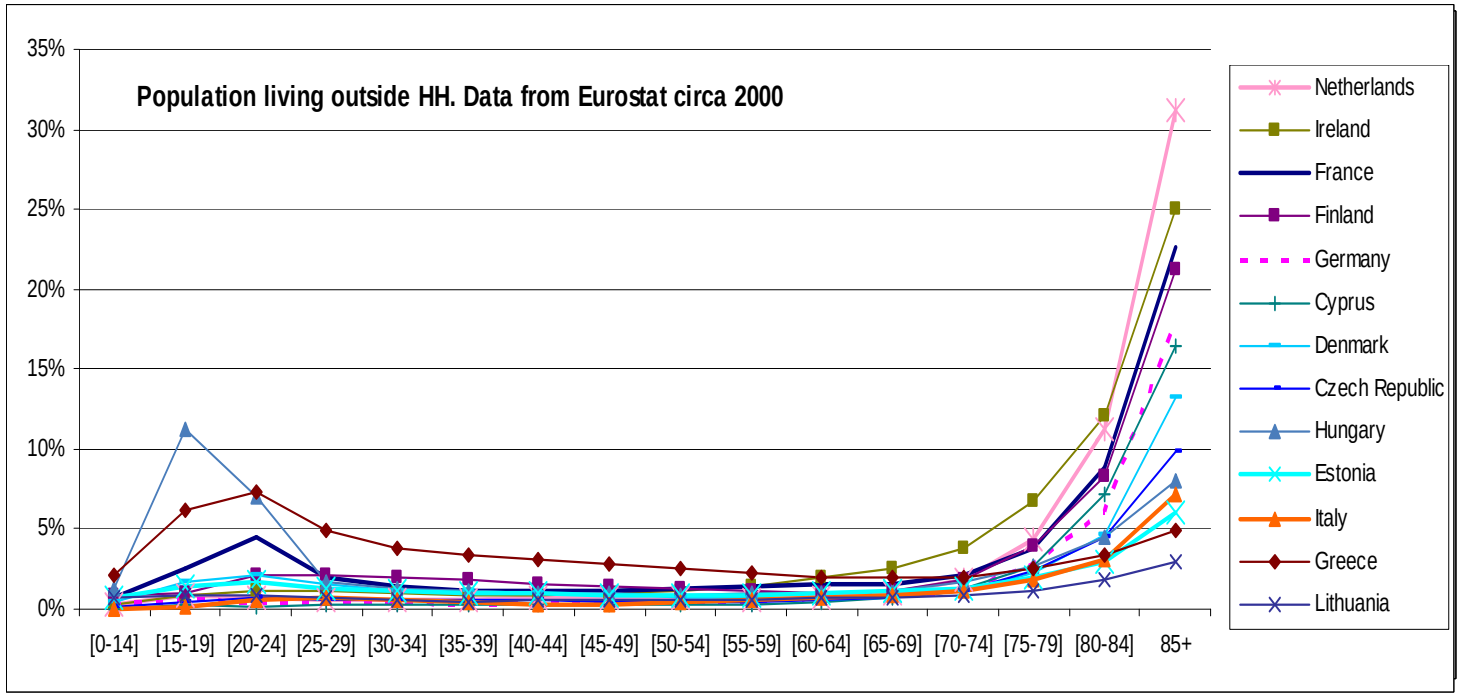
Shall we develop surveys in institutions to be able to compare?

How relevant are these assumptions



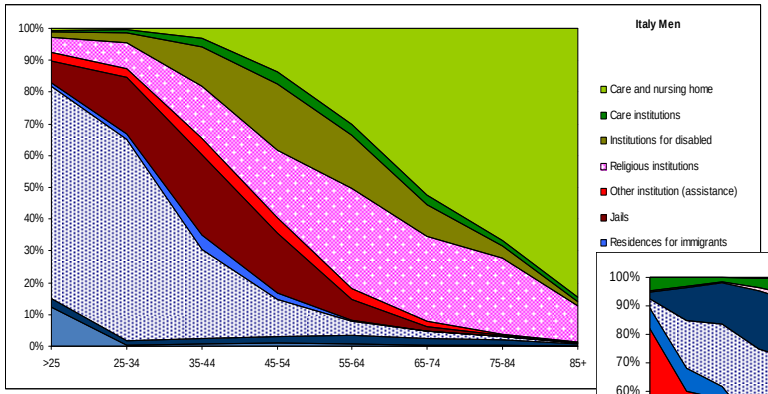
1. The European populations living outside HH

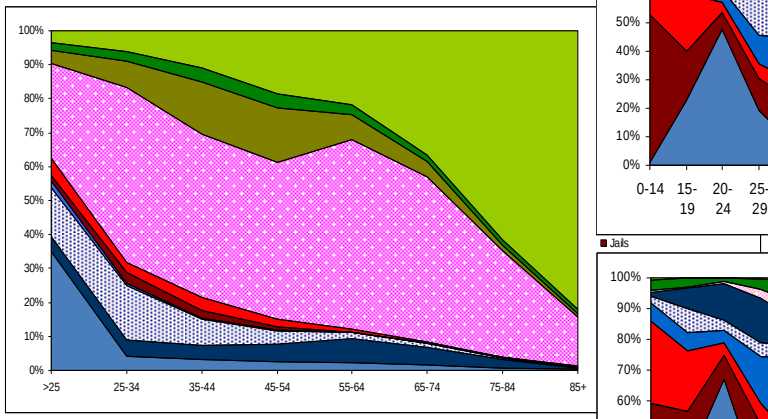
- What is the distribution between HH population and population outside HH across Europe? (example with 13 countries)
  - From 3.5% in Greece to less tha 1% in Italy or Cyprus
  - Large variation in the type of population regarding % in age groups

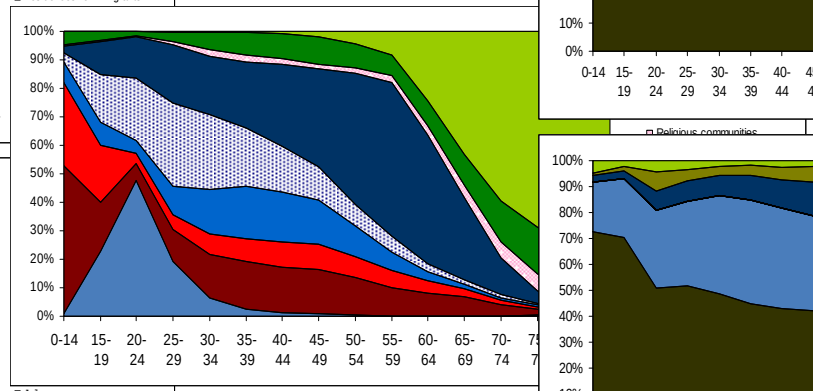


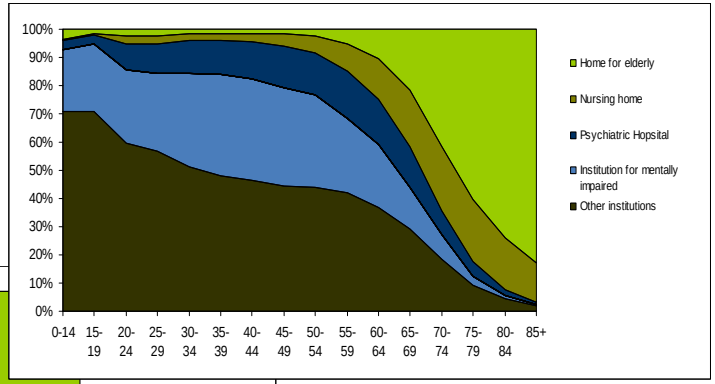
1. The European populations living outside HH

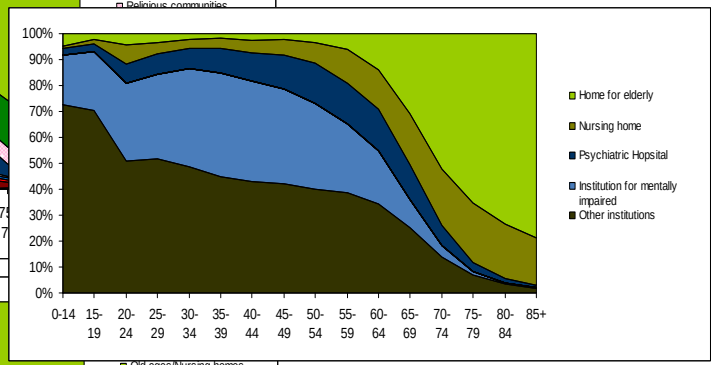
- What is the distribution of the institutions/collective HH in the population outside HH across Europe? Example with France, Italy, The Netherlands

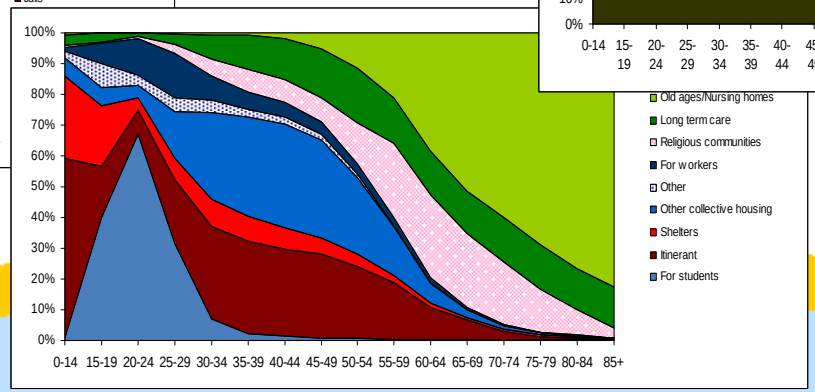








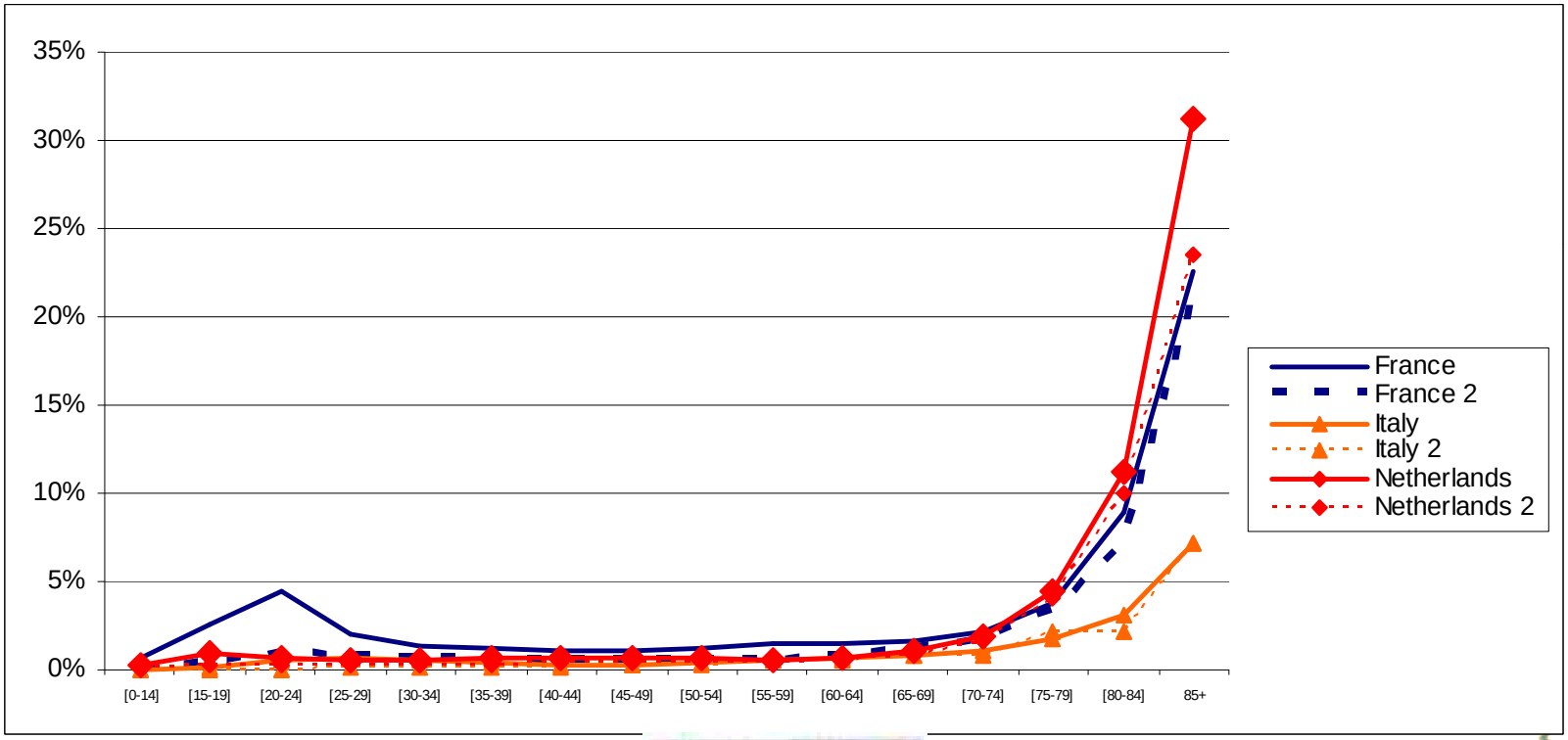




1. The European populations living outside HH

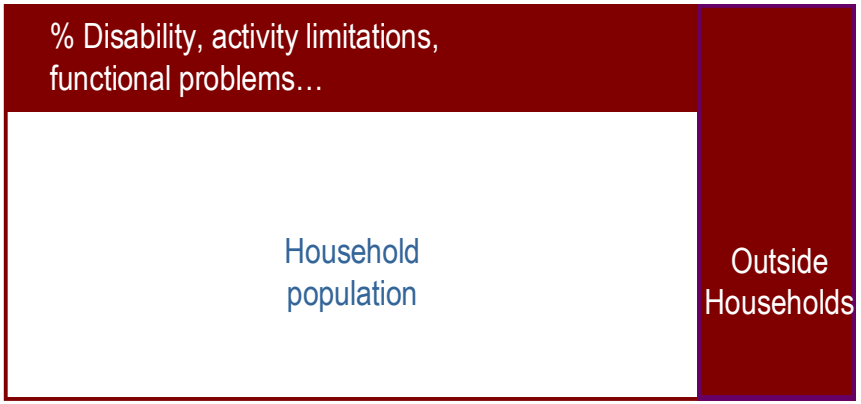
- Gap on the Eurostat estimates vs Sullivan with the care related institutions?

% living outside HH and % in nursing/care institutions

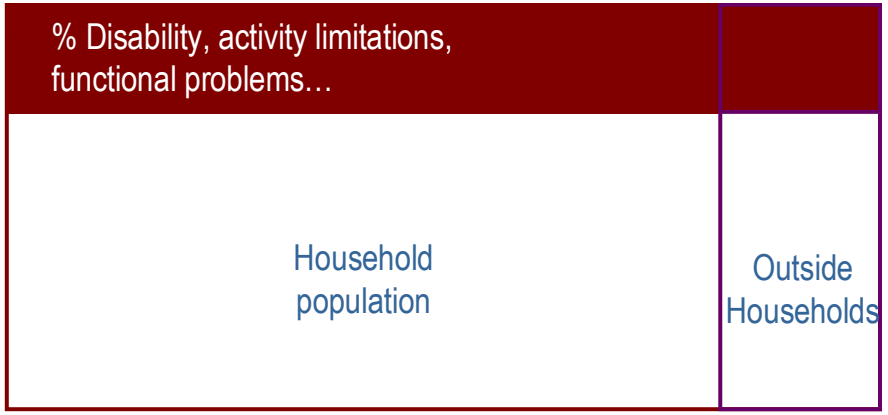


Context: Are disability statistics representative of the whole population?

Sullivan

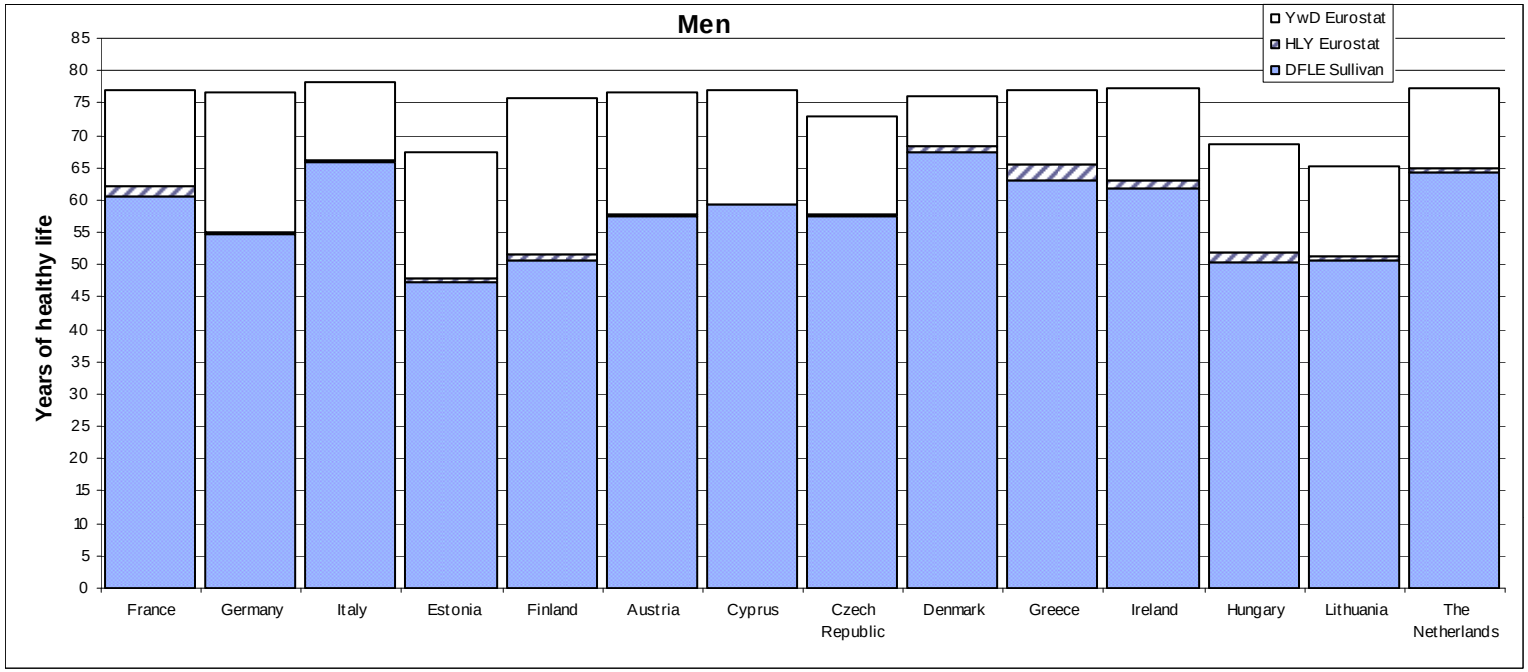


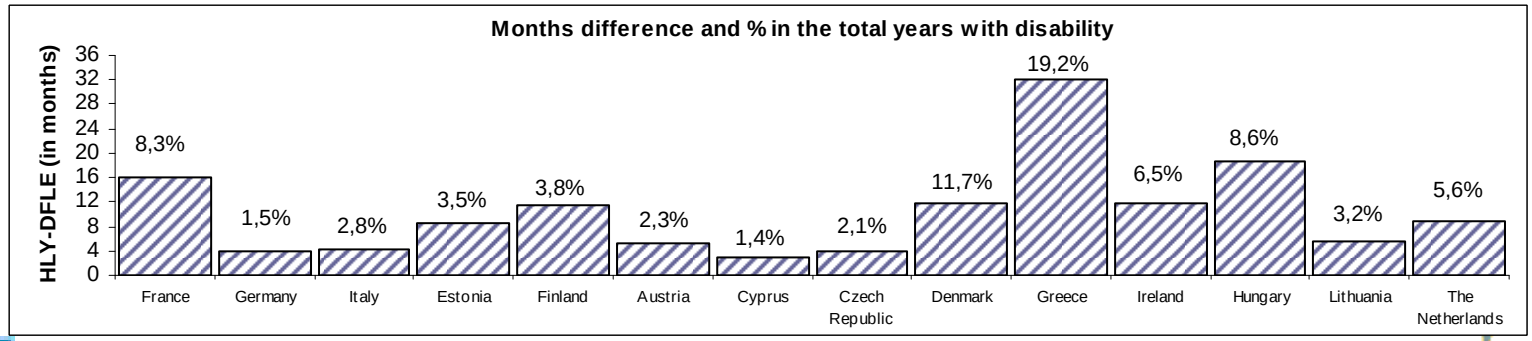
Eurostat



2. Impact on HYL calculations

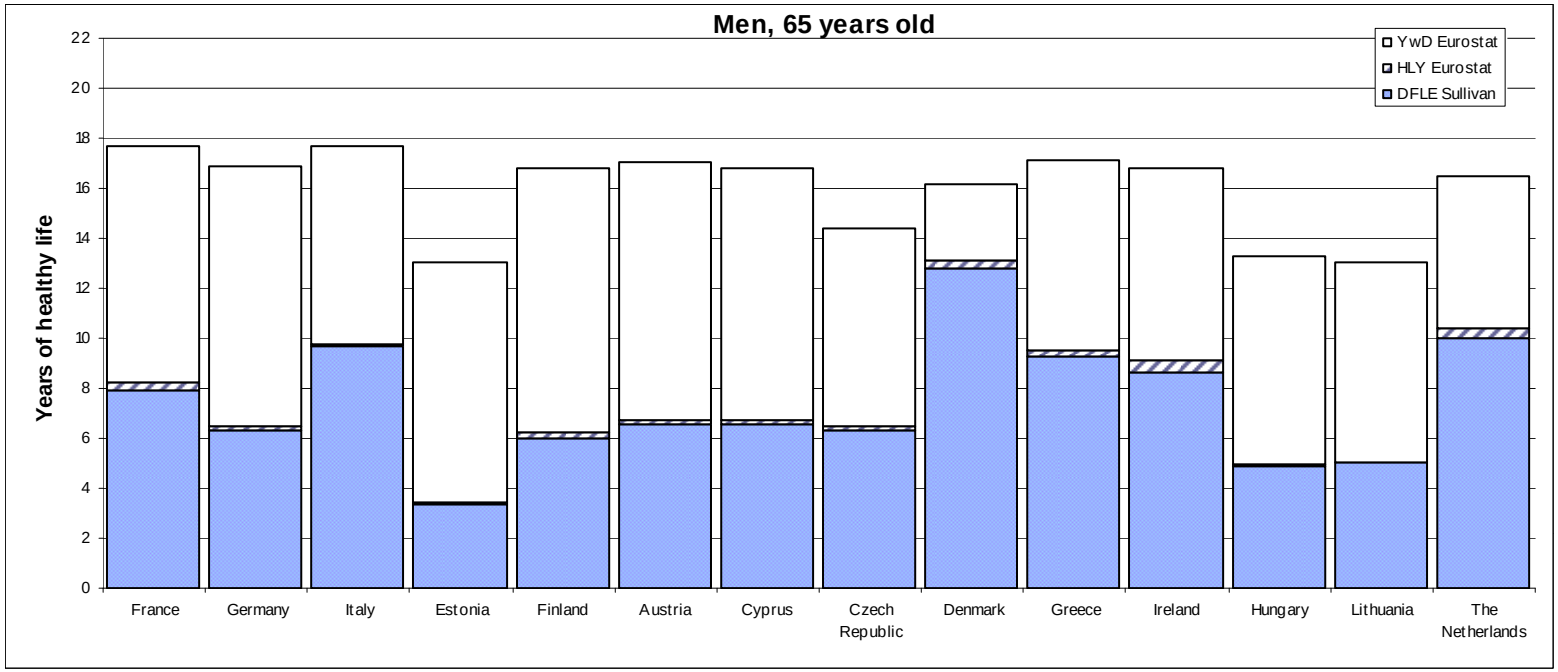
At birth

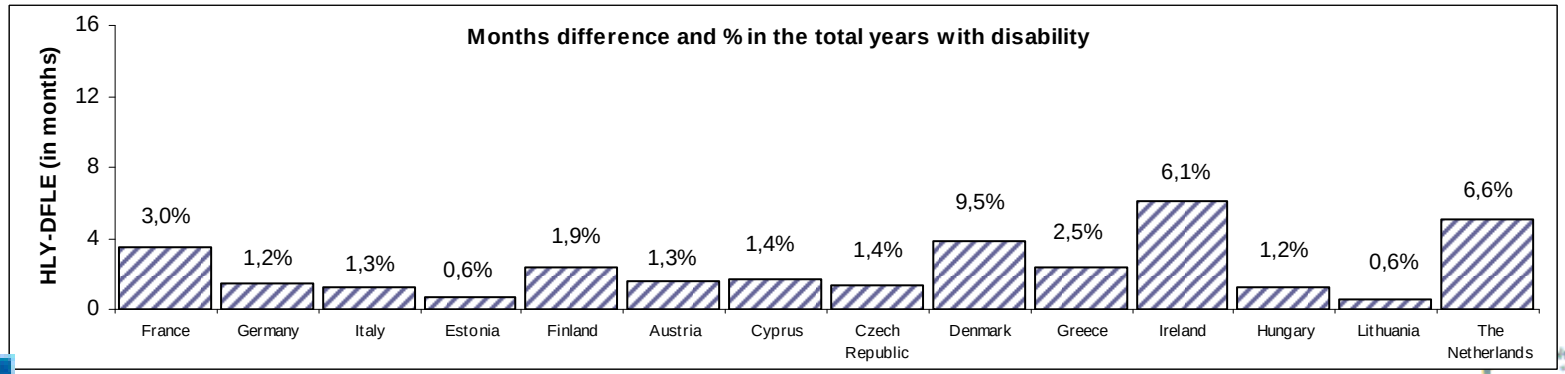




2. Effect on HYL calculations

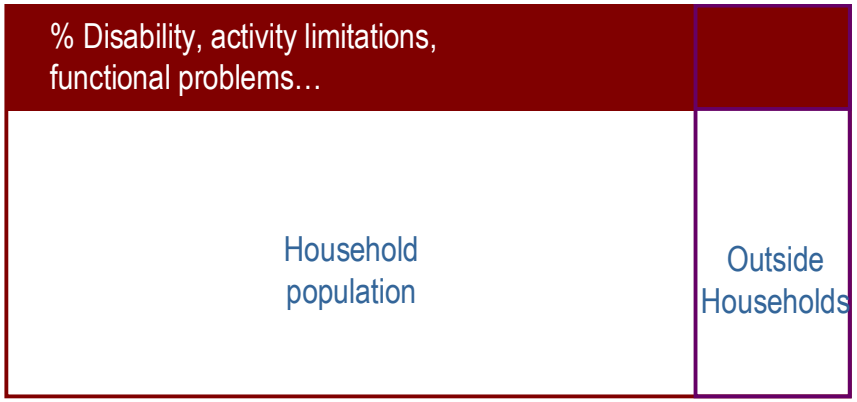
At age 65



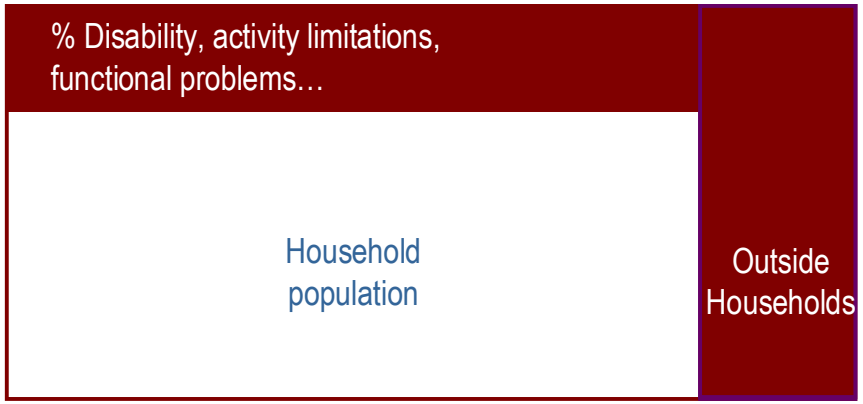


1. The European populations living outside HH

Eurostat

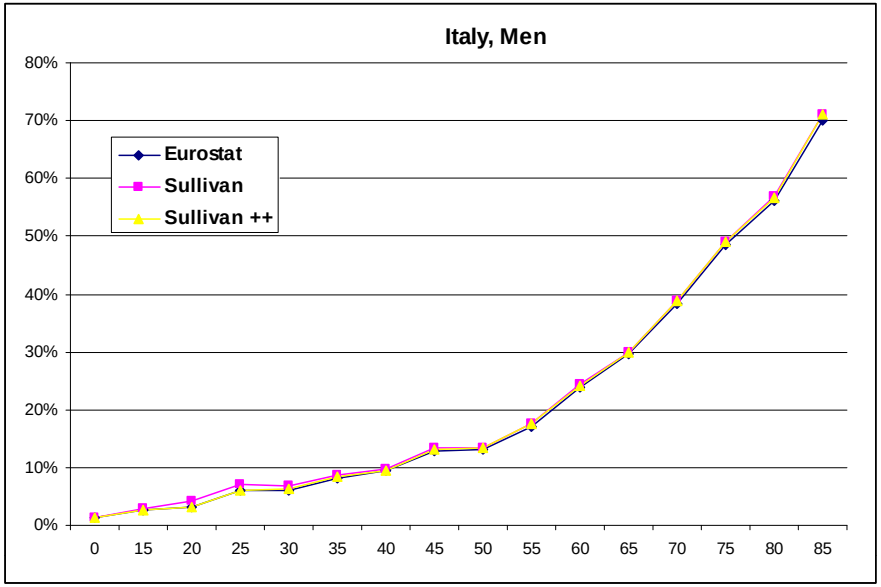


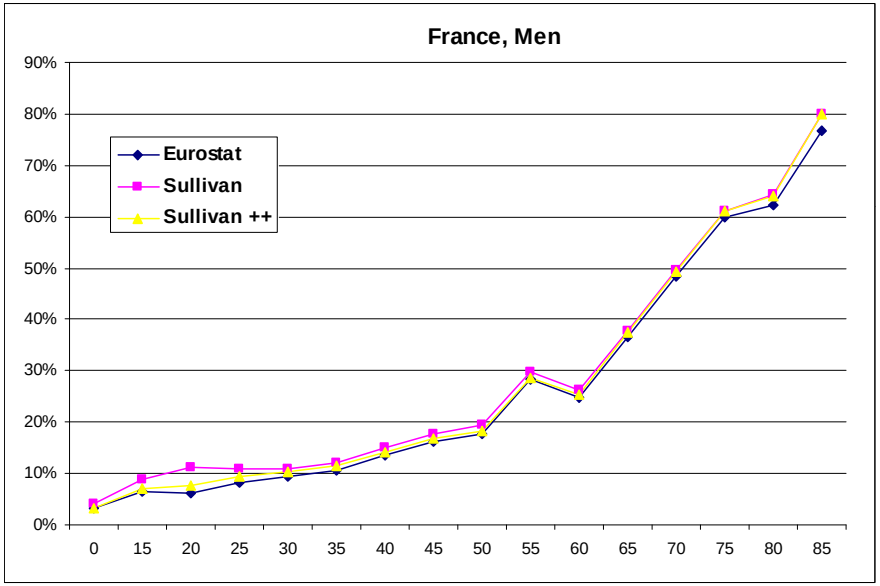
Sullivan

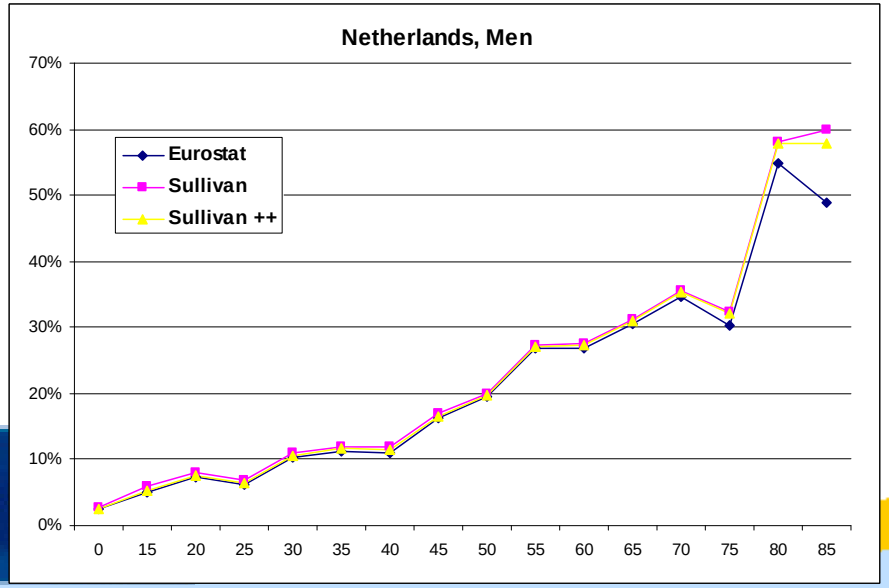


Sullivan ++

2. Impact of the assumptions on the prevalence of « Activity limitation »

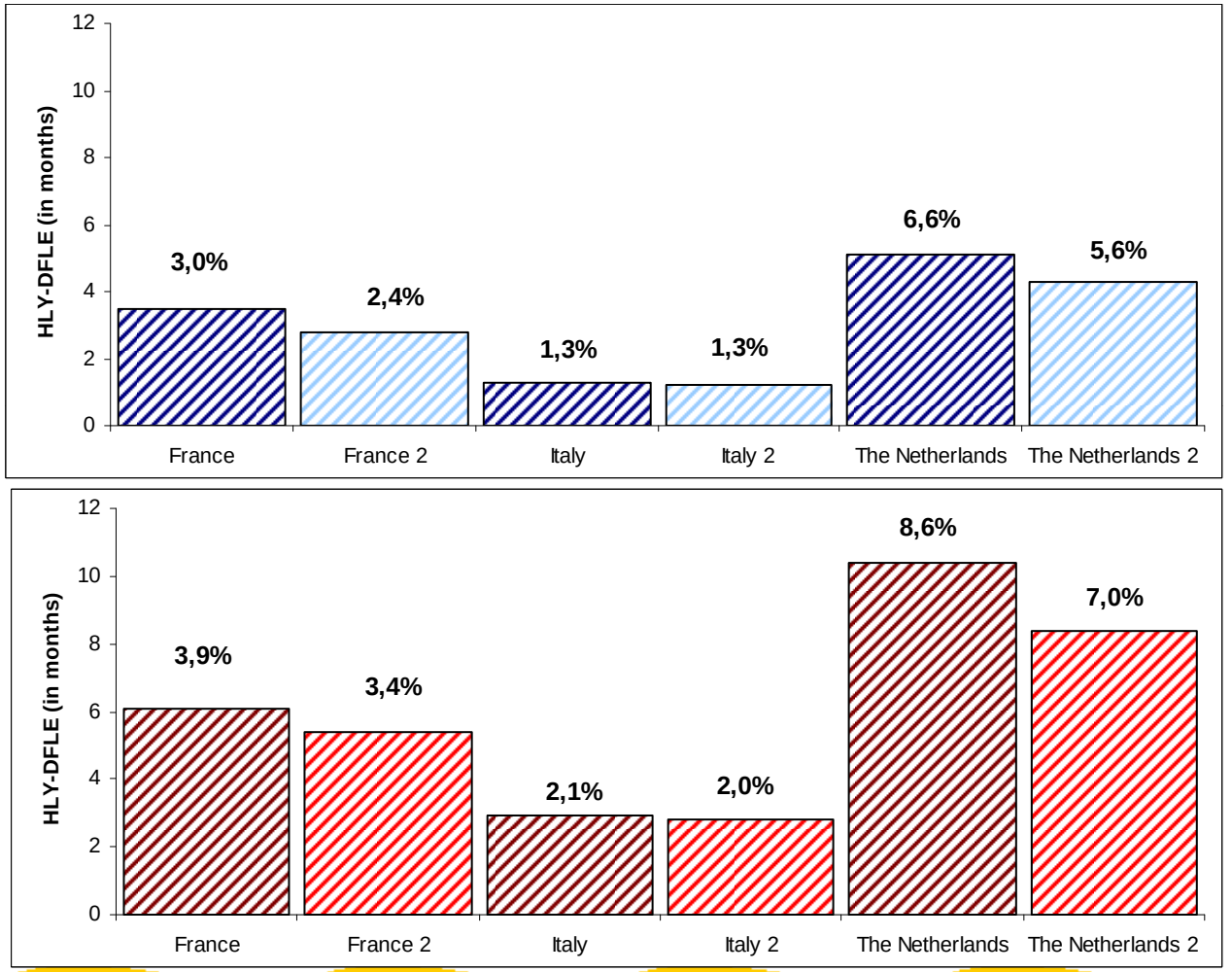




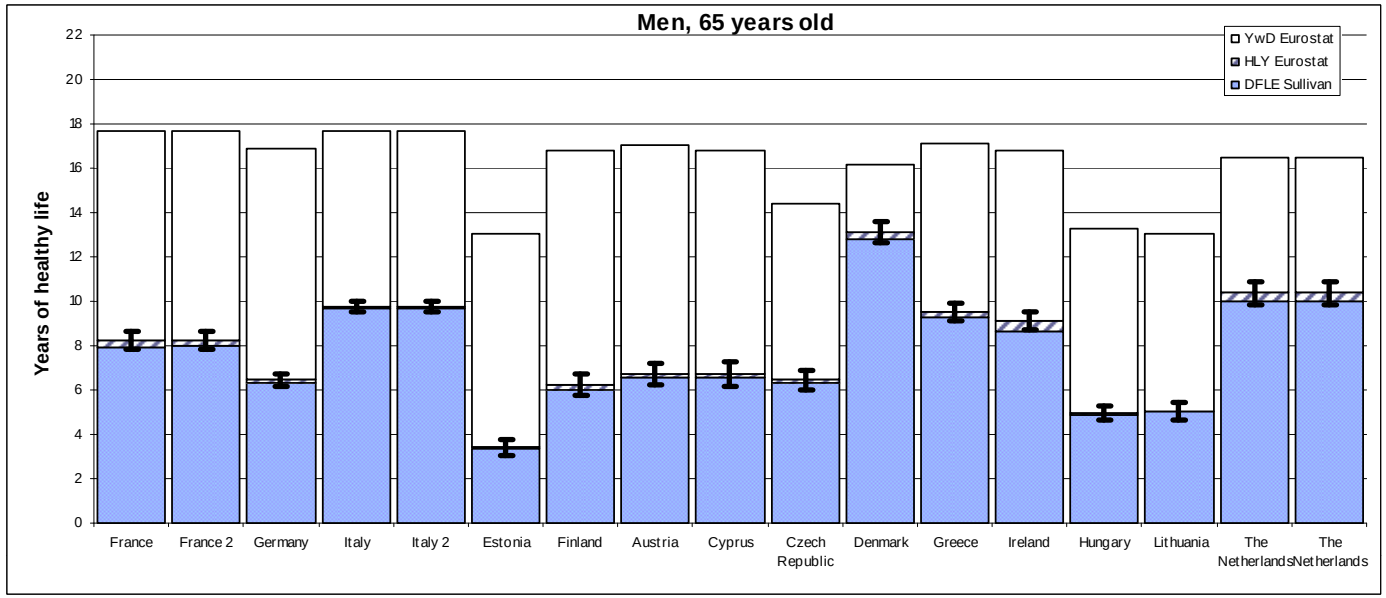


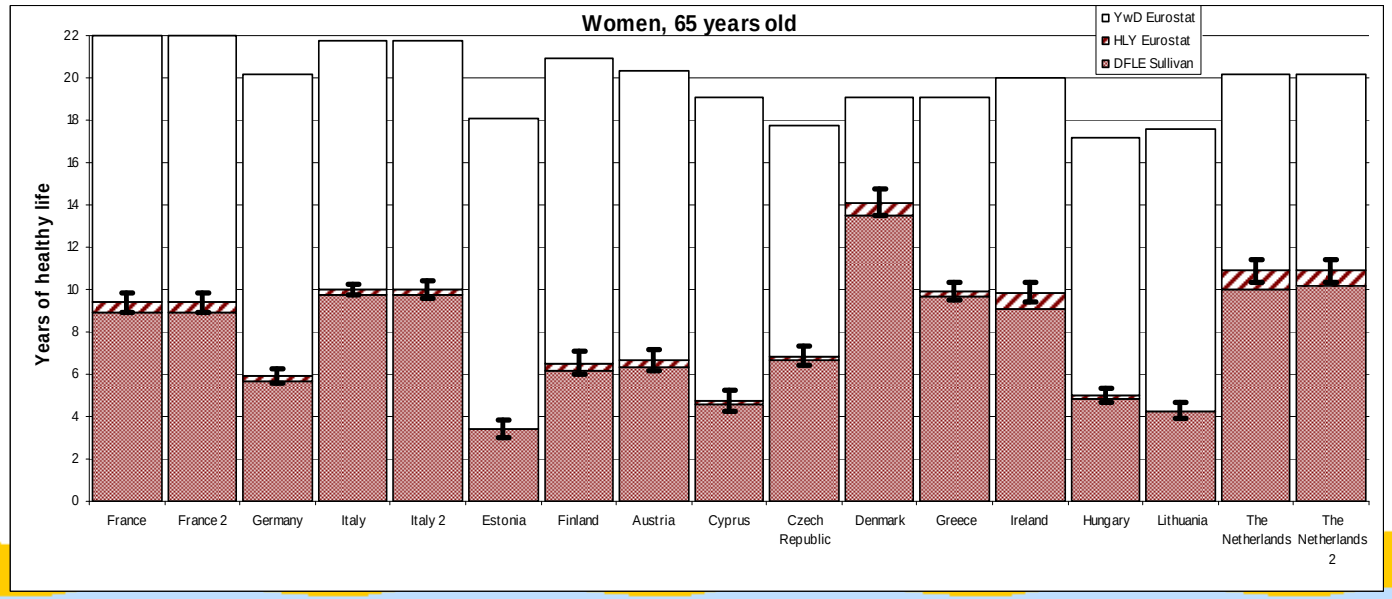
2. Effect on HYL calculations

Months difference and % in the total years with disability (65)



2. Effect on HYL calculations





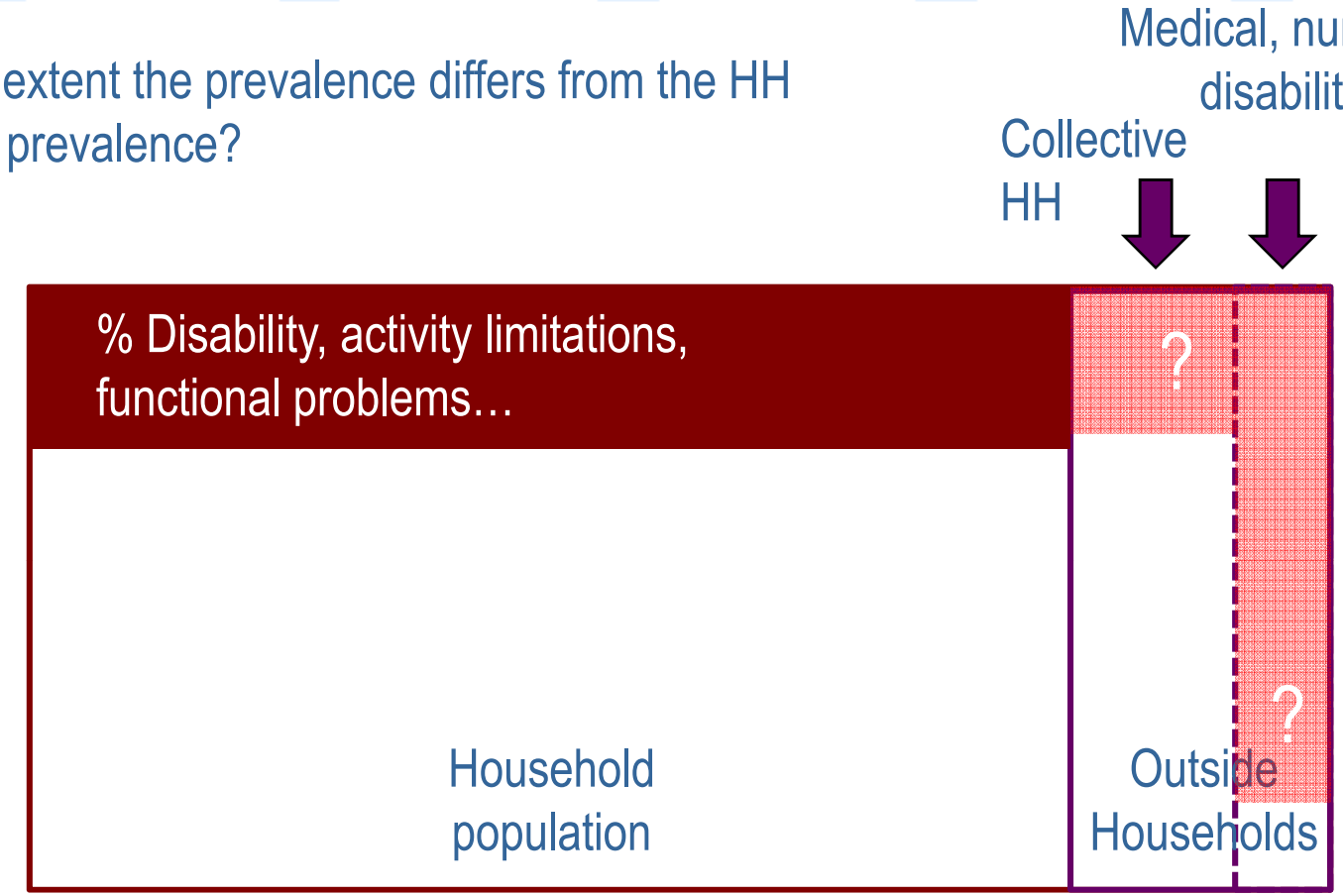
2. Effect on HYL calculations

- Eurostat calculations overestimate the HLY to a different extent from one country to another regarding Sullivan assumption
- The gap reduces if considering only care related institutions
- The difference is in most cases within the confidence interval

➔ How reliable could be Sullivan assumption compared to Eurostat? What could be the gap in prevalence of GALI in institution vs. HH or vs. 100%?

How relevant are these assumptions

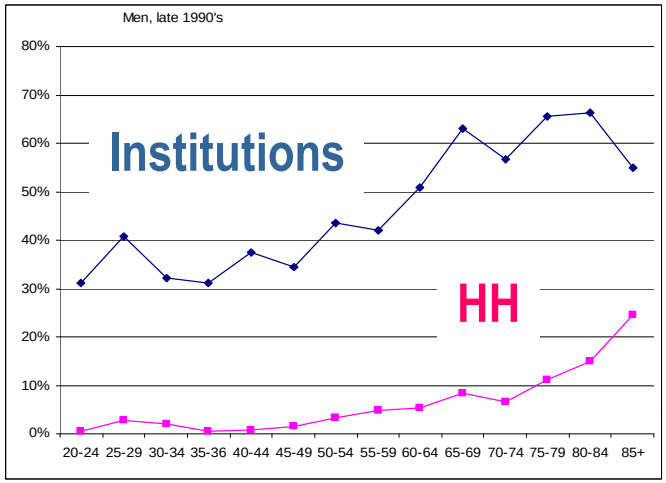
3. To what extent the prevalence differs from the HH population prevalence?

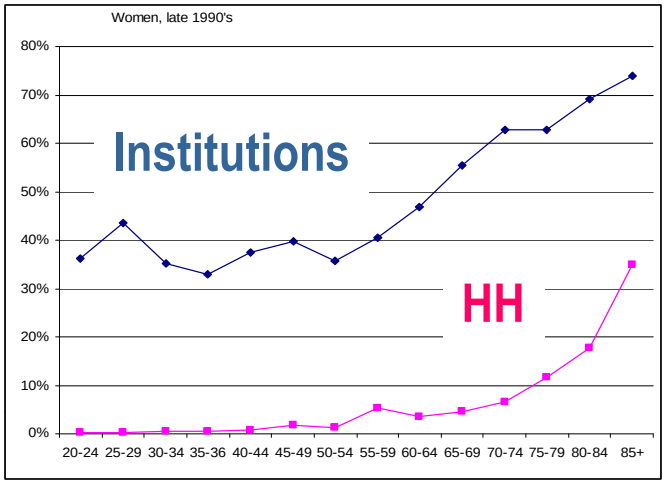


3. Estimates based on comparable HH/Institutions survey

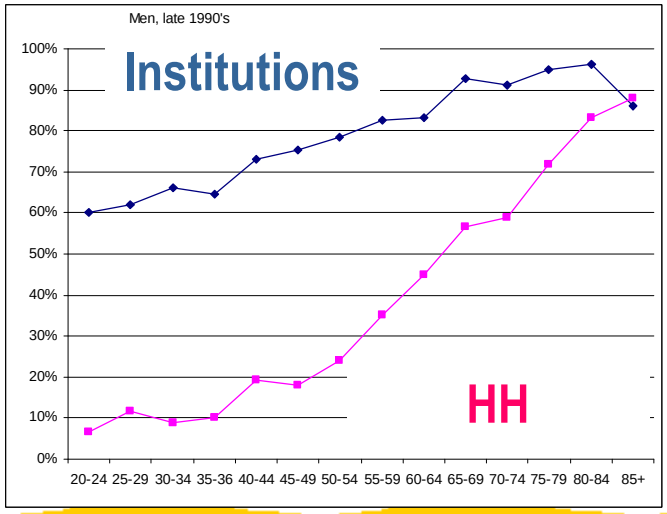
In late 1990's, HID is a HH/Institution based on the French health and disability survey:

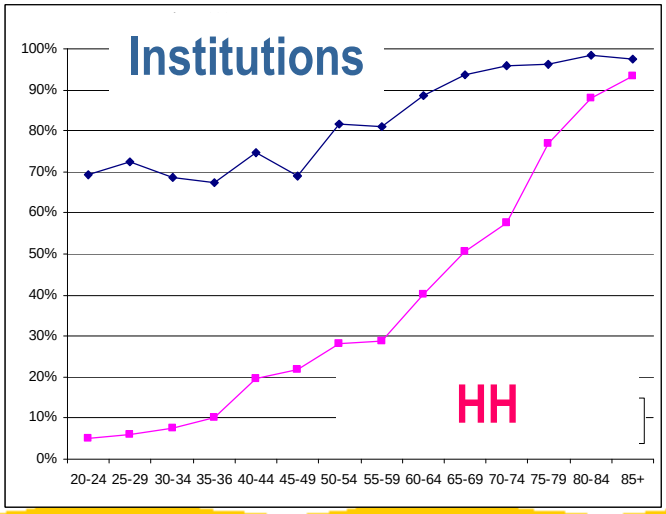
ADL



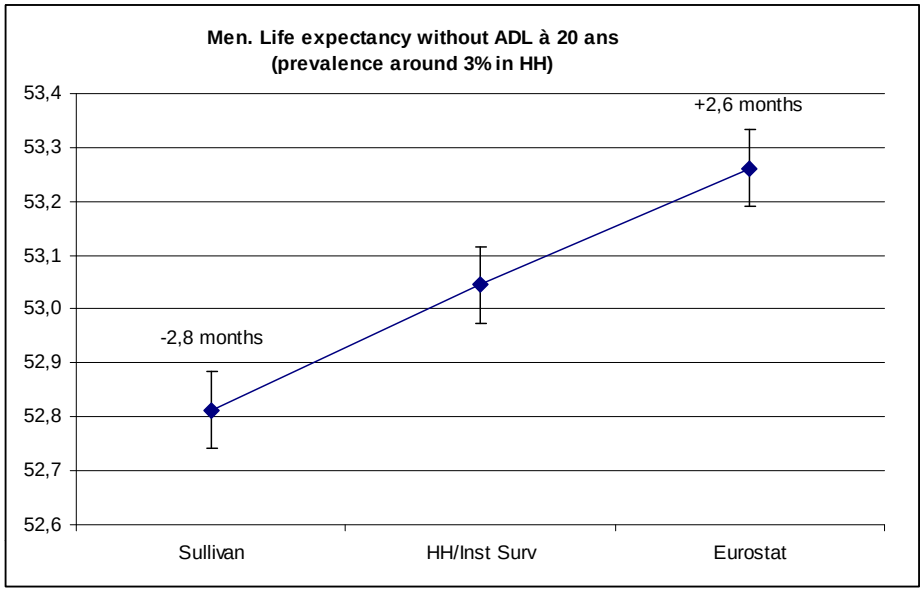


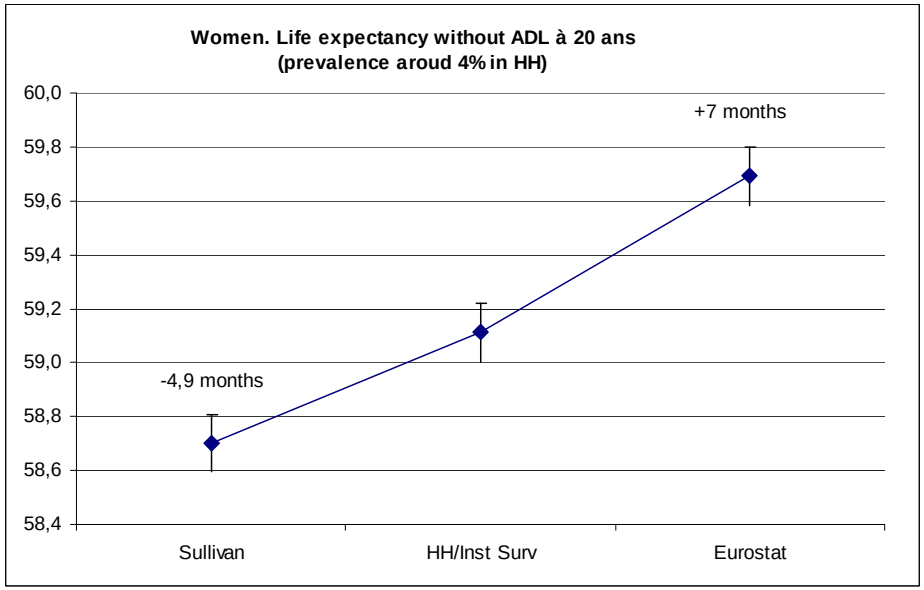
Functional limitations

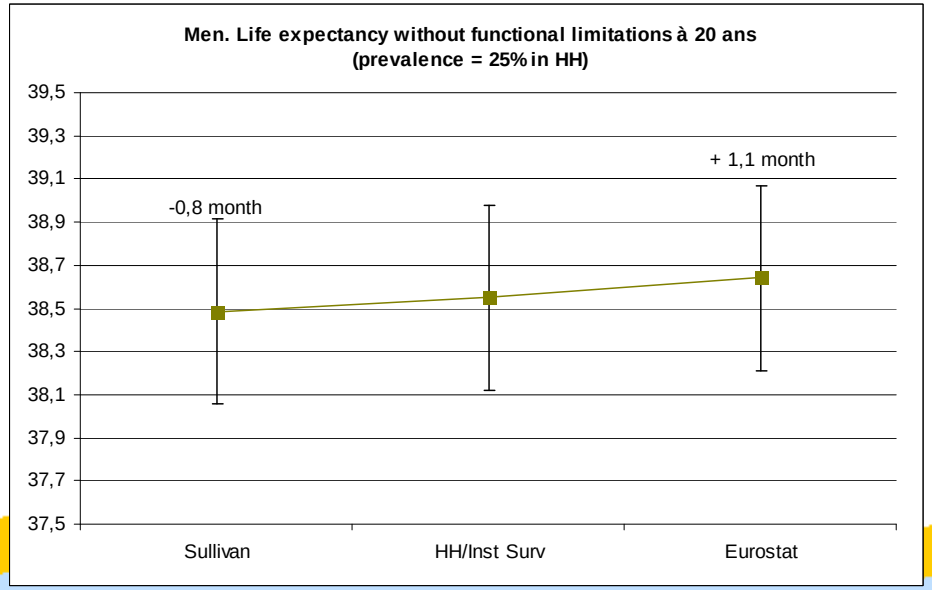


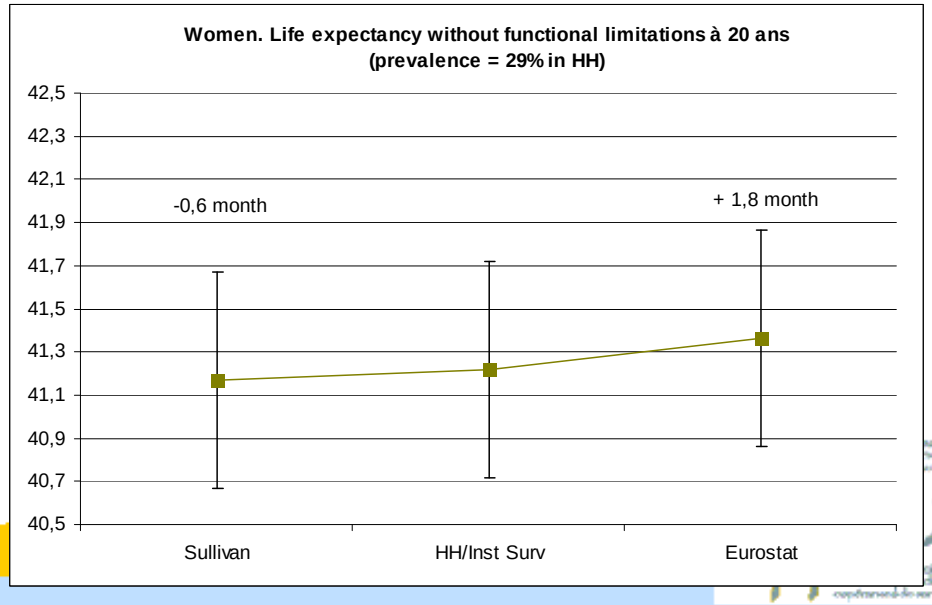


3. Estimates based on comparable HH/Institutions survey









Conclusion

1. Based only on HH information, population estimates are underestimating the prevalence of disability. The magnitude of the bias depending on the age patterns of living outside institution and type of disability under consideration.

2. Sullivan assumption seems more accurate but only when statistics allows to focus on health related institutions.

3. But, the variation of the % and type of institutions across Europe prevents from applying Sulllivan assumption.

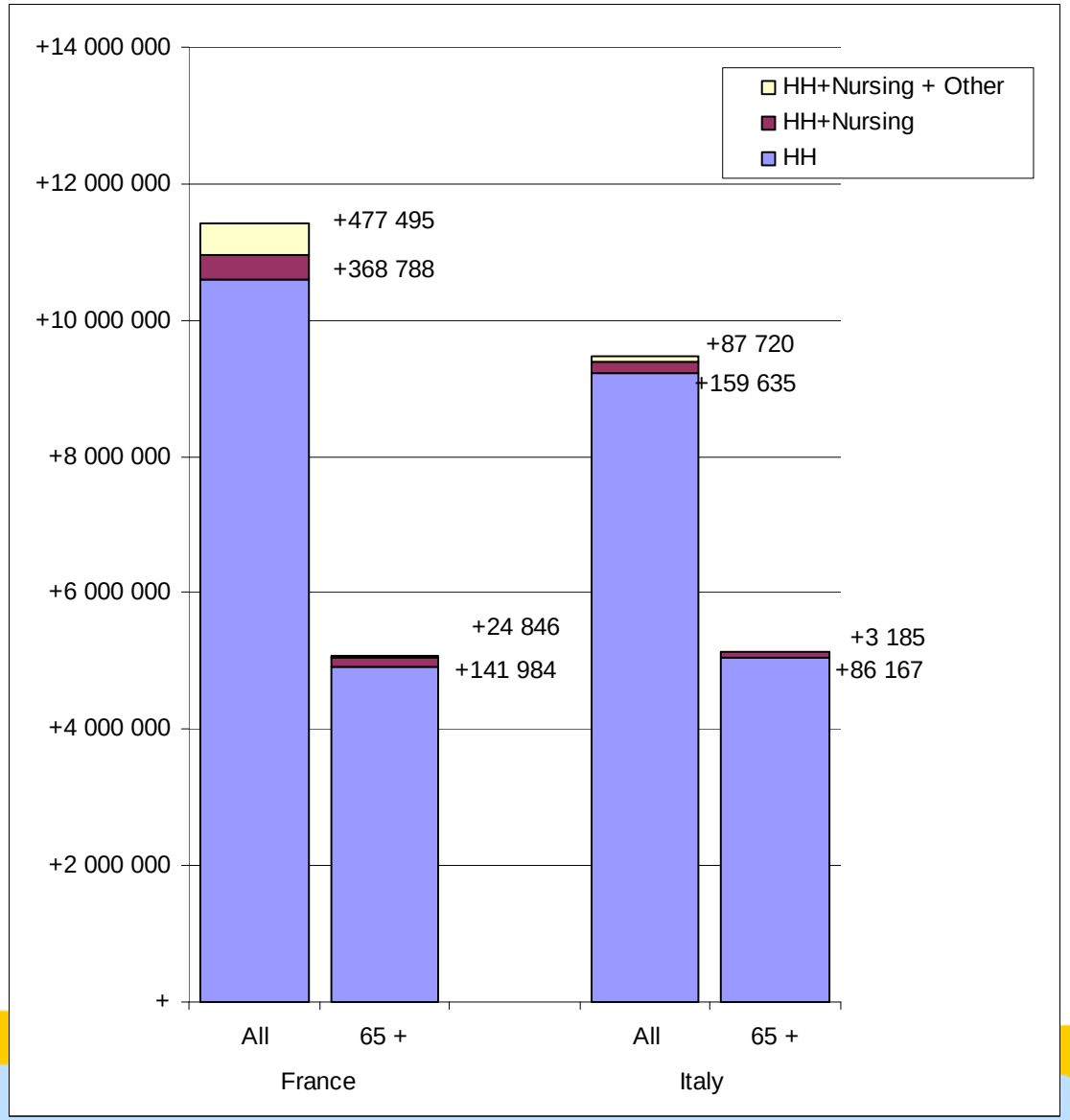
4. In any case, the reality is in between the two assumptions, giving the two limits of a range for the estimates

5. Such approach can be useful to avoid conducting worldwide surveys in institution to better estimate population disability prevalence

European
health expectancy
Ehemu

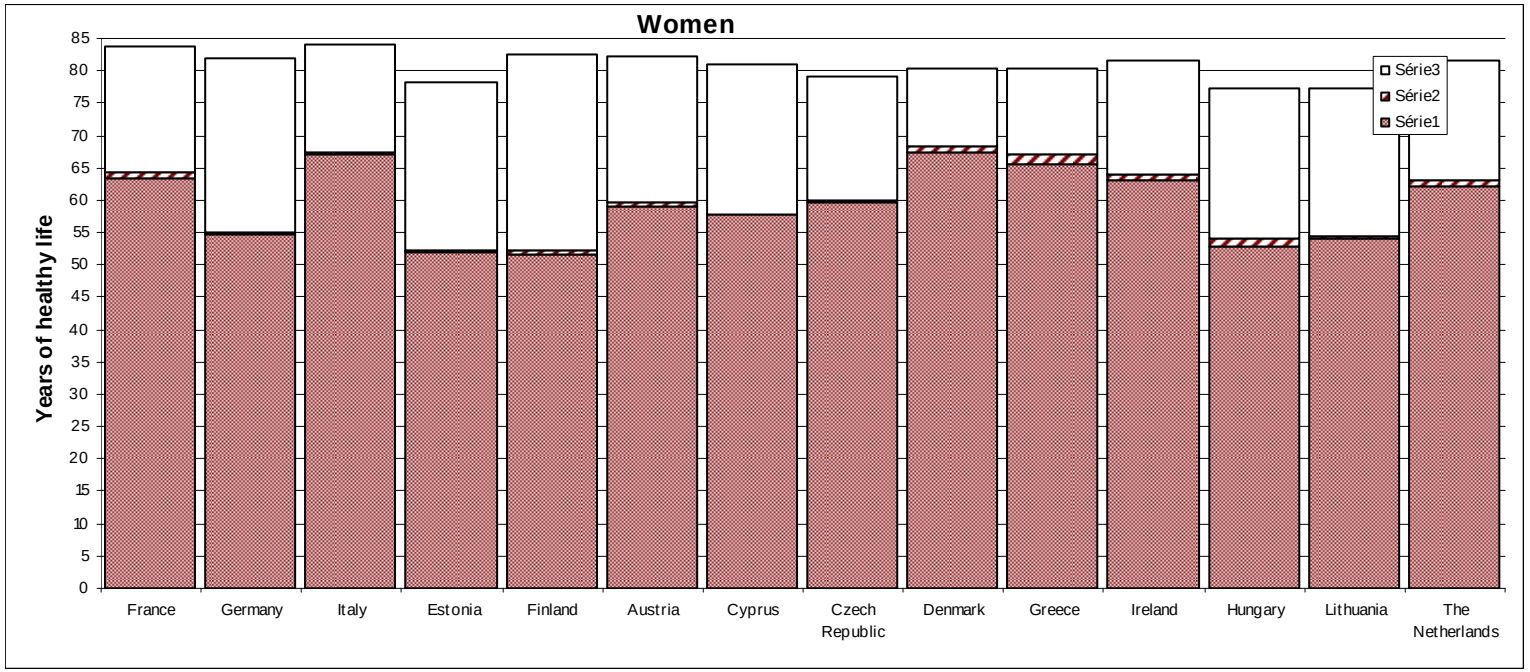
2. Impact on the numbers

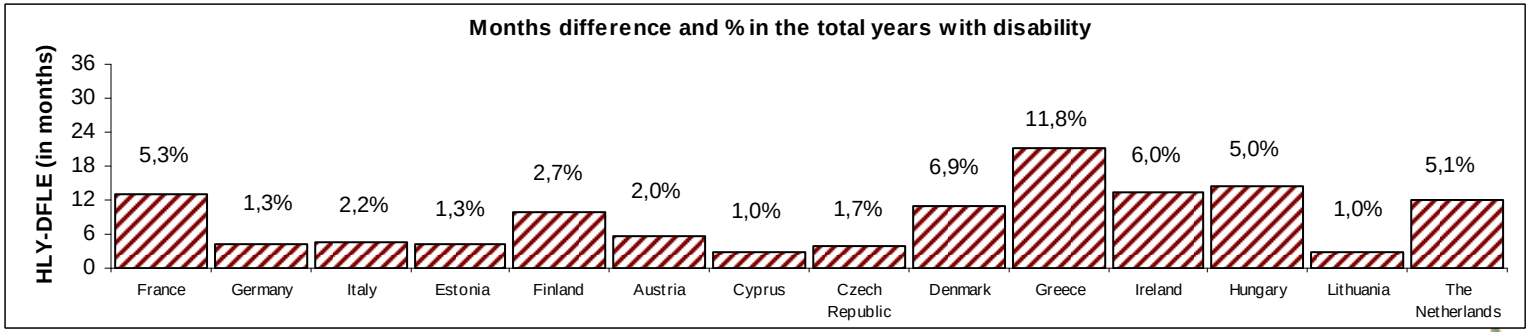
The number of people with activity limitation in adult population



2. Impact on HYL calculations

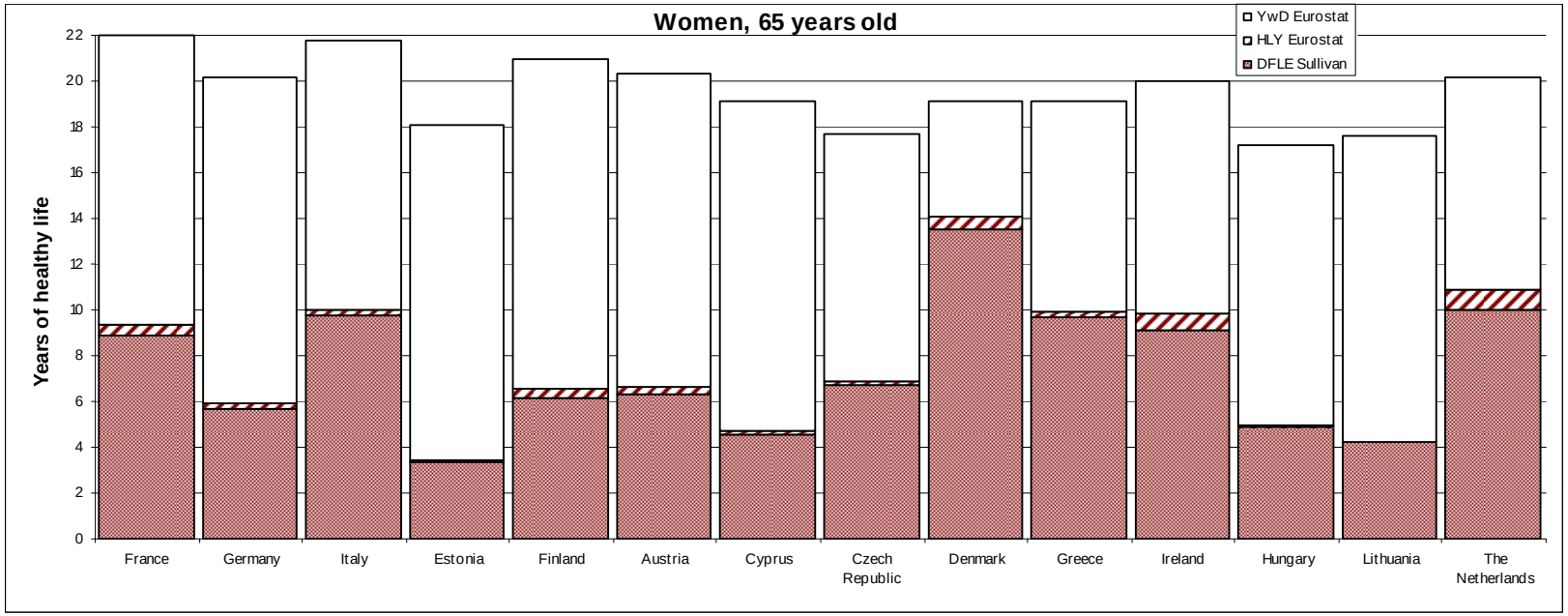
At birth

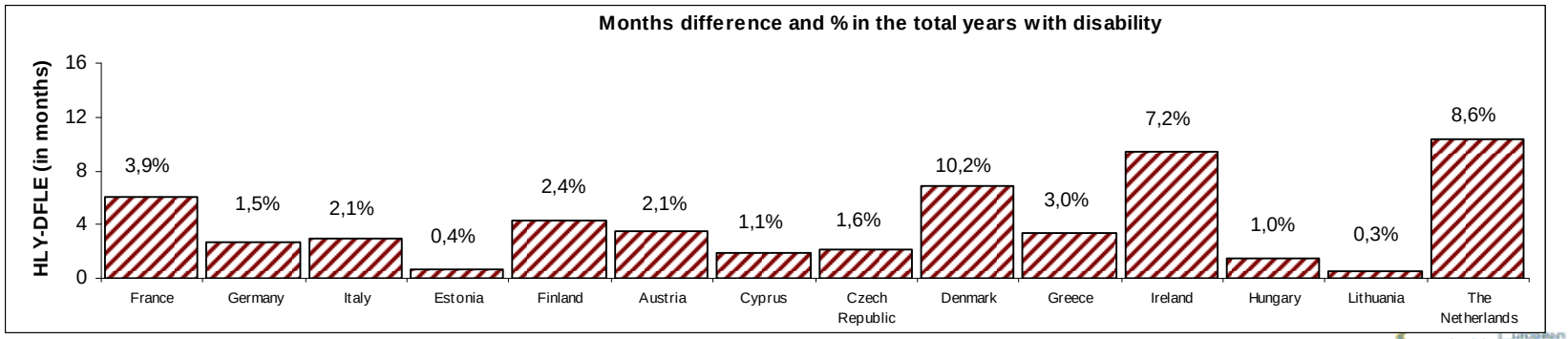




2. Effect on HYL calculations

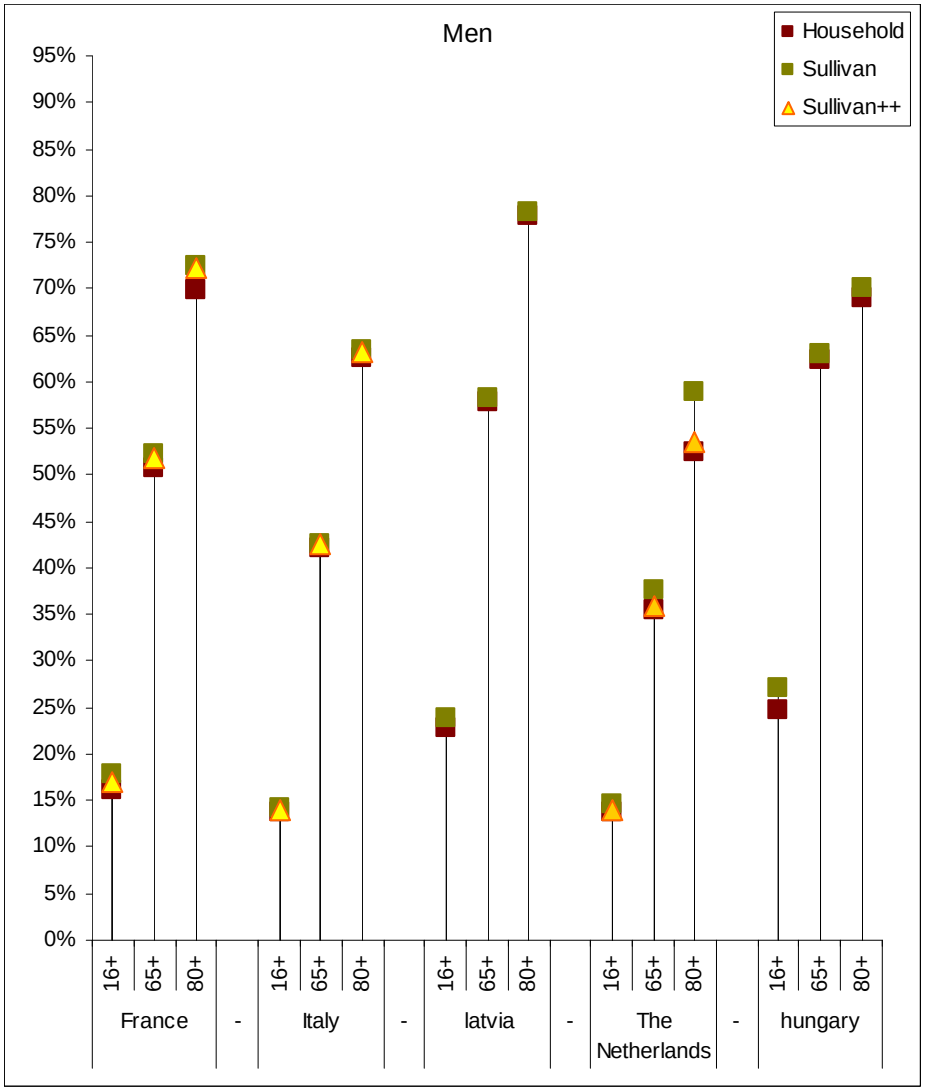
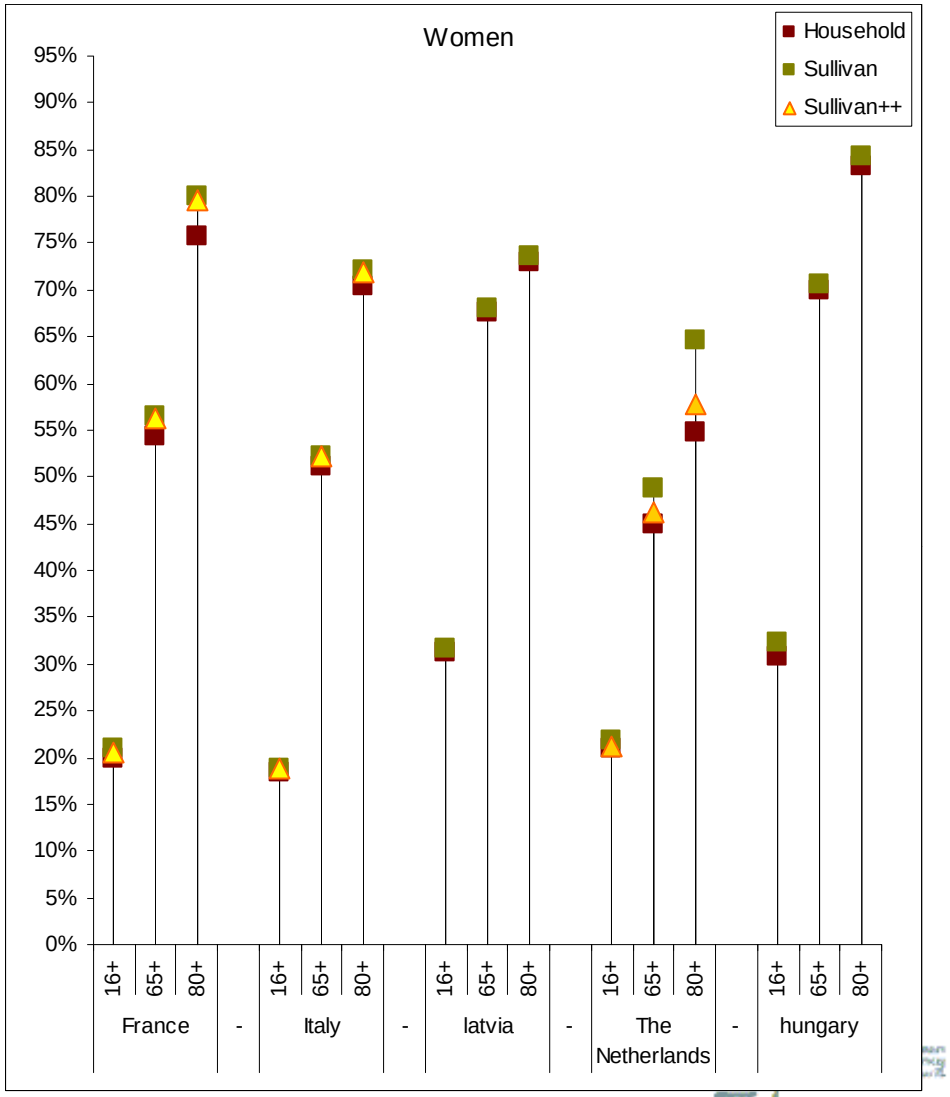
At age 65





3. Estimates based on comparable HH/Institutions survey

1. For disability status with low prevalence (ADL), the difference btw HH and Inst are large but the total number of persons concerned is limited: the impact of both assumptions is larger than the confidence interval. Eurostat assumption diverges more than Sullivan, reach a 7 month of HLExp at age 20

2. For disability status with high prevalence (common with age…), the difference btw HH and Inst prevalence reduces with age while % living in institution increases. This inverted trends makes the impact of either assumptions low even if Sullivan is closer to the observation. The differences are within the IC.

2. Impact of the assumptions on the prevalence of « Activity limitation »