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## Introduction

- Need to monitor disability in period of aging populations → development of a global single-question item for use in census, national surveys,...
- The GALI: "For at least the last 6 months, have you been limited because of a health problem in activities people usually do?"  
1) Yes, strongly limited; 2) Yes, limited; 3) No, not limited

- The GALI is part of the Minimum European Health Module together with two other single-question items on self-perceived health and chronic conditions
- Healthy life years (HLY), which has been elected as the new structural indicator of the European community, is calculated from the GALI
- Objective: To evaluate the GALI against several other health indicators

## Methods

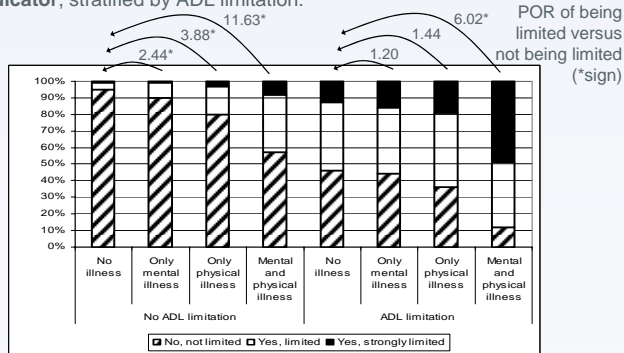
- Data from the Belgian Health Interview Survey 2001 (age 15+, N = 9168)
- Health indicators against which the GALI was evaluated:

Composite morbidity indicator	Chronic physical conditions + Mental health
Chronic physical conditions co-morbidity score	Chronic physical conditions
Symptom Check List 90R co-morbidity (SCL-90R)	Mental health
General Health Questionnaire-12 (GHQ-12)	
Limitations in Activities of Daily Living (ADLs)	Physical limitations
SF-36 physical domain scale	

- Proportional odds models to obtain the predicted probability distribution of GALI by categories of the health indicator in question,
  - adjusting for covariates gender, age, educational attainment and language
  - taking into account the complex sampling design
- Proportional Odds Ratio (POR) of being limited versus not being limited / being strongly limited versus being limited
- Testing the homogeneity of the GALI probability distribution across the covariates by the statistical significance of the interaction between the health indicator in question and each covariate

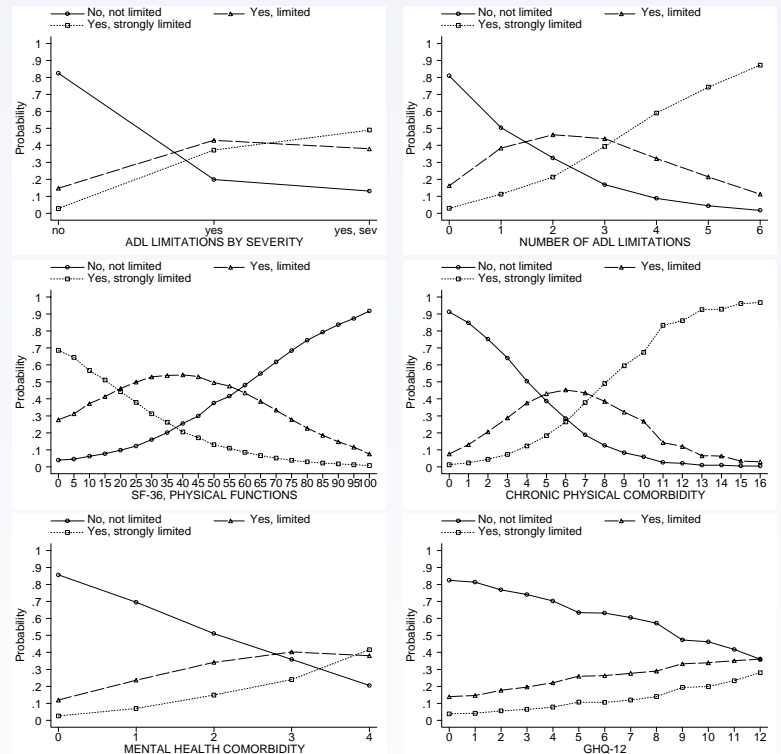
## Results

- 81% of men and 78% of women reported no GALI limitations; this proportion decreases with age and with lower education
- The GALI probability distribution as a function of the **composite morbidity indicator**, stratified by ADL limitation:



- Compared to people with only physical conditions, the proportion (strongly) limited is always lower in people with only mental illness and higher in people with both mental and physical health problems.
- POR of having GALI limitations substantially lower when ADL limitations are present, still the effect of having both mental and physical health problems on the GALI is substantial.
- Homogeneity: probability distribution behaves similarly across gender, age, educational attainment and language groups, with the exception of age and education in subjects without ADL limitations.
- The GALI in relation to the **other health indicators**:
  - The proportion "not limited" drops rapidly in case of physical limitations, chronic physical conditions or mental health problems, while the inverse is observed for the proportion "strongly limited". The proportion "limited" follows an intermediate course.
  - Compared to the physical indicators, the relation between the GALI and mental health indicators, especially the GHQ-12, is less clear.

- 19% of subjects with at least one ADL limitation reported no GALI limitation, apparent lack of ability of the GALI to capture these subjects could be due to:
  - lack of time frame in ADL question
  - process of adaptation to ADL limitations
  - questionnaire self-administered (GALI) vs. face-to-face (ADL)



## Conclusions

1. The GALI performs appropriately against indicators measuring mental and physical indicators solely and appears to capture activity limitations as a result of either mental or physical problems, even in absence of ADL limitations.
2. The GALI identifies subjects with ADL limitations and physical or both mental and physical health conditions. This ability is however reduced in subjects with mental conditions and in subjects with only ADL limitations.
3. This first evaluation of the GALI is promising and indicates the potential added value of this single-question item to capture global activity limitation in both health and non-health surveys.