he role of assistive devices in
ends of functional ability,
he Netherlands 1992-2003

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Background

- United States a.o.: Decreasing trends in disability rates in older age

- Decreases in disability partly attributed to increases in use of assistive devices

- The Netherlands: Contradictory evidence on trends in disability rates at older ages

- LASA: increasing disability rates, despite increases in use of assistive devices

Research question

Seemingly contradictory trends - explanation?

Different trends for disability and device use across subpopulations?

ILASA

Longitudin[al]
Aging
Study
Amsterdam

Longitudinal Aging Study Amsterdam
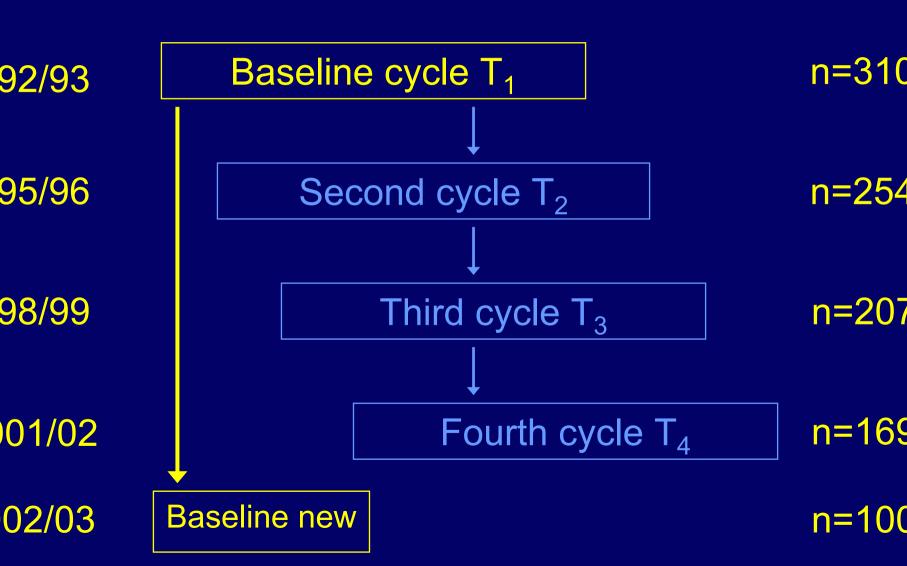
Random sample

3107 men and women

Ages 55-85

Start 1992

3-year intervals

LASA time schedule

92/93 | Baseline cycle T_1 | n=310

Second cycle T_2 | n=254

98/99 | Third cycle T_3 | n=207

001/02 | Fourth cycle T_4 | n=169

02/03 | Baseline new | n=100

Trend: comparison 1992-2002

Ages 55-64 years

Year:	N
1992-3	935
2002-3	980

Disability measures

Self-reports

no difficulty / difficulty / only with help / not able to:

Going up and down a stair case

Cutting one's toenails

Using own or public transportation

Score: 0 (none) … 9 (maximum)   Need-help disab

Mild disability: >= 1 and < 3   >= 1

Severe disability: >= 3

Overlap score-based / need-help disability

	Score-based disability		
	No	Mild	Severe
% Need help			
1992	-	6%	95%
2002	-	1%	86%

Assistance

For each disability item if:

no difficulty / difficulty / only with help

Assistive device use: no - yes

Human assistance: no / seldom / sometimes - often / always

Covariates

Socio-demographics: Sex, Age,
Education (high: > lower vocational training)

Depressive symptoms: Center for Epidemiologic
Studies Depression scale (CES-D); range 0-60;
score $\geq$ 16

\# Chronic diseases: Heart diseases, Stroke, Diabet
Lung Diseases, Cancer, Joint disorders

	Mild	Severe	Need help	Device
1992	12.2	5.8	6.5	5.9
2002	18.1	10.6	9.3	10.5

Longitudinal Aging Study Amsterdam; sample 2002 weighted to 1992

% Device use in 1992 and 2002, ages 55-64

	1992	2002
No disability	2.6	2.8
Mild disability	19.3	27.5
Severe disability	24.1*	33.5*
Men	5.5	8.3
Women	6.2	12.6*
Low education	8.5*	13.8*
High education	2.8	8.2
No depression	5.5	7.6
Depression	9.0	27.2*

Compative analysis

Logistic regression analysis -> OR

- Dummy for Cohort: 0 = 1992, 1 = 2002

  test of OR(Cohort) -> trend

- Adjustment for covariates

- Interaction Cohort*Covariate one by one

  test of Interaction -> differential trend

Trend in disability 1992-02, adjusted OR

	Mild	Severe	Need help	Device
Total	*1.85*	*1.71*	1.33	1.71
Men	1.36	1.05	0.63	
Women	*2.39*	*2.48*	*2.11*	
Low education				1.02
High education				*2.57*
No depression	*1.66*			1.14
Depression	*2.90*			*2.85*

...tudinal Aging Study Amsterdam; *bold italic:* trend significant; *bold italic:* interaction significant

Conclusion on trends

- Increase in disability, mild more than severe

- Increase in assistive device use

- Increase in disability in *women* and depressed

- Increase in device use in *higher educated* and

  depressed

Discussion

- Association with human assistance?

- When human assistance, more device use: OR = 5.0

- Trend in human assistance: 3.4% -> 6.9% (OR = 1.58

- Increase regardless of socio-demographics or

  health status

- Results on trends in device use unaffected

Explanations (?)

Education/gender discrepancy in device use:

- Higher educated better manage their disability
  - *if* disabled

- Higher educated have higher norms of good health

- Lower educated and women have less money to spend than higher educated and men