### Health among very old Swedes

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### Why Sweden?

% 80 +					
	1960	2000	2040		
Sweden	1.9	5.0	7.9		
Japan	0.7	3.8	14.1		
Spain	1.1	3.8	8.5		
Netherl.	1.4	3.2	7.6		
Austral.	1.2	2.9	7.3		
OECD		271	27.2		
average	1.3	<i>3.1</i>	7.7		

Leads in % 80+

Nat'l health care since1960s

Source: OECD 2005

### Questions

- Health changes in the elderly population?
- Changes in relationships between pathology—limitation—disability?
- Frailty? Increase in the very vulnerable sector of the elderly population?
- Different trends during different periods?

# The Swedish Panel Study of Health and Living Conditions of the Oldest Old

### SWEOLD

Parker et al 2005, J of G:MS, 60A, 1351-55

### **SWEOLD**

Nationally representative interview survey, institutions & community-based, proxy interviews when necessary

Age 77+

1992

n=537 Non-response 4.6 %

Females 60.5 %

2002

n = 561

Non-response 11.5 %

Females 59.4 %

### Self-reported health problems

cinitist.	% 2002		Change 92-02			02/92	
	No	Mild	Severe	No	Mild	Severe	OR
Leg ulcers	92.8	5.2	2.0	-4.3**	+3.7***	+0.6	2.55**
Diabetes	90.0	6.8	3.2	0.0	-0.4	+0.4	1.00
Fatigue	50.6	37.0	12.4	-17.9***	+13.8***	+4.1*	1.98***
Myocardial infarction	93.5	4.1	2.3	-2.3	+0.9	+1.4	1.56
Hypertension	72.6	20.8	6.5	-4.7	+1.2	+3.5**	1.38*
Stroke	93.9	3.8	2.3	-2.5	+3.0***	-0.5	1.58
Back pain	47.2	28.7	24.1	-9.8**	+1.4	+8.4	1.59***
Joint pain	42.6	34.5	22.9	15.7***	+8.9**	+6.9**	1.84***

SWEULL

### Mobility

- Walk 100 m
- Stairs
- Rise from a chair
- Stand without support

### Hearing

 Hear a conversation between several persons w/o difficulty



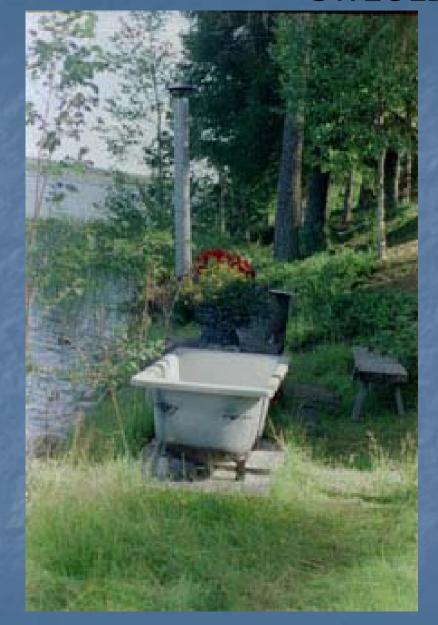
SWEULL

### ADL

- Eating
- •Toileting
- Dressing
- Transfer
- Bathing

### **IADL**

- Cleaning
- Shopping
- Preparing food



### Self-reported function

	% 2002			Change 92-02			2002/ 1992
	No	Mild	Severe	No	Mild	Severe	OR
Hearing	55.1		44.9	-14.4***	ALA!	+14.4***	1.76***
Mobility	39.4	18.4	42.2	-10.8***	+2.8	+8.0**	1.4***
IADL	58.6	19.5	21.8	-2.3	+5.2*	-2.8	0.93
ADL	66.8	15.9	17.3	-3.7	+0.8	+3.0	1.07

Peak Expiratory Flow

### Tests of function



Vision



Performance tests

### Tests of function

	% 2002		Change 92-02			2002/ 1992	
	No	Mild	Severe	No	Mild	Severe	OR
Performance	42.9	15.8	41.3	-8.2	+0.4	+7.8*	1.37**
Peak flow	41.2	37.4	21.4	-15.2***	+6.4	+8.8***	1.82***
Cognition	54.8	25.1	20.0	-10.0**	+3.5	+6.5**	1.48**
Vision	87.2	4.0	8.8	+1.8	-1.9	+0.1	0.81

### Pathology—limitations—disability

- Differences between health indicators
- Signs of a weaker correlation, i e, at the same level of pathology/limitations fewer people in 2002 are disabled
- Explanations?
  - Environmental change
  - Gender roles
  - Assistive technology

### Walking aids 1992-2002

Use of walking aids				
2002/1992	1.79	**		
Male	.69	*		
Age	1.18	***		
Education	.95			
Phys function	1.51	***		
Cognition	.94			

## Increase in the very vulnerable sector of the elderly population?

Complexity:

Serious problems in the following domains:

Cognition/communication Mobility Diseases/symptoms

# Serious problems in the following domains: Cognition/communication Mobility Diseases/symptoms

Problems in:		
	% in 2002	2002/1992 OR
No domain	42	0.6***
1 domain	31	1.3*
2-3 domains	26	1.4*

Meinow et al, accepted E J of Ageing

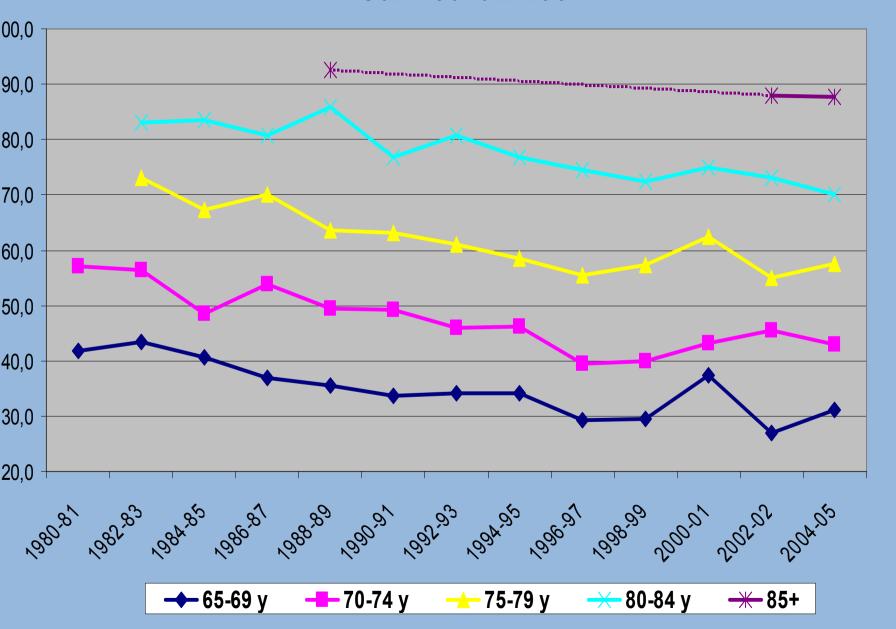
### Questions

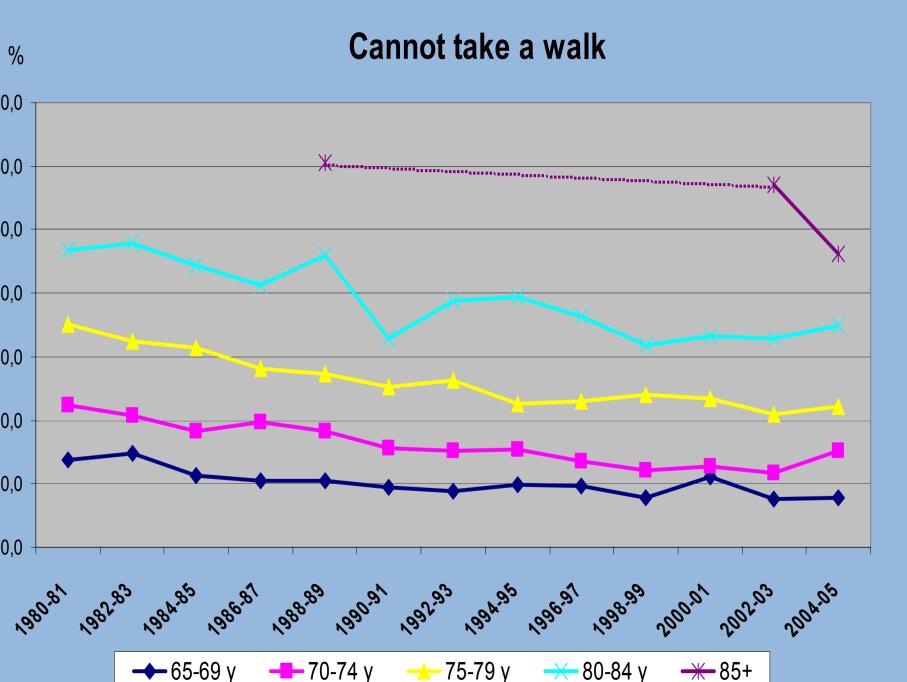
Period changes in trends?

## Living Conditions Survey ULF

- Nationally representative
- Annual interviews
- $N \approx 3000 > 64$  years
- Age ceiling 85 except 1988/89, 2002-05

#### Cannot run 100 m





### Questions

- Health changes in the elderly population?
  Yes
- Changes in relationships between pathology—limitation—disability?
  - Good evidence
- Frailty? Increase in the very vulnerable sector of the elderly population?
  - Good evidence
- Different trends during different periods?
  - Some evidence