



Et lang liv i et aldrende samfund

Jeanne Calment



February 21th, 1875
August 4th, 1997

Et skrækscenarie?

Chris Mortensen



August 16th, 1882
April 15th, 1998

Dansk Gerontologisk Selskabs årsmøde, Klarskovgaard, 9/4-2011

Bernard Jeune

Danish Ageing Research Center, Institute of Public Health, University of Southern Denmark



Det aldrende samfund

”En samfundsudvikling med længere levetid og faldende eller vedvarende lav fødselshyppighed, der fører til en ændret befolkningssammensætning med et stigende antal ældre i forhold til både antallet af børn og unge og antallet af personer i den erhvervsaktive alder.”



Det aldrende samfund 2030

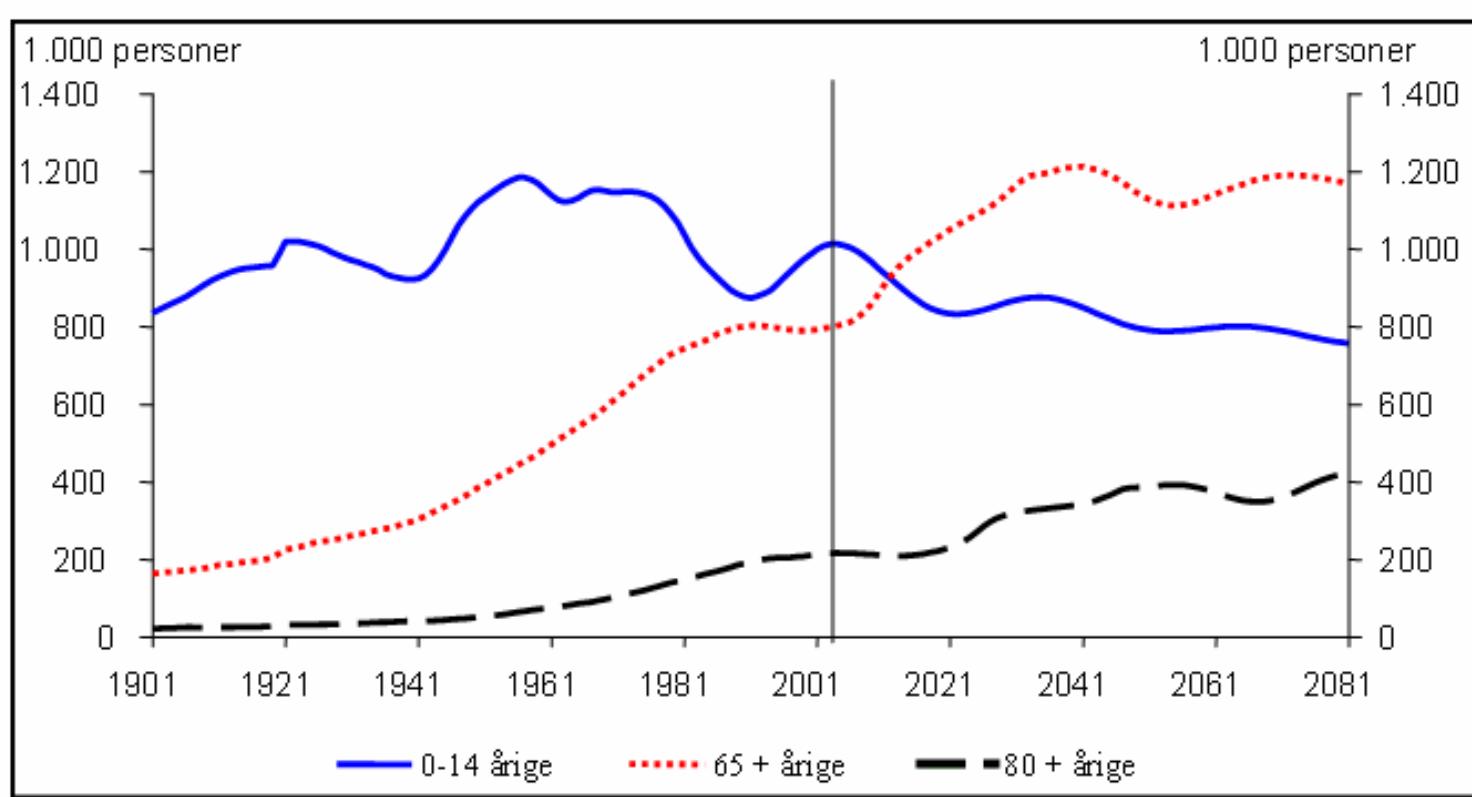
Rapport fra styregruppen for det strategiske fremsyn om det aldrende samfund 2030



Forskningsstyrelsen
Ministeriet for Videnskab
Teknologi og Udvikling

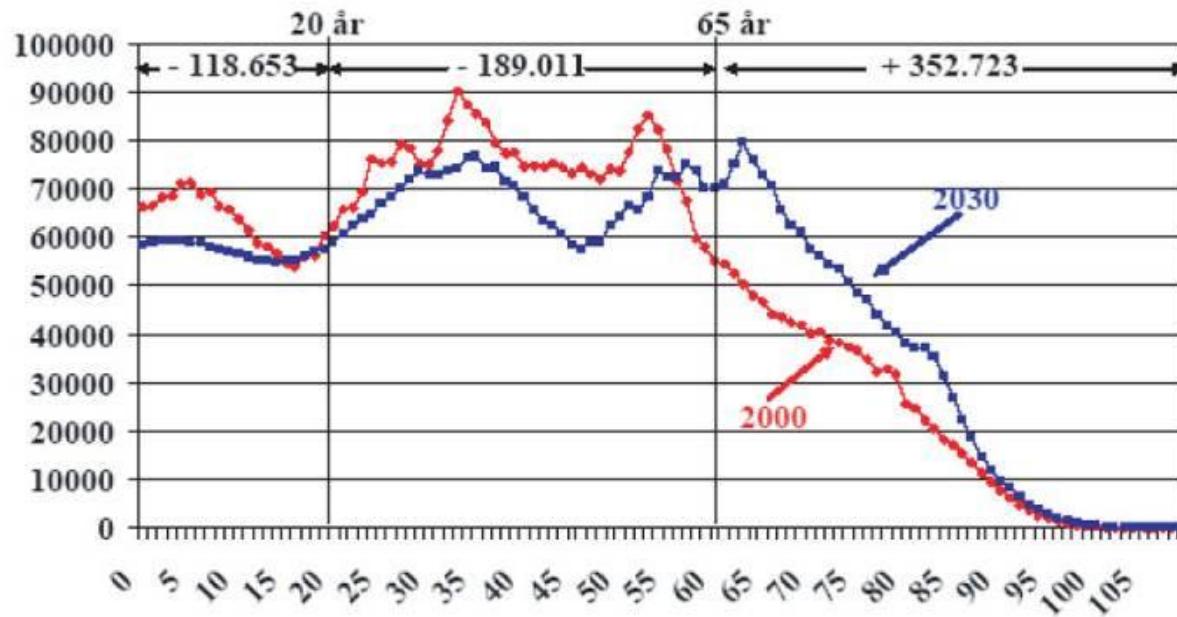
Det Strategiske Forskningsråd

Antal personer under 15 år, over 65 og 80 år



Kilde: Danmarks Statistik og Velfærdskommisionens befolkningsfremskrivning

Aldersfordelingen i Danmark 2000-2030



Kilde: Egne beregninger på grundlag af Velfærdscommissionens befolkningsfremskrivning.

Rembrandt 1606-1669



23



23



28



34



44



46



50



51



52



53



55



62



62



62



63



Rembrandt 1669 (about 62 years)



Self-Portrait



Self-Portrait as Zeuxis



Ser de ældre ud end Rembrandt?



Jeanne Calment
21/2 1875 – 4/8 1997

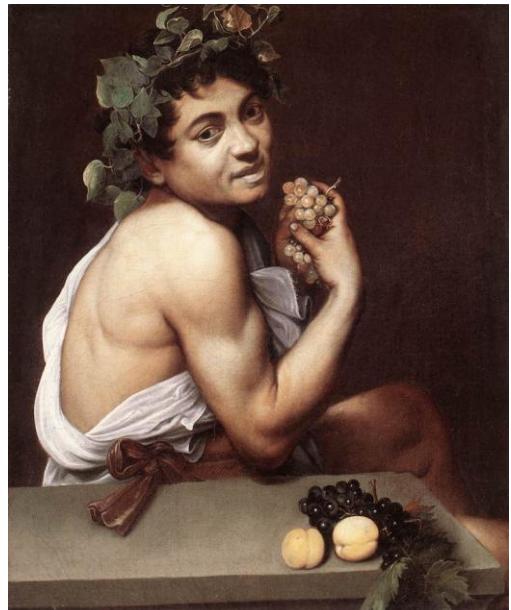


Christian Mortensen
16/8 1882 – 25/4 1998

Ældes vi langsomere end tidligere?



Caravaggio: 1571-1610

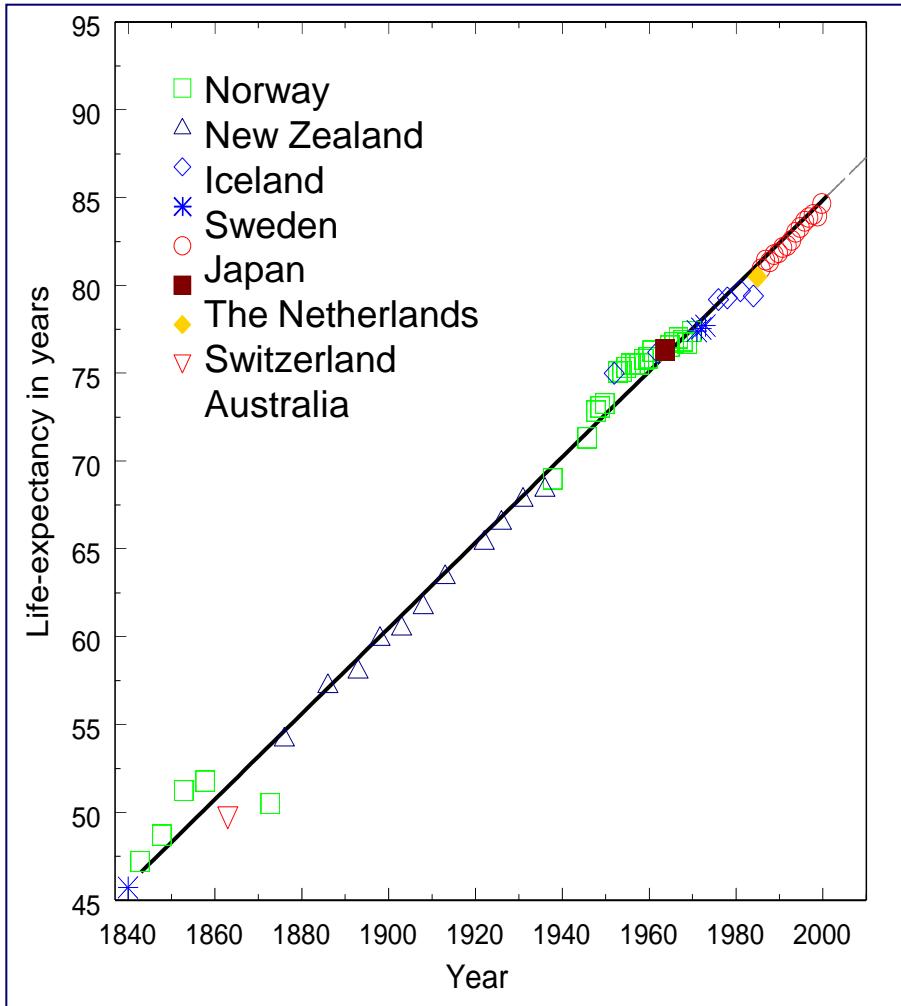


Sick Bacchus, 1591

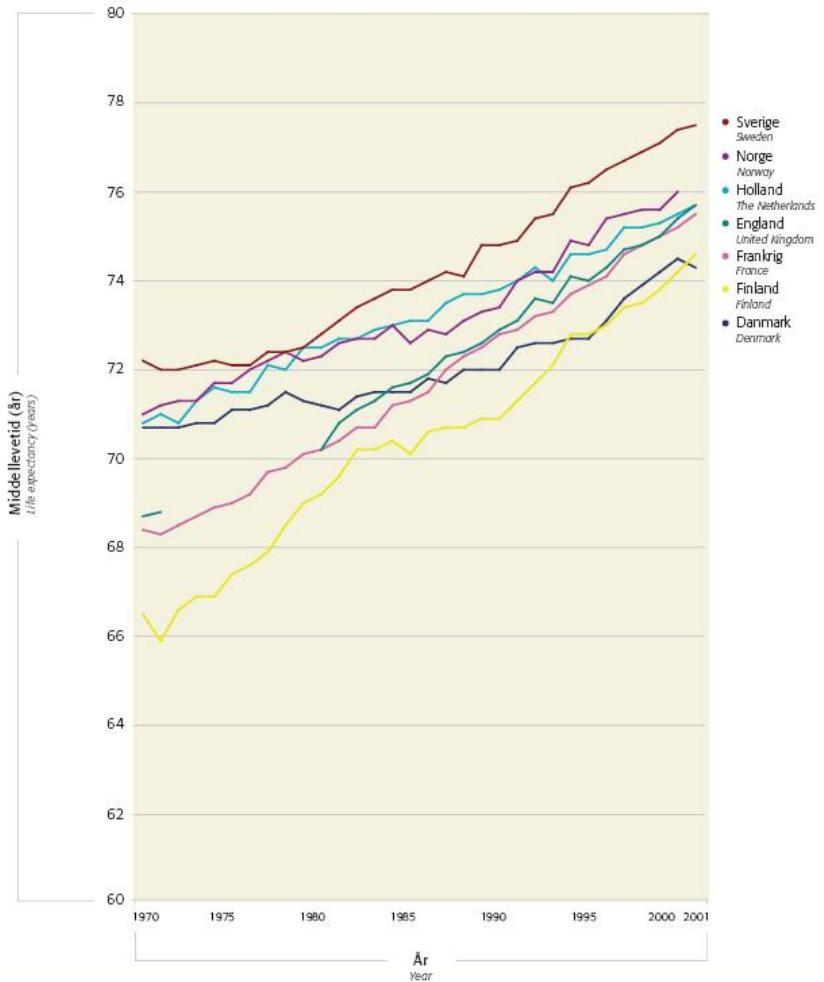


Boy with a Basket of Fruit, c.1593/94.

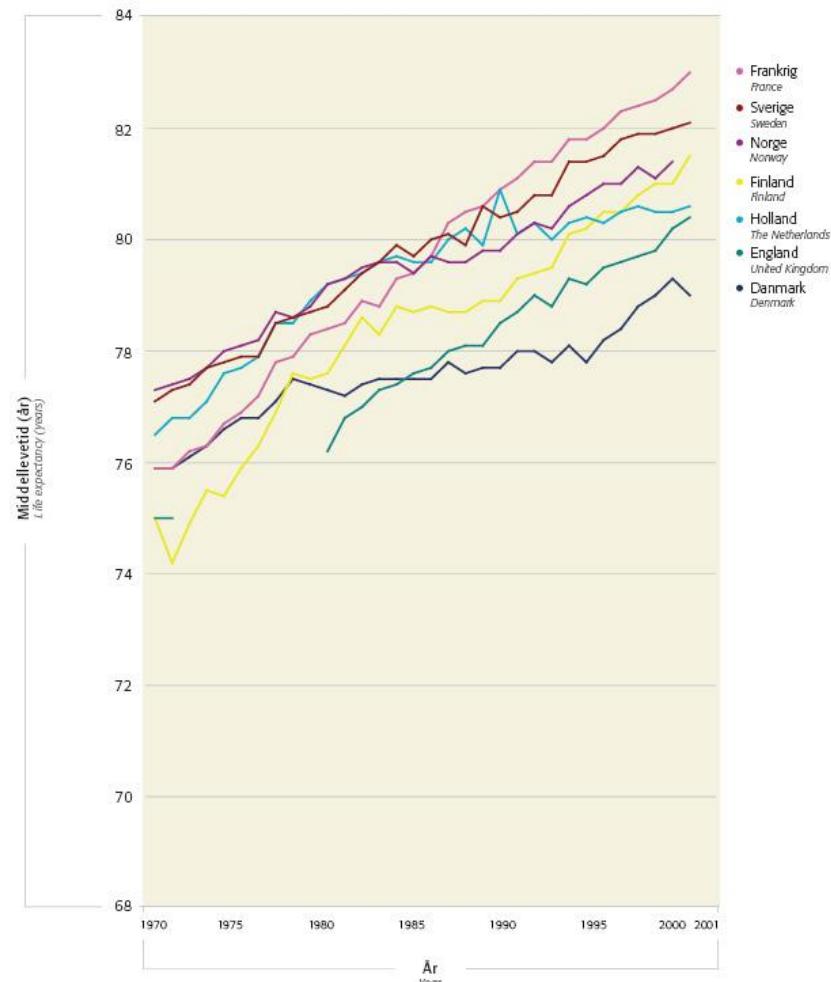
Verdensrekord i levetid (for kvinder 1840-2000)



Middellevetid i udvalgte europæiske lande



Mænd



Kvinder

Sandsynlighed for at dø hos 80- og 90-årige

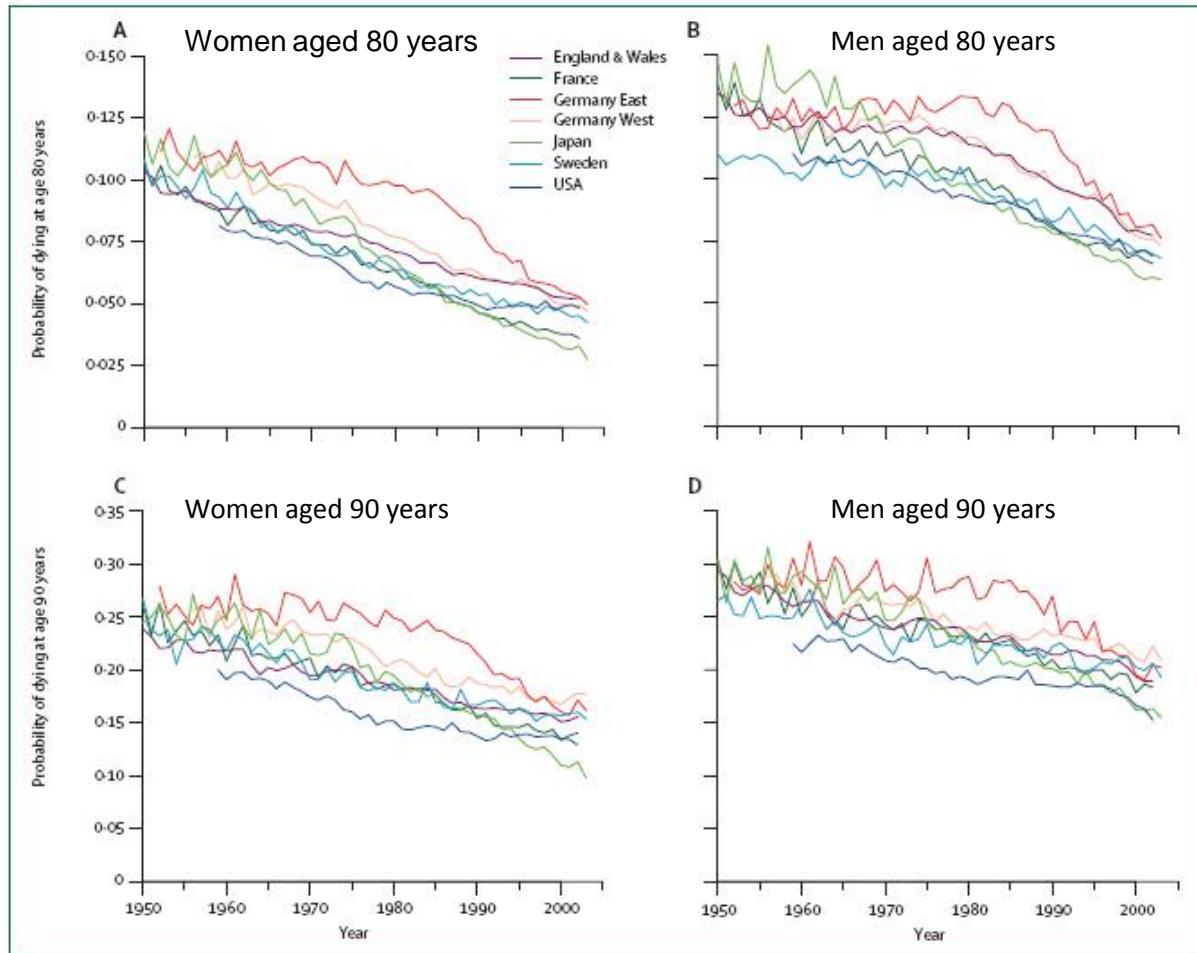
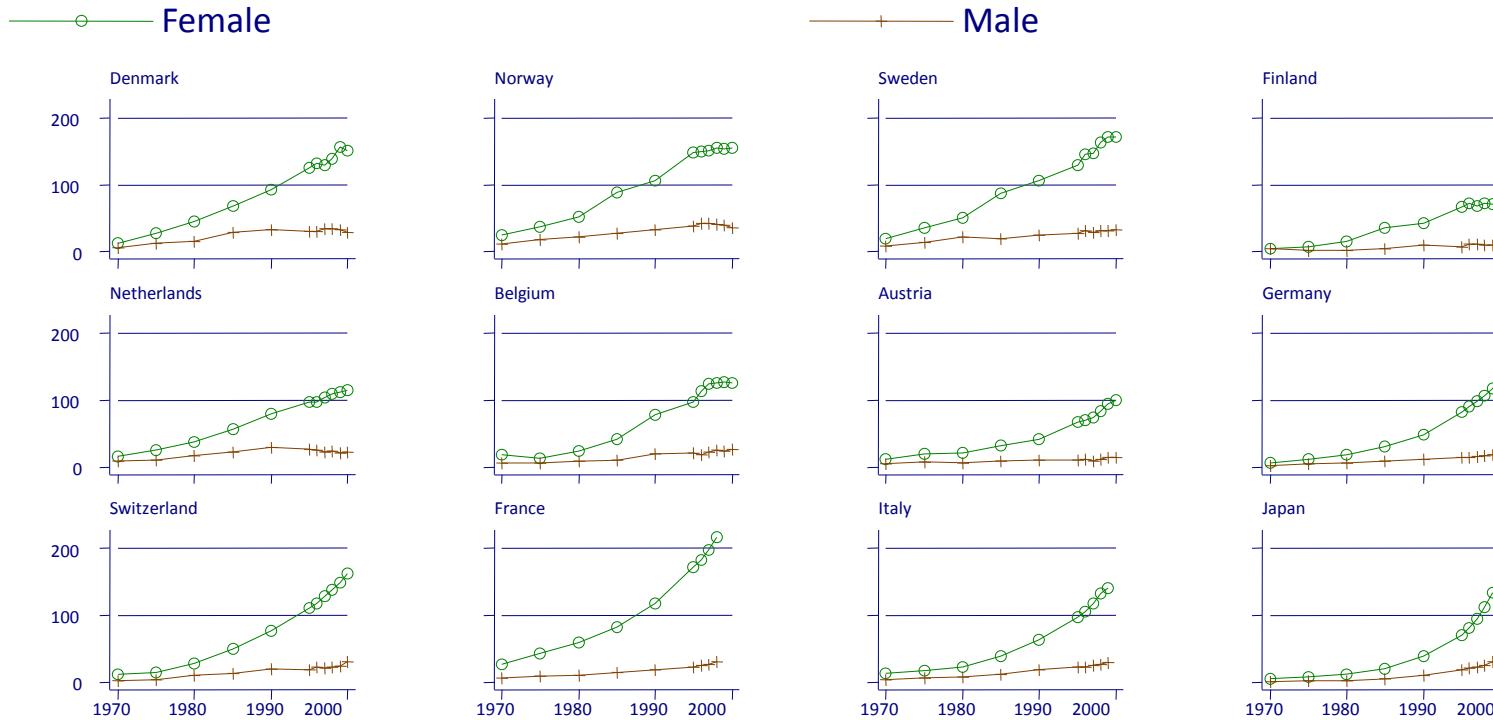


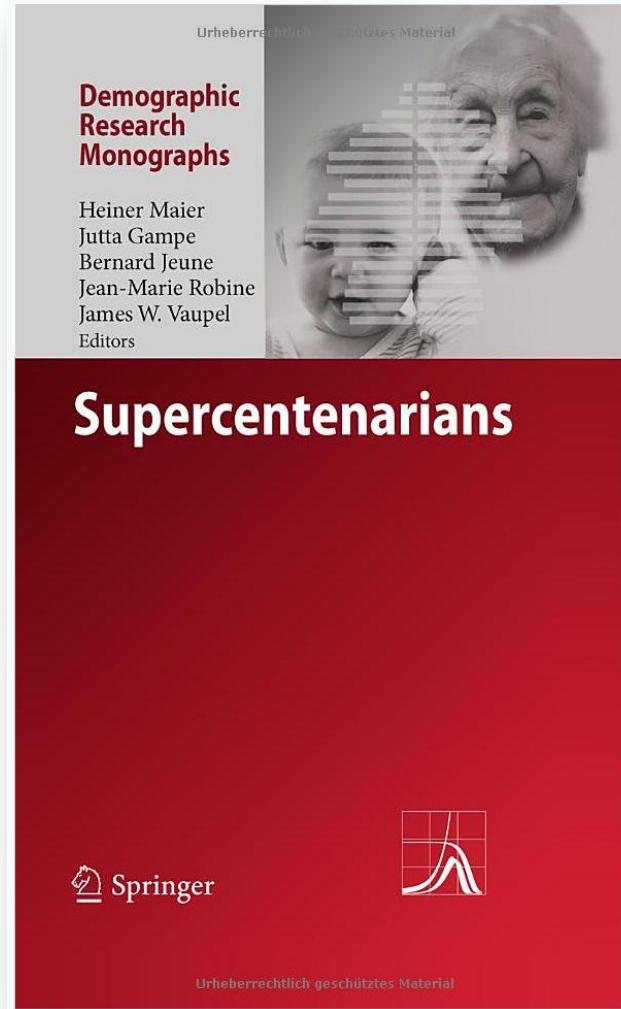
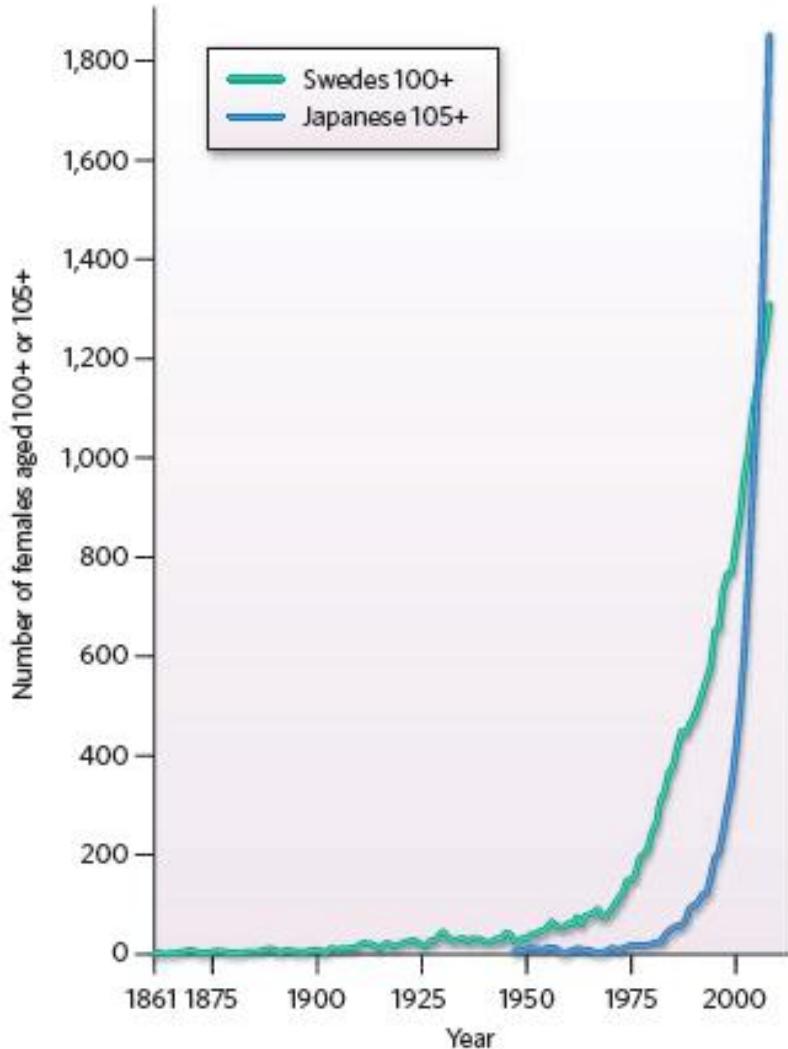
Figure 2: Probability of dying for elderly men and women in selected countries from 1950 to 2003
(A) Women aged 80 years. (B) Men aged 80 years. (C) Women aged 90 years. (D) Men aged 90 years. Data from reference 27.

Hundredårige per million i udvalgte lande i Europa plus Japan





De nye generationer af 105- og 110-årige



Vaupel. Nature 2010



De fire længstlevende



Jeanne Calment - 122 år / 21.2.1875 * - 4.8.1997 †



Marie-Louise Meilleur - 117 år
29.8.1880 * - 16.4.1998 †



Sarah Knauss - 119 år / 24.9.1880 * - 30.12.1999 †



María Esther de Capovilla - 116 år
14.9.1889 * - 27.8.2006 †



Andre 115+ årige



Marie Brémont - 25.4.1886 * - 6.6.2001 †



Maud Ferris-Luse
21.1.1887 * - 18.3.2002 †



Betty Wilson
13.9.1890 * - 13.2.2006 †



Hendrike van Andel-Schipper
29.6.1890 * - 30.8.2005 †



Winnifred Bertrand
16.09.1891 * - 18.1.2007 †



Susie Gibson
31.10.1890 * - 16.2.2006 †



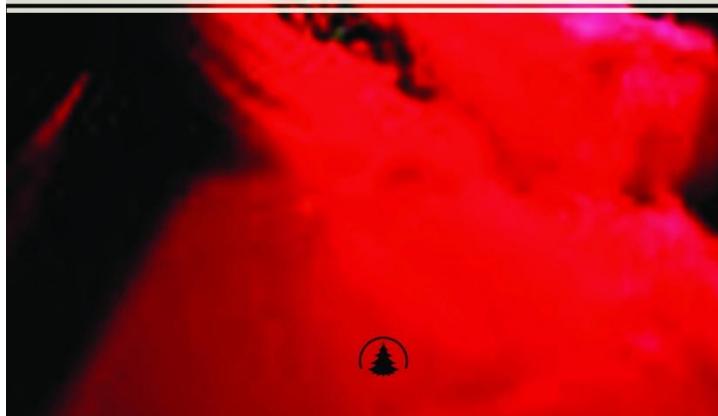
Chris Mortensen
16.8.1882 * - 25.4.1998 †

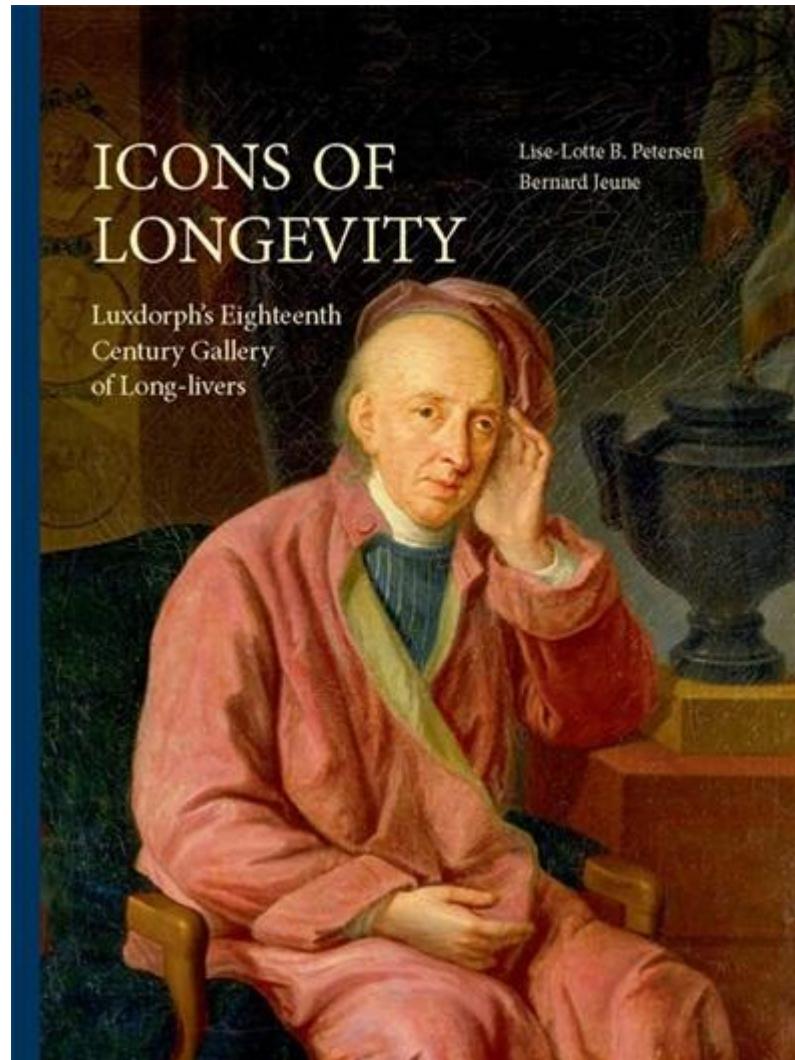


BERIT SCHEI | LEIV S. BAKKETEIG (red.)

Kvinner lider – menn dør

FOLKEHELSE I ET KJØNNSPERSPEKTIV







Livets rynker. Bemærkelsesværdig portrætsamling fra 1700-tallet af mennesker med meget høj levealder er blevet rekonstrueret.

Oldingen som eksotisk fabeldyr

AF ULRIK LANGEN

Lise-Lotte B. Petersen og Bernard Jeune: Icons of Longevity. Luxdorph's Eighteenth Century Gallery of Long-livers. 330 sider. 348 kr. Syddansk Universitetsforlag.

Bolle Willum Luxdorph (1716-1788) var embedsmand, jurist, videnskabsmand og forfatter – en sand polyhistor i et århundrede, hvor viden og lerdøm efterhånden var blevet så specialiseret, at ingen kunne bevare et overblik. Blandt historikere med interesse for 1700-tallet er Luxdorph tillige kendt for sine dagbøger, der er en væsentlig kilde til tidens kulturhistorie, og sin store samling af trykkefrihedsskrifter fra perioden 1770-73, hvor censuren kortvarigt var ophevet.

Som 17-årig startede Luxdorph på universitetet, hvor han kastede sig over filosofi, filologi og historie. Han overvejede at gå videre over i teologien, men allerede efter 15 måneder på universitetet fik han en stilling som sekretær i Danske Kancelli, datidens stats-, indenrigs-, justits- og kulturministerium. Men Luxdorph kunne ikke slippe sine boglige interesser, så sidelobende med embedsmandskarrieren fortsatte han på egen hånd sine studier og udfoldede gennem årene et imponerende virke som både latin digter, oversætter, videnskabsmand og ikke mindst som aktivt medlem af lærde selskaber. Han var desuden en samler af Guds nåde og opbyggede et enormt bibliotek med mere 15.000 bind og en større samling af kort og stik.

Heriblandt fandtes hans *Icons Longaevo-*



Margaret Finch, sigøjnerdronningen fra Norwood, er her 108 år. Hun døde i 1740. I inskriptionen på denne gravering af H. Robert kan man blandt andet læse, at hun grundet sin vane med at sidde på hug fik så sammentrukne sener, at man måtte begrave hende i en



The success of success or the failure of success?





**Getting better
or
getting worse?**



Caravaggio: David with the Head of Goliath, c.1607-10.

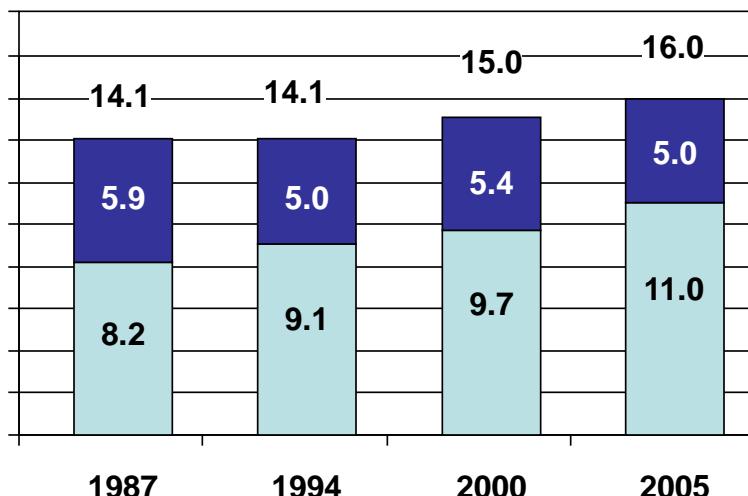


Getting better or getting worse

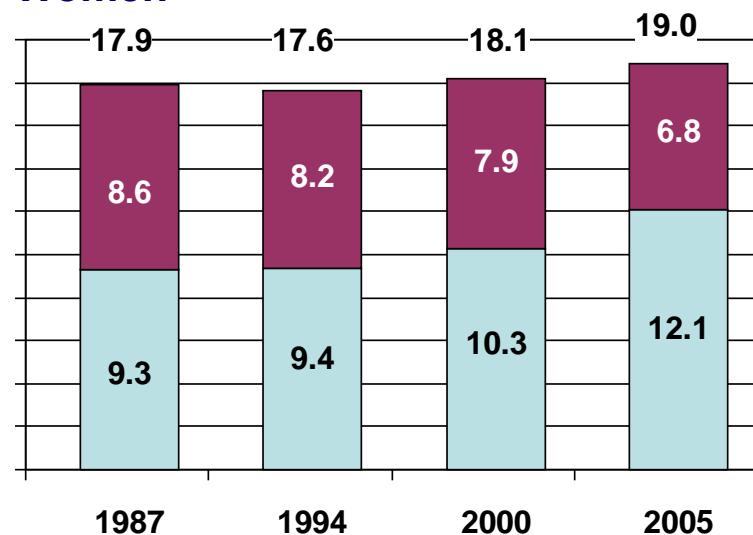
- Are we adding healthy or unhealthy years?
- Does the proportion of oldest-old with disability decrease or increase with increasing age?
- Are oldest-old today in a better or worse condition than earlier?

Life expectancy, expected lifetime in self-rated good or poor health at age 65 in Denmark in 1987, 1994, 2000 and 2005

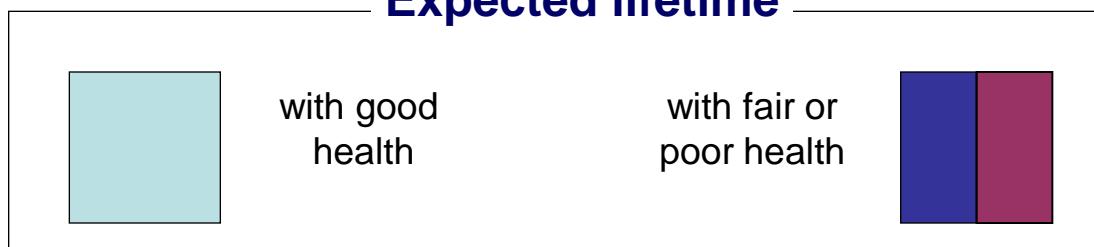
Men



Women

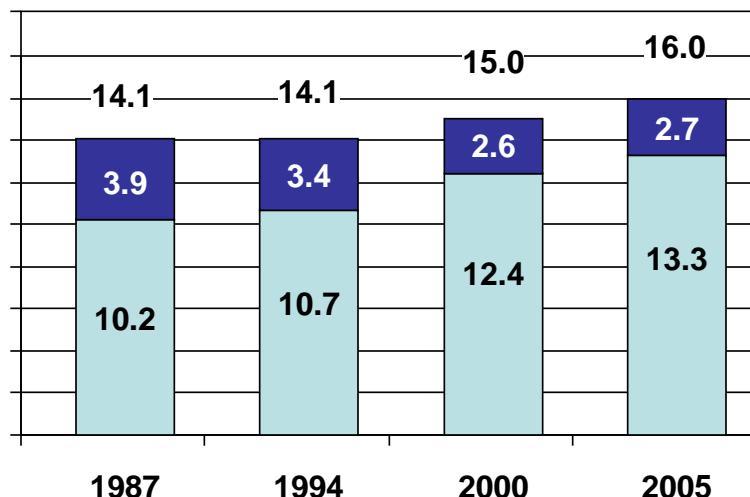


Expected lifetime

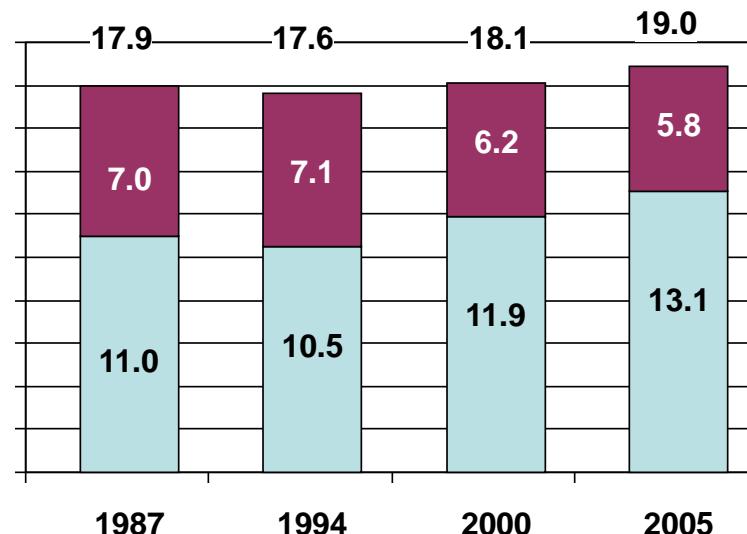


Life expectancy at age 65 in 1987, 1994, 2000 and 2005: expected lifetime with and without mobility limitations in DK

Men



Women



Expected lifetime

without mobility
limitations

with mobility
limitations

Health Trends in the Elderly Population: Getting Better and Getting Worse

Marti G. Parker, PhD,¹ and Mats Thorslund, PhD^{1,2}

Table 1. Health Trends in Elderly Populations According to Various Health Indicators

Indicator	Trend
Self-rated health	Mixed results
Specific health items: diseases and symptoms (self-ratings, tests, medical journals)	Increased prevalence
Self-rated physical function	Mixed results
Self-rated activities of daily living	Mixed, mostly improvement
Self-rated instrumental activities of daily living	Improvement or no change
Tests of functional ability	Increased prevalence or no change



Studies of yearly changes in the prevalence of disability

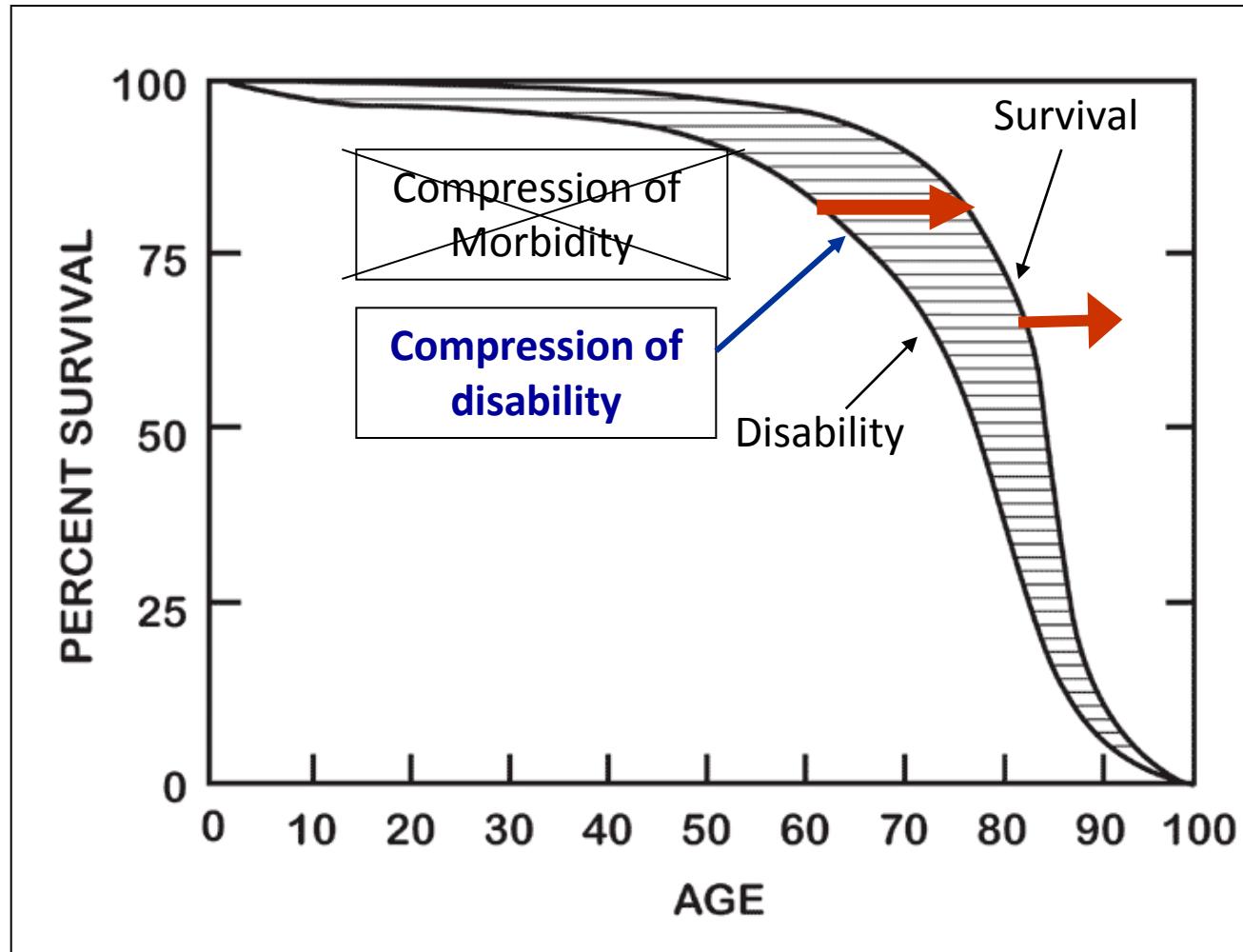
	Region	Age (years)	Length of follow-up (years)	Institutional population included	Sample size	Indicator	Yearly change (age-adjusted)	p value
1984-1996 ⁵¹	USA	40-59	12	No	NHIS	Unable to attend to personal care needs: severe disability	1.20%	ns
1984-1996 ⁵¹	USA	40-59	12	No	NHIS	Unable to attend to or restricted in personal care needs: severe and moderate disability	1.62%	0.05
1997/98-2005/06 ⁴⁸	USA	40-59	8	No	NHIS	ADL	2.17%	0.01
1997/98-2005/06 ⁴⁸	USA	40-59	8	No	NHIS	IADL	-0.97%	ns
1984-1996 ⁵¹	USA	60-69	12	No	NHIS	Unable to attend to personal care needs: severe disability	-0.09%	ns
1984-1996 ⁵¹	USA	60-69	12	No	NHIS	Unable to attend to or restricted in personal care needs: severe and moderate disability	-0.31%	ns
1991/92-1996/97 ⁴⁷	UK	65-69	5	Yes	689-687	IADL/ADL	6.80%	0.06
1987-2001 ³⁶	Netherlands	>55	14	No	2708-3474	Men: ADL	-4.57%	0.05
1987-2001 ³⁶	Netherlands	>55	14	No	2708-3474	Women: ADL	-4.29%	0.05
1993-1999 ⁴¹	Spain	>64	6	No	1283	ADL	-9.54%	0.05
1980/81-1991/92 ⁴¹	France	>65	11	No	5000	Being hampered or disabled	-1.60%	..
1991/92-2002/03 ⁴¹	France	>65	11	No	5000	Being hampered or disabled	-5.50%	..
1982-1994 ⁴¹	USA	>65	12	Yes	NLTCS	ADL low disability levels	-0.90%	..
1994-2004/05 ⁵²	USA	>65	10	Yes	NLTCS	ADL low disability levels	-1.70%	..
1982-1994 ⁴¹	USA	>65	12	Yes	NLTCS	ADL high disability levels	-1.40%	..
1994-2004/05 ⁵²	USA	>65	10	Yes	NLTCS	ADL high disability levels	-2.40%	..
1986-1999 ⁶	Spain	>65	13	Part	750 192 men	ADL and function	-3.97%	..
1986-1999 ⁶	Spain	>65	13	Part	1323 261 women	ADL and function	-3.29%	..
1986-1999 ⁶	Spain	>65	13	Part	750 192	Men: BADL	0.50%	..
1986-1999 ⁶	Spain	>65	13	Part	1323 261	Women: BADL	1.92%	..
1993/95-2001/03 ⁴⁸	Finland	65-84	8	Yes	1972-1905	Women: BADL	-6.25%	0.05
1993/95-2001/03 ⁴⁸	Finland	65-84	8	Yes	2021-1908	Men: BADL	-5.13%	0.05
1993-2002 ³⁷	Japan	>66	9	No	1786-2391	Any IADL/ADL	-3.99%	0.00
1993-2002 ³⁷	Japan	>66	9	No	1786-2391	Any limitation	-1.94%	0.10
1988-2000 ⁷	Europe	>70	12	No	3496	Women: self-care disability	-7.20%	0.03
1988-2000 ⁷	Europe	>70	12	No	3496	Men: self-care disability	-2.60%	0.05
1982-2001 ⁴⁸	USA	>70	19	Yes	7500-12000	Difficulty, needs/receives help	1.0-2.5%	..
1982-2003 ⁴⁸	USA	>70	21	No	178 384 (all waves)	ADL/IADL	-1.38%	0.01
1995-2004 ⁴⁸	USA	>75	9	No	23 229 (all waves)	ADL	-1.46%	0.01
1995-2004 ⁴⁸	USA	>75	9	No	23 229 (all waves)	IADL	1.06%	ns
1992-2002 ³⁷	Sweden	>77	10	Yes	537-561	IADL	-0.70%	ns
1992-2002 ³⁷	Sweden	>77	10	Yes	537-561	ADL	0.70%	ns
1977-1999 ⁴⁹	USA	79-88	22	No	177-174	Women: ADL and function	-2.43%	0.00
1977-1999 ⁴⁹	USA	79-88	22	No	103-119	Men: ADL and function	-2.10%	0.00
1895 cohort vs 1905 cohort ⁷⁹	Denmark	>100	10	Yes	162-189	Women: BADL	-1.19%	0.01
1895 cohort vs 1905 cohort ⁷⁹	Denmark	>100	10	Yes	45-36	Men: BADL	0.61%	ns

Calculation of yearly change based on prevalences: (last year-first year)/first year/number of years in follow-up×100. Calculation of yearly change based on odds ratio: -(1-OR)/number of years in follow-up×100. Positive values show an increase in disability. Negative values show a reduction in disability. NHIS=National Health Interview Survey. ns=not significant. ADL=activities of daily living. IADL=instrumental activities of daily living. NLTCS=National Long Term Care Survey. BADL=basic activities of daily living.

Table 4: Studies of yearly changes in disabilities affecting activities of daily living in high-income countries

Christensen et al. Lancet 2009

Compression of Morbidity or Disability?



Fries JF. Aging, Natural Death, and the Compression of Morbidity. *N Eng J Med* 1980; 303:130-135



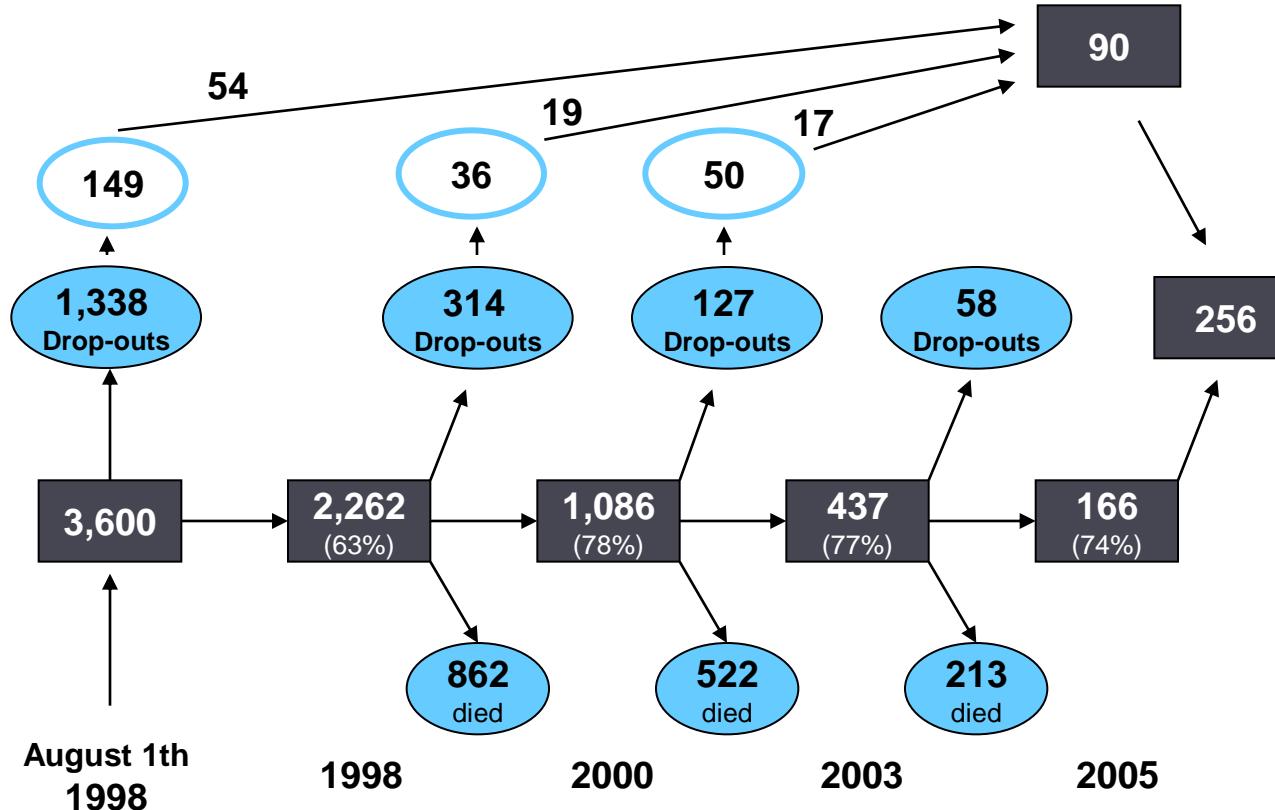
Caravaggio: Judith and Holofernes, 1595/96.



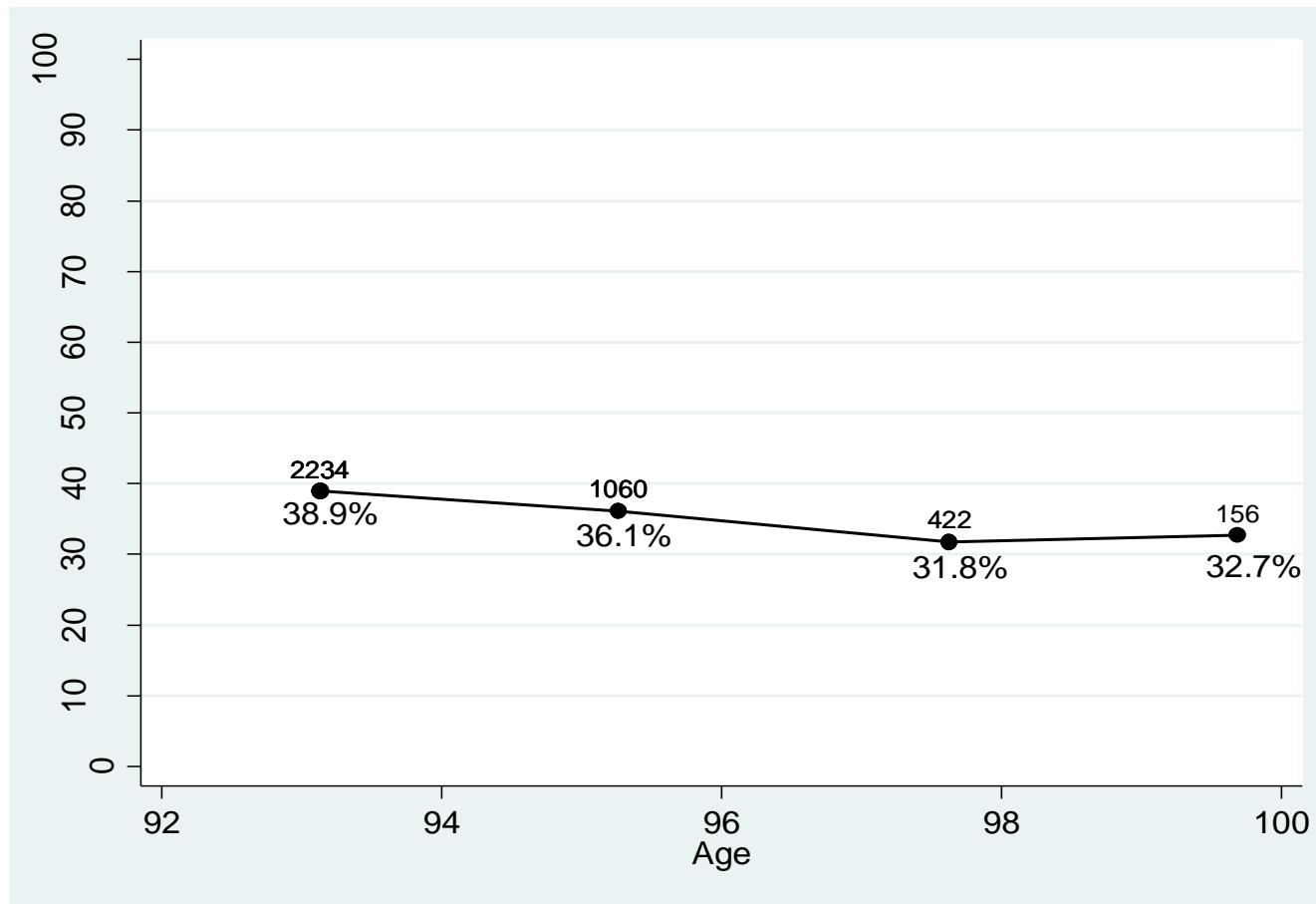
Getting better or getting worse

- Are we adding healthy or unhealthy years?
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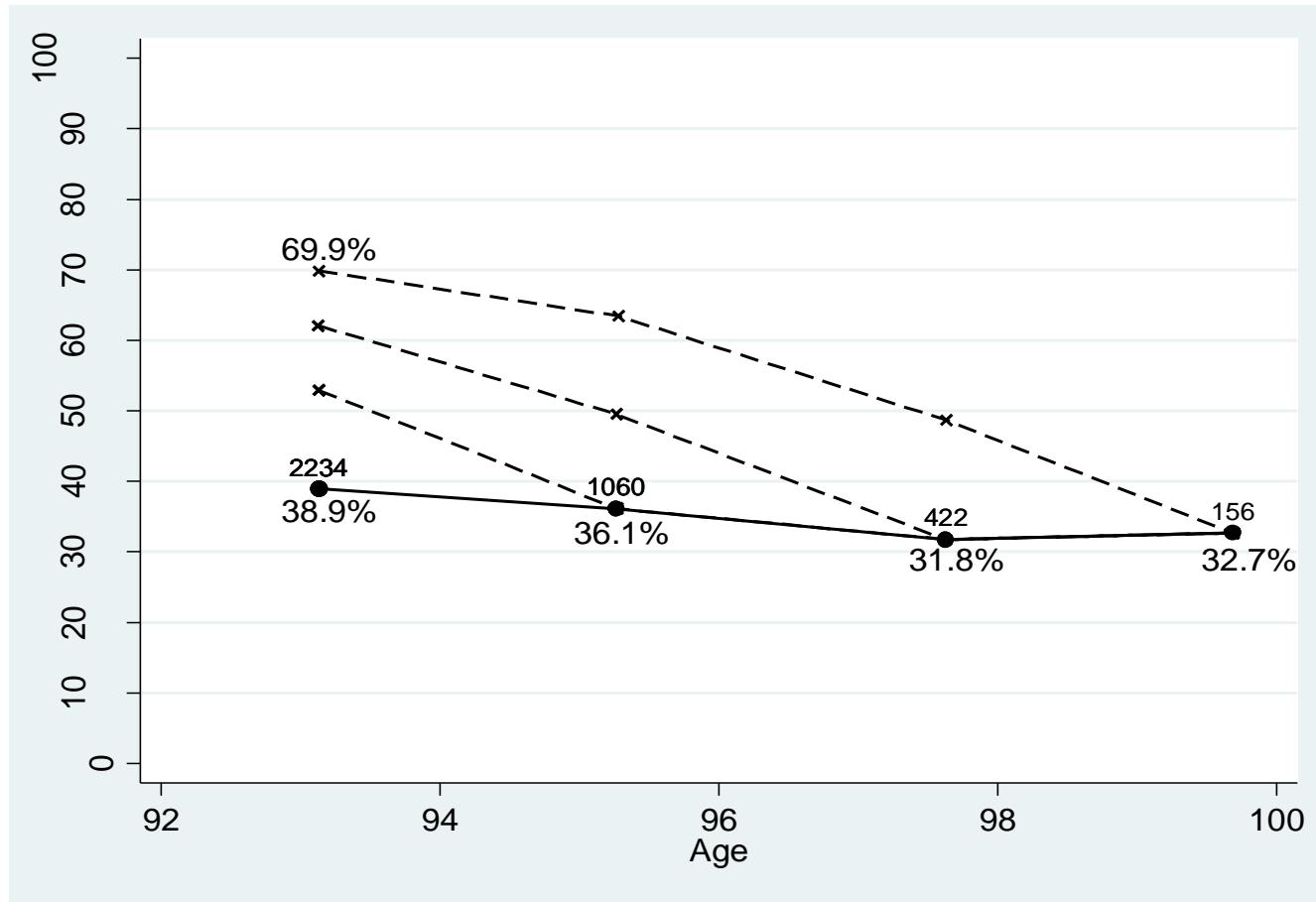
1905 Cohort - Denmark



Independence in the 1905-Cohort



Independence in the 1905-Cohort



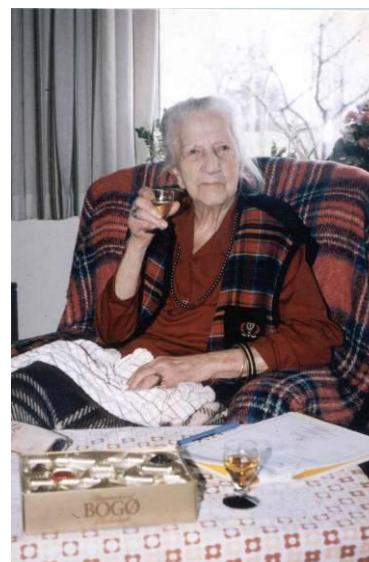


Caravaggio: The Tooth Drawer.



Getting better or getting worse

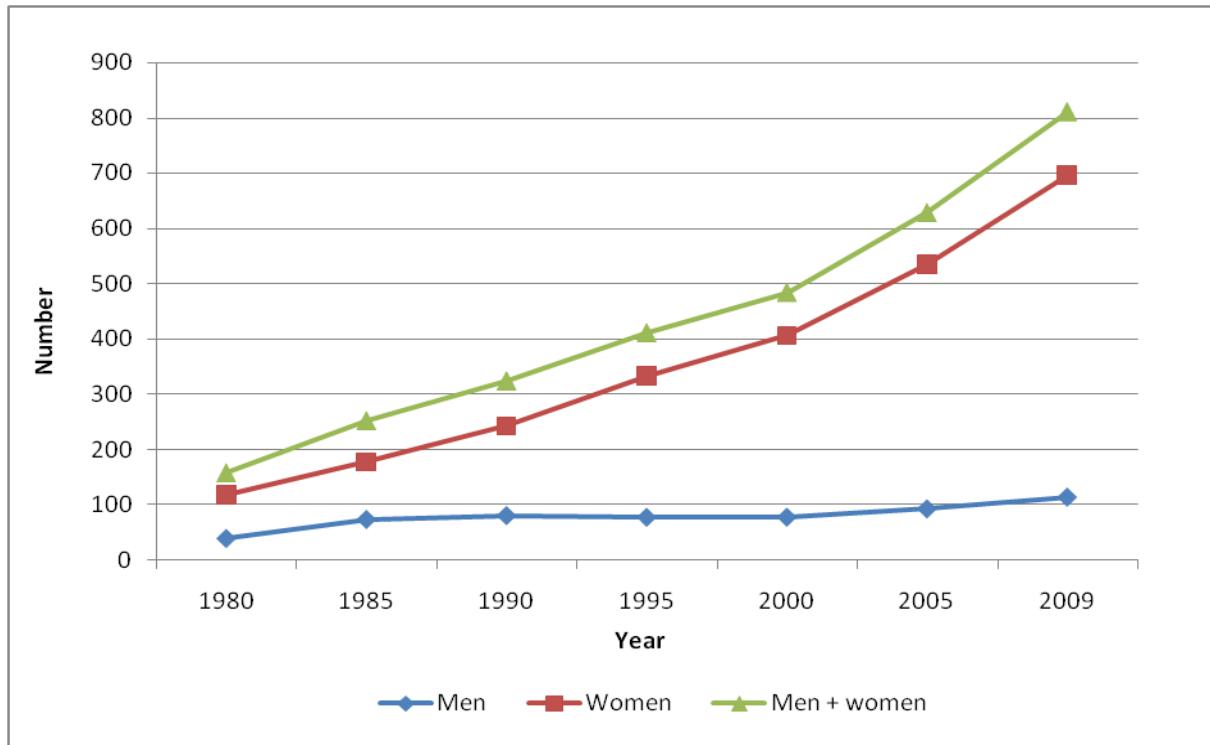
- Are we adding healthy or unhealthy years?
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Centenarians in Denmark

Antal danske hundredårige (100+)

pr. 1. januar 1980-2009.





Cohort comparison of centenarians

The 1895 Cohort Study

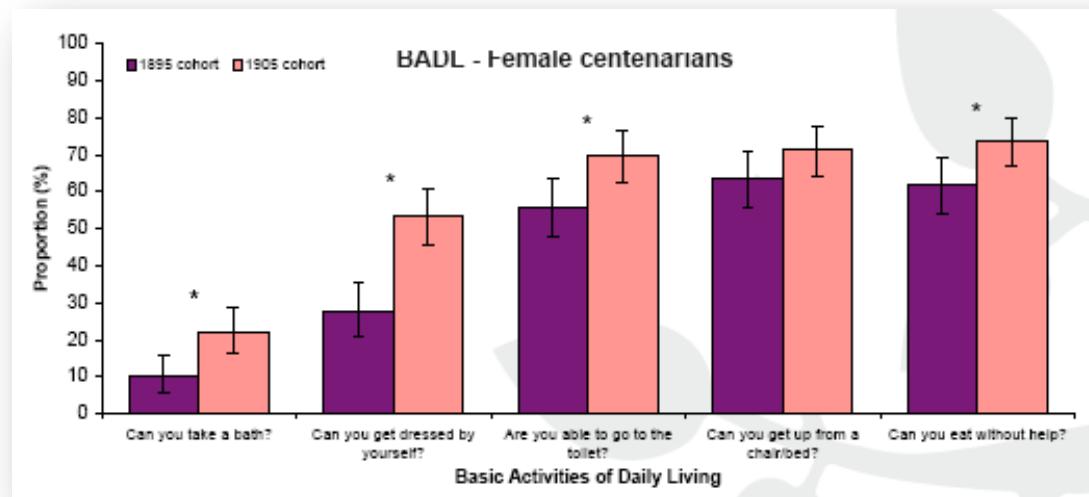
207

- Hospital diagnoses
- Katz Activities of Daily Living
- Avlund's Physical Activities of Daily Living Scale
- The Mini Mental State Examination

The 1905 Cohort Study

225

Proportion of female centenarians Independent in activities of daily living



Data from two birth cohorts 10 years apart (1895 - 1905)



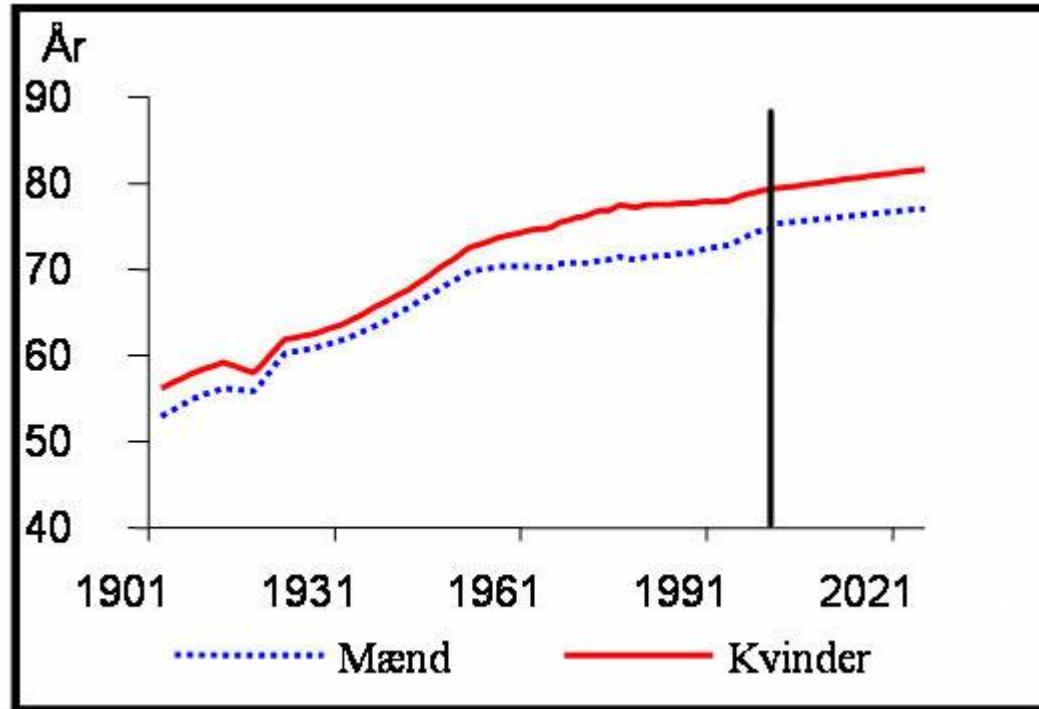
Improved ADLs in Danish centenarians – but only for females

Birth cohort	Female	
	1895 cohort	1905 cohort
BADLs - performed independently n (%)	n = 162	n = 189
5 (Non-disabled)	16 (9.9)	39 (20.6)
3-4 (Moderately disabled)	67 (41.4)	81 (42.9)
0-2 (Severely disabled)	79 (48.8)	69 (36.5)
p-value	p=0.008	



Caravaggio: The Concert, c.1595

Forventet levetid for mænd og kvinder i Danmark



Kilde: Haldrup (2004).



Forventet levetid på uddannelsesniveau

for 30-årige kvinder og mænd i Danmark - 1994, 2000 og 2005

	Udd. niveau	1994	2000	2005	Forøgelse
KVINDER	Lav	48.0	48.5	49.5	+ 1.5
	Middel	49.5	50.5	51.5	+ 2.0
	Høj	50.5	51.6	52.7	+ 2.2
	I alt	48.8	49.7	50.9	+ 2.1
MÆND	Lav	42.5	43.8	44.4	+ 1.9
	Middel	44.6	45.9	47.1	+ 2.5
	Høj	46.6	48.2	49.3	+ 2.7
	I alt	44.0	45.6	46.7	+ 2.7



Ulighed i sundhed – årsager og indsatser

***Et dansk review af ulighedens determinanter
og de forskellige politikområders potentiale***

- Af Finn Diderichsen, Ingelise Andersen, Celie Manuel
- med en arbejdsgruppe bestående af:
- Anne-Marie Nybo Andersen, Elsa Bach, Mikkels Baadsgaard, Henrik Brønnum-Hansen, Finn Kenneth Hansen, Bernard Jeune, Torben Jørgensen, Jes Søgaard



De tre generationer



Jacob JORDAENS (1593-1678): As the Old Sang the Young Play Pipes, 1638

Oil on canvas, 192 x 120 cm, Koninklijk Museum voor Schone Kunsten, Antwerp



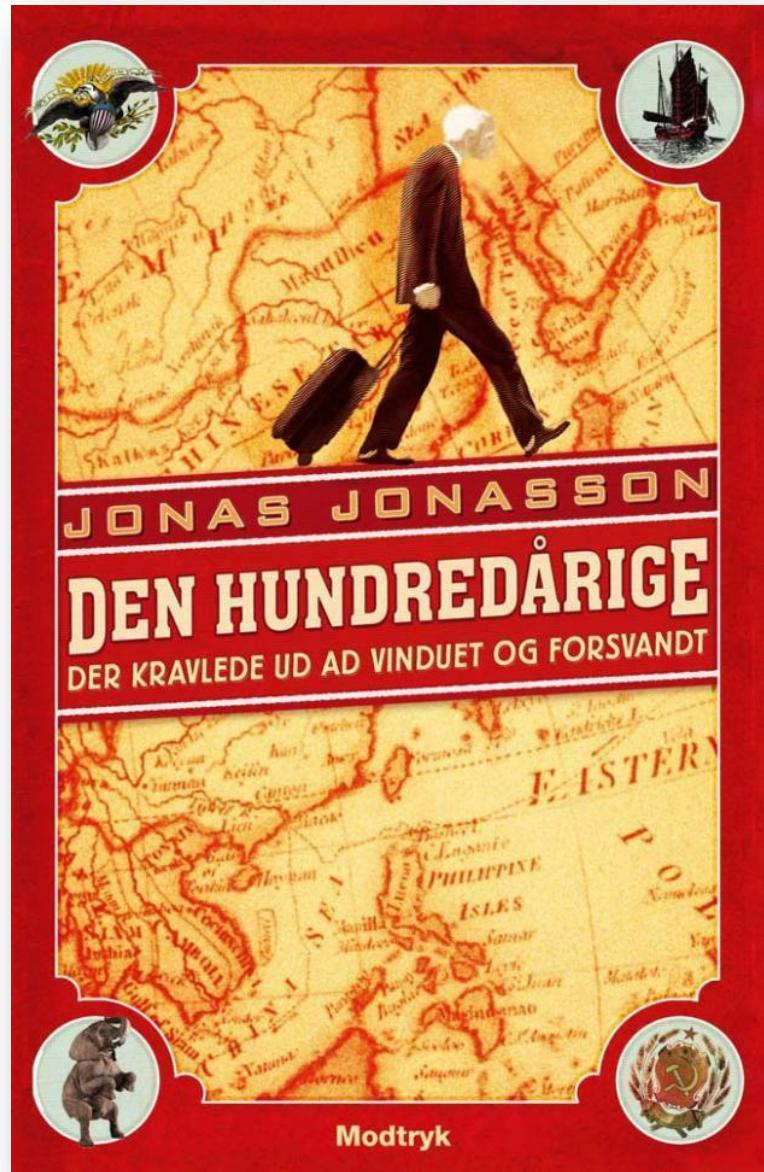
Six generations



Sarah Knauss

24/9 1880 – 30/12 1999

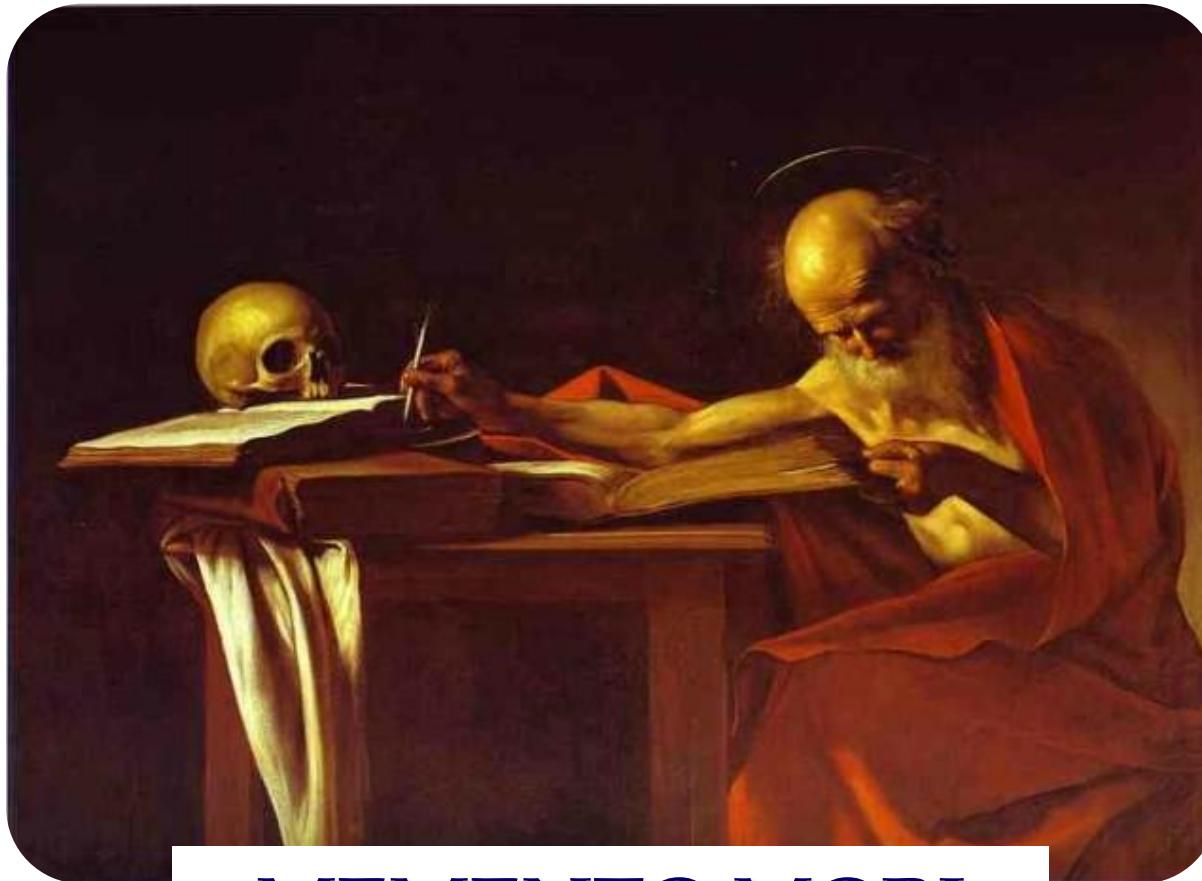
Sarah Knauss (115), Kitty Sullivan (92), Robert Butz (70), Kathy Jacoby (46), Kristina Patton (24), Bradley (0)





Caravaggio: Saint Jerome Writing

1605-06, Galleria Borghese, Rome



MEMENTO MORI