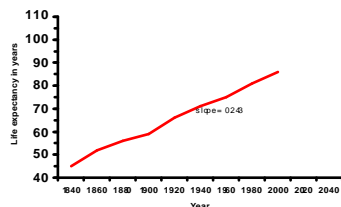


Back and neck pain in seniors - prevalence and impact

Jan Hartvigsen Professor PhD
University of Southern Denmark

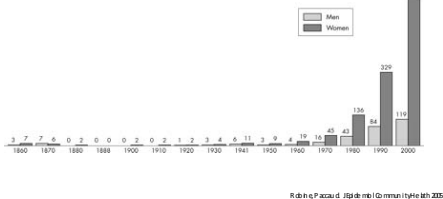


Life expectancy in years



Oppen & Vupe, Science 2002

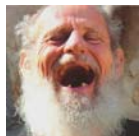
Centenarians in Switzerland 1860-2001



Rubin & Paccard, J Geriatr Community Health Behav 2005

And that's good.....

- ~ Enjoy retirement
- ~ Let go of the responsibilities and worries
- ~ Have time to do the things we never had the time to do..



But there's a downside.....

- ~ Loss of physical and mental function
- ~ Loss of senses
- ~ Pain
- ~ And eventually death



Pain can be a problem in it's own right and is not necessarily a reflection of underlying pathology

This is probably particularly true in the elderly



How common is pain in seniors?

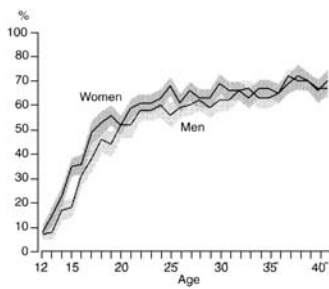
- ~ 2/3 have experienced pain within the past month
- ~ 50% have chronic longlasting pain
- ~ Median number of pain sites is 6
- ~ 12% have widespread pain

Thomas et al 2004

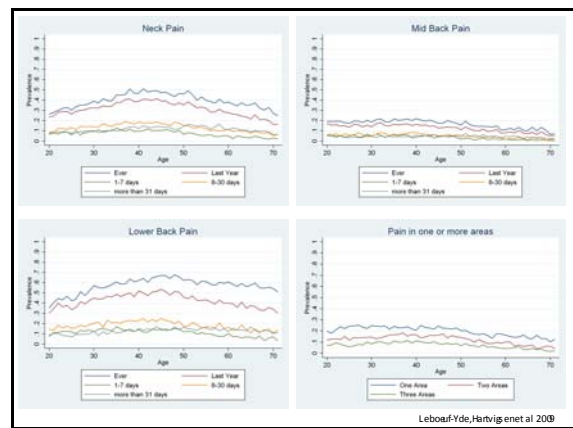
What distinguishes pain in seniors from pain in the population?



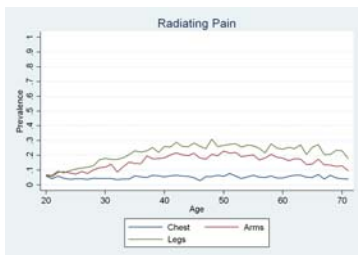
Cummulative lifetime incidence of back pain



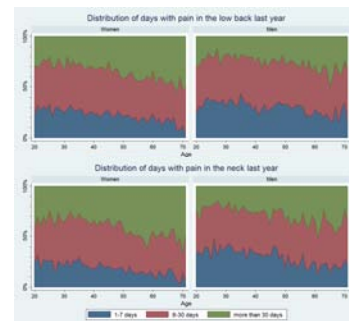
Leboaf-Yde et al 1998



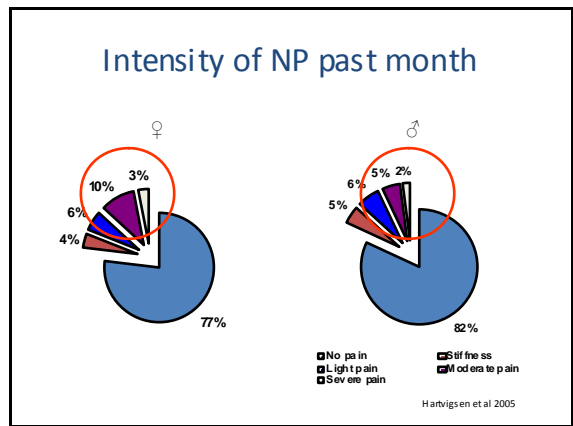
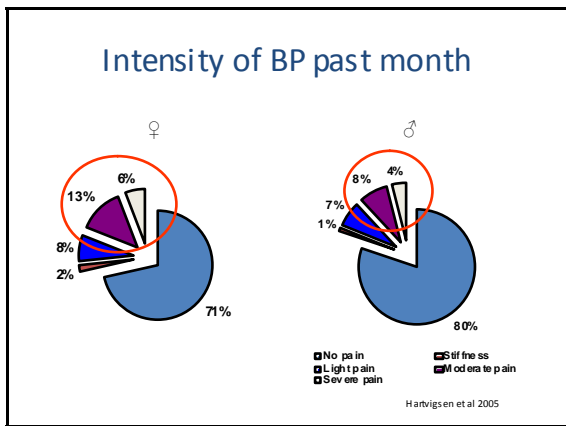
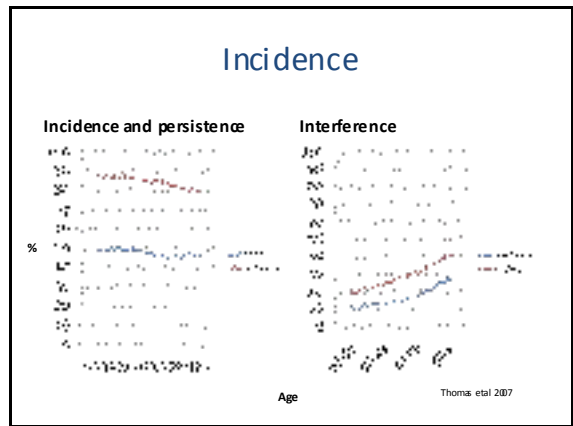
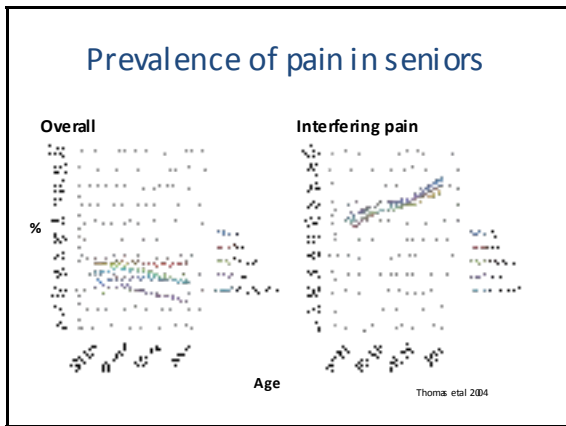
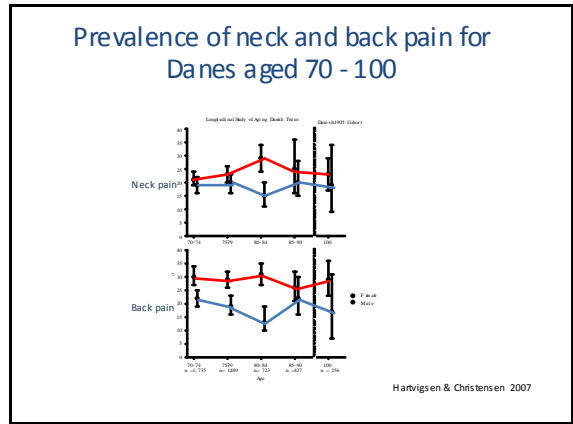
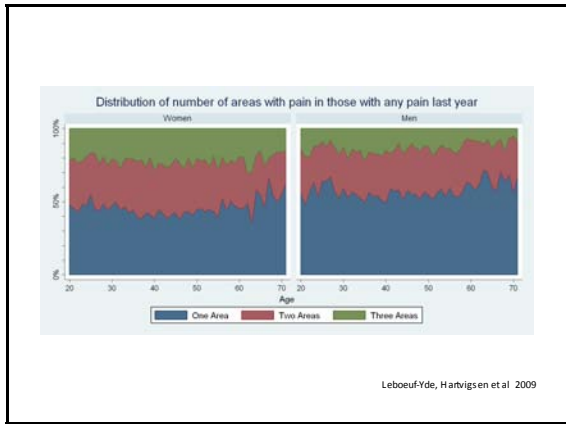
Leboaf-Yde, Hartvigsen et al 2009



Leboaf-Yde, Hartvigsen et al 2009



Leboaf-Yde, Hartvigsen et al 2009



Comorbidity

<u>Disease group</u>	<u>BP</u>	<u>NP</u>
Bone & joint	Strong	Moderate
Lung	Moderate	Moderate
Cardiovascular	Moderate	Moderate
Neurological	No	No/Moder.
Endocrinological	No	No

Hartvigsen et al 2003

Comorbidity

- “ Depression is a strong and independent risk factor for the onset of intense and/or disabling back and neck pain in the population Carroll et al 2004
- “ Higher depression score is associated with LBP and is an independent risk factor for decreasing physical activity in elderly LBP sufferers Hartvigsen et al 2006
- “ Previous pain, anxiety, and depression are strong predictors of incident pain in seniors Jordan et al 2008
- “ Depressive symptoms significantly affects prediction of impairment associated with pain in seniors Mossay 2004



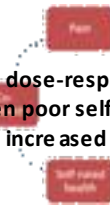
Results – self-rated health

	<u>BP</u>	<u>NP</u>	<u>BP + NP</u>
Excellent	1.00	1.00	1.00
Very good	1.90	1.72	1.85
Good	3.47	3.32	4.31
Fair	4.90	3.41	5.10
Poor	6.34	4.76	7.46

p < 0.0001 p < 0.0001 p < 0.0001

Hartvigsen et al 2003

Longitudinal dose-response relationship between poor self-rated health and increased mortality



Idler & Benyamini 1997

Physical function, physical activity and depression

2001 LBP free 2003 LBP

- “ Better **overall physical function** was protective for both **longstanding LBP, diminishing daily activities due to LBP and seeking of treatment**, OR 0.50 (95% CI 0.38-0.92)
- “ Higher **depression score** was a strong risk factor for **altering or diminishing daily activities due to LBP**, OR 2.40 (95% CI 1.47-3.60)

Hartvigsen et al 2007

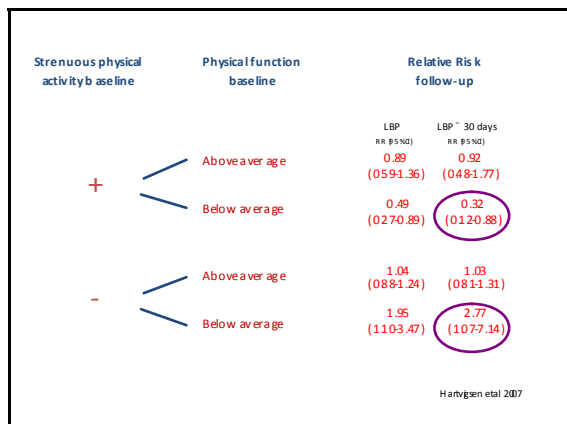
Twin-control analysis physical activity

	OR	OR	MZ OR	DZ OR	All OR
LBP < 30 days	0.21 (0.09-0.45)	0.21 (0.08-0.51)	0.15 (0.07-0.35)	0.28 (0.13-0.58)	0.21 (0.12-0.37)
LBP ≥ 30 days	0.09 (0.02-0.26)	0.05 (0.01-0.09)	0.05 (0.01-0.18)	0.11 (0.03-0.32)	0.08 (0.03-0.18)

MZ is based on MZ twins only
DZ is based on DZ twins only



Hartvigsen et al 2007



Pain is....

- ~ very common at all ages
- ~ more longlasting and interfering at older ages – in particular if it involves the lower limbs
- ~ occurring at more sites in seniors
- ~ associated with extensive physical and mental comorbidity and an indicator of poor general health
- ~ strongly associated with poor self-rated health and increased mortality
- ~ negatively influenced by depression
- ~ positively influenced by good physical function and physical activity

