

Trends in hip fracture incidence and in the prescription of anti-osteoporosis medications during same time period in Belgium (2000-2007)

Hilgsmann, Bruyère, Reginster et al. *Arthritis Care & Research*. 2012 *In press*

Materials and methods

Incidence of hip fractures (2000-2007)

- National Hospital Database (INAMI/RIZIV)
- ICD-9 codes for hip fracture (reduced by yearly multiple registrations (=3.6%))
- Population aged over 50 years
- Validity: Permanent Sample (EPS – 2.5% of the Belgian population). ≠ less than 2%

Prescription of anti-osteoporosis medications

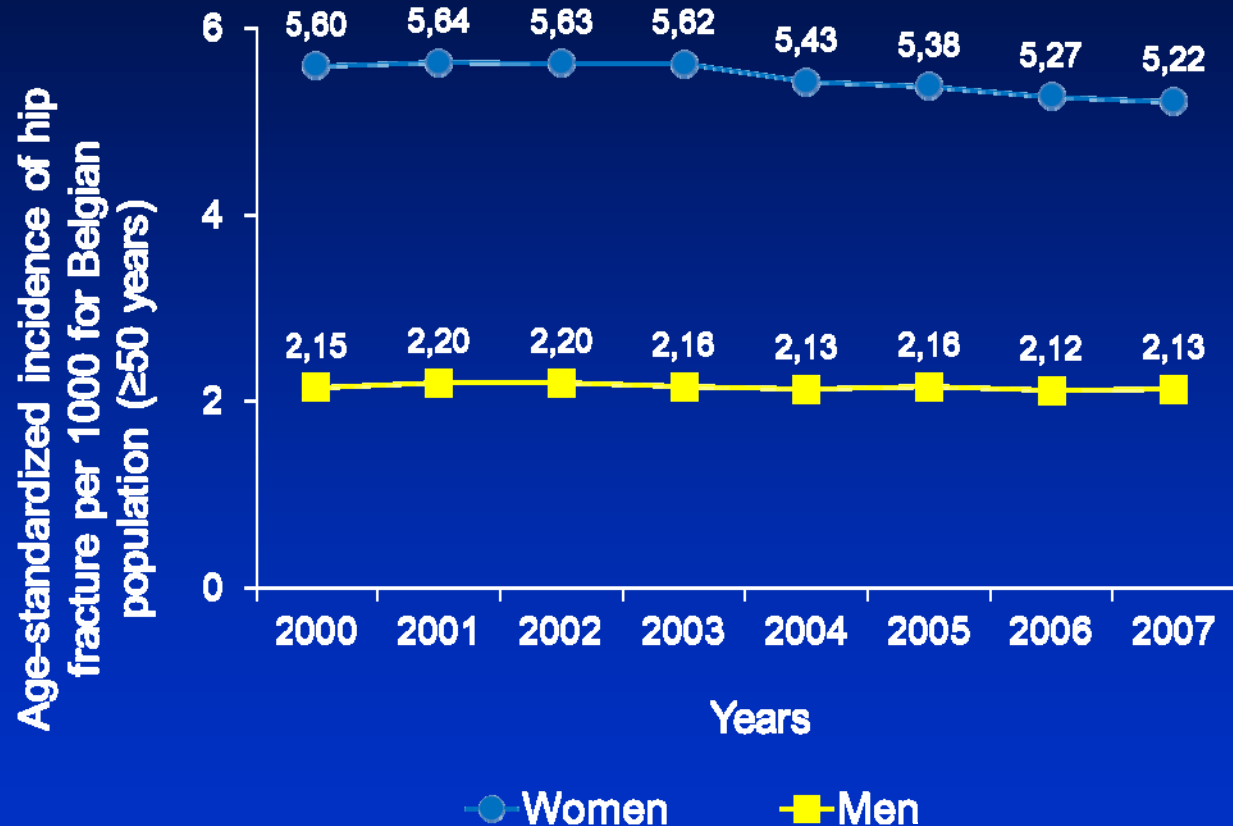
- INAMI/RIZIV – Pharmanet database
- Expressed as defined daily doses
- Bisphosphonates, raloxifene, PTH-analogue and strontium ranelate

Absolute number of hip fractures in Belgium



Total population aged over 50 years (2007): 2,037,664 (women) -1,724,680 (men)

Standardized incidence of hip fracture in Belgium



A direct method of standardization was used, with the year 2005 as reference)

Trend of hip fractures incidence in Belgium (2000-2007)

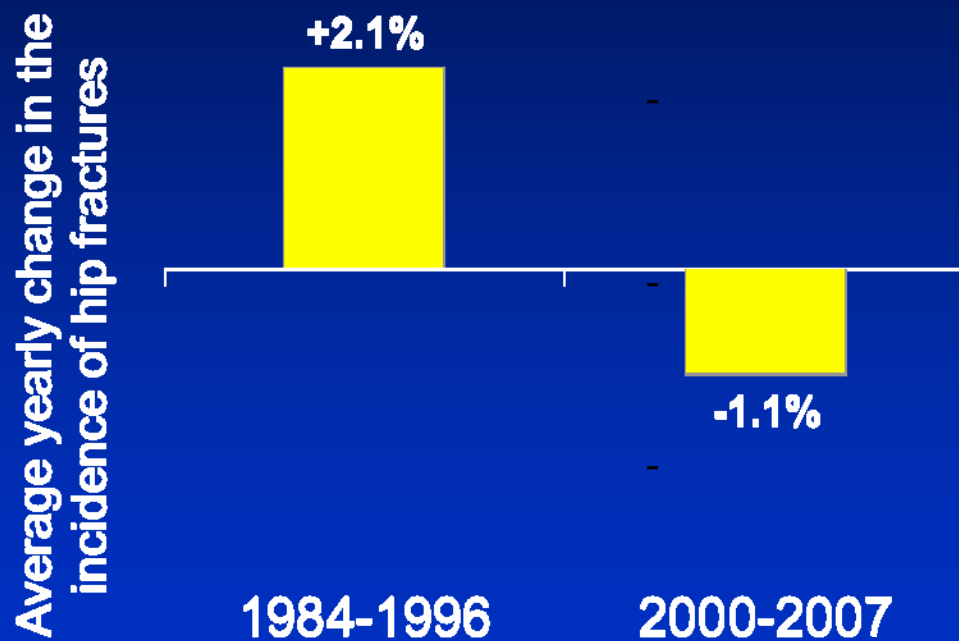
Logistic regression (on age groups and year)

	Women	Men
Average yearly change (%)	-1.12	-0.34
95% CI	-1.41; -0.31	-0.88; 0.25
P value	<0.0001	0.1983

Female/male ratio for hip fractures

From 3.12 (2000) to 2.95 (2007), p value <0.0001

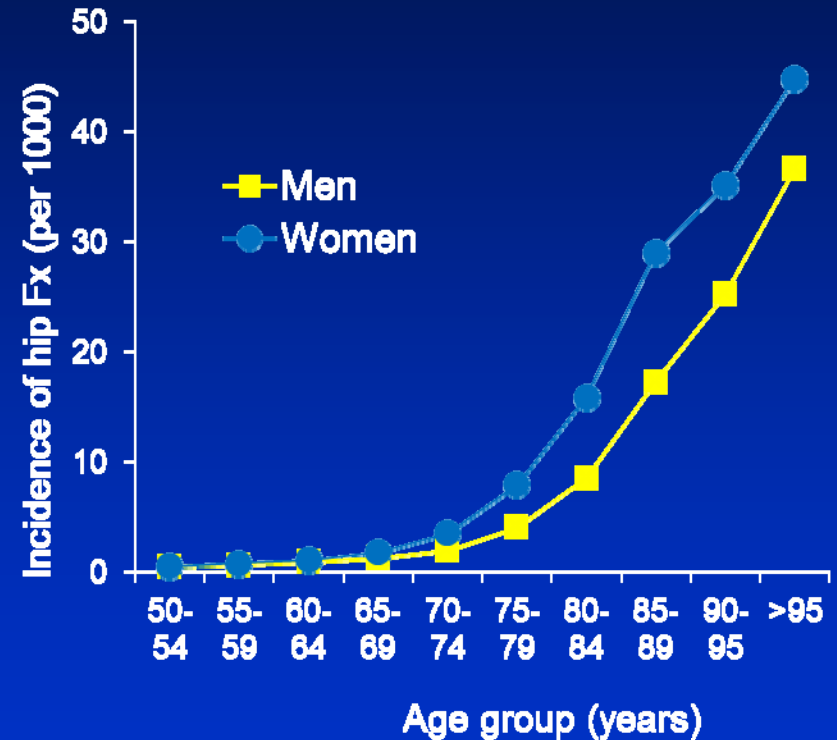
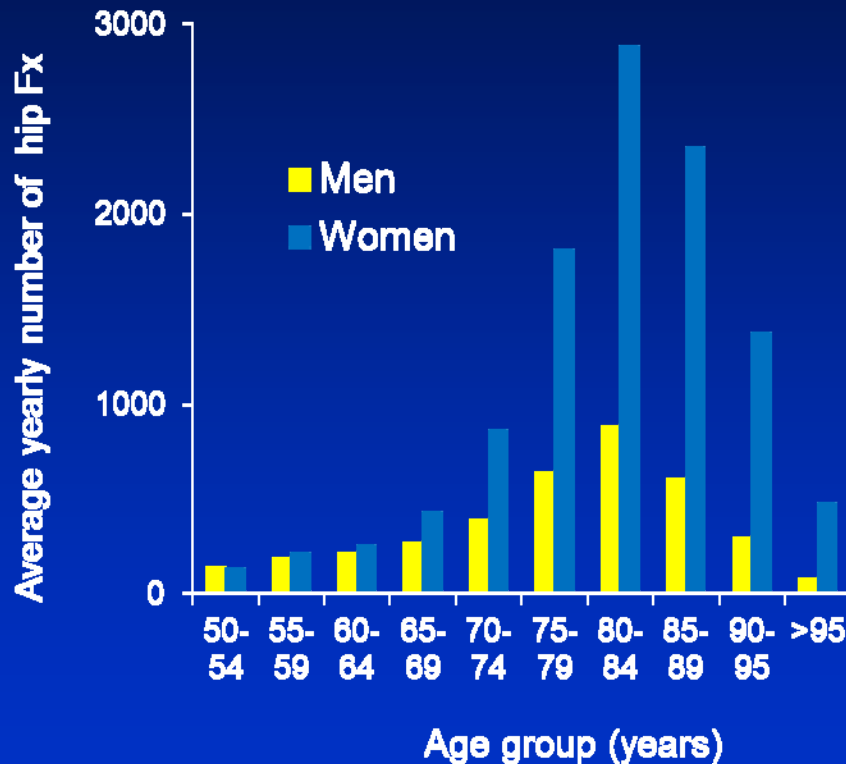
Reversal of the hip fractures secular trend in Belgian women



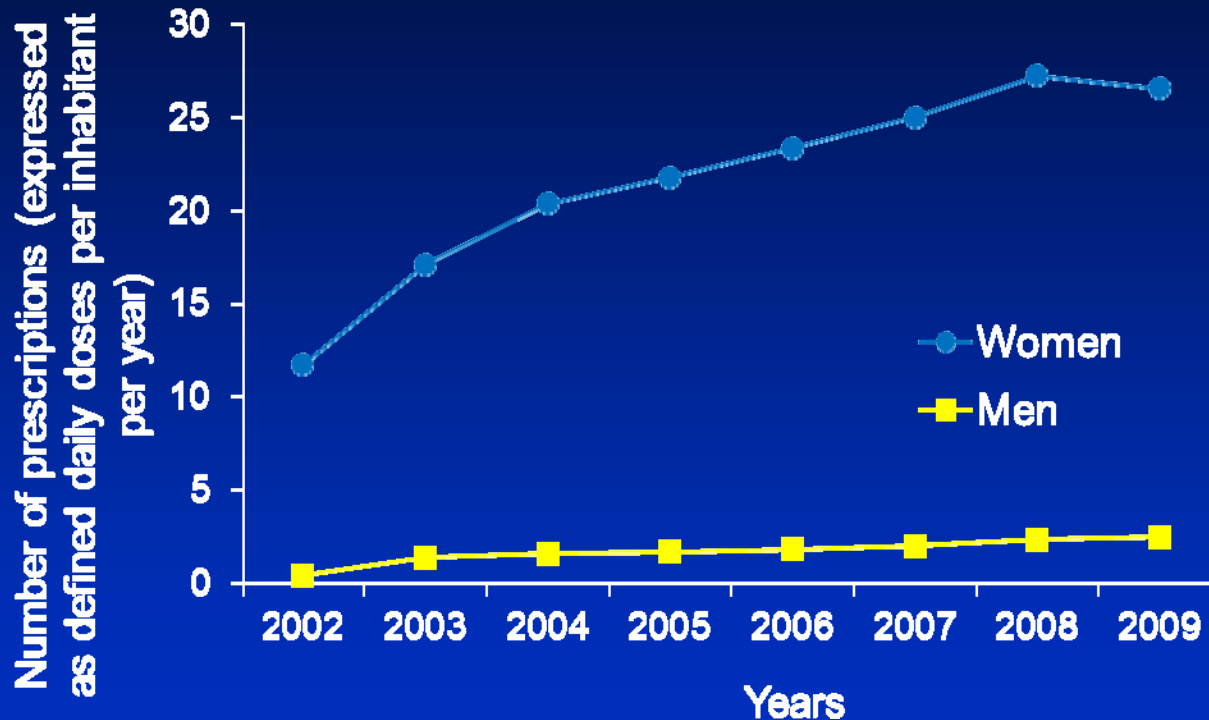
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Reginster et al. Bull World Health Organ 2001; 79: 942-6

Number and incidence of hip fractures in Belgium by age groups

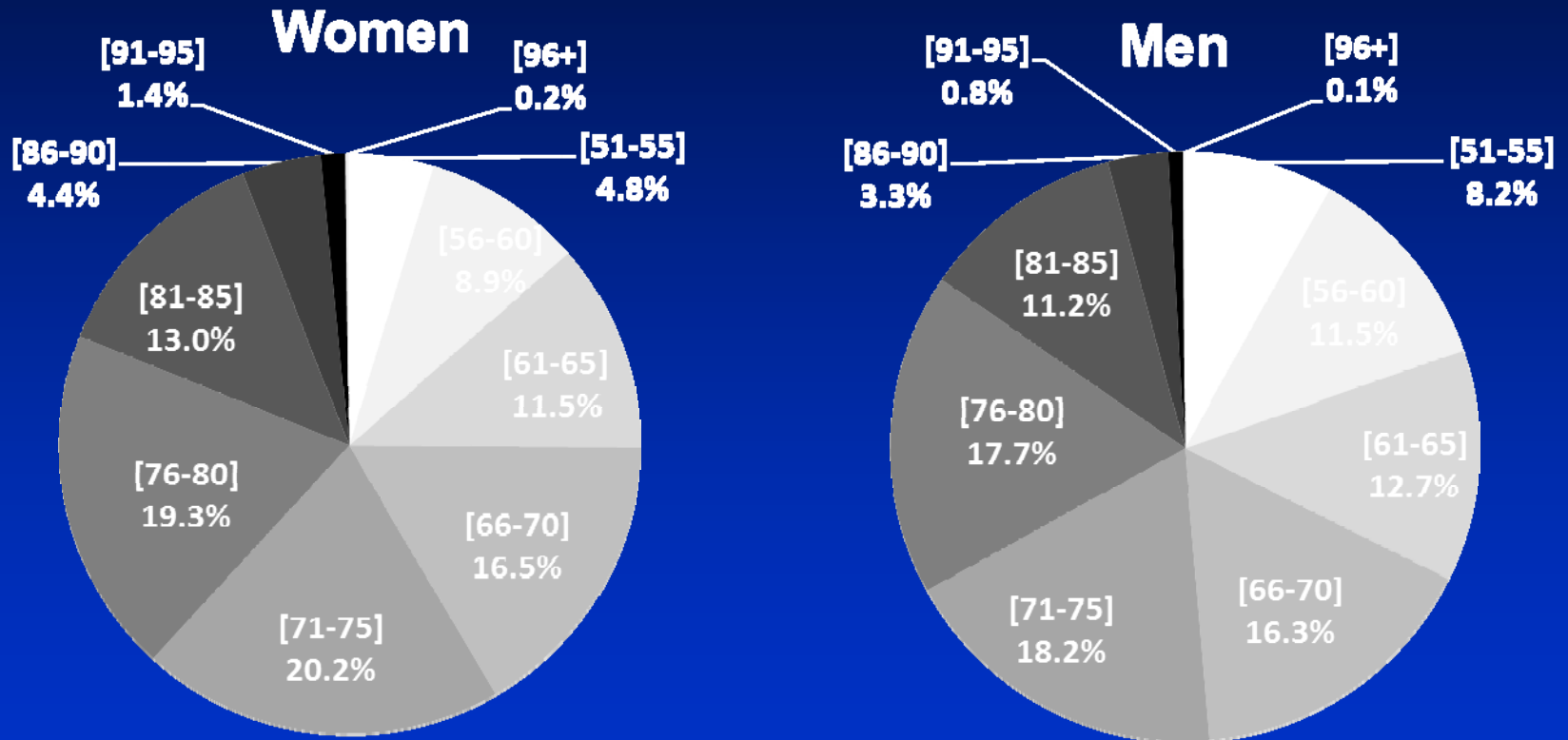


Number of prescriptions of anti-osteoporosis medications in Belgium (2002-2009)

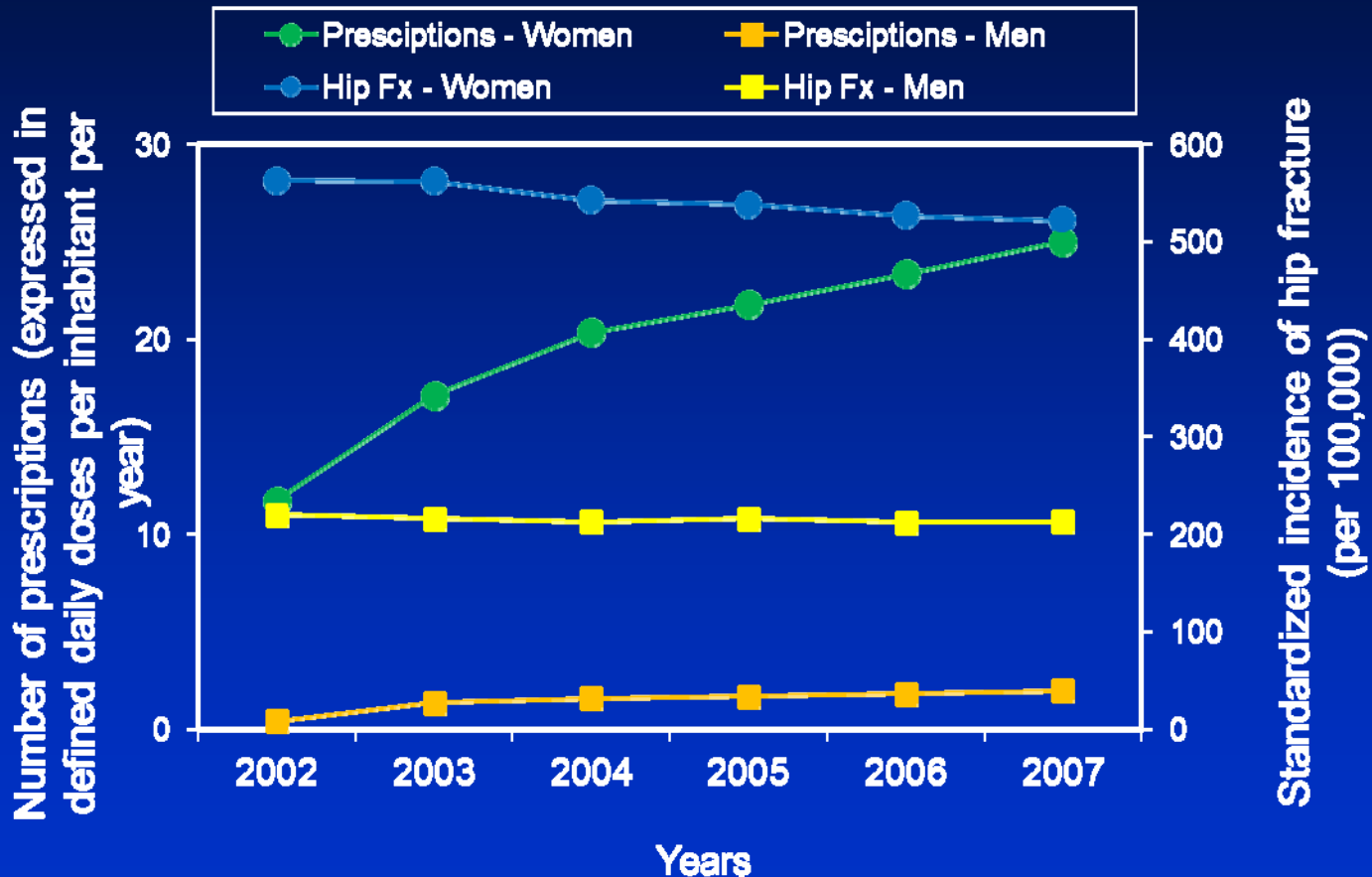


In population aged over 50 years

Distribution of anti-osteoporosis medications by age groups in Belgium (population aged over 50 years, 2002-2007)



Hip fracture incidence and prescriptions of anti-osteoporosis medications in Belgium (2002-2007)



Pearson's correlation (Women): -0.93 (P value: 0.0063)

In population aged over 50 years

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Expected number of hip fractures in Belgium until 2025



Assuming the secular change observed between 2000-2007 will be maintained
! Projections should be interpreted with cautious

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