



Hip fracture incidence 2003–2013 and projected cases until 2050 in Austria: a population-based study

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Abstract

Objectives Elevated hip fracture incidence is a major public health problem looming to aggravate in industrialized countries due to demographic developments. We report hip fracture incidence and expected future cases from Vorarlberg, the westernmost province of Austria, results potentially representative of Central European populations.

Methods Crude and standardized hip fracture incidence rates in Vorarlberg 2003–2013 are reported. Based on the age-specific incidence in 2013 or trends 2003–2013, we predict hip fractures till 2050.

Results Female age-standardized hip fracture incidence decreased 2005–2013, whereas for men, the trend was rather unclear. Uncorrected forecasts indicate that by 2050, female and male cases will each have more than doubled from 2015 in all demographic core scenarios. Corrected by incidence trends before 2013, cases are expected to drop among women but rise among men.

Conclusions We anticipate rising hip fracture numbers in Vorarlberg within the next decades, unless prevention programs that presumably account for decreasing incidence rates, particularly among women since 2005, take further effect to counteract the predicted steady increase due to



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- **Stärken**
 - Dokumentation mit allen Stammdaten
 - Wiederaufnahmen differenzierbar
 - „Population based“, geographische und sozialversicherungstechnische Abgeschlossenheit, hohe Spitalsdichte, leichter Zugang
 - Beobachtung 11 Jahre
- **Schwächen**
 - Prognose, neue Therapien
 - Trends von Geburtskohorten?
 - Kleinheit des Landes

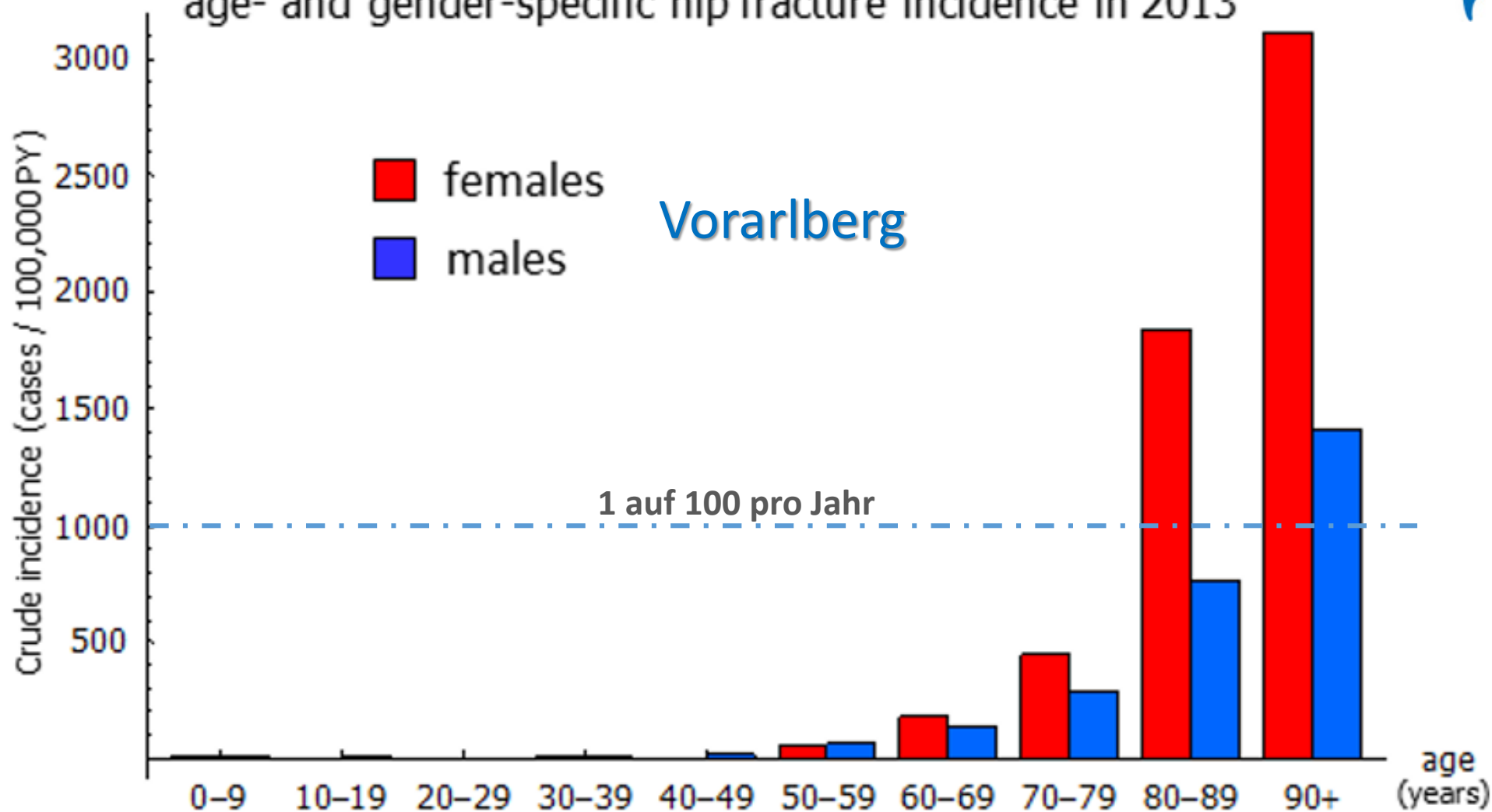
	Population	Cases	Crude incidence ^a	ESR (95% CI) ^a
			All ≥50 years	
2003	105,380	444	421.3	479.2 (452.7-505.7)
2004	107,216	488	455.2	516.4 (488.9-543.8)
2005	109,393	492	449.8	513.6 (486.6-540.7)
2006	111,756	488	436.7	496.2 (470.2-522.1)
2007	113,990	472	414.1	466.1 (441.5-490.6)
2008	116,470	451	387.2	432.5 (409.2-455.7)
2009	119,124	467	392.0	426.6 (404.1-449.9)
2010	122,108	528	432.4	464.2 (441.2-487.2)
2011	125,117	538	430.0	458.3 (435.7-480.8)
2012	128,313	507	395.1	415.1 (393.9-436.2)
2013	131,538	451	344.4	359.9 (340.4-379.5)

+24,8%

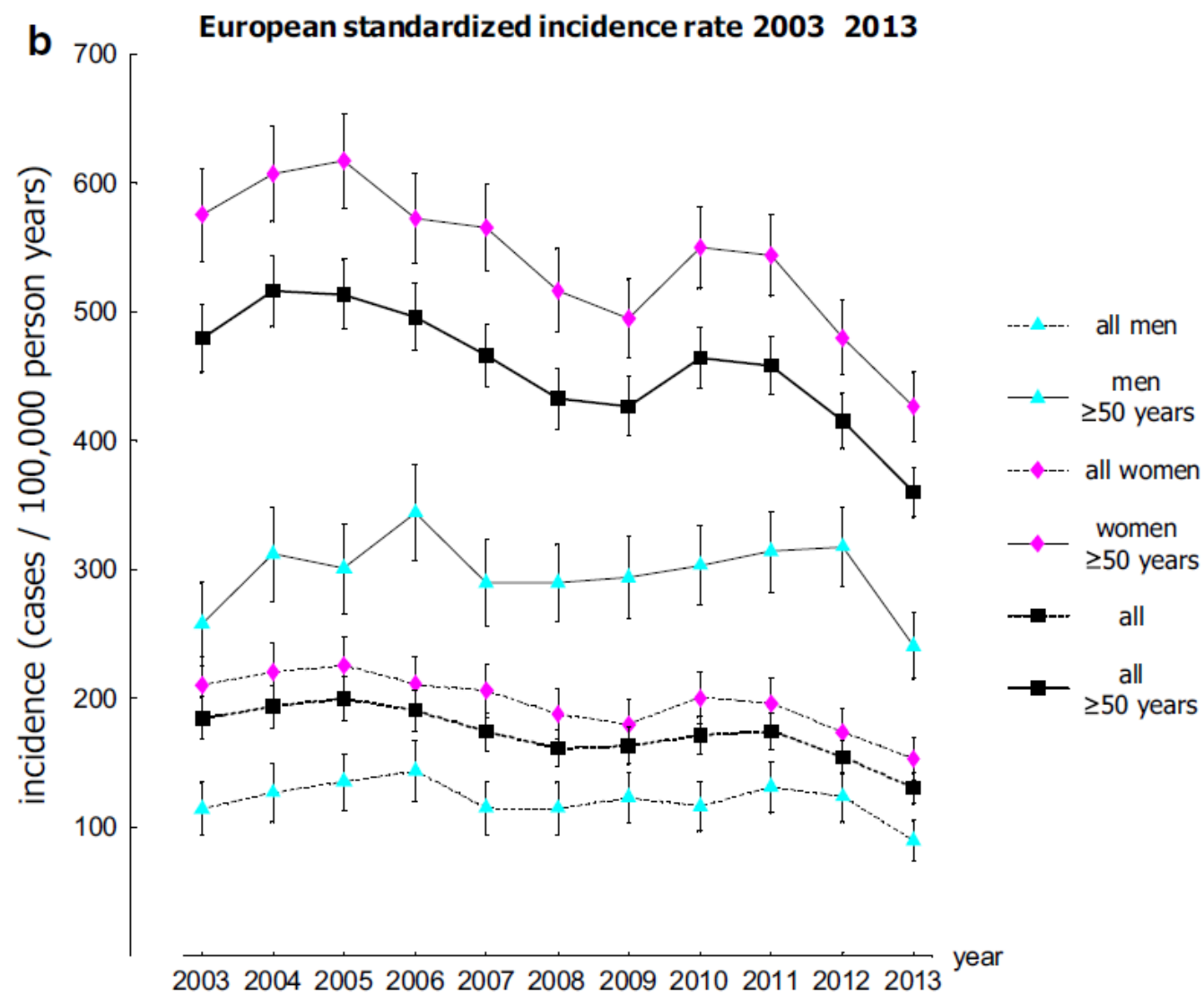
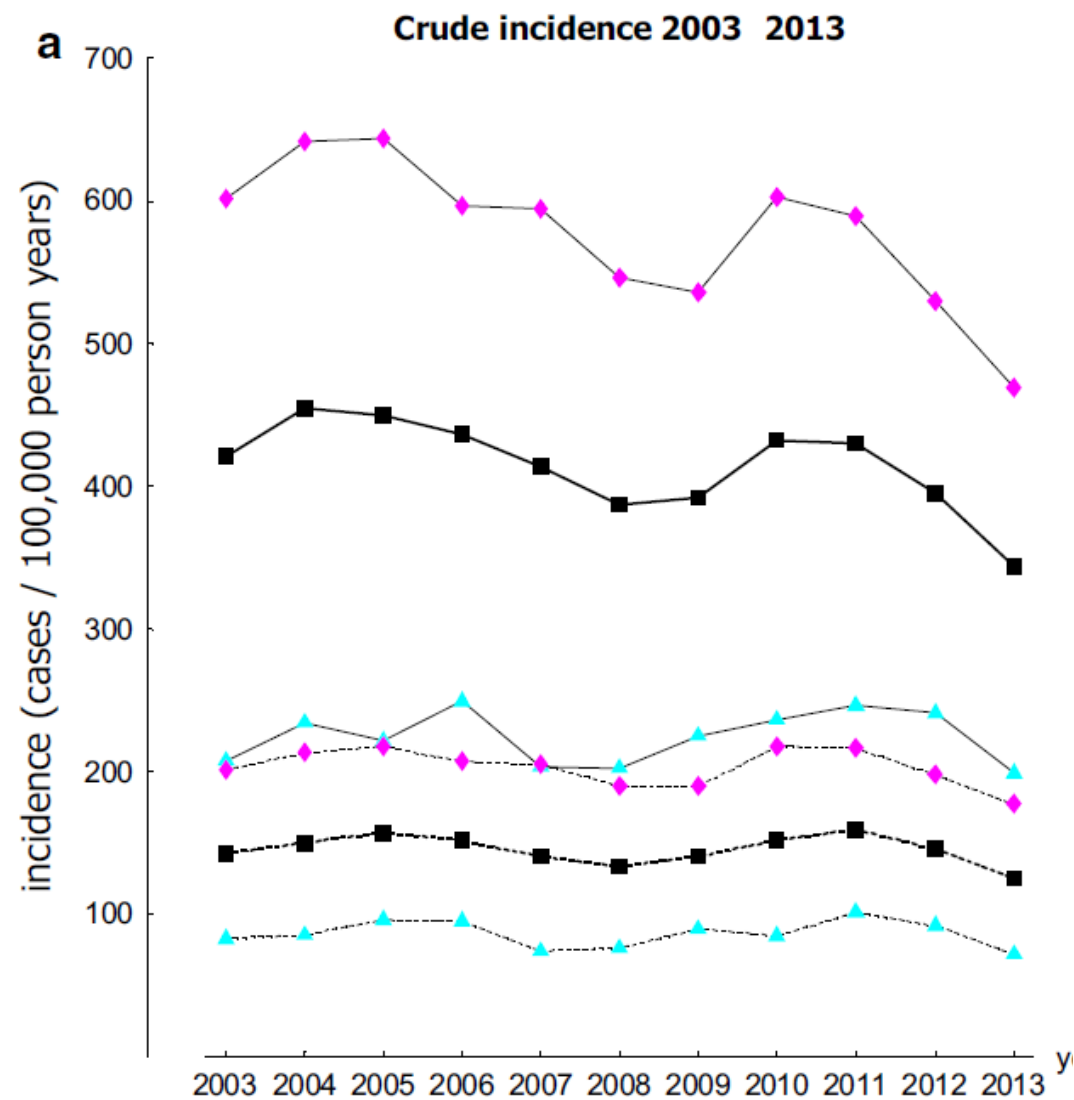
+2,8%

	<u>Predicted population^a</u>	Cases predicted from incidence in 2013	Predicted cases based on incidence trend 2003 - 2013 (95% PI)
	All ≥50 years		
2015	138,356	475	494 (351-684)
2020	153,327	544	502 (313-765)
2025	163,289	614	505 (271-867)
2030	170,406	687	506 (243-995)
2035	177,780	757	497 (215-1132)
2040	183,766	834	487 (190-1291)
2045	189,090	930	481 (170-1485)
2050	192,336 +46,2%	1012	462 (149-1677)

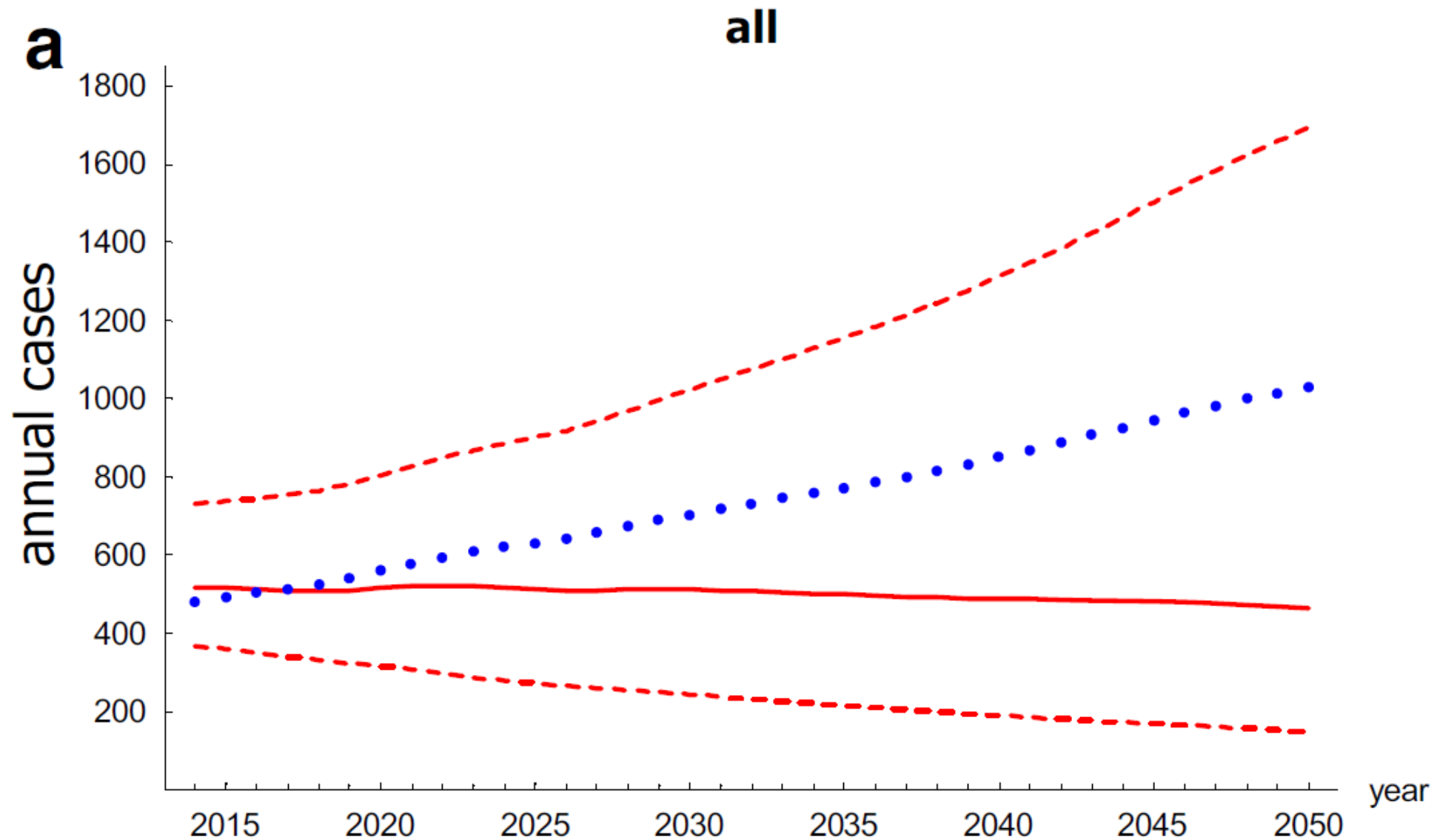
age- and gender-specific hip fracture incidence in 2013



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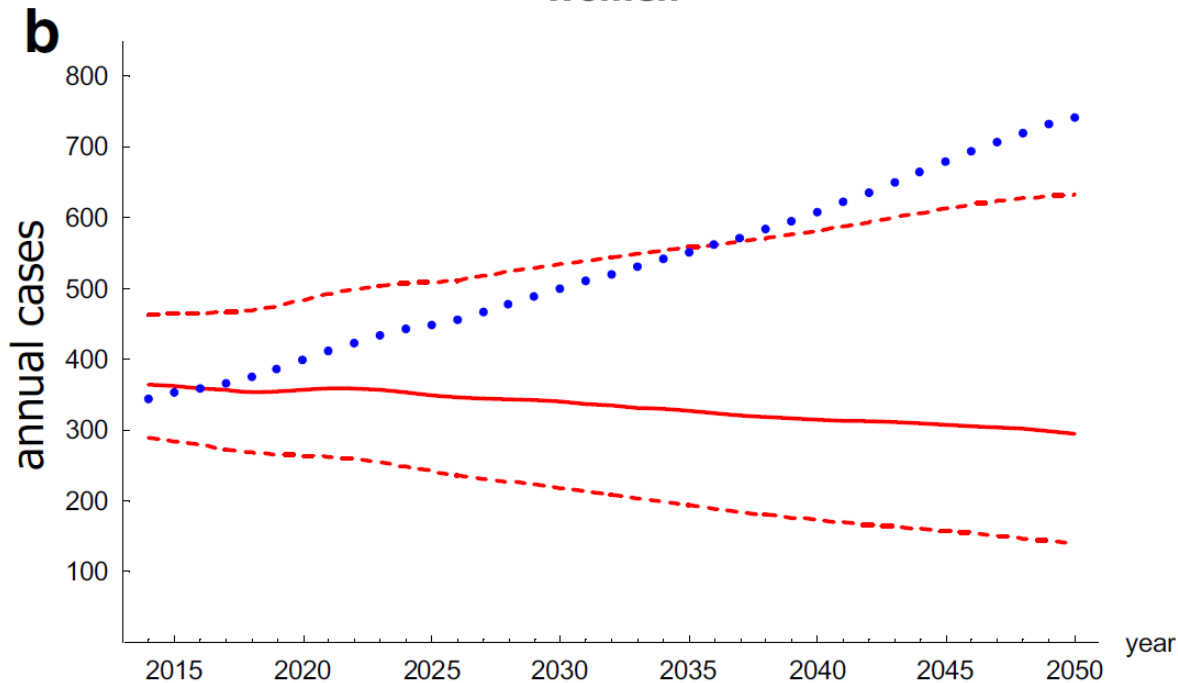




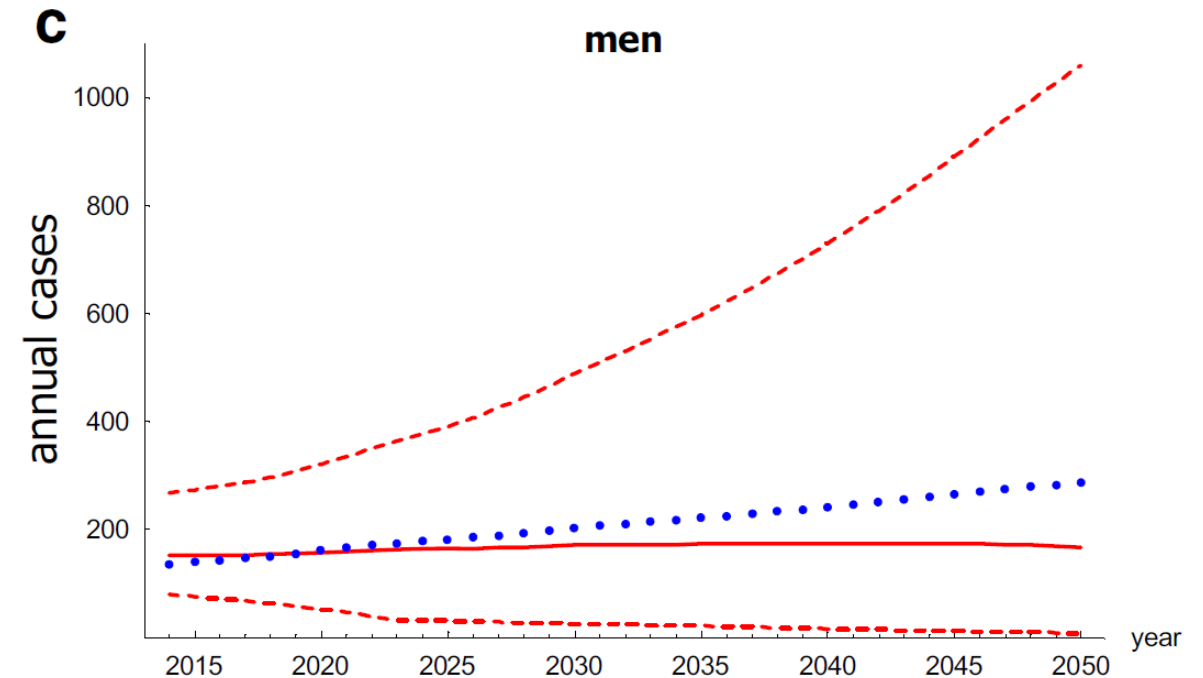
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women



men

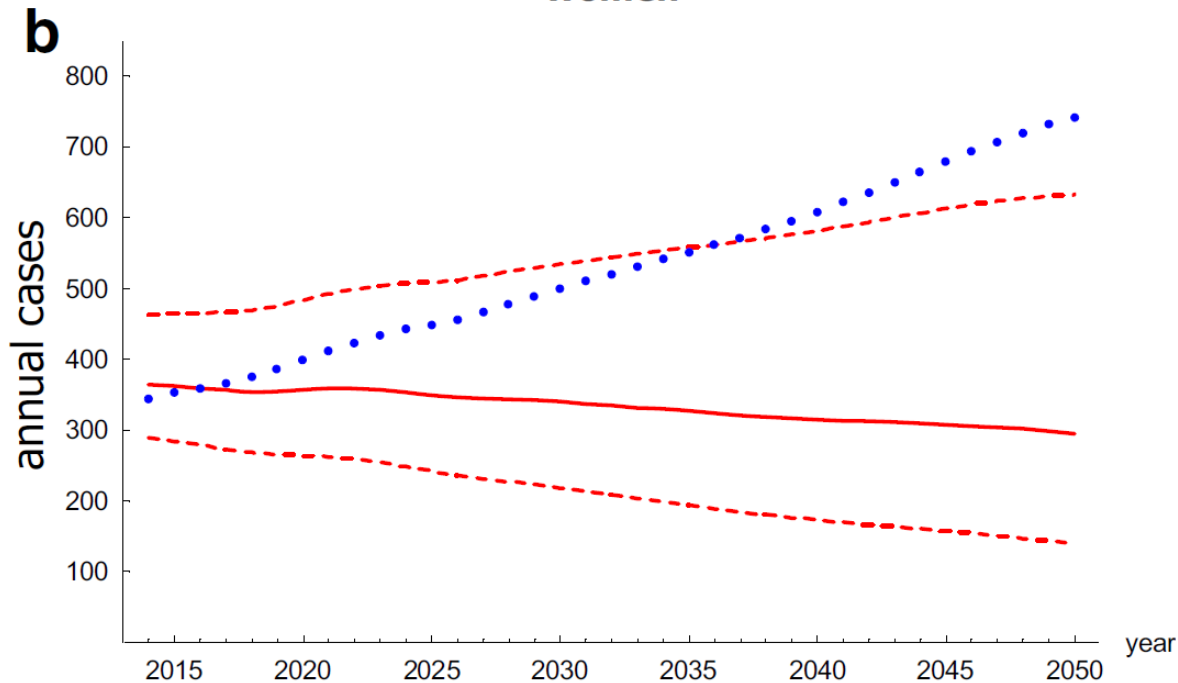




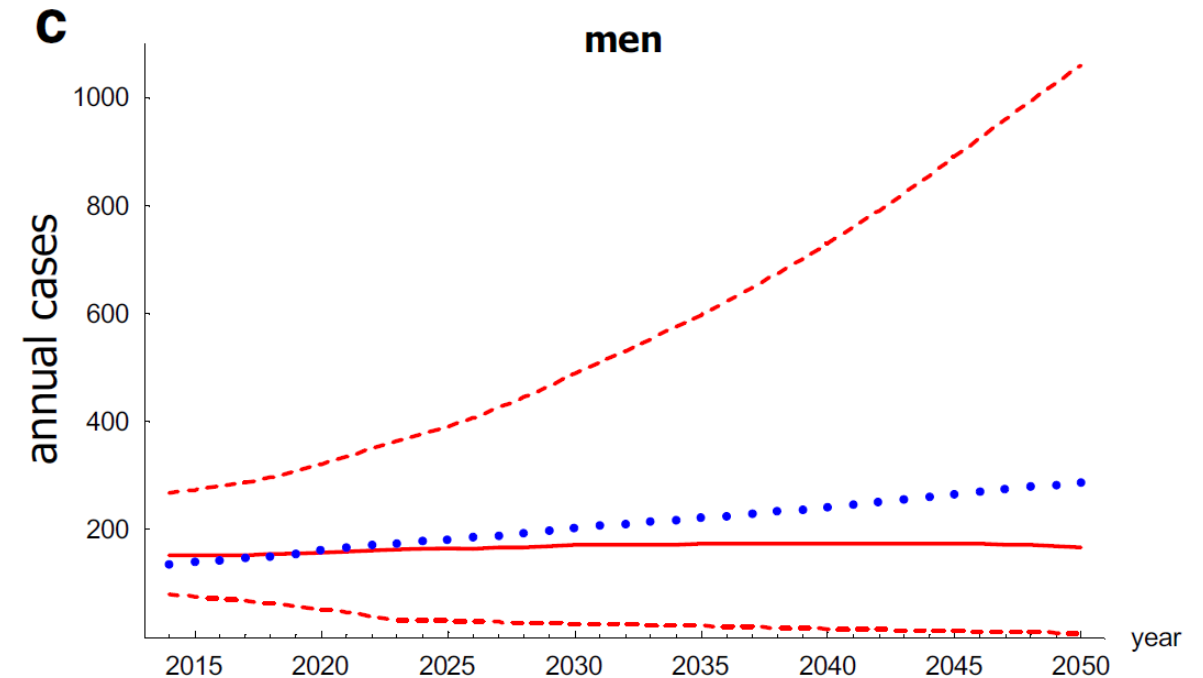
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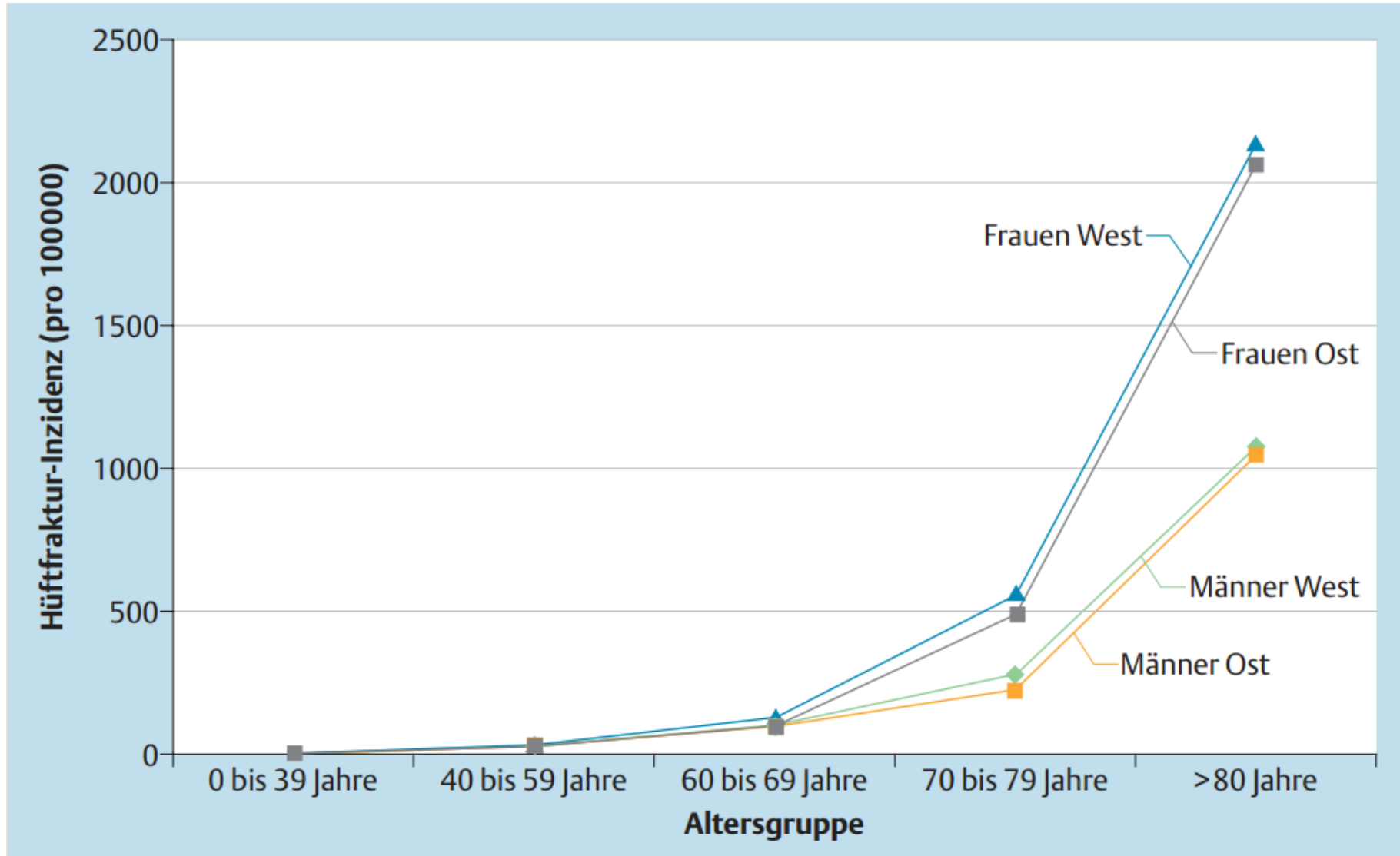
women



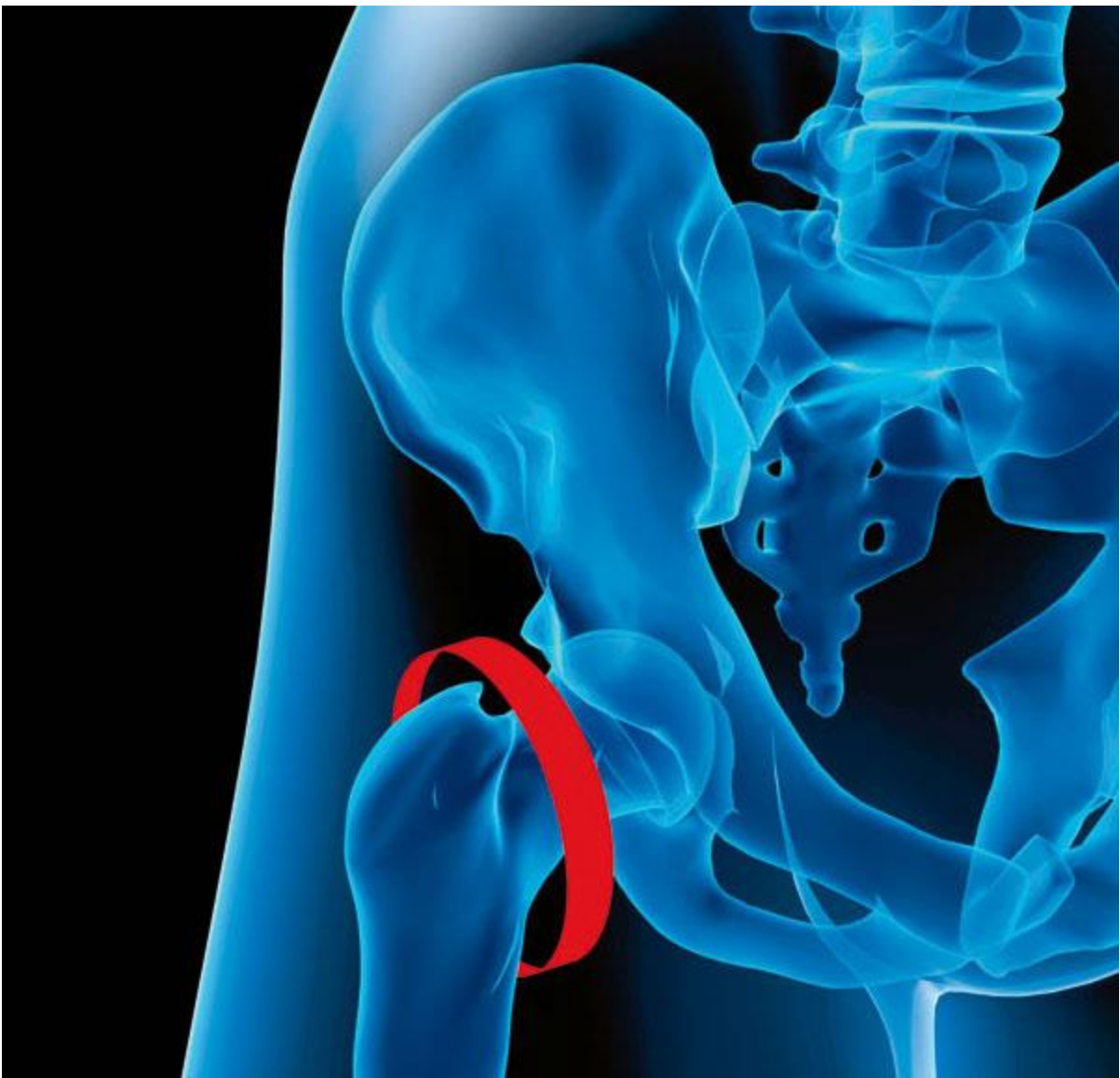
men



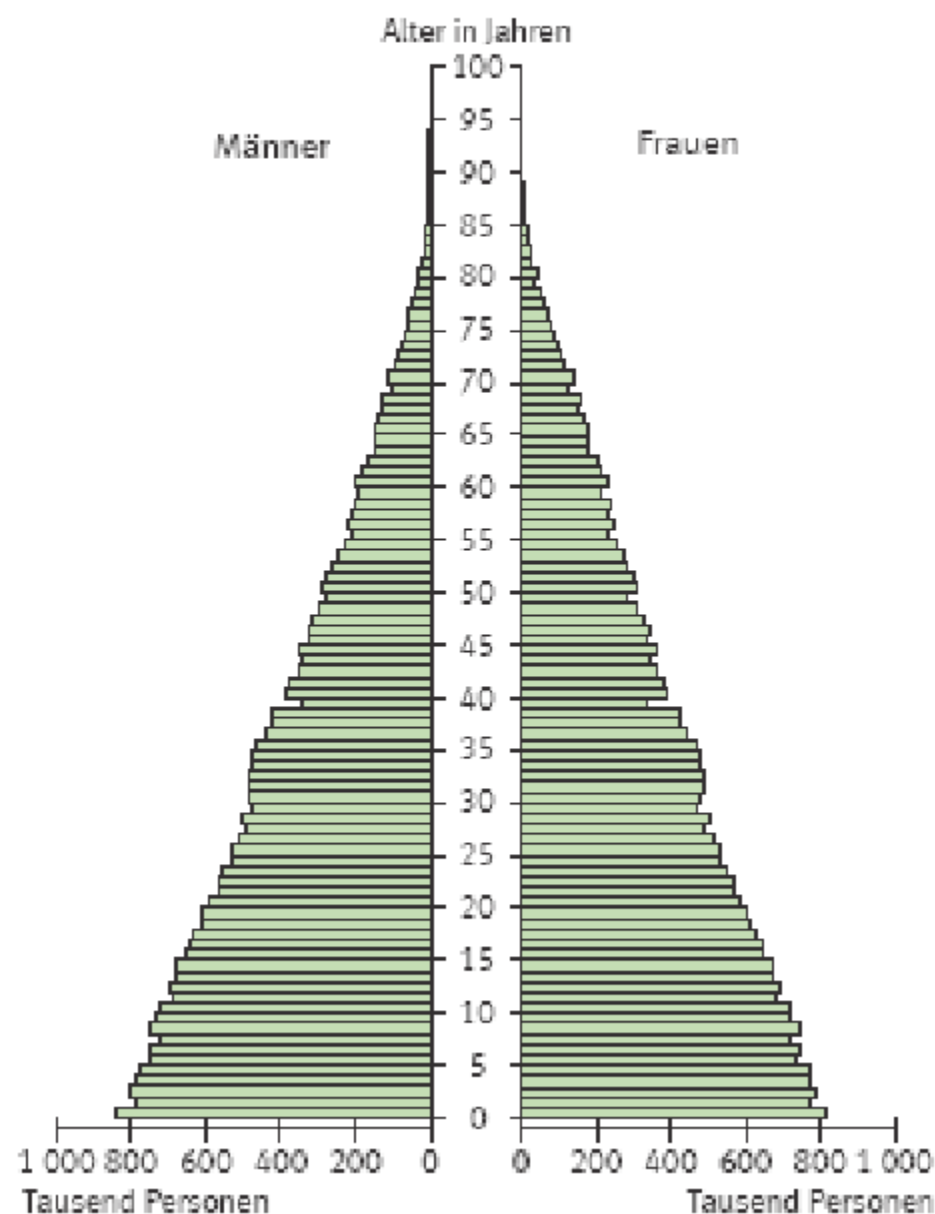
Hüftfrakturen 2004 Deutschland



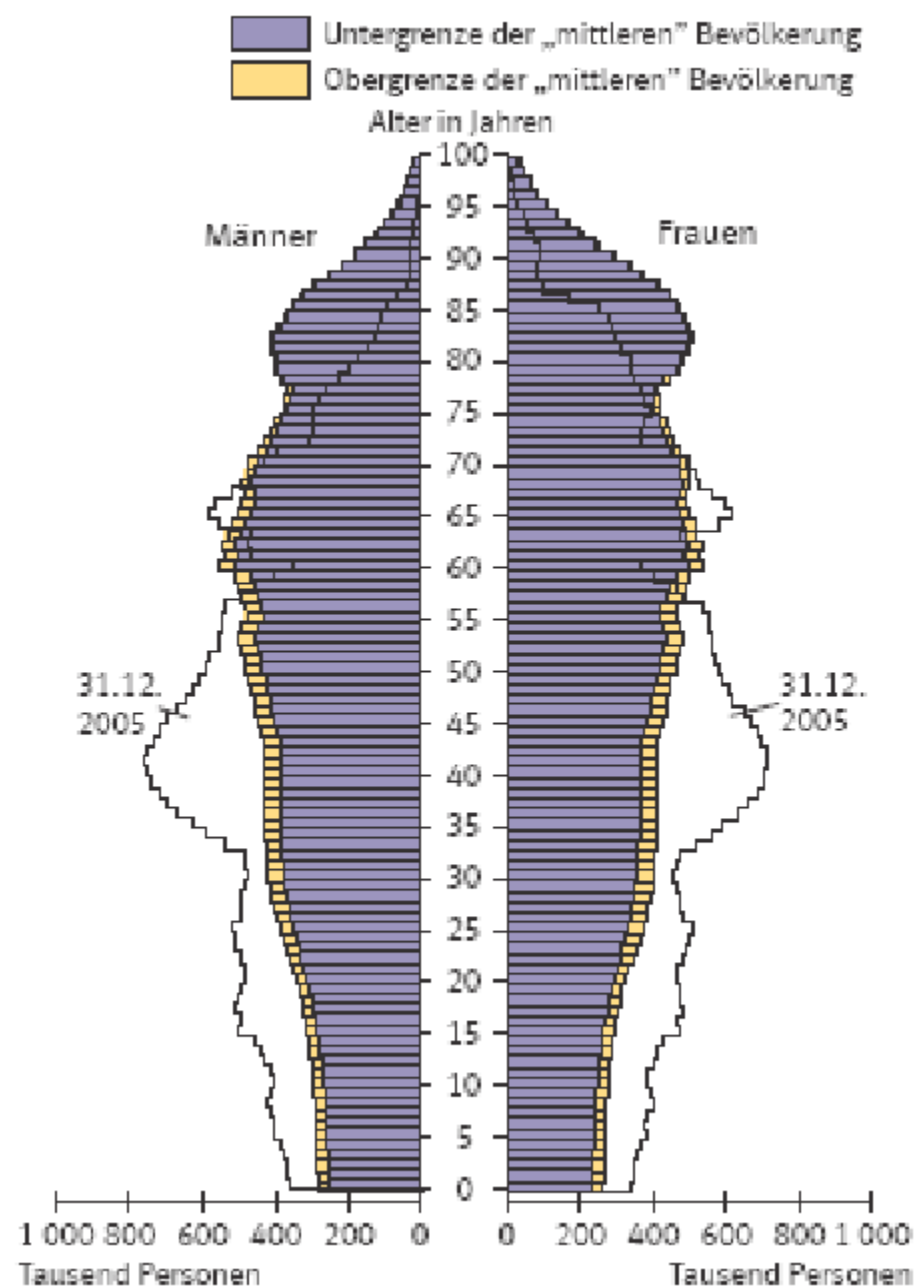




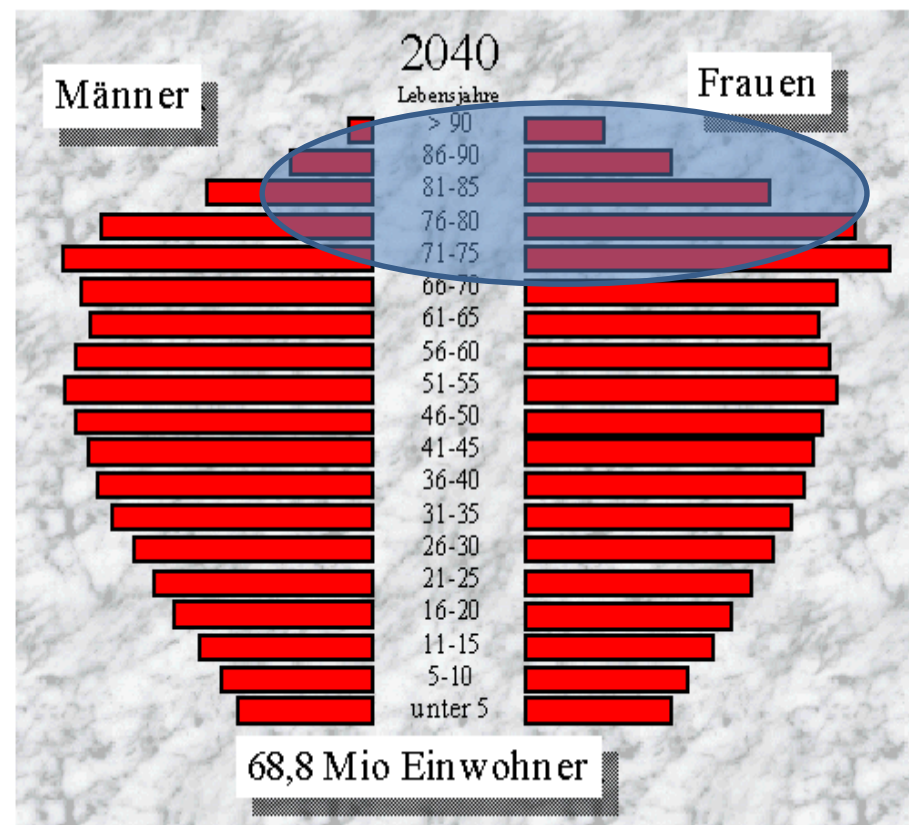
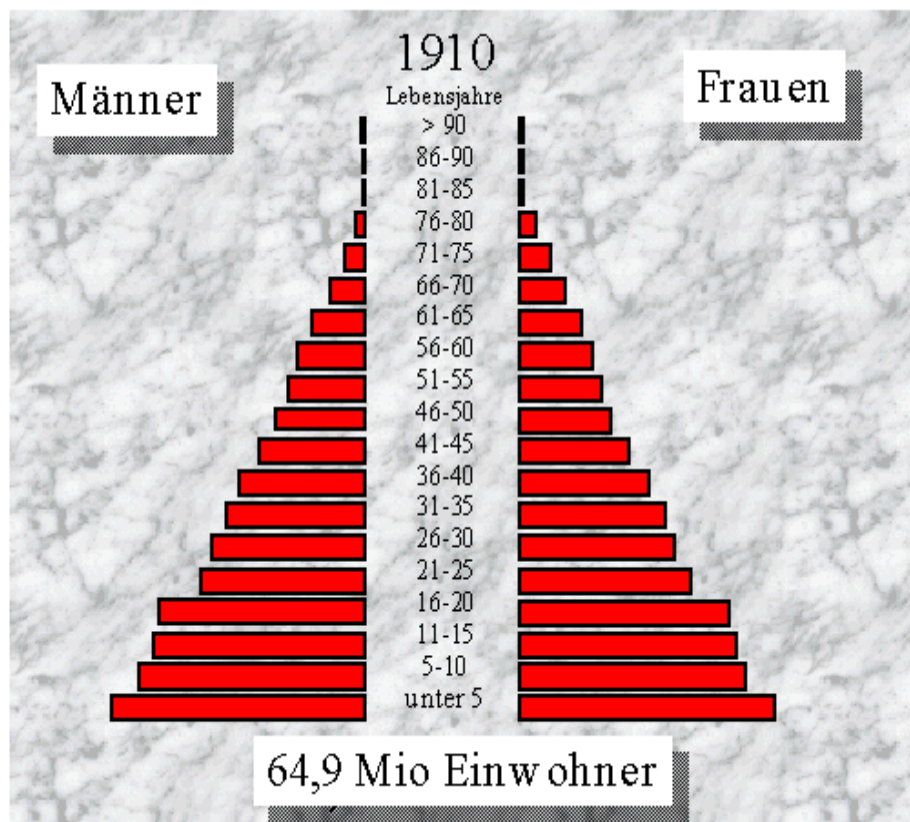
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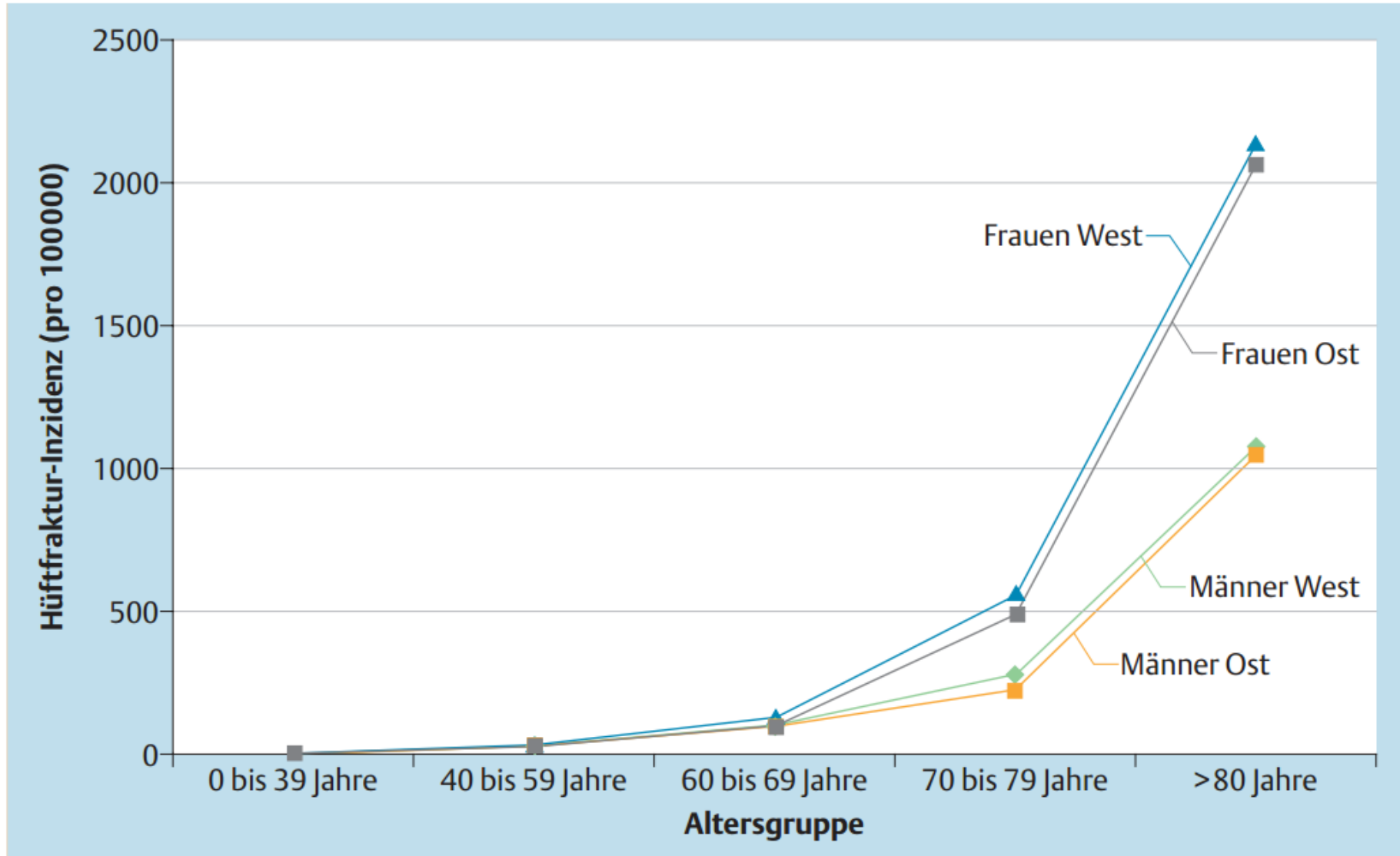
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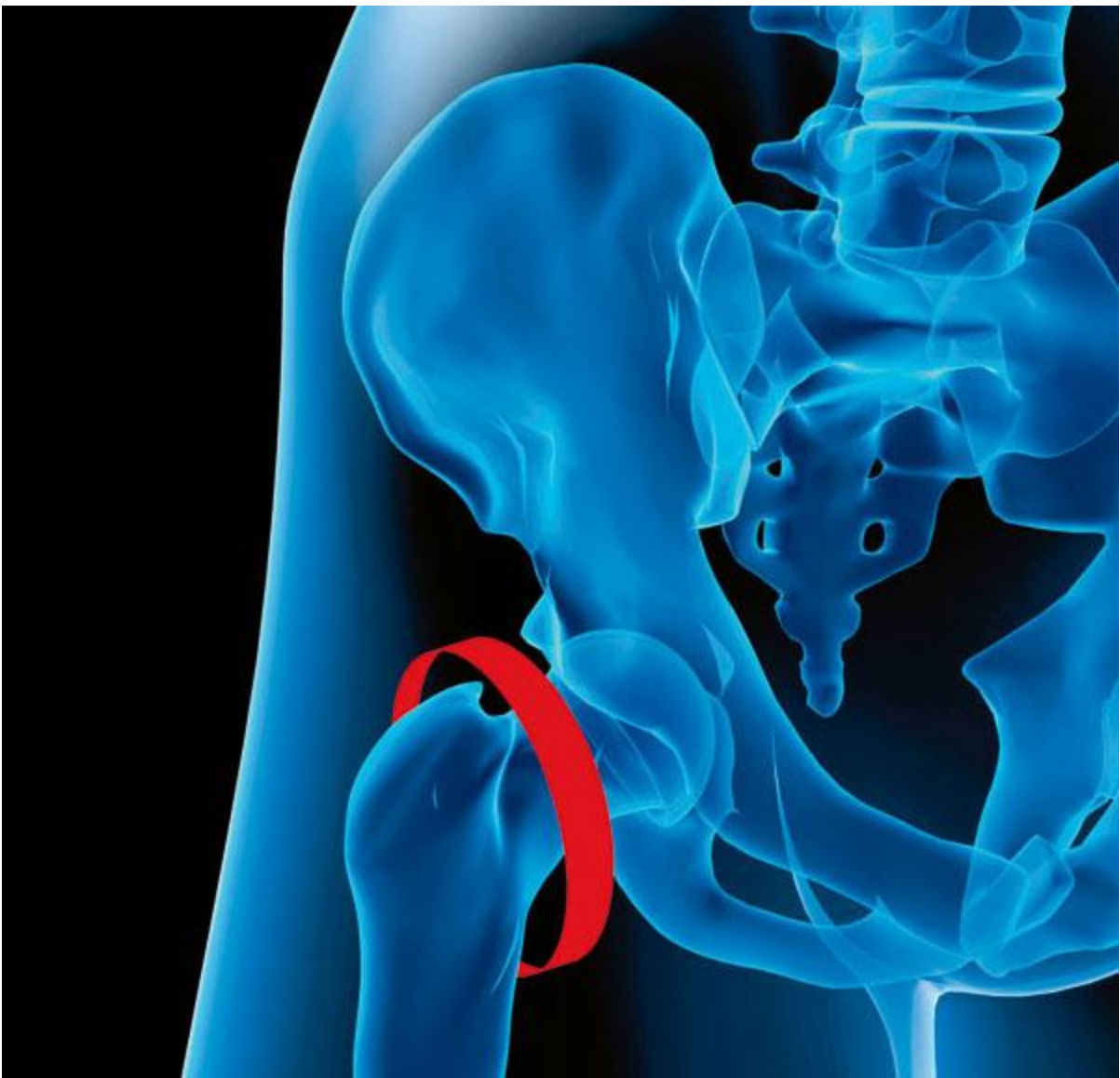
Deutschland 1910 / 2040



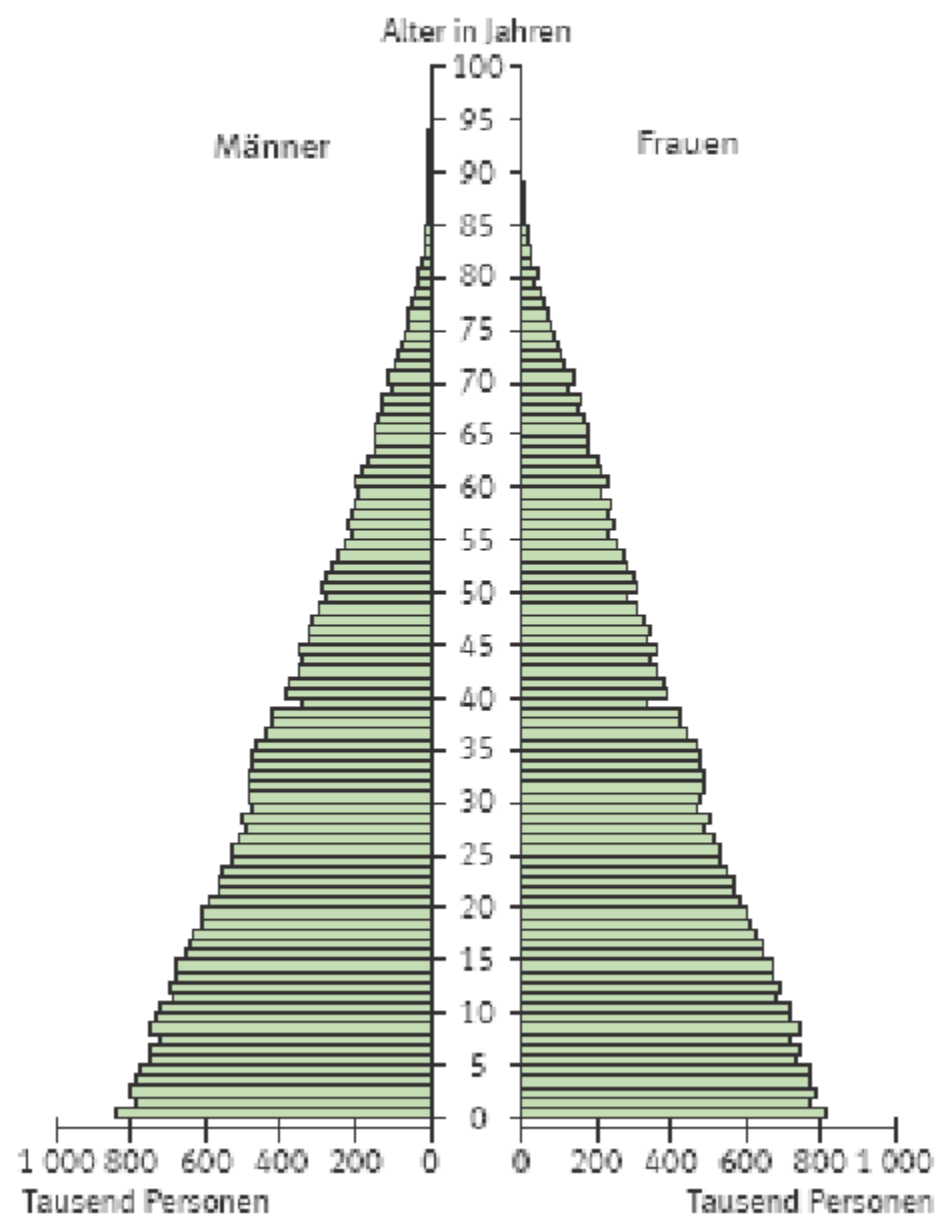
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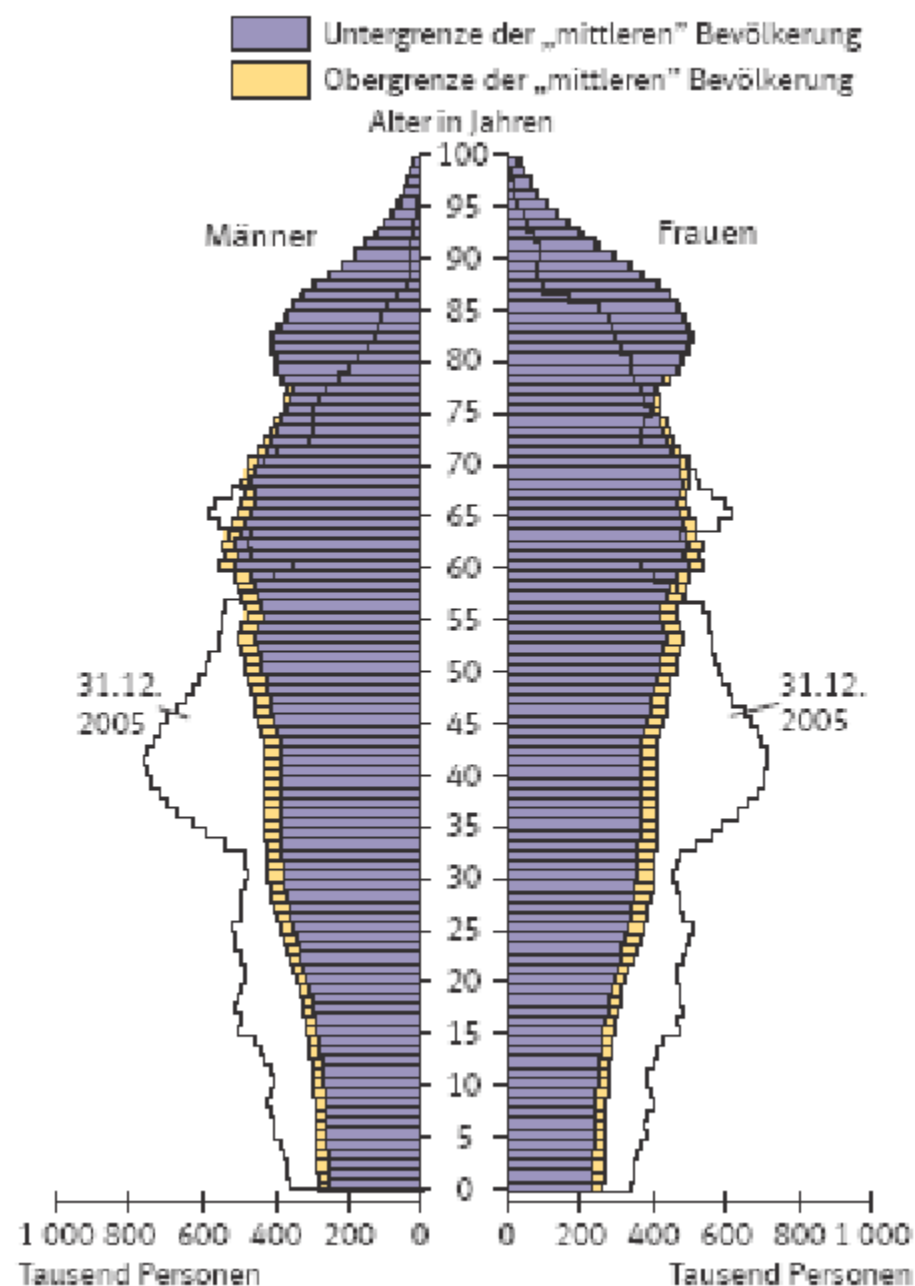




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