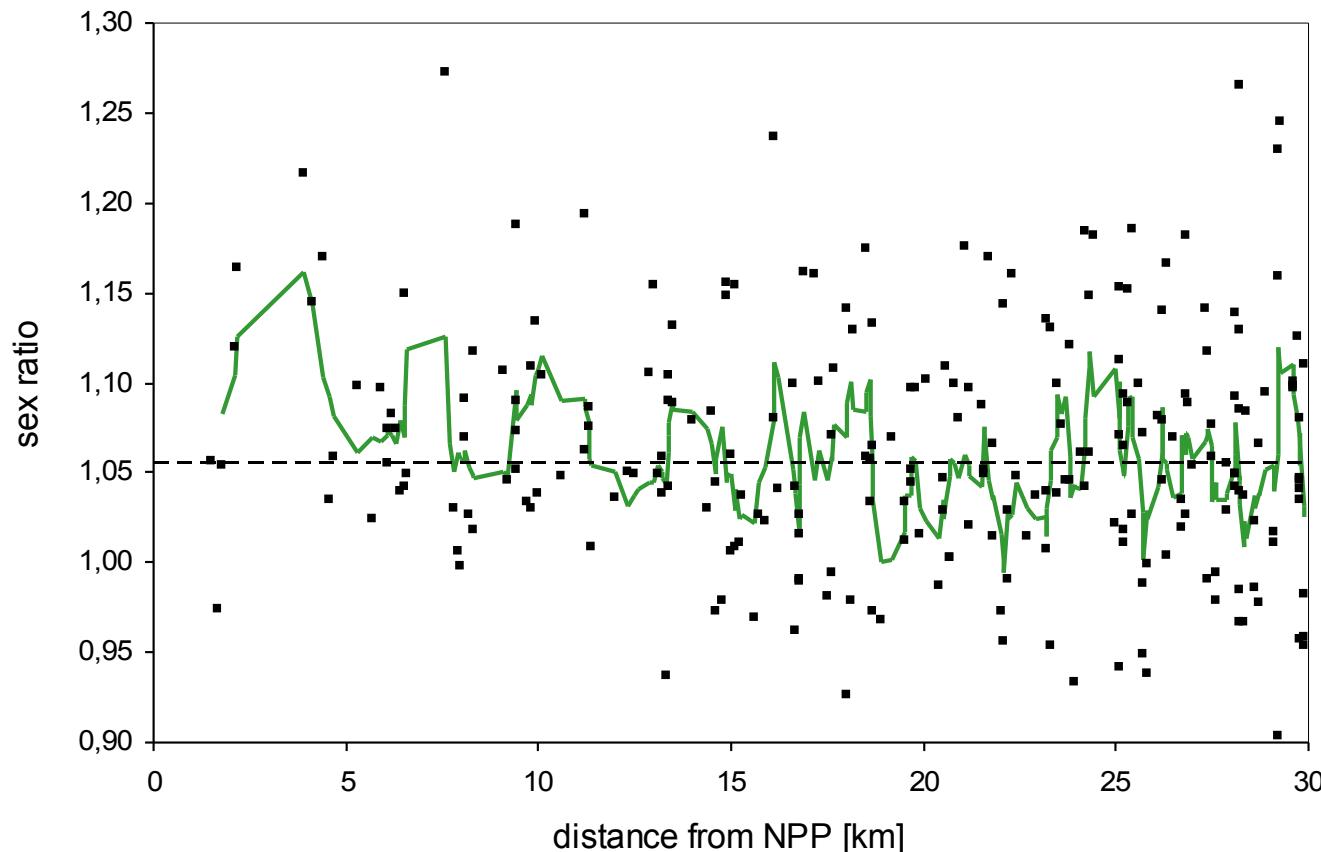


## WS 2

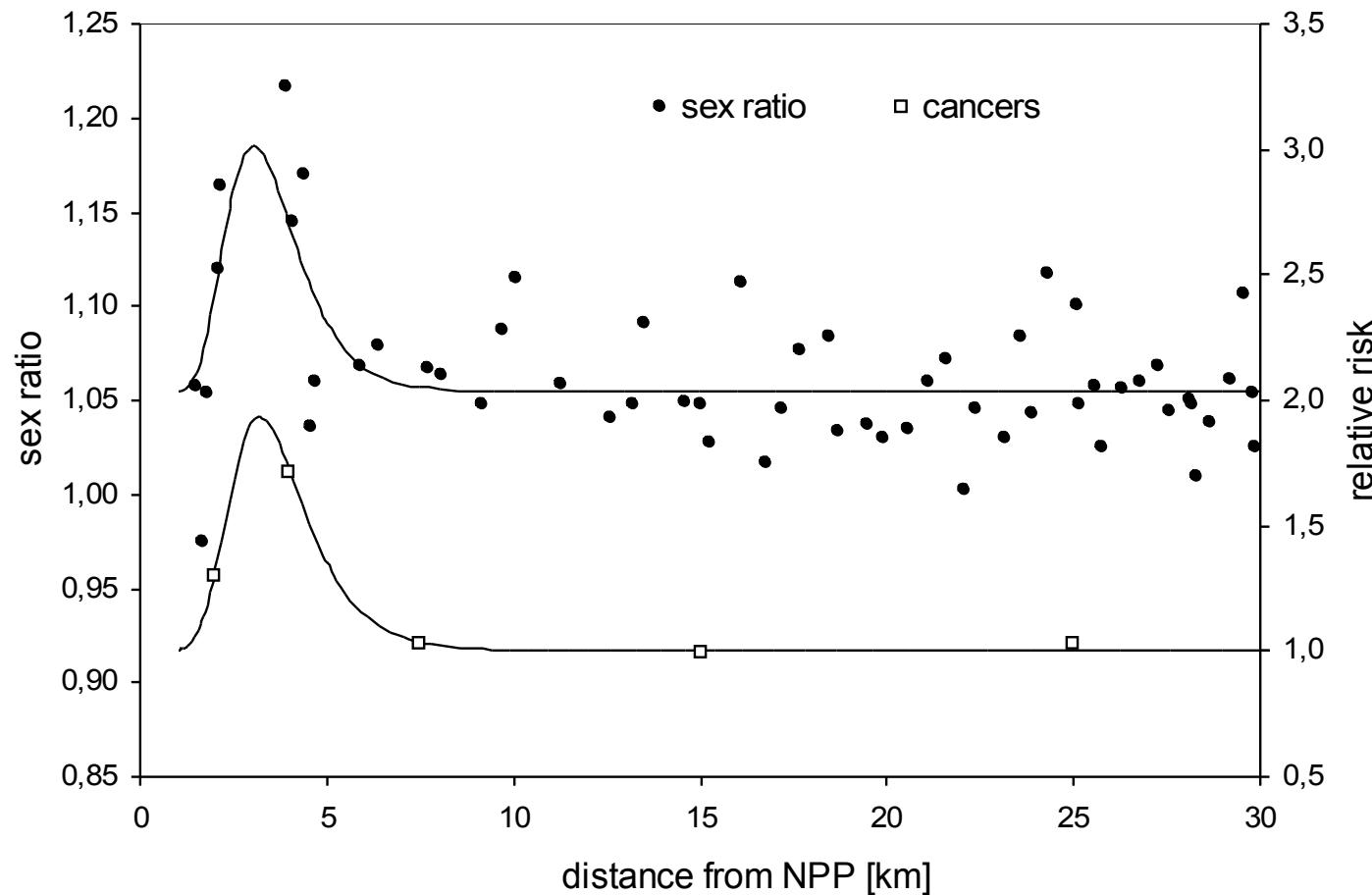
Increased sex ratio in Bavaria:  
after Chernobyl and in the vicinity of NPPs -  
epidemiological findings

Dr. Alfred Körblein

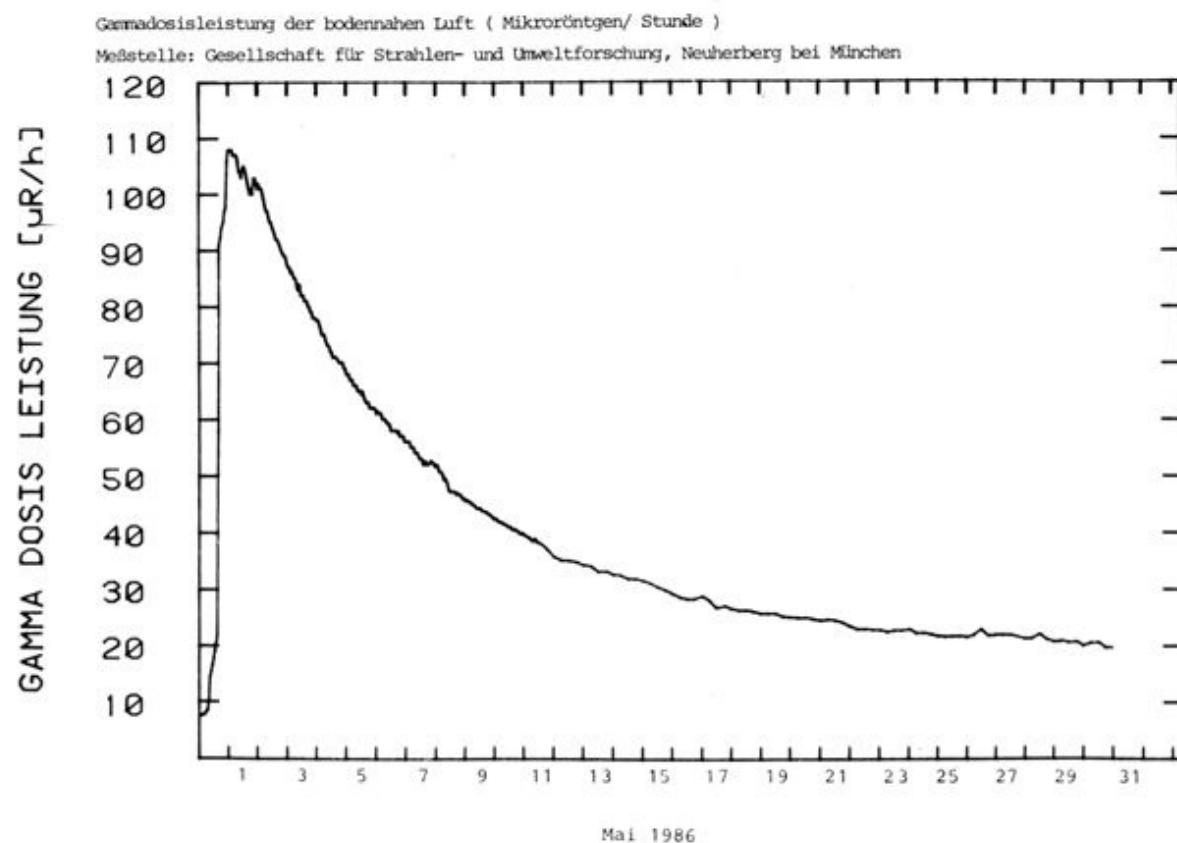
## Sex odds in communities near Bavarian NPPs (and 5-month moving average)



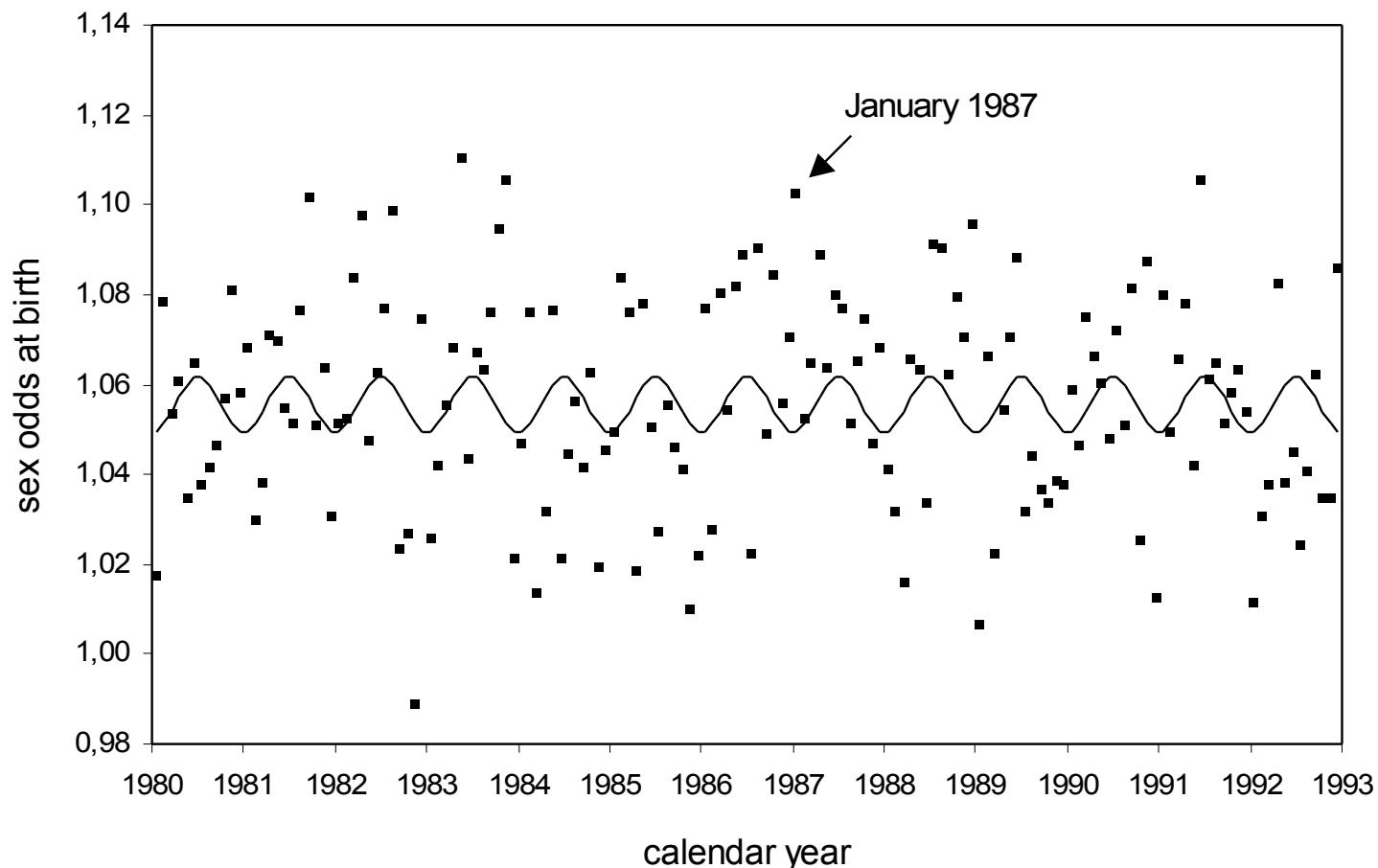
## Sex odds near Bavarian NPPs (Kusmierz et al. 2010) and relative cancer risk (KiKK study)



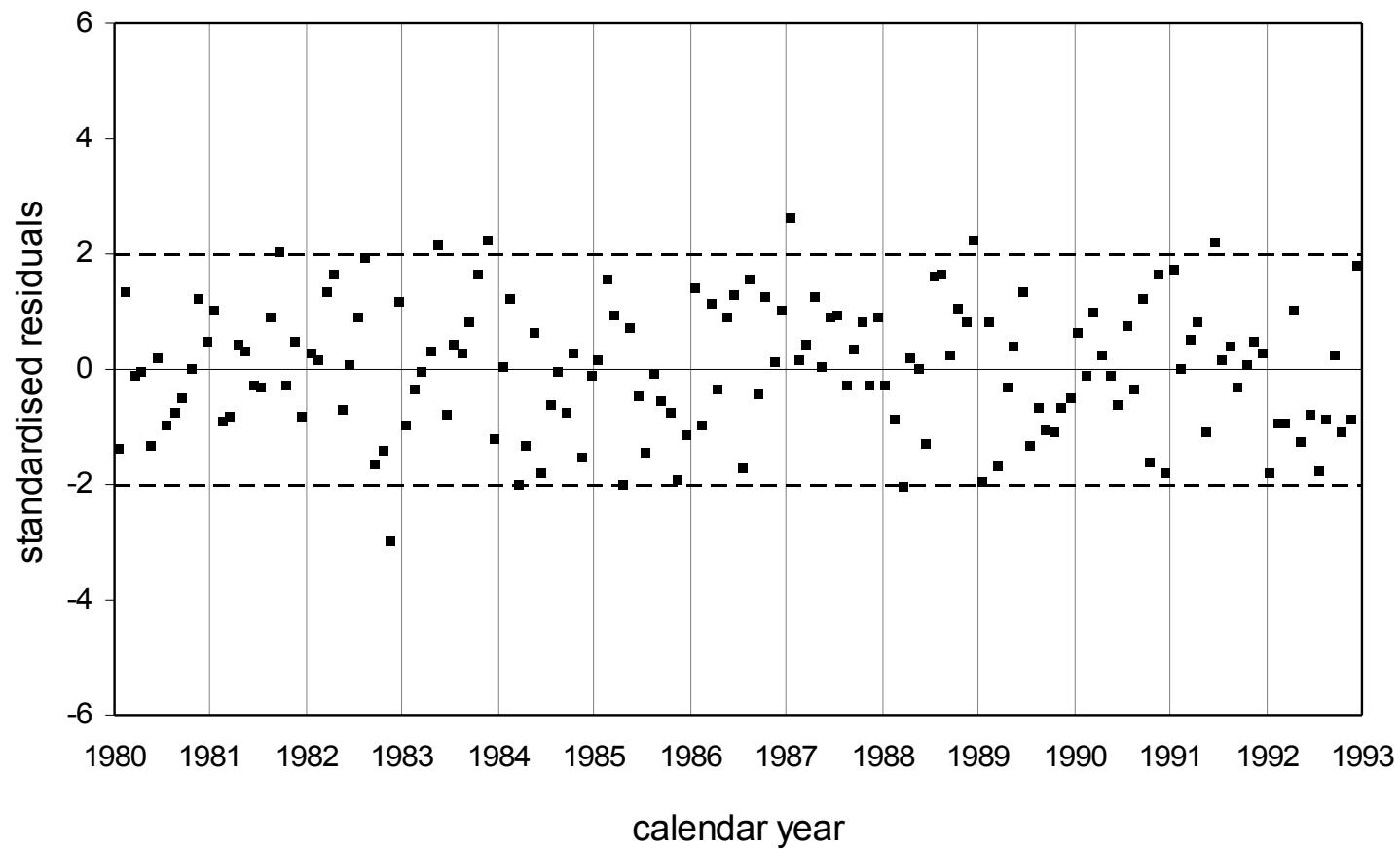
## Gamma dose rate in air in Munich, May 1986 [ $\mu\text{R}/\text{h}$ ]

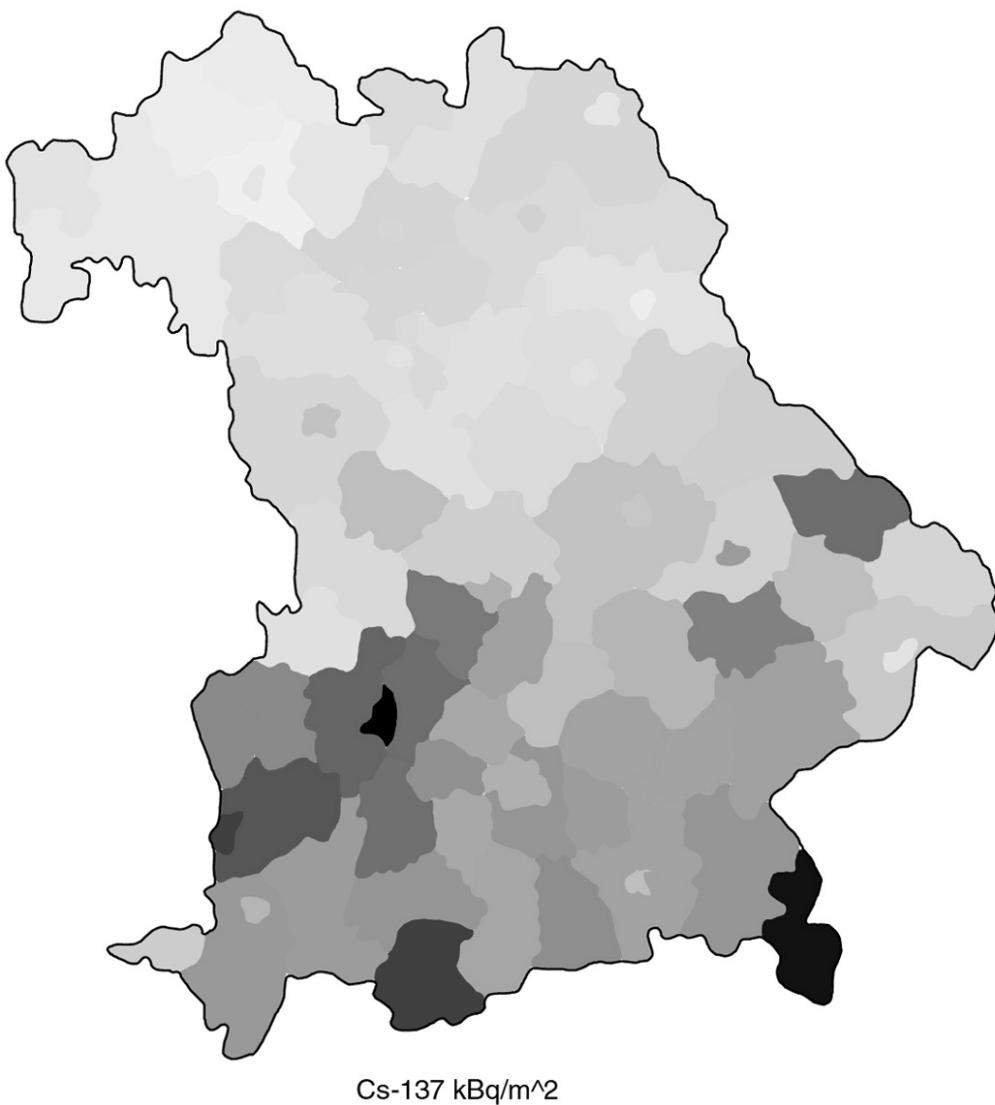


# Sex odds at birth in Bavaria in January 1987 Temporal trend



## Sex ratios in Bavaria in January 1987 Residuals





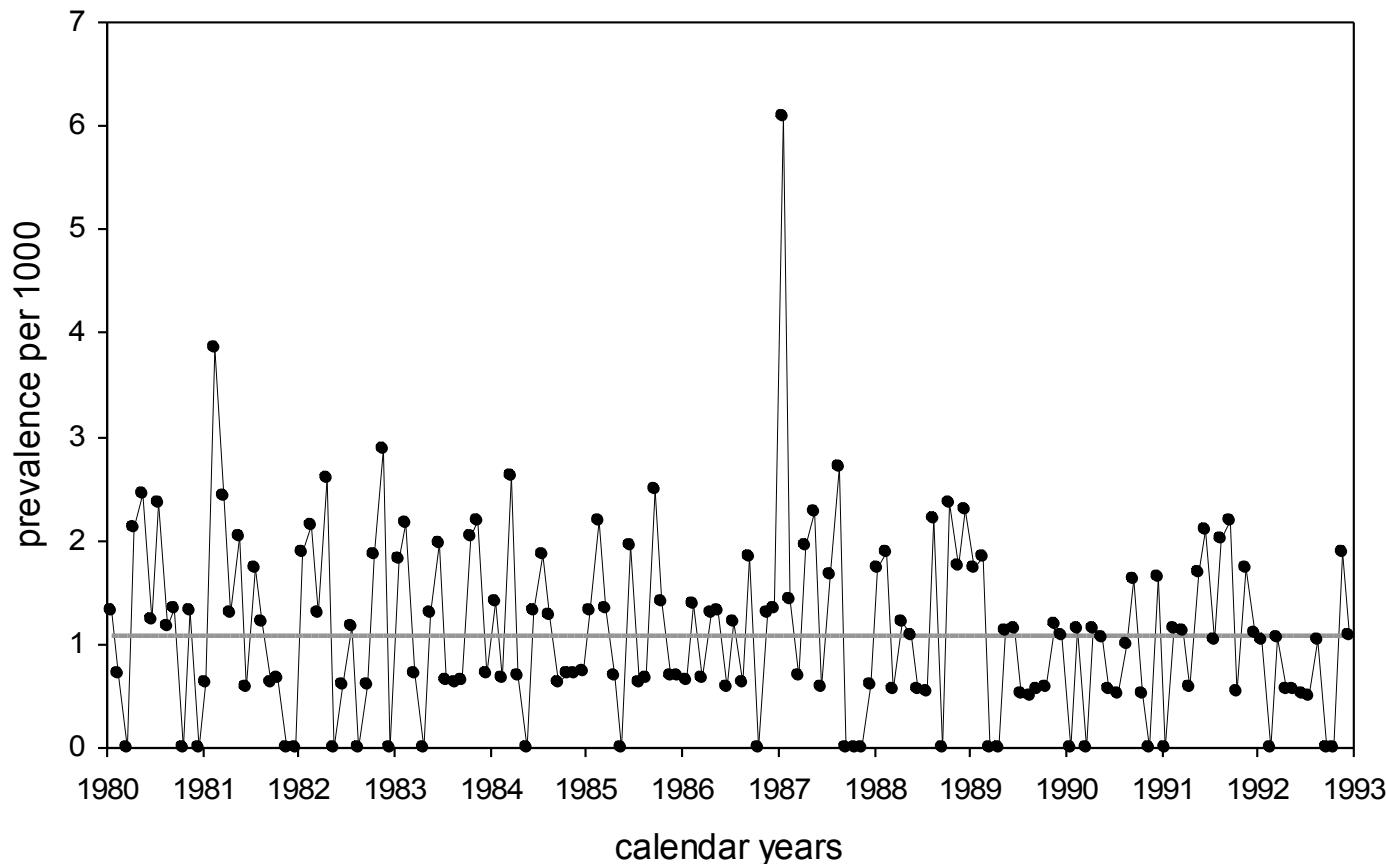
Average caesium contamination in southern Bavaria (south of river Danube) 4-times greater than in northern Bavaria

Caesium-137 soil contamination in Bavarian districts

## Increase in January 1987

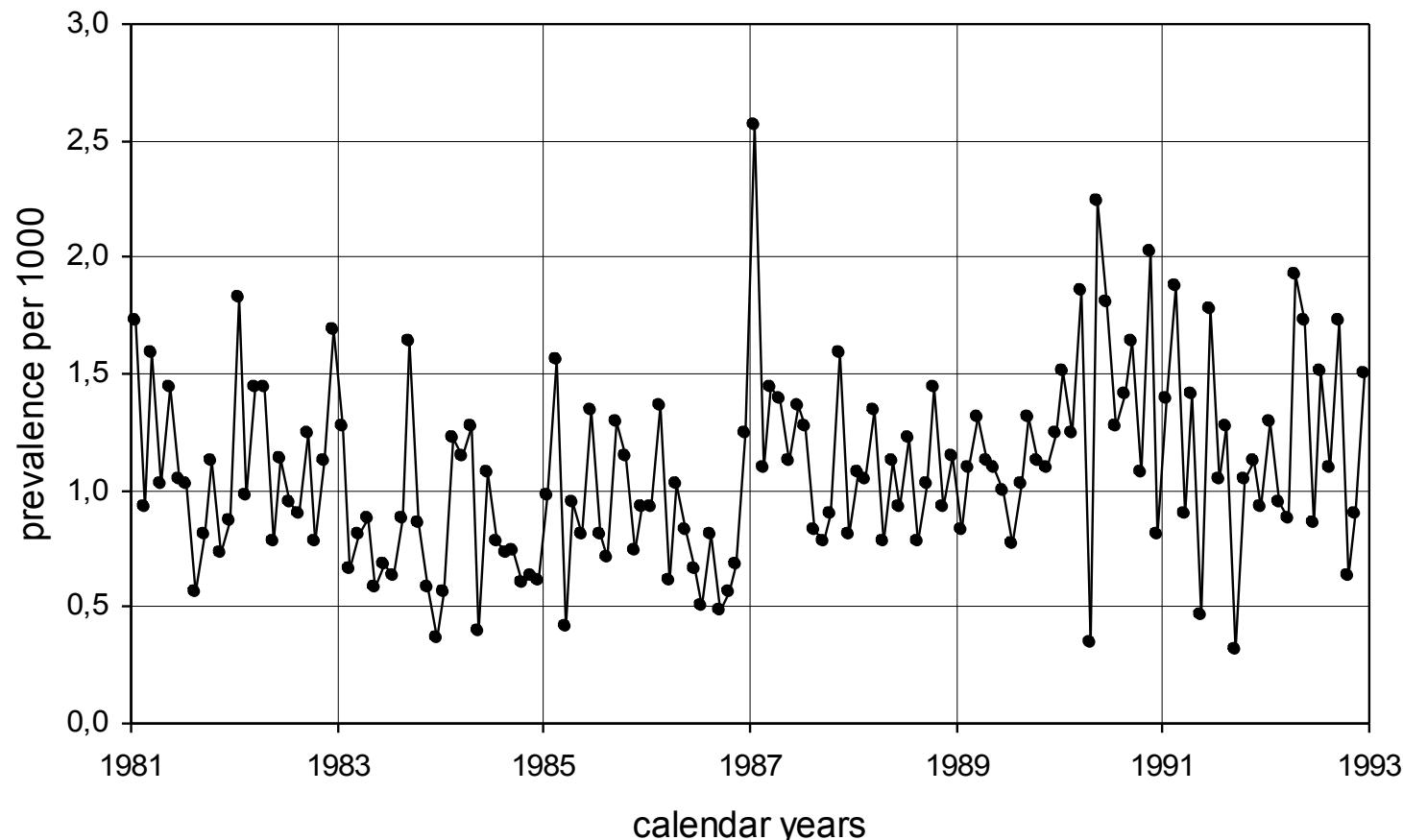
in southern Bavaria:	7.1% (p=0.027)
in northern Bavaria:	3.7% (p=0.300)
in Bavaria as a whole:	5.6% (p=0.022)

## Trisomy 21 (Down Syndrome) in Berlin (West) (Sperling et al)



## Trisomy 21 (Down Syndrome) in Belarus

(Zatsepin et al, Int J Radiat Med 2004)



## Sex ratio in trisomy 21 cases in Berlin (West), 3-month average. Significant increase in Dec86-Feb87.

