

The Sweden Överkalix study

Investigators	Lars Olov Bygren, Gunnar Kaati, Sören Edvinsson, Michael Sjöström, Michael Pembrey, Jean Golding et al.	Location	Overkalix, Sweden
Contact person	Lars.Olov.Bygren@ki.se	Famine exposed group	Parents' and grandparents' food availability at critical age 9-12 years was defined by regional data on harvest and food prices over the period 1803-1849 using a three point scale (good, intermediate, poor)
Funding agency	Forskningsrådsnämnden, Sweden (The coordination committee of the Swedish research boards)	Control group	see above
Study goals	To assess longevity and causes of death by ancestor's nutrition during early life	Size of target cohort	50% sample of the 319 individuals born in Overkalix in the selected years.
Study design	Longevity in selected birth cohorts was compared by parents' and grandparents' food availability between the ages 8-12 years	Exclusions	Those not traced, probands with missing data on childhood or ancestors with unknown birth dates n=48
Study population	Sample from births in 1890, 1905, 1920 and 1935 Matched parents and grandparents	Remaining for analysis	n=271
Next generation follow-up		Matched parents and grandparents	n=1,626
		Age at most recent follow up	Yearly mortality follow-up
		Data collected	1. Harvest statistics to reflect parental and grandparental access to food 2. Selected socio-economic and literacy statistics reflect the food circumstances of the proband
		Biobank	no

Outcomes studied to date	Mortality and cause of death in the 3rd generation
Strengths and weaknesses	Three generational approach Direct measure of supply of food Robust outcome measures Register data from 19th century
References	Pembrey et al., Eur J Hum Gen 2006: 14:159-166 Bygren et al Acta Biotheoretica 2001 49: 53-59

