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# Looking down from the grave

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## Introduction

### Research question

To what extent is height (measured around the age of 21) a good indicator of early-life conditions when predicting old age mortality?

Height

Early-life indicators

Adult-age mortality



## Theory

Early-life conditions affect height through:

- Disease environment
- Nutrition
- Mother's health
- Socioeconomic status family

## Methods

### Data/Analysis

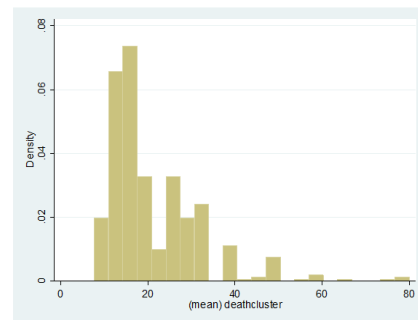
Scanian Economic Demographic Database:

- Males with height measure
- From 1813 till 1869
- 1.104 individuals with 178 deaths
- Parishes: Hög, Kävlinge, Halmstad, Sireköpinge and Kågeröd
- Ordinary Least Squares regression
- Cox proportional hazard model

### Descriptives

Early-life indicators in this study:

- Infant Mortality Rates (IMR)
- Death clustering
- Rye prices
- Season of birth
- Socioeconomic status father



Distribution death clustering (omitting 0%)

## Results

### OLS-regression on height

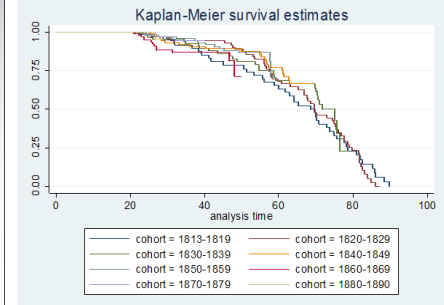
	M0	M1	M2	M3	M4	M5
IMR	-0.862	-0.844	-1.107	-1.078	-1.170*	-0.923
Death clustering		-0.039**	-0.047***	-0.047***	-0.049***	-0.035**
Rye cycle at conception			-1.296	-1.110	-1.292	-0.982
Winter					0.458	0.239
Spring					0.185	0.186
Summer					-0.847	-0.779
Autumn						
Higher occupations					1.559	1.585
Skilled					-2.246**	-2.353**
Farmers (Ref.)					-0.535	-0.176
Lower skilled					-1.527**	-1.721***
Unskilled					-2.055***	-1.568***
NA						
1813-1829 (Ref.)						
1830-1849						3.225***
1850-1869						4.924***
Constant	166.020***	166.388***	166.601***	166.699***	167.501***	164.147***
Observations	1,104	981	946	946	946	946
R-squared	0.002	0.007	0.012	0.018	0.042	0.130

### Cox proportional hazard model on death

	M0	M1	M2	M3	M4	M5
High height	0.544**	0.550*	0.553*	0.570*	0.607	0.461*
Medium height (Ref.)						
Low height	0.782	0.772	0.754	0.768	0.786	0.803
Low IMR (Ref.)						
High IMR		1.110	1.223	1.253	1.149	1.451
Death cluster			1.009	1.009	1.008	1.009
1813-1829 (Ref.)						
1830-1849				0.810	0.860	0.900
Rye cycle at conception					0.357	0.339
Higher occupations						6.221**
Skilled						2.039
Farmers (Ref.)						
Lower skilled						0.841
Unskilled						1.201
NA						0.512
Observations	2,707	2,707	2,515	2,515	2,313	2,313
No of subjects	137	137	130	130	122	122
No of failures	69	69	66	66	58	58

## Conclusions

### Problems with the data



### Bulletpoints

- ✓ Death clustering significant, but neglectable effect on height
- ✓ Strong effects of SES at births
- ✓ Early-life conditions have a strong influence on final obtained stature
- ✓ Height has significant effect on old-age mortality

### Discussion

- ✓ Small sample -> small conclusions

Where to go from here?

- ✓ SEDD-data after 1910
- ✓ Height as indicator for further research