Childhood Autism: Routine and Linked Data

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Statistician

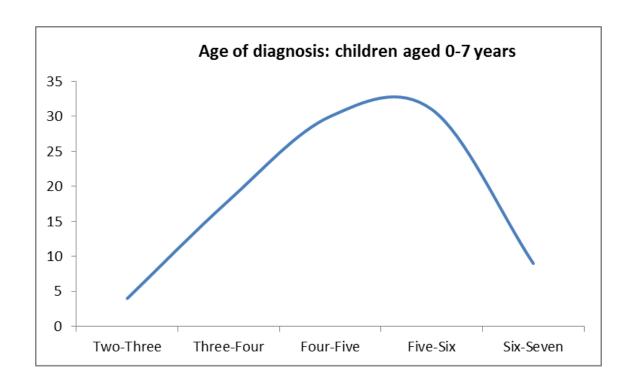
Born in Bradford

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Born in Bradford Cohort

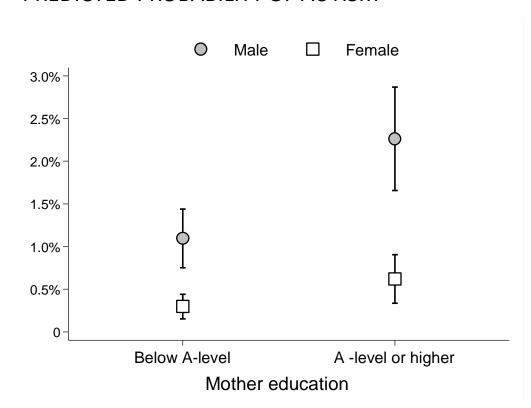
Prevalence (identified by Read code in GP records): Boys 1.5%
Girls 0.4%



Born in Bradford Cohort

Prevalence (identified by Read code in GP records) Linked to mothers education via cohort study

PREDICTED PROBABILITY OF AUTISM



So.....

Is this evidence of socioeconomic inequality in likelihood of receiving a diagnosis?

ESTIMATED UNDERDIAGNOSIS OF AUTISM:

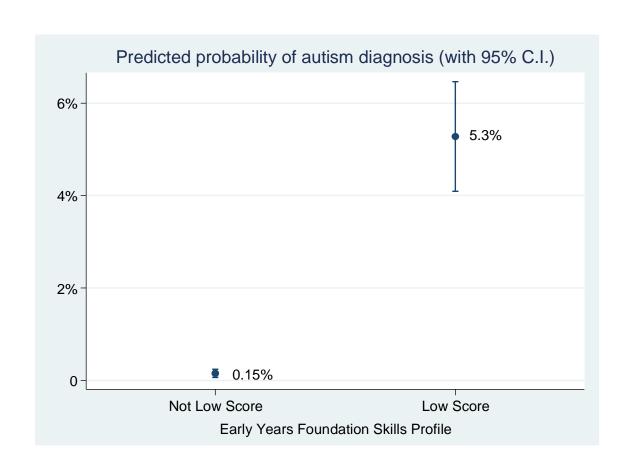
CHILDREN BORN AT BRADFORD ROYAL INFIRMARY 2007 - 2011.

Population of 25,500		
	Below A-level	A-level or above
Percentage of population	60%	40%
Size of sub-population	15300	10200
Autism prevalence rate		
Low 95% confidence interval	0.50%	1.10%
Estimate	0.71%	1.46%
High 95% confidence interval	0.92%	1.83%
Predicted number based on observed prevalence rate		
Low 95% confidence interval	77	112
Estimate	109	149
High 95% confidence interval	141	187
Estimated under diagnosis of autism*		
Low 95% confidence interval	92	-
Estimate	115	-
High 95% confidence interval	139	-

^{*} Calculated by multiplying the estimated prevalence rates for children of mothers educated to A-level or above and the relevant sub-population and taking away the number of children predicted to have an observed diagnosis

Born in Bradford Cohort

Prevalence (identified by Read code in GP records)
Linked to routine education data



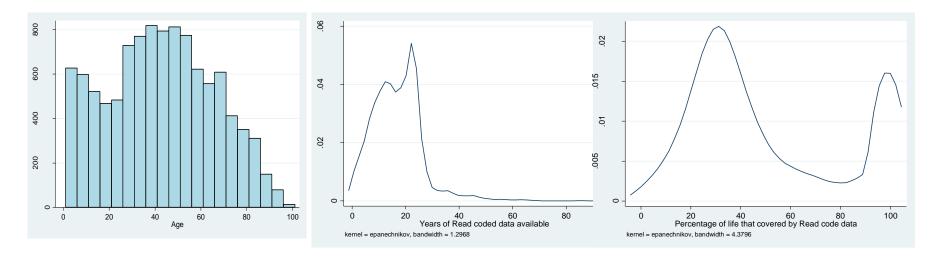
So.....

Is this association useful for predicting the likelihood of a child having autism?

Connected Yorkshire: GP data

Example: from a single GP practice

Autism and age at extract					
The age profile of patients at the practice with a diagnosis of Autism					
Age	No	Yes	Total	Percentage	
Under 10	1107	5	1112	0.45%	
10-19	995	13	1008	1.29%	
20-29	1133	13	1146	1.13%	
30-39	1745	5	1750	0.29%	
40-49	1604	2	1606	0.12%	
50-59	1393	3	1396	0.21%	
60-69	1166	0	1166	0.00%	
70 plus	1319	0	1319	0.00%	



Potential for estimating current rates and trends to inform service needs.

Potential to develop deeper understanding from linking to other sources of routine data