

**An exploratory study of maternal iron status in pregnancy and childhood wheeze and atopy**

*Online supplemental tables*

Bright I Nwaru<sup>1</sup>  
Helen Hayes<sup>2</sup>,  
Lorraine Gambling<sup>2</sup>,  
Leone CA Craig<sup>3</sup>,  
Keith Allan<sup>4</sup>,  
Nanda Prabhu<sup>4</sup>,  
Steven W Turner<sup>4</sup>,  
Geraldine McNeill<sup>3</sup>,  
Maijaliisa Erkkola<sup>5</sup>,  
Anthony Seaton<sup>6</sup>,  
Harry J McArdle<sup>2</sup>  
Graham Devereux<sup>4</sup>

<sup>1</sup>Allergy & Respiratory Research Group, Centre for Population Health Sciences, University of Edinburgh, UK

<sup>2</sup>Rowett Institute of Nutrition and Health, University of Aberdeen, UK

<sup>3</sup>Public Health Nutrition Group, University of Aberdeen, UK.

<sup>4</sup>Child Health, University of Aberdeen, UK.

<sup>5</sup>Division of Nutrition, Department of Food and Environmental Sciences, University of Helsinki, Finland

<sup>6</sup>Department of Environmental and Occupational Medicine, University of Aberdeen, UK.

Corresponding address:

Graham Devereux

Child Health

Royal Aberdeen Children's Hospital

Aberdeen. AB25 2ZG

United Kingdom

Tel +44 1224 438476.

Fax +44 1224 438469

E mail [g.devereux@abdn.ac.uk](mailto:g.devereux@abdn.ac.uk)

Table S1 Unadjusted association between maternal sufficiency of ferritin at 11 weeks gestation and at birth and the longitudinal development of asthma and allergic outcomes up to 10 years

Outcomes	Serum ferritin at 11 weeks		Serum ferritin at birth	
	Deficient ( $<15$ ug/ml)	Sufficient ( $\geq 15$ ug/ml) <i>n</i> = 80	Deficient ( $<15$ ug/ml)	Sufficient ( $\geq 15$ ug/ml) <i>n</i> = 27
Wheeze in the past year, OR (95% CI) <i>P</i> -value	Reference	1.38 (0.71-2.67) 0.342	Reference	0.86 (0.35-2.12) 0.739
Wheeze without cold in past year, OR (95% CI) <i>P</i> -value	Reference	1.19 (0.49-2.86) 0.701	Reference	0.77 (0.23-2.57) 0.669
Doctor-diagnosed eczema, OR (95% CI) <i>P</i> -value	Reference	0.92 (0.45-1.90) 0.825	Reference	3.03 (1.26-7.31) 0.014
Doctor-diagnosed hay fever, OR (95% CI) <i>P</i> -value	Reference	1.14 (0.48-2.70) 0.760	Reference	1.18 (0.37-3.78) 0.783
Skin prick test positivity to any allergen, OR (95% CI) <i>P</i> -value	Reference	0.86 (0.37-2.01) 0.737	Reference	1.81 (0.63-5.18) 0.271
Doctor-diagnosed asthma, OR (95% CI) <i>P</i> -value	Reference	1.06 (0.45-2.50) 0.886	Reference	1.64 (0.58-4.63) 0.346
PEF, coefficient (95% CI) <i>P</i> -value	Reference	0.09 (-0.12- 0.30) 0.389	Reference	-0.08 (-0.36-0.20) 0.567
FEV1, coefficient (95% CI) <i>P</i> -value	Reference	-0.01 (-0.17-0.16) 0.941	Reference	-0.11 (-0.32-0.09) 0.289
FVC, coefficient (95% CI) <i>P</i> -value	Reference	0.01 (-0.13-0.15) 0.884	Reference	0.04 (-0.015-0.23) 0.669

Table S2 Unadjusted association between maternal sufficiency of haemoglobin at 11 weeks gestation and at birth and the longitudinal development of asthma and allergic outcomes up to 10 years

Outcomes	haemoglobin at 11 weeks		haemoglobin at birth	
	Deficient (<10.5 g/dl)	Sufficient (≥10.5 g/dl) <i>n</i> = 151	Deficient (<10.5 g/dl)	Sufficient (≥10.5 g/dl) <i>n</i> = 120
Wheeze in the past year, OR (95% CI) <i>P</i> -value	Reference	*	Reference	0.71 (0.34-1.47) 0.355
Wheeze without cold in past year, OR (95% CI) <i>P</i> -value	Reference	*	Reference	0.73 (0.28-1.92) 0.529
Doctor-diagnosed eczema, OR (95% CI) <i>P</i> -value	Reference	*	Reference	1.69 (0.66-4.31) 0.270
Doctor-diagnosed hay fever, OR (95% CI) <i>P</i> -value	Reference	*	Reference	0.53 (0.21-1.31) 0.167
Skin prick test positivity to any allergen, OR (95% CI) <i>P</i> -value	Reference	*	Reference	1.49 (0.48-4.60) 0.492
Doctor-diagnosed asthma, OR (95% CI) <i>P</i> -value	Reference	*	Reference	1.06 (0.37-3.03) 0.918
PEF, coefficient (95% CI) <i>P</i> -value	Reference	0.14 (-0.53-0.80) 0.685	Reference	0.12 (-0.16-0.39) 0.400
FEV1, coefficient (95% CI) <i>P</i> -value	Reference	0.09 (-0.51-0.69) 0.773	Reference	0.13 (-0.08-0.34) 0.212
FVC, coefficient (95% CI) <i>P</i> -value	Reference	0.23 (-0.25-0.70) 0.350	Reference	0.06 (-0.13-0.24)

\*Due to small sample models did not converge