

LETTER TO THE EDITOR

Selective migration by birthweight

Sir,—Studying people who migrate from their place of birth has been suggested as a way in which the influence of factors operating around the time of birth that affect risk of adult cardiovascular disease can be separated from the effect of the adult environment.¹⁻⁴ We have found that the distinction may be blurred by selective migration according to birth weight.

We traced 2015 people born in Sharoe Green hospital, Preston, Lancashire between 1935 and 1943 or in the Jessop hospital, Sheffield, Yorkshire between 1939 and 1940. Of these, 1319 are currently registered with Family Health Services Authorities in the county in which they were born, while 696 have migrated to another part of Britain or have emigrated. All these people were weighed at birth. The table shows that the average birthweight of babies destined to leave the county in which they were born was higher than that of babies who would remain. This tendency is present in people born in both towns and, although stronger in men, it can be seen in both sexes.

These findings have implications for the interpretation of studies that compare morbidity and

mortality in migrants with people who remain close to their place of birth. For example, men with higher birth weight are known to have lower blood pressure in adult life.^{5 6} They are also more likely to migrate. Although the current blood pressure of men who migrated from the north of England to the south has been shown to be lower than in those who stay in the north,⁷ the confounding effect of birth weight means that this observation can tell us little about the relative importance of influences in early and later life.

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Mean birthweight (g) of migrants and non-migrants from Preston and Sheffield

	Men			Women		
	Mean birthweight	SD	n	Mean birthweight	SD	n
	<i>Preston</i>					
Migrants	3276	442	157	3147	440	191
Non-migrants	3191	511	369	3120	481	334
Difference (95% CI)	85 (-7 to 177)			27 (-56 to 110)		
	<i>Sheffield</i>					
Migrants	3320	514	182	3183	480	166
Non-migrants	3224	519	313	3172	444	303
Difference (95% CI)	96 (1 to 191)			11 (-76 to 98)		

CI = confidence interval

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