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The impact of a change in policy to school food in England on children aged 4–7 years nutritional intake

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From 1980 to 2000 several factors affected the nutritional quality of school meals: the 1980 Education Act removed all prior nutritional standards and compulsive competitive tendering was introduced.(1) In 2005, following Jamie Oliver's media broadcast 'Jamie's School Dinners', school food gained attention. In 2006, after 20 years with no regulation to school food and a plethora of evidence on the state of children's diets,(2,3) new school food and nutrient-based standards were re-introduced in England. The standards limit the number of times certain foods can and cannot be served and set specific minimum and maximum levels for 14 nutrients.(4) Primary schools were to be compliant by September 2008. The primary aim of this study was to evaluate the impact of these standards on the mean daily nutrient intake of children's total diet aged 4–7 y.

A cross-sectional study was undertaken in primary schools ($n = 13$) in North East England in 2003–4 (pre-implementation) and 2008–9 (post-implementation). Dietary, anthropometric and socio-economic data were collected from children ($n = 1017$) aged 4–7 y attending the same schools using identical quantitative methods. A four day food record(5) was completed by parents at home and trained observers at school. Food consumed was separated into 'school lunch', 'packed lunch' and 'food consumed at home'.

There was a significant interaction between lunch type (school or packed) and year (pre and post-implementation of the standards) on children's total dietary intake (see Table). For example, children who consumed a packed lunch in 2003–4 had lower % energy from fat compared with children consuming a school lunch; by 2008–9 this had reversed, children consuming a school lunch had less.

Nutrient	Mean				Mean differenc		Difference of difference	*p*-value
	2003–4		**2008–9**		**2003–4**	**2008–9**		
	SL	PL	SL	PL	(PL-SL) (**A**)	(PL-SL)(**B**)	(**B-A**)	
Energy (kcals)	1567	1627	1465	1432	60	−33	−93	0.004
% energy fat	34.1	33.4	30.4	32.2	−0.7	1.8	2.5	<0.001
% energy saturated fat	14.3	14.5	12.7	14.1	0.2	1.4	1.2	<0.001
Iron (mg)	6.8	6.9	7.1	6.6	0.1	−0.5	−0.6	0.005

These findings show the impact of lunch type pre and post-implementation of the standards and the potential of school lunch to impact positively on children's total diet

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