

## The Scottish diet is poorer in households purchasing tobacco products: analysis of Living Costs and Food Survey data from 2001–2012

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Research suggests that smokers report lower self-efficacy, overall motivation and intrinsic motivation for meeting dietary recommendations<sup>(1)</sup>. This research aimed to assess whether smokers in Scotland have a poorer diet than non-smokers.

Household food purchase data for Scotland between 2001 and 2012 from the UK Living Costs and Food Survey was pooled to estimate intakes of fruit and vegetables, oily fish, total fat, saturated fatty acids (SFA), non-milk extrinsic sugars (NMES) and non-starch polysaccharides (NSP) by category of tobacco purchases. Households making tobacco purchases were categorised into thirds of purchase (low, medium and high), with tertiles calculated on an annual basis. Adjustments were made for waste<sup>(2)</sup> and data were analysed using general linear models within the complex samples module of SPSS (SPSS Inc., Chicago, IL, USA), weighting to the Scottish population and taking account of sampling methods. Dietary intakes were adjusted for Scottish Index of Multiple Deprivation quintile, and estimated marginal mean intakes with 95 % confidence intervals are presented by category of tobacco purchases.

Compared with households that made no tobacco purchases, households that purchased tobacco had significantly lower intakes of fruit and vegetables, oily fish and NSP, and significantly higher intakes of total fat, SFA and NMES (data not shown). The table shows that there are significant associations between dietary intakes and categories of tobacco purchases. Dietary differences between groups were most pronounced for fruit and vegetables.

	Tobacco purchases				P
	None n 4499 wt n 40497	Low n 647 wt n 7178	Medium n 657 wt n 7092	High n 652 wt n 5652	
Fruit & vegetables <sup>1</sup> (g/day)	299 [291, 307]	232 [215, 248]	210 [194, 225]	200 [189, 211]	<0.001
Oily fish (g/week)	34.7 [31.7, 37.6]	23.9 [20.7, 27.2]	21.1 [17.2, 24.9]	22.6 [17.3, 28.0]	<0.001
Total fat (% energy)	38.4 [38.1, 38.6]	39.4 [38.8, 40.0]	39.2 [38.6, 39.8]	40.3 [39.7, 40.9]	<0.001
SFA (% energy)	15.1 [15.0, 15.3]	15.1 [14.9, 15.4]	15.4 [15.2, 15.6]	15.8 [15.5, 16.0]	<0.001
NMES (% energy)	15.0 [14.8, 15.2]	15.3 [14.8, 15.9]	15.9 [15.2, 16.6]	15.6 [14.9, 16.2]	0.012
NSP (g/day)	12.9 [12.7, 13.2]	11.4 [10.8, 12.0]	11.3 [10.8, 11.8]	11.4 [10.9, 12.0]	<0.001

n, number of households; wt n, weighted number of people in the sample

<sup>1</sup> Includes fruit and vegetable juice and baked beans

Results suggest that smokers have a poorer diet than non-smokers, and the diet is poorer in heavier smokers than light smokers. This diet-smoking association is independent of deprivation level. Smokers in Scotland are an important target group for dietary intervention.

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1. McClure JB, Divine G, Alexander G *et al.* (2009). *Behav Med* 35, 14–22.
2. Waste and Resource Action Programme (2007). *The food we waste*. Oxon: WRAP.