Dear Professor Alvarez-Dardet

FRUIT, VEGETABLES AND ANTIOXIDANTS IN CHILDHOOD AND RISK OF ADULT CANCER: THE BOYD ORR COHORT. J Epidemiol Community Health 2003; 57:218-225

Since the publication of the above paper, as a result of further analyses on the cohort, we have identified an error in the coding of the milk and egg consumption for some families. This occurred because the Boyd Orr childhood dietary data record family consumption in weekly amounts and the database used in recoding dietary intake for this paper was a modified version of one designed for coding daily intakes of individuals. Extremely large quantities of milk and eggs were not accepted by the package resulting in an error term. These error terms were detected and corrected (Maynard M. Diet in childhood and risk of cancer in adulthood. PhD thesis, University of Bristol, 2000). It was not noted, however, that the programme was interpreting some of the moderate amounts as data entry error and inserting a decimal place into the value (for example an intake of 2000g became coded as 2.000g. Of particular relevance to the article these underestimates resulted in errors in our calculation of total energy and vitamin A intake for some families. The effect on odds ratios of diet-cancer associations was to slightly weaken some and to strengthen others.

The main association highlighted in the article and abstract was that between fruit consumption and cancer incidence. In fully adjusted logistic regression models, odds ratios with increasing quartiles of fruit consumption in the original findings were: 1.0 (reference), 0.66(0.48 to 0.90), 0.70(0.51 to 0.97), 0.62 (0.43 to 0.90); p value for linear trend=0.02. These findings are now 1.0 (reference), 0.67 (0.49 to 091), 0.74 (0.54 to 1.01), 0.62 (0.43 to 0.91); p=0.03. The interpretation of the data therefore remains the same. The other associations altered in a re-analysis using the corrected data are (i) the apparent adverse effect of vitamin E on total cancer incidence/ mortality and smoking-related cancer incidence/ mortality- these adverse effects are now slightly stronger (p=0.02 to p=0.04 respectively) and (ii) the association between higher energy intake and cancer risk which is weaker: the OR for cancer mortality across quartiles of increasing energy intake were 1.0 (reference), 1.54 (1.07 to 2.22), 1.12 (0.74 to 1.70), 1.62 (0.96 to 2.77).
to 2.74) (p=0.23 in fully adjusted models). A previous analyses of the energy intake-cancer incidence in this cohort (Frankel et al BMJ 1998;316:499-504) is not affected as this used cohort members’ energy intakes as estimated at the time of the original survey.

We attach corrected versions of Tables 3-6 as well as a copy of the original paper for comparison. We would be happy for you to either publish a short correction as outlined above, describing the error and its (minor) effect on our main conclusions or, to publish the correction and in addition to make the corrected tables available on the journal’s web page.

We look forward to hearing your response

Yours sincerely

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