References

1. Upton D, Upton P & Taylor C (2012) Increasing children's lunchtime consumption of fruit and vegetables: an evaluation of the Food Dudes programme. *Public Health Nutr* **16**, 1066–1072.
2. Upton D, Upton P (2012). Evaluation of the Food Dudes programme. Project report; commissioned by Wolverhampton City Primary Care Trust, conducted by the University of Worcester.

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Reply to 'Evaluation of the Food Dudes programme by Upton *et al*.'

Madam

We read with interest the Letter to the Editor regarding our paper 'Increasing children's lunchtime consumption of fruit and vegetables: an evaluation of the Food Dudes programme', which was recently published in *Public Health Nutrition*. It would seem that since the evaluation was conducted, a number of positive developments have occurred including the introduction of the Food Dudes Forever phase and the Choice Architecture for School Catering scheme. We hope that our evaluation had some part to play in these positive developments. The correspondent suggests, and we agree, that while school catering practices are required to adhere to specific nutritional guidelines, these often do not encourage children to make healthy choices. Indeed, children are often presented with a variety of energy-dense foods at lunchtime. As we note in our paper, the development of an environment that promotes healthy eating is crucial to the success of interventions that aim to change children's eating behaviours and the Choice Architecture for School Catering scheme would appear to be a positive step towards achieving this. The Food Dudes Forever phase and the Choice Architecture for School Catering scheme are encouraging, but we obviously could not evaluate aspects of the programme that were not in existence when the evaluation was conducted.

Second, we agree that programme fidelity is a crucial factor in determining effectiveness; this is why process evaluation methods, which ensure monitoring of programme implementation, are often an integral part of behaviour change programmes such as Food Dudes. The correspondent acknowledges that these procedures were not in place in the schools in which our evaluation was conducted, thus it is impossible to determine the impact of any lapse in programme implementation on the study findings. As the study employed an ecological design, it was imperative that no changes were made to school practices, as this could have had an impact upon the everyday experience and choices of the children. Thus school lunchtime menus remained as prescribed by the Local Education Authority. This should, of course, ensure that children were provided with at least one portion of fruit and one portion of vegetables at lunchtime; however, this may not always be the case and fruit and vegetables may not be readily available to children as indicated in our paper. We did not have any control over this, nor indeed did we wish to, given the 'real world' nature of our approach.

Third, we would like to remind the correspondent that the focus of our paper was children's lunchtime consumption of fruit and vegetables; in contrast, the findings from the (unpublished) project report (Upton and Upton, 2012) referred to in the Letter to the Editor concerned children's daily consumption. They are therefore not relevant to the objectives of the paper. Furthermore, as the correspondent is undoubtedly aware since we assume he has read the report, while the daily consumption data did indeed suggest both increases in fruit and vegetable consumption and decreases in consumption of fat and sugars at 12-month follow-up in the intervention schools, these data should be interpreted with caution. These results were based on an analysis of a subset of the data, which by its nature could only include children with a full data set at each point of the evaluation (i.e. food consumed at home, at school break and at lunchtime across seven days of the week at each of three data points). Not surprisingly, this data subset comprised very small participant numbers (thirty-four in the intervention and thirty-seven in the control schools) and we believe it is unlikely that these data are representative of the study sample which comprised 867 children in total (349 in intervention and 518 in the control schools). This belief is given further credence by the high levels of fruit and vegetable consumption demonstrated by all these children at baseline; in comparison, a large number of children in the study consumed no fruit and vegetables at baseline. The analysis of total dietary intake included in the unpublished evaluation report was a requirement of the project funders; we do not consider it appropriate for these data to be reproduced outside this context, particularly in a high-quality peer-review journal such as *Public Health Nutrition*.

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