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Exploring the food and drink purchases of secondary school pupils in England across the school day

S. Spence¹ and J. Bradley¹

¹Human Nutrition and Exercise Research Centre, Population Health Sciences Institute, Newcastle University, UK

In the UK, ‘The requirements for School Food Regulations, 2014’ specify the ‘type’ and ‘frequency’ of food and drinks that can be provided across the school day.⁽¹⁾ For example, there should be one or more portions of fruit per day. However, there is no monitoring and pupils can choose from a daily selection. Most studies have focused on pupil’s lunch intake^(2,3) and there are limited large-scale UK studies. Whilst interventions are needed in schools to improve pupil’s dietary intake, identifying solutions is challenging. This study uses pupil-level purchase data to capture food and drink choices across the school day to identify potential opportunities for intervention development. One aim was to explore the food and drink purchases of UK secondary school pupils across the school day.

Ethics was obtained from Newcastle University (ref: 2482/26614). DPIA agreements were obtained from schools.

Secondary schools in Northeast England participated. Non-identifiable pupil-level purchase data from a four-week menu cycle were used that included: time, date, individual food and drink item, quantity, cost, and FSM status. Data were encrypted and transferred securely. Data were cleaned and manipulated in excel and Stata V18. Food and drink items were coded to 60 preliminary food and drink groups. Excel and Stata V18 were used for analyses; current analyses are descriptive.

Pupil-level purchase data ($n = 3466$) from five secondary schools were included. FSM pupils accounted for 29% ($n = 1015$), Year 7 pupils 25% ($n = 848$) decreasing to Year 11 pupils 17% ($n = 580$) of the total sample. The two meal types most pupils purchased were ‘Break & Lunch’ combined (58%, $n = 2017$; FSM 26% $n = 524$) and ‘Lunch only’ (20%, $n = 659$; FSM 41%, $n = 268$).

At break, the top five purchased items were: bacon/sausage bun ($n = 7871$; 21%) pizza snack ($n = 5714$; 15%), bagel/crumpet ($n = 3697$; 10%), fizzy fruit juice ($n = 3344$; 9%) and water ($n = 3459$; 9%). At lunch, the top five purchased items were: meal deal ($n = 12,527$; 16%), fizzy fruit juice ($n = 7,895$; 10%), hot meal ($n = 6,963$; 9%), biscuit ($n = 5,803$; 8%), and water ($n = 5001$; 6%). Food and drink purchases at break and lunch were similar by FSM status.

Preliminary findings show most pupils purchase at least one food and/or drink item at both break and lunch. Similar pupil purchasing was found regardless of FSM status. Future interventions need to consider the food and drink choices available at break and lunch. One school had a water only policy, therefore, school context and variation in the food and drink offer may impact findings. More detailed analyses will consider the effect of school, school year, meal type (breakfast, break, lunch) and Free School Meal Status (FSM) on pupil’s food and drink purchases using multi-level logistic regressions.

References

1. legislation.gov.uk ‘The Requirements for School Food Regulations 2014’ [Available at: <https://www.legislation.gov.uk/uksi/2014/1603/contents/made>].
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3. Spence S, Delves J, Stamp E *et al.* (2014) *PLoS ONE* 9(11): e112648.