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What do secondary school pupils eat at school? The barriers experienced in collecting transactional data from canteen purchases.

Alice Gilmour¹ and Ruth Fairchild¹

¹Cardiff Metropolitan University

Introduction & Background

Welsh secondary schools generally use a cashless catering system and pupils pay for school food and drink via contactless cards, thumb or fingerprint biometric scanning. Helpfully, the digital footprint of school canteen purchase data already exists and is continually compiled over a limitless period. Compared to other methods of recording dietary intake (i.e., questionnaires and food diaries), utilising this transactional data is an unobtrusive method of data collection and has great potential.

Although individual-level transactional data is being amassed, it remains unexploited by either the school, local authorities or Welsh Government. Obtaining this anonymised individual-level transactional data would provide immense insight into what pupils purchase throughout the school day.

Objectives & Approach

The Welsh School Meals (WSM) project aimed to investigate the feasibility of using secondary school canteen transactional data to better understand what pupils purchase during the school day and its nutritional quality. Semi-structured interviews have been conducted with a representative from all cashless system providers (n=7) used in Welsh secondary schools. Next, the WSM project initially aimed to recruit nine secondary schools, with the methodological plan to: (i) liaise with head teachers; (ii) mine data; (iii) interview catering managers and head teachers; (iv) facilitate nutritional analysis; (v) conduct focus groups with pupils; and (vi) co-produce case studies.

Relevance to Digital Footprints

School canteen transaction data is a form of digital footprint and utilising it to understand the current landscape of food and drink choices during the school day will inform Public Health policymakers and practice.

Results

Despite trying numerous strategies, the WSM project has encountered blockages which have prevented data acquisition. The four key stumbling blocks faced were: (i) identifying data providers; (ii) identifying data owners; (iii) data sharing; and, (iv) engaging stakeholders. Only the first barrier has been overcome and despite starting school recruitment in May 2023, the latter three barriers have stalled any progress.

Conclusions & Implications

Exploiting existing cashless catering system technology to collect individual-level big data from school canteen transactions has enormous potential. However, the WSM project has concluded that obtaining this data was not feasible.

