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## Are schools promoting low-nutrient, energy-dense (LNED) foods? Results from student-led research of foods sold in six secondary schools

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School food and physical activity (PA) environments and cultures can impact the eating and physical activity behaviours, as well as BMI, of students <sup>1</sup>. Adolescents are aware of the discrepancy between health education advice, and school-wide food practices and it contributes to their confusion about nutrition and health<sup>2</sup>. This participatory study examines LNED foods sold in six Irish secondary schools.

Six secondary schools in the ROI took part in a large mixed methods study examining factors influencing diet and PA behaviours of adolescents. As part of this, 15–17 year old student volunteers were trained as peer researchers by a dietetic researcher. Twelve of these were instructed on how to use a School Environment Observation Tool (SEOT) over one typical school day. One SEOT item required students to list and photograph all foods for sale on school grounds. Sugar sweetened beverages (eg., carbonated soft drinks, fruit-flavoured juice drinks, lemonades, and "energy" or "sports" drinks), crisps, biscuits/cookies, cakes, muffins, pastries, doughnuts, confectionery, cereal bars, energy bars, deep-fried potato products were classified as LNED foods. All 'other foods' were categorised together<sup>1</sup>.

All shops, canteens and vending machines were operated by private companies. Chocolate bars were the most common LNED food item sold in schools. School-wide restrictions on the sale of certain foods and beverages and not having vending machines on school grounds were associated with less LNED foods.

Table 1: LNED, high sugar and high fat food items sold in shops/canteens/vending machines of each school as a percentage of total food items for sale

School	Total food items	LNED foods	High Sugar LNED	High Fat LNED	Vending Machine(s)	Restricted foods or beverages
1	34	65 %	55 %	47 %	N	Carbonated soft drinks
2	72	86 %	72 %	46 %	N	None
3	30	63 %	60 %	53 %	Y	Carbonated soft drinks, crisps
4	22	32 %	27 %	18 %	N	Crisps, certain carbonated soft drinks
5	23	74 %	70 %	47 %	Y	Certain carbonated soft drinks
6	27	30 %	22 %	19 %	N	Certain carbonated soft drinks, chocolate, crisps

Schools are providing many of the foods that contribute to high sugar and fat intakes among Irish adolescents<sup>3</sup>. This appears to be at odds with their responsibility for child welfare and national dietary recommendations for young people. This study highlights the ad-hoc nature of food provision to school-going adolescents in the ROI and the need for a national nutrition policy for secondary schools. Future research will examine the relationship between school food environments and dietary behaviours, anthropometry and fitness levels of students.

- 1. Briefel RR, Crepinsek MK, Cabili C et al. (2009) JADA 109(2), S91-S107
- 2. Share M (2008) Youth Studies Ireland 3(2), 18–36
- 3. IUNA (2005) The National Teens' Food Survey http://www.iuna.net/?p=29 [accessed 07/02/2015]

