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## An observational study in Irish full day care pre-schools to determine nutrition practice

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Recommendations exist for the food intake of infants and young children in pre-school child care<sup>(1,2)</sup>. However, pre-school aged children’s diets are reported to be low in vitamin A, vitamin C, Fe and Zn and contain high quantities of salt and sugar<sup>(1)</sup>. In Ireland, while ‘Food and Nutrition Guidelines for Pre-schools’ are available<sup>(1)</sup>, these are not mandatory and, therefore, methods to encourage the provision of nutritious food in this setting must be pursued. The ‘Healthy Incentive for Pre-schools’ (HIP) project is an ongoing child care intervention in the Midlands of Ireland which aims to develop and evaluate an incentive scheme to improve pre-school nutrition practices. The aim of this study was to obtain baseline data on the nutrition practices of full day care pre-schools for children aged 3 months to 5 years that had agreed to engage in the HIP project (*n* 76 of 96 eligible pre-schools). One researcher directly observed and recorded all aspects of nutrition practice in each pre-school over a full day using a structured data collection tool developed for the HIP project. A description of all foods offered was recorded using household measures. A photographic food atlas developed for the HIP project, using foods recommended for pre-school children and recipes from the Irish Health Service Executive ‘3-week menu plan – a resource for pre-schools’, was used to aid data collection<sup>(3)</sup>. Ethical approval to carry out the study was obtained from the Irish Health Service Executive Dublin Mid-Leinster and the Dublin Institute of Technology Research Ethics Committees.

Due to changes in pre-schools’ eligibility to participate (as directed by the local pre-school inspection team), or in the service offered, baseline data were collected in fifty-eight pre-schools; private (*n* 39), community (*n* 19). Data were analysed using SPSS for Microsoft Windows (version 15). Of the forty-three pre-schools that reported having a written healthy eating policy; this was visible in only three services. Fifty-four pre-schools reported having a written menu cycle; however, the cycle length varied widely: 3 week+ (*n* 28); 1 week (*n* 13); 2 week (*n* 7); none (*n* 6). The table provides information on the baseline nutrition practices observed in pre-schools engaged in the HIP project.

Nutrition practices ( <i>n</i> 58)	<i>n</i>	Nutrition practices ( <i>n</i> 58)	<i>n</i>
Food routinely provided by parents	50	Recommended fruit serving outside main meal	34
Food prepared on premises	58	Recommended dairy serving outside main meal	3
Breakfast routinely offered	41	Recommended number meals and snacks offered	1
Recommended serving sizes offered at main meal		Food Pyramid top shelf foods offered	44
Protein	3	Cereal bars	22
Carbohydrate	15	Chocolate	8
Dairy	3	Biscuits	31
Vegetables	11	Sweets	4
Fe rich food	3	Cake	8
Recommended ‘family style food service’ practiced	0	Recommended use of age appropriate utensils	1
Clearing plates before end of meal/snack	55	Provision of plates for all snack times	9
Child participating in setting/clearing tables	5	Baby bottle use over 12 months of age	52
Child/staff food discussion at mealtimes	34	Lidless 2 handled cups 12–24 months	4
Child remaining at table for dining period	11	Recommended drinks with meals	24
All food provided in self-service manner	0	Recommended drinks at snack times	5

In conclusion, few pre-schools provided the recommended: serving sizes of the main food groups; number of meals and snacks; or drink types. Provision of foods from the top shelf of the Food Pyramid occurred frequently. The type of ‘family style food service’ practice varied and few pre-schools provided recommended feeding utensils. The study results support the need for the development of an incentive scheme to improve nutrition practices within the pre-school setting.

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1. Department of Health and Children (Ireland) (2004) *Food and Nutrition Guidelines for Pre-School Services*. Dublin: Health Promotion Unit.
2. American Dietetic Association (2005) *J Am Diet Assoc* **105**, 979–986.
3. Johnston Molloy C, Corish C, Kearney J *et al.* (2010) *J Hum Nutr Diet* **23**, 426–427.