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Evaluation of school lunch programme at a low-decile primary school in South Auckland

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Abstract

Background: Optimal childhood nutrition is crucial as children experience rapid changes in physical, cognitive and behavioural development. However, increasing number of children is experiencing some form of malnutrition, either over- or under-nutrition. Diet inadequacies during school hours need to be addressed as food choices made during lunchtime are significant contributors to their overall diet. Minimal research has been conducted in New Zealand to assess what children are consuming at schools and whether a school lunch programme will be beneficial in improving nutrition and school outcomes.

Aim: To assess impacts of Feed the Need school lunch programme on children's dietary intakes, attendance and behaviours during school hours, pre-, during and post-programme.

Methods: Primary school children aged 10-11 years (n=77) from a low-decile school in South Auckland completed daily food records during school hours, in pre-, during and post- Feed the Need timeframes. Nutritional breakdown of food records was used to examine children's micro- and macro- nutrients intakes and most commonly consumed food items, across the timeframes. Three recipes from the programme were also analysed to determine their contribution to one-third of a child's daily requirements. Information for attendance and behaviours were obtained from the school records. Children's perception of the programme was examined through five Likert scale items, whereas focus group was conducted with class teachers.

Results: Feed the Need meals were adequate in meeting one-third of children's protein, folate, vitamin A, iron and zinc requirements, based on average contribution of the three meals within a week. During the programme, significant higher intakes of the same nutrients were observed ($p < 0.05$). Energy level was inadequate whereas sodium content was elevated in these meals. Confectionery and sweet drinks were most commonly consumed during school hours. Attendance and behaviour conducts remained unaffected by the programme. However it was very well received by the children and teachers.

Conclusion: The programme, upon modifications and improvement of recipes, can be a useful instrument to prevent nutrient deficiencies in childhood. Longitudinal studies are needed to examine long term benefits of adequate childhood nutrition on health and educational outcomes.

Key words: school lunch programme, Feed the Need, childhood nutrition

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