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Are intermediate school meals a real contribution to improve a healthy and sustainable diet?

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Abstract

Purpose

The purpose is to analyse the nutritional adequacy and carbon footprint of intermediated meals provided to preschool children and primary-level students in a Portuguese municipality.

Design/methodology/approach

An observational cross-sectional study was conducted with a convenience sampling consisting of school snacks from a Portuguese municipality. The nutritional assessment used food labels and a Portuguese food composition table. The literature review for carbon footprint assessment was conducted by searching for the products under analysis or similar ones.

Findings

The results showed that 80% of snacks have a higher energy value than recommended. The majority of options are below recommendations for protein and fat and above recommendations for carbohydrates. The intermediated meals with more dairy products in composition have the highest carbon footprint. The carbon footprint included the packaging of the products, and it wasn't possible to determine the influence of non-food products.

Research limitations/implications

This study has limitations in the fact that we do not know the carbon footprint of Portuguese products and we had to compare them with others, from different countries, with possibly different types of production.

Practical implications

Intermediate meals are inadequate, and the carbon footprint is higher when the intermediated meals include products of animal origin – the reason why the composition of intermediated meals should be redesigned considering the achievement of these targets.

Social implications

The promotion of intermediated meals that promote the Mediterranean eating pattern contributes to health and well-being and is a vehicle for nutrition education and healthy food consumption in schools.

Originality/value

Many studies have been conducted to analyse the carbon footprint and environmental impact of school meals, but commonly lunch is the meal evaluated and the assessment of intermediated meals' impact is an open field.

Keywords

School meals

Carbon footprint

Nutritional composition

Health

Sustainability

Pulses

Citation

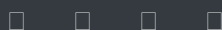
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