

Fostering sustainable dietary habits through optimized school meals in Sweden – OPTIMAT

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Committing to the fulfilment of the Paris Agreement and the Sustainable Development Goals 2, 3, 12 and 13 requires fundamental changes in food production and consumption. Due to their reach and scale (approximately 230 million meals/year), school meals have considerable potential to shape children's diets and reduce food-related GHGE—in both the short and long term. The OPTIMAT project commenced in 2016 and aims to contribute to healthy and sustainable dietary habits in Sweden through school meals optimized to have reduced climate impact while being nutritionally adequate, affordable and acceptable (1).

OPTIMAT consists of four sub-studies: The first assesses the contribution that school meals make to children's total dietary intake among a representative sample of 2002 Swedish school children (2). Results indicate that school meals are somewhat more nutritious than meals consumed outside of school and that they can play a beneficial role in compensating for lower quality meals in families with a low socioeconomic status. The second sub-study is a methodological paper describing the development of a strategy to reduce GHGE in the school food supply by linear programming, without compromising its nutritional adequacy, affordability, and cultural acceptability (3). The third sub-study is a real-world intervention testing a four-week lunch menu plan with a 40% reduced climate impact based on this optimization strategy (4). The evaluation showed no significant increase on food waste, and no change in consumption and pupils' school meal satisfaction. The fourth sub-study is qualitative and concerns barriers and facilitators of implementation of the new climate-friendlier school meals as experienced by pupils and meal staff (manuscript).

The OPTIMAT project has the potential to contribute to more nutritious and sustainable dietary habits through public procurement and thus to more efficient use of public resources, and to fulfilment of the Agenda for Sustainable Development and the Paris Agreement.

References

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