

The impact of providing a healthy school lunch at Dutch primary schools on dietary intake and appreciation

F.C. Rongen¹, M.H. Vingerhoeds², E. van Kleef³, M. Ummels², S.C. Dijkstra¹, J.C. Seidell¹

¹ Department of Health Sciences, Faculty of Science, Vrije Universiteit Amsterdam, Amsterdam Public Health research institute, the Netherlands; ² Wageningen Food & Biobased Research, the Netherlands; ³ Wageningen University, Marketing and Consumer Behaviour Group, the Netherlands

Background

Since there is a shift at primary schools from eating lunch at home to eating lunch at school, providing a healthy school lunch may be an opportunity to improve dietary intake of Dutch primary school children.

Objective

To investigate the impact of offering a healthy school lunch on the dietary intake and appreciation on Dutch primary schoolchildren.

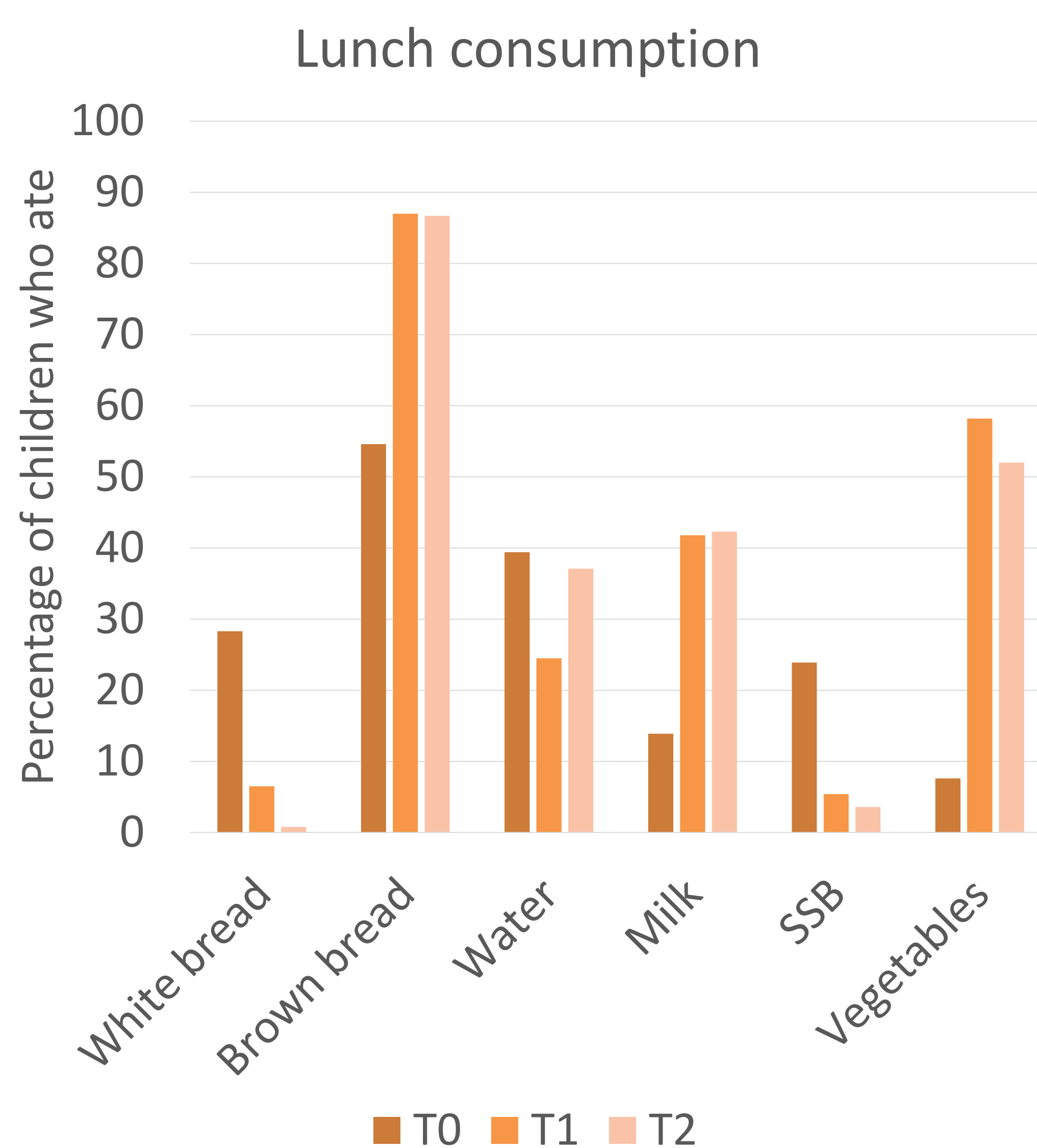
Methods

- Three Dutch primary schools (Amsterdam, Lunteren and Vlaardingen) received a healthy school lunch for a 6-month period.
- Lunch consumption data was collected at baseline, at 3- and at 6-months with photographs.
- Demographic characteristics and lunch appreciation were obtained through a questionnaire.

Table 1 Characteristics

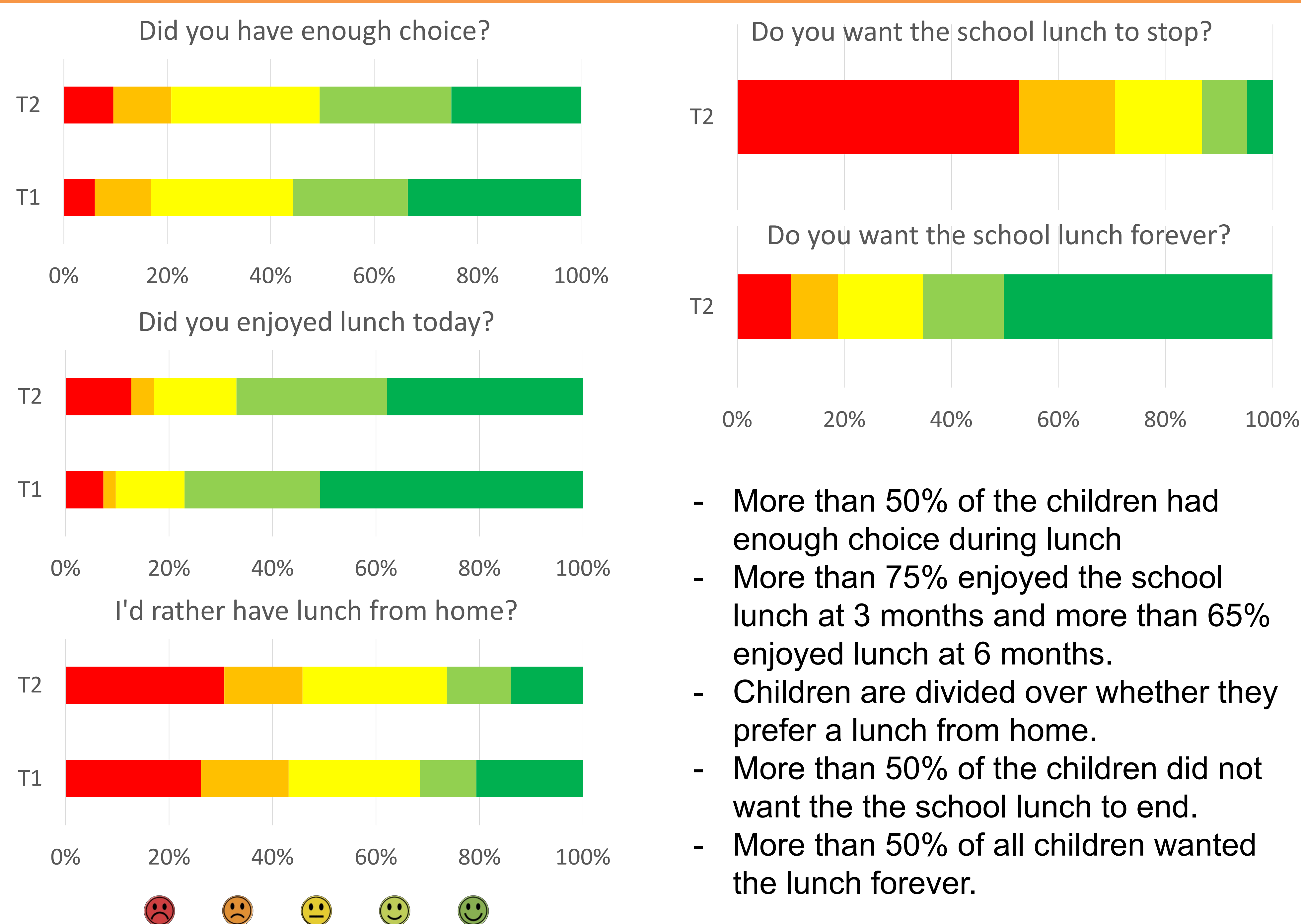
	N	%
Total	313	
Boys	114	36.4
Girls	156	49.8
Class		
5	83	26.5
6	84	26.8
7	68	21.7
8	77	24.6
Migration background		
Western	102	32.6
Non-western	140	44.7

Preliminary results: Content of the lunch



- Children consumed less white bread (T0: 28%, T1: 7%, T2: 1%) and less sugar sweetened beverages (SSB) (T0: 24%, T1: 5% and T2: 4%)
- Children consumed more brown bread (T0: 55%, T1: 87%, T2: 87%)
- Children consumed more milk (T0: 14%, T1: 42%, T2: 42%)
- Children consumed more vegetables (T0: 8%, T1: 58%, T2: 52%).
- Mean consumption of vegetables in grams was across all time points approximately 50 grams.
- At 3 months 74% of the children tried something new and at 6 months 86% tried something new during lunch.

Preliminary results: Appreciation of the school lunch



- More than 50% of the children had enough choice during lunch
- More than 75% enjoyed the school lunch at 3 months and more than 65% enjoyed lunch at 6 months.
- Children are divided over whether they prefer a lunch from home.
- More than 50% of the children did not want the the school lunch to end.
- More than 50% of all children wanted the lunch forever.

Conclusions

This study showed that introducing a healthy school improved the dietary intake of primary school children, especially with regards to vegetables. Most children appreciate the school lunch and did not want the lunch to stop. More research is needed for implementation on a larger scale.

Correspondence to: Frédérique Rongen – email: f.c.rongen@vu.nl