

# What's for lunch: content and preferences of Dutch primary school children

F.C. Rongen<sup>1</sup>, E. van Kleef<sup>3</sup>, M.H. Vingerhoeds<sup>2</sup>, J.C Seidell<sup>1</sup>, S.C. Dijkstra<sup>1</sup>

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

## Background

There is an increasing number of Dutch primary school children who are transitioning from eating lunch at home to eating lunch at school.

## Objective

- 1) Investigating the current content of lunchboxes of Dutch primary school children during schooldays.
- 2) Provide insight in children's preferences for healthy school lunch concepts and understand potential differences between gender and migration background in those preferences.

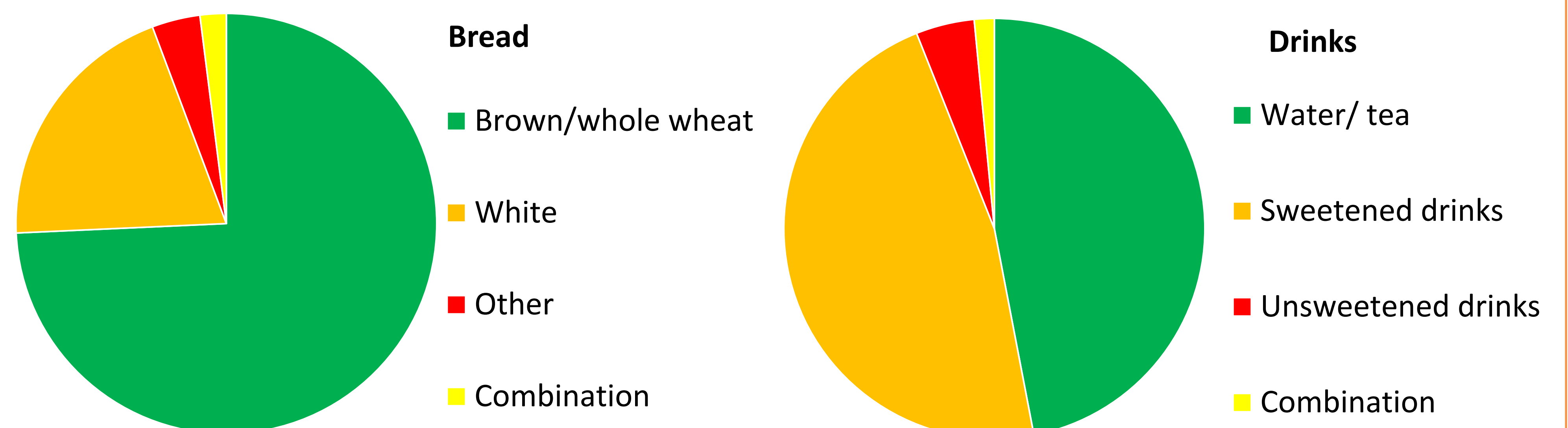
## Methods

- Cross-sectional study among Dutch primary school children aged 4-12 years of seven schools in Amsterdam and Ede.
- Content of lunch was assessed with photographs (n=487).
- Demographic characteristics and lunch preferences were obtained through a questionnaire (n=639).

Table 1 Characteristics

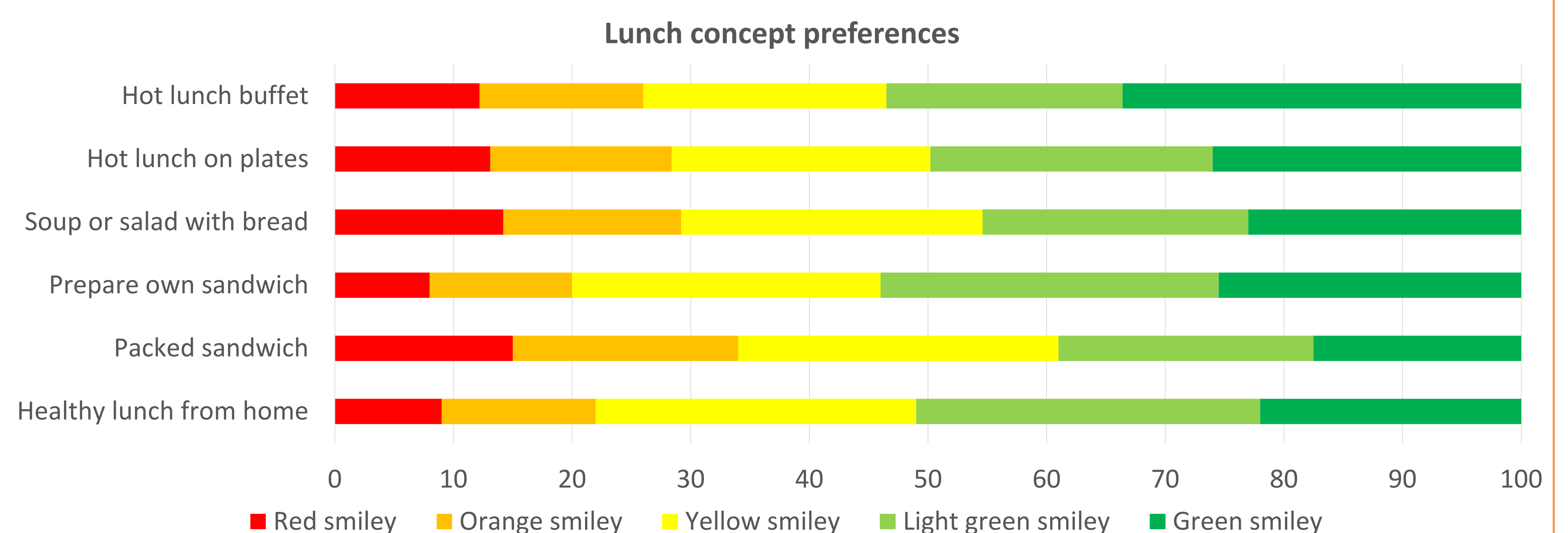
	N	%
<b>Total</b>	639	
<b>Boys</b>	296	46.3
<b>Class</b>		
5-6	252	39.4
7-8	387	58.5
<b>Migration background</b>		
Western	442	69.2
Non-western	182	28.5

## Content of lunchboxes



- Lunchboxes most often contained bread (brought by 94.7% of the children), water/tea (42.9%), sweetened drinks (42.9%).
- Only 5% of all lunchboxes contained fruit and 6% contained vegetables.
- Compared to girls, boys bring more white bread to school (p=0.041) and less sweetened drinks (p=0.037)
- Lunchboxes of children with a Non-western background contained more white bread (p<0.001) and contained less brown bread (p=0.001) and sweetened drinks (p=0.003) than the lunchboxes of children with a western background.

## Preferences for school lunch concepts



- School lunch concepts elicited mixed opinions among children. Children scored more positive for the concept prepare your own sandwich and more negative for the lunch concept packed sandwich.
- Compared to boys, girls reported a higher preference for a hot lunch on plates (p=0.009), prepare your own sandwich (p=0.008) and soup or salad with bread (p=0.007).
- Children with a non-western background showed higher preference for all lunch concepts except healthy lunch from home than children with a western background (p<0.001).
- Children with a western background showed a higher preference for healthy lunch from home than children with a non-western background (p<0.001).

## Conclusions

The current content of the lunchboxes by Dutch primary school children leaves room for improvement, especially regarding fruits and vegetables. Preferences of children for the healthy school lunch concepts are mainly positive, although preferences for specific concepts vary slightly depending on gender and migration background.

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