

## Keywords

Health promotion | Food insecurity | Food systems | Co-creation | Inclusivity | Vulnerable children | Food sustainability | Citizen science

# LUNCH BOX MONITOR

## Insight into the nutritional quality of school lunch-boxes to assess food insecurity among primary school children in Belgium



### COLLABORATION BETWEEN

Multidisciplinary team from Ghent University:

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Non-academic partners:

social entrepreneur Katrien Verbeke from Let Us with expertise in co-creation and sustainable food systems

Naomi Dries from Rikolto Belgium with expertise in food policies in Flemish school

Dr. Jolien Plaete from Flemish Institute Healthy Living, a public health organisation specialised in health promotion in different settings.



### PROJECT GOALS

- To co-develop a creative, inclusive, non-stigmatising methodology that can objectively register what children (6-12 years) bring in their lunch-box to school.
- To get a clear insight into the nutritional quality of school lunch-boxes to assess food insecurity as well as the healthiness and sustainability of lunch boxes among Flemish primary school children.



### METHOD

- **Co-creation:** Children, parents and teachers in four Flemish school helped us to co-develop the research methodology in several co-creation sessions organised at the involved schools.
- **Large-scale cross-sectional study** to measure the content of lunch boxes using both an objective measurement tool (developed in co-creation) and a survey to assess socio-demographics and influencing factors related to the lunch-box content.



### RESULTS

- **Co-creation sessions:** in total, about 90 children, 20 school actors and 15 parents participated in the co-creation sessions. Different brainstorm techniques were applied in the co-creation, also considering the type of participants. In the end, we co-created the methodology to measure lunchboxes and some points of attention were raised:
  - children had to be intensely involved in the objective measurement
  - researchers could not touch their foods;
  - certain rules needed to be applied to make sure halal/kosher foods were not contaminated;
  - no comments could be given regarding their lunchbox;
  - some tips and tricks were given on the best location and procedure of the measurements.
- **Lunch-box measurements:** in the spring of 2023 we included 25 primary Flemish schools in our data collection on the content of lunchboxes and snacks. Selection of these 25 schools was based on making a representative sample of Flemish schools taking into account school's socio-economic status indicators as well as urbanisation degree of the location of the schools (i.e. range of types of rural versus urban schools). In total, around 1050 children filled in our questionnaire and provided objective data on their lunchbox and/or snacks. Data-analysis is currently ongoing.



### NEXT STEP

The results of this project will give parents, schools, and governments insight into the content and composition of lunch-boxes and will serve as a basis for developing impactful actions in follow-up projects as well as form the baseline measurement for future monitoring actions.

