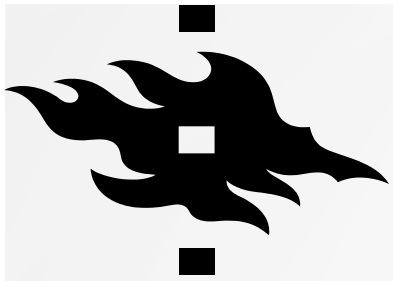# COMPREHENSIVE APPROACH IN PROTECTING CHILDREN FROM MARKETING, FINNISH EPELI-PROJECT

PROJECT GROUP

University of Helsinki:
Mikael Fogelholm, Professor in Public Health Nutrition (PI)
Maijaliisa Erkkola, Adjunct Professor in Nutritional Epidemiology (WP-leader)
Researchers: Dr. Jenni Harala, Dr. Liisa Uusitalo

Tampere University
Elina Närvänen, Associate Professor in Services and Retailing (WP-leader)
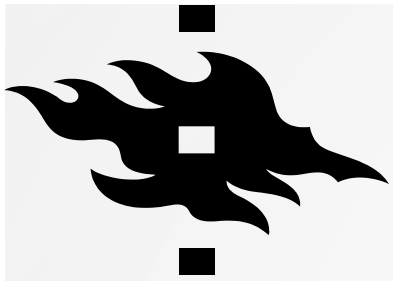Researchers: Ines Kaivonen, PhD student, and Ulla-Maija Sutinen, PhD student

Finnish Environment Institute (SYKE):
Anu Lähteenmäki-Uutela, Adjunct Professor, senior researcher in law
Researcher: Aku Nikkola, Master's student in law

Ahjo Communications
Sari-Liia Tonttila, CEO

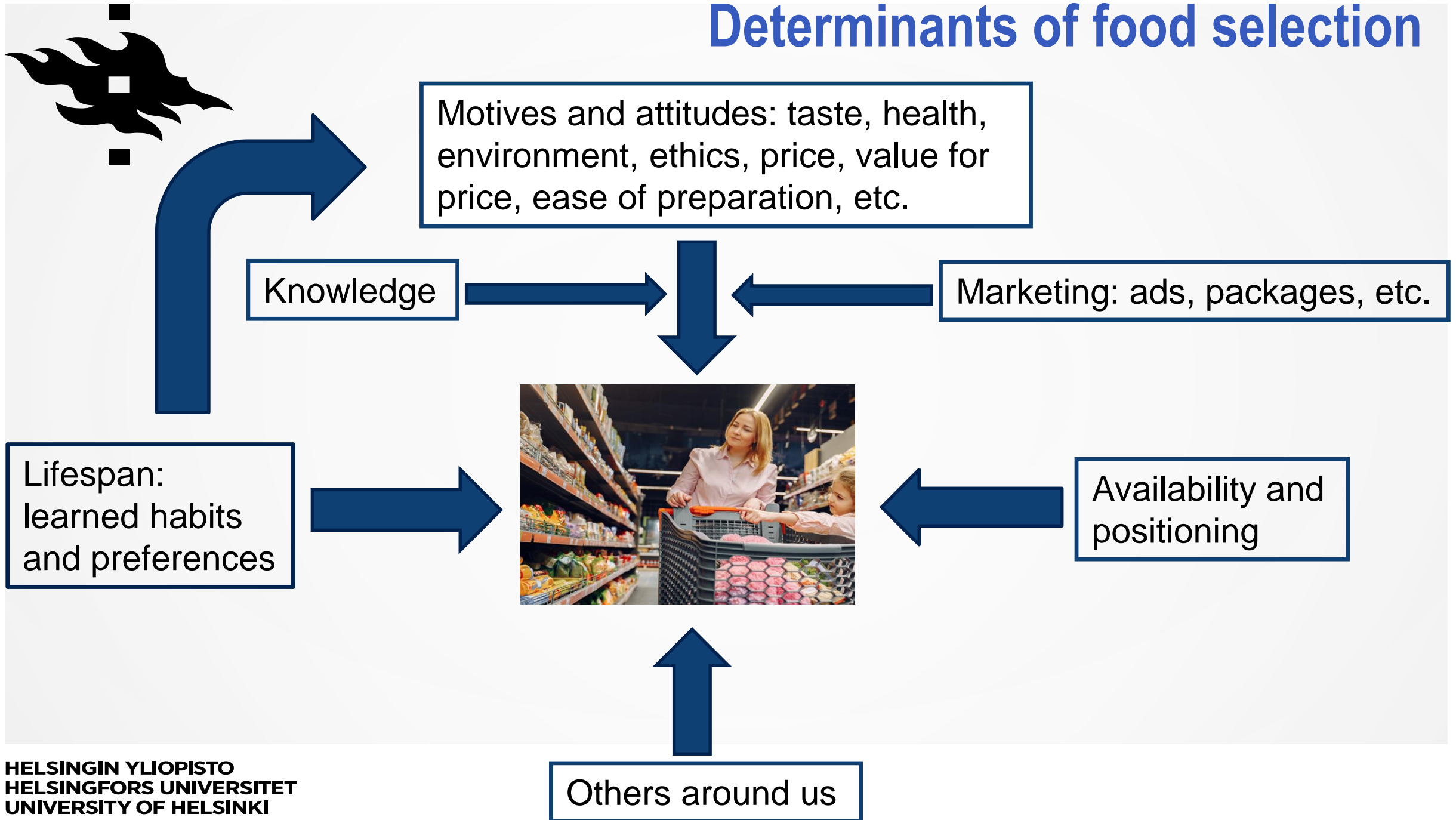# EPELI – Rules to marketing of unhealthy foods to children

General aim of the project is to bring new knowledge which is used to write out a suggestion on
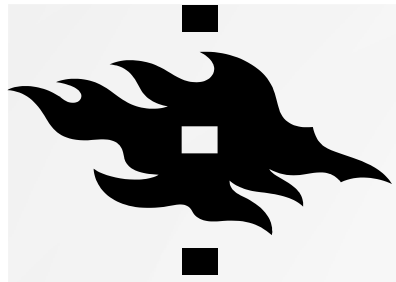- Justification to restrict marketing of unhealthy foods to children and adolescents
- Methods needed for restrictions
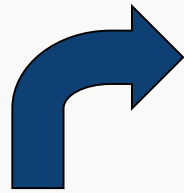- Methods to follow effects of restrictions

The project also considers
- Definition of healthiness of foods
- Purchase of unhealthy foods among families with children in Finland
- Unhealthy food marketing in social media (qualitative analyses)
- Conceptions and opinions on marketing foods to children (qualitative)
- Human (child) rights
- Legal vs. self-control as mechanism to restrict marketing

Determinants of food selection
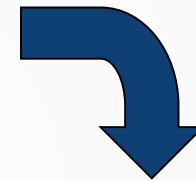
Motives and attitudes: taste, health, environment, ethics, price, value for price, ease of preparation, etc.

Knowledge

Marketing: ads, packages, etc.

Lifespan: learned habits and preferences

Availability and positioning

Others around us
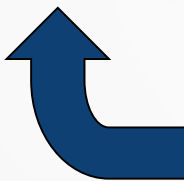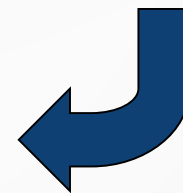
The environment may...

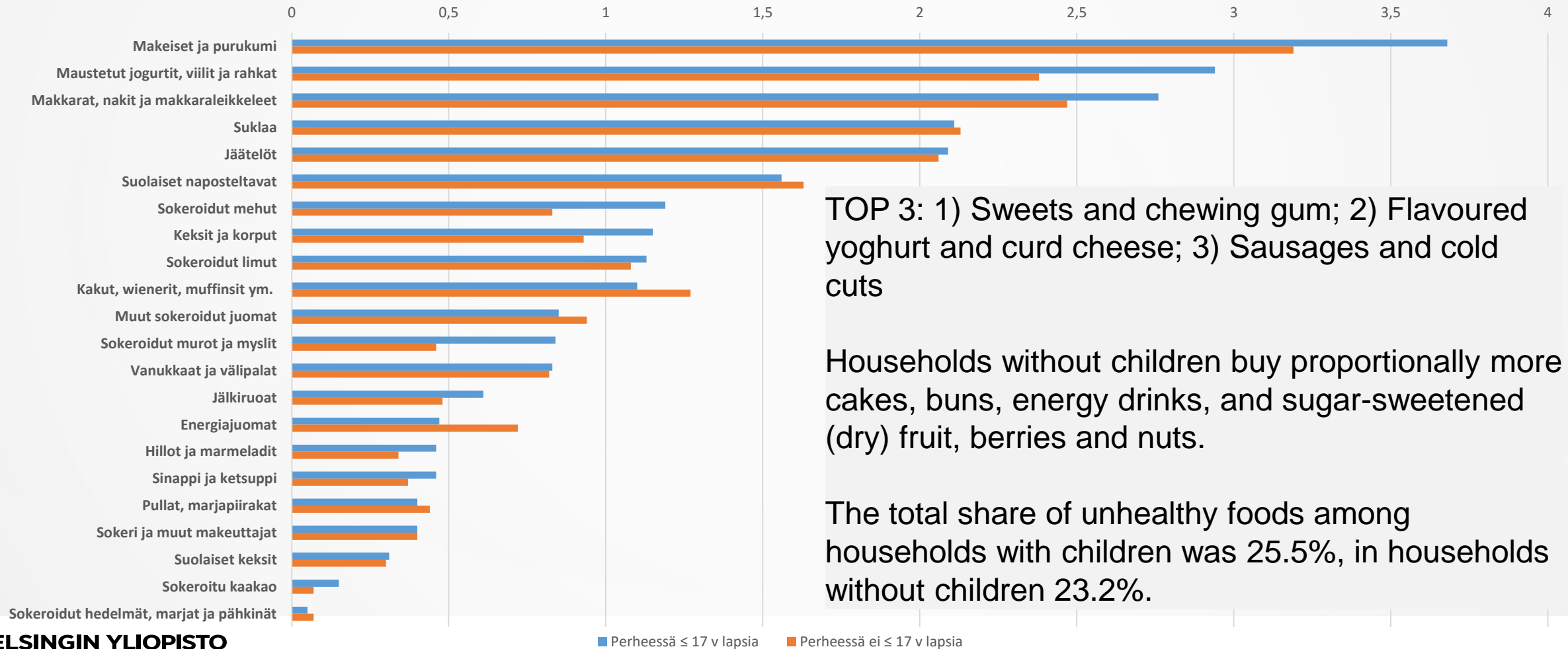discourage/
restrict

enable all choices

force

encourage/
support

Loyalty-card data (n=11,705): purchase of unhealthy foods in Finnish households with (blue) and without (orange) children (matched by age and education)
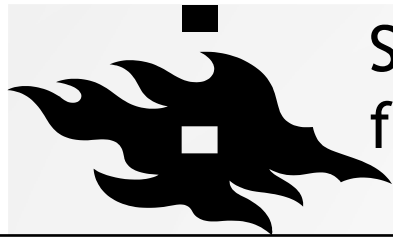
The share (%) of purchase from total grocery food purchases

Chart categories (top to bottom):
- Makeiset ja purukumi
- Maustetut jogurtit, viilit ja rahkat
- Makkarat, nakit ja makkaraleikkeleet
- Suklaa
- Jäätelöt
- Suolaiset naposteltavat
- Sokeroidut mehut
- Keksit ja korput
- Sokeroidut limut
- Kakut, wienerit, muffinsit ym.
- Muut sokeroidut juomat
- Sokeroidut murot ja myslit
- Vanukkaat ja välipalat
- Jälkiruoat
- Energiajuomat
- Hillot ja marmeladit
- Sinappi ja ketsuppi
- Pullat, marjapiirakat
- Sokeri ja muut makeuttajat
- Suolaiset keksit
- Sokeroitu kaakao
- Sokeroidut hedelmät, marjat ja pähkinät

X-axis: 0, 0,5, 1, 1,5, 2, 2,5, 3, 3,5, 4

Legend: ■ Perheessä ≤ 17 v lapsia   ■ Perheessä ei ≤ 17 v lapsia

TOP 3: 1) Sweets and chewing gum; 2) Flavoured yoghurt and curd cheese; 3) Sausages and cold cuts

Households without children buy proportionally more cakes, buns, energy drinks, and sugar-sweetened (dry) fruit, berries and nuts.

The total share of unhealthy foods among households with children was 25.5%, in households without children 23.2%.

HELSINGIN YLIOPISTO
HELSINGFORS UNIVERSITET
UNIVERSITY OF HELSINKI

Uusitalo L, Erkkola M, Harala J, Fogelholm M. Unpublished 2021

Sociodemographic determinants of using more than 30% of total food purchases on unhealthy foods

Explanatory variable	OR (95% CI)
Education	
Basic education	2.43 (1.89-3.12)
Middle level school	1.70 (1.51-1.92)
Bachelor's degree or equivalent	1.27 (1.13-1.43)
University	1 (reference)
Household income (scaled by household size)	
<1000 €/mo	2.01 (1.60-2.51)
1000-1999 €/mo	1.52 (1.31-1.76)
2000-2999 €/mo	1.22 (1.05-1.42)
3000-3999 €/mo	1.15 (0.99-1.33)
≥4000 €/mo	1 (reference)
Nr. of children (change per child)	1.18 (1.13-1.23)
Place of residence	
Urban	1 (reference)
Semi-urban	1.24 (1.10-1.39)
Rural	1.50 (1.31-1.72)

- The share of expenditure on unhealthy foods was larger in
  - Less educated
  - Smaller income
  - Families with (more) children
  - In semi-urban and rural places of residence

- The associations (determinants) are similar in age- and education-matched families with or without children

Logistic regression, all variables in the model, adjusted to self-estimated degree of loyalty
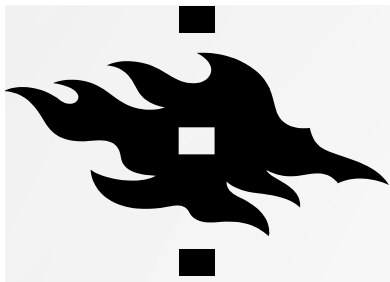
Analysis of change in alcohol legislation: what happened when stronger drinks are allowed to be sold in grocery stores?
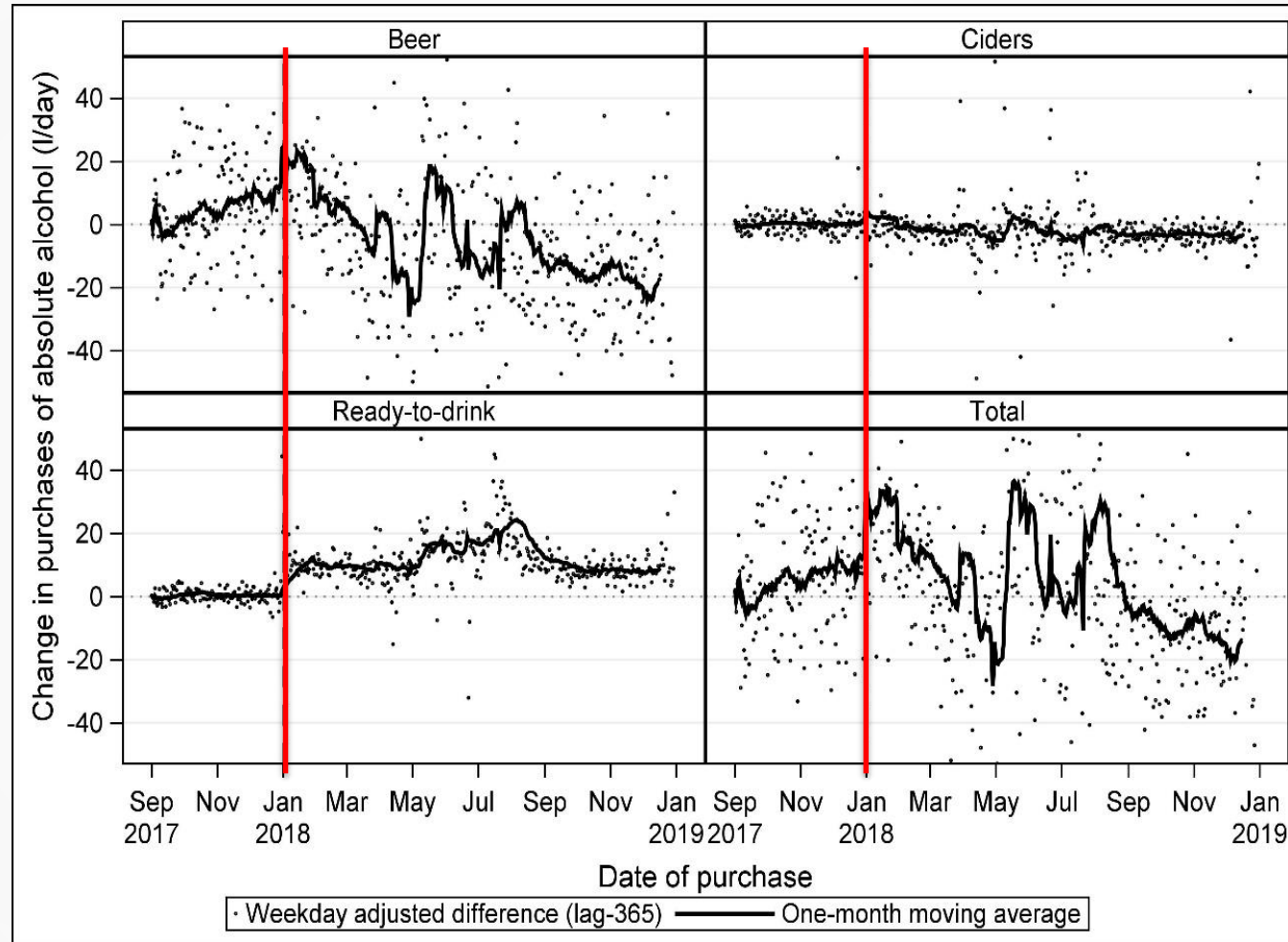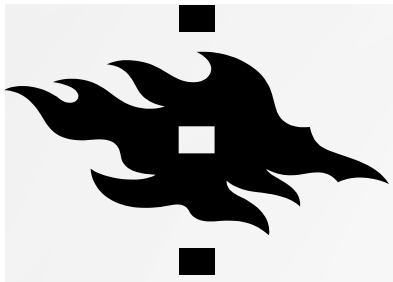

Figure 1. Weekday adjusted 365-day difference in purchases of beer, cider, ready-to-drink alcoholic beverages and total alcoholic beverages, measured as absolute alcohol, between the years 2017 and 2018 among 47,066 loyalty card holders of a large Finnish retail chain   *Uusitalo et al. submitted*

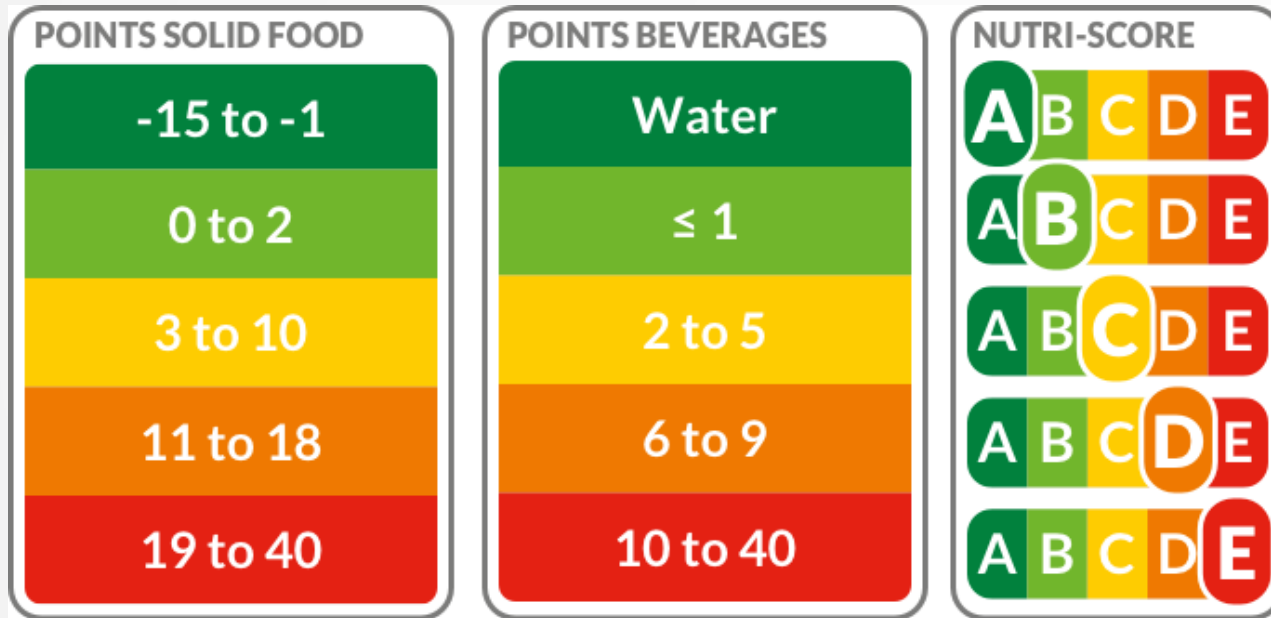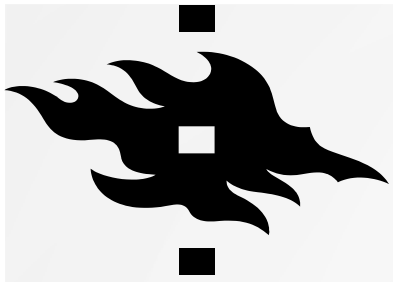# DATA FOR COMPARISON OF NUTRITIONAL PROFILES

- 73 food products chosen from categories representing the most commonly purchased unhealthy foods by Finnish families with children.

- The food products contained typical unhealthy foods and more healthier options chosen for them. Products were classified into three categories.

| Category	Criteria
Unhealthy option (n=28)	A typical example of an unhealthy food in a certain food group, based on the nutritional content of added sugar, saturated fatty acids and/or salt.
Healthier option 1 (n=28)	The nutritional quality of this product is better compared to a otherwise similar food, but the product does not meet the criteria for the Heart Symbol.
Healthier option 2 (n=17)	Otherwise similar product, but it has received the Heart Symbol.
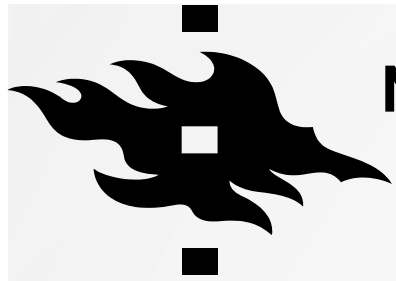
NUTRITIONAL PROFILING SYSTEMS (NPS) USED IN THIS STUDY

- WHOEuro
  - Because it is especially developed to restrict marketing of unhealthy foods to children

- Nutri-Score
  - Because it's prevalence in Europe
  - Because it is starting to get familiar also in Finland

- Findex, a new NPS developed for this study based on Finnish nutritional guidelines
  - Because of previous notions that Nutri-Score does not always suite in Finnish context

POINTS SOLID FOOD	POINTS BEVERAGES	NUTRI-SCORE
-15 to -1	Water	A B C D E
0 to 2	≤ 1	A B C D E
3 to 10	2 to 5	A B C D E
11 to 18	6 to 9	A B C D E
19 to 40	10 to 40	A B C D E

This is how the Nutri-Score is calculated

- The algorithm gives points for each element in the nutrition table (per 100 g or ml) - that means unhealthy nutrients (energy, sugars, saturated fatty acids, salt) as well as healthy nutrients or ingredients (proteins, fiber, percentage of fruit, vegetables, nuts, rapeseed oil, walnut oil and olive oil).

- Then subtract the positive points from the negative ones and convert the result to the Nutri-Score table.
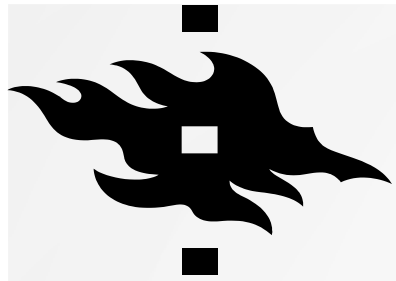
https://nutriscore.colruytgroup.com/colruytgroup/en/about-nutri-score/
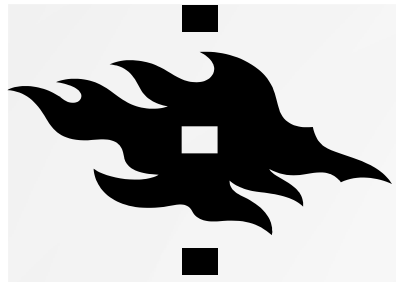
THE ALGORITHM FOR FINDEX

(Positive index PI – Negative index NI) x100, where:

PI = (Prot/DR%+(PUFA+MUFA)/DR%+Fiber/DR%) /3
NI= (Energy/Dref%+Sugar/DR%+SFA/DR%+Sodium/DR%) /4

DR = Daily recommendation; Dref = daily reference = 2000 kcal (8.4 MJ)
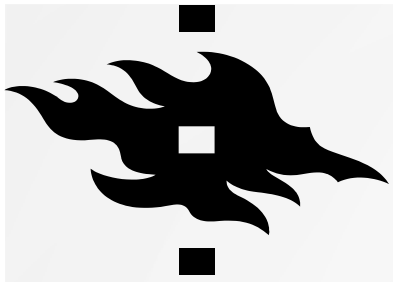
RESULTS IN A NUTSHEL

- Profiles calculated with different NPS point in general to the same direction but they do have differences between them:

  - Nutri-Score and Findex profiled the nutritional quality of the foods closer to one another than compared to WHOEuro model.

  - WHOEuro was the most strict of all NPS's

- NPSs differentiated the unhealthy product form the healthier options rather well, but controversial classifications were also found.

  - 35% of Nutri-Score classifications contradicted with the classification into unhealthy options and healthier options.

  - 41 % of WHOEuro classifications contradicted with the classification into unhealthy options and healthier options.
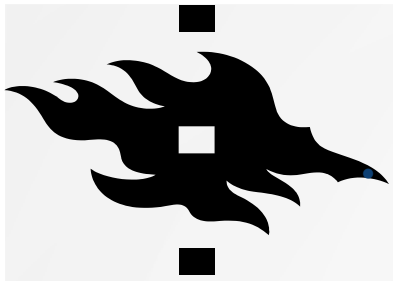
CONCLUSIONS AND RECOMMENDATIONS

- Nutritional profiling is a promising way to assess the unhealthiness-healthiness continuum of foods.
- This gives possibilities to a) food selection for e.g. marketing restrictions and/or fiscal policies (taxation); b) front-of-package labelling; c) incentive for product reformulation and development of new products.
- The heart symbol (Fin) and the Key Hole symbol (other Nordic countries), and the WHOEuro are dichotomous models. As such they are good, but their role is more limited in policy, compared to wider nutritional profiling.
- The basic principle of Nutri-Score is good, but the algorithm has problems:
  - Nutri-Score does not consider the nutritional role of foods in diet. A solution would be to make the scoring among suitable groups, e.g., by macronutrient sources (proteins, fats, carbohydrates)
  - Nutri-Score weighs unhealthy components more than healthy. A balanced weighing might be easier to justify.
  - Role of protein in the algorithm? Protein deficiency is not a problem in Europe.
  - Lack of unsaturated fatty acids in the algorithm?
  - Could the included nutrients be from mandatory FOP nutrition declaration → openness?
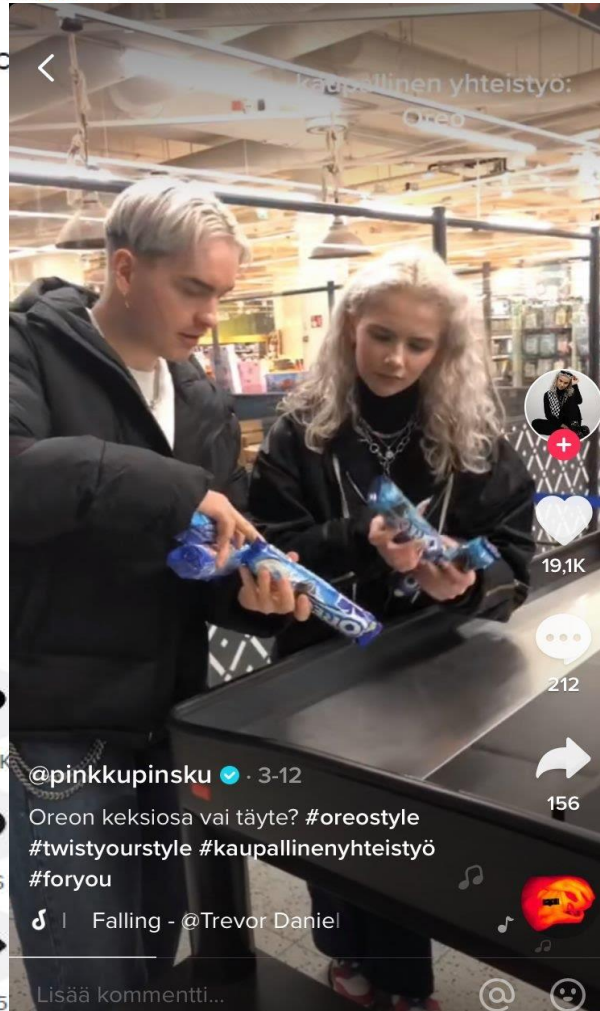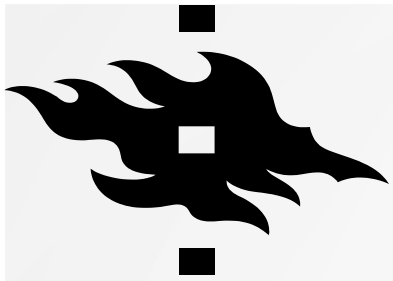
Examples of social media marketing

MARKETING ON PACKAGES

- Bright colours, nice and happy drawn (animal)figures, games, etc.
  - These are particularly frequently seen in unhealthy foods, such as sugar-sweetened juices, sugar-rich milk drinks and yoghurts, sweet and cookies.
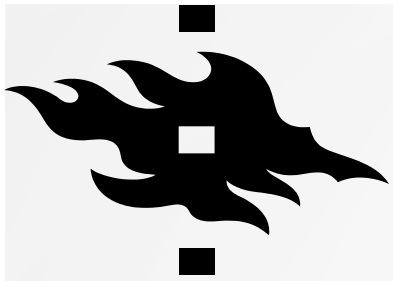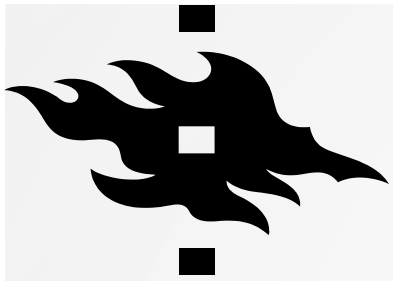- Also health-claims directed towards parents

WHAT DO PARENTS AND YOUTH THINK ABOUT MARKETING OF FOODS?

- 5 focus group discussion with parents (18 participants) and 5 for youth (13—17 y, 14 participants)

- Parents' views are in a continuum from critical – pessimistic – neutral – positive.

- They feel that at least older children (teenagers and older) are often targets for marketing of unhealthy foods

- Parents emphasized their own responsibility, in addition to media education

- Adolescents emphasized the big role of social media in their everyday life

- They feel it is sometimes difficult to separate marketing from the rest of social media

- They recognize their role as being targets for marketing and that influential opinion leaders in social media have an effect on consumption

WHAT DOES THE PRIVATE SECTOR THINK ABOUT MARKETING OF FOODS? (INTERVIEWS WITH FOOD AND MARKETING COMPANIES, RETAIL AND FEDERATIONS)

- **Self-regulation** is seen as a good way to control the situation and some changes (e.g. EU Pledge) has already been done → in principle no food marketing to children <12 y on TV

- **Child health and healthy nutrition is seen in principle as a good thing** – health promotion includes product reformulation

- **Challenges in digital marketing** – even companies cannot fully control what is marketed and to whom; difficult to catch unethical marketing

CONCLUSIONS AND RECOMMENDATIONS

- According to this qualitative research, marketing of unhealthy foods are targeted to children in social media and on packages. Partly the content can be regarded as being against good practices. More research is needed to quantify these findings.

- Even though teenagers recognize commercials, they are still affected, particularly when the source of information is a social media celebrity and the commercial blends to the rest of social media content

- The present directions and self-regulation practices are apparently not adequate to prevent marketing (to children) that is against good practices
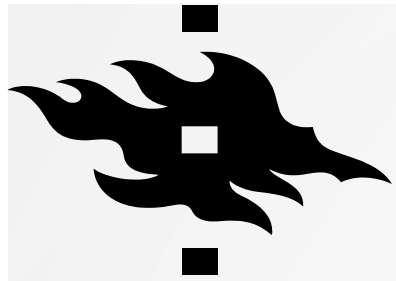
GENERAL CONCLUSIONS

- Self-regulation of food marketing does not seem to be adequate to guarantee children's right to health
- The present situation is also a health equity challenge, since the purchase (and consumption) of unhealthy foods is more prevalent in families with lower education and income
- Legal restriction are probably needed – or would it be sufficient with more strict control (including nutritional evaluation as a part of the ethics in marketing) of self-regulation?
- Age-limit should be at least 15 years (can be debated if 18 would be needed)
- We recommend the development and use of a science-based nutritional profiling system for defining unhealthy foods; an optimal model does not yet exist