

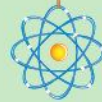


European  
Commission



## Joint Research Centre

the European Commission's  
in-house science service



# Recent developments and publications

**Jan Wollgast**

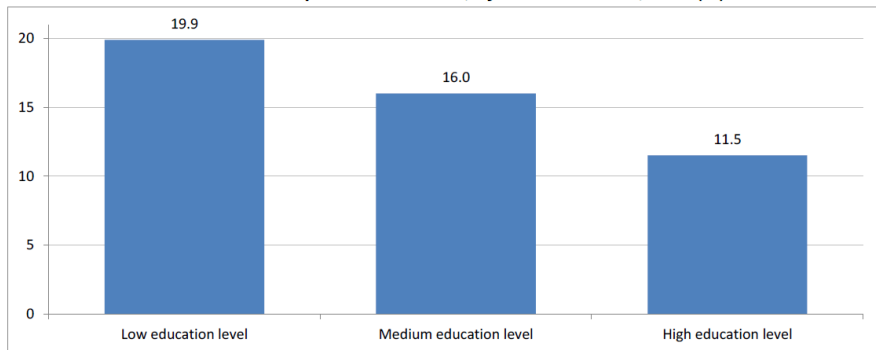
Meeting of the High Level Group on  
Nutrition and Physical Activity

**23 November 2016, Brussels, BE**

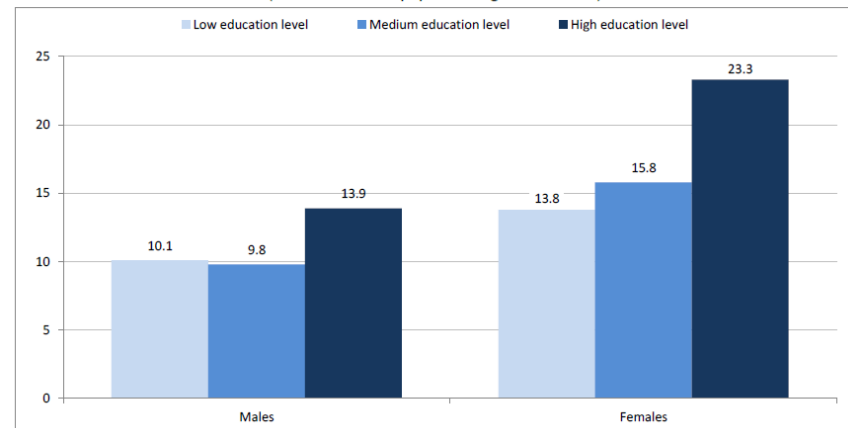


# Updated European Health Interview Survey (EHIS) data (2014)

Share of obese persons in the EU, by education level, 2014 (%)



Daily consumption of at least 5 portions of fruit or vegetables in the EU,  
by sex and education level, 2014  
(% of the relevant population aged 15 or over)



<http://ec.europa.eu/eurostat/web/health/health-status-determinants/data/database>

# Health at a glance: Launch 23 November 2016

-> Reports on the progress in health systems against 2014 baseline on the basis of transparent indicators in line with the 2014 Commission Communication:

- Effectiveness
- Accessibility
- Resilience

Further info: [ec.europa.eu/health/state](http://ec.europa.eu/health/state)



# German Recommendations for Physical Activity and Physical Activity Promotion

- Evidence based and systematic recommendations applying to: children and adolescents, adults, older persons; adults with chronic diseases.
- Target group: experts, decision makers, people acting as multipliers

## Examples:

- Children (6-11 years) and adolescents (12-18 years) *"should be moderately-to-vigorously physically active for 90 minutes or more each day. 60 minutes of that time can be spent on everyday activities, e.g. at least 12,000 steps/day."*
- 6-11 year olds: *"large muscle groups should be subject to higher-intensity loading on two to three days a week in order to improve strength and endurance, taking into account respective developmental stages"*
- *"Avoidable sitting times should be reduced to a minimum."*
  - -> (motorized) transport, periods spent inside unnecessarily, consumption of screen media
  - -> as little as possible or max: infant & toddlers 0 min, 4-6 year olds 30 min, 6-11 year olds 60 min, 12-18 year olds 120 min

DE & EN versions: <http://www.bewegungsempfehlungen.de> or <http://www.physical-activity.de>

## Recent recommendations on added sugars for children from the American Heart Association

- *"Strong evidence supports the association of added sugars with increased cardiovascular disease risk in children through increased energy intake, increased adiposity, and dyslipidemia."*
- Recommend that children consume **≤25 g/d** (100 kcal/d) **of added sugars**
- Recommend to **avoid added sugars for children <2 years of age.**
- *"Although added sugars most likely can be safely consumed in low amounts as part of a healthy diet, few children achieve such levels, making this an important public health target."*

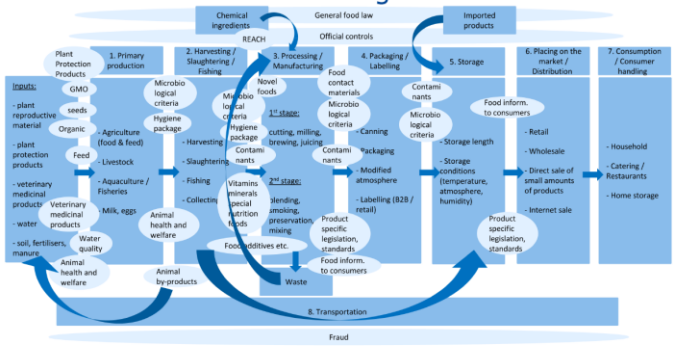
Circulation. 2016; Epub ahead of print; <http://dx.doi.org/10.1161/CIR.0000000000000439>

# Initiative to limit industrial *trans* fats intakes in the EU

- Inception Impact Assessment published (October 2016)  
[http://ec.europa.eu/smart-regulation/roadmaps/docs/2016\\_sante\\_143\\_trans\\_fats\\_en.pdf](http://ec.europa.eu/smart-regulation/roadmaps/docs/2016_sante_143_trans_fats_en.pdf)
- For feedback, go to Roadmaps / Inception impact assessments  
[http://ec.europa.eu/smart-regulation/roadmaps/index\\_en.htm](http://ec.europa.eu/smart-regulation/roadmaps/index_en.htm)

# Delivering on EU Food Safety and Nutrition in 2050 – Future challenges and policy preparedness

The food chain and legislation overview



Modified from: Commission SWD (2013) 516 final 'A fitness check of the food chain: State of play and next steps'

Report in print



# The ECOG Free Obesity eBook

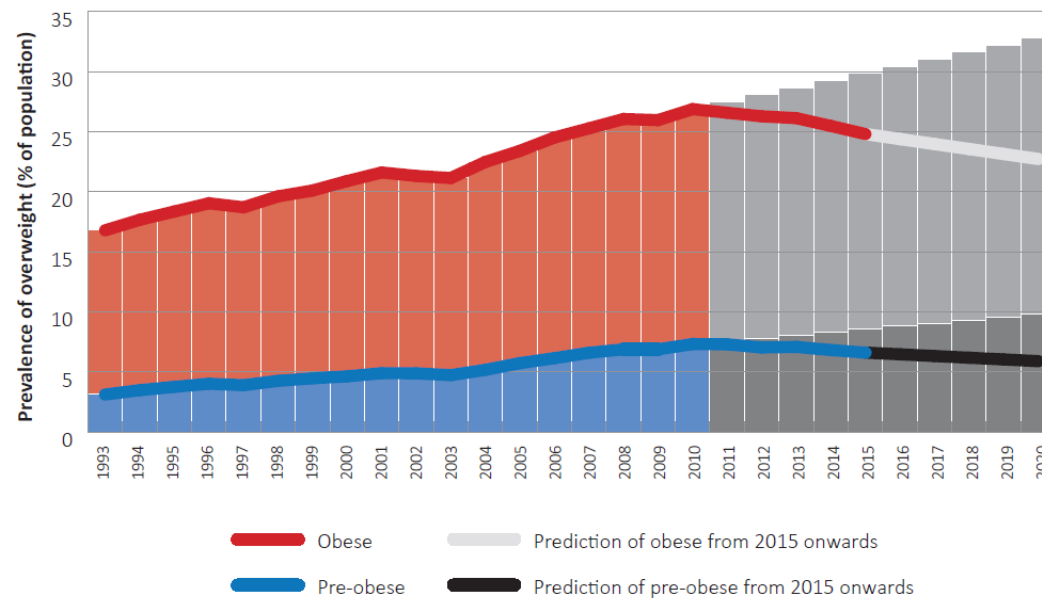
56 chapters in 9 fields (as of November 2016):

- Epidemiology & Prevention Across Europe
- Society, Communication, Environment & Obesity
- Growth Charts & Body Composition
- Biology
- Nutrition, Food Choices & Eating Behavior
- Psychological Assessment & Disturbances
- Clinics & Complications
- Energy Expenditure & Physical Activity
- Treatment

<http://ebook.ecog-obesity.eu/content/>

# Upgraded evaluation (2016) of the implementation of the resolution on the Slovenian food and nutrition action plan 2005–2010

Fig. 8. Secular trends in overweight among 7–14-year-olds in Slovenia 1993–2015 and predictions to 2020

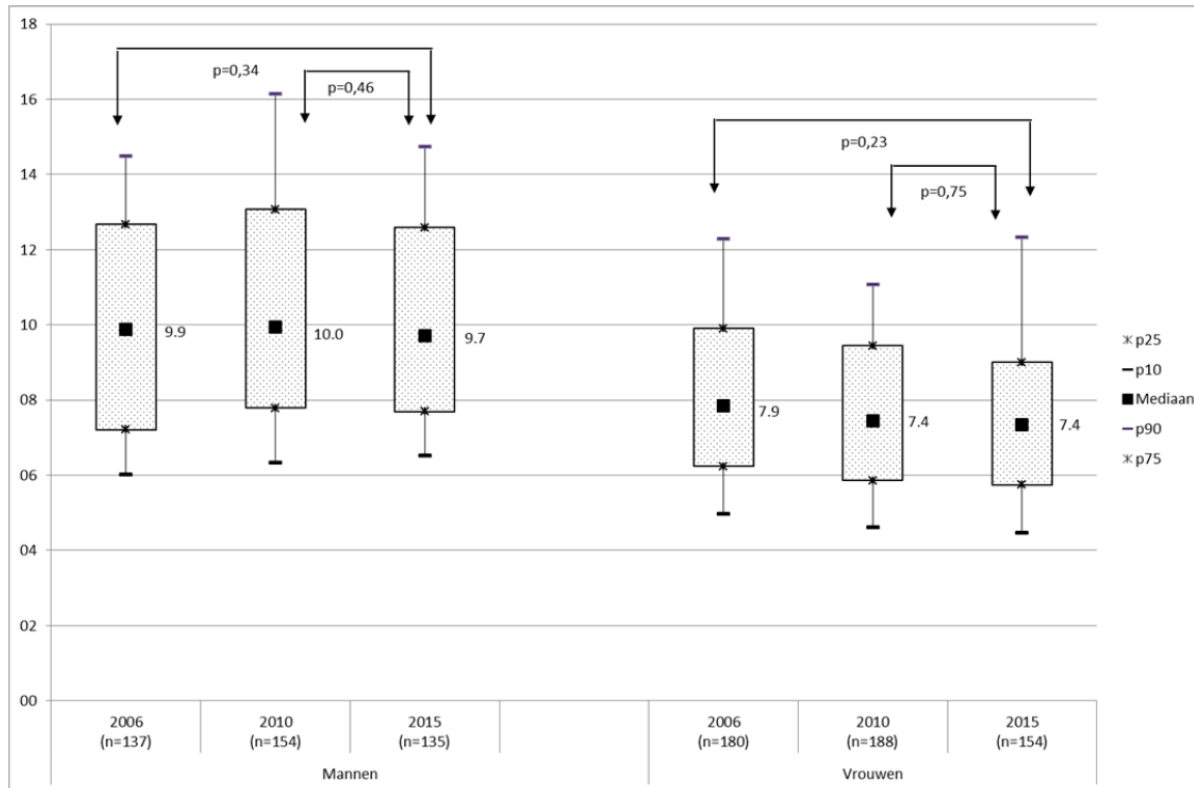


Source: SLOfit database, Faculty of Sports, University of Ljubljana

Red line, change in proportion of pre-obese children; red bars, proportion of pre-obese children; blue line, change in proportion of obese children; blue bars, proportion of obese children; black line, predicted trend in proportion of pre-obese and obese children in comparison with 2010–2015; light-grey bars, predicted proportion of pre-obese children in 2010 according to 1993–2010 trends; dark-grey columns, predicted proportion of obese children in 2010 according to 1993–2010 trends; black line, predicted trend of pre-obesity from 2015 onwards according to the 2010–2015 trends; light-grey line, predicted trend of obesity from 2015 onwards according to the 2010–2015 trends.

<http://www.euro.who.int/en/countries/slovenia/publications/evaluating-implementation-of-the-resolution-on-the-slovenian-food-and-nutrition-action-plan-20052010.-upgraded-evaluation,-2016/>

# Salt intake in RIVM study in Doetinchem (NL)



Figuur 2. Trend in de zoutinname (in g/d) in Doetinchem over de periode 2006 - 2015

<http://www.rivm.nl/dsresource%3Fobjectid%3Drivmp:323600%26type%3Dorg%26disposition%3Dinline&usg=ALkJrhiQwFeLOB4vuTpQOO79Tcr76yyx9w>

# **Articles in scientific (peer-reviewed) journals**

-

## **Focus on monitoring & research**

# Overweight and obesity (all grades) are associated with increased all-cause mortality

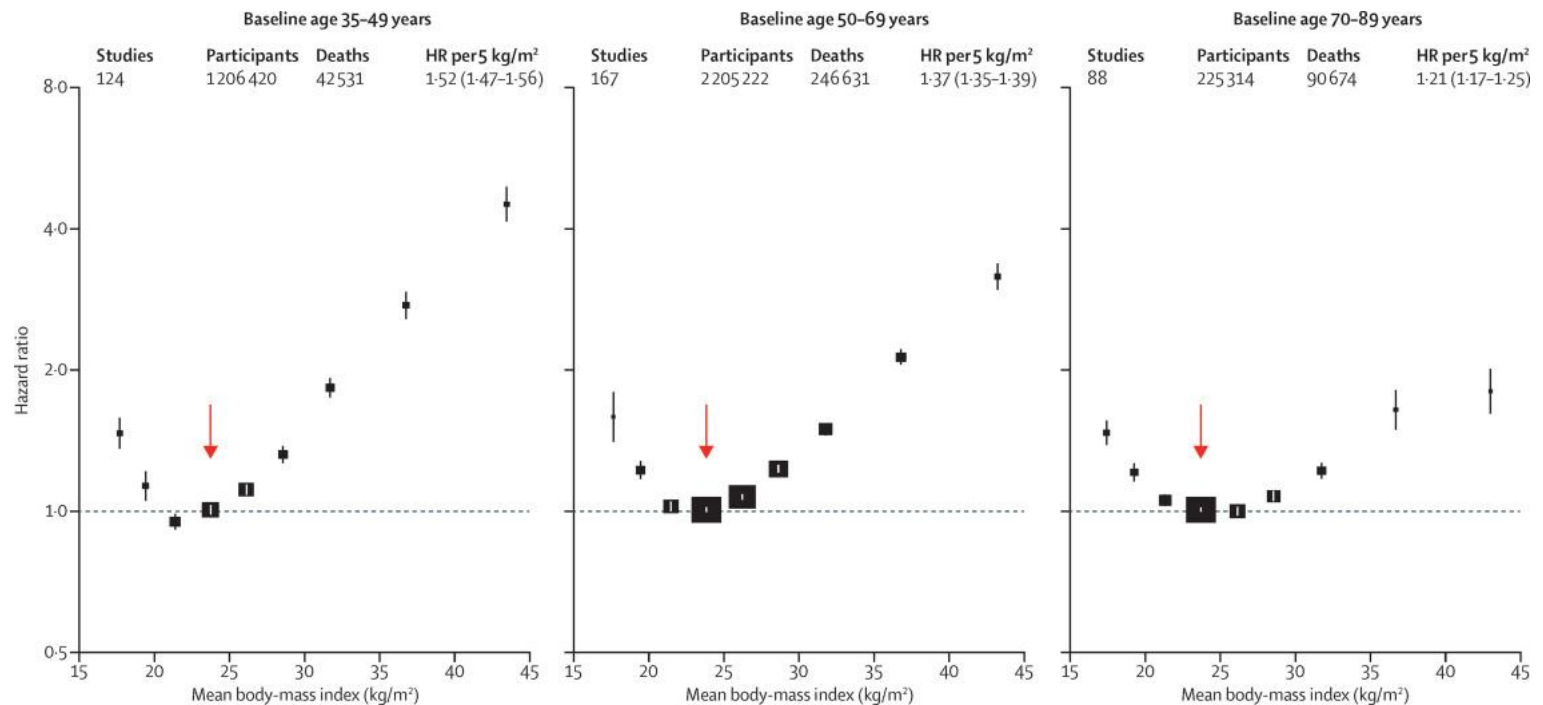


Figure 2. Association of body-mass index with all-cause mortality, by baseline age group

Lancet 2016; 388: 776–86; [http://dx.doi.org/10.1016/S0140-6736\(16\)30175-1](http://dx.doi.org/10.1016/S0140-6736(16)30175-1)

## **Public health economic evaluation of different European Union–level policy options aimed at reducing population dietary *trans* fat intake**

- To assess the added value of EU-level action by estimating the cost-effectiveness of 3 possible EU-level policy measures to reduce population dietary TFA intake.
- This was calculated against a reference situation of not implementing any EU-level policy (i.e., by assuming only national or self-regulatory measures).
- Either a legal limit or voluntary agreements may provide added value by providing health benefits and savings to the public.
- The legal limit option is projected to provide the greatest health benefits.
- Mandatory TFA labelling may also provide some additional health benefits; however, this would likely not be a cost-effective strategy.

Am J Clin Nutr 2016;104:1218–26; <http://dx.doi.org/10.3945/ajcn.116.136911>

## **Total, Free, and Added Sugar Consumption and Adherence to Guidelines in NL (2007-2010)**

- 3817 Boys/men and girls/women (7-69 years) from the Dutch national food consumption survey were studied
- A food composition table was compiled with contents of added and free sugars
- Total sugar intake was 22% of total energy (%TE), free sugars intake 14 %TE, and added sugar intake 12 %TE.
- Intake in children was higher than in adults
- E.g., children had free sugars intake of 18-20 %TE, depending on gender and age group
- Children consumed 71-74% of total sugars in the form of free sugars
- Main food sources of sugars: sweets and candy, non-alcoholic beverages, dairy, cake and cookies
- 5% of boys and girls (7-18 years) had free sugars intake <10% TE
- 0% of boys and girls (7-18 years) had free sugars intake <5% TE

Nutrients 2016, 8, 70; <http://dx.doi.org/10.3390/nu8020070>

## Amount of free sugars and calories in carbonated sugar-sweetened beverages in the UK

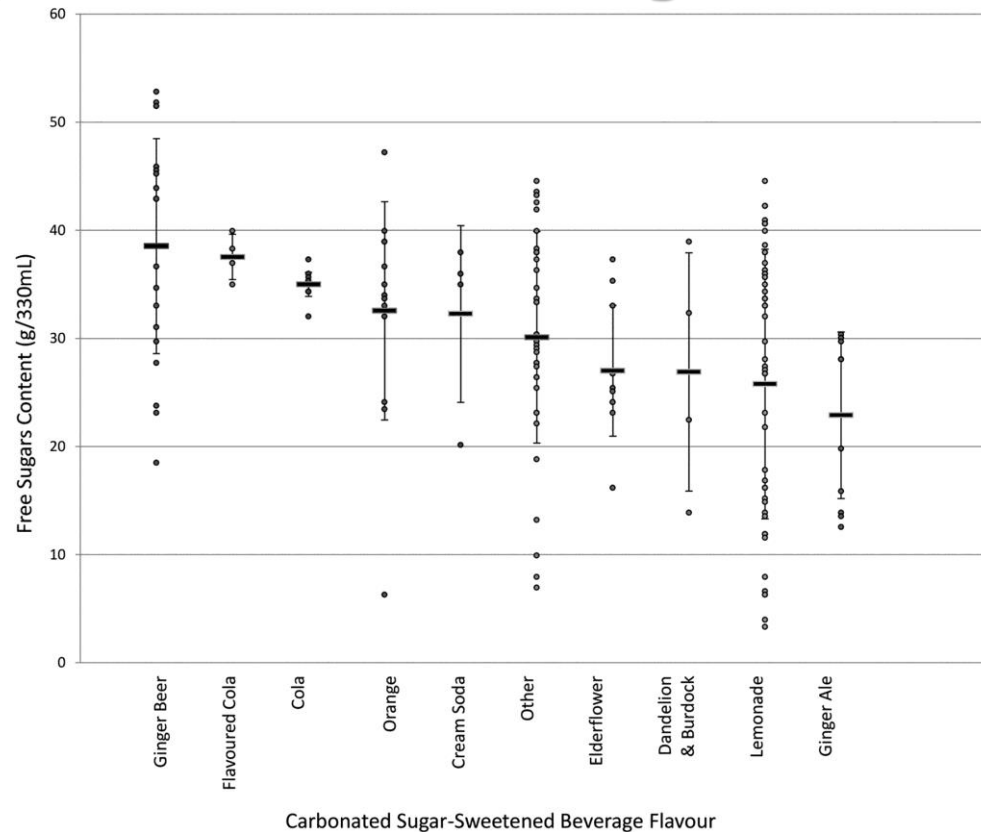


Figure 1. Free sugars content in different flavours of carbonated sugar-sweetened beverages (g/330 mL).



# Environmental interventions to reduce the consumption of sugar-sweetened beverages and their effects on health (Protocol for a Cochrane systematic review)

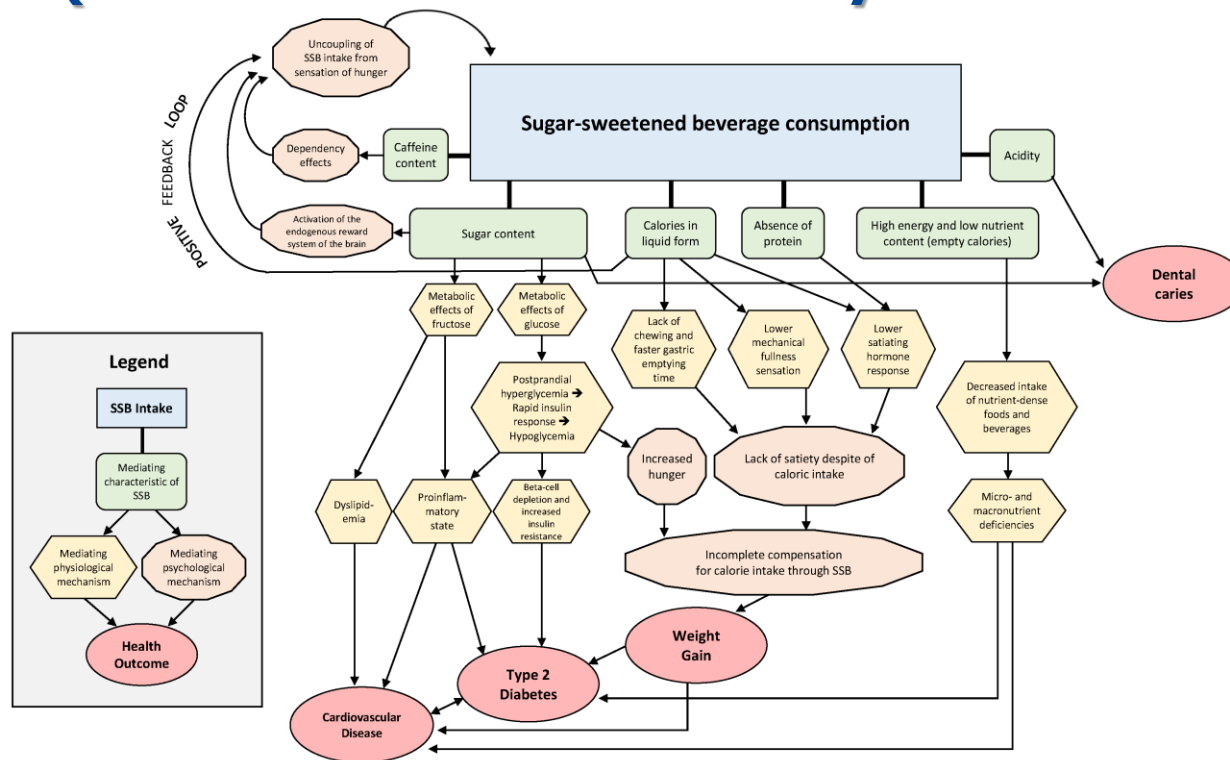


Figure 1. Physiological and psychological mechanisms linking SSB intake with adverse health outcomes.

## Ultraprocessed food consumption and risk of overweight and obesity

- Longitudinal study to evaluate the relation between ultraprocessed food intake and overweight and obesity
- "Ultraprocessed food and drink products":
  - -> made predominantly or entirely from industrial substances and contain little or no whole foods.
  - -> ready to eat, drink, or heat.
  - -> E.g., carbonated drinks, sausages, biscuits (cookies), candy (confectionery), fruit yogurts, instant packaged soups and noodles, sweet or savory packaged snacks, and sugared milk and fruit drinks
- Ultraprocessed food consumption was associated with a higher risk of overweight and obesity in a prospective cohort of Spanish middle-aged adult university graduates

Am J Clin Nutr 2016;104:1433–40; <http://dx.doi.org/10.3945/ajcn.116.135004>

## The Impacts of Dietary Change on Greenhouse Gas Emissions, Land Use, Water Use, and Health

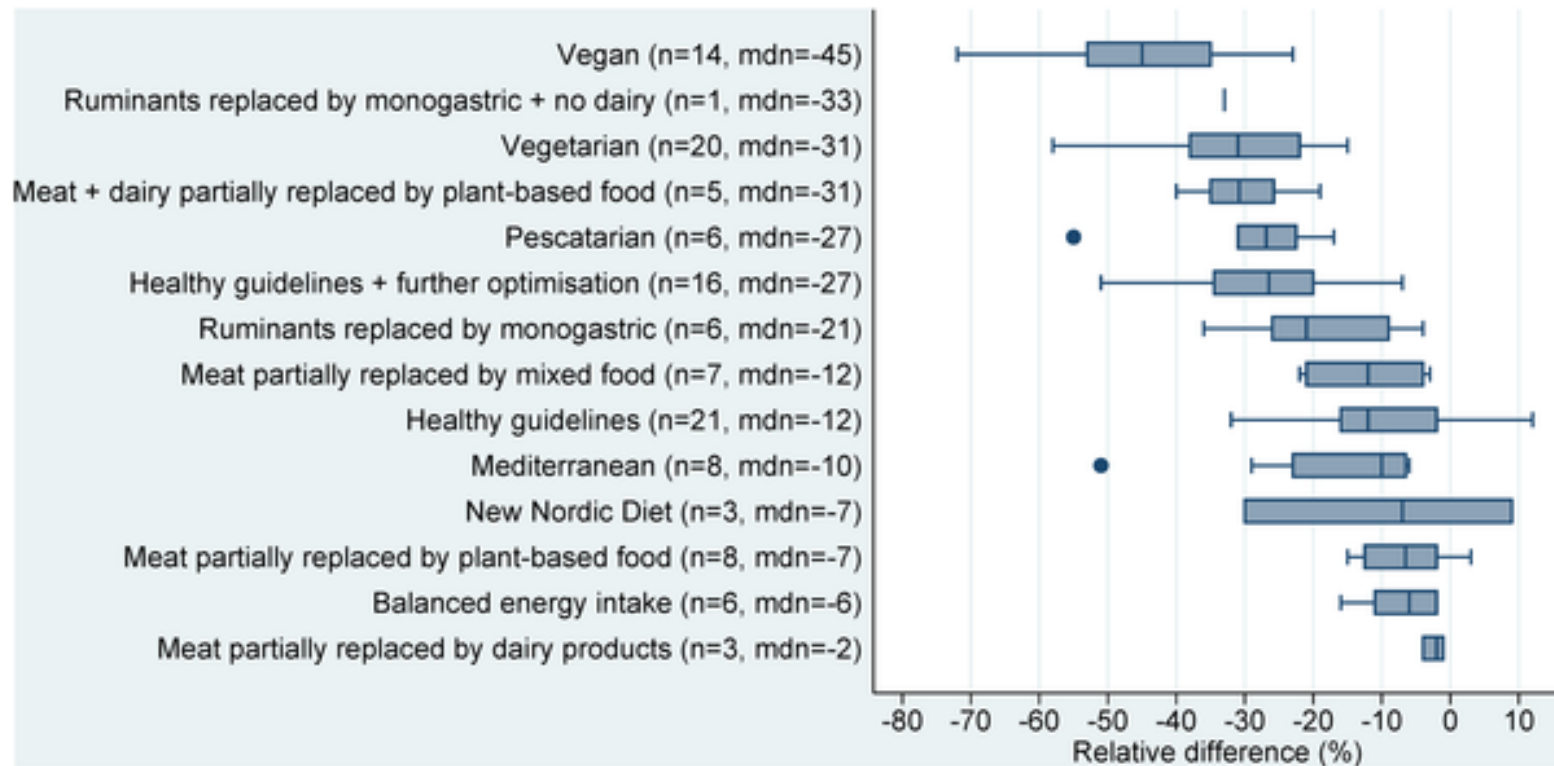


Figure 2. Relative differences in GHG emissions (kg CO<sub>2</sub>eq/capita/year) between current average diets and sustainable dietary patterns.

PLoS ONE 11(11): e0165797; <http://dx.doi.org/10.1371/journal.pone.0165797>

## **Benefits of different physical activity levels on the detrimental association of sedentarity with mortality**

- Harmonised meta-analysis of data from more than 1 million men and women
- High levels of moderate intensity physical activity (ie, about 60–75 min per day) seem to eliminate the increased risk of death associated with high sitting time.
- Such high activity level attenuates, but does not eliminate the increased risk associated with high TV-viewing time.
- Examining the joint effects of physical activity and sedentarity is important, because most people engage in both behaviours

Lancet 2016; 388: 1302–10; [http://dx.doi.org/10.1016/S0140-6736\(16\)30370-1](http://dx.doi.org/10.1016/S0140-6736(16)30370-1)

## **Global Matrix 2.0: Report Card Grades on the Physical Activity of Children and Youth Comparing 38 Countries**

- Harmonised child and youth physical activity indicators across 38 countries from six continents (10 EU MS) were compared to seek solutions to increase childhood physical activity globally
- Average grades for both Overall Physical Activity and Sedentary Behaviour around the world are “D” (low/poor).
- Average grades across all indicators were highest in Denmark, Slovenia, and the Netherlands
- Countries with the most active children and youth overall rely on very different approaches to get kids moving. What is consistent between all of them is that physical activity is driven by pervasive cultural norms—being active is not just a choice, but a way of life.

J Phys Act Health. 2016; 13 (Suppl 2), S343 -S366; <http://dx.doi.org/10.1123/jpah.2016-0594>

# Nutrition in JRC F.1: Health in Society



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