



The ultra-processed food content of school meals and packed lunches in the United Kingdom

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Food processing

Most foods are processed,
it's the amount of processing which is important

Non / minimally processed

Ultra-processed



Processing level	Product	Ingredients
No / Minimally processed		Strawberries
Processed	 <p data-bbox="1014 701 1090 736">Jam</p>	Strawberries, Sugar, Sugar, Concentrated Lemon Juice, Fruit Pectin
Ultra-processed	 <p data-bbox="1014 1003 1251 1093">Fruit Factory Fruit Hearts</p>	Fruit Juices from Concentrate (29%) (Apple 28%, Strawberry 1%), Sugar, Glucose Syrup , Dextrine , Humectant (Sorbitol) , Tapioca Starch, Gelling Agent (Pectin), Acidity Regulator (Citric Acid), Natural Flavouring, Black Carrot Juice Concentrates , Coconut Oil, Glazing Agent (Carnauba Wax)

Processing level	Product	Ingredients
Processed		Flour, Water, Yeast, Salt
Ultra-processed		Wholemeal Wheat Flour, Water, Yeast, Vegetable Oil (Rapeseed, Sustainable Palm), Salt, Wheat Gluten, Emulsifiers: E472e, E481, E471, Soya Flour, Preservative: Calcium Propionate, Flour Treatment Agent: Ascorbic Acid (Vitamin C)

Impacts of high ultra-processed food intake.



- Worse **dietary quality**: over-consumption, displacement of healthy foods



- Increased **weight gain** in children and adults



- Increased **health burden** (CVD, cancer, type 2 diabetes) in adults



- Poor **mental health**

Ultra-processed food intake in UK children

65%



School lunches in the UK



School lunches

School meals

Packed lunches

~50%

~50%

Methods



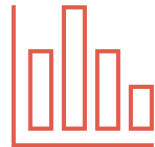
Analysed national data

Dietary data from 3,300 children (2008-2017)



Extracted data on school lunches

Categorised as school meal or packed lunches

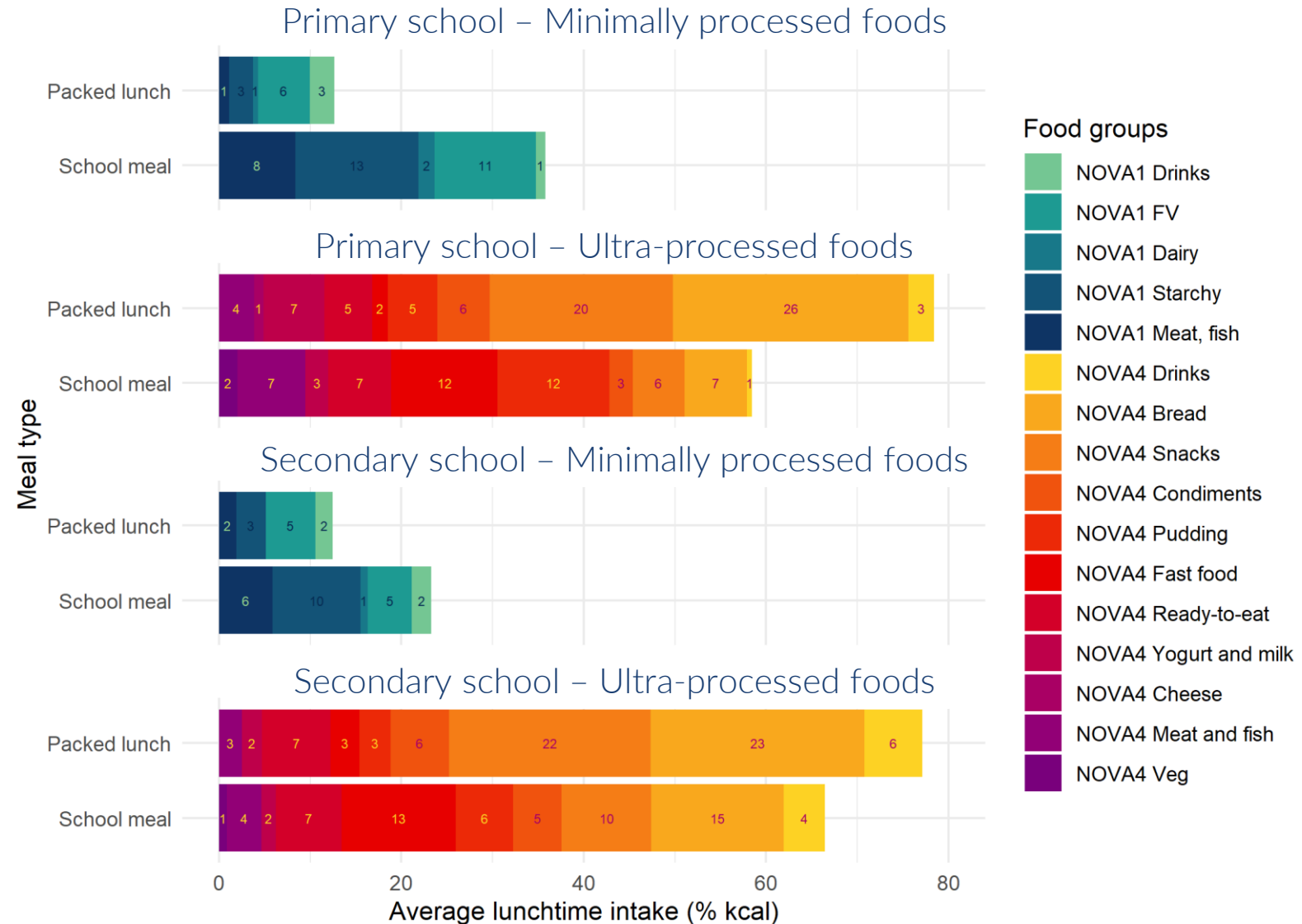


Compared level of UPF consumed

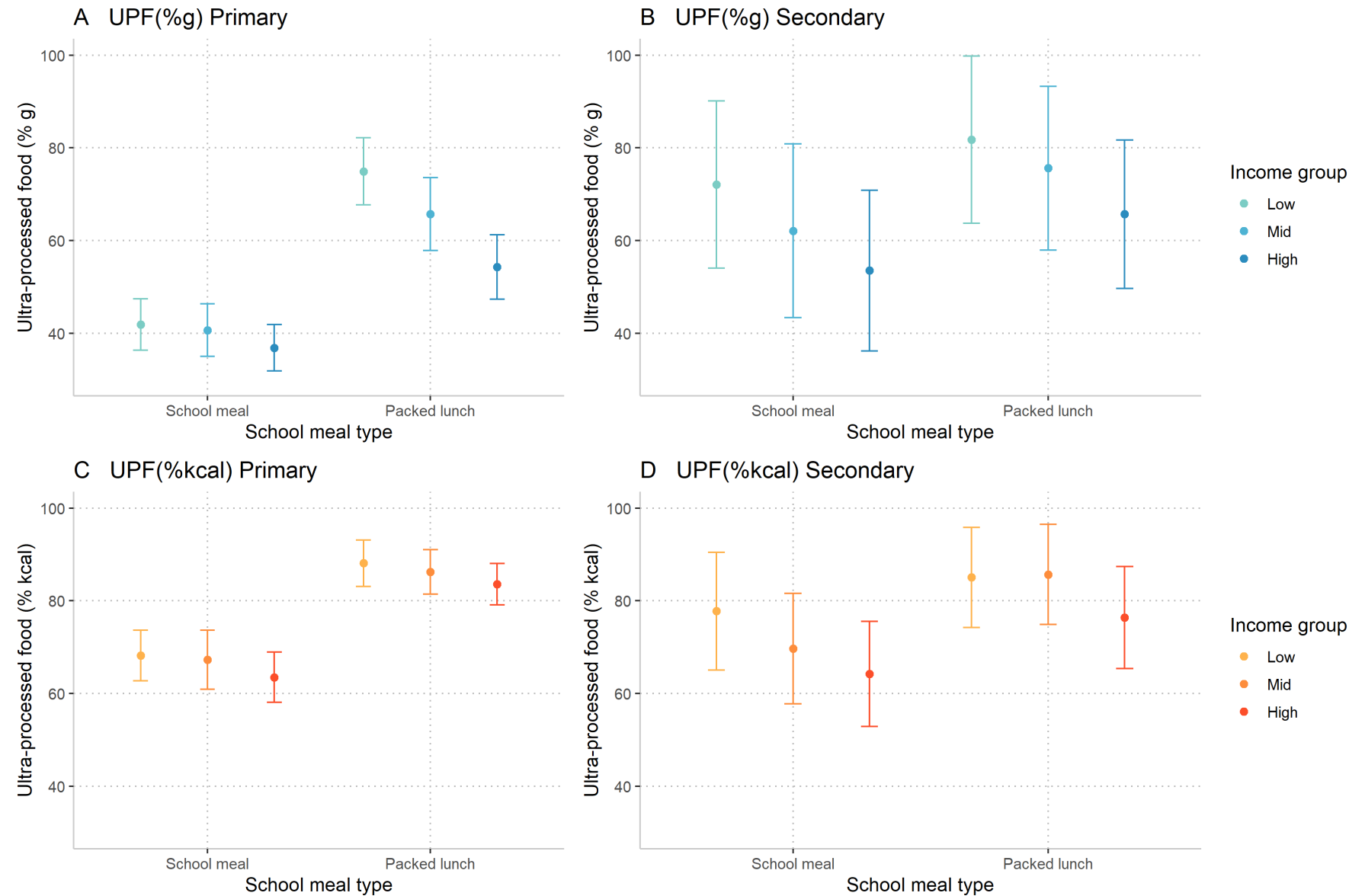
Quantile regression to compare % UPF consumed by different meal-type, ages and income levels

Results

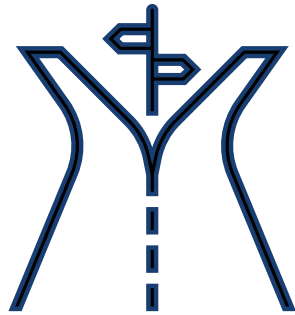
Contribution of food groups to lunchtime intake (% kcal)



Results



Summary & policy implications



The UPF content of school lunches is too high

Thank-you for listening

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