



Aalborg Universitet

AALBORG UNIVERSITY  
DENMARK

## Does organic food intervention in the Danish schools lead to change dietary patterns?

*results of a web based questionnaire survey among Danish school food coordinators*

He, Chen; Mikkelsen, Bent Egberg

*Published in:*

Like what you get? Is it good for you? Organic food, health and sustainable development in schools

*Publication date:*

2010

*Document Version*

Early version, also known as pre-print

[Link to publication from Aalborg University](#)

*Citation for published version (APA):*

He, C., & Mikkelsen, B. E. (2010). Does organic food intervention in the Danish schools lead to change dietary patterns? results of a web based questionnaire survey among Danish school food coordinators. In *Like what you get? Is it good for you? Organic food, health and sustainable development in schools: Proceedings of the seminar held at University of Helsinki, Ruralia Institute 21.-22. January 2009, Helsinki, Finland* Bioforsk.

### General rights

Copyright and moral rights for the publications made accessible in the public portal are retained by the authors and/or other copyright owners and it is a condition of accessing publications that users recognise and abide by the legal requirements associated with these rights.

- ? Users may download and print one copy of any publication from the public portal for the purpose of private study or research.
- ? You may not further distribute the material or use it for any profit-making activity or commercial gain
- ? You may freely distribute the URL identifying the publication in the public portal ?

### Take down policy

If you believe that this document breaches copyright please contact us at [vbn@aub.aau.dk](mailto:vbn@aub.aau.dk) providing details, and we will remove access to the work immediately and investigate your claim.

## **Does organic food intervention in the Danish schools lead to change dietary patterns? - results of a web based questionnaire survey among Danish school food coordinators**

Chen He & Bent Egberg Mikkelsen  
Department of Nutrition, National Food Institute,  
Technical University of Denmark

### **Abstract**

Now, more than ever, there are serious health concerns for the growing prevalence of obese and overweight children. Schools are well suited setting for the learning of children and young people, and this influence has the potential to play an important role in preventing children from becoming obese and overweight. The school at the same time is the focus of public organic food supply strategies as well as the focus of innovation strategies that can increase the availability of healthier food options. These strategies in some cases go hand in hand. The purpose of this research was to examine whether organic food intervention strategies in school meal system could support the development of healthier eating patterns among children and adolescents. An important precondition for this is that the food environment becomes supportive for such eating. In the current study this was determined through the comparisons between the food strategies of “organic” school to that of “non organic” schools in Denmark. Provision of meals in Danish schools is not compulsory and function as an “value adding service” that schools and municipalities can decide on locally. Therefore the study was undertaken among school food coordinators in selected Danish primary schools that was known to provide school meals. The study was conducted by means of a web-based questionnaire. The data shows the relations regarding the school food service between different types of schools, and also based on the ways and methods of food provision. Results indicate that organic food intervention strategies can be supportive for strategies that increase the healthiness of school eating environments. This eventually might play a positive role in the efforts done to counteract the development of obesity and overweight issues among the children in these selected Danish schools.

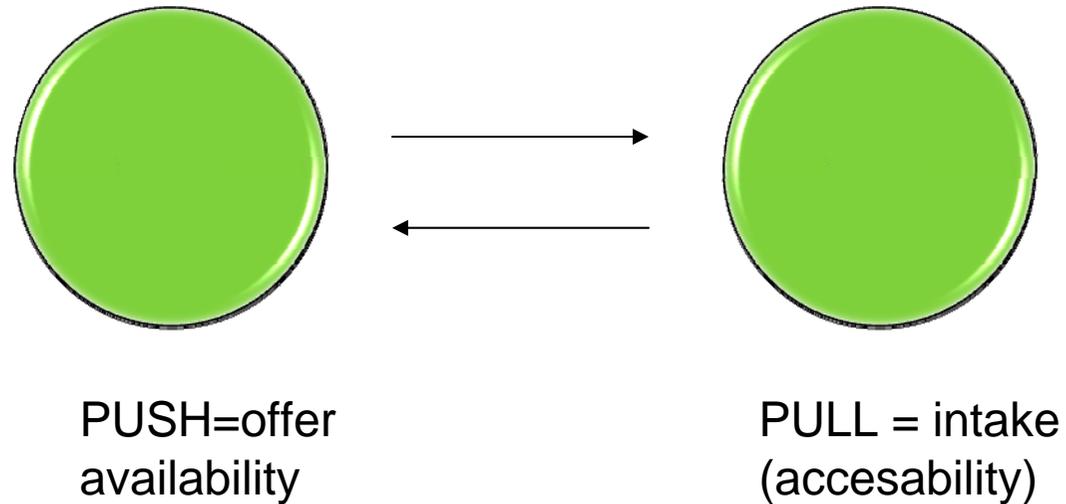
# Does organic food intervention in the Danish schools lead to change dietary patterns?

*- results of a web based questionnaire survey among Danish school food coordinators*

**Bent Egberg Mikkelsen & Chen He**  
**DTU Food**

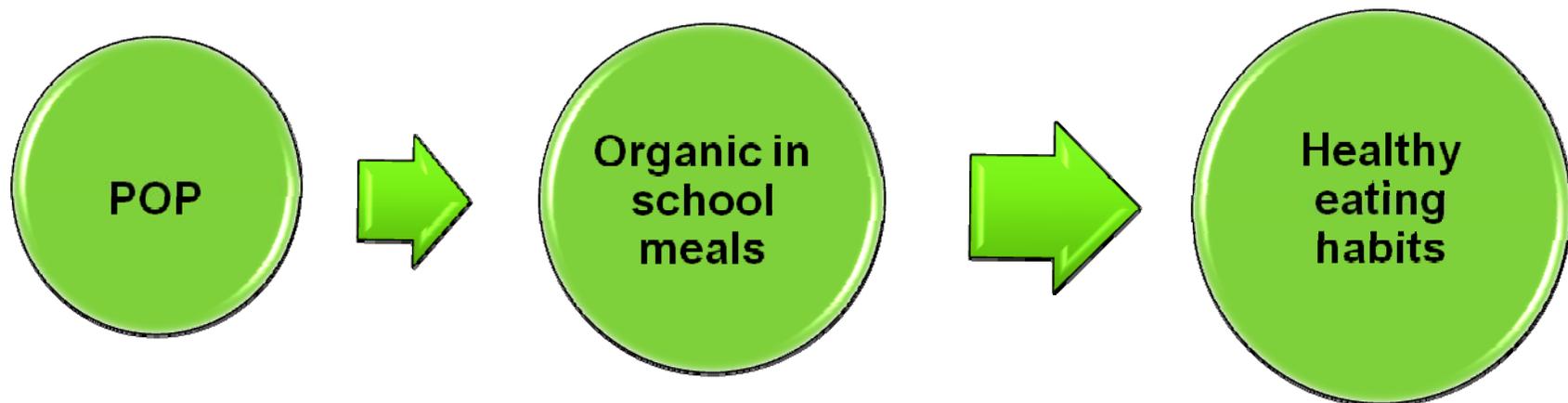
# Section I

## Introduction



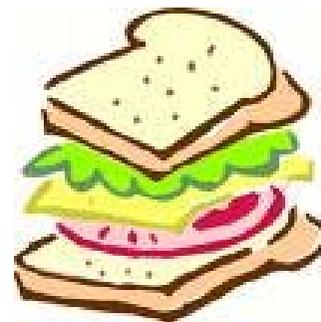
# Intention

- The purpose of this research study is to explore the relationship **Public Organic food Procurement policy (POP)** and **Food & Nutrition Policy (FNP)** in relation to food service in public school settings.



# The research object

- The **selected** public primary schools in Denmark  
*Grade 1-9: around 6 -15 years old children*
- Different food provision



# Section II

---

Methods

# WBQ

- Web based questionnaire (WBQ)
- School food coordinators
- 93 organic schools and 86 non organic schools

Organic schools  POP schools

- The web link to the WBQ and the invitation letter to the participants were sent to the developed e-mail list.

# WBQ structure

- Background information

*Personal*

*School*

- Attitude of respondents

*Organic food- school food/education*

*Healthy eating habits- school food/education*

- Existing policies

*Public organic food procurement policy*

*Food and nutrition policy*

*Health promoting school*

*Green flag school*

- Serving practice

*School fruit scheme*

*School milk scheme*

*School tuck shop*

*School canteen*

*Food items*

# Section III

---

Results

# Data

There were 92 out of 179 Danish schools that responded to the WBQ.

20 schools

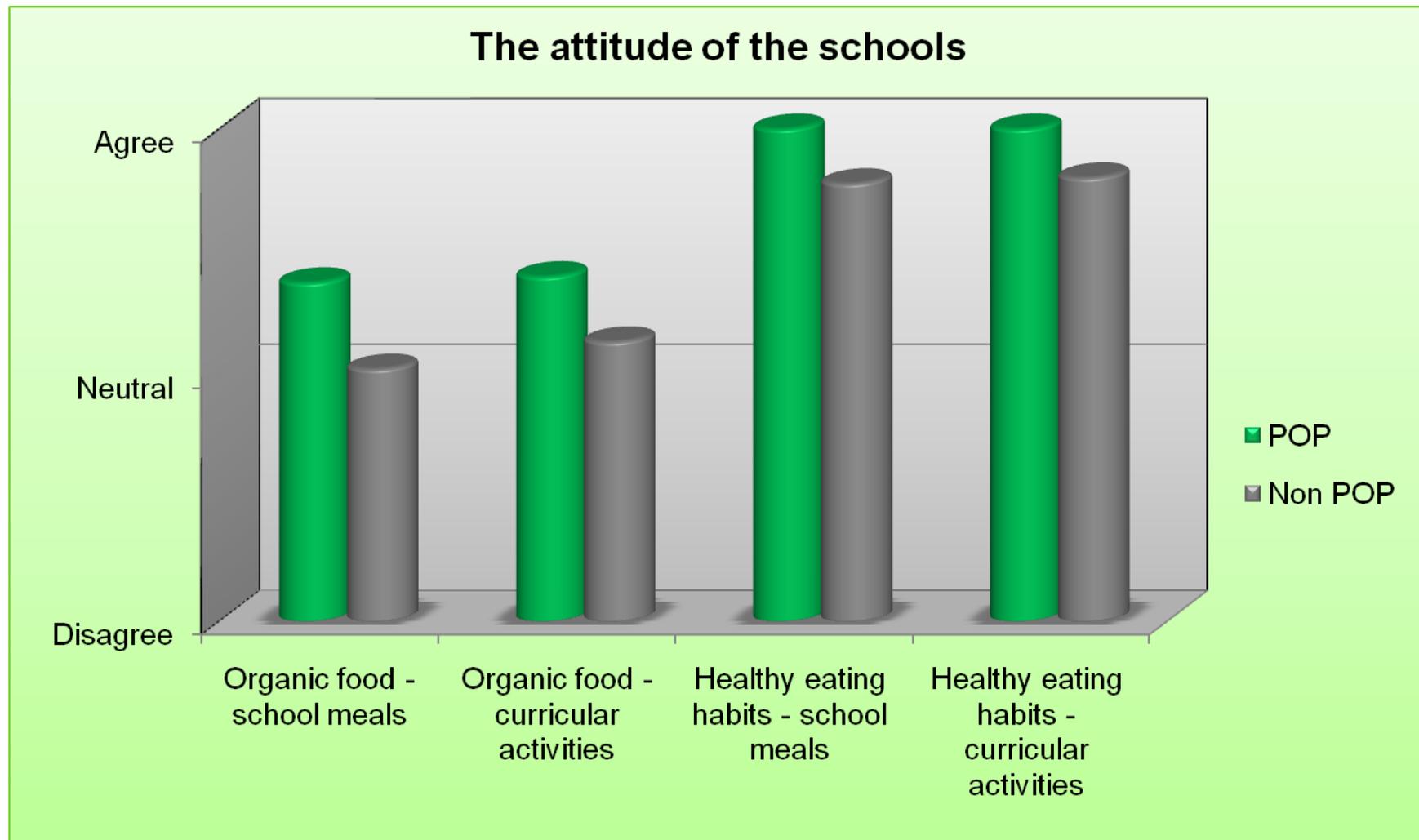
- Have a POP policy

70 schools

- Have no POP policy

2 schools

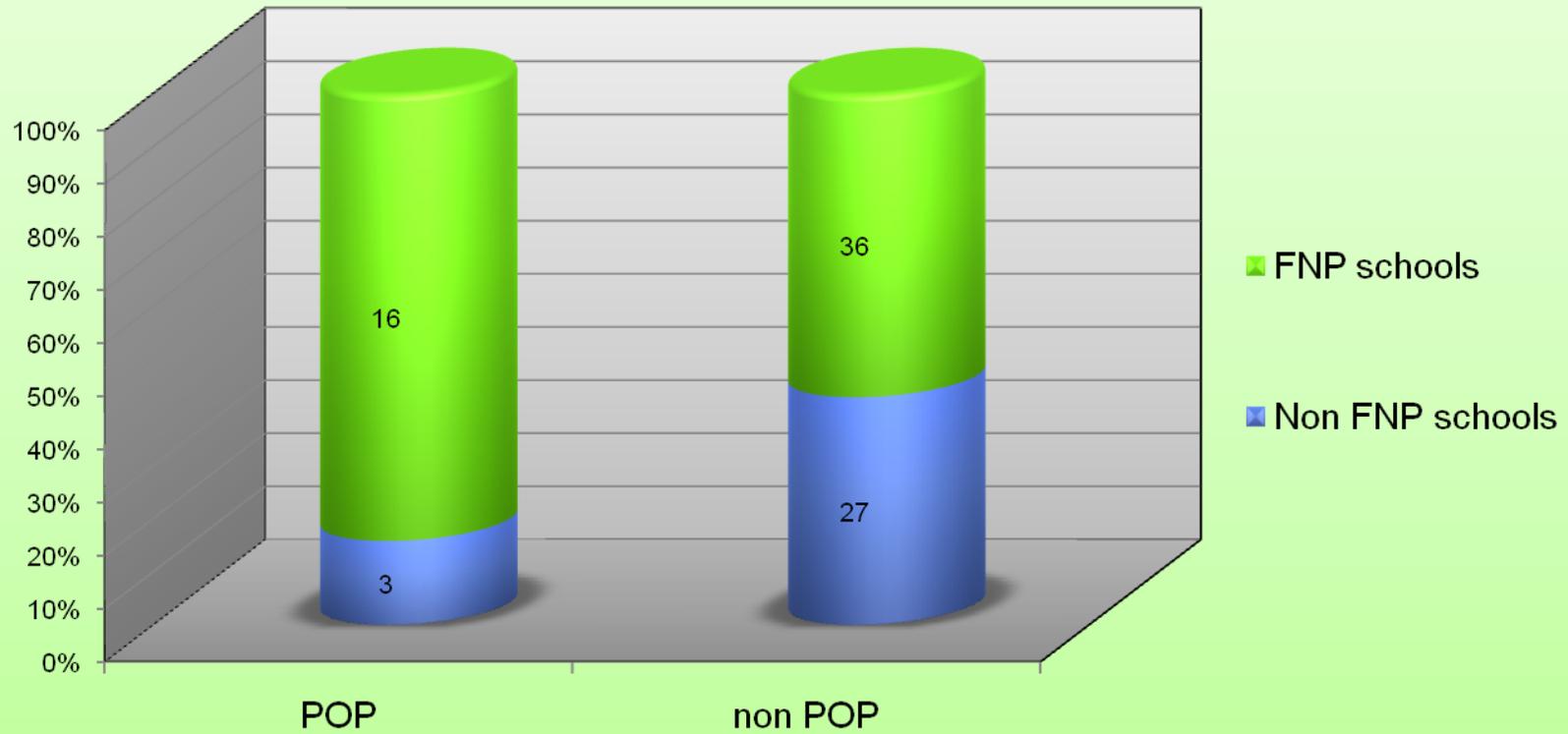
- Don't know



**Figure 1. Attitudes of POP and non-POP respondents to organic and healthy eating strategies.**

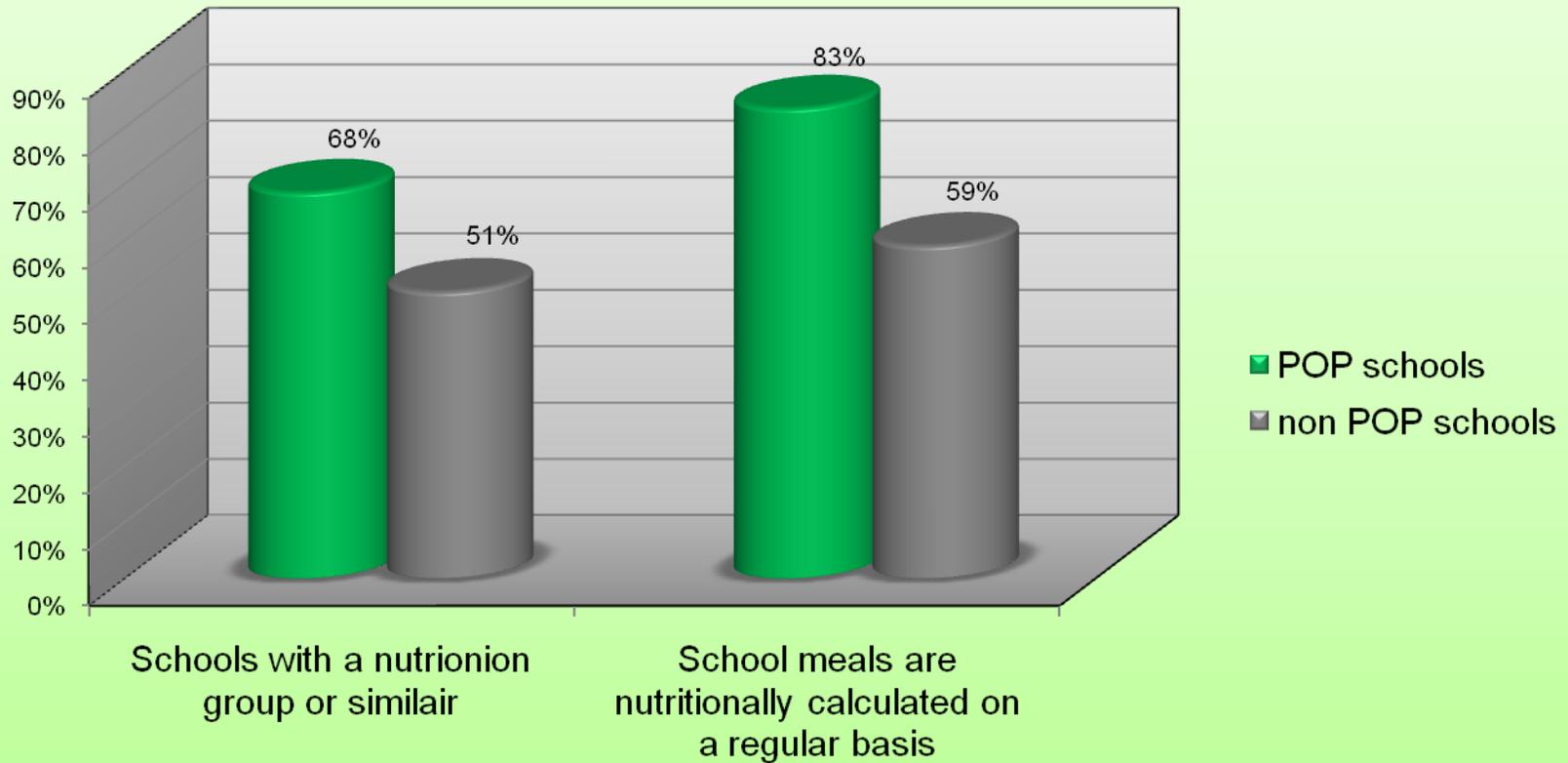
The figure shows the extent to which respondents agree/disagree to be positive towards organic food strategies (far left), positive towards curricular organic food strategies (middle left), positive towards healthy eating strategies (middle right) and curricular healthy eating strategies (far right).

## The POP/non POP schools with the FNP

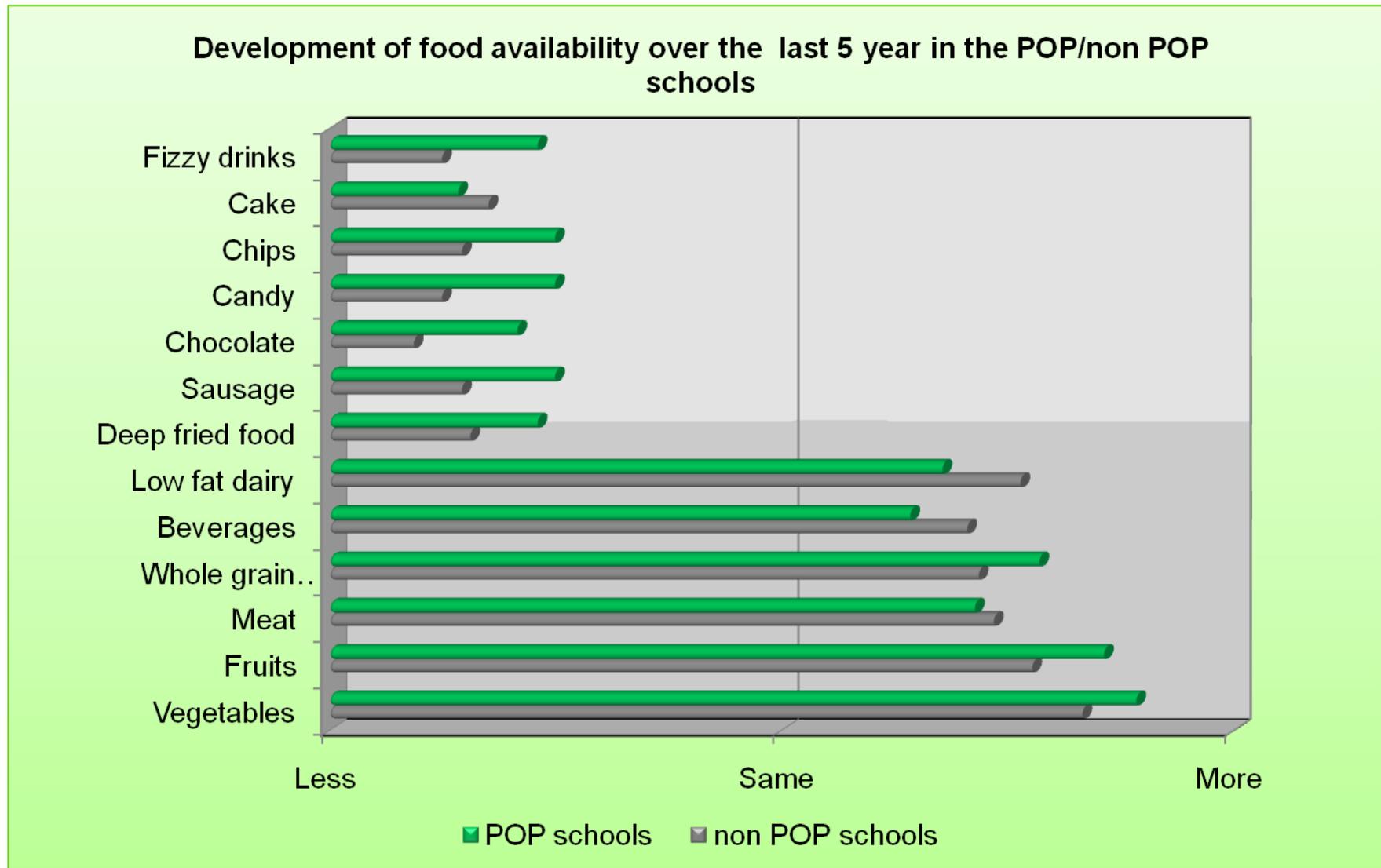


**Figure 2. The number of POP/non POP schools with the FNP.**

### Comparisons of nutritional issues between POP/non POP schools



**Figure 3. POP and non POP schools with regard to “proxies” of healthy food environment and healthy eating**



**Figure 8 Trends in healthy eating practices in POP versus non POS schools.**

A comparison between the POP/non POP schools on the development of food items over the last five years.

# Section IV

---

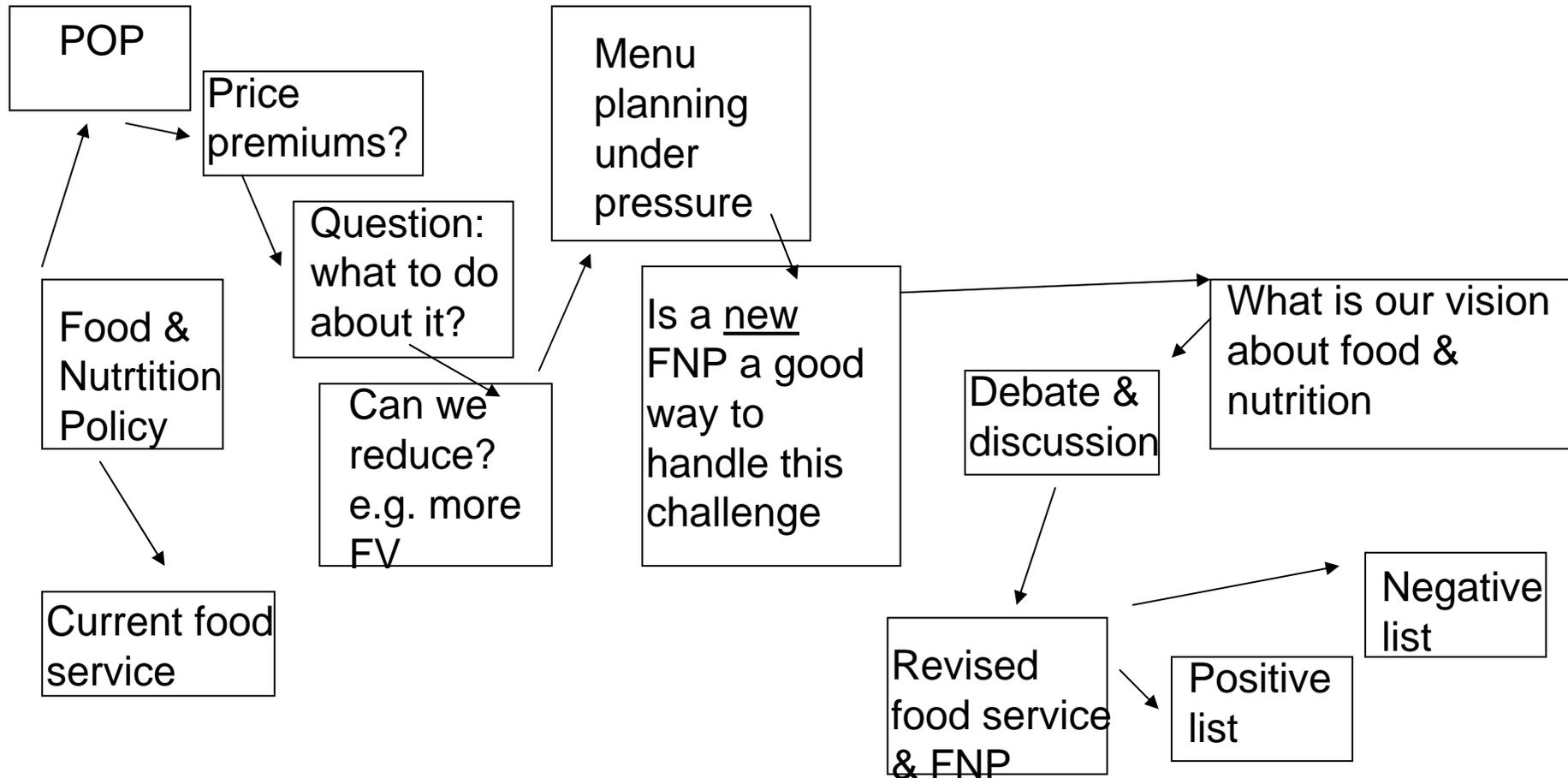
Conclusion

# Conclusion

- The POP schools are more likely to provide better environments for healthy eating.
- The POP schools are more likely to develop a comprehensive concept of nutritional issues for the pupils.
- The organic food policies at school seem to fit very well with the healthy eating strategies.
- *Remark: The result of research is **not** representative of all Danish schools.*

# What is the link between organic school supply and healthy eating

## an explanatory POP & FNP model



***Thank you!***