

and sustainable

# Implementing organic into dietary recommendations

## ALGOA Summit 2019

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and

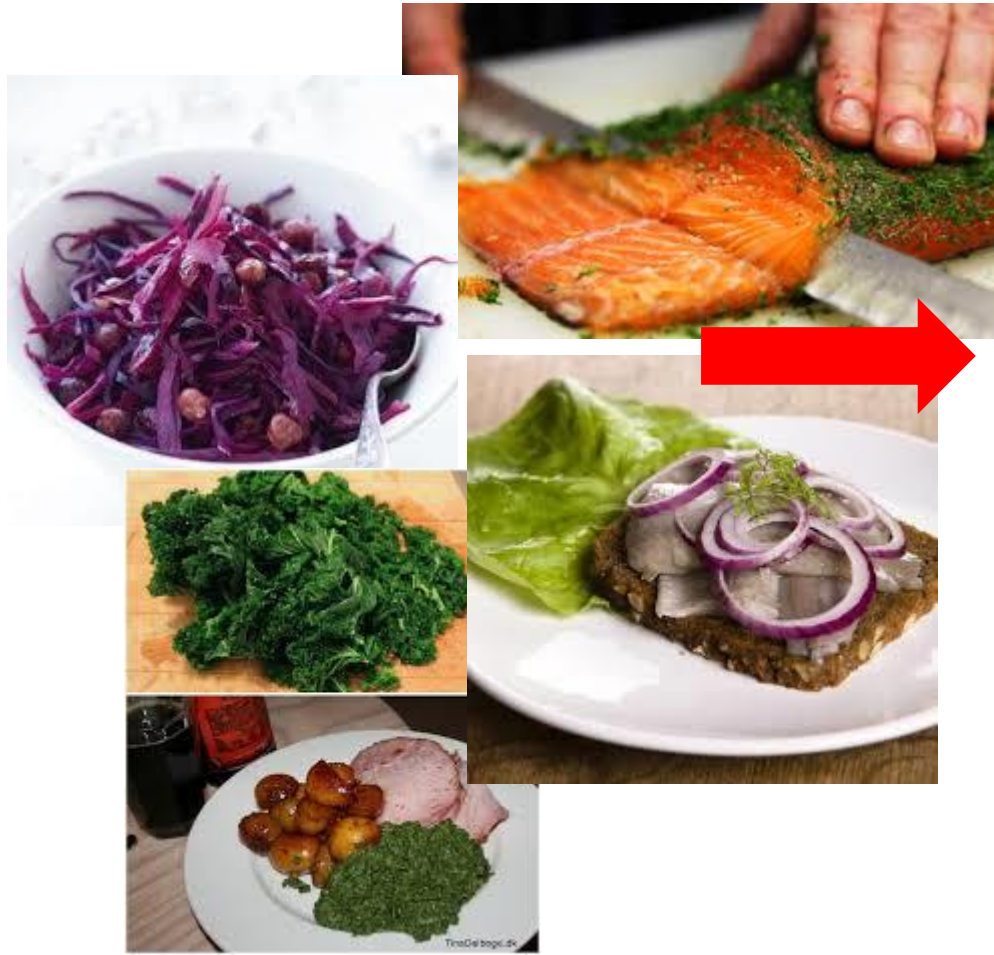
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KØBENHAVNS UNIVERSITET



ORGANIC FOOD SYSTEM PROGRAMME

# Non-gastronomical dietary transition since 1950



## New Nordic Kitchen Manifesto (2004)

**As Nordic chefs we find that the time has now come for us to create a New Nordic Kitchen, which in virtue of its good taste and special character compares favorable with the standard of the greatest kitchens of the world.**

- Hans Välimäki, Finland
- Leif Sørensen, Færøerne
- Mathias Dahlgren, Sweden
- Roger Malmin, Norway
- René Redzepi, Denmark
- Rune Collin, Greenland
- Erwin Lauterbach, Denmark
- Eyvind Hellstrøm, Norway
- Fredrik Sigurdsson, Iceland
- Gunndur Fossdal, Færøerne
- Hákan Örvarsson, Iceland
- Michael Björklund, Åland





## The New Nordic Diet

- **Rooted in the Nordic terroir**
- **Respects nature, sustainability and local quality**
- **Respects local culture**
- **Respects Nordic Nutrition Recommendations**

**Sustainable, Regional, Healthy and Organic**

# New Nordic and Mediterranean diets



- Both diets call for more
  - vegetables,
  - fruit,
  - whole grains,
  - fish and
- non-animal proteins.
- moderate consumption of
  - low-fat dairy,
- less meat and sweets, and
- avoidance of processed food.

New Nordic shares this Mediterranean thinking but utilizes the ingredients and flavors of a northern climate.

# The New Nordic Diet - guidelines

1. More fruits and vegetables (a lot more: berries, cabbage, root vegetables, pulses, potatoes and fresh herbs)
2. More food from the wild landscapes
3. More whole grain – especially oat, rye and barley
4. More food from the oceans and the lakes
5. Meat of a higher quality, but less
- 6. Choose organic whenever you can (at least 75%)**
7. More meals closer to nature
8. Throw less away



# Clinical trials with a Nordic diet

	SHOPUS Poulsen et al 2014	NORDIET Adamsson et al 2011	SYSDIET Uusitupa et al 2013	SYSDIMET De Mello et al 2011
Central methods	Ad libitum free food both groups 26w, n=181	Provision of free prepared food for ND 6w, n=88	Dietary advices. Few foods provided 18/24w, n=200	Dietary advices. Few foods provided 12w, n=106
Body weight	↓	↓	-	-
Systolic blood pressure	↓	↓	-	-
Diastolic blood pressure	↓	-	- (↓)	-
Triglyceride	↓	↓	-	-
Total cholesterol	↓	↓	-	-
HDL cholesterol	-	↓	-	-
LDL cholesterol	- (↓)	↓	-	-
LDL/HDL	-	↓	↓	-
Fasting glucose	↓	-	-	-
Insulin	- (↓)	↓	-	-
IS/IR indexes	- (↓)	↓	-	-

- ↓ Lower compared to control group
- No difference compared to control group
- No data

# NND is Supported by Nordic Council of Ministers



## New Nordic Food

The New Nordic Food programme aims at initiating, facilitating and coordinating activities grounded in the New Nordic Food manifesto from 2004. The Nordic Council of Ministers has been a part of this effort from the outset and this site both gives you an overview of past activities as well as visions for the future of Nordic Food.

# ...and by WHO



## HEALTH EVIDENCE NETWORK SYNTHESIS REPORT 58

What national and subnational interventions and policies based on Mediterranean and Nordic diets are recommended or implemented in the WHO European Region, and is there evidence of effectiveness in reducing noncommunicable diseases?

Jessica Renzella | Nick Townsend | Jo Jewell | João Breda | Nia Roberts | Mike Rayner | Kremlin Wickramasinghe

**MD: Associated with lower risk of Cancer, CVD, cognitive disease and type 2 diabetes**

**ND: Associated with lower risk of CVD and type 2 diabetes**

**But only 13 of 53 countries in the European region recommendations are based on MD or ND**

Renzella J, Townsend N, Jewell J, Breda J, Roberts N, Rayner M et al. What national and subnational interventions and policies based on Mediterranean and Nordic diets are recommended or implemented in the WHO European Region, and is there evidence of effectiveness in reducing noncommunicable diseases? Copenhagen: WHO Regional Office for Europe; 2018 (Health Evidence Network (HEN) synthesis report 58).


**May 2016: The Municipality of Copenhagen celebrates that  
90% of food in the Public Food service  
is now Organic**



Dyrk maden = Grow/worship food

# Food based dietary guidelines

Spis frugt og grønt  6 om dagen

Spis fisk og fiskepålæg  flere gange om ugen

Spis kartofler, ris eller pasta og fuldkornsbrød  hver dag

Spar på sukker  især fra sodavand, slik og kager

Spar på fedtet  især fra mejeriprodukter og kød

Spis varieret og bevar normalvægten 

Sluk tørsten i vand 

Vær fysisk aktiv  mindst 30 minutter om dagen

The Danish Ministry of Food, Agriculture and Fisheries have initiated the development of new **sustainable** food based dietary guidelines

## On the way to a healthier and more sustainable diet

Organic is  
more sustainable in relation to use of pesticides. but  
less sustainable in relation to yield per hectare

Martin & Brandao, 2017

Organic consumers tend to eat more Fruits and vegetables and less  
meat

(Baggesen *et al.*, 2015, Baudry *et al.*, 2017),

Trolle et al., E-artikel fra DTU Fødevareinstituttet, nr. 1, 2019

# Organic food consumption and health impacts in the French NutriNet-Santé cohort



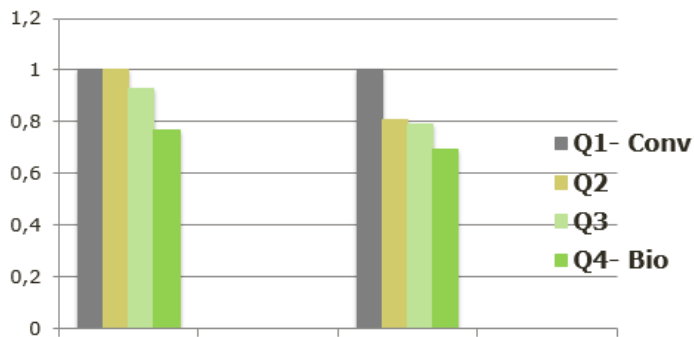
The **NutriNet-Santé cohort, 2009** → :To investigate the relationships between **Nutrition** (*nutrients, foods, dietary patterns, physical activity, nutritional status*) and **Health outcomes**.

- ✦ A web-based prospective study - Follow-up : > 10 years
- ✦ Volunteers aged  $\geq 18$  years : (about 180 000)
- ✦ Biochemical samples and clinical examination in a subsample (> 20 000 subjects for blood and urine)
- ✦ Record of health events during the follow-up.

# NutriNet Santé results:

$\delta = -23\%$

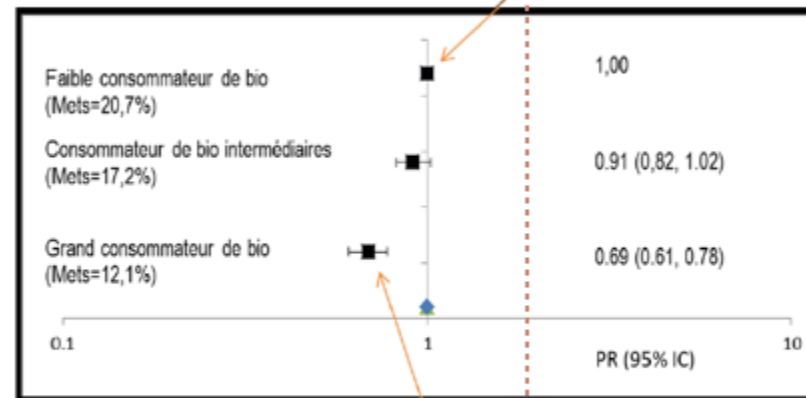
$\delta = -31\%$



**Overweight Obesity p trend < 0.001**

(Kesse-Guyot E, ..., & Lairon D; Br J Nutr, 2017),

## Metabolic syndrome

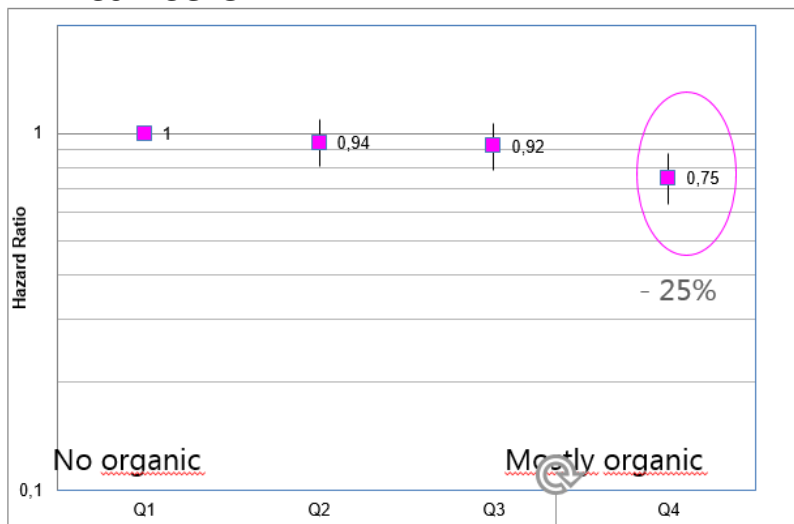


Probabilité de 1: référence

Probabilité de 0.69: 31% de réduction

(Baudry, ..., Kesse-Guyot; Eur J Nutr 2017)

## All cancers



P-trend=0,001

- 25%

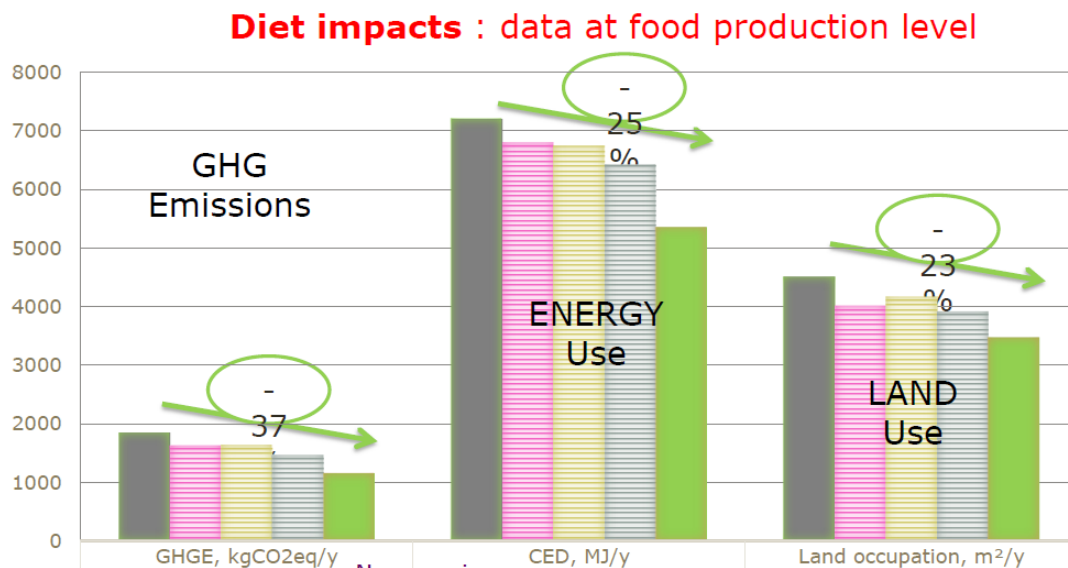
Models adjusted on sociodemographics, life style, dietary intakes, etc.

Baudry et al., 2018, JAMA Int Med

# Improvement of diet sustainability with increased level of organic food in the diet: findings from the BioNutriNet cohort

Julia Baudry,<sup>1</sup> Philippe Pointereau,<sup>2</sup> Louise Seconda,<sup>1,3</sup> Rodolphe Vidal,<sup>4</sup> Bruno Taupier-Letage,<sup>4</sup> Brigitte Langevin,<sup>2</sup>  
 Benjamin Allès,<sup>1</sup> Pilar Galan,<sup>1</sup> Serge Hercberg,<sup>1,5</sup> Marie-Josèphe Amiot,<sup>6</sup> Christine Boizot-Szantai,<sup>7</sup> Oualid Hamza,<sup>7</sup>  
 Jean-Pierre Cravedi,<sup>8</sup> Laurent Debrauwer,<sup>8</sup> Louis-Georges Soler,<sup>7</sup> Denis Lairon,<sup>9</sup> and Emmanuelle Kesse-Guyot<sup>1</sup>

## Organic diet and Environnement (n= 28 245)



**Conclusions:** Diets of high organic food consumers were generally characterized by strong nutritional and environmental benefits. The latter were mostly driven by the low consumption of animal-based foods, whereas the production system was responsible for the higher diet monetary costs, and the overall reduced dietary pesticide exposure. *Am J Clin Nutr* 2019;109:1173–1188.

## Organic consumers (NutriNet Santé) - Conclusion

- specific socio-demographic characteristics (higher education level, more physical activity, less smoking; less low income) with a healthier dietary pattern (more plant food-based) and closer to the healthy Mediterranean diet model, better fitting food-based and nutritional recommendations
- they are markedly less overweight and obese (men & women) and have a significantly reduced probability of cardiovascular risk (MetS) and cancers.
- they consume much less pesticides-contaminated foods, have significantly less pesticide residues in urines, and have less impact on natural resources and GHEs.

9. January 2019

New National Dietary Guidelines for FRANCE was released by the French Public Health

Among the new Guidelines was:

- reduce red meat, **processed** meat and dairies
  - increase all **unrefined** plant foodsand
- **choose preferentially organic plant foods.**



I 2016 only 4 countries specifically mentioned sustainability in their Food based dietary guidelines

Since then several countries have followed and more underway

France the first country to mention "Organic as often as possible"

Maybe more to come???

Thank you for your attention

