

The role of legumes in the Planetary Health Diet

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Creating value from legumes -seminar

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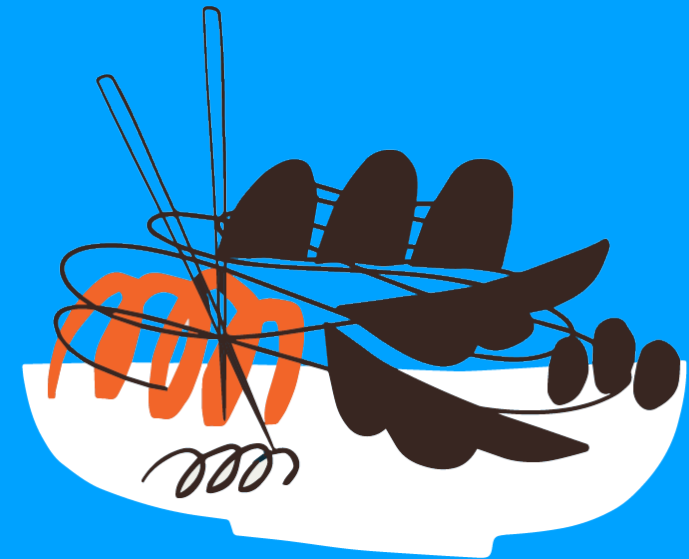
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Content of the talk

- What is the planetary health diet? Where does it come from?
- Role of legumes in the planetary health diet
- How is the Finnish situation with legume consumption? Does increasing legume use help us towards a planetary health diet or a more sustainable diet in general?

Planetary Health Diet



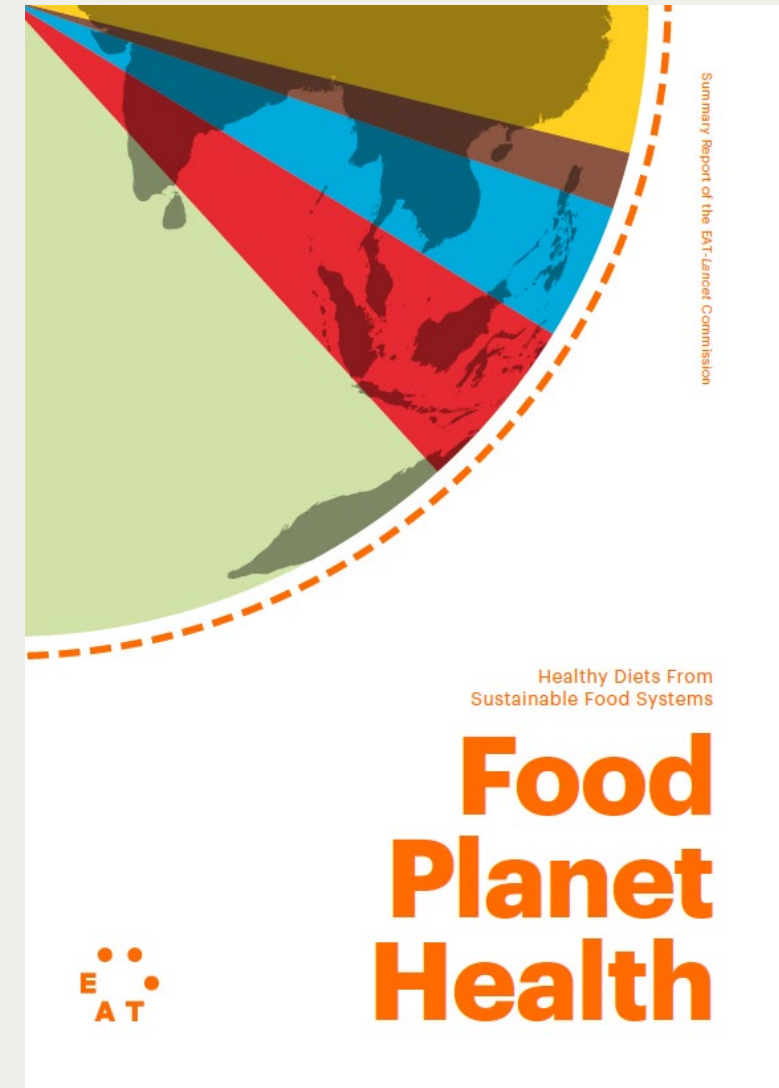
What is the Planetary Health Diet?

- **A reference diet** for promoting health through diets from sustainable food production
- The concept was published last year in **Lancet** (2019;393:447–92)
- The work was carried out by the Eat-Lancet Commission 37 scientists with multidisciplinary background from 16 different countries
- The work was funded by the Wellcome Trust and EAT (specifically funding from the Wellcome Trust and Stordalen Foundation)
- <https://eatforum.org/eat-lancet-commission/>

Background for the Planetary Health Diet 1

Huge nutrition-related problems globally

- 1) Lack of food, 820 million people affected
World's population is growing, 10 billion people by year 2050
- 2) Overnutrition & obesity epidemic
 - chronic diseases such as CVD, T2D, cancer



Background for the Planetary Health Diet 2

- **Our food production pushes planetary boundaries,** contributes to greenhouse emissions and climate change
- Paris Agreement
- UN Sustainable Development Goals (e.g. less hunger, more health, fresh water and sanitation to all etc.)



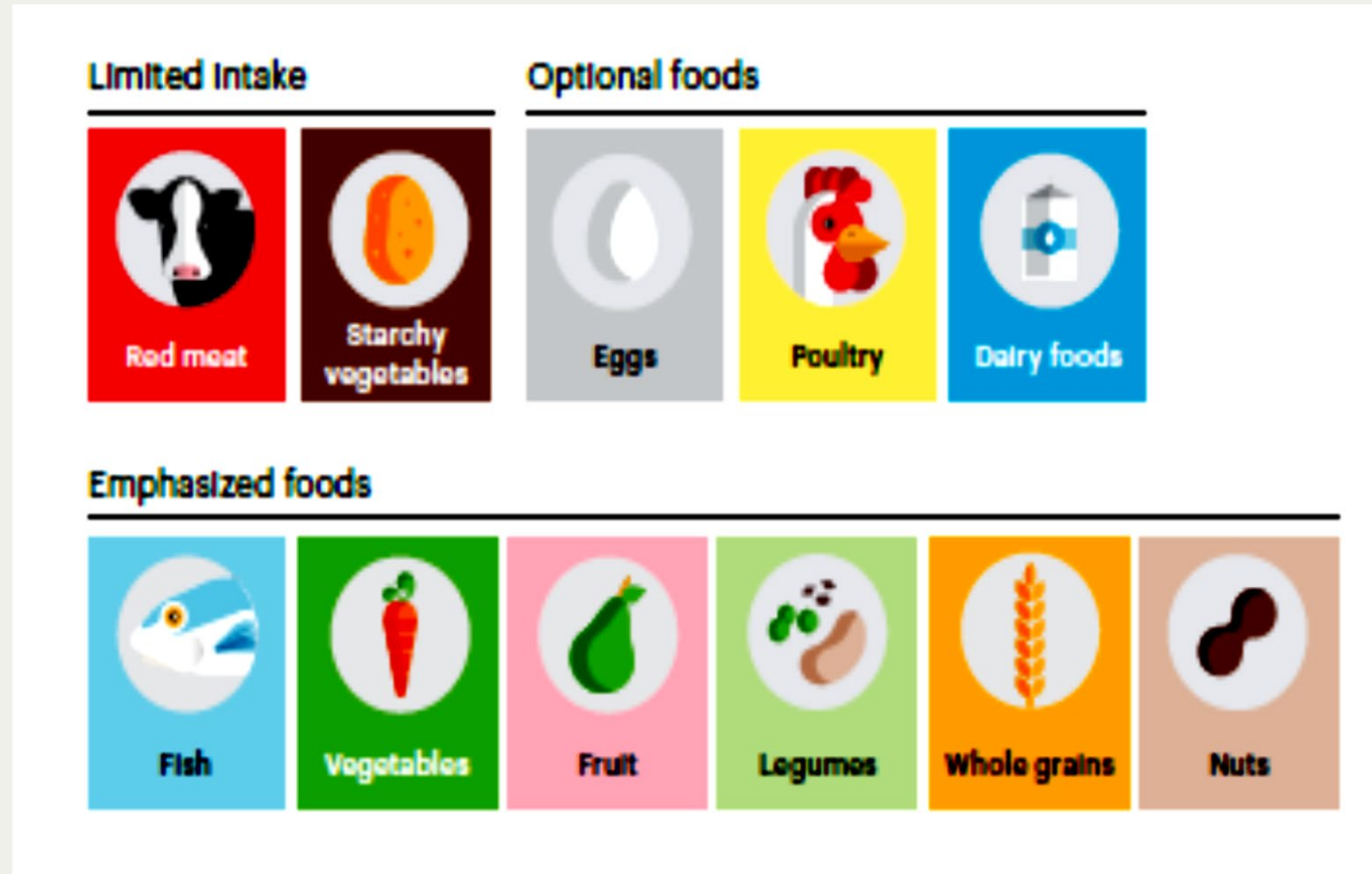
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Combining the health of the planet & its inhabitants = Planetary Health Diet

- A universal healthy reference diet
- Based on current scientific evidence on foods, dietary patterns and their association to health outcomes
- Aims
 - to ensure enough food for the growing population of the planet and to reduce the burden of chronic diseases
 - to mitigate climate change and promote the transition to more sustainable food systems

Overview of Planetary Health Diet

- Doubling the consumption of fruits, vegetables, legumes and nuts
- Reducing at least 50% of the consumption of red meat and added sugars (starchy vegetables)



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What does Planetary Health Diet look like?

- A flexitarian diet
- Largely plant-based but can include modest amounts of fish, meat and dairy products
- Gives ranges for amounts of foods to be used daily
- Use of animal source foods needs to be considered taking into account local and regional realities




Ranges for amounts of foods

- The amounts are calculated for an average daily energy intake of 2500 kcal
- A reference value & range for consumption for different food groups
- Some flexibility for adapting to different food cultures and practices



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Macronutrient intake grams per day (possible range)

	Whole grains Rice, wheat, corn and other	232
	Tubers or starchy vegetables Potatoes and cassava	50 (0–100)
	Vegetables All vegetables	300 (200–600)
	Fruits All fruits	200 (100–300)
	Dairy foods Whole milk or equivalents	250 (0–500)
	Protein sources Beef, lamb and pork Chicken and other poultry Eggs Fish Legumes Nuts	14 (0–28) 29 (0–58) 13 (0–25) 28 (0–100) 75 (0–100) 50 (0–75)
	Added fats Unsaturated oils Saturated oils	40 (20–80) 11.8 (0–11.8)
	Added sugars All sugars	31 (0–31)

Legumes in Planetary Health Diet & Finnish situation

Legumes in Planetary Health Diet

Protein sources	
	Beef, lamb and pork 14 (0–28)
	Chicken and other poultry 29 (0–58)
	Eggs 13 (0–25)
	Fish 28 (0–100)
	Legumes 75 (0–100)
	Nuts 50 (0–75)

Legumes 75 g/d

- 50 g dry weight per day of beans, lentils, and peas
- 25 g/day of soy beans

Legumes – nutritional considerations

- ❑ Good source of proteins
- ❑ Good source of dietary fibre
- ❑ Good sources of folate
- ❑ Varying amounts of carotenoids and vitamin K
- ❑ Relatively low in energy, fat composition favourable (contains unsaturated fatty acids)



Legumes – health considerations

- Legumes reduce LDL-cholesterol and blood pressure in clinical trials, decreasing risk of CVD
- Legumes are sources of dietary fibre and phytoestrogens and associated with reduced risk of colorectal and breast cancer in some studies
- Legumes may attenuate postprandial glucose and insulin response, and contribute to satiety, thus having benefit for dealing with T2D and healthy weight maintenance

Finnish situation – dietary protein sources

Protein intake, Finnravinto 2017 (adults 18-74 y)

- ❑ Men 98 g/day, 18 E%
- ❑ Women 73 g/day, 17.5 E%
- ❑ Animal-derived protein (mostly meat and milk)
Men 69%, women 66%
- ❑ Plant-derived protein (mostly from grain products)
Men 31%, women 34%
- ❑ Consumption of legumes is insignificant (around 10g/d),
as protein source legumes contribute 2-3 E%

Next step - Increasing legume consumption

- 1/3 Finnish women and 2/3 Finnish men consume red meat more than is recommended in current dietary guidelines (no more than 500 g per week)
- We can afford to reduce red meat consumption at least to the level recommended in our dietary guidelines
- This is still far from the upper limit of around 200 g given in the planetary health diet
- It would be natural to increase legume consumption to partly replace red meat in a Finnish diet
- 'Finnish' legumes: pea, faba bean, lupin

Summary

- The Planetary Health Diet is a reference diet aiming at promoting human health as well as more sustainable food system
- Legumes have an important role in the Planetary Health Diet as a plant-protein source
- Whether or not we consider PHD feasible to Finnish situation, we should aim to increase our legume consumption, it would benefit health and help moving towards more sustainable food system

Thank you for your attention!

