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Joint Action Prevent Non-Communicable Diseases

WP 9 Health in All policies (HiAP)

The drivers of food supply chain, dietary patterns, and food choices

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Health in All Policies (HiAP)

Health in All Policies (HiAP) is an approach to public policies that systematically considers the health, health equity and health systems impact of policies across sectors and seeks synergies to improve population health and health equity. By embedding health considerations into all areas of policy, HiAP helps to **prevent disease rather than just treat it**, **save healthcare costs** over time due to prevention, and **promote social justice and equity**.

Dietary patterns, drivers of dietary choice, and sustainability of food system practices must emphasise on **transitioning food systems from feeding people cheaply to nourishing people sustainably**. The food supply chain should be the focus of analysis and intervention, and we should identify the **drivers and different incentives faced by the food supply chain**. There are many points to intervene at the food supply chain to include “health in all policies” for food system transformation.

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Agricultural Policies

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- **Agricultural policies** influence **food availability**:

➡ changes in availability are not just relevant for the final food consumers, but for the food consuming industries, with the latter becoming more important as the primary consumers of agricultural products.

- **Agricultural policies** influence **food affordability**:

➡ agricultural policies implemented as part of market liberalisation have influenced farmgate prices (both up and down), so creating an incentive for the food consuming industries to substitute for the lower priced product, with implications for the nutritional quality and content of foods available in the consumer marketplace, but with no implications on food retail prices.

- **Agricultural policies** influence **food acceptability**:

➡ changes in agricultural policies have created an enabling environment for food consuming industries to add "value" through product innovation and marketing, creating a market characterised by highly differentiated products which are targeted to individualised preferences, thus creating apparent "value" for consumers and increasing the acceptability of a wider variety and quantity of food.

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Points of Intervention to Prevent Non-Communicable Diseases (NCDs)

Multi-component interventions tend to be the most effective

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1) Subsidies for producing fruits & vegetables (**availability** for the food sector & consumers)
2) Policies for **affordability** of healthy foods
3) Policies for **acceptability** of healthy foods (combination of price & quality for consumers)

1) Regulation of unhealthy foods marketing
2) Urban planning & environmental changes
3) Incentives & grants for healthy food retailers
4) Product placement & layout of healthy foods
5) Pricing strategies & variety of healthy foods

Production → **Processing** → **Distribution & Retail** → **Food Consumption** → **Prevent NCDs**

1) Excise taxes to promote health policy (tax on foods high in fat, salt, and sugar)
2) Reformulation of processed foods (nutrient targets & portion control)
3) Development of health-conscious snacks & foods in the private (food industries) and public (research institutions) sectors

1) Menu & front-of-pack nutrition labelling
2) Banning unhealthy foods in schools
3) Subsidies for purchasing healthy foods
4) Mass & social media campaigns & education
5) Monitoring & accountability systems
6) Nudges from social norms & government (culturally acceptable, tasty, convenience)

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Nutrition Transition

The role of surplus grain production in Europe

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- The huge surplus in grain production—especially in the post-World War II era—played a key role in driving both: the high levels of industrial livestock production, and the rise of ultra-processed foods (UPFs). UPFs refers to processed foods containing high sugar, salt, saturated and trans- fatty acids as well as sugar-sweetened beverages and energy drinks that are nutritionally poor, energy-dense, and associated with increased disease risk.
- This excess grain was redirected to feed livestock, which lowered the cost of meat, dairy, and eggs as well as enabled the rise of large-scale, industrial animal farming. As a result, grain-fed beef, chicken, and pork replaced more traditional, plant-based diets. Animal-sourced ultra-processed foods like hot dogs, deli meats, chicken nuggets, and processed cheese became cheap and prevalent.
- Surplus grains became the raw material base for the food processing industry. Surplus grains are used to create refined flours, corn syrup, glucose, maltodextrin, starches, emulsifiers, and texturizers. These ingredients are the building blocks of UPFs, including sugary cereals, snack bars, baked goods, ready meals, and soft drinks.
- From whole grains to empty calories: rather than being eaten as whole grains, the surplus was transformed into calorie-dense, nutrient-poor products. These foods are cheap, long-lasting, and highly profitable—driving their mass production and global spread.

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Nutrition Transition
The role of surplus grain production in Europe

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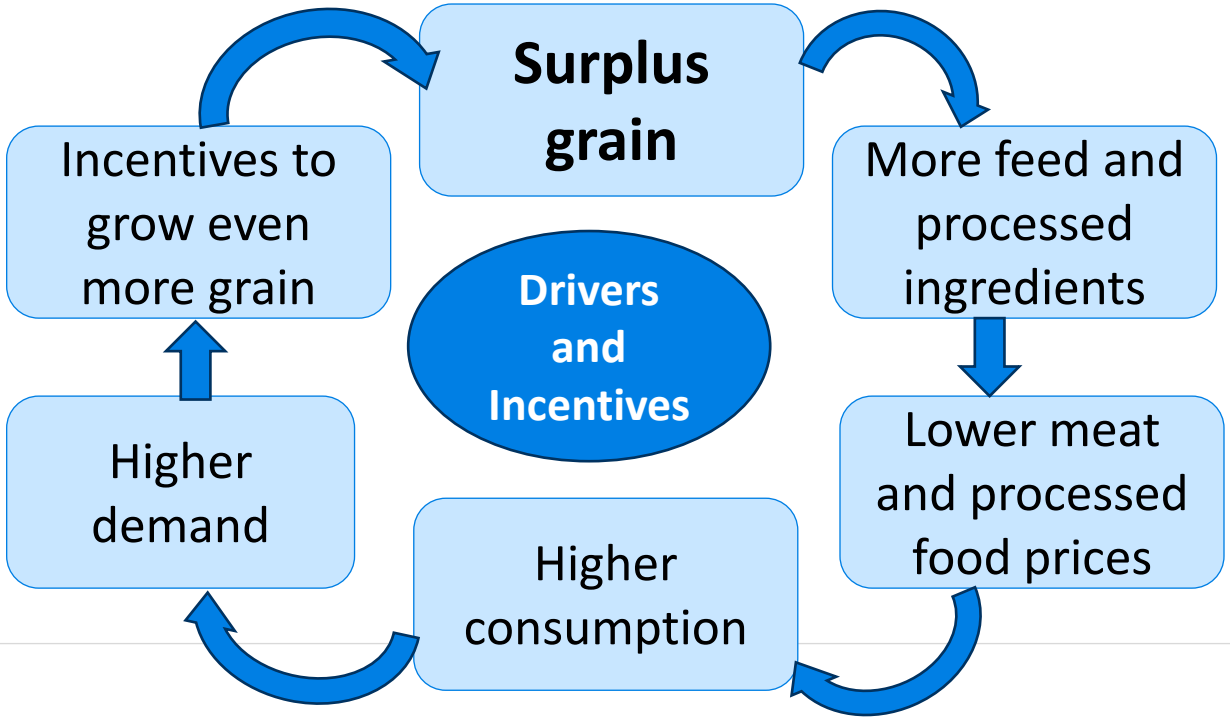
- Economic and policy drivers: subsidies in the EU, US, and other regions supported the mass production of commodity crops (e.g., maize, soybean, wheat). These policies distorted food systems, making it cheaper to produce and consume animal-derived and processed foods than fresh fruits, vegetables, or legumes.
- The replacement of staple cereal grains (like rice, wheat, maize, and millet) by ultra-processed foods (UPFs) is a result of multiple social, economic, and policy-driven shifts over the past decades. This transformation is particularly evident in both urban and rural areas; thus, it has deep implications for health, food culture, and sustainability.



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Nutrition Transition
Key Drivers of the Shift to Ultra-Processed Foods (UPFs)

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- **Urbanisation and Time Constraints**

  Urban living and dual-income households result in less time for home cooking, leading to increased consumption of pre-packaged UPFs.

- **Modern Retail Systems**

  The expansion of supermarkets and discount stores (e.g., Lidl, Aldi) has made UPFs cheap, abundant, and accessible.

  Fresh, minimally processed foods—like legumes, whole grains, and fresh produce—are less promoted.

- **Aggressive Marketing**

  UPFs are heavily advertised, especially to children and adolescents, promoting brand loyalty and habitual consumption.

- **Cultural Homogenisation**

  Traditional food practices are being eroded as global brands and fast-food chains standardise diets across Europe.

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Ultra-Processed Foods
History of Ultra-Processed Foods

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Early Industrial Roots (19th–Early 20th Century)

Industrial Revolution (late 1800s):

- Mechanised food production began—canned foods, refined flour, and sugar became more widely available.
- Food preservation techniques (e.g., pasteurisation, canning) were developed to support urbanisation and longer supply chains.

World Wars (1914–1945):

- Demand for long-lasting, easily transportable foods led to innovations like powdered milk, instant coffee, and canned meats (e.g., luncheon meat).
- The military's need for non-perishable food accelerated the development of highly processed food technologies.

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Ultra-Processed Foods
History of Ultra-Processed Foods

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Post-War Boom and Convenience Culture (1945–1970s)

Rise of supermarkets and mass marketing:

- Packaged and branded processed foods flooded the market—breakfast cereals, frozen meals, soft drinks, and snack foods.
- Convenient and pre-made meals became symbols of modern convenience for the growing middle class.

Additives and preservatives:

- Use of synthetic colours, flavours, emulsifiers, and preservatives grew to improve shelf life, taste, and appearance.
- Highly processed foods were marketed as modern, hygienic, and time-saving.

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Ultra-Processed Foods
History of Ultra-Processed Foods

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Food Engineering and Global Expansion (1980s–2000s)

Food science breakthroughs:

- Introduction of high-fructose corn syrup (HFCS), flavour enhancers, and hydrogenated oils enabled the creation of hyper-palatable, energy-dense foods.

Global spread of fast food and packaged snacks:

- Brands like McDonald's, Coca-Cola, Nestlé, and PepsiCo expanded globally, making UPFs accessible worldwide.
- Supermarkets and convenience stores prioritised shelf-stable, processed products.

Diet culture and low-fat trends:

- "Diet" and "light" processed foods became popular, often replacing fat with sugar or artificial sweeteners—leading to a different kind of ultra-processing.

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Ultra-Processed Foods

How ultra-processed foods (UPFs) are providing cheap calories?

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1. *Industrial Efficiency and Economies of Scale*

- Mass production of food ingredients like refined flour, sugar, vegetable oils, and corn syrup enables producers to manufacture large quantities at low cost.
- Food companies combine these with chemical additives (flavourings, preservatives, emulsifiers) to create shelf-stable, hyper-palatable products.

2. *Low-Cost Raw Materials*

- Many UPFs are based on subsidised commodity crops such as corn, soybean, wheat, and sugar.
- These inputs are processed into cheap ingredients that make high-calorie and low-nutrient foods inexpensive.

3. *Long Shelf Life and Global Supply Chains*

- UPFs are designed to be stored and shipped cheaply without refrigeration.
- This reduces costs for manufacturers, retailers, and consumers—making them more widely available, especially in urban and low-income areas.

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Corporate Food Regime
Key Features

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Consolidation of Power

- A few multinational corporations dominate each stage of the food supply chain—from seeds and inputs (e.g., Monsanto/Bayer, Syngenta) to food processing and retail (e.g., Nestlé, PepsiCo, Walmart).
- This limits competition and often undermines small-scale farmers and local food businesses.

Global Commodity Markets

- Food is treated primarily as a tradable commodity, not a basic human right or cultural good.
- The system prioritises export-oriented agriculture over food sovereignty or self-sufficiency.

Industrial Agriculture

- Emphasis on large-scale monoculture, intensive livestock production, and use of synthetic fertilisers and pesticides.
- Often results in environmental degradation, biodiversity loss, and high greenhouse gas emissions.

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Corporate Food Regime
Key Features

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Dependence on Fossil Fuels and Technology

- Heavily reliant on fossil fuels for production, processing, and transportation.
- Increasing use of biotechnology, GMOs, and precision agriculture—often controlled through patents and proprietary technologies.

Labor Exploitation and Displacement

- Agricultural workers and smallholders frequently experience poor labour conditions, low wages, and displacement due to land grabs and corporate expansion.

Policy Influence

- Corporations shape food and trade policies through lobbying, trade agreements, and partnerships with international institutions.

The corporate food regime has driven the proliferation of ultra-processed foods (UPFs) and affected consumers' nutritional and health outcomes. The corporate food regime's promotion of UPFs has flooded markets with calorie-dense, nutrient-poor products that contribute directly to the rise of obesity and NCDs. This impact operates through engineered nutritional profiles, aggressive marketing, and structural manipulation of research and policy environments.

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Corporate Food Regime
Power dynamics within the corporate food regime

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Structural Power: Market Concentration & Control of Governance

- *Hyper-consolidation of markets*
  A small number of transnational corporations (e.g., Nestlé, Coca-Cola, PepsiCo, Unilever) dominate global food systems—from ingredients to retail. This intense market concentration grants them immense economic leverage that spills into political influence.

- *Corporate networks within governance spaces*
  Major UPFs corporations and their industry associations hold coordinated positions across multilateral, regional, and national policymaking arenas. They embed themselves through public–private partnerships, board memberships in global food institutions, and alliances with major stakeholders—effectively shaping rules and norms at the supranational level.

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Corporate Food Regime

Power dynamics within the corporate food regime

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Instrumental Power: Lobbying, Political Access & Legal Influence

- *Direct lobbying and campaign financing*
  UPFs firms systematically lobby governments to resist public health policies—taxes, labelling rules, marketing restrictions—both behind the scenes and publicly.
- *Revolving doors*
  Executives regularly move between industry and government roles, embedding corporate interests within regulatory bodies and blurring lines of accountability.
- *Legal threats & lawsuits*
  Companies have used litigation to challenge and discourage regulation—mirroring tactics from the tobacco industry's policy dystopia model.

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Corporate Food Regime
Power dynamics within the corporate food regime

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Discursive Power: Framing Public Narratives & Scientific Discourse

- *Capture of scientific research*
  UPFs corporations sponsor studies, front groups, and nutrition networks to cast doubt on the health harms of their products. For instance, Coca-Cola funded the Global Energy Balance Network to shift blame for obesity toward sedentary lifestyles rather than sugar consumption.

- *Marketing power & information asymmetry*
  These firms craft messages framing UPFs consumption as a matter of personal choice and convenience or promoting self-regulation over governmental intervention. Their marketing budgets often surpass those of tobacco and alcohol sectors combined, reinforcing brand dominance.

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Corporate Food Regime
Power dynamics within the corporate food regime

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Strategic Market Power: Barriers & Ecosystem Control

Processed food giants deploy market strategies to

- limit competition via mergers and acquisitions
- raise entry barriers for new firms
- dominate supply chains (from suppliers to retailers)
- exploit consumer informational asymmetry with superior branding and marketing

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Corporate Food Regime
Power Matrix Overview

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Power Type	Mechanism	Impact on UPFs Supply
Structural	Market consolidation, corporate roles in governance	Prevents regulation, maintains dominance
Instrumental	Lobbying, revolving doors, lawsuits	Blocks taxes, labelling, public-health policies
Discursive	Control of nutrition science and public narrative	Sows doubt, shapes norms toward UPFs consumption
Market Strategies	Mergers & Acquisitions, supply chain dominance, branding, & public relations	Ensures widespread penetration & preference for UPFs

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Future Food Systems

Why it is difficult to make major changes in policies within the public and private sectors?

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* Policy actions on food, health, agriculture, and climate are generally managed separately – **there is a need for 'Health in All Policies' and not working in silos**. It is critical to convince relevant policy makers to embed the importance of sustainable and healthy diets to their respective policy agendas, plans, and strategies.

* Competing priorities for i) governments who must make difficult policy choices with financial constraints, ii) private companies making investment choices on product portfolios or retail strategies, and iii) households making food-purchase choices.

* Uncertainty and mistrust in scientific evidence which is exacerbated by political polarisation and social media. **Improvements are required for research to better support policy decisions**. **There is too much research that fails to meet the most pressing needs of policy makers, especially in relation to managing policy trade-offs and costs**.

* Therefore, **interdisciplinary perspectives are truly needed** to address the diversity and complexity of the food systems.

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Thank you!

More information is available at the JA PreventNCD website:

https://preventncd.eu/

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Open discussion session

Main conclusions

- Move from "feeding people cheaply" to "feeding people sustainably" and increase the consumption of healthy and nutritious foods
- Stronger political leadership in Europe to reform the food systems
- Future EU Common Agricultural Policy (CAP) integrating public health and sustainability
- Reduce corporate power/political activity in the food system

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Co-creation workshop in Helsinki on Monday, 10 November 2025

Please register to the co-creation workshop!

Workshop "Health in all policies to transform the food system: Co-creating synergistic approaches between food environments and food systems at the European level"

The workshop will take place at the Finnish Institute for Health and Welfare (THL), Mannerheimintie 166, Helsinki, Finland.

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