



Nutritionism, Big Food and the Corporate Capture of Nutrition

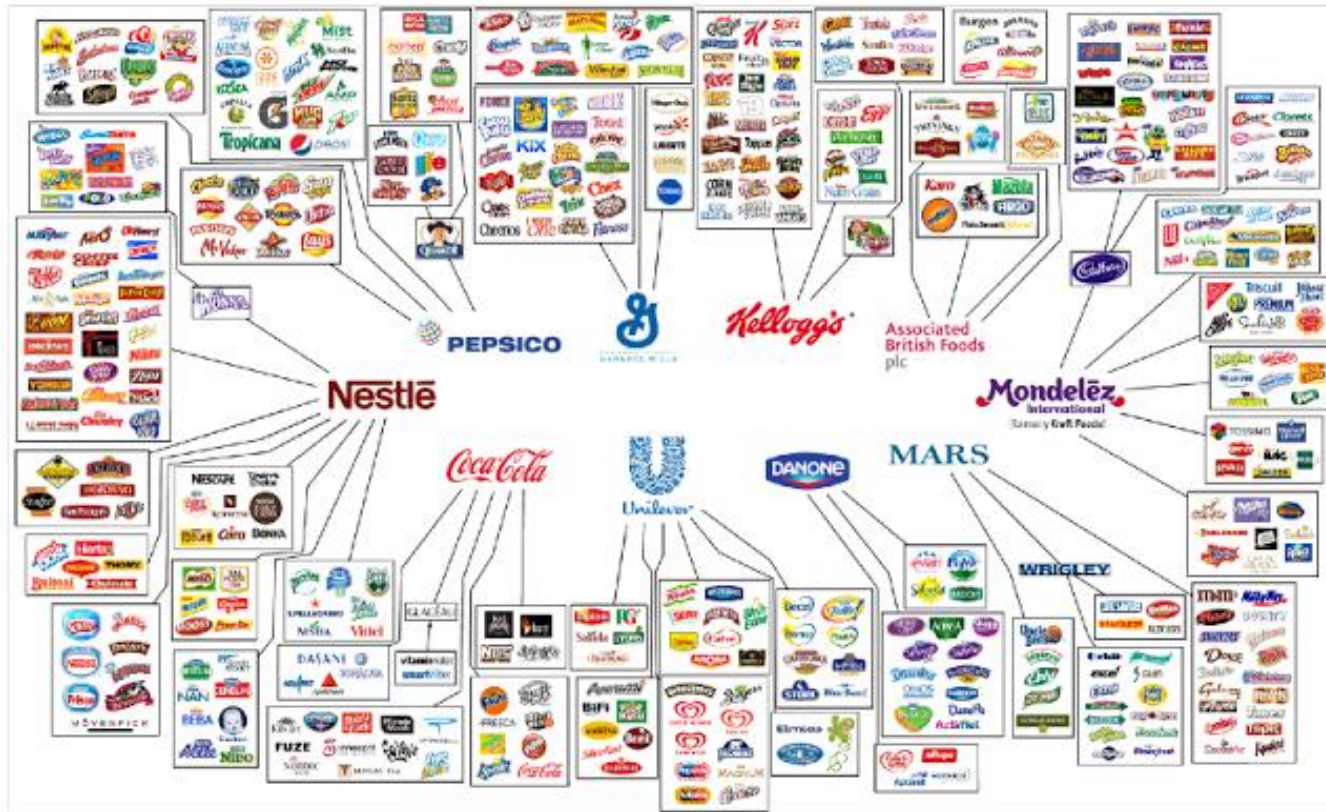
Dr Gyorgy Scrinis

CUNY, November, 2016



- Corporate responses to health concerns
- Nutritionism/ Nutritional Reductionism
- Fortification, Reformulation, Functionalization
- Corporate appropriation/capture of nutrition

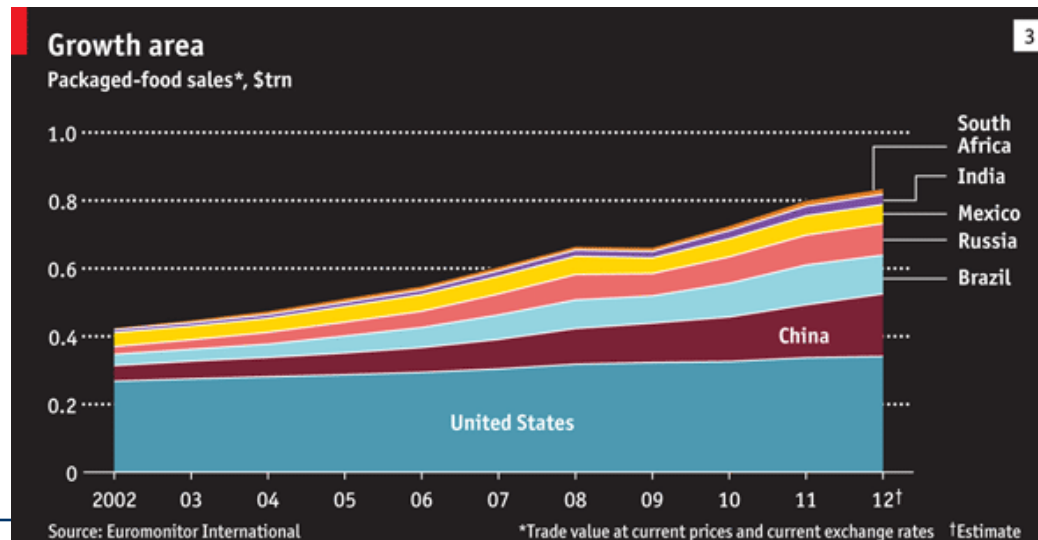
Big Food –Corporations producing processed foods and beverages



- Packaged food and beverage corporations
- Fast-food corporations



- Top 10 Manufacturing Corps.
 - Control 26% of global market for packaged foods & *drinks* (ETC Group 2008)
- Coke and Pepsi: 40% of global soft drink market
- Global packaged food sales up 92% past decade to \$2.2 trillion (3-4 times in China, Brazil, India..)





Growing the Pie and Reformulating the Pie

- Nestlé's sales in the South
 - Asia, Oceania and Africa increased 24% in 2012
 - India doubled 2007-2012
- Nestlé Ate Voce (Nestle comes to you):
 - Floating supermarket up the Amazon to isolated communities (ice cream, milk formula)



- **Market Pressures**
 - Whole/fresh food movement
 - Demand for better quality foods
- **Regulatory/Policy Pressures**
 - Public health impacts
 - Sugar taxes
 - Front-of-pack labelling
 - Junk food advertising to children
 - Wholefood dietary guidelines
- **Civil Society Pressures**
 - Obesity, children's advertising & school food campaigns

BUSINESS

Why sales of packaged or processed foods are declining

By Annie Baxter

March 11, 2015 | 11:00 AM





Big Food's Negative Responses to Health Concerns

- Denying corporate responsibility
- Promote personal responsibility
- Lobbying/public campaigns against government regulations
- Funding counter nutrition studies
- Sponsoring front groups
- Funding/co-opting expert groups

- *New York Mayor Bloomberg: Soda size campaign proposal to limit the size of sugary beverages sold in food service establishments to 16 ounces*





Big Foods' Positive Responses to Health Concerns

- Better nutrition labelling information (*calories, thumbnails*)
- Voluntary limits on marketing to children
- Promote physical activity
- **“Healthier” products**
 - Reformulation
 - Fortification
 - Functionalization
- Buying out start-up healthy food brands
- Big Food is **“Part of the Solution”**
 - to over-consumption, under-nutrition & specific health concerns





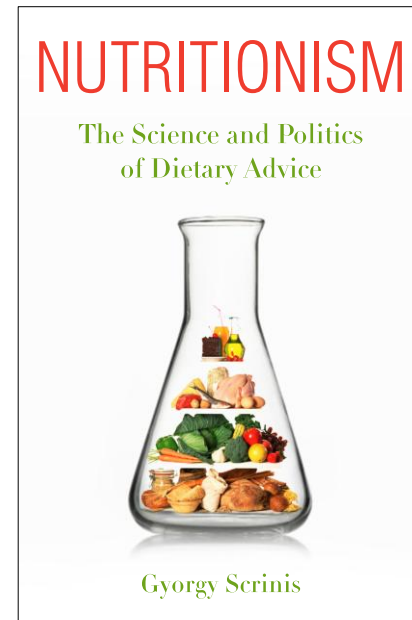
- Corporate Social Responsibility (CSR)
- **Legitimation Crisis (emerging)**
 - For Processed Foods & for Big Food corporations
- Threat of direct/mandatory government **regulation**
- Health **crisis as opportunity** rather than threat
- Primary message: **Keep on eating**, or eat more, of their packaged/fast foods
- Global **North**
 - Maintain sales; shift to premium products
- Global **South**
 - Continue to grow sales (Nutrition Transition)



- **Reformulation**
 - **Reducing ‘bad’ nutrients:** sugar, salt, saturated and trans-fats, calories
 - Minimising harmfulness of processed foods
- **Fortification**
 - **Adding basic nutrients:** vitamins & minerals
 - Address micronutrient deficiencies
- **Functionalization**
 - **Adding health-enhancing nutrients:**
 - omega-3 fats, antioxidants, protein
 - Optimal nutrition, enhanced health
- **Old strategies in new forms**
- Nutrient-focused strategies: nutritionism



- Nutritional Reductionism:
 - Reductive **focus** on nutrients
 - Reductive **interpretation** of nutrients
- Nutritionism as dominant paradigm/
ideology
- Limitations:
 - Limitations of nutricentric knowledge
 - Undermines and contradicts other levels
and ways of understanding the food-
health relationship
 - Easily translated into/captured by
nutritional engineering and marketing





Levels of Engagement with Food

- **Nutrient Level**
 - 2 Forms of Nutritional Reductionism
 - **Nutrient-Level Reductionism**
(Nutrition Panel, nutrient profiling)
 - **Single-Nutrient Reductionism**
 - Eat less fat, eat more calcium
- **Food Level**
 - Type of food
 - Level of processing of food
- **Dietary-Pattern Level**
 - Food combinations
 - Dietary patterns
 - Traditional diets/cuisines

Nutrition Information (AVERAGE)
servings per package - 15
average serving size - 30g (1 metric cup†)

	quantity per serving	% daily intake ▲ per serving	per serve with 1/2 cup skim milk	quantity per 100g
ENERGY	470 kJ	5%	670 kJ	1580 kJ
PROTEIN	2.3 g	5%	7.0 g	7.8 g
FAT, TOTAL	<0.1 g	0.1%	0.2 g	0.2 g
- SATURATED	<0.1 g	0.1%	0.1 g	<0.1 g
CARBOHYDRATE	24.9 g	8%	31.4 g	82.9 g
- SUGARS	2.4 g	3%	8.8 g	7.9 g
DIETARY FIBRE	1.0 g	3%	1.0 g	3.3 g
SODIUM	216 mg	9%	273 mg	720 mg
POTASSIUM	28 mg	-	234 mg	93 mg
		% RDI*		
THIAMIN (VIT B1)	0.28 mg	25%	0.33 mg	0.92 mg
RIBOFLAVIN (VIT B2)	0.4 mg	25%	0.7 mg	1.4 mg
NIACIN	2.5 mg	25%	2.6 mg	8.3 mg
VITAMIN C	6 mg	15%	7.3 mg	20 mg
FOLATE	100 µg	50%	106 µg	333 µg
IRON	3 mg	25%	3.1 mg	10 mg
ZINC	1.8 mg	15%	2.3 mg	6 mg

† Cup measurement is approximate and is only to be used as a guide. If you have any specific dietary requirements please weigh your serving.
▲ % Daily Intakes are based on an average adult diet of 8700kJ. Your daily intakes may be higher or lower depending on your energy needs.
* % Recommended Dietary Intake (Aust/NZ) per serving.

Ingredients
Corn (90%), sugar, barley malt extract, salt, vitamins (vitamin E, vitamin C, niacin, riboflavin, thiamin, folate), minerals (iron, zinc oxide).
CONTAINS GLUTEN CONTAINING CEREALS.
MAY CONTAIN TRACES OF PEANUTS AND/OR TREE NUTS.



- **Decontextualisation:** single nutrients taken out of context
 - Eg. fat is ‘bad’ regardless of source
- **Simplification:** simplified science and dietary advice
 - Eg. ‘good’ and ‘bad’ fats
- **Exaggeration:** of health impacts of nutrients
 - Eg. omega 3 fats and brain health; soluble fibre and heart
- **Determinism** (nutritional determinism):
 - nutrients as directly determining health
- **The Myth of Nutritional Precision**





Nutricentric Dietary Guidelines: Post 1960s





Good and Bad Fats / Low Fat Campaign

- **Good and Bad Fats**
1960s-
 - Simplified, black-and-white categories
 - ‘Natural’ saturated fats vilified



- **Low Fat Campaign:**
1980s-90s
 - Eat less fat
 - Low fat, reduced fat, no fat





Margarine versus Butter

- Margarine promoted as healthier than butter due to high polyunsaturated fat content (1960s -)
- Highly processed food promoted over wholefood on basis of nutrient profile
- *Trans*-fats now another 'bad fat' (post 1990s-)
- Cholesterol-lowering, trans-free margarine





- **Nutritionally engineered foods**
 - Fortified foods: eg. added vitamins
 - Nutrient-reduced foods: eg. reduced-fat milk
 - Functional foods: eg cholesterol-lowering margarine



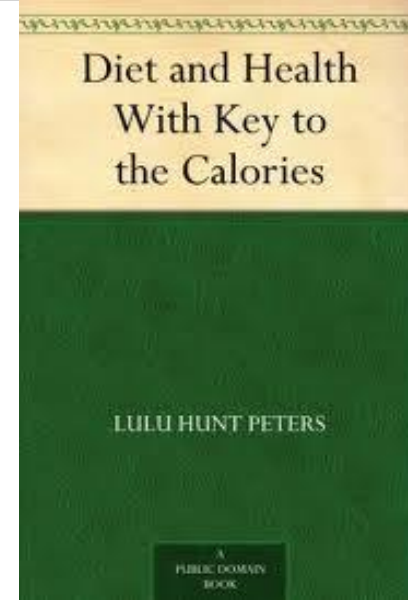


- **Meat & Dairy:** high-protein, lean, low-fat, iron, calcium
- **Processed-Packaged foods:**
 - Nutrient-content claims
 - Focus on nutritional contents rather than quality of ingredients
- Creates a **nutritional façade** around food product





- **Nutricentric subjects**
- Nutritionally Informed
- Nutrition Confusion
- Nutritional Anxieties
- **Susceptible to nutritional marketing**
- **Constructs demand nutritional products**





Nutricentric Food Labelling: Back and Front-of-Pack



Nutrition Facts

Serving Size 172 g

Amount Per Serving	
Calories 200	Calories from Fat 8
% Daily Value*	
Total Fat 1g	1%
Saturated Fat 0g	1%
Trans Fat	
Cholesterol 0mg	0%
Sodium 7mg	0%
Total Carbohydrate 36g	12%
Dietary Fiber 11g	45%
Sugars 6g	
Protein 13g	
Vitamin A 1%	Vitamin C 1%
Calcium 4%	Iron 24%

*Percent Daily Values are based on a 2,000 calorie diet. Your daily values may be higher or lower depending on your calorie needs.

NutritionData.com

FOOD STANDARDS AGENCY

LOW FAT

LOW SATURATES

HIGH SUGAR

MED SALT

eatwell.gov.uk



ENERGY 870 kJ DI* 10%	FAT 0.7 g DI* 1%	SAT FAT 0.3 g DI* 1%	SUGARS 9.5 g DI* 11%	SODIUM 115 mg DI* 5%
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™

PER 60g SERVE



ENERGY 2481 kJ	SAT FAT 7.6g	SUGARS 4.8g LOW	SODIUM 3.0mg LOW	PROTEIN 22.5g
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PER 100g



- Nutricentric labelling policies:
 - Nutrient claims permitted
 - Nutrient-focused Front-of-Pack labelling (eg. traffic lights)
- Nutrient profiling systems underpinning many regulations (eg. children's advertising, health claims, etc)
- Nutrient taxes





Alternative Paradigm: Food Quality Paradigm

- **Integrated nutrition research**
 - Nutrients, Foods and Dietary Patterns
 - Shift to food/dietary patterns already taking place
- **Food processing quality**
 - Types of processing and processed foods
 - Recent research on food processing
- **Cultural-Traditional knowledge**
 - Cultural/regional cuisines
- **Sensible-Practical experience**
 - Growing and cooking food
 - Tasting and eating food





- Defining & Categorising Processed Foods
 - **Whole/Minimally-Processed** foods/ingredients (beneficially processed)
 - **Refined-Processed** foods (with refined-extracted-concentrated ingredients)
 - **Processed-Reconstituted** foods/ingredients (deconstituted, chemically processed, etc – junk all the way down *(Scrinis 2013)*)
- **Ultra-processed foods** (Carlos Monteiro)





- **Nutritional Analysis**
 - High in Sugar, Salt, Fat, Energy
 - Low in Fiber, Vitamins, Minerals
- **Processing Quality and Characteristics**
 - Many deconstituted and chemically transformed food components:
 - Starches, artificial sweeteners, texturisers
 - Hyper-Palatable foods and ingredients
 - Rapidly-Consummable foods
 - Adding/subtracting single nutrients doesn't improve food quality



- **Corporate capture of low-fat advice**
 - Reduced-fat foods proliferated
 - Poorer quality foods
 - Fat replaced with: sugar, refined carbs, modified starches, artificial fats
- **Corporate Capture of the Calorie**
 - All calories alike
 - Therefore no bad foods
 - Energy balance equation
 - Exercise and physical activity equally important





- Corporate capture of nutrition
 - Nutritionally engineered and marketed foods
- Corporate Nutritionism
 - Big Food become dominant promoters of a reductive/simplified understanding of nutrition
- Corporate appropriation of nutritional paradigms
 - Reformulation, fortification, functionalization

Quantifying Nutritionism

- 1850s-1950s
- Adequate nutrition, nutritional deficiencies
- Calories, vitamins, protein

Good-and-Bad Nutritionism

- 1960s-1990s
- Bad nutrients, over-nutrition, chronic diseases
- Fat, cholesterol, sugar, salt

Functional Nutritionism

- 1990s-Present
- Optimal nutrition, enhanced/targeted health
- Omega 3 fats, whole-grains



THE 10 SUPERFOODS TO ADD TO YOUR SMOOTHIE





Eras & Paradigms of Nutrition

	Quantifying Nutritionism 1850s-1950s	Good-and-Bad Nutritionism 1960s-1990s	Functional Nutritionism 1990s-Present
Health Focus	<ul style="list-style-type: none">• Adequate Nutrition• Under Nutrition	<ul style="list-style-type: none">• Over-Nutrition• Chronic Diseases	<ul style="list-style-type: none">• Optimal Nutrition• Enhanced• Targeted
Nutrients/ Foods	<ul style="list-style-type: none">• Protective	<ul style="list-style-type: none">• Good and Bad	<ul style="list-style-type: none">• Functional
Bodies	<ul style="list-style-type: none">• Quantified-Mechanical Body	<ul style="list-style-type: none">• At-Risk Body	<ul style="list-style-type: none">• Functional Body
Dominant Actors	<ul style="list-style-type: none">• Nutrition scientists	<ul style="list-style-type: none">• Governments• Public Health Institutions	<ul style="list-style-type: none">• Food Corporations
Nutritional Engineering & Marketing	Fortification	Reformulation	Functionalization



Corporate Nutritional Strategies for Improving Quality of Processed Foods

- **Reformulation**
- **Fortification**
- **Functionalization**

- Old strategies have taken new forms
- Draw scientific legitimacy from nutritionism
- Supported by many public health & industry stakeholders
- Serve **ideological** and **marketing** functions



- Old versus new reformulation
- Reduce single 'bad' nutrients/ components
 - Sugar, Salt, Saturated Fat, *Trans*-Fat, Calories
 - Evidence of harmfulness
 - Or multi-nutrient targets
- Supported by many nutrition experts
- Systematic, product-wide, industry-wide, quiet reformulation – not niche products
- Mostly voluntary, self-regulation
 - Exception- *trans*-fats
- Encouraged by government regulations



Pizza Italy: Salt reduced by 9%**

Maggi noodles, Malaysia



20%
reduction
per serving



- Are levels of reduction meaningful?
 - Eg. 30% reduction of salt or sugar from very high levels
 - Technical limits: salt, sugar, fat as essential ingredients
- Bad nutrients substituted with other processed ingredients
 - Eg. artificial sweeteners, refined starches
- Treat sugar, salt, fat as nutrients, not products of processing
- Ignore other ingredients and characteristics of processed foods and ingredients
 - Flavours, texturisers, etc
 - Hyper-palatability
 - Rapid consummability
- Processed-reconstituted foods no less highly processed

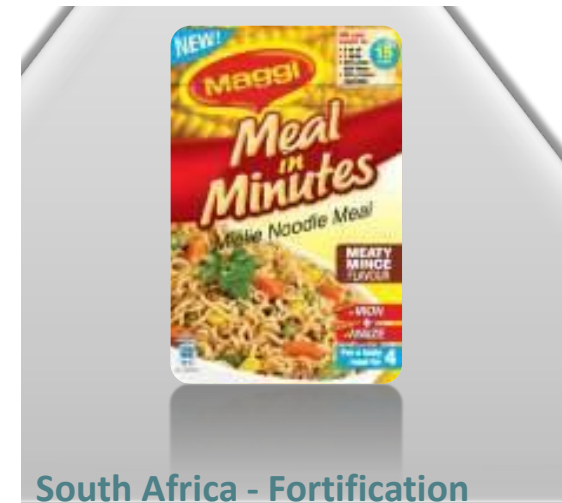




- Serves an ideological function
- Reformulated foods receive nutritional stamp of approval from experts/governments
- Legitimate consumption of (reformulated) processed foods
- Key message:
 - Keep on eating these (reformulated) products, rather than eat less of them
 - Dietary change not required
 - Yet the South undergoing continual dietary change towards processed food consumption



- Fortification for over and under nourished
- Micronutrient deficiencies:
 - supplements, fortified foods, dietary diversification
- Nutritional Techno-Fixes
- Government-mandated, public health-driven fortification of basic staples
- Public-private partnerships
 - Eg. GAIN, SUN
- Corporate-driven discretionary micronutrient fortification of processed foods
 - iron, vitamin A, iodine, zinc



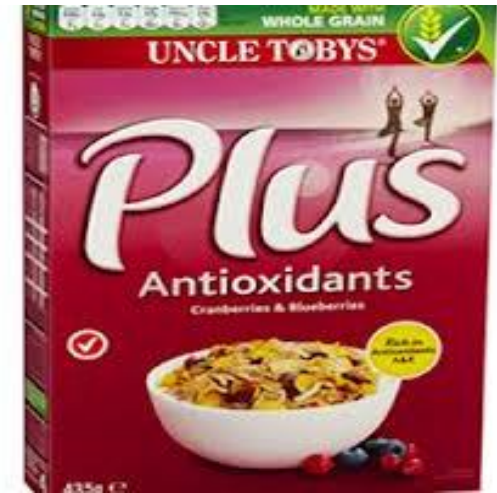
South Africa - Fortification
Iron fortified at 15%DV/ serving

Micronutrient Fortification

- Actively targeting poorest consumers in the South at risk of deficiencies – ‘bottom of pyramid’
- Nestlé: Popularly Positioned Products
- Conducting nutrition education campaigns
- Hidden Hunger
- Emergency foods: Plumpy Nut



- For optimal nutrition
 - targeted, enhanced health
 - NCD risk reduction
- Adding **functional** nutrients and ingredients to processed foods (including **whole ingredients**)
- Implied or direct **health claims**
- Exaggerated and decontextualised claims
- Enabled by regulations permitting health claims





- Corporate funding of nutrition research
- Producing new products and evidence for health claims
- Target premium markets
- Solution to a range of health problems: *elderly, young, sports performance*
- ‘Personalised nutrition’
- Nutritional-medicinal products
- Prey on nutritional anxieties and aspirations for optimal health
- Better than simple, unprocessed, whole foods: optimal recipes



- Functionalizing old food products
 - Infant formula and transition foods
- New product development

Nestlé **Pronourish** ‘nutritional drink’

- Low-FODMAP drink
- For people with ‘digestive sensitivities’
- Protein
- Low-FODMAP fiber
- 25 vitamins and minerals





- Nutrient focus: easily appropriated/ manipulated
- Nutritional Halo for corporations
- Legitimation for existing and growing markets for highly processed foods
- Preempt and deter direct government regulation
- Strategies supported by some government policies and nutrition experts





Alternative Approaches to Food Quality and Food Policy

- **Food processing quality** as the basis for determining nutritional quality, and as basis for nutrition policy and regulations
- **Direct regulation of food composition**
- **Disallow nutrient-content and health claims**, or apply a food processing quality profiling system to regulate nutrition and health claims
- **Global-level policies** and regulations for governing transnational corporations and products



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