

Gran Problema de Obesidad en América Latina: su disminución es prioridad de FAO

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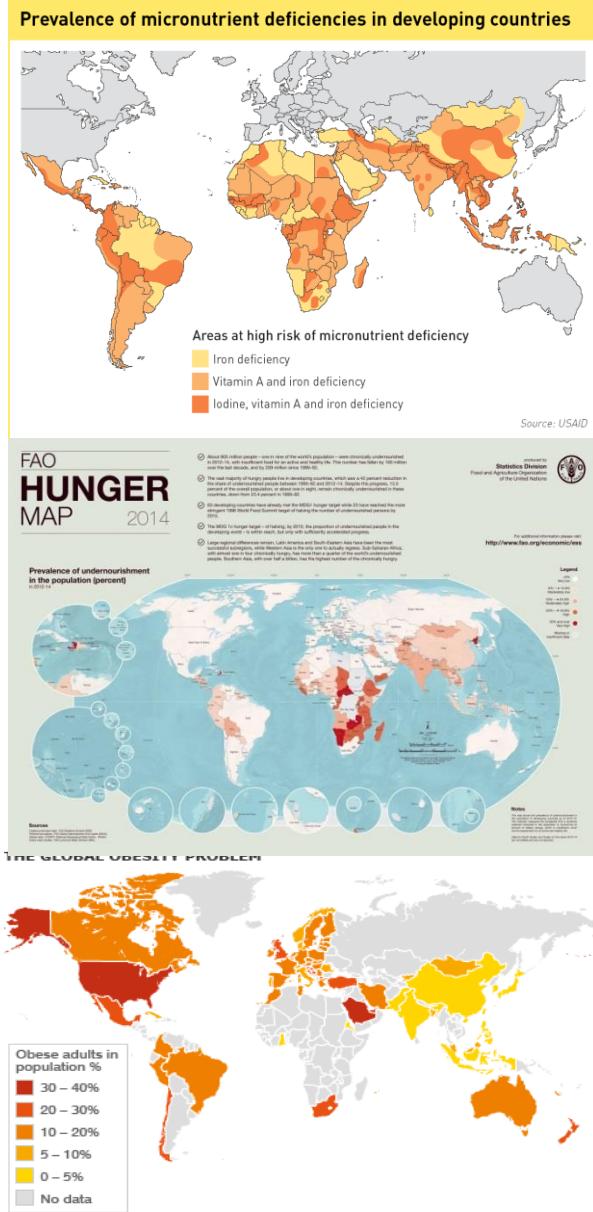
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Global nutrition situation

- **Double burden of malnutrition**
Undernutrition and micronutrient deficiencies are persisting. Obesity is endemic also in developing countries.
 - **Increased consumption of animal products** (e.g. China and India) and of processed foods.
 - **Simplification of diets** and shift towards westernized diets.
 - **Medicalized approach** (fortification and supplementation) instead of a food-based approach using foods.

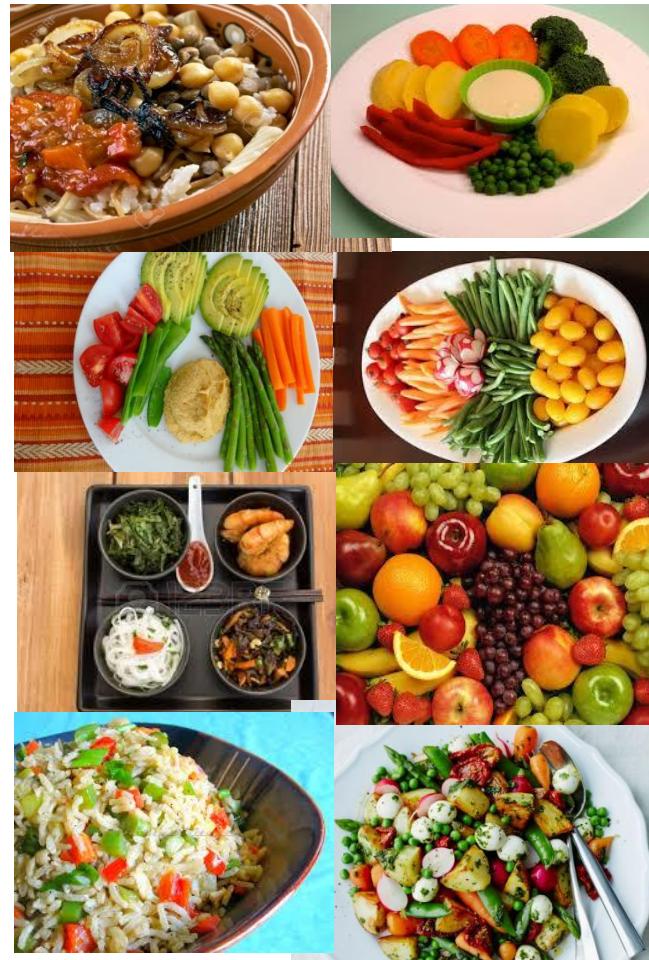


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How to feed the world?

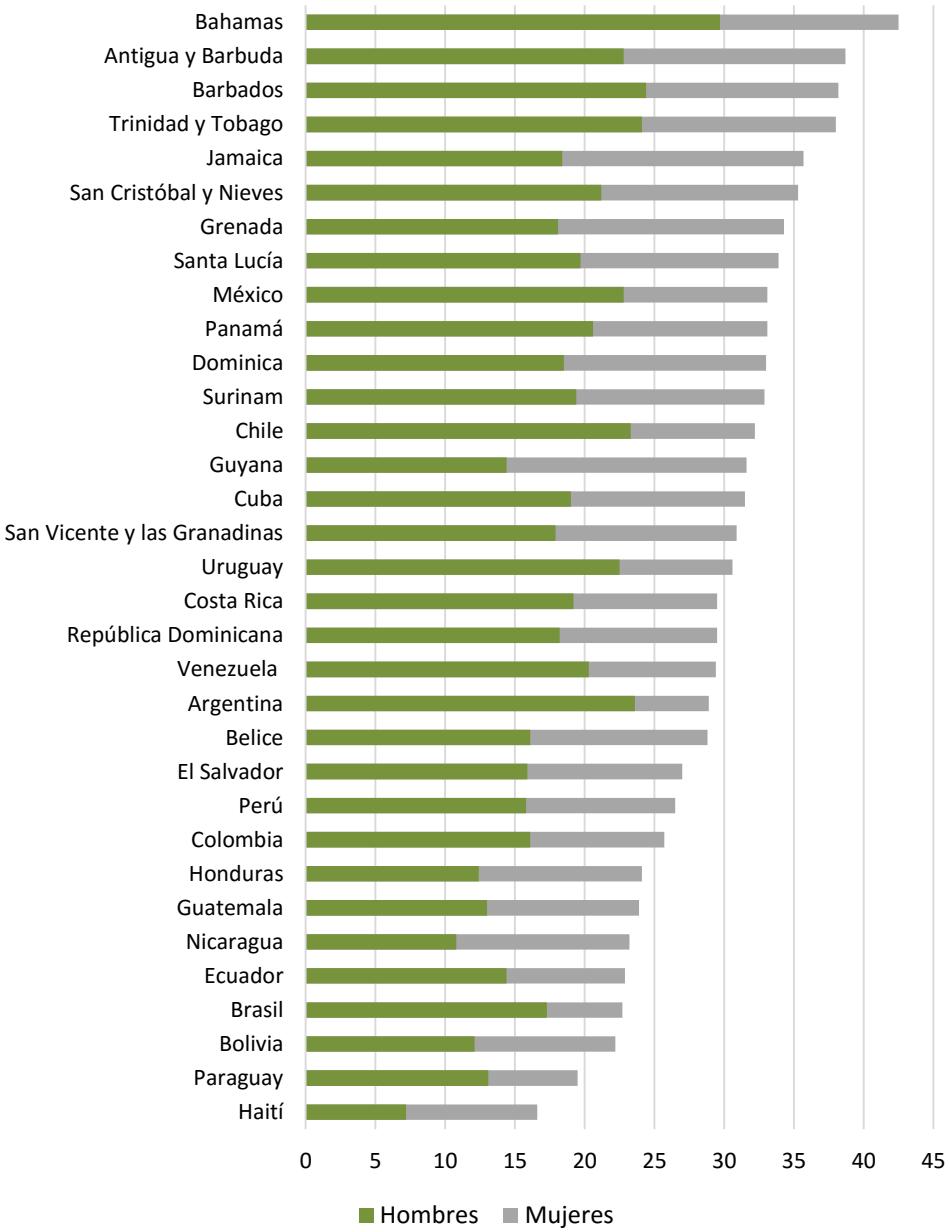


No need for nutrition-sensitive agriculture, biodiversity or food composition data



Need for nutrition-sensitive agriculture, biodiversity and food composition data

Obesity is higher in women

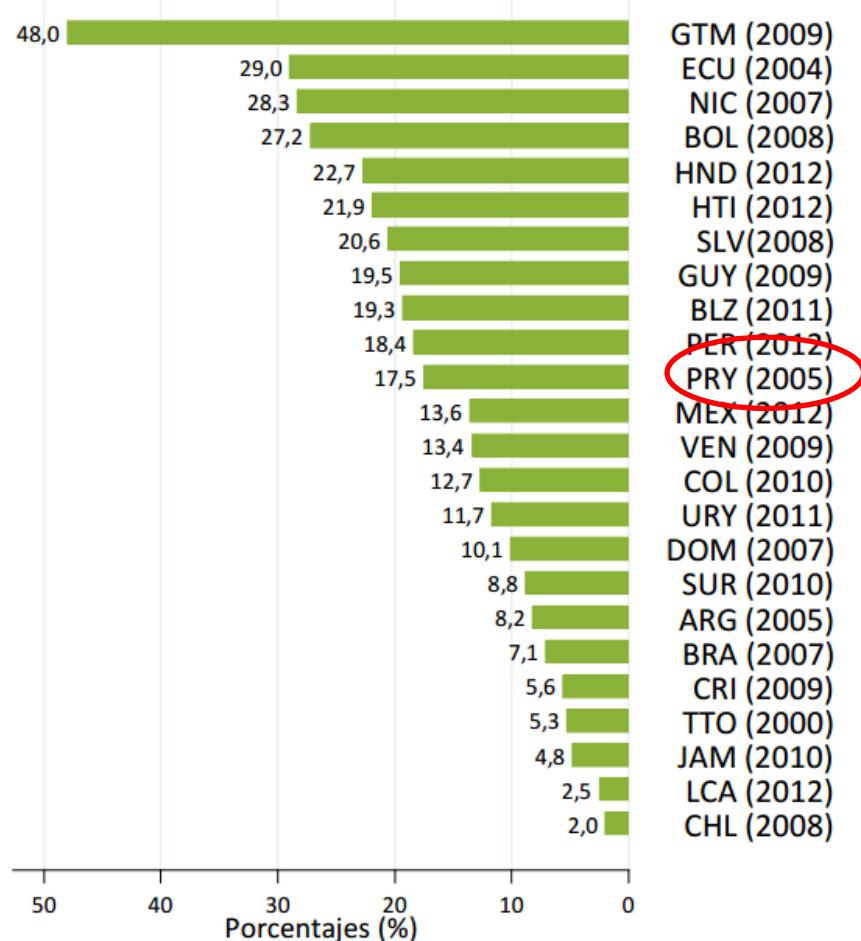


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Malnutrition in children under 5 years in Latin America and Caribbean

Desnutrición Crónica

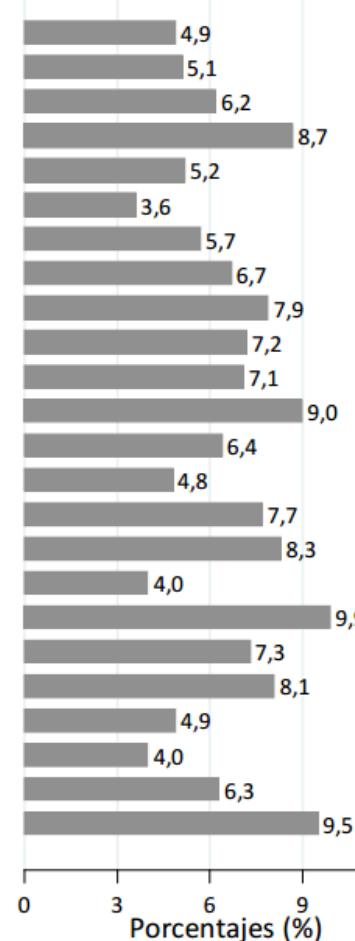
Talla/edad



Fuente: OMS en
línea

Sobrepeso

Peso/talla



Average in RLC 7,2 %
Tendency increasing

Paraguay in 2012 11.7%

Barbados in 2012 12.2%



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Micronutrient deficiencies

Prevalence of Anemia in pregnant women, 2011



Prevalence in Vit A deficiency in children, 2009



Prevalence in zinc deficiency, 2005



Risk in Ca deficiency, 2011



<https://ourworldindata.org/micronutrient-deficiency/>

<https://www.nature.com/articles/srep10974/figures/1>

New faces of poverty



Adapted from Eve Crowley

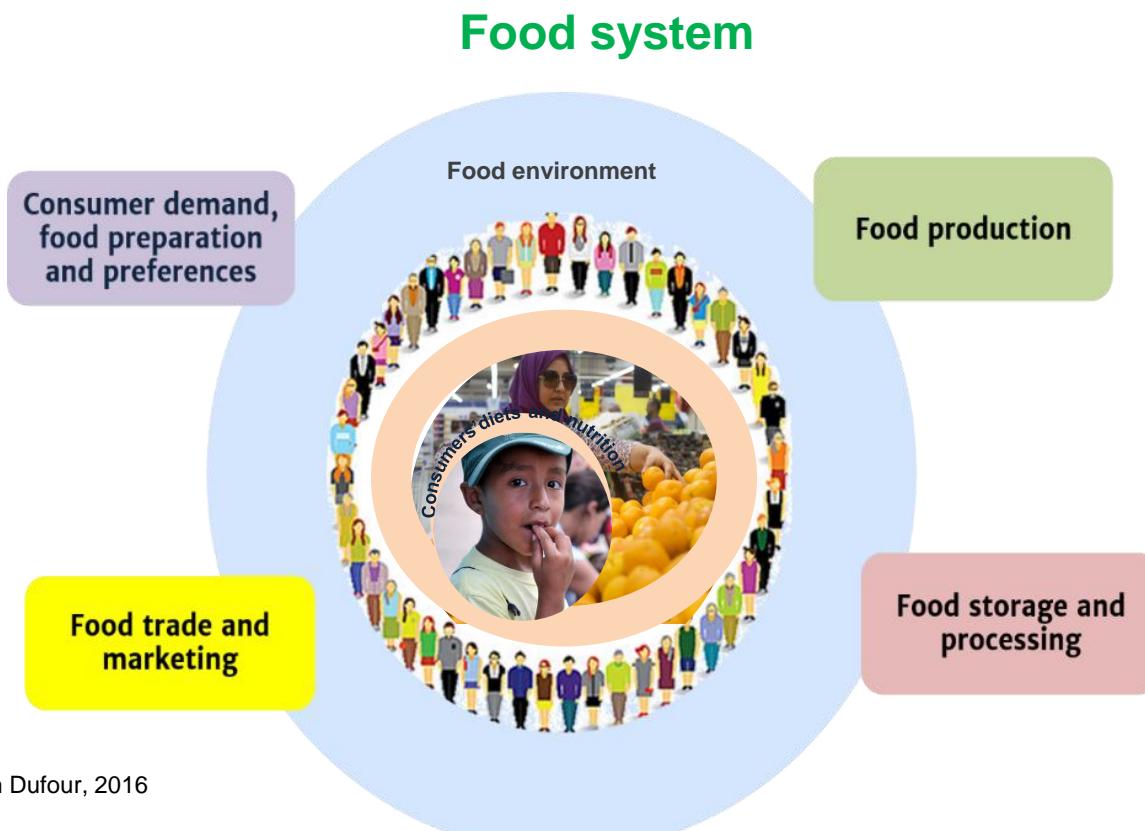


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Four main functions of a food system

Food system functions determine availability, affordability, convenience and desirability of various foods - in other words the **food environment** - and thus the **behavior of consumers**. Through the food environment, the food system influences consumers' diets and nutritional status.

If food consumption and nutrient intakes are to change, the whole food system has to change



Source: adapted from Dufour, 2016



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How to make sure that consumers strive to eat healthy diets and can do so?

- Nutrition education & Behaviour Change Communication
- Food labelling
- Nutrition-sensitive social protection
- School food and nutrition
- Nutrition-sensitive humanitarian food assistance

Make nutrients available at reasonable prices

- Trade for nutrition
- Food marketing and advertising
- Food price policies for promoting healthy diets

The food system is addressed through 4 main interlinked functions



Only nutrients produced can be preserved

- Nutrition sensitive agriculture
- Diversification & sustainable intensification
- Biodiversity
- Biofortification
- Urban and peri-urban agriculture

Preserve and/or add nutrients

- Nutrition-sensitive post-harvest handling, storage and processing
- Food fortification

Possible reasons for the obesity endemic (1)

- Junk food is cheaper than healthy food – many of their ingredients are subsidized and are part of high investments in agricultural research
- Change in food patterns away from traditional foods to highly processed foods and high consumption of sugary beverages and sugar
- Concentration of food processing and distribution through supermarkets and fast food chains, less fresh food markets and small shops. Food desserts
- Desire and taste of people has changed to sweeter, saltier and fatter
- Excellent publicity on unhealthy foods – increasing desire on these foods
- Hardly any publicity on healthy foods – and if then not as good
- Overweight and obesity are becoming the norm



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Sales per capita of highly processed products

- The higher the sales of highly processed foods the higher are obesity rates
- Chile is ranking 2. in Latin America and 7 globally (80 countries studied)

| País | Ventas al detalle anuales per cápita en 2013 (kg) | Ranking región (13 países) | Ranking mundial (80 países) |
|--------------------------------------|---|----------------------------|-----------------------------|
| México | 214 | 1 | 4 |
| Chile | 201,9 | 2 | 7 |
| Argentina | 185 | 3 | 14 |
| Uruguay | 149,5 | 4 | 23 |
| Costa Rica | 120,4 | 5 | 30 |
| Guatemala | 114,6 | 6 | 32 |
| Brasil | 112,9 | 7 | 34 |
| Bolivia (Estado Plurinacional de) | 102,5 | 8 | 39 |
| Venezuela | 99,4 | 9 | 41 |
| República Dominicana | 97,8 | 10 | 45 |
| Colombia | 90,2 | 11 | 51 |
| Ecuador | 88 | 12 | 53 |
| Perú | 83,2 | 13 | 57 |

Adapted from Eve Crowley

Fuente: OPS (2015)



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Possible reasons for the obesity endemic (2)

- The world has become faster and also food should be available immediately
- Women are increasingly part of paid workforce and have less time for cooking
- Cooking is considered as hard work instead of quality time or enjoyable
- Many do not know contents of foods nor know how a fish or tomato is looking like
- Many people do no more know how to cook, have only a microwave as kitchen and no more dining tables

....and many more reasons

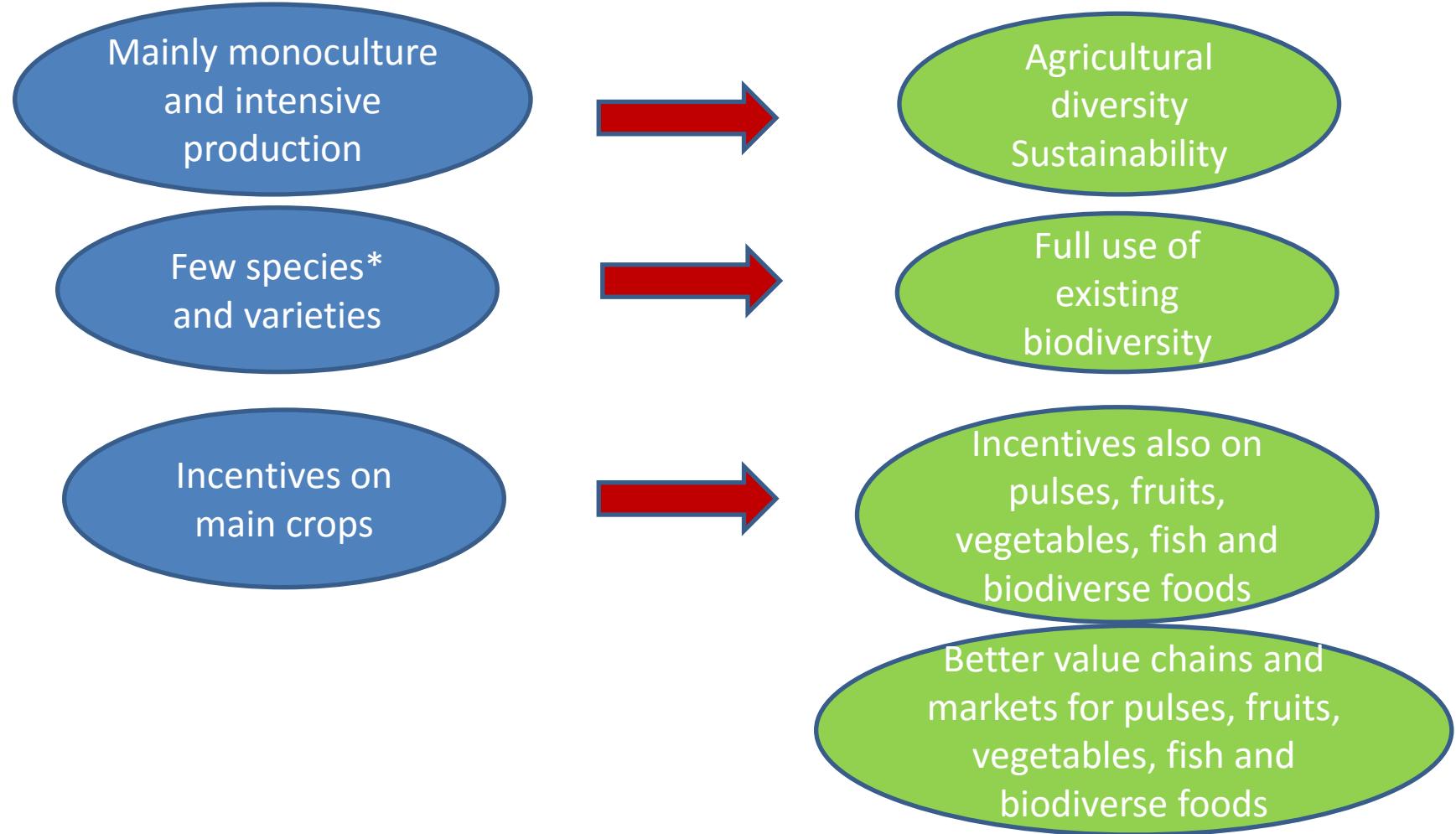


Policies to Address Malnutrition and Promote Healthy Eating

- Nutrition-sensitive agriculture to foster production of healthy foods at lower price
- Nutrition sensitive public procurement – also creating a market for small holder farmers
- Nutrition (and Food Security) policies and laws
- Food Based Dietary Guidelines (FBDG)
- Taxes on sugar or fat to make unhealthy foods more expensive and lower price discrepancies to healthy foods
- Regulation of processed and ultra processed foods
- Front food and nutritional labelling to inform consumers (and limit usage in public procurement programmes and publicity)
- Nutrition Education
- Healthy School Food and Nutrition Programmes
- Food aid as social programmes



Nutrition-sensitive agriculture



* rice, wheat, maize, cattle, pigs, chickens, sheep and goats



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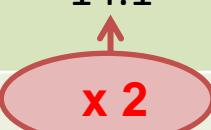
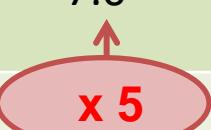
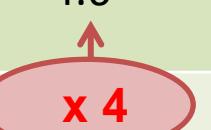
Food composition, Vitamin A deficiency and agricultural production

| Food | β -carotenes (mcg)/100 g edible food on fresh weight basis (EP) | Mio adults reaching RDI for 1 year with annual production Min value | Mio adults reaching RDI for 1 year with annual production Max value |
|--------------|---|--|--|
| Cassava | <5-790 | 9.5 | 1506.3 |
| Potato | 1-7.7 | 2.4 | 19.2 |
| Sweet potato | 100-23100 | 76.5 | 17676.0 |
| Taro | 5-2040 | 0.3 | 113.4 |
| Mango | 20 – 4320 | 5.0 | 1090.1 |
| Apricot | 200-6939 (β -carotene equivalent) | 6.2 | 215. 4 |
| Banana | <1 – 8500 | 14.3 | 4684.1 |
| Total | | 114.4 | 25,304.5 |

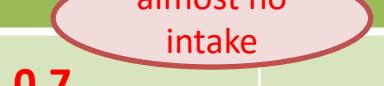
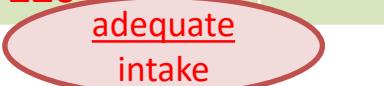
Production = 3 x global RDI

Global
Vitamin A
deficiency
solved

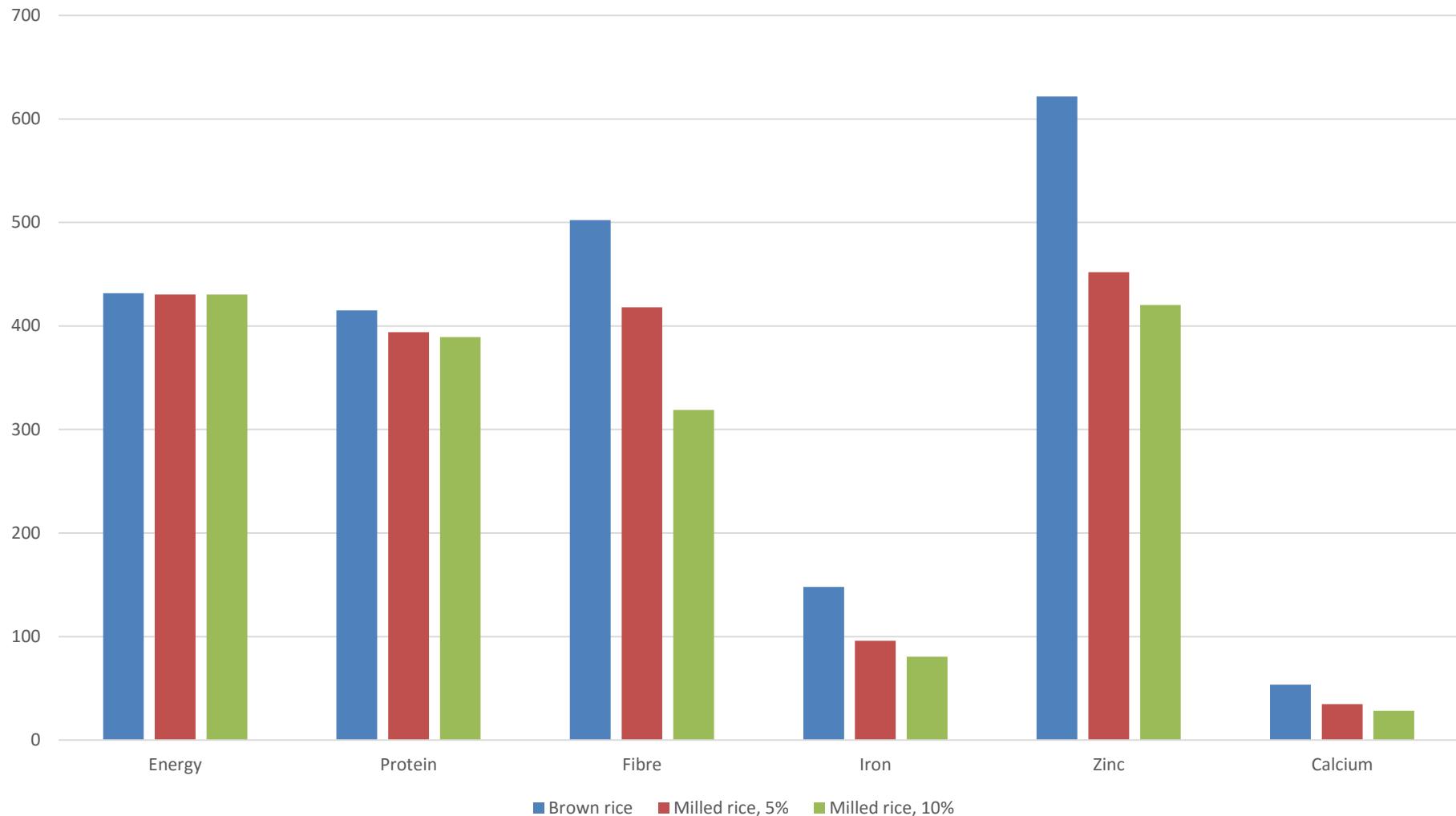
Mainstreamed vs. underutilized foods

| | Energy (kcal) | Protein (g) | Dietary Fibre (g) | Iron (mg) | Folate (DFE mcg) |
|---|--|---|--|--|---|
| Quinoa* raw | 354  x 1 | 14.1  x 2 | 7.0  x 5 | 4.6  x 4 | 184  x 23 |
| Rice* white, polished, raw | 365 | 7.1 | 1.3 | 1.2 | 8 |

* USDA data in per 100 g edible portion on fresh weight basis.

|  <u>Banana</u> | β -carotene content (mcg/100 g EP) | Banana intake in Philippines (g/d/p) | RDI for vitamin A covered by banana intake (%) | Mio adults reaching RDI for 1 year with annual banana production |
|---|--|--------------------------------------|--|--|
| Cavendish | 26 | 93 | 0.7  | 14.3 |
| <i>Utin lap</i> | 8508 | 93 | 220  | 4,684.1 |

Mio average adults reach DRI of India with rice production of 2014 if milled differently



Data: FAOSTAT 2014, IR-64 Rice variety composition from NIN, Indian RDI



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Amsterdam decreased by 12% obesity rates in schools

8 requirements to become a jump-in school – only as package not pick and choose

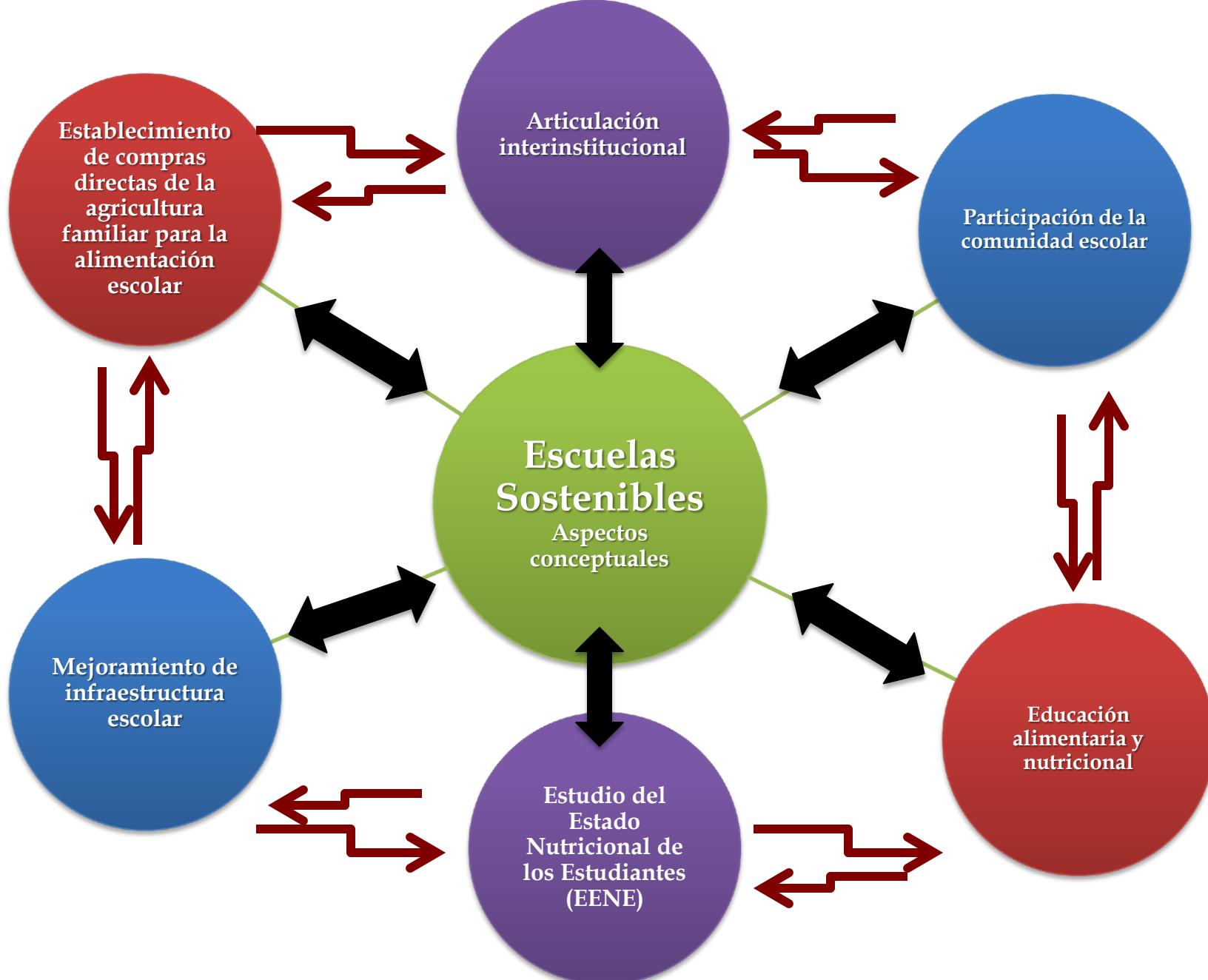
1. Health is a permanent priority.
2. Children learn about healthy eating and drinking in the class.
3. Birthday treats are healthy. (Replace bringing sweets, chocolates or cakes with dried fruit, vegetable and cheese skewers or fruit kebabs. They have developed booklets for parents with ideas for these healthy treats.)
4. Children are only allowed fruit as their morning break snack and lunchtime sandwiches must be healthy. Only water or milk can be drunk at Jump-In schools. (No school meals are provided in Dutch primary schools so part of the Jump-In programme is advice and support on healthy sandwich fillings).
5. Information about healthy lifestyle is shared with parents during meetings organised by Jump-In schools.
6. As active children perform better, Jump-In schools have extra physical education classes given by trained teachers paying extra attention to children's motor skills and development.
7. Children are encouraged to be active when playing outside.
8. Watching out for early signs is important, so Jump-In schools offer an extra appointment to measure height and weight in addition to the two regular ones. If something unusual is discovered, more appointments follow.

Amsterdam decreased by 12% obesity rates in schools

Changed a system through committed vice mayor:

- Installed water fountains and no juice or soft drinks in schools, only water and milk
- Cooking classes in schools and with parents
- Free fruits and sell sandwiches in canteen
- Weigh each kid at beginning and end of school year and in between if necessary
- No sponsoring of food industry and ban of food publicity of public transport
- Motivated physical activity
- Explained parents the reason behind change
- Developed educational material and guidelines





Algunos RESULTADOS de iniciativas exitosas de educación alimentaria y nutricional incluyen:



LOS CONSUMIDORES

Comprenden sus necesidades alimentarias, reconocen información errónea y toman mejores decisiones en el día a día



LAS FAMILIAS

Preparan comidas balanceadas y nutritivas, de forma segura e higiénica
Planean, seleccionan y preparan comidas saludables que están dentro de su presupuesto



LOS GOBIERNOS

Trabajan para integrar la educación alimentaria y nutricional en las políticas nacionales



PADRES

Mejoran sus conocimientos y habilidades relacionadas con la alimentación, para dar a sus hijos un comienzo saludable en la vida



LAS PERSONAS

Disfrutan preparando y consumiendo preparaciones y recetas más saludables



LAS COMUNIDADES

Hacen mejor uso de sus alimentos tradicionales y locales



LAS ESCUELAS

Saben cómo proporcionar comidas y refrigerios saludables a sus estudiantes
Incluye EAN en malla curricular
Involucra alumnos, docentes, directivos, familia y comunidad
Promueve actividad física regular



PRODUCTORES DE ALIMENTOS

Son apoyados para producir y mercadear opciones más saludables

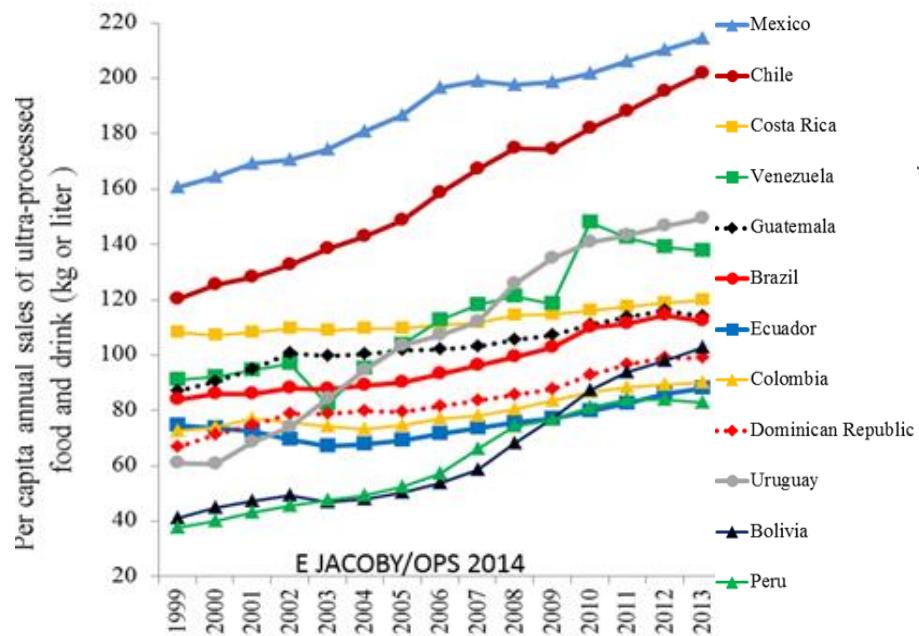


LEGISLADORES

Comprenden la necesidad de restringir la publicidad de alimentos poco saludables dirigida a niños

Is raising export of fruits and vegetables influencing eating behaviours in Chile?

Ventas per cápita de snacks y bebidas azucaradas en países de AL entre 1999 y 2013



Comercio Exterior Sector Agropecuario Chileno

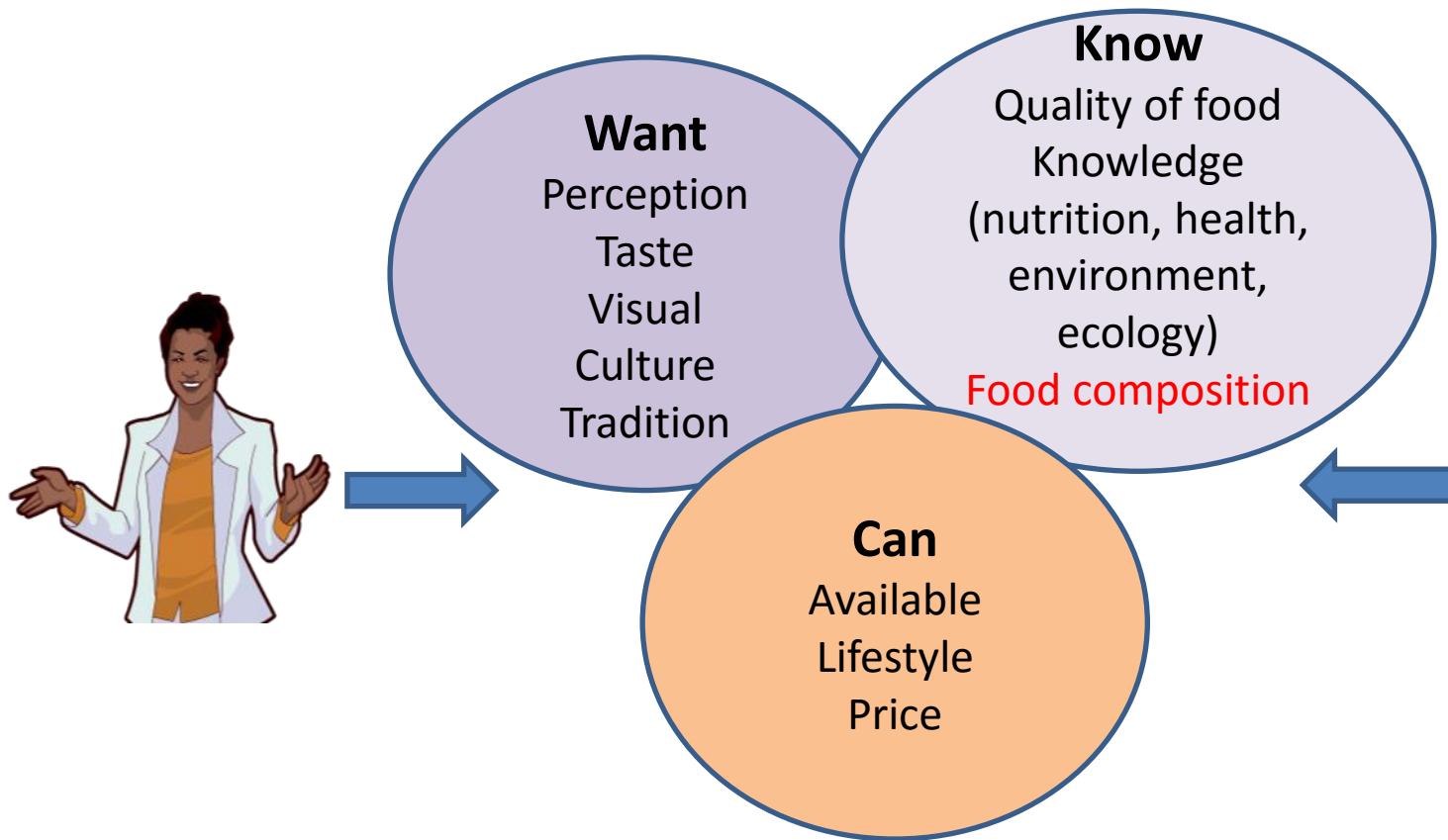


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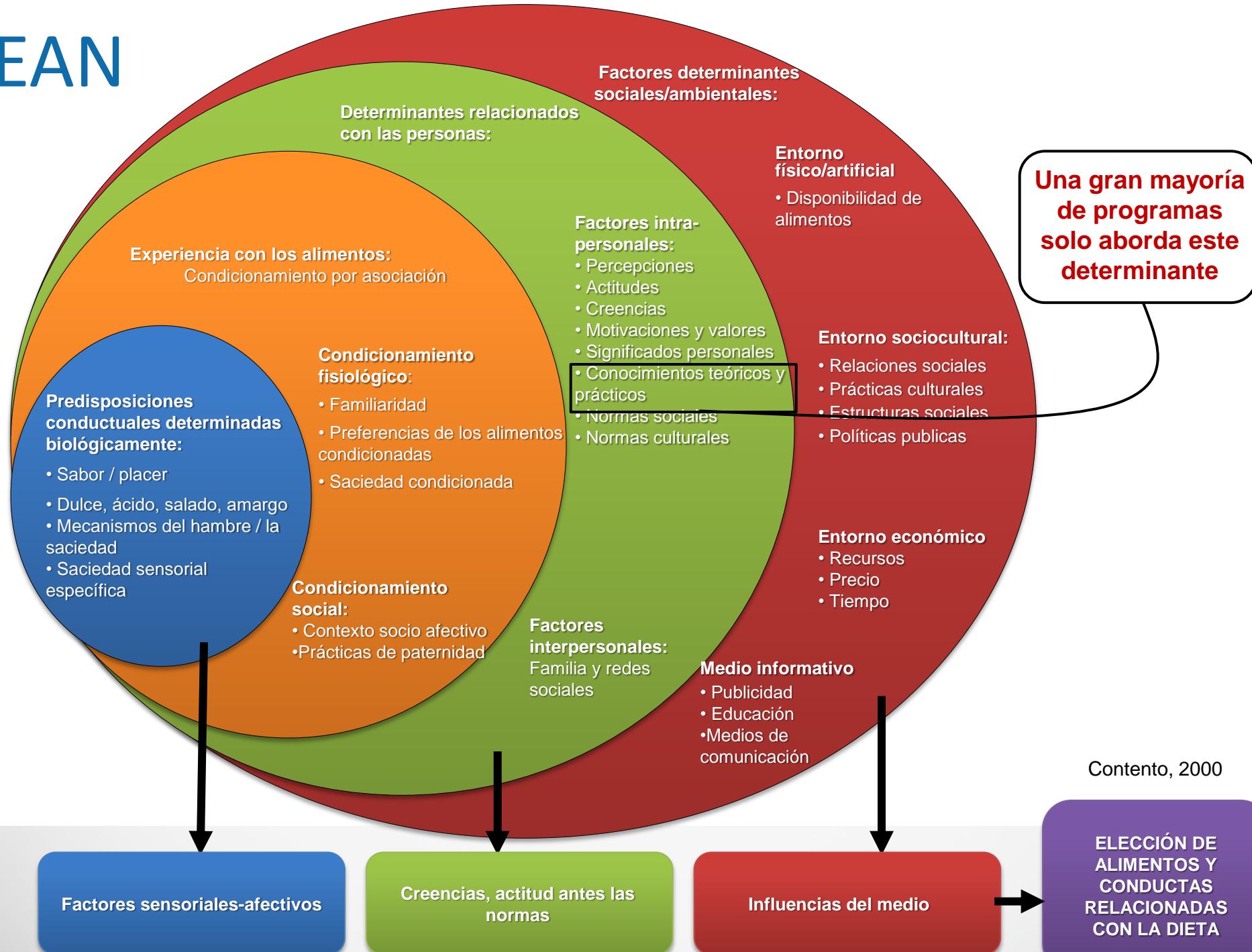
MINSAL. 2016.



What determines what we eat



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Different nutrition communication and food system needed?

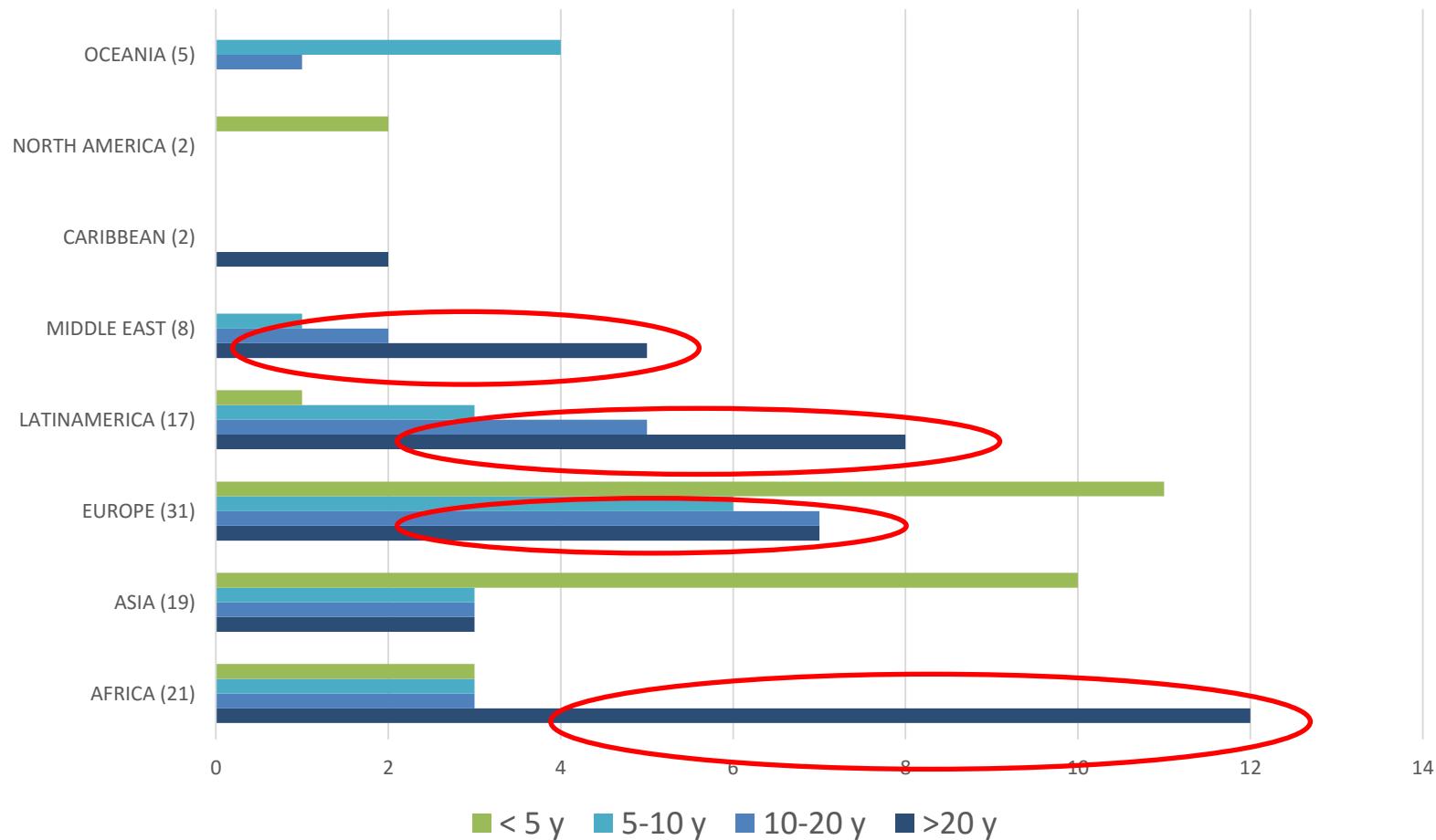
Possibilities

- More publicity for healthy food
- Making convenient foods more inconvenient and more expensive
- Making healthy choices more available, attractive and convenient (e.g. water fountains in public places and in schools)
- More appeals to parents and more games

Let us think outside the box for solutions



105 FCT listed on the INFOODS website (Apr 2017)



- Mostly old FCTs are in Africa, followed by Latin America, Europe and Middle East
- About 90 countries still have no national FCT, most developing countries



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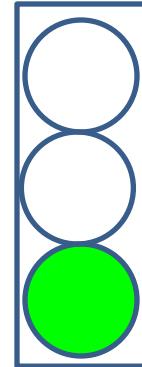
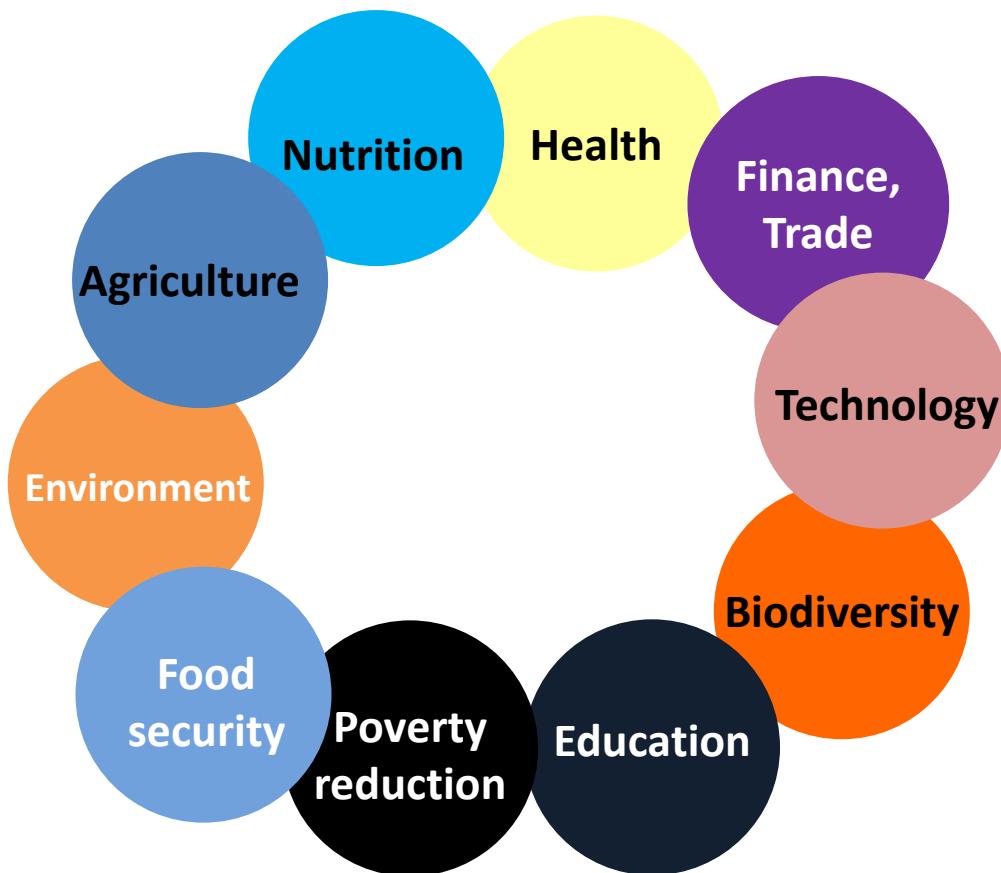
Missing compositional data for biodiverse and processed foods, cooked foods and mixed dishes



No mainstreaming of nutrition or biodiversity



Mainstreaming of nutrition and biodiversity



Common and coherent goals, assumptions, policies, programmes, messages to achieve better **food-based** nutrition through using existing biodiversity, especially for micronutrients.

Emerging issues on obesity

- Endocrine disruptors, e.g. pesticides, plastic
- Influence of ingested foods (with all their ingredients) on gut flora and thus on human metabolism
- Influence of sweeteners on metabolism (e.g. insulin) and satiety over time



We decide on our future and on the future of our children

