

# Addressing overweight and obesity in the realm of rural development and food systems

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Webinar, 22 June 2023



# Aim of the study

Deliver a comprehensive and contextualized review of available evidence for LMICs showing what strategies and interventions have worked - or not - in dealing with overweight and obesity in rural and rural-urban transition ('rurban') areas (last 10 years)

## Main research questions

1. What are the drivers and causes of overweight and obesity in the food systems in the context of rural areas in LMICs?
2. What evidence is available on intervention strategies with the potential to prevent and/or reduce overweight and obesity in the different areas of the food system?

# Study approach



Comprehensive literature review

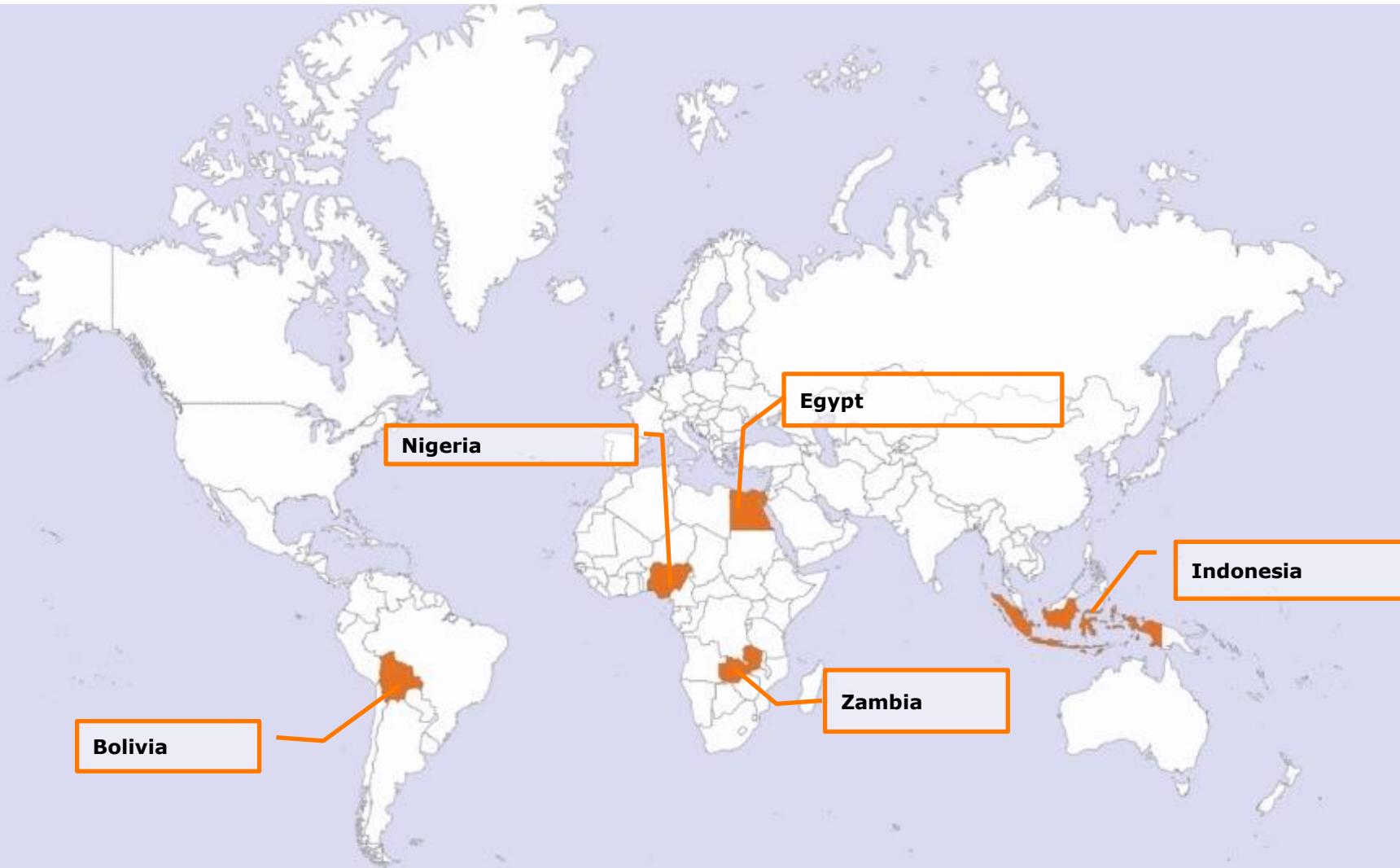
Systematic country mapping



Research paper



- 5 countries representing IFAD regions
  - Document review
  - Stakeholder consultation
  - Stakeholder mapping
- 
- Peer reviewed articles
  - Drivers and causes of overweight and obesity in rural areas in LMICs
  - Intervention strategies overweight and obesity



# Findings on prevalence and drivers



# Prevalence overweight and obesity in focus countries

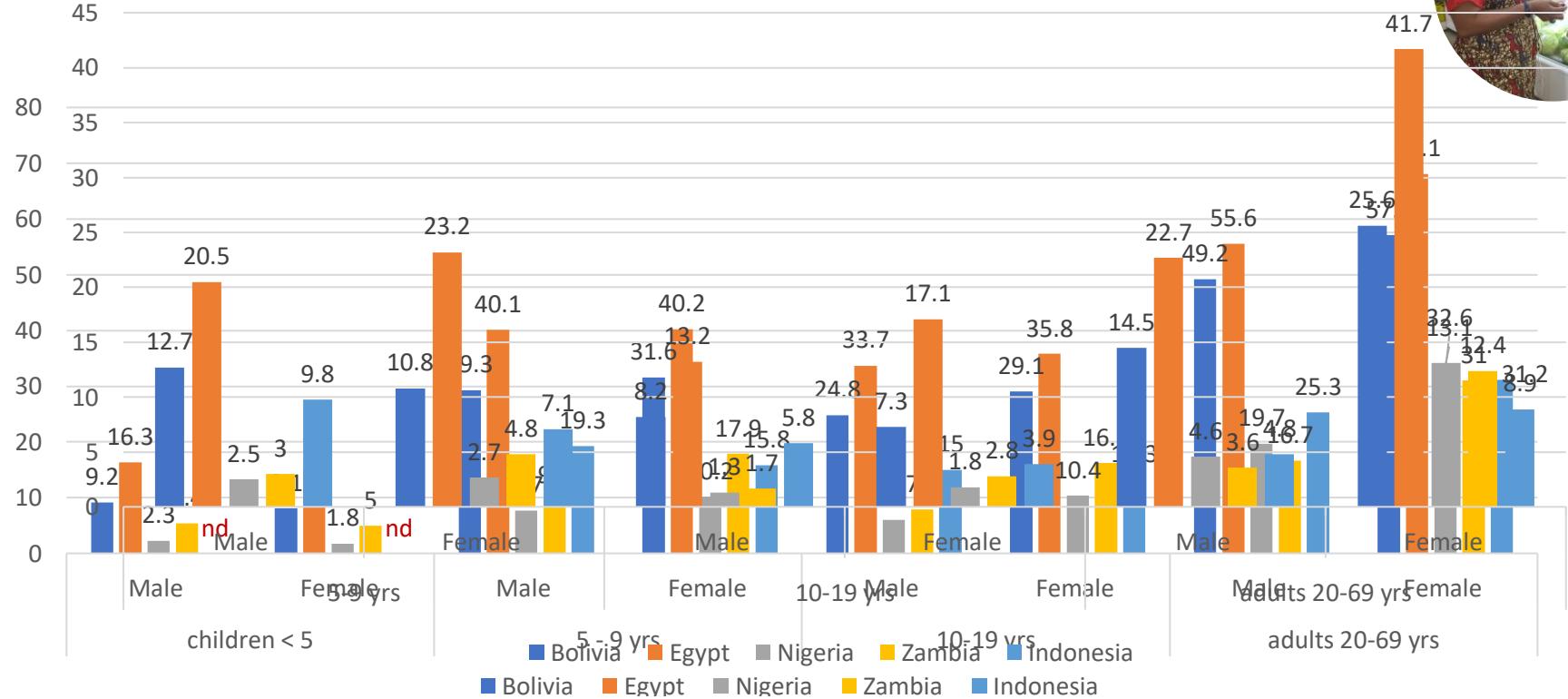
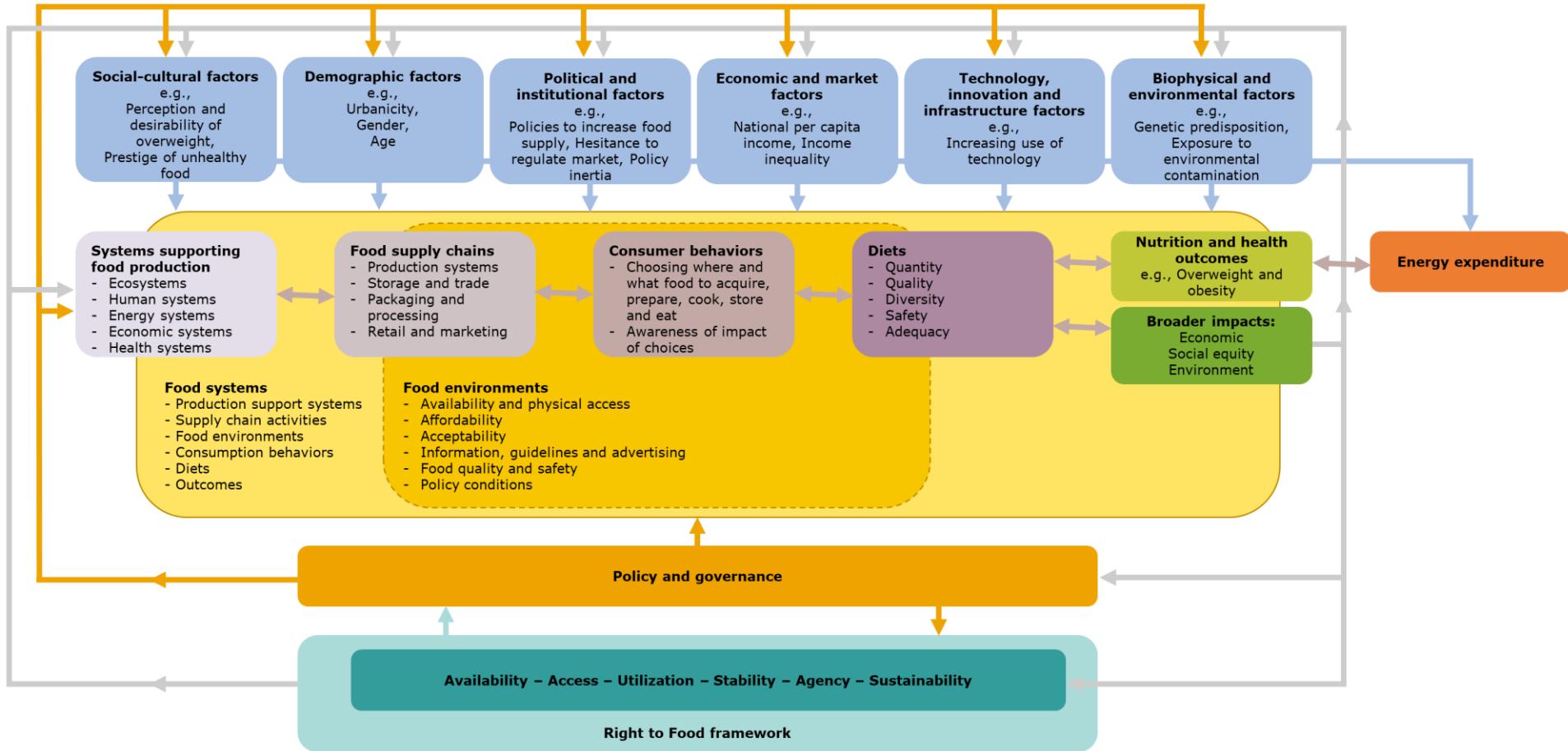


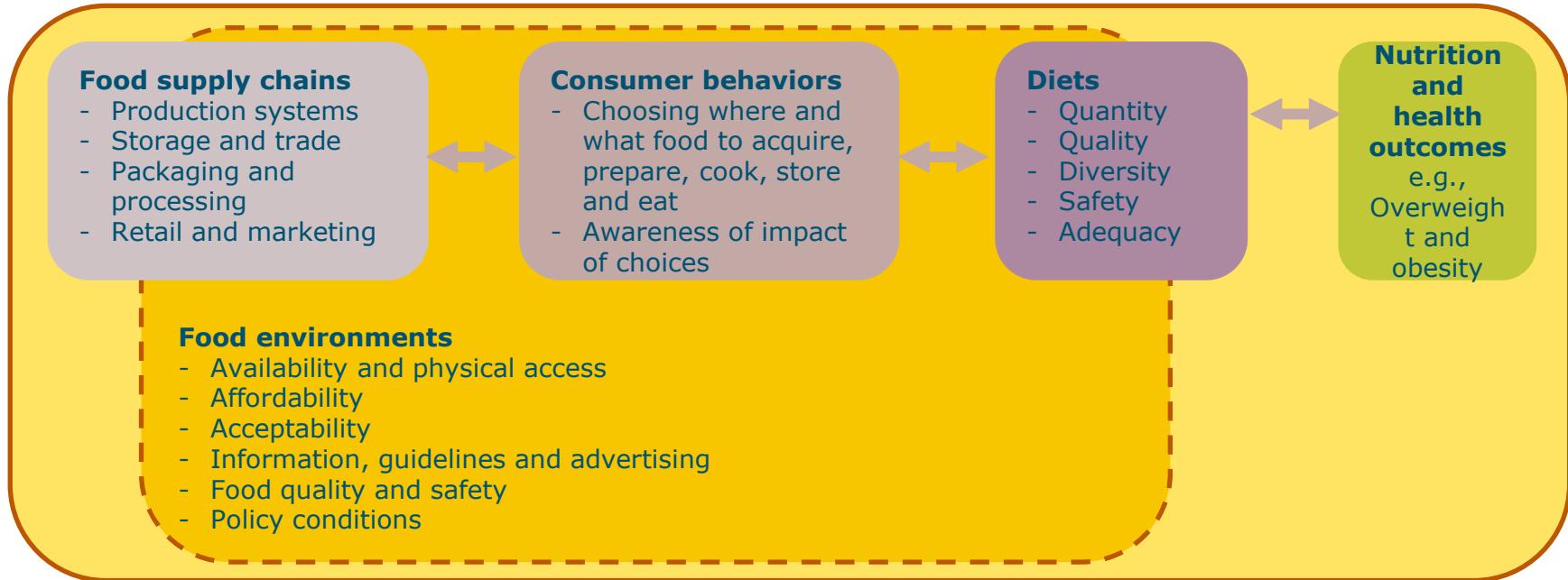
Figure 2 Prevalence obesity (%) (BMI ≥ 30)

Data: Global Health Observatory – WHO (2016)

# Obesogenic food systems



# Drivers identified



# Overweight and obesity is increasingly a rural phenomenon

- Urbanicity is associated with higher BMIs in LMICs
  - Less need for physical activity (transport, occupation)
  - Easier access to high calorie-foods
- The difference is shrinking rising rural BMI is the main driver of the global obesity epidemic in adults



# Findings on interventions



# Policy context relating to O&O interventions



## Food and Nutrition Policies / Strategies

1. Focus on optimize nutrition status, reduce stunting & wasting
2. Nutrition education & dietary habits
3. Nutrition services

Overweight/obesity emerging as theme



## Non-Communicable Diseases and Health

1. Overweight & obesity as modifiable behavioural risk factor for diet related NCDs
2. Improved nutrition / dietary habits
3. Improved health-nutrition services



## Agriculture and Food Security

1. Food security / Right to Food
2. Nutrition sensitive value chains, incl. bio-fortified food
3. Dietary diversity in (household) production and consumption



# Intervention mapping - Food supply chain

## Production

Encouraging nutrition sensitive agriculture for improved dietary diversity

- Promotion of vegetable and fruit production, traditional & organic food production*

Encouraging bio-fortified food production (strategy to fill the nutrient gaps)

- Vit A, Zinc, iron, other (staple foods)*

Encouraging household production

## Transport, trade, packaging, processing and sales

Encouraging setting or reviewing food standards

- Regulations for reducing salt, sugar, (trans)fat*

Encouraging Fortification

- Iron, Iodine Vit A*

Encouraging taxation

- Sugar tax*

Encouraging provision or reviewing food labelling

- Food or nutrition facts labelling*

Update Food Composition Tables

- Inclusion 'new', processed foods*

# Intervention mapping food environment

## Food Environment

Encourage food availability and access to food for selected groups

- *Food Subsidies, School Feeding & School gardening*

Encourage provision of information and guidelines

- *School food environments*
- *Referral schemes*

Encourage conducive policy conditions

- *Multisectoral policy action & advocacy*

## Consumer behaviour

Encourage awareness about what food to acquire and where

- *Campaigns (public, work place, community)*
- *Food consumption surveys*
- *Healthy lifestyle as business opportunity*

Encourage good practices in food handling

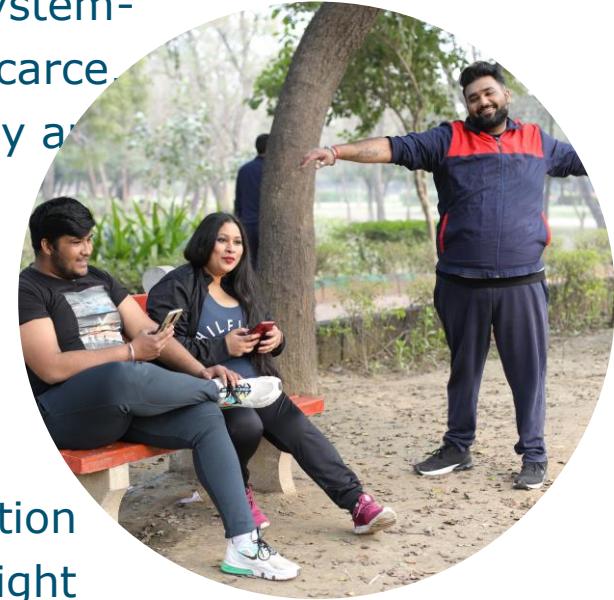
- *Guidance in food preparation on dietary moderation (Food based Dietary Guidelines)*

Raise awareness of impact of food and lifestyle choices

- *Healthy active lifestyle*

# There is limited evidence for the effectiveness of interventions in the food system

- Direct evidence on the relationships between food system-related interventions and overweight prevalence is scarce. Prevalence of overweight and obesity not consistently and systematically being monitored does not help
- Food system-related interventions apply traditional approaches such as food package labelling, price manipulation, and changing the food environment.
- Behaviour change strategies such as nutrition education and awareness play a key role in addressing overweight and obesity.



# Combined interventions are more likely to be successful



- Overweight and obesity reduction are highly complex issues that cannot be tackled by any individual intervention.
- Successful interventions that can deliver long-term impacts are usually the ones with multi-level, multi-setting and multi-component arrangements, aiming at both individual behaviour change and food environment improvement, backed up by effective policies and regulations.

# Conclusions

- Overweight and obesity being on the rise in rural areas is not yet recognized as a unique pattern. The specific dimensions of overweight and obesity among rural populations (as opposed to more urban populations) are not yet well understood. More data and research are needed to answer these hypotheses.
- The food and nutrition security agenda is still focused largely on undernutrition and micronutrient deficiencies, not reflecting an actionable agenda on the triple burden of malnutrition

# Conclusions

- More food environment and food choice research in LMICs and rural areas is needed to have a better understanding of the determinants of food choices and physical activity could help identify opportunities to make food systems less obesogenic.
- More effort is needed to build an understanding about existing programmatic interventions tackling obesity through agriculture and food systems transformation and their effectiveness

# Suggestions on a way forward

- Strengthening partnerships (research and practice) with a focus on food environment and consumption. Promoting healthy diets and physical activity are two overarching strategies that are used to address NCD.
- Embrace healthy diets. “Healthy diets” can serve as a linking pin between actions geared towards under- as well as overnutrition, and can serve to bridge between agricultural and health driven intervention strategies.
- Explore and engage in new, maybe unorthodox, partnerships, to support
  - scaling up nutrition initiatives (SUN, GAIN),
  - engagement with the private sector on pricing, processing, marketing and advertisement practices, and
  - brokerage of partnerships among development actors to raise awareness, support policy analysis and agenda setting on the triple burden of malnutrition.

# Thank you for your attention

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# ***Overweight and obesity and its linkages to food systems***

**Boyd Swinburn**

**Professor of Population Nutrition and Global Health**

**School of Population Health, University of Auckland**

**Co-Chair, Lancet Commission on Obesity**

**Twitter: @boydswinburn**

IFAD Webinar, June 2023



**THE UNIVERSITY  
OF AUCKLAND**  
**FACULTY OF MEDICAL  
AND HEALTH SCIENCES**

# Main messages

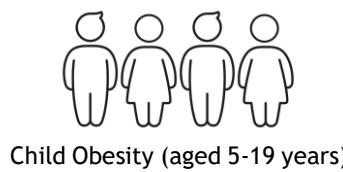
- **Global obesogenic drivers** (especially ultraprocessed food system) increase obesity in all countries
- **Local obesogenic moderators** create wide variations in prevalence and rates of increase of obesity
- **The Obesity Transition** describes the relatively stereotypical patterns of increases in obesity by sub-populations
- **Malnutrition in all its forms** as the biggest global risk factor
- **The Global Syndemic** of obesity, undernutrition, climate change
- **Policy Inertia** prevents policy implementation
- **Collective Action** is needed to reverse the Global Syndemic

# The prevalence of overweight and obesity is increasing in all Member States

Average projected prevalence (pp)  
increase in 2018-2025 (%)



+0.2pp



+1.7pp

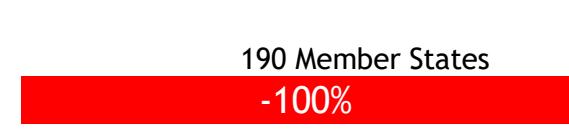


+2.3pp

Prevalence is expected to increase on child overweight, child and adult obesity indicators between 2018 - 2025...

Projected country trends in 2018-2025

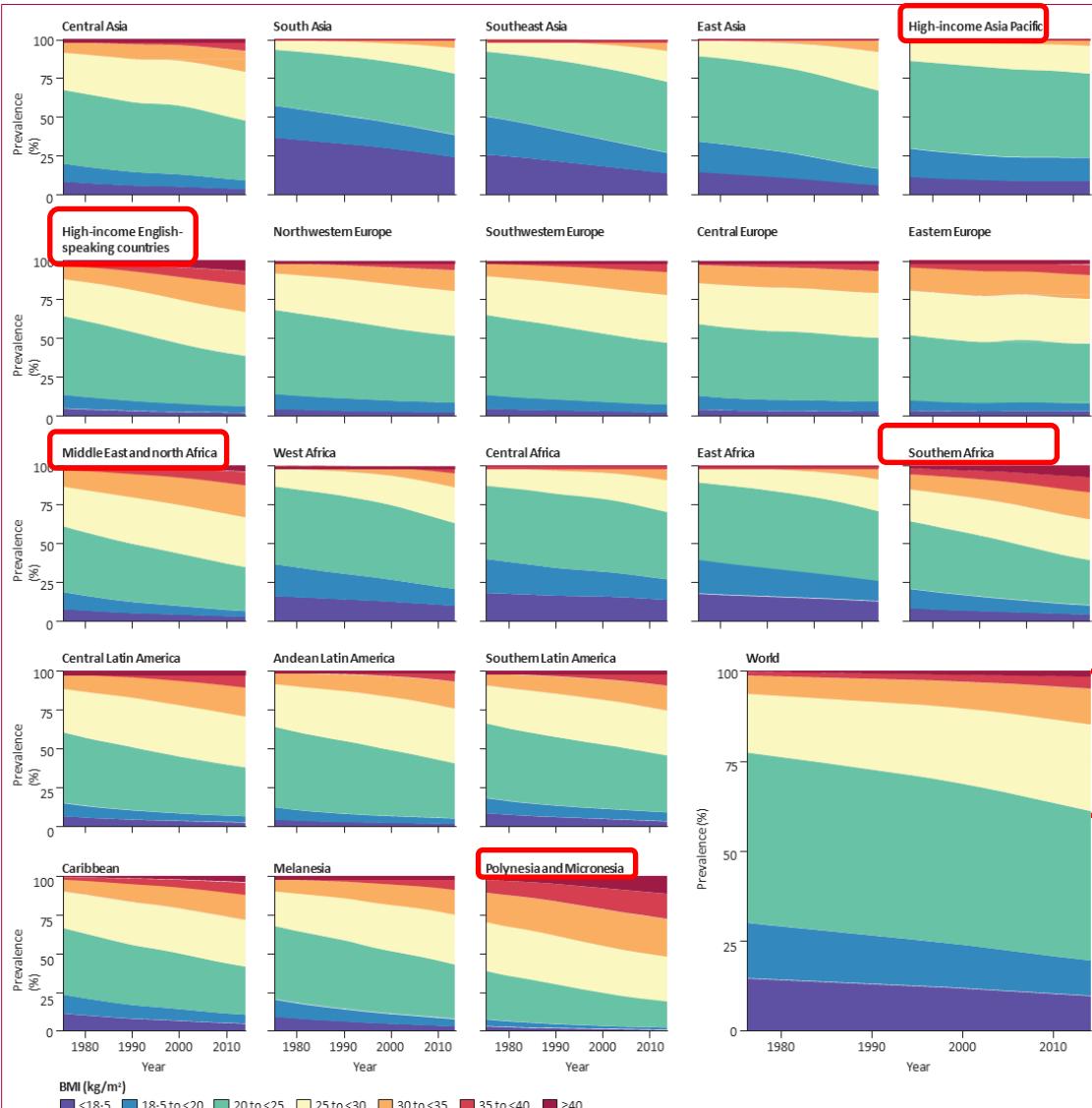
Red = Countries trending positively    Green = Countries trending negatively



...with ~167million people expected to be LESS HEALTHY,  
affecting all Member States

# Regional changes in obesity since 1975 NCD-RisC Lancet 2016, 2018

## Women



## Girls

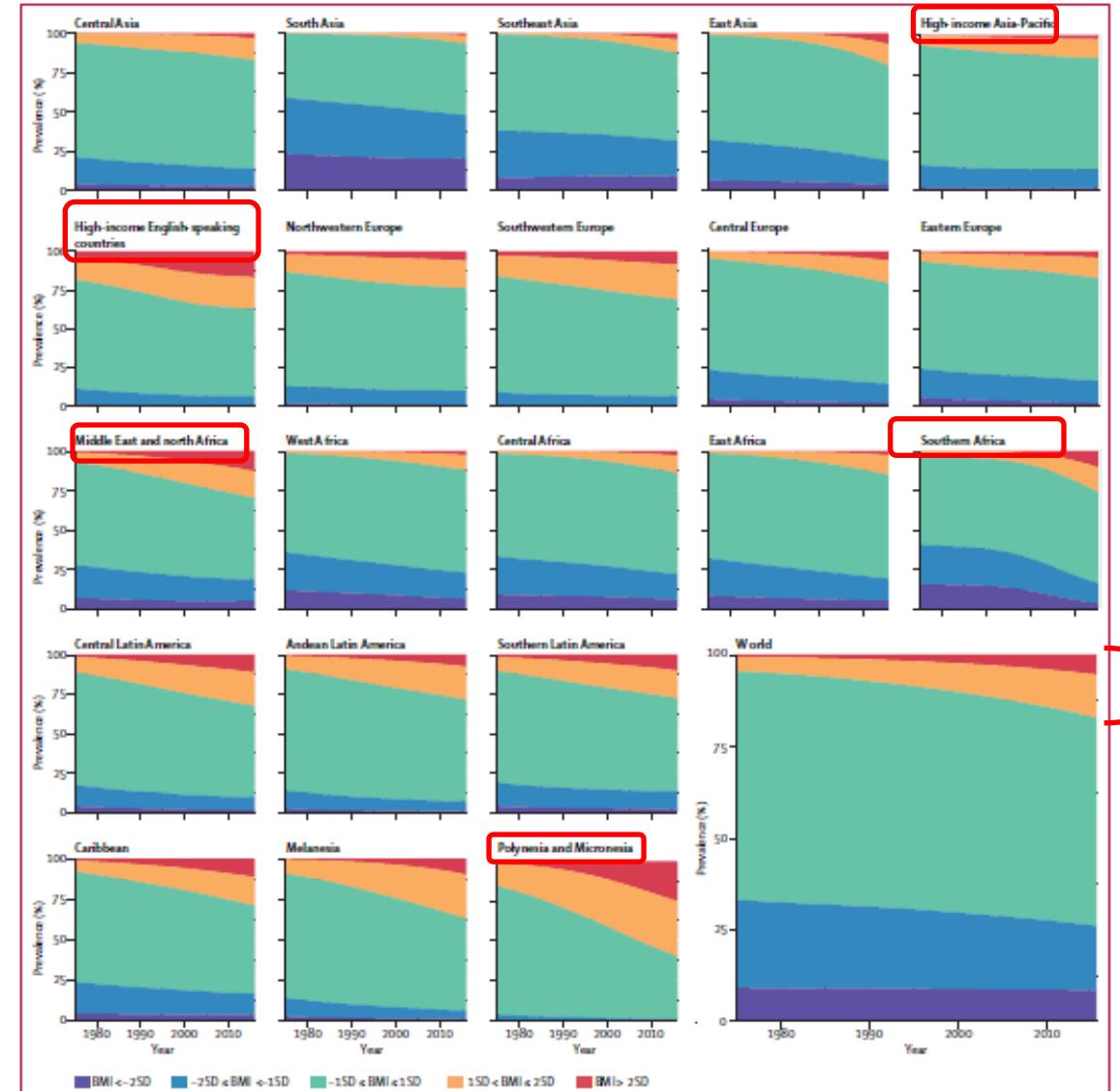
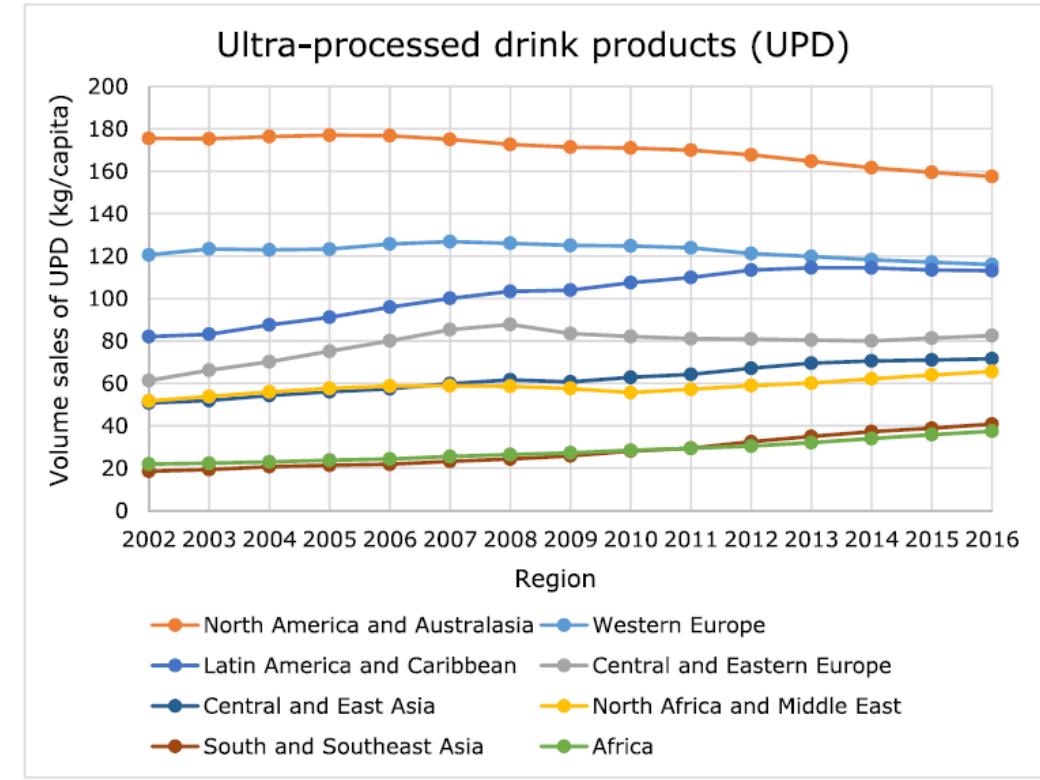
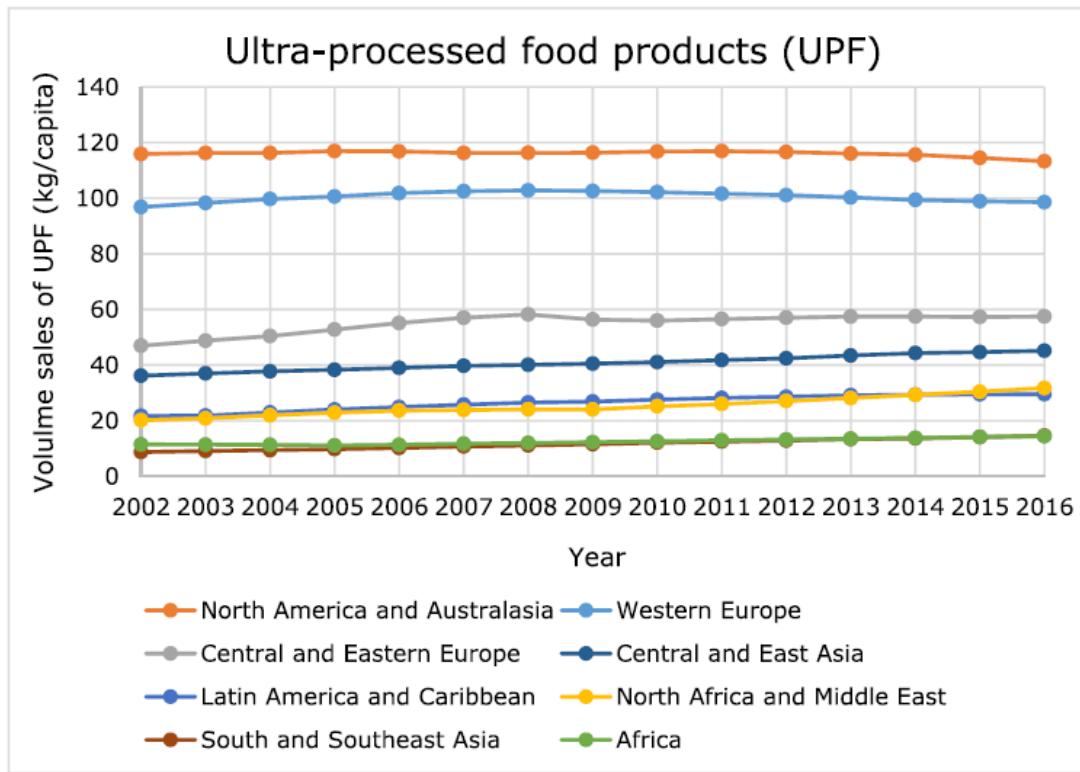


Figure 6: Trends in age-standardised prevalence of BMI categories in women by region  
See appendix (pp 155–355) for results by country. BMI=body-mass index.

Figure 8: Trends in age-standardised prevalence of BMI categories in female children and adolescents by region  
Children and adolescents were aged 5–19 years. See appendix for results for adults. BMI=body-mass index.

# Ultra-processed foods and drinks: Stubbornly high or increasing

Vandevijvere S. Obes Rev. 2019 20 Suppl 2:10-19

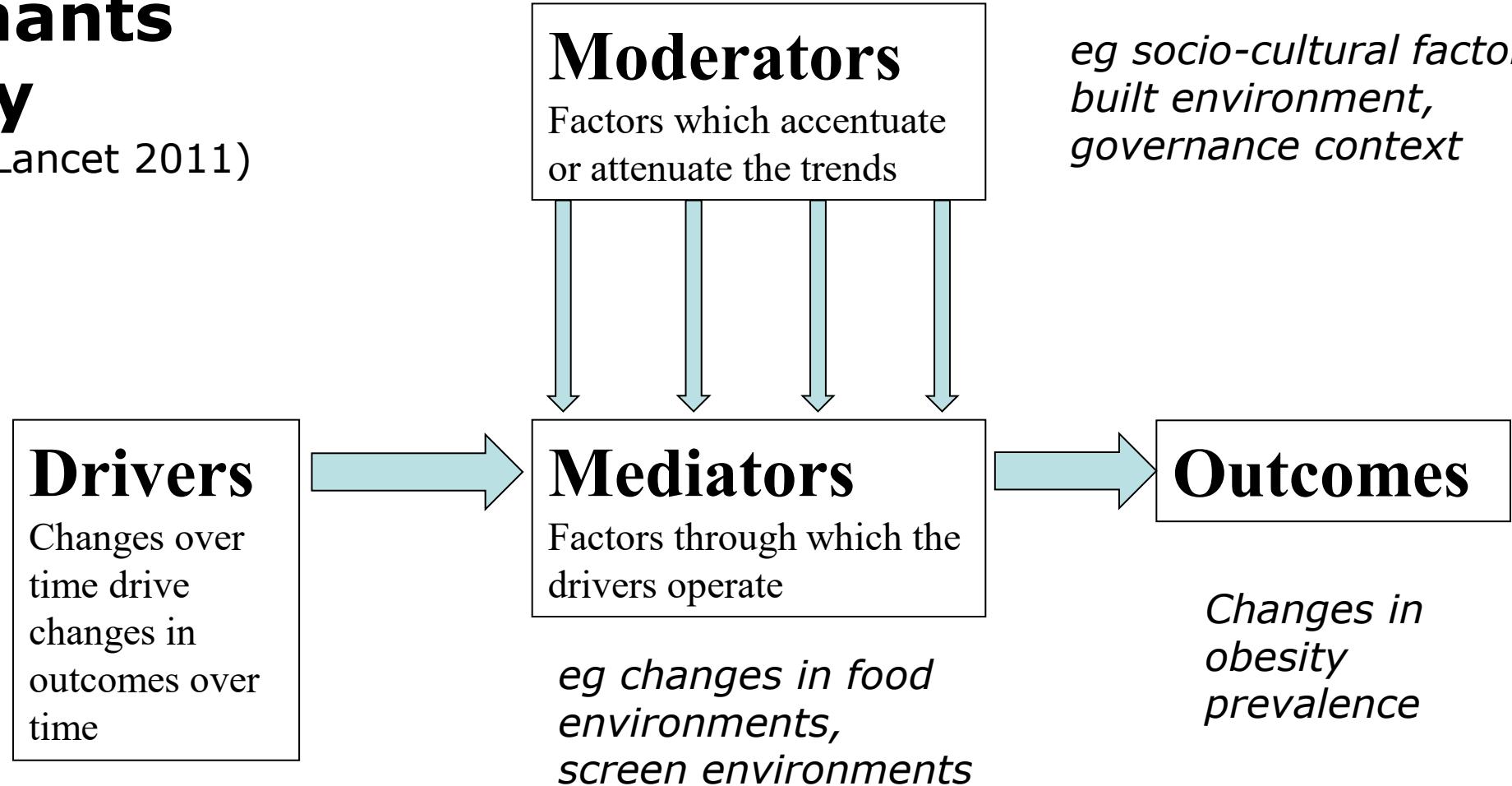


**UPF system:** Global, increasing, highly profitable, concentrated market, yields large political power, exploits human vulnerabilities, displaces real foods, creates inequities

# Determinants of obesity

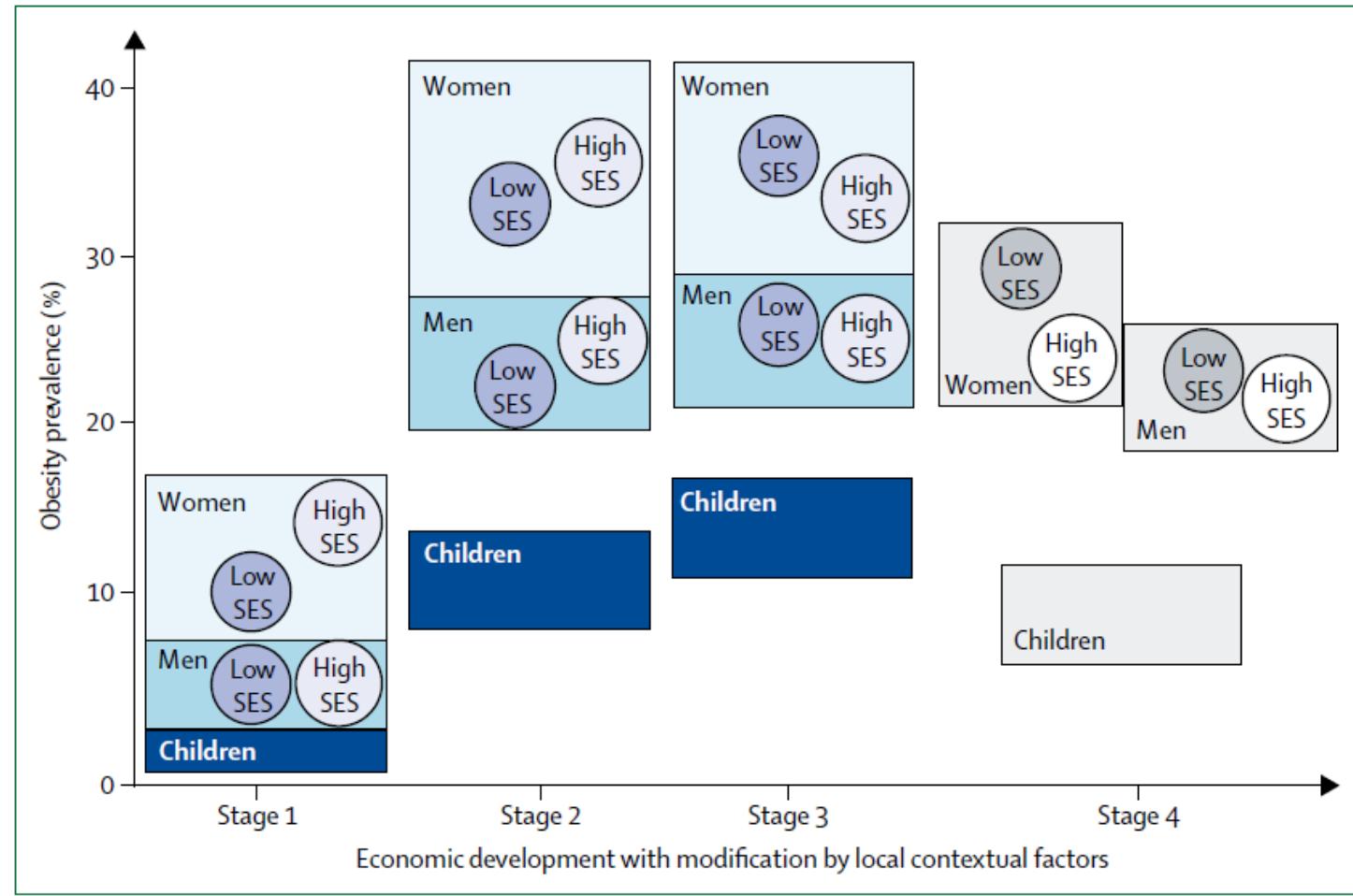
(Swinburn et al Lancet 2011)

*eg changes in wealth, TNC power, political economies, globalisation, technology, UPF system*



# The Obesity Transition

Jaacks L et al Lancet Diabetes Endocrinology 2019



# Lancet Commission on Obesity, 2019



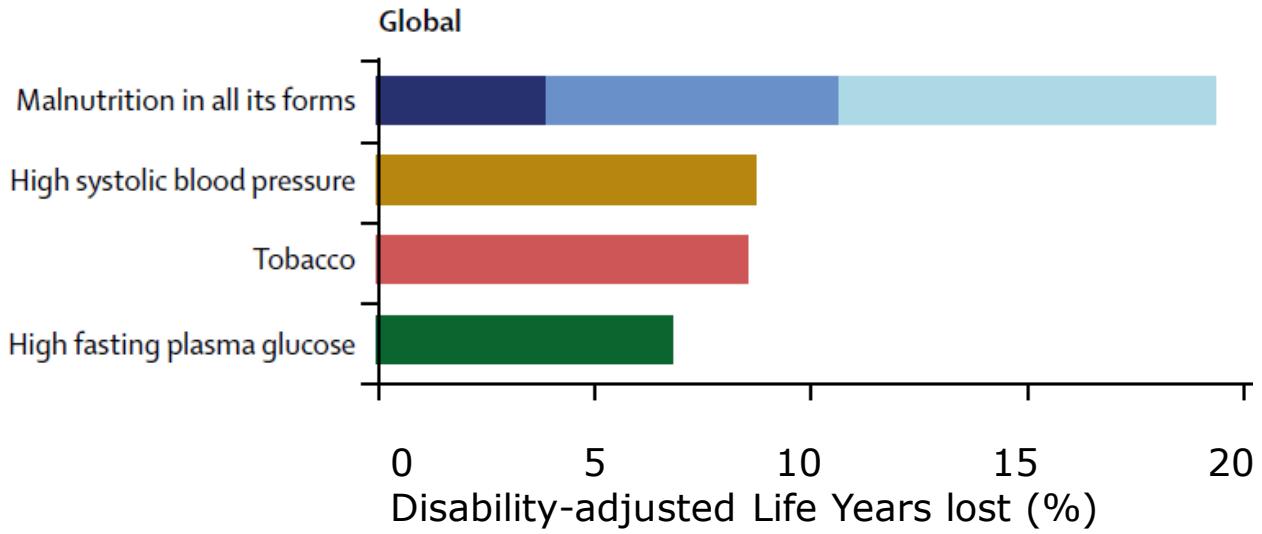
26 Commissioners, 17 Fellows, 14 countries, 29 disciplines, 4 years

# Lancet Commission – main concepts

- The Global Syndemic of Obesity, Undernutrition and Climate Change
  - Greatest health challenge of the 21<sup>st</sup> Century
- Syndemic is a synergy of epidemics
  - Co-occur in time & place
  - Negatively interact
  - Have common drivers
- Size of malnutrition in all its forms
- Joining up with climate change
- ‘Policy inertia’
- Civil society mobilisation
- Double/triple-duty actions
- Systems thinking, systems science
- Indigenous/traditional approaches
- Centrality of natural systems the political economy
- Accountability systems
- Human Right to Wellbeing
- Socio-cultural determinants & actions
- Research priorities

# Malnutrition in all its forms

- **High BMI:** Increasing in almost all countries
- **Dietary risks:** (15 diet patterns eg low in whole grains, F&V etc; high in Na, sugar etc). Increases especially in low and middle income countries
- **Maternal & child undernutrition:** Slow declines



Global

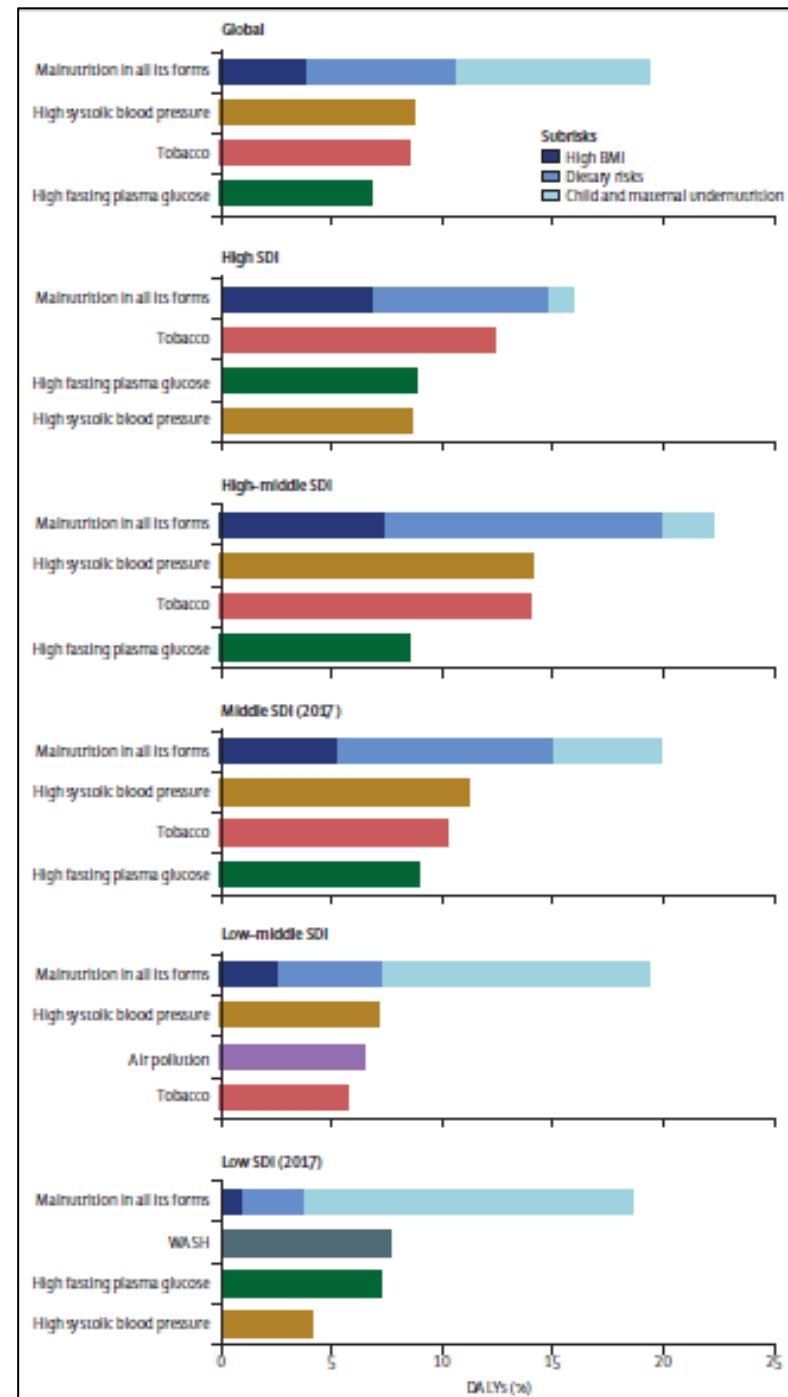
High

High-middle

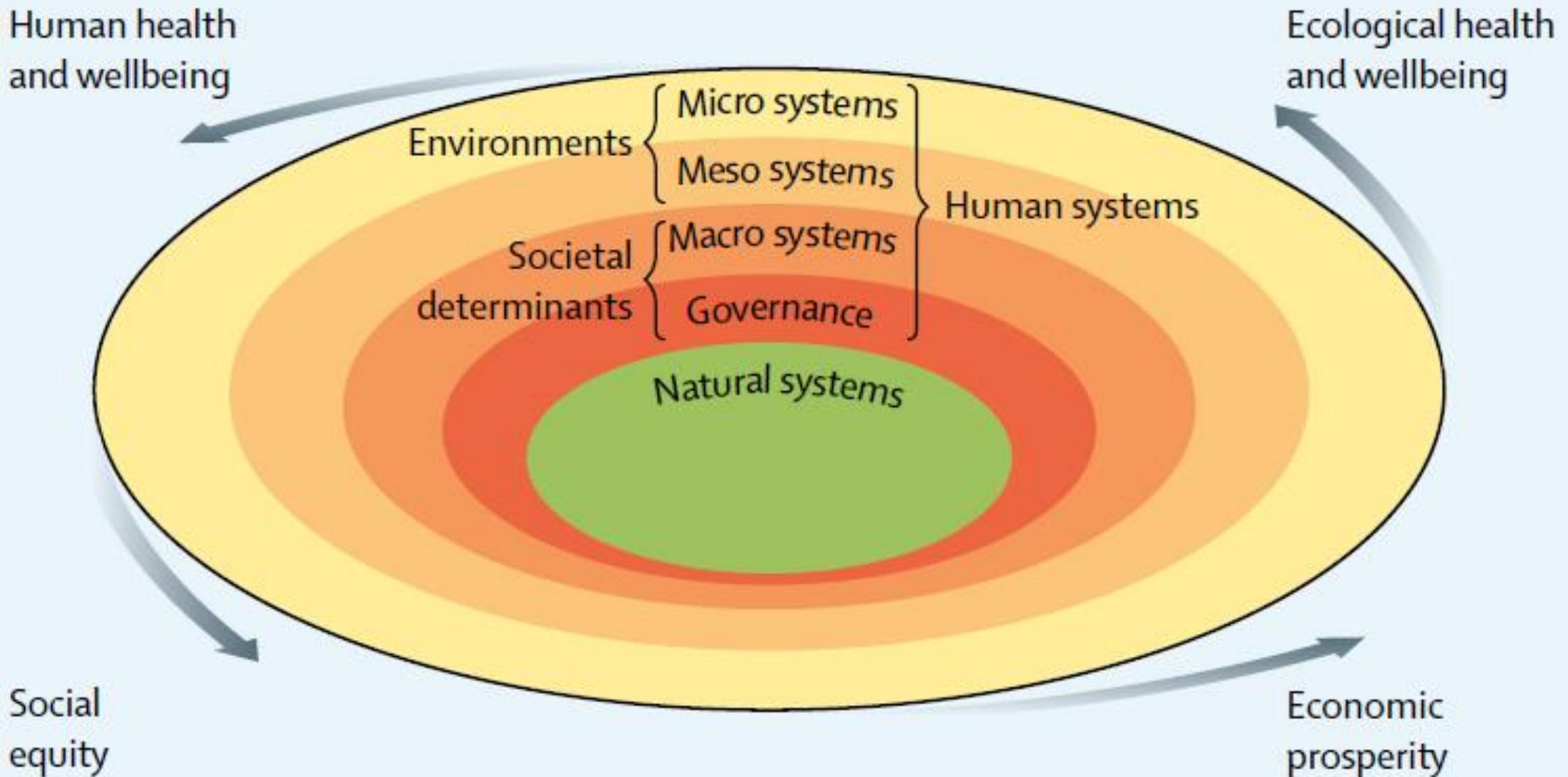
Middle

Low-middle

Low

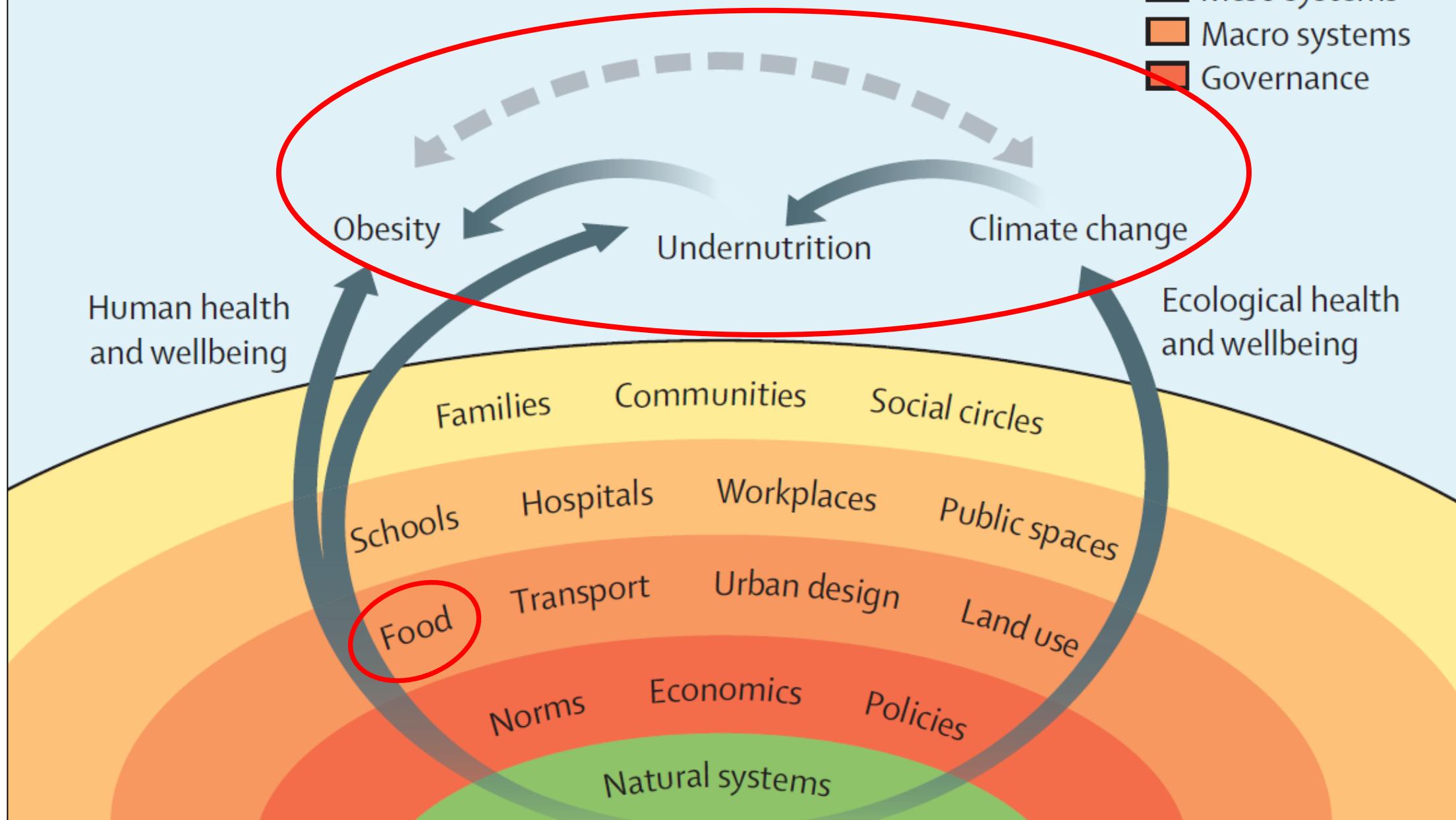


## A Global outcomes view

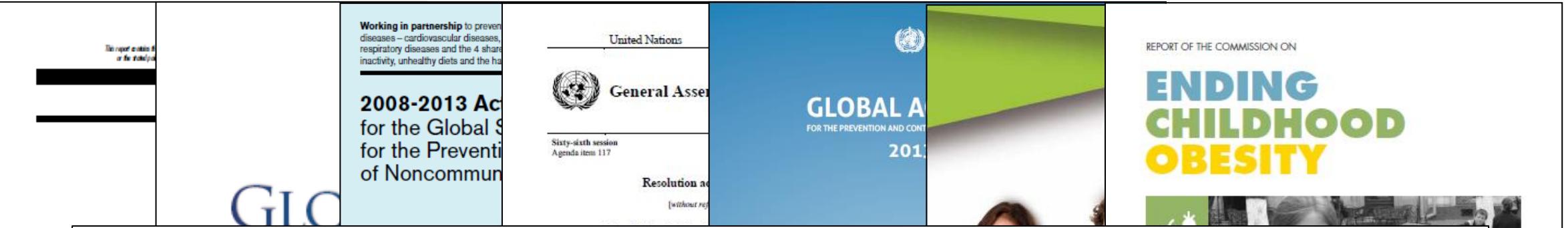


## B Global Syndemic view

- █ Micro systems
- █ Meso systems
- █ Macro systems
- █ Governance



# What needs to be done to prevent obesity?



The collage includes:

- A blue document cover for the "2008-2013 Action Plan for the Global Strategy for the Prevention and Control of Noncommunicable Diseases". It features the United Nations General Assembly logo and the text "Sixty-sixth session Agenda item 117 Resolution adopted [without modification]".
- A blue document cover for the "GLOBAL ACTION PLAN FOR THE PREVENTION AND CONTROL OF NONCOMMUNICABLE DISEASES 2011-2020".
- A green document cover for the "REPORT OF THE COMMISSION ON ENDING CHILDHOOD OBESITY".
- A pie chart showing the relationship between "harmful use of alcohol" and "diabetes".
- A document titled "Annex Political Declaration of the General Assembly on the Prevention and Control of Non-communicable Diseases". It includes a list of 11 principles, such as acknowledging the role of non-communicable diseases in undermining social and economic development.
- A photograph of children smiling.
- A photograph of a woman holding a baby.

**But implementation is very patchy**

# Policy Inertia on implementing policies

## 1. Industry opposition

- Conversion of economic power to political power (lobbying)
- Create the regulatory and economic conditions to maximise corporate profits

## 2. Government reluctance to regulate/tax

- Corrupt or weak governance systems, conflicts of interest
- Unwilling to battle food industry (chill effect)

## 3. Lack of public demand for policies

- Usually supportive of policy actions
- Not translated into pressure for change

# Civil society mobilisation

Bloomberg  
Philanthropies

Who We Are ▾

What We Do ▾

Our Approach ▾

News ▾



## Food Policy Program

The Bloomberg Philanthropies' Food Policy Program has committed over \$435 million to help public health advocates and experts promote healthier diets through policy change. This is an urgent global challenge: 8 million deaths are attributed to poor diets annually. Between 1990 and 2019, there was a 128% increase in mortality from being overweight. The good news is that the problem is preventable – and Bloomberg Philanthropies is supporting the

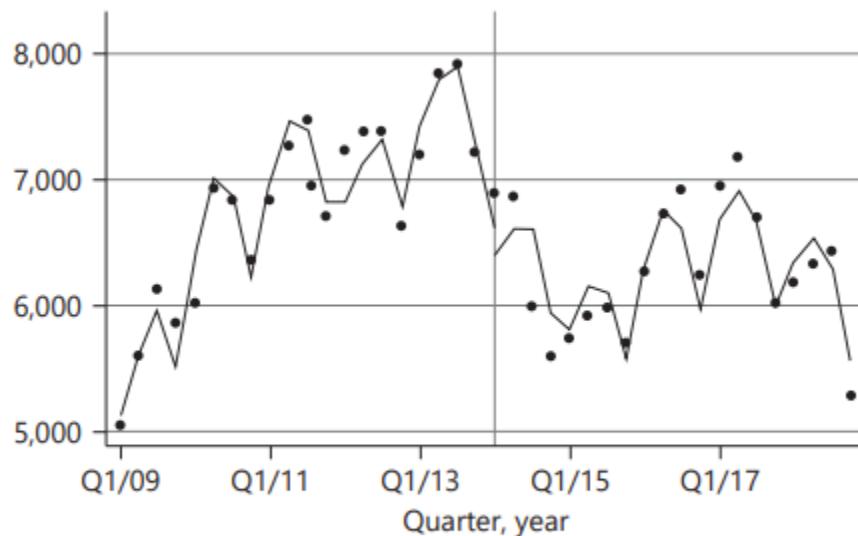
# ¿Les darías 12 cucharadas de azúcar?

CONFERENCIA MAGISTRAL

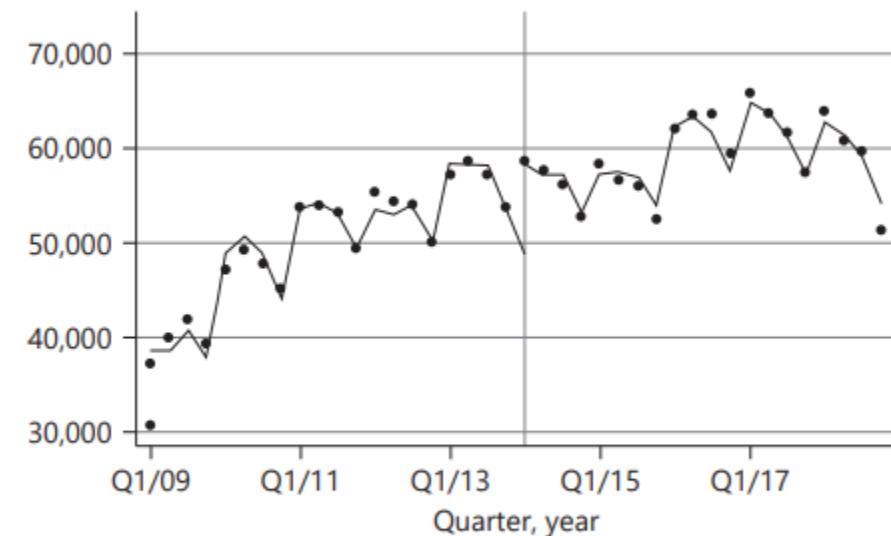
DR. ROBERT LUSTIG

OBESIDAD en  
MÉXICO

2a. Population with dental caries experience ( $dmft > 0$ )



2b. Population with dental caries experience ( $DMFT > 0$ )



La mi  
cafe

# Main messages

- **Global obesogenic drivers** (especially ultraprocessed food system) increase obesity in all countries
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**Ngā mihi nui  
Thank you  
very much**