

Global nutrition - current issues and research possibilities

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Coordinator Signatory Theme of Nutrition



Department of Nutrition

Institute of Basic Medical Science

Global Health Inspiration Day 2018

Agenda

1. Diet-related challenges globally and the food environment
2. Three ongoing research projects at Department of Nutrition, UiO
3. Outline of a proposal for UiO:LifeScience Convergence environment

1. Diet related challenges and food environment

The UN Decade of Action on Nutrition is:

- A UN-wide, FAO and WHO-convened, Member State-driven global collective effort to set, track and achieve **SMART policy commitments** to end all forms of malnutrition worldwide within the **Sustainable Development Agenda** and framed by **the Rome Declaration on Nutrition (ICN2, 2014)**.

Food security and Nutrition in the World

- Progress towards SDG 2.1 (Hunger) and SDG 2.2 (Malnutrition)
- A rise in world hunger (821 million)
- 151 million children <5 is stunted, and 50 million wasted
- Adult obesity is worsening - one in eight is obese (672 million)



**TIME
TO DELIVER**



Third UN High-level Meeting
on Non-communicable Diseases

27 September 2018, New York



THE LANCET

Imperial College
London



NCD
Countdown
2030



NCD Alliance



World Health
Organization

NCD Countdown 2030: worldwide trends in non-communicable disease mortality and progress towards Sustainable Development Goal target 3.4

*NCD Countdown 2030 collaborators**

Lancet 2018; 392: 1072–88

*Collaborators listed at end of paper

The third UN High-Level Meeting on Non-Communicable Diseases (NCDs) on Sept 27, 2018, will review national and global progress towards the prevention and control of NCDs, and provide an opportunity to renew, reinforce, and enhance commitments to reduce their burden. NCD Countdown 2030 is an independent collaboration to inform

.....will be achieved in 35 countries (19%) for women, and 30 (16%) for men, if these countries maintain or surpass their 2010–2016 rate of decline in NCD mortality.

Moving from individual drivers to the environmental drivers....

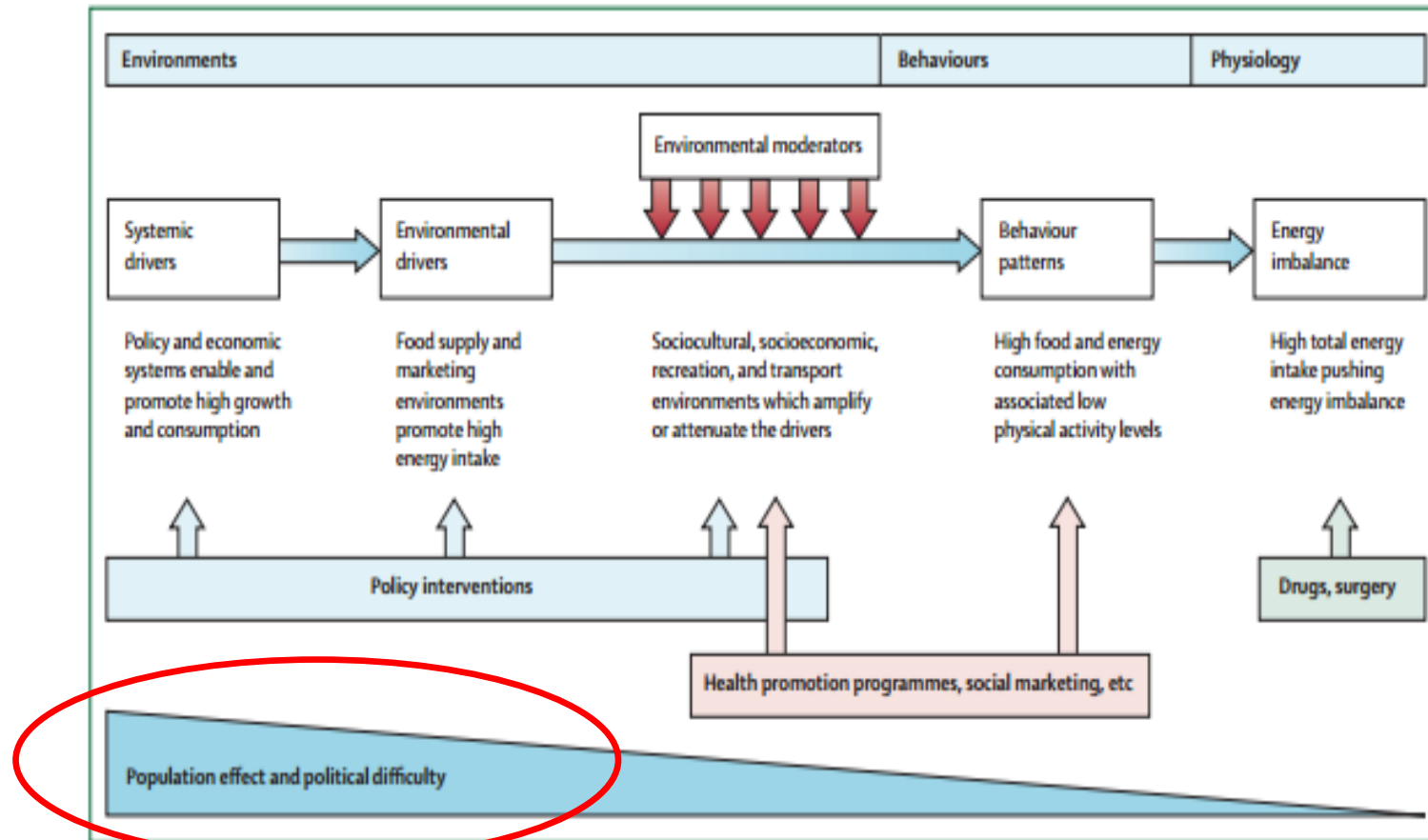


Figure 4: A framework to categorise obesity determinants and solutions

A vibrant night market scene with numerous colorful tents in shades of red, blue, green, yellow, and purple, illuminated by warm lights. The tents are arranged in rows, creating a dense canopy over the market stalls.

Nutrition and food systems

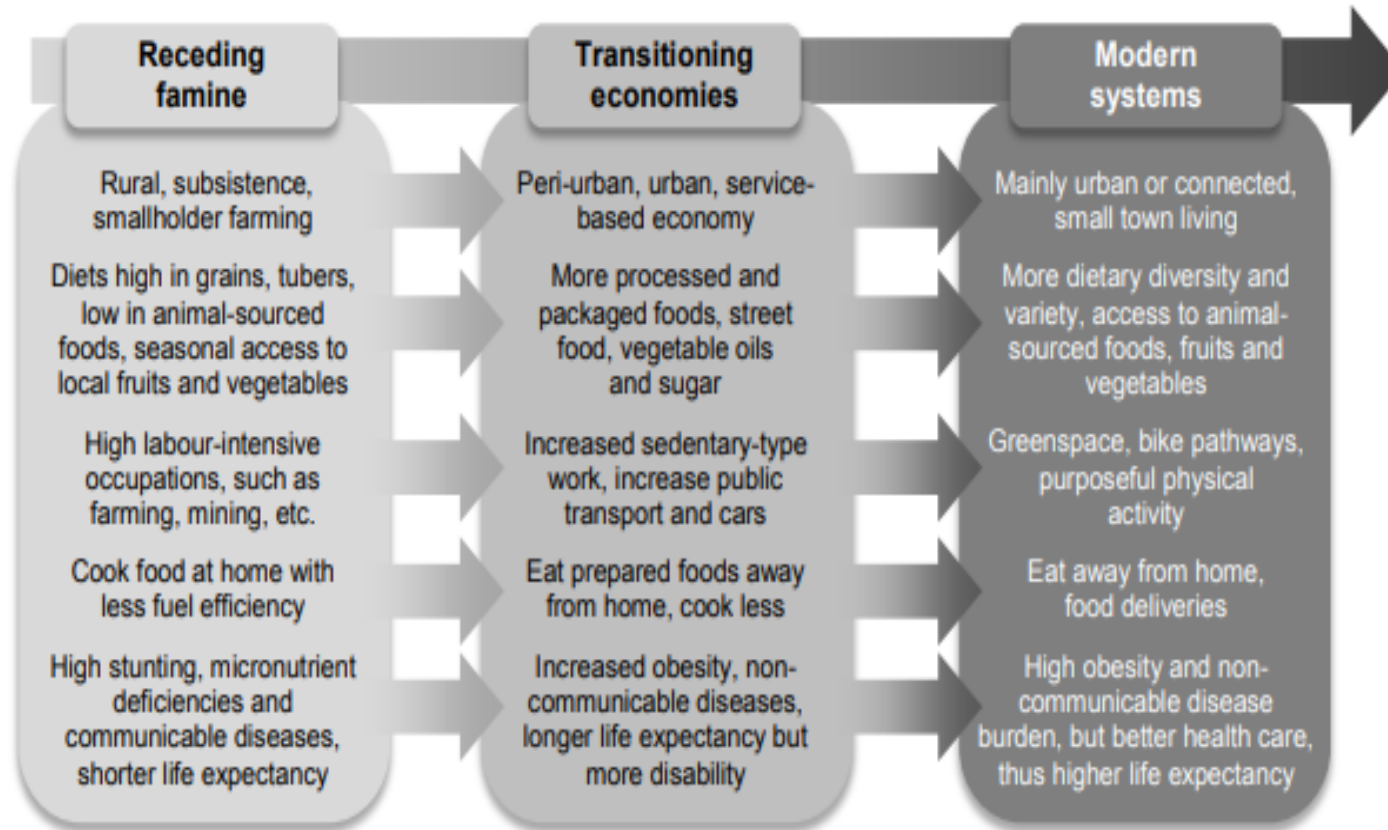
A report by

The High Level Panel of Experts

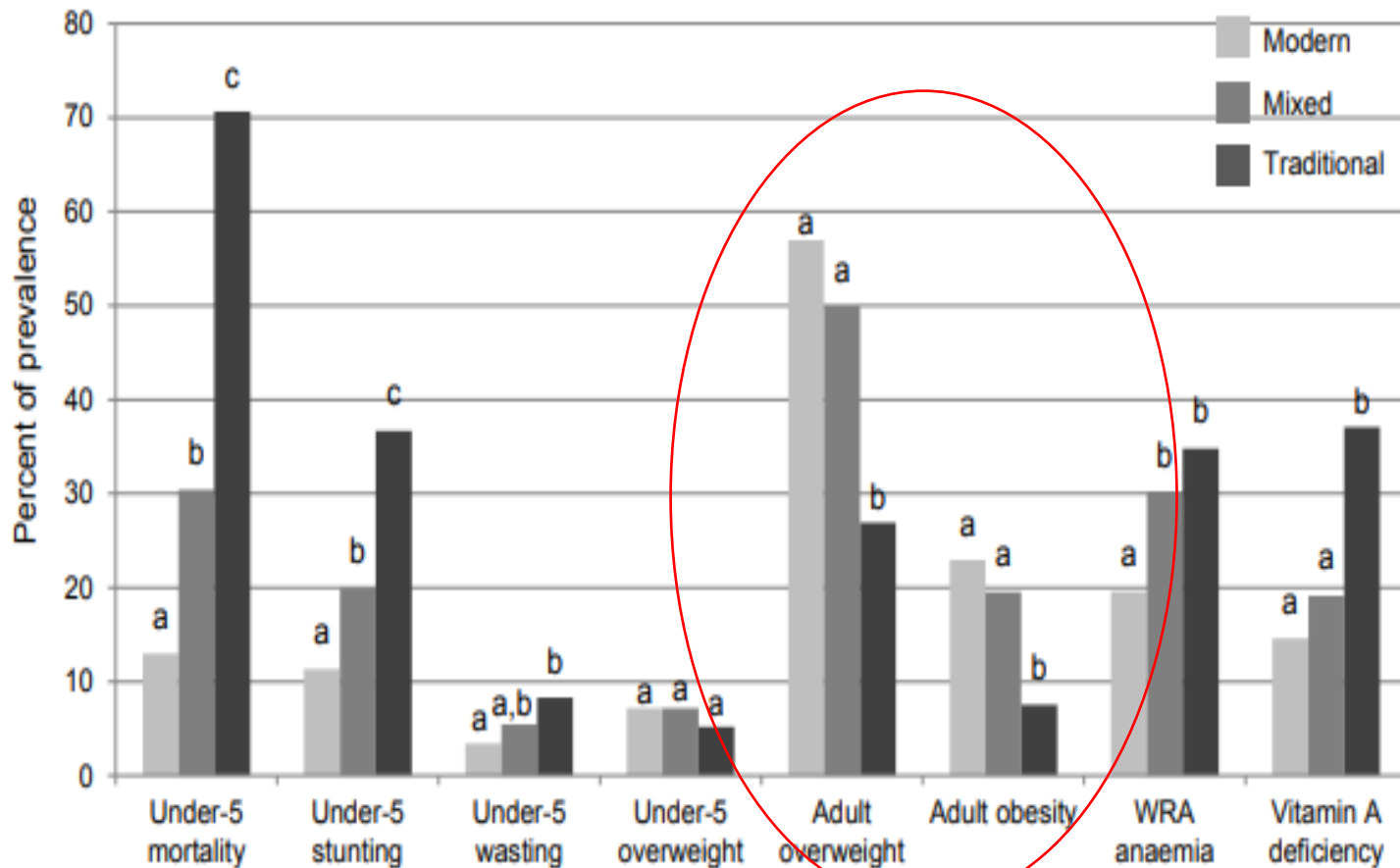
on Food Security and Nutrition

September 2017

Nutrition transition – from famine to modernity

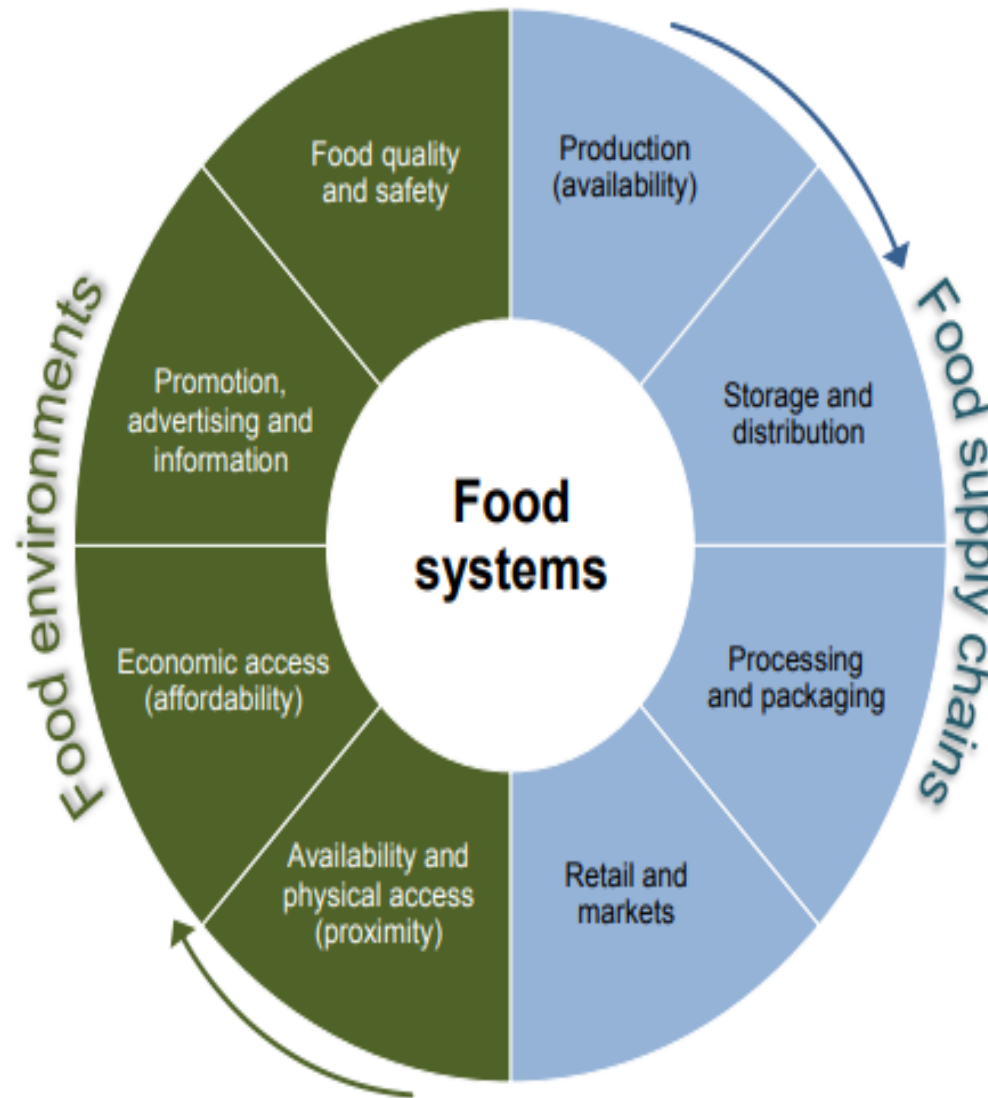


Modern food system type is associated with overweight and obesity in adults



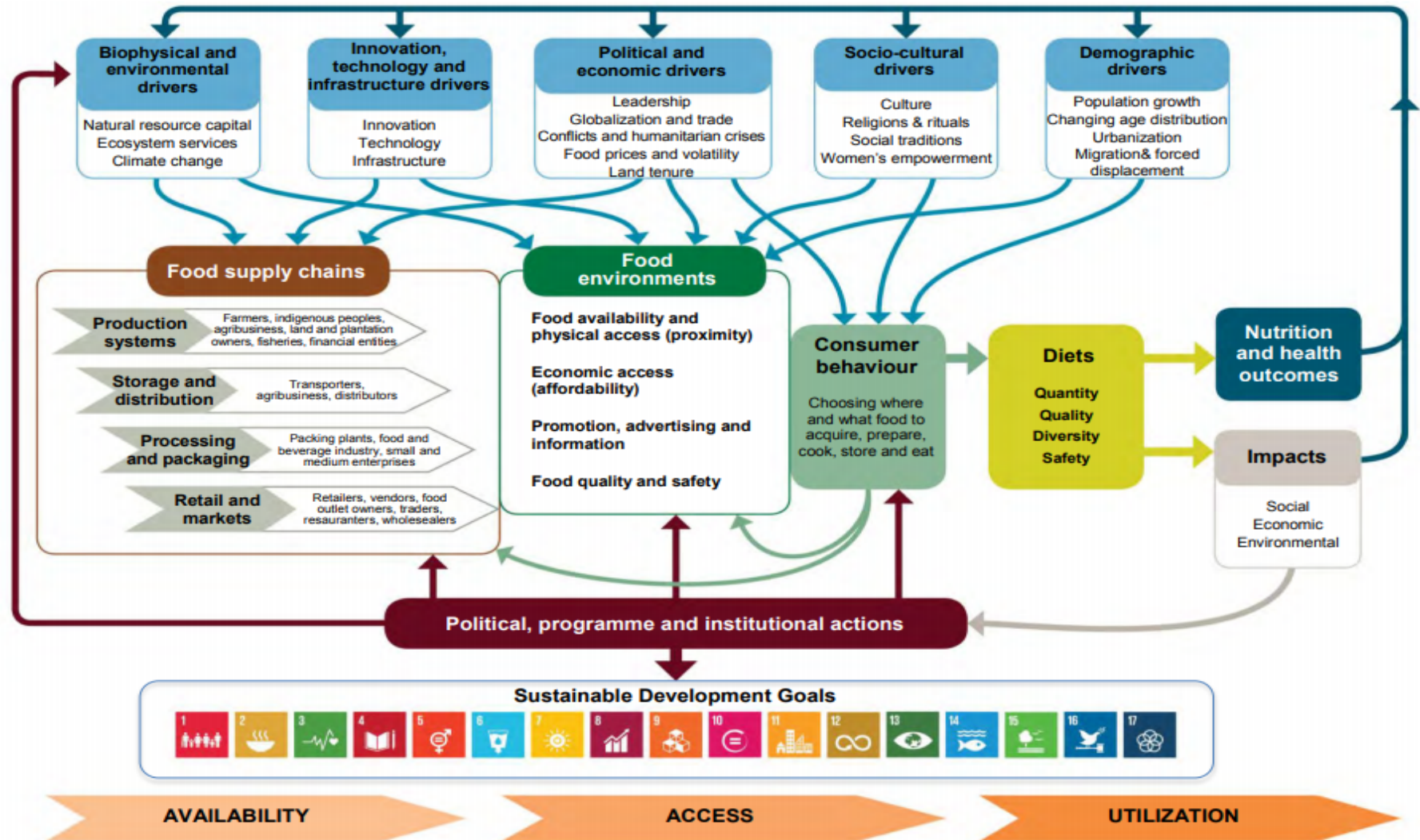
HLPE. 2017. Nutrition and food systems.

Figure 3 Food supply chains and food environments



Source: Adapted wheel concept from Ranganathan et al. (2016).

Taking a food system and environment perspective on diet-related health



2. Three ongoing research projects

Tackling socioeconomic differences in weight development among youth: assessing trends, mechanisms and potential interventions

Mekdes Gebremariam, MD, MPhil, MSc,
PhD Postdoctoral Fellow

University of Oslo



Project description

- **4-year project (2018-2022)**



- **Partner institutions:**



- **Also includes project members from**



Objectives

- **Sub-project 1 (secondary analysis of MoBa data) 2018 ->**
 - Explore longitudinal development of socioeconomic differences in body weight and related mediators (birth to 13 years)
 - Identify the impact of hypothetical interventions
- **Sub-project 2 (qualitative survey and instrument validation) 2018 ->**
 - Explore parents' and adolescents' perspectives of barriers and facilitators of healthy lifestyle behaviors
 - Adapt and test the reliability and validity of a **virtual mapping tool of the neighborhood food and activity environment**
- **Sub-project 3 (multi-level cross-sectional survey) 2019 ->**
 - Explore **multilevel determinants of lifestyle behaviors** and body weight among adolescents (in Oslo in spring 2020 ?)



Determinants of malnutrition among young children and adolescents in South Africa and Norway

Siobhan O'Halloran

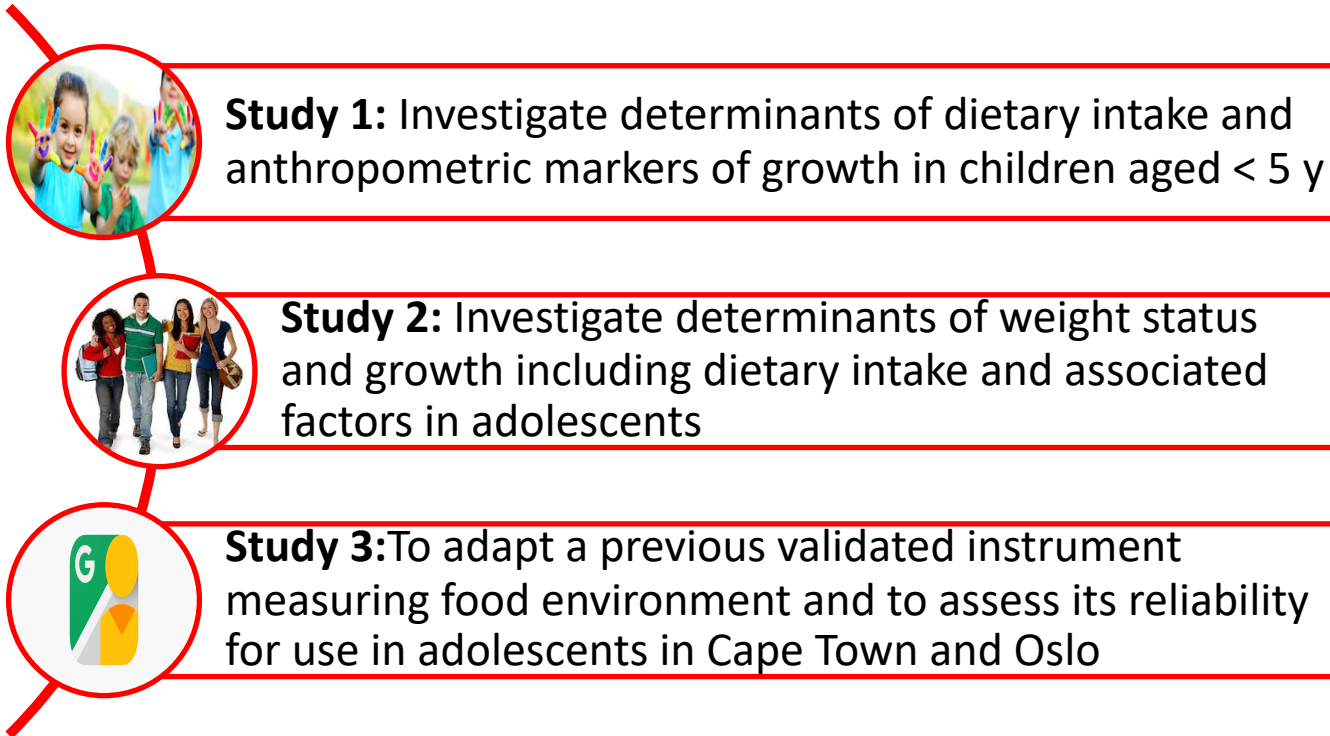
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University of Oslo

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Three sub-studies





Study 3: To adapt a previous validated instrument measuring food environment and to assess its reliability for use in adolescents in Cape Town and Oslo

Aim

- To adapt a previous validated instrument measuring food environment and to assess its reliability for use in adolescents in Cape Town and Oslo

Methods

- Three neighbourhoods both in Cape Town and Oslo to be selected
- Google Street View to be used to determine the food environment characteristics around schools

Collaborators

- University of Oslo: Professor Nanna Lien, Dr. Mekdes Gebremariam
- Stellenbosch University: Professor Kombi Mbhenyane
- Cape Town: Professor Marijanne Senekal





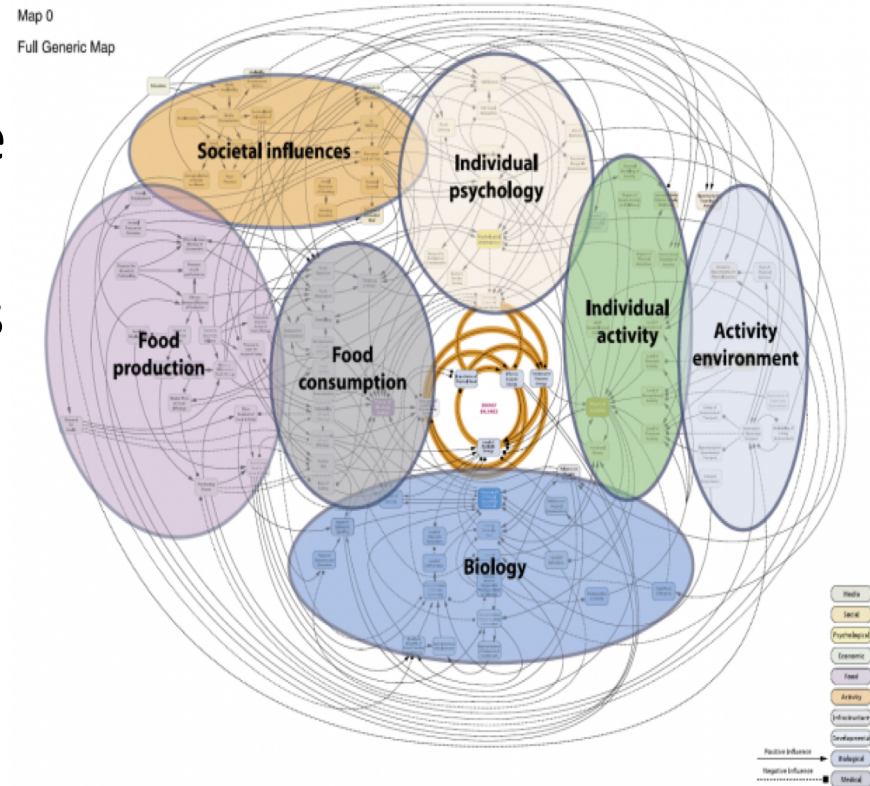
Confronting obesity: Co-creating policy with youth (CO-CREATE)

Nanna Lien, WP7-leader

25.09.2018

Background

- Overweight/obesity epidemic
- Individual level interventions have not stopped the epidemic → need to focus at the policies that change society and take a systems perspective
- Youth are important target for preventive actions, but are also future parents and societal leaders -> need to get them involved in developing policies

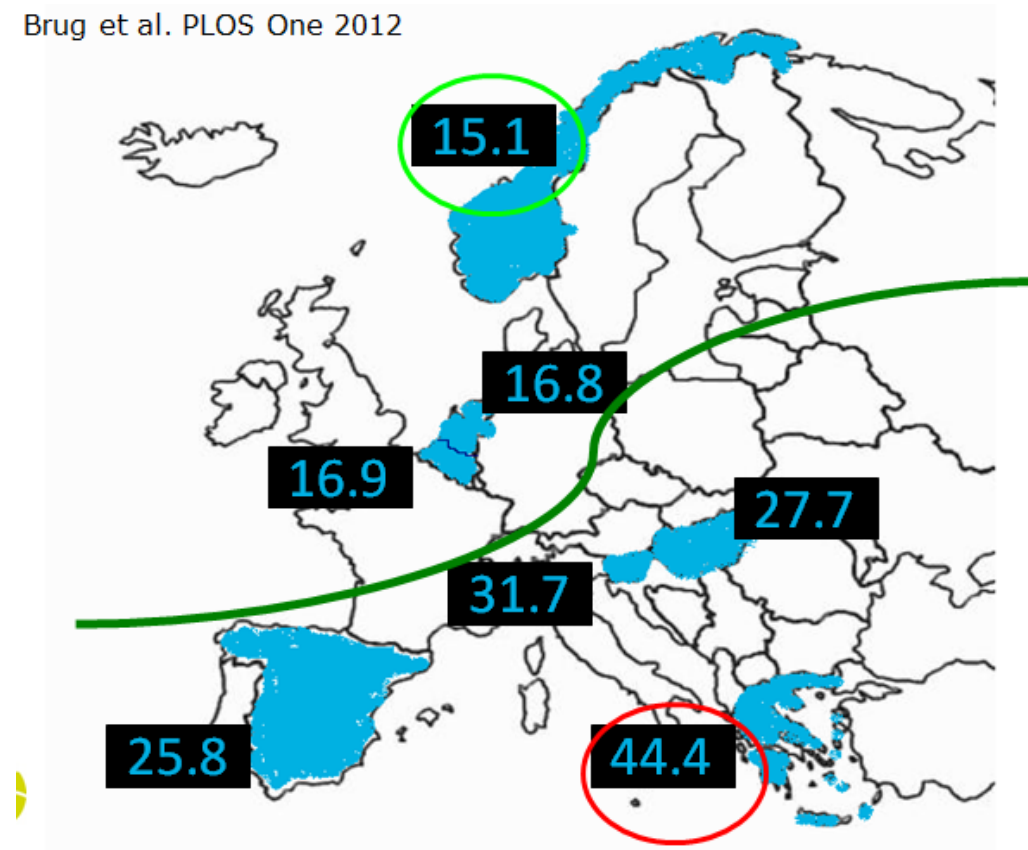


AIM

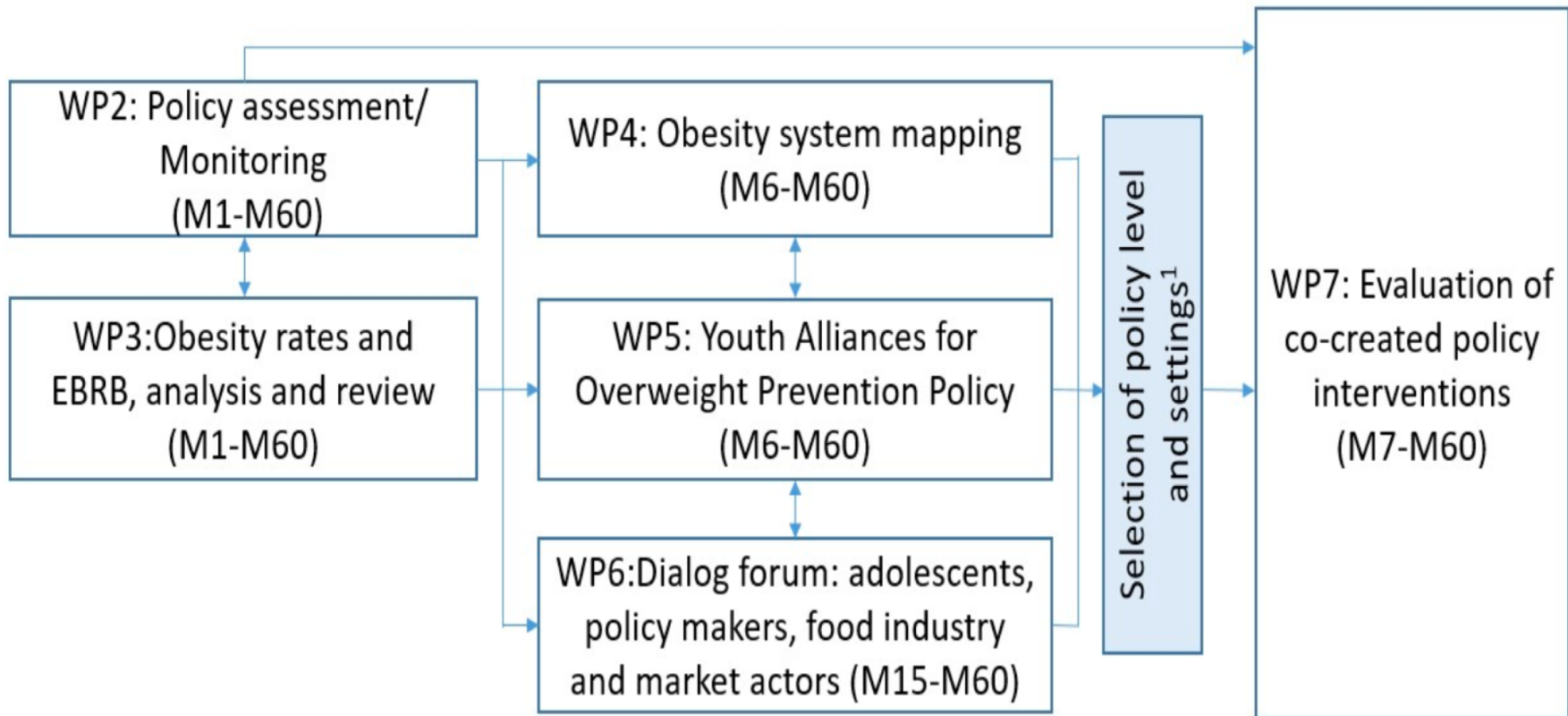
- The overall aim of CO-CREATE is to reduce the prevalence of obesity among adolescents in Europe through policy actions to promote a healthier food and physical activity environment.

Overweight/obesity 10-12 year old boys

Brug et al. PLOS One 2012



WP1: Coordination (M1-M60)



WP8: Open science and fair data management (M1-M60)

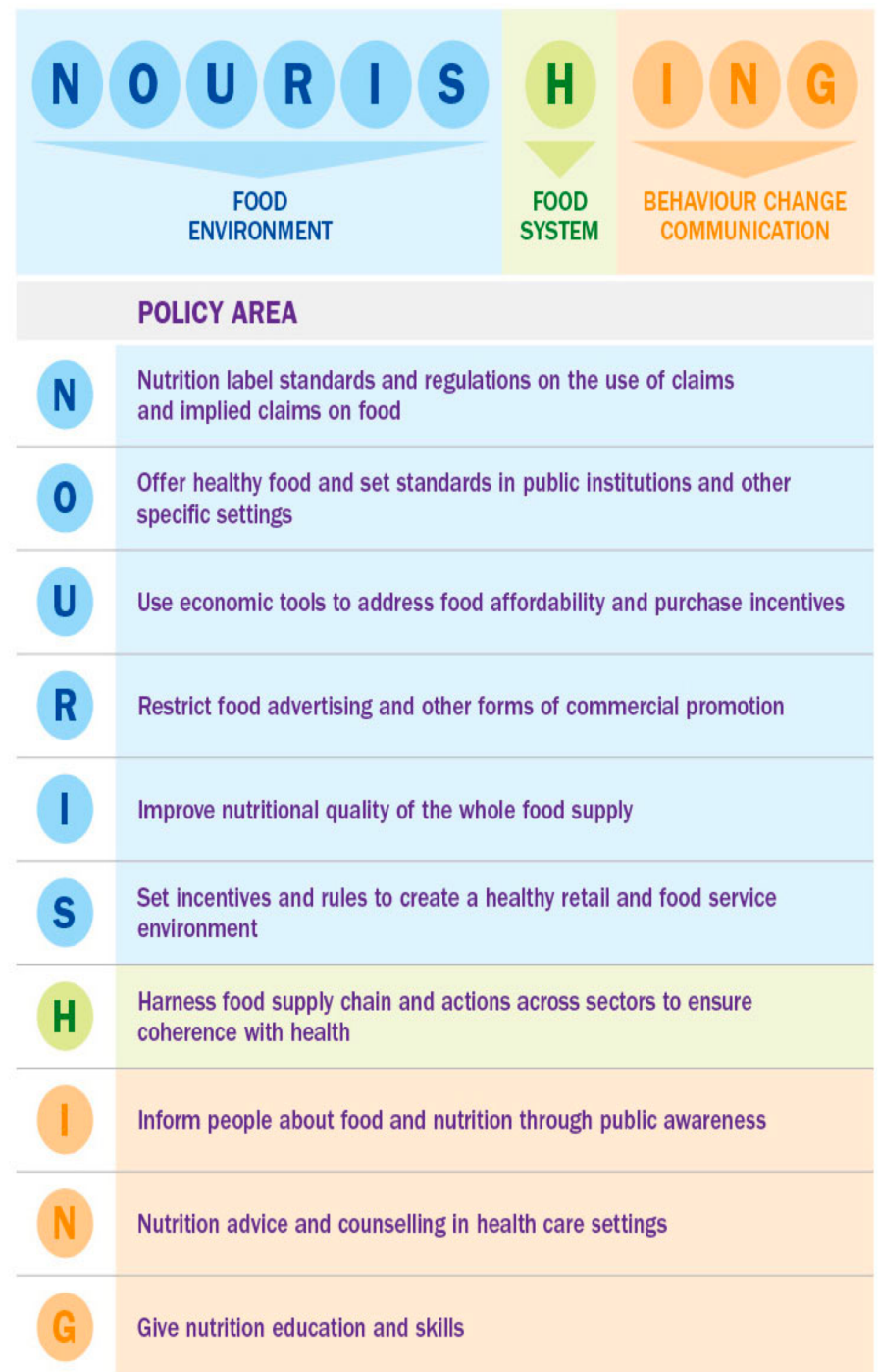
WP9: Dissemination, exploitation and communication of results (M1-M60)

WP10: Ethic requirements (M1-M60)

WP2 Policy assessment and monitoring

LEAD: World Cancer Research Fund

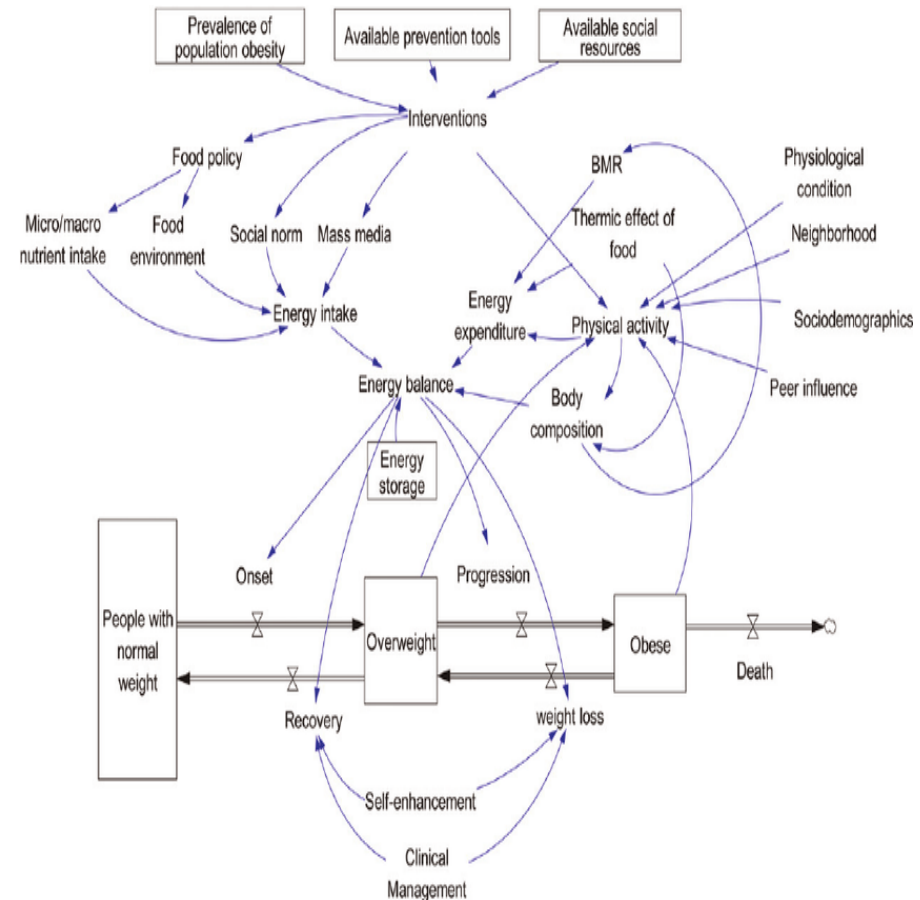
- To develop a **policy monitoring tool for physical activity**, building on the existing NOURISHING framework of World Cancer Research Fund International
- To conduct a **global scan of implemented policies** promoting healthy diets and physical activity.
- To develop an index to benchmark and assess the overall policy status with regards to physical activity in Europe.



WP4 Obesity system mapping

LEAD: London School of Hygiene and Tropical Medicine

- to identify the key factors driving obesity in adolescents and **generate system maps to identify the key opportunities for policy interventions** to tackle the problem of adolescent obesity.
- The views of the adolescents themselves, as well as academic experts and policy makers will be included.



WP7 Evaluation of CO-CREATEd policy interventions and methodology

LEAD: University of Oslo

- Develop questionnaire and measure attitudes and readiness for action towards policy measures to combat childhood obesity among the youth in the Alliances (WP5) and Stakeholders in the forums (WP6)
- Develop a systems dynamics model to model potential effects of 1-3 of the most commonly suggested policies.
- Develop policy/project implementation and evaluation plans (1-3 pr country in native languages)



www.co-create.eu



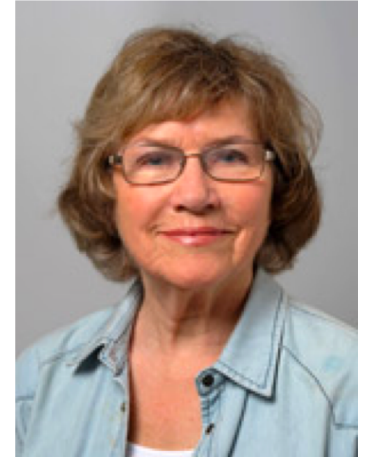
The CO-CREATE project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 774210. The products of the research are the responsibility of the authors: the European Commission is not responsible for any use that may be made of them.



3. Towards a proposal for a
UiO:Life Science academic
'convergence environment'

«Childhood obesity: Medical evidence, human rights principles and duties to prevent»

- Department of Nutrition, Faculty of Medicine (host)
- Norwegian Centre for Human Rights, Faculty of Law
- **Possibly other units/scholars at UiO ??**
- OsloMet via colleagues in public health nutrition (PHN)
- Selected members of an international network of legal human rights and PHN scholars
- Selected actors in relevant UN organizations



Professor emeritus
Wenche Barth Eide

A human rights approach to childhood obesity

- The human rights approach implies binding duties to prevent childhood obesity
 - in accordance with international human rights law ratified by the state;
 - right to health; right to adequate food; right to a clean environment; women's rights etc.;
 - duties to prevent transformed into policy;
 - can/should responsibilities of food businesses become part of the picture

UiO:Life Science Call

- Second call 2018-19 (7 convergence environments financed in 2017 for four years)
- 5-6 projects to be selected in 2019
- Financing for up to 4 PhDs; possibility for 1 of these as post-doc

- Short sketch of a project for 15 October
- Final application end December
- Selection in March 2019; start early fall 2019

Interested in collaboration?

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