

IUNS 21st ICN International Congress of Nutrition “From Sciences to Nutrition Security”



INTERNATIONAL UNION OF
NUTRITIONAL SCIENCES

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Sheraton Buenos Aires Hotel & Convention Center

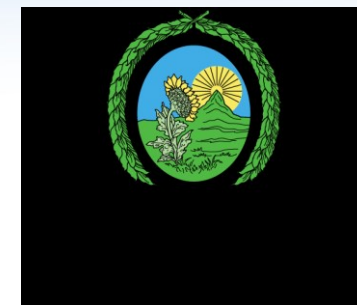
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Conflict of Interest Disclosure

I have no conflict of interest to report in relation to this presentation.



Nutrition Guidance in the Age of Globalized Markets

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Dietary patterns

Describes the overall diet; the foods, food groups, and nutrients included; their combination and variety; and the frequency and quantity with which they are habitually consumed.



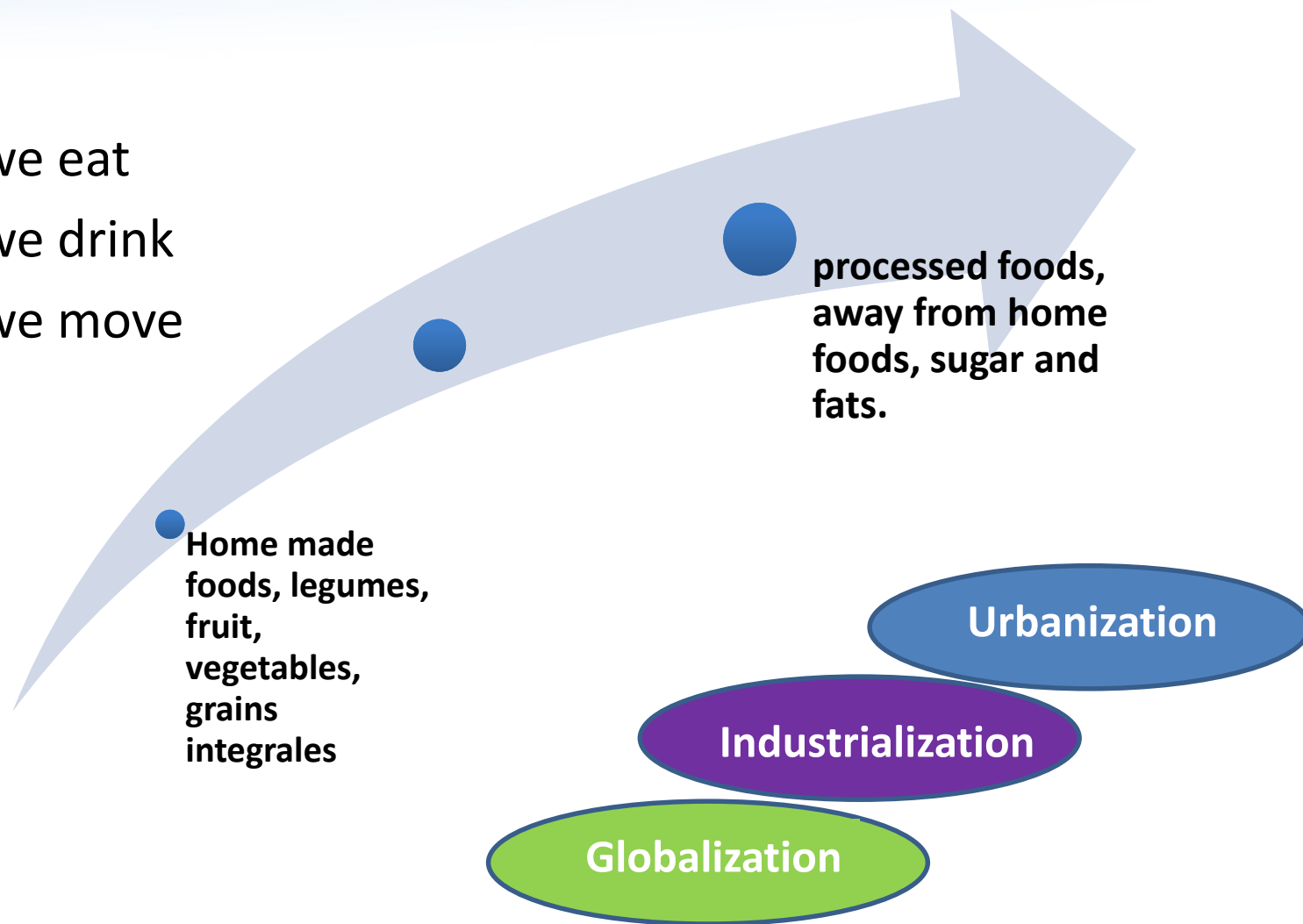
Cespedes & Hu AJCN, 2015

Global statistics of obesity and malnutrition

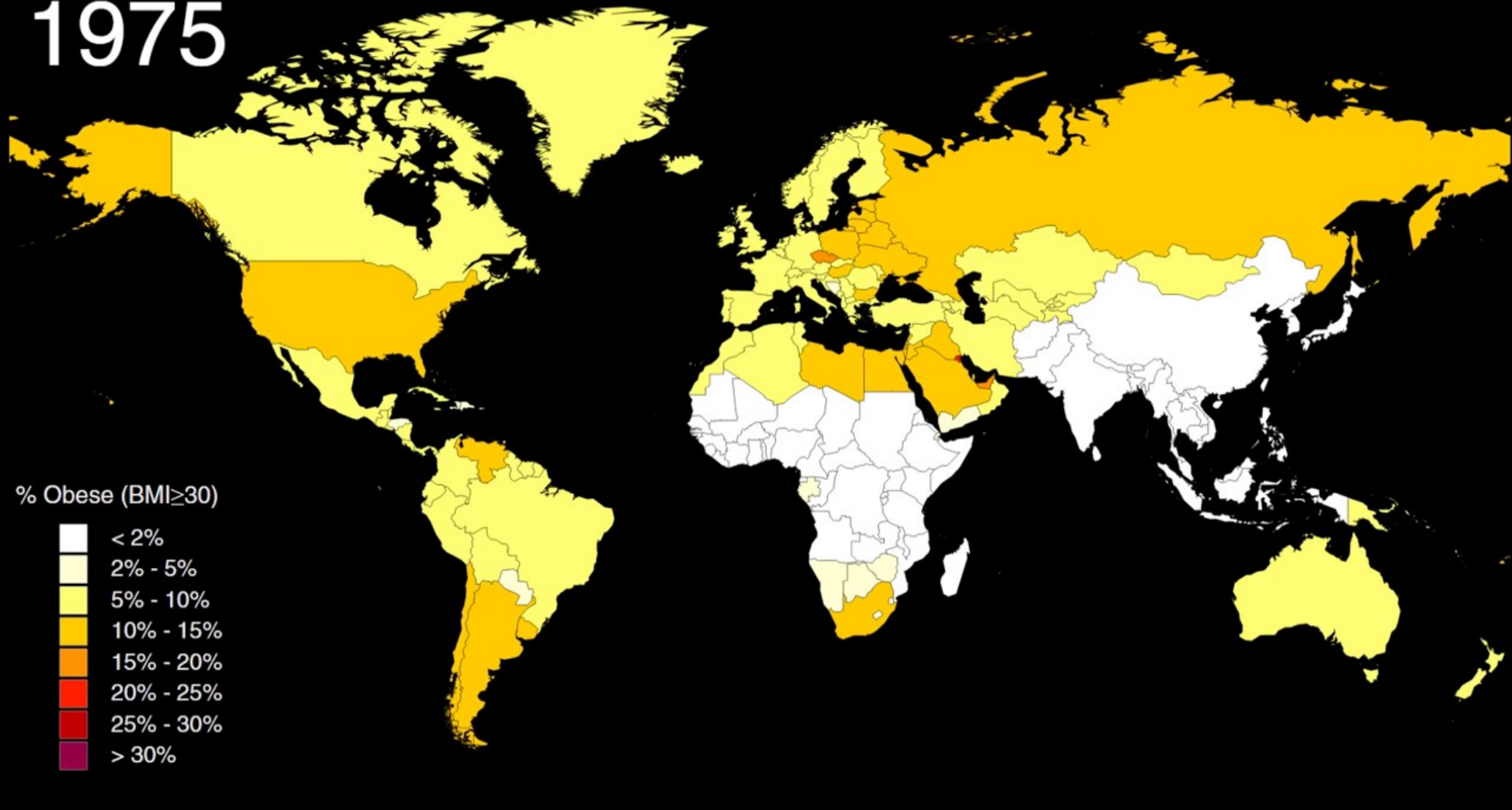
- 795 million people experience hunger
- 2 billion experience micronutrient deficiencies
- 2.1 billion are overweight or obese

Nutritional Transition

- How we eat
- How we drink
- How we move



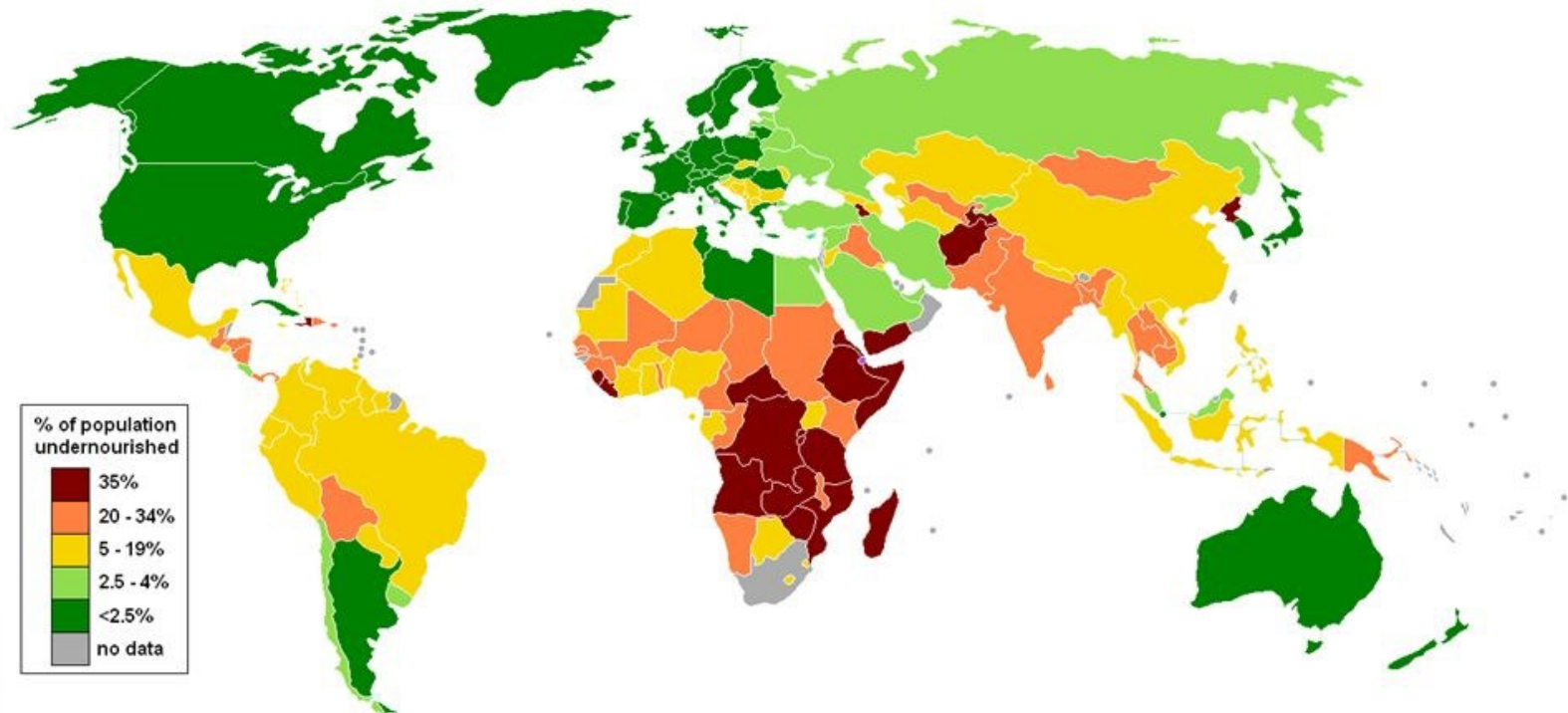
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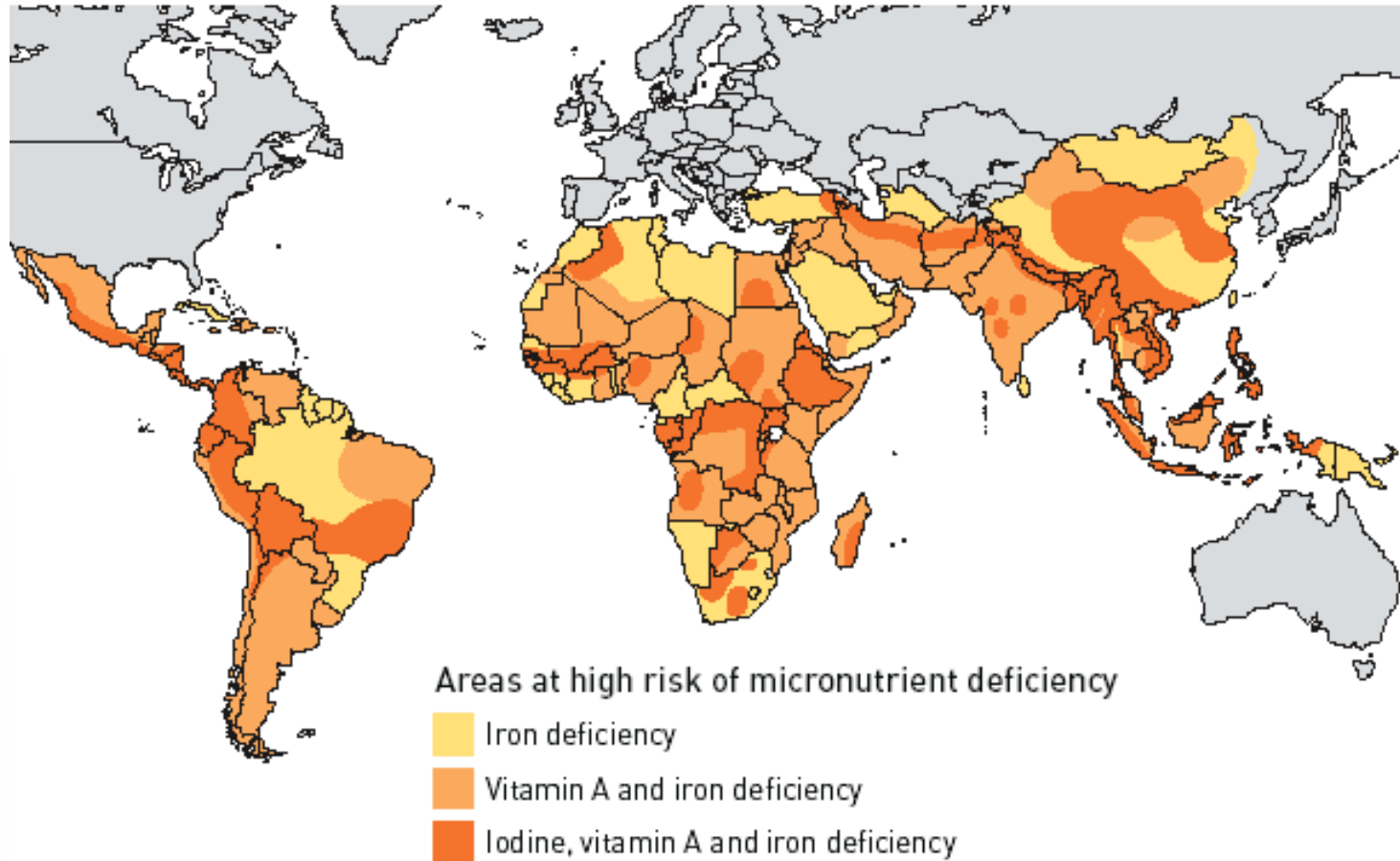
The double burden of Malnutrition



Undernutrition



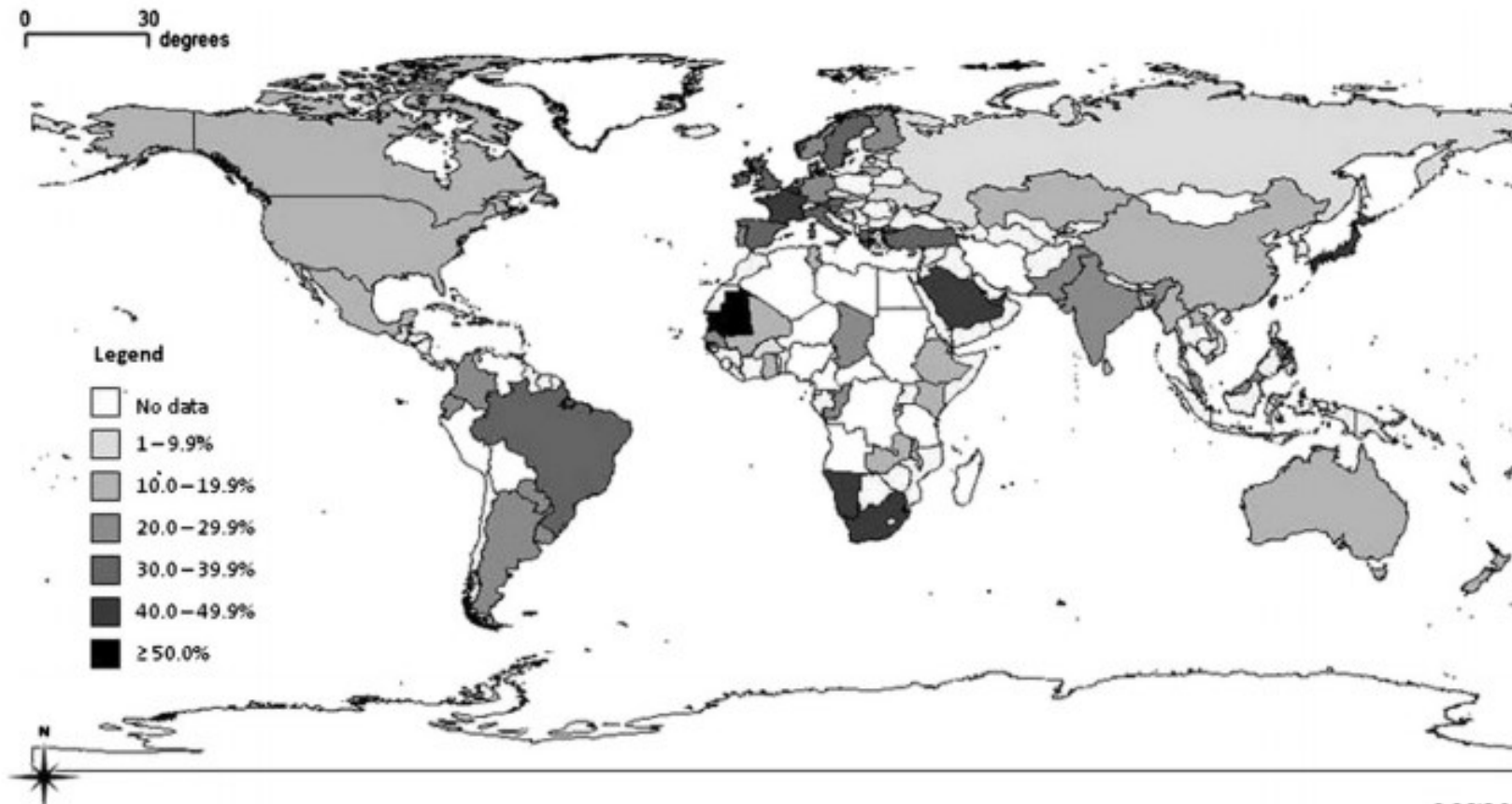
Micronutrient deficiencies



Source: USAID

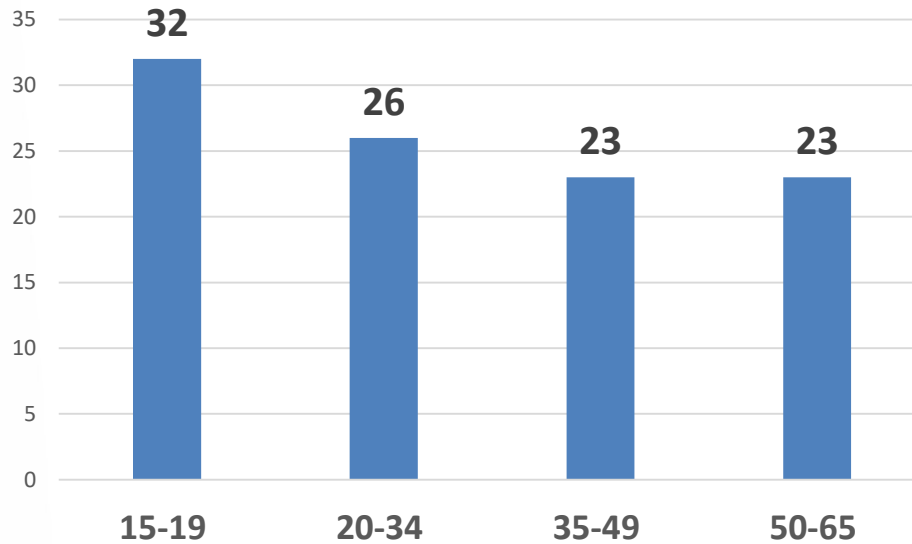
Prevalence of inactivity

S.C. Dumith et al. / Preventive Medicine 53 (2011) 24–28



Dumith SC et al. Preventive Medicine 53 (2011) 24-28

IPAQ- Sitting time (h/w)



Age range (years old)

**ELANS**

ESTUDIO
LATINOAMERICANO DE
NUTRICIÓN Y SALUD



Sitting Time and Mortality from All Causes, Cardiovascular Disease, and Cancer

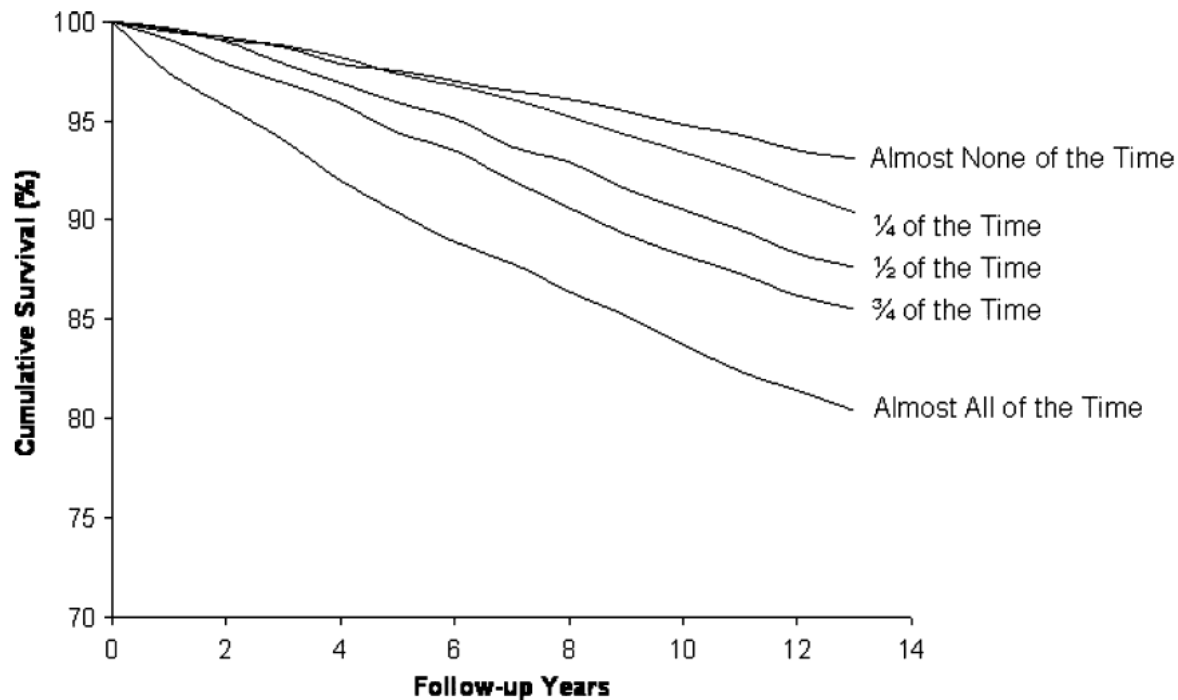


FIGURE 1—Kaplan–Meier survival curve for all-cause mortality across categories of daily sitting time in 17,013 men and women 18–90 yr of age, in the Canada Fitness Survey, 1981–1993. Log-rank $\chi^2 = 174.4$, $df = 4$, $P < 0.0001$.

Hidden hunger

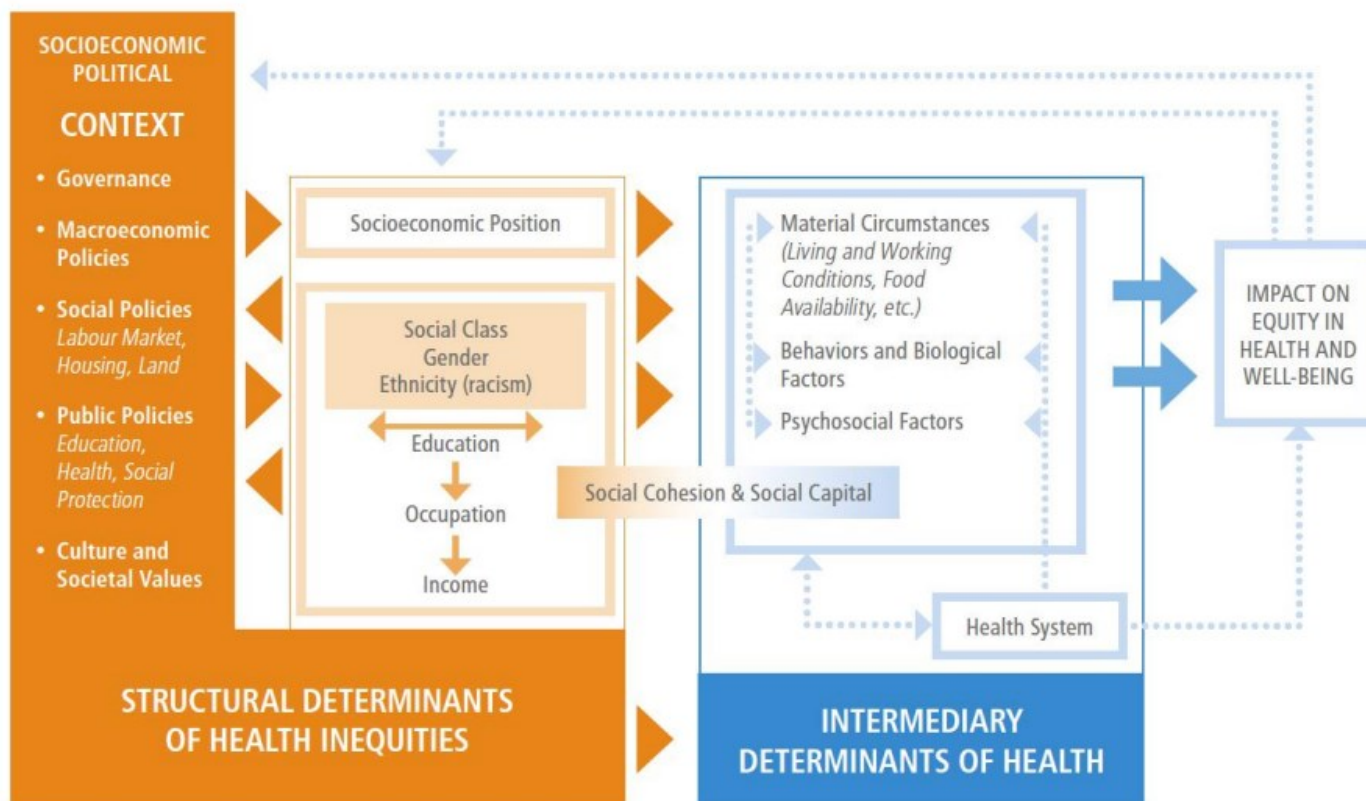
Hunger: The uneasy or painful sensation caused by a lack of food. When used in program evaluations, lack of access to food must be involuntary.

Hidden hunger: When an individual suffers from subclinical nutrient deficiencies (eg, iron, folic acid, and vitamin A), but does not have overt clinical signs of undernutrition.

Food insecurity: When people do not have adequate physical, social, or economic access to sufficient, safe, and nutritious food that meets their dietary needs and food preferences for an active and healthy life.

Food security: Access by all people at all times to enough food for an active, healthy life, including, at a minimum: (a) the ready availability of nutritionally adequate and safe foods, and (b) an assured ability to acquire acceptable foods in socially acceptable ways (eg, without resorting to emergency food supplies, scavenging, stealing, or other coping strategies).

Social determinants of Health



Source: Solar and Irwin, 2010⁶

Nutrition in early life



Dutch famine, winter 1944-1945

Individuals whose mothers were exposed to famine periconceptually exhibited

- Low birth weight
- Increased risk of obesity and cardiovascular diseases

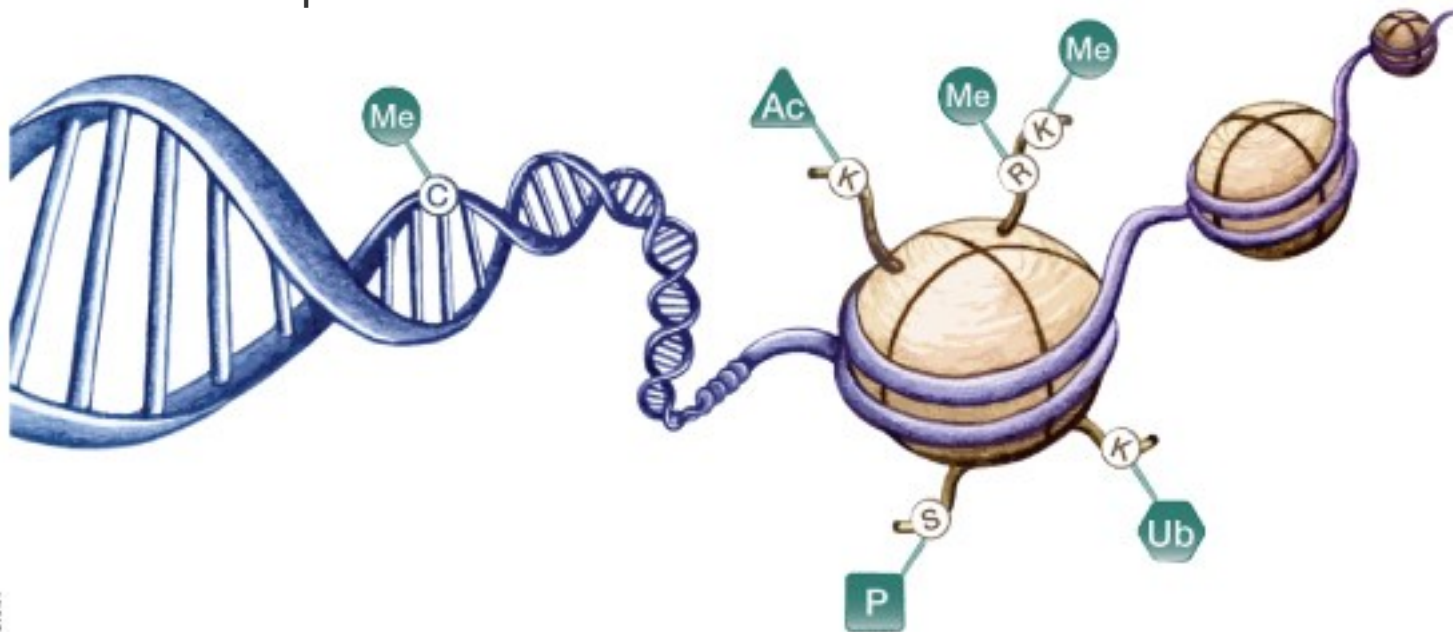


Early postnatal life

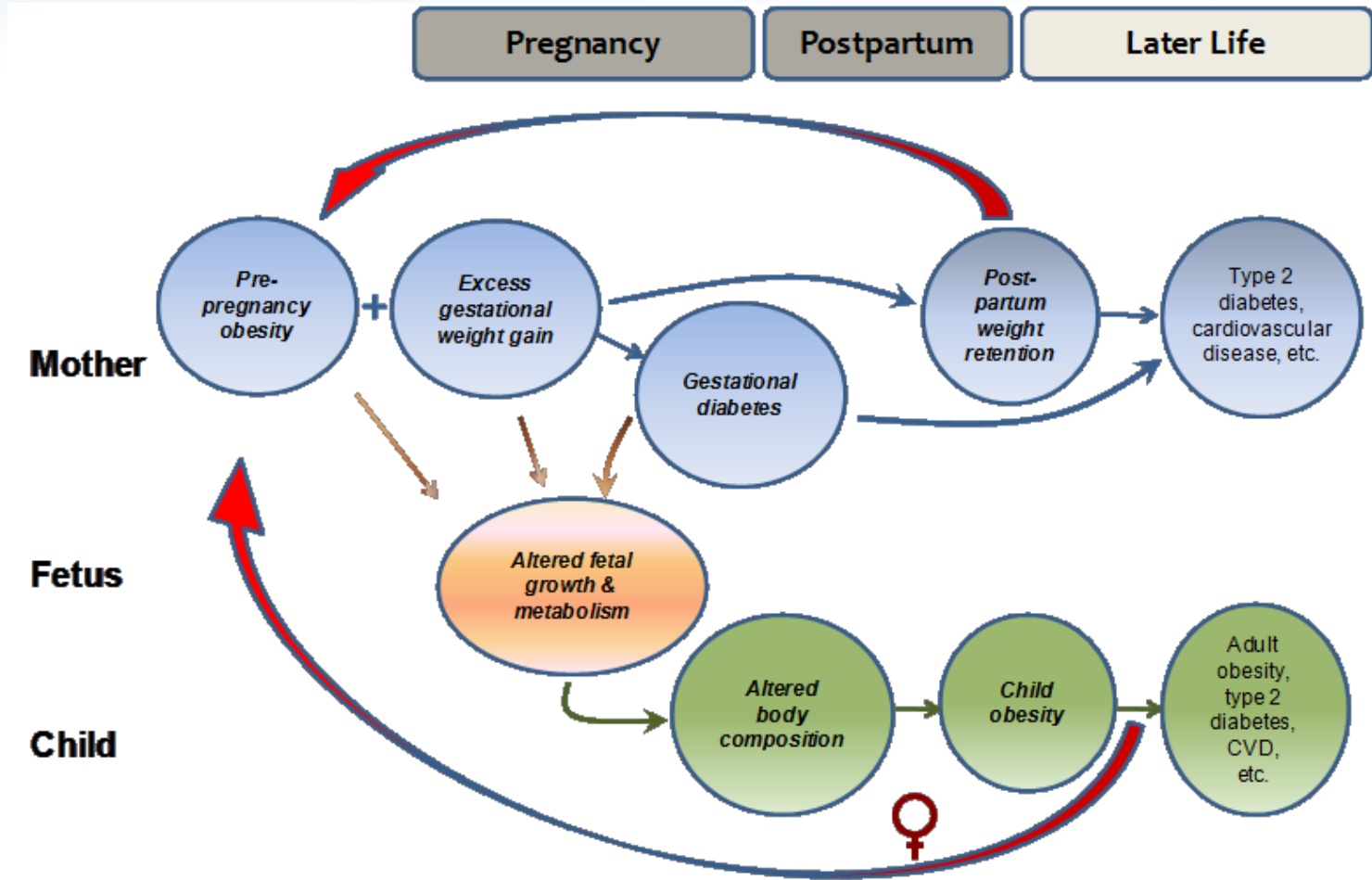


Epigenetics

Epigenetics refers to heritable changes in gene expression that arise from changes in chromosomes without alteration of DNA sequence.



11/04/17



Source: Matthew W. Gillman, MD, SM. *DOHaD VIII, Singapore*
November 2013

- How much of the early in life impact of diet is related to:
 - Living conditions?
 - Food markets?
 - Shortage or abundance of foods?
 - Food security?

Recommendations:

- Identifying public problems adequately
- Work in detail the structures of the problem
- Address the interdisciplinary actions
- Develop a model of educational interventions
- Make it sustainable over time!



Thank you!
Muchas gracias!
Obrigado!