

# Food Habit and Non Communicable Disease

Wilma A. Hurtada, PhD Food Science  
Professor  
Institute of Human Nutrition and Food  
College of Human Ecology  
UP Los Baños, Laguna

# Ecological Relationship

- Modifies diet and physical activity
- Hunter-gatherer to farmer
- Results in different disease pattern/profiles



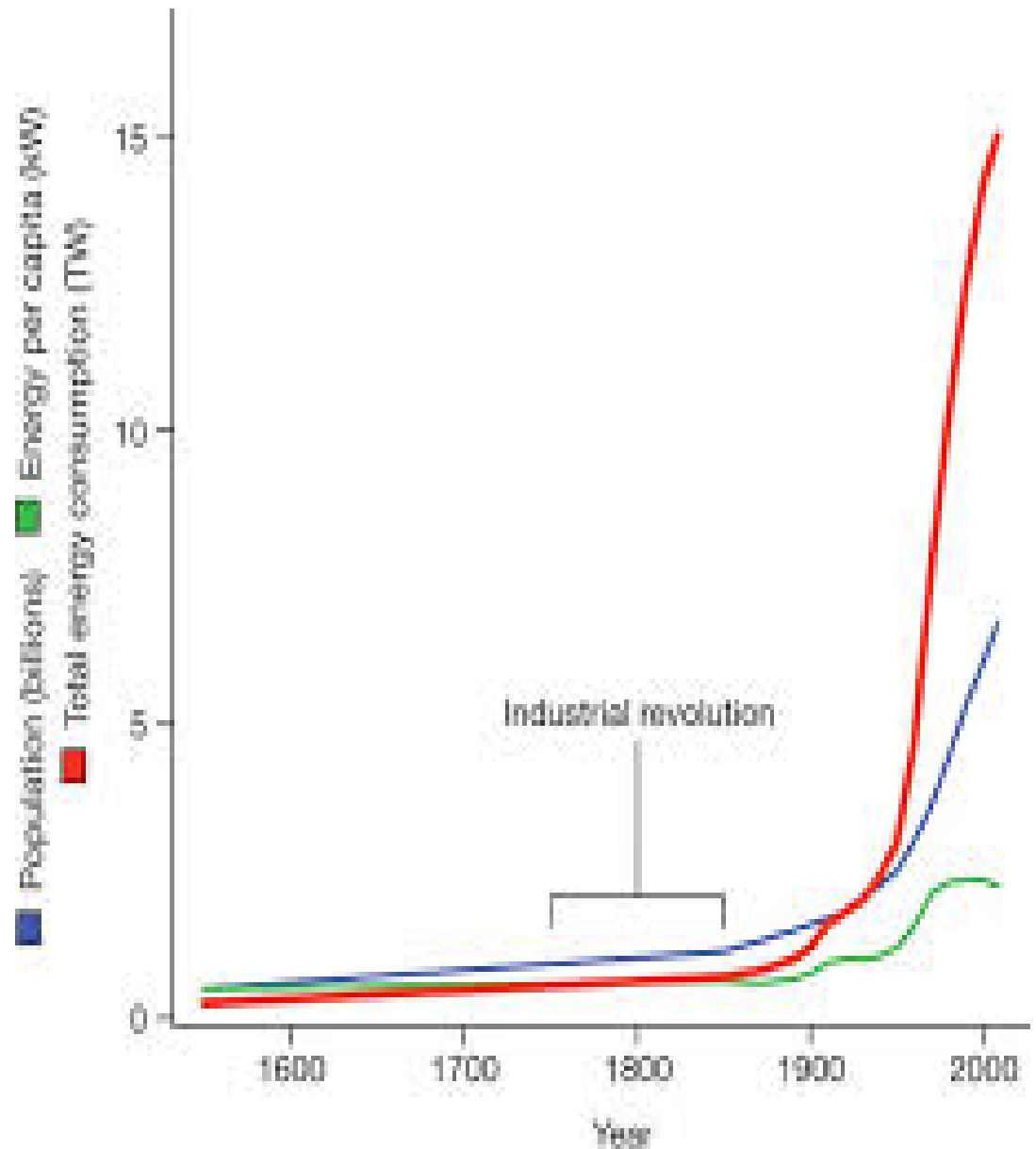
# Dietary Transition



# Changes

- Production
- Availability
- Processing
- Consumption
- Nutrient intake

with changes in lifestyle activity/  
pattern resulted in  
*nutrition transition*



# Non Communicable Disease (NCD)

- Cardiovascular disease,
- Diabetes mellitus,
- Cancer, and
- Chronic respiratory disease

# Rise of Chronic NCD

- NCD responsible for 60% of deaths in South East Asia Region
- Death rate inversely proportional to a country's gross national income
- Families shoulder the financial burden, entire economy suffers
- Needed: Surveillance of key modifiable risk factors- the Lancet 2011

# Risk Factors

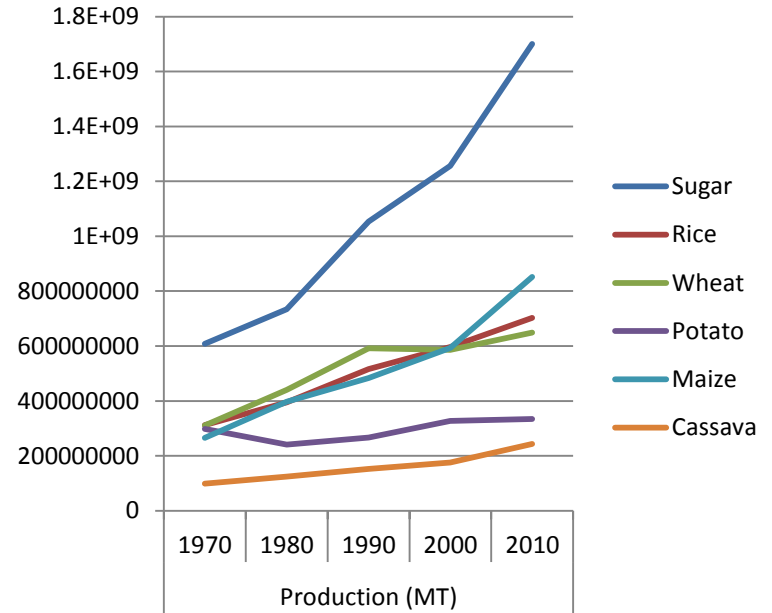
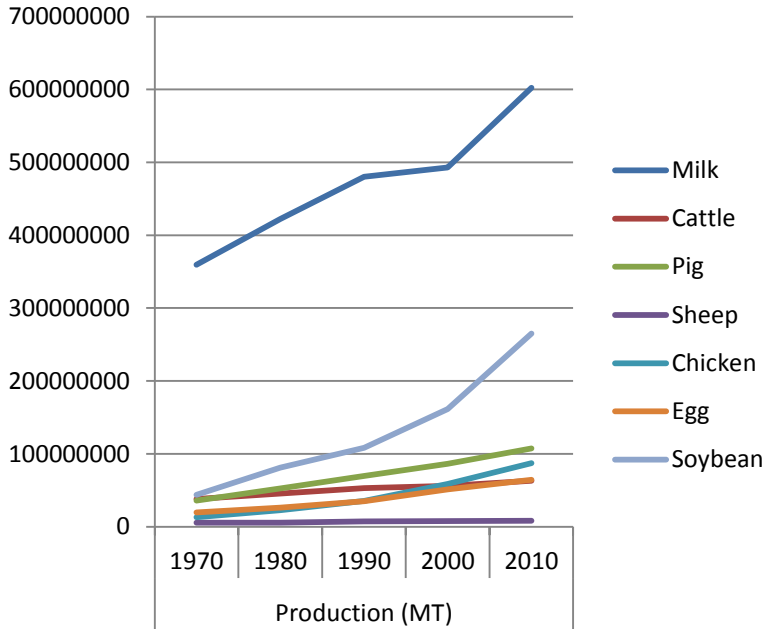
- Tobacco use
- Unhealthy diet
- Inadequate physical activity
- Strongly linked to poverty
- Increasing in low income-population because of unplanned urbanization, marketing of unhealthy food and inadequacies in public health policies

# Trends in Global Diet

- Increased domestic production and imports led to increased availability and affordability of oil seeds and vegetable oils
- Consumption towards high fat, refined carbohydrate, low fibre
- Shift from traditional cereal and root staples to processed foods
- Meals away from home becoming common



# World Production



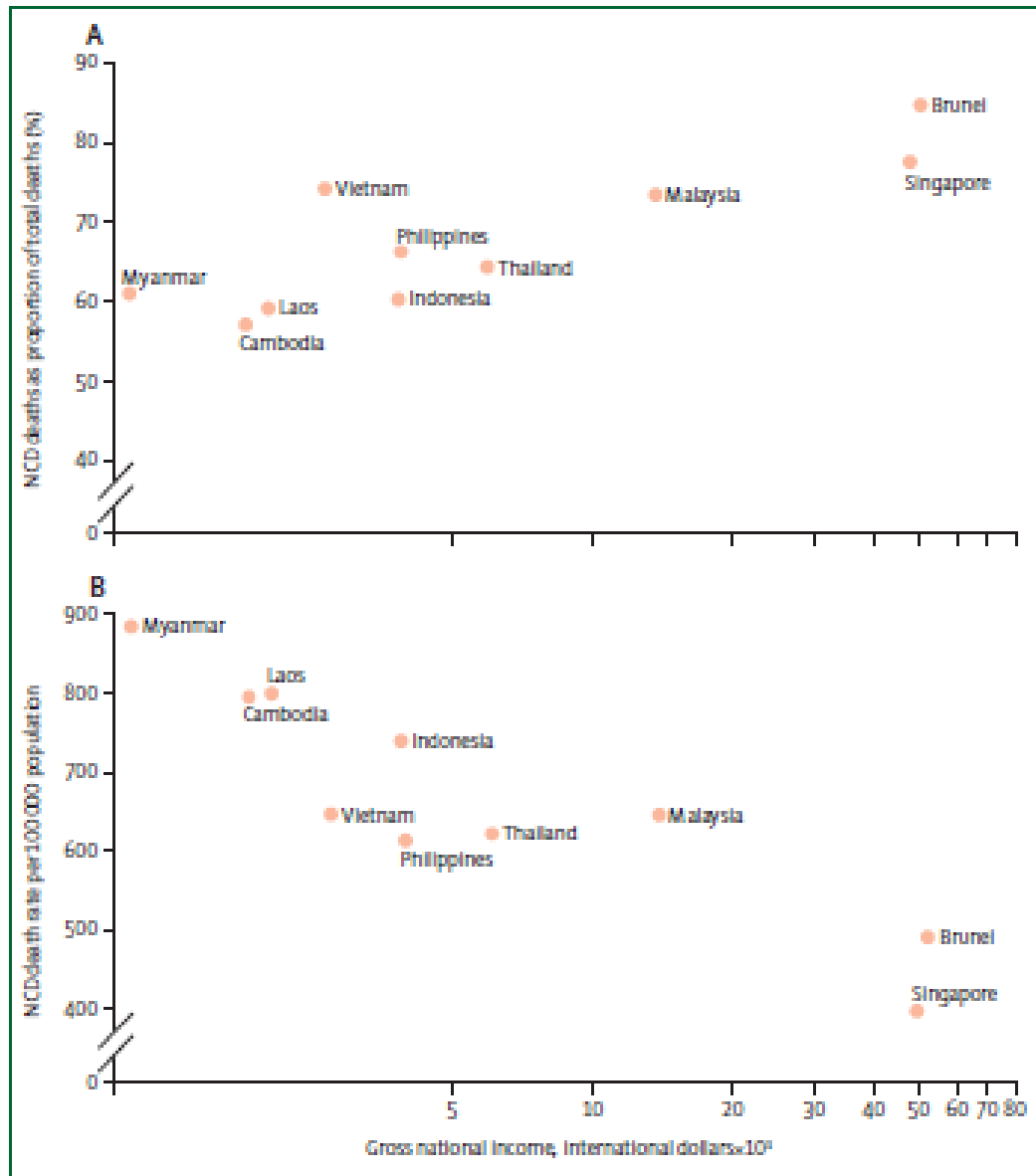


Figure 2: Gross national income versus age-adjusted mortality from NCDs, as proportion of total deaths (A) and as death rate per 100 000 population (B), in the southeast Asian population aged 15 years and older, 2004. Population estimates were obtained from reference 14, and data for NCD mortality from reference 2. NCD=non-communicable disease.

# Modifiable Risk Factor

Diet and nutrition through out the lifecycle  
starting from poor foetal and infant growth

Adult lifestyle

# Decrease in 3% total cholesterol

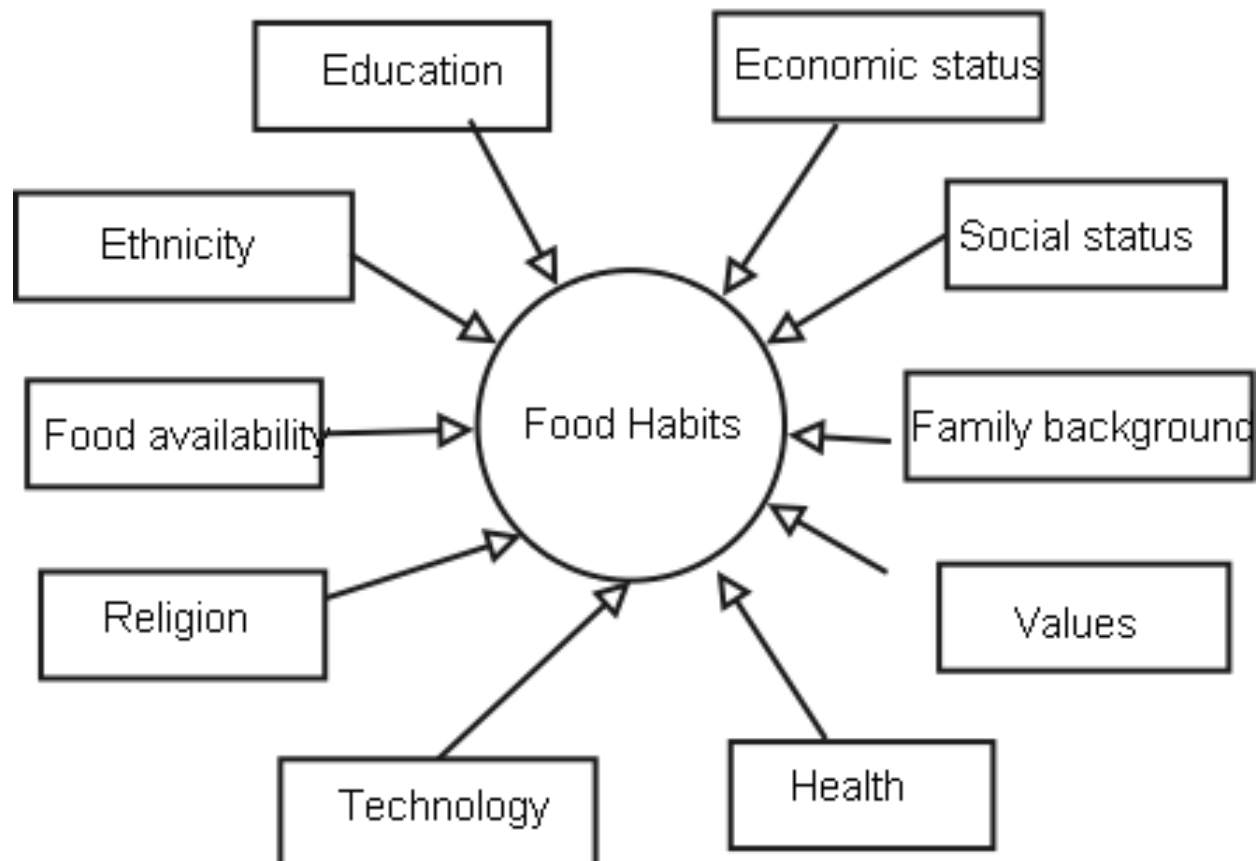
- Equivalent to decrease in 13% serum cholesterol can help prevent CHD
- Change from butter to vegetable oil
  - Whole-fat milk to low fat
  - boiled to filtered coffee

# National Library of Medicine's CHIRr Definition of Habits

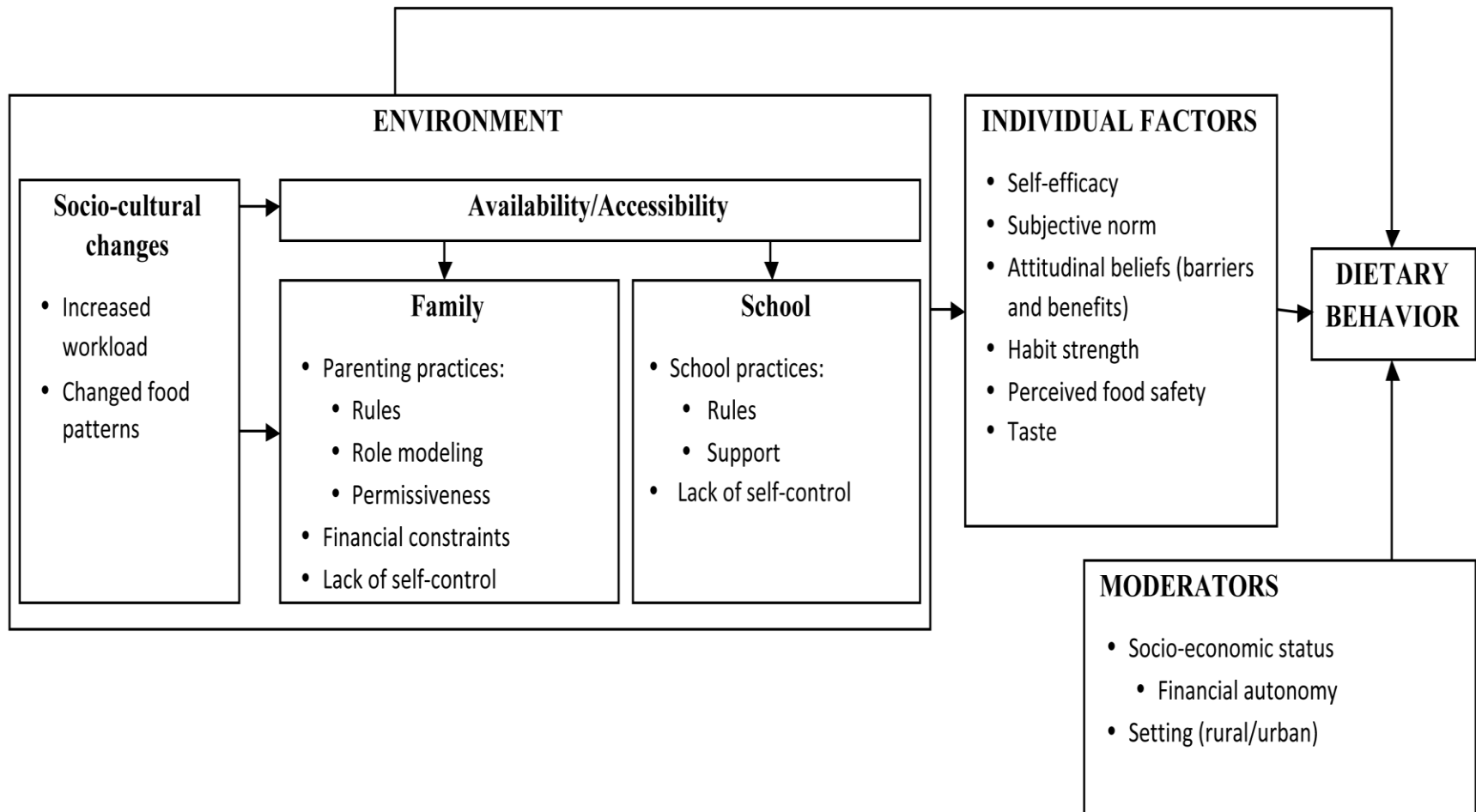
- Conceptual meaning of repeating past behavior
- Frequency of past and future behaviors are not mediated by planned behavior or reasoned action - Conner & Armitage, 1998; Ouellette & Wood, 1998
- Frequency of behavior have been found to predict its re-occurrence –Ajzen & Fishbein, 2005
- Response dispositions that are activated automatically by the context cues that co-occurred with responses during the past performance- Neal, wood, & Quinn 2006

# Food Habit

FACTORS THAT MAKE PEOPLE FORM FOOD HABITS



# A Conceptual Framework for Healthy Eating Behavior in Ecuadorian Adolescents: A Qualitative Study



# Verstraeten et al. 2014

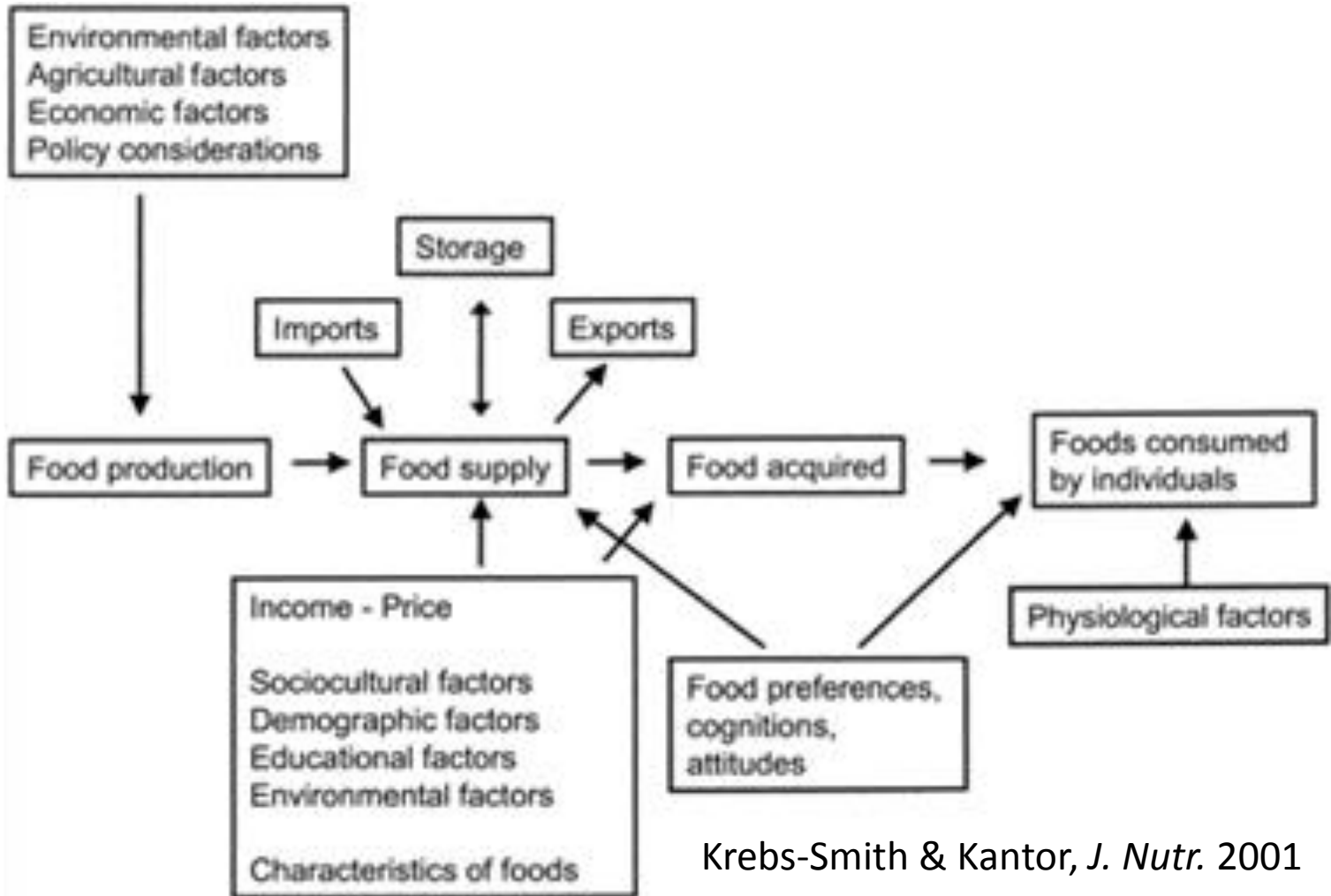
- rise in unhealthy body weight in children in LMICs across all levels of socio-economic status is associated with chronic conditions in adulthood
- Objective: identify factors influencing eating behavior of Ecuadorian adolescents
- Individual and environmental factors
- Note: Culture-specific factors
- <http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0087183>



# Food Technology Yrs 7-10 Syllabus, Australia

- Food Habits change as a result of economic, social, cultural, technological and environmental factors.
- In Australia, the food industry is growing in importance: providing employment opportunities and food technology
- Study of food technology provides knowledge and understanding of food and nutrition principles in both theory and practice which is essential in the development of sound food habits and food-specific skills.
- [http://www.boardofstudies.nsw.edu.au/syllabus\\_sc/pdf\\_doc/food\\_tech\\_710\\_syl.pdf](http://www.boardofstudies.nsw.edu.au/syllabus_sc/pdf_doc/food_tech_710_syl.pdf)

# Congress on Nutrition Monitoring in the US



Krebs-Smith & Kantor, *J. Nutr.* 2001

# The IUNS study of Food Habits in Later Life

- Food Habits includes: usual food intake, food intake in the distant past, beliefs about food and health, cooking methods and facilities, eating environment, and eating difficulties
- Findings: Nutrition and health problems of contemporary elderly communities across several cultures are community driven but culturally responsive.
- International Union of Nutritional Science (United Nations University website  
<http://archive.unu.edu/unupress/food/V183e/ch06.htm>)

# Multi-Dimensional Model

