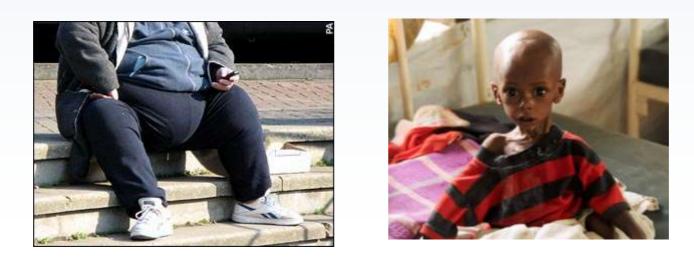
Double Burdens of Malnutrition

WARREN T. K. LEE, PhD, RD, RNutr

Senior Nutrition Officer Nutrition Assessment and Nutrient Requirements Group Nutrition Division FAO







Under-nutrition

Under-nutrition (hunger):

- Food insecure. Lack of foods to meet energy needs and nutrient requirements to maintain health, growth & development.
- Usually linked to poverty, ignorance, political instability, unstable environments, disasters and war, etc.

Health outcomes:

- Weight loss, fatigue, poor growth and stunting in children
- Poor physical and mental development
- compromised immunity, infections





Over-nutrition



Over-nutrition:

A result of excessive food intake, esp. macro-nutrients, relative to dietary requirements; plus low physical activity level.

Health outcomes:

- Overweight, obesity, and dietary related non-communicable diseases (e.g. metabolic syndromes, Type 2 Diabetes, CHDs, CVDs, Hypertension, cancers, etc.)
- Often characterized by over-consumption of marco-nutrients and under-consumption of micro-nutrients.
- Prevalent in both developed and fast developing countries in transition.



Co-existence of Under-nutrition and Overnutrition



Under-nutrition:

- Child Stunting
- Child macro- and micro-nutrient deficiencies
- Under nutrition in women at reproductive age

Over-nutrition:

- Obesity in adulthood
- Obesity in childhood
- Increased prevalences in diet-related chronic diseases in adults.



Nutrition Transition



Nutrition Transition as a result of:

- Economic growth/ transition
- Urbanization
- Demographic changes/ transition
- Changes in the food systems and food habits
- Changes in lifestyles (reduced physical activity)

Other modulating factors on double burdens of malnutrition

- Consumer Knowledge on food and nutrition
- Cultural factors



Impacts of Double Burdens of Malnutrition



Health outcomes and impacts :

Overweight, obesity, and dietary related non-communicable diseases (e.g. metabolic syndromes, Type 2 Diabetes, CHDs, CVDs, Hypertension, cancers, etc.)

Coupled with stunting and micro-nutrient deficiencies in the vulnerable groups

- Increased prevalent in countries undergoing economic development and nutrition transition.
- Increase costs in health care and quality of life
- Reduction in economic productivity



Thank You !



