

# Nutrition – an investment in human capital

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**Nuclear Techniques  
in Human Health**

*Prevention, Diagnosis, Treatment*





## WHERE ?

### MALNUTRITION AFFECTS ALL REGIONS WORLDWIDE

ACROSS THE GLOBE

**1.9** BILLION  
ADULTS, 18 years and older, are overweight

**264** MILLION  
WOMEN of reproductive age are affected by iron-amenable anaemia

**>600** MILLION  
of these are OBESE

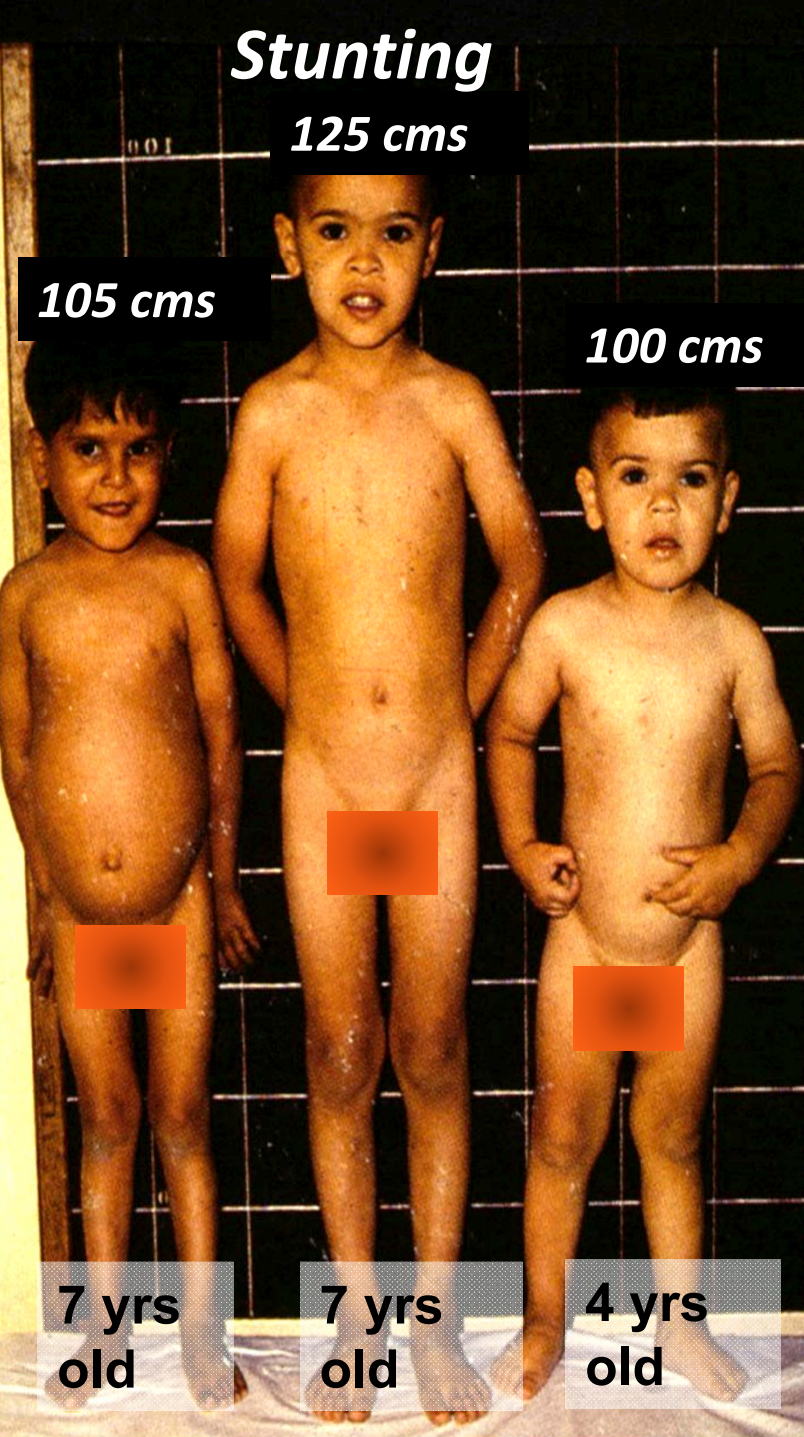
**462** MILLION  
ADULTS are underweight

**41** MILLION  
children under the age of 5 years are overweight or obese

**155** MILLION  
children are stunted (too short for age)

**52** MILLION  
children are wasted (too thin for height)





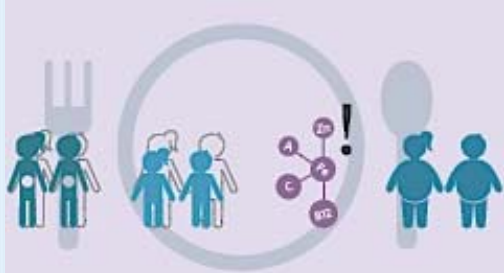
# Stunting

- Most common form of undernutrition (protein-energy/micronutrients)
- Affects infants before and early after birth
- Linked to maternal size, nutrition during pregnancy & foetal growth
- Length that is lost early on is rarely recovered
- Stunted have less lean body mass (lower energy expenditure)



# WHAT ?

THE DOUBLE BURDEN OF MALNUTRITION IS CHARACTERIZED BY THE COEXISTENCE OF:



Undernutrition (wasting, stunting and micronutrient deficiencies) along with overweight and obesity



and diet-related noncommunicable diseases



within individuals, households and populations



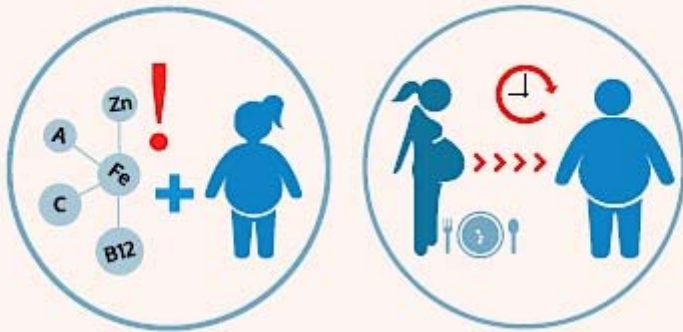
throughout life

WHO. The double burden of malnutrition. Policy brief. Geneva: World Health Organization; 2017.

# WHO ?

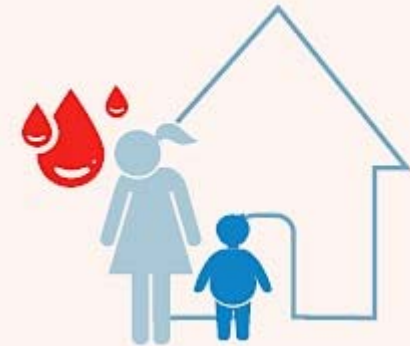
## INDIVIDUALS

with the simultaneous presence of two or more types of malnutrition, or development of multiple types over a lifetime



## HOUSEHOLDS

with multiple family members affected by different forms of malnutrition

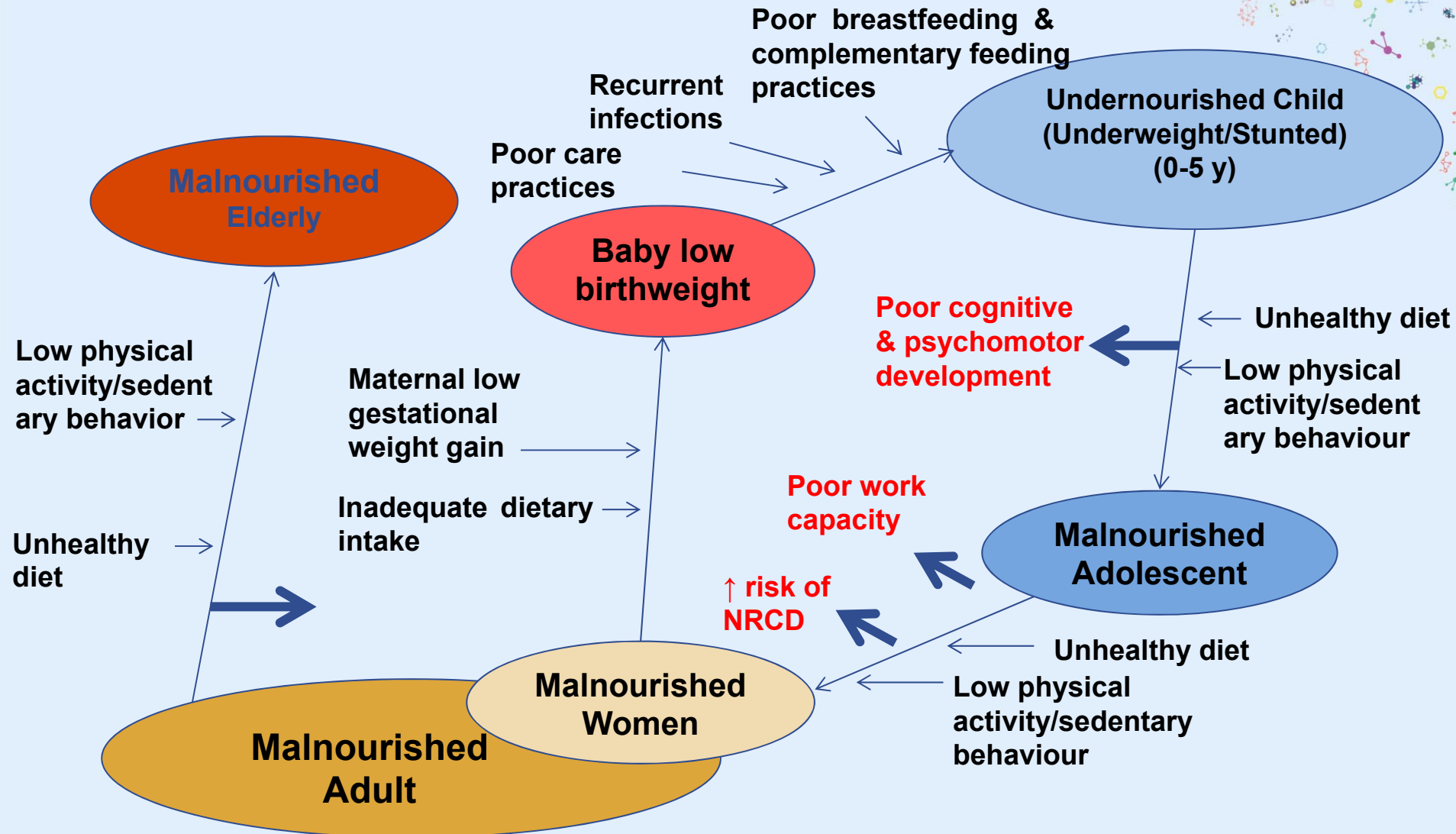


## POPULATIONS

with both undernutrition and overweight prevalent in the same community, region or nation



# Causes of Malnutrition





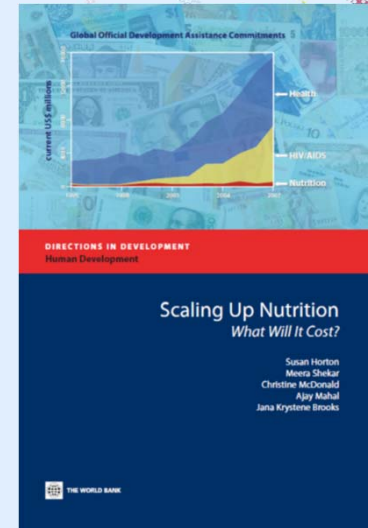
# Human and Economic Impact of Undernutrition Worldwide

## Human Cost

3.1 million child deaths annually or 45% percent of all child deaths are attributable to undernutrition (The Lancet 2013). It is the largest single contributor to child mortality worldwide.

## Economic Cost

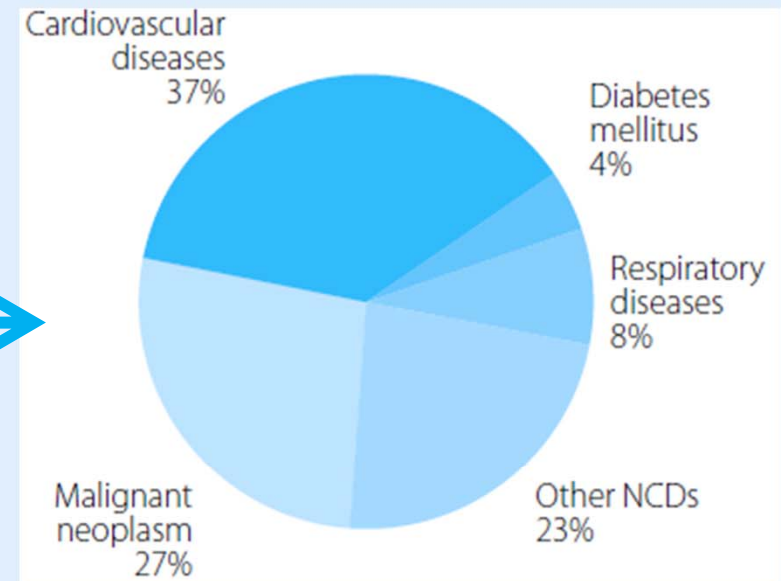
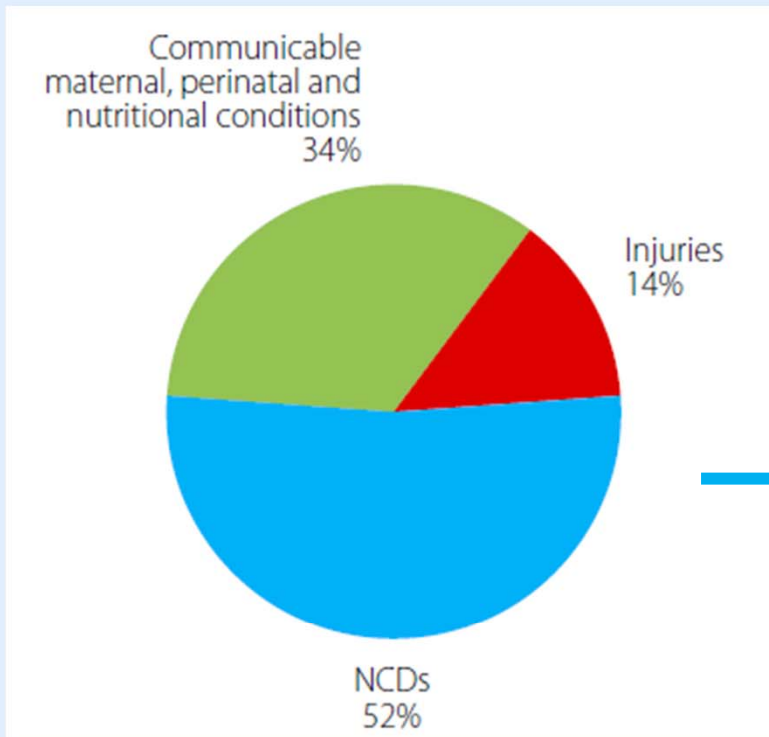
Productivity losses to individuals are estimated at more than 10 % of lifetime earnings, and losses to gross domestic product may be as high as 2–3 percent (World Bank 2010).



# Proportion of global deaths < 70 yrs by cause of death, comparable estimates 2012



## Non-communicable Diseases (NCDs)





# WHY ACT ?

THE DOUBLE BURDEN IS AN IMPORTANT OPPORTUNITY FOR ACTION ON MALNUTRITION IN ALL ITS FORMS



Addressing malnutrition is essential to achieve the Sustainable Development Goals



Nutrition is critical to both health and economic development



Focus and investment for integrated solutions will tackle malnutrition in all its forms

## GOOD NUTRITION



PROMOTES MATERNAL, INFANT AND CHILD HEALTH



IMPROVES SCHOOL AND EDUCATION PERFORMANCE

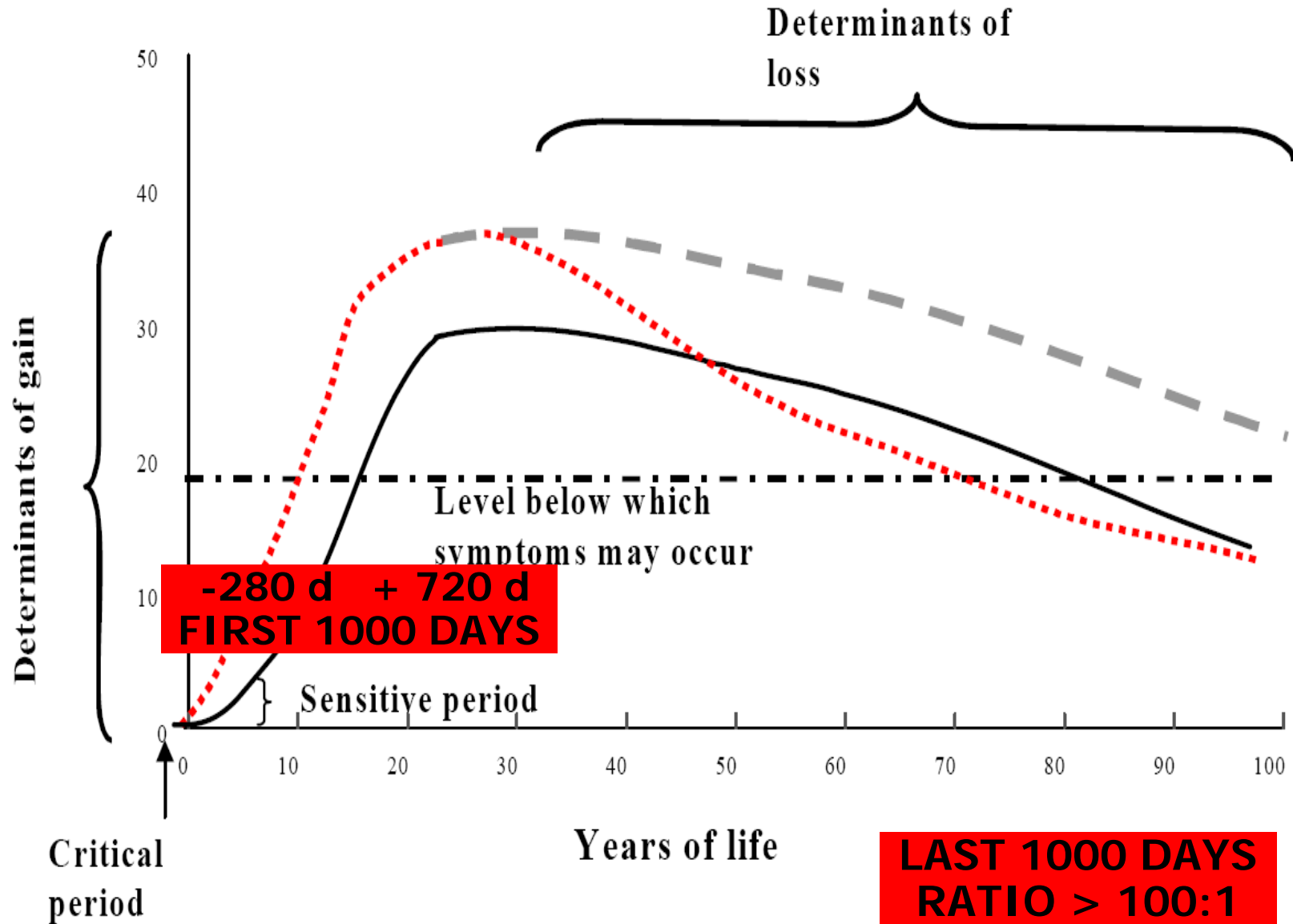


SUPPORTS STRONGER IMMUNE SYSTEMS



REDUCES THE RISK OF DISEASE


# Investment in Human Capital




# Where do we want to be by 2025/2030?




## GLOBAL NUTRITION TARGETS FOR 2025




**CHILD STUNTING**  
Cut the number of stunted children by 40%



**CHILD WASTING**  
Reduce and maintain child wasting to less than 5%



**CHILD OVERWEIGHT**  
No increase in childhood overweight



**ANEMIA**  
Cut anemia in women of reproductive age by 50%



**EXCLUSIVE BREASTFEEDING**  
Increase to at least 50%




**LOW BIRTH WEIGHT**  
Cut low birth weight by 30%

### HALT THE RISE IN PREVALENCE OF:



**ADULT OVERWEIGHT**



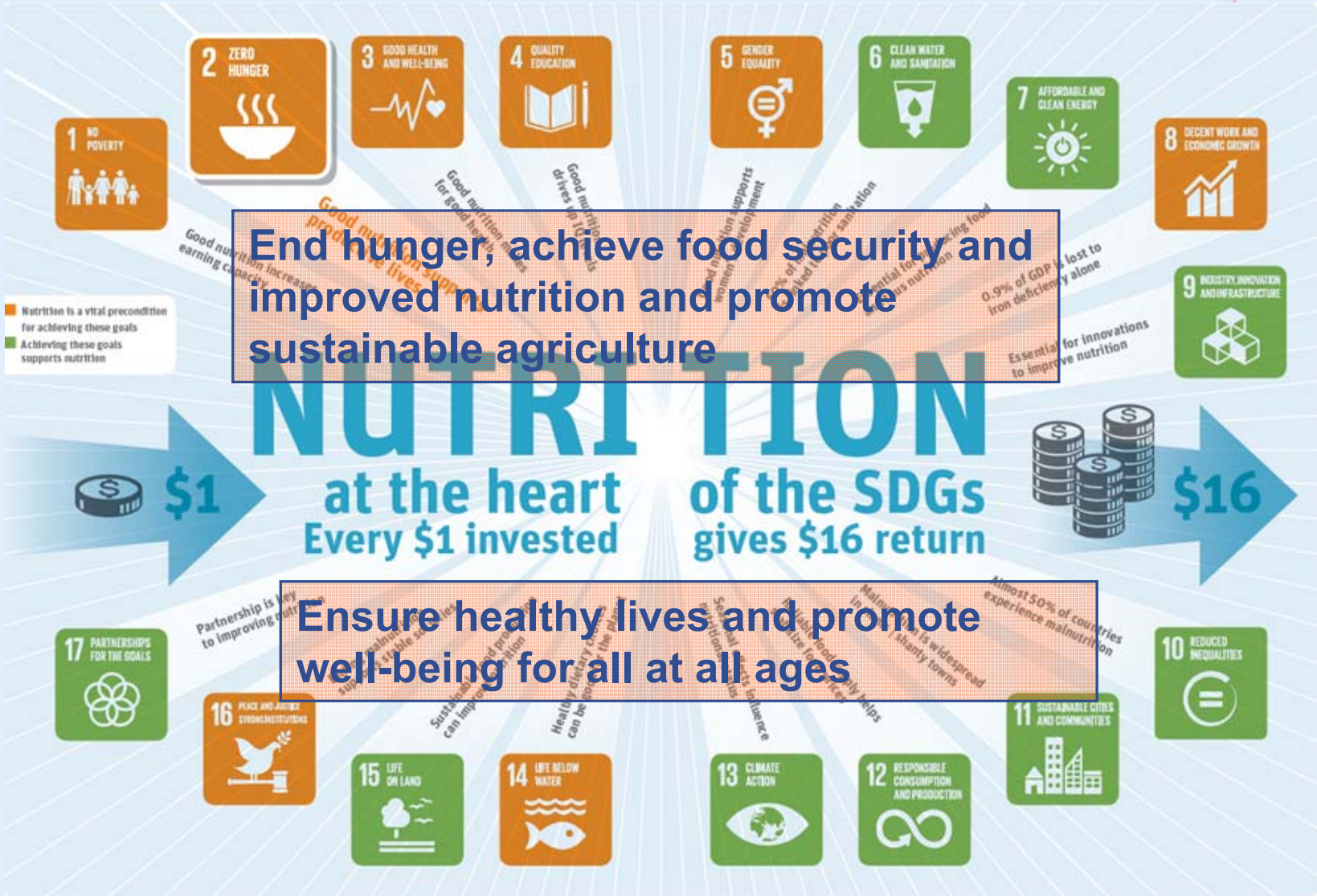
**ADULT DIABETES**  
(high blood sugar)



**ADULT OBESITY**



# The New Context – SDGs by 2030





# Double-duty Actions for Malnutrition

