

The logo for the European Association for the Study of Obesity (EASO). It features the letters 'EASO' in a bold, sans-serif font. The 'E', 'A', and 'S' are black, while the 'O' is a blue circle with a white center. A thin horizontal line is positioned below the letters.

**EASO**

European Association for the Study of Obesity

# **A New Approach To Obesity**

**EHGF, Gastein, 2019**

# Obesity As A Disease

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# Disclosures

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- Sanofi Aventis
- Eli Lilly
- BMS
- BI
- Novo Nordisk

- AZ
- MSD
- Janssen
- Resmed
- Philips Resporinics
- ImpetoMedical
- ANSAR
- Aptiva

# The Take Home Messages

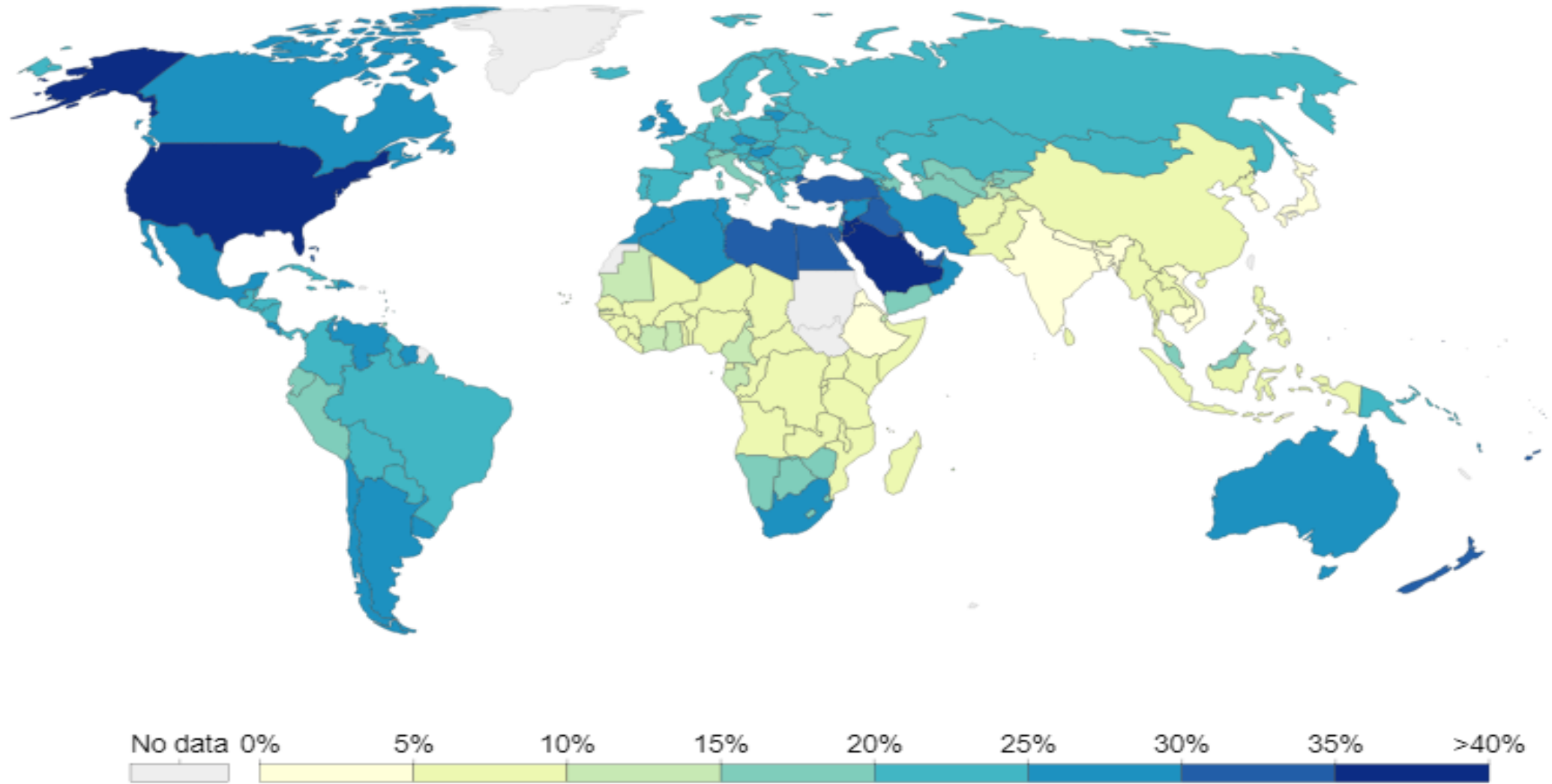
## ➤ Obesity is:

- A chronic relapsing disease
- Caused by genetic & biological factors and amplified by environmental interactions
- Not simply a “moral issue” or failed “will power”

## ➤ Treating and preventing obesity:

- Will reduce the health burden on people, families, the health care system and the wider economy
- Requires system wide approach addressing the causes of obesity and weight regain

# Obesity is Highly Prevalent Globally

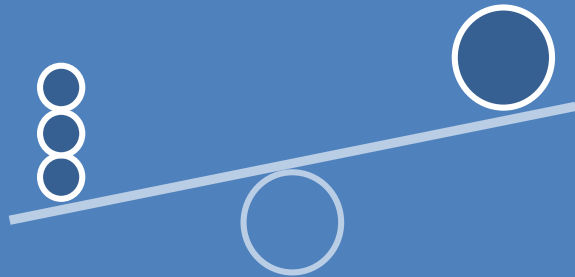


# Why are we failing?..... We are failing because:

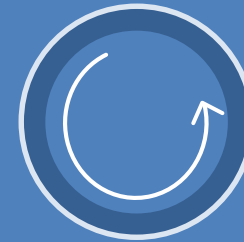
- We are not treating obesity as a chronic relapsing disease.... Hence...
- We are not treating the underlying causes of the disease (The biology and environment)
- We are not addressing the modifiable “risk factors” of the disease (The environment)
- We are not offering effective long term treatments to the vast majority of patients with Obesity

# Why Eat Less Move More Does NOT Work

We are not addressing the underlying causes of the disease (The biology & environment)



**1** Sustained positive energy balance  
(energy intake > energy expenditure)



**2** Resetting body weight "set point" at an increased value  
(major challenge to achieve sustained weight loss)

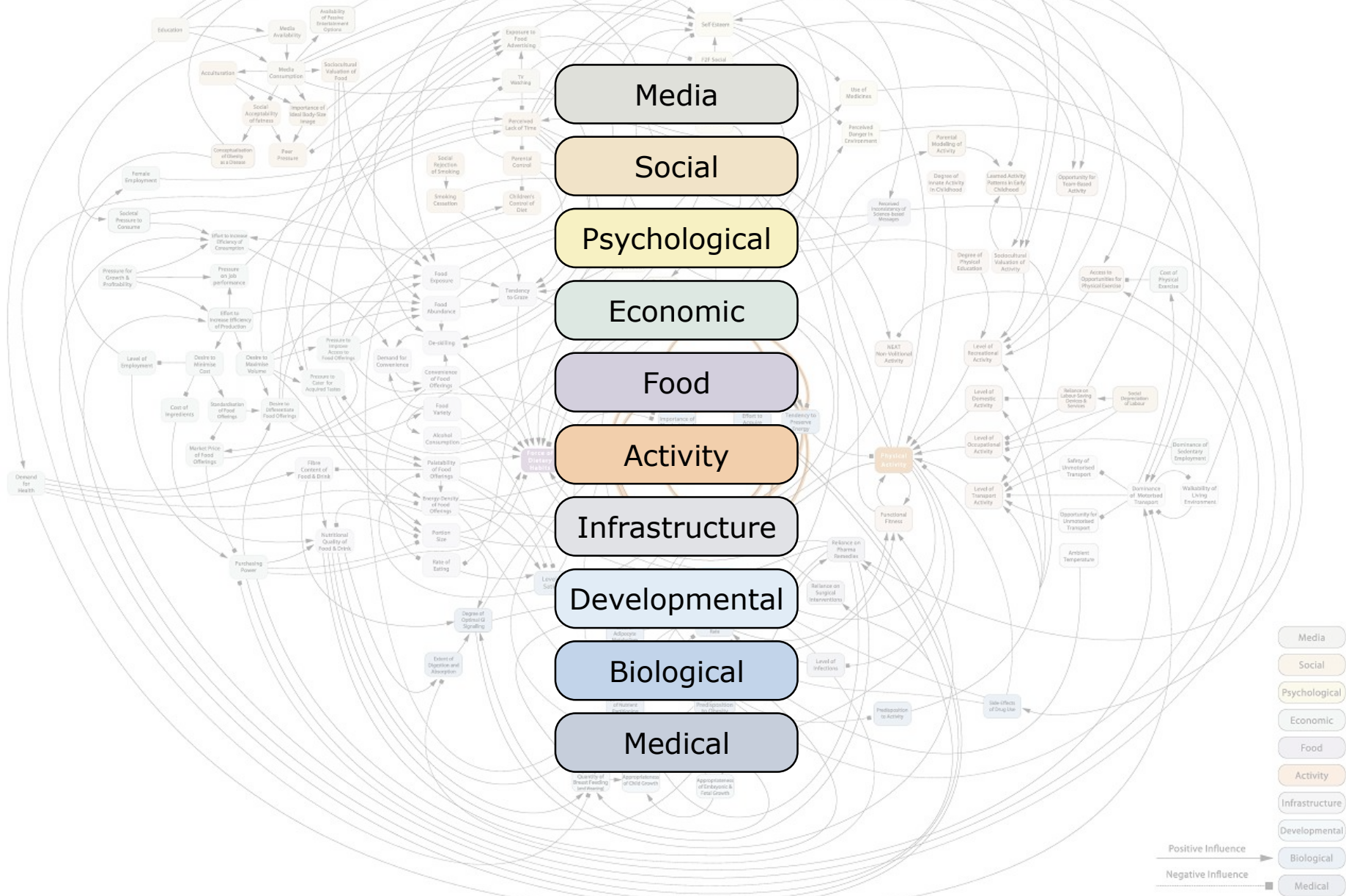
# Addressing the biological causes of the disease-1

Adult patient with obesity					
Clinical Signs and symptoms	Young age of onset Hyperphagia Hypopigmentation Extreme weight difference between family members	Young age of onset Dysmorphic features Developmental delay Autism or ADD Short stature (Poly-) syndactyly Retinal abnormalities Severe myopia Congenital deafness Nephropathy	Cranial radiotherapy/ Head trauma/ Surgery  Neurological abnormalities  Hyperphagia  Decreased vision	Acne  Hirsutism  Irregular menses  Acanthosis nigricans  Erectile dysfunction  Post-pregnancy  Menopause	Bradycardia  Muscle weakness  Cushingoid features  History of radiotherapy or severe head trauma
Cause	(Mono-)genetic or syndromic		Hypothalamic	Endocrine	
Examples	Defect or deficiency: MC4R Leptin (R) POMC Prohormone convertase-1	Prader Willi Bardet Biedl Allbright 16p11.2deletion	Post-radiation therapy Post-surgery Hypothalamic tumour Malformation	PCOS Hypogonadism Post pregnancy weight retention Menopause	(Cyclic) Cushing's syndrome Hypothyroidism Growth Hormone Deficiency



# Addressing the biological causes of the disease-2

Adult patient with obesity			
Clinical Signs and symptoms	Weight increase related to initiation or dose increase of a drug with weight gain as a potential adverse effect	Severe repeated binge-eating with or without inadequate compensation behaviour  Depressive complaints	Unhealthy food intake Lack of exercise Average sleep <7 hours Disturbed sleep Snoring/apnoea Shift work Alcohol use Stress Smoking cessation Sociocultural background Meal timing Sedentary lifestyle
Cause	Medication	Mental disorders	Lifestyle
Examples	Antidepressants Antipsychotics Anti-epileptics (local)corticosteroids (some) $\beta$ -blockers Insulin	Binge-eating disorder Bulimia Nervosa Depression Other specified feeding and eating disorders	Hypercaloric intake Lack of exercise Alcohol abuse Nocturnal eating OSA Repeated (very) low calorie diets with yo-yo effect



# Is Obesity A Disease? Obesity Meets AMA Criteria for a Disease

## Impairment of Normal Function

- **Physical** impairments
- Altered **physiologic** function (inflammation, insulin resistance, dyslipidemia, etc)
- Altered regulation of **satiety** in the hypothalamus

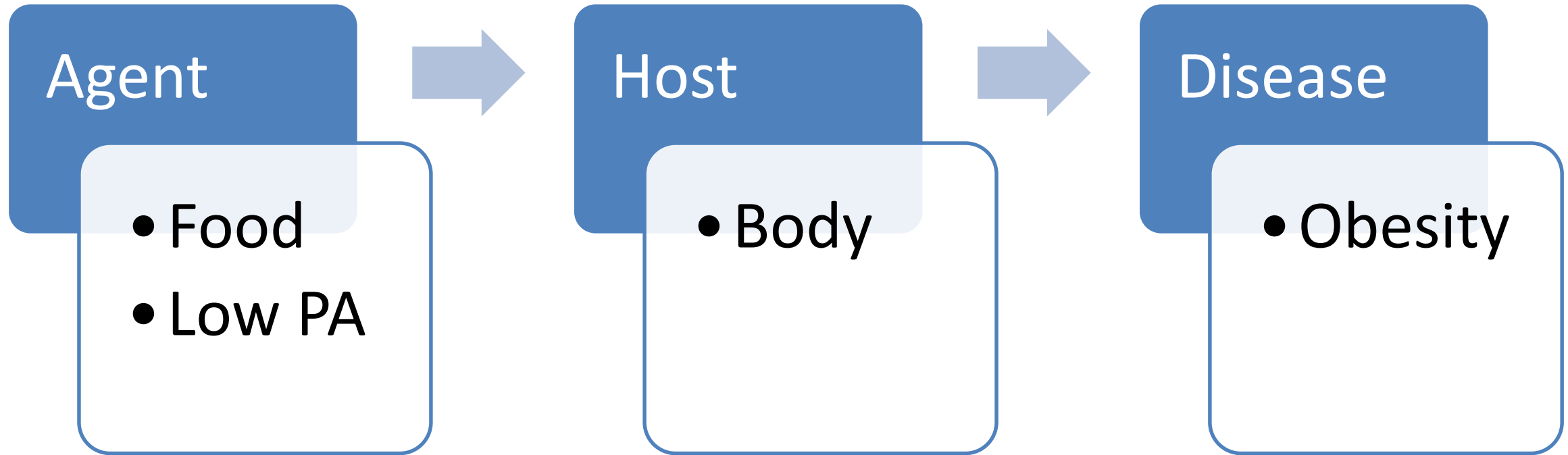
## Characteristic Signs or Symptoms

- Increased body fat mass
- Joint pain
- Impaired mobility
- Low self-esteem
- Sleep apnea
- Altered metabolism

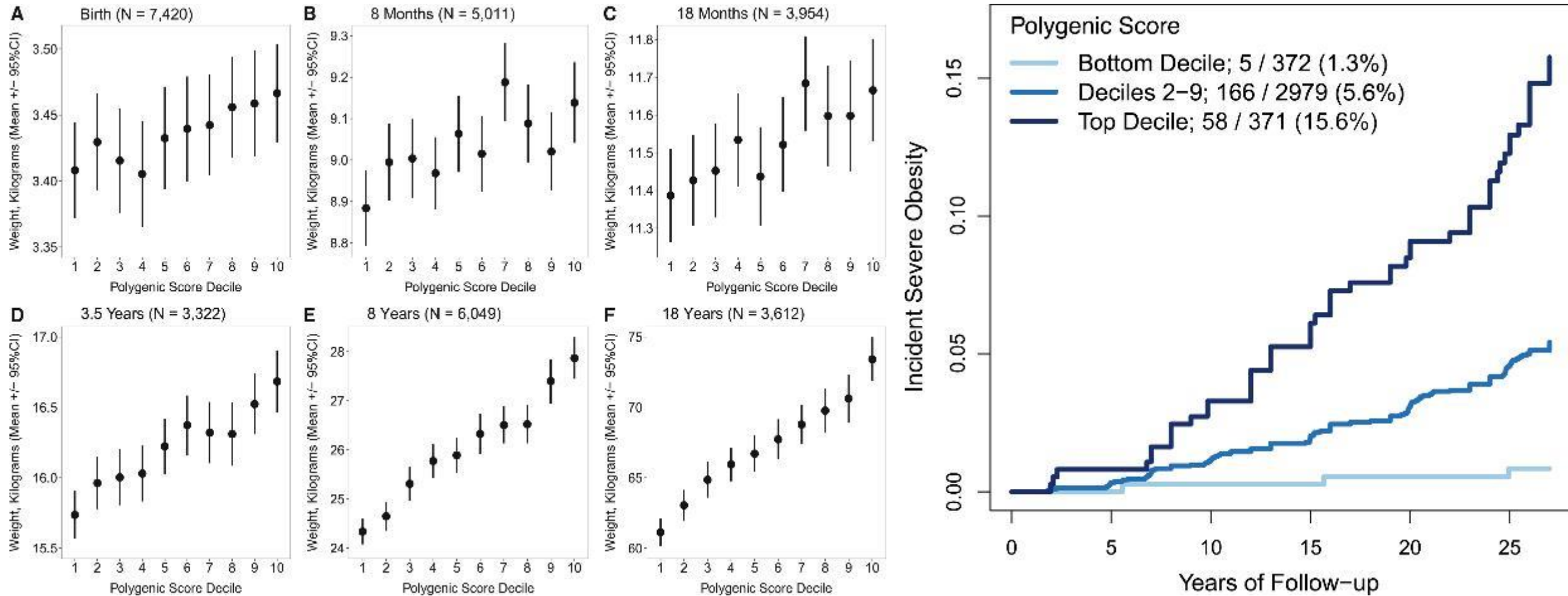
## Harm or Morbidity

- CVD
- Type 2 diabetes
- Metabolic syndrome
- Cancer
- Death

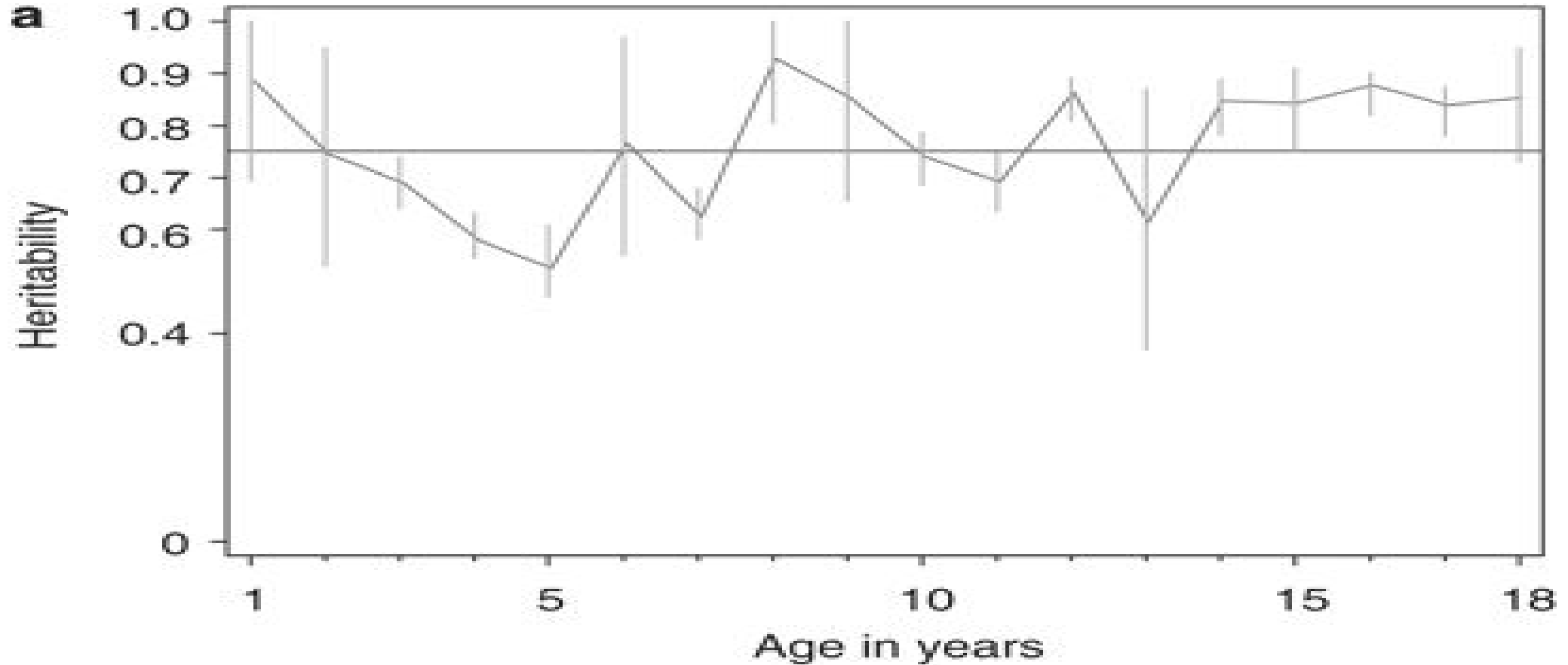
# Is Obesity A Disease: An Epidemiological Model Similar to Communicable Diseases



# Is Obesity A Disease? The More the Genes, The More The Weight and The More Weight Gain

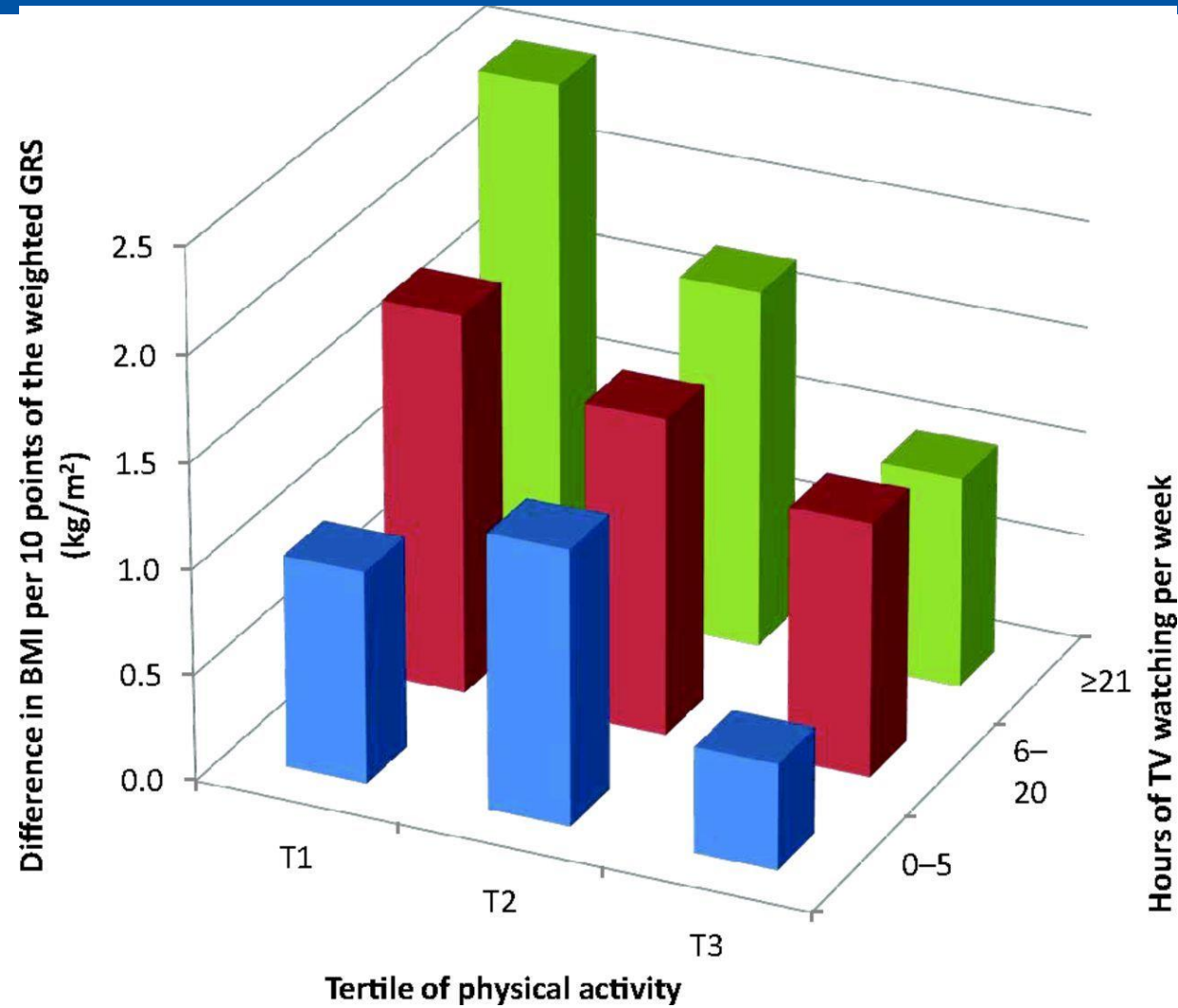


# Is Obesity A Disease? 70-80% of the BMI Is Due To Hereditary Factors



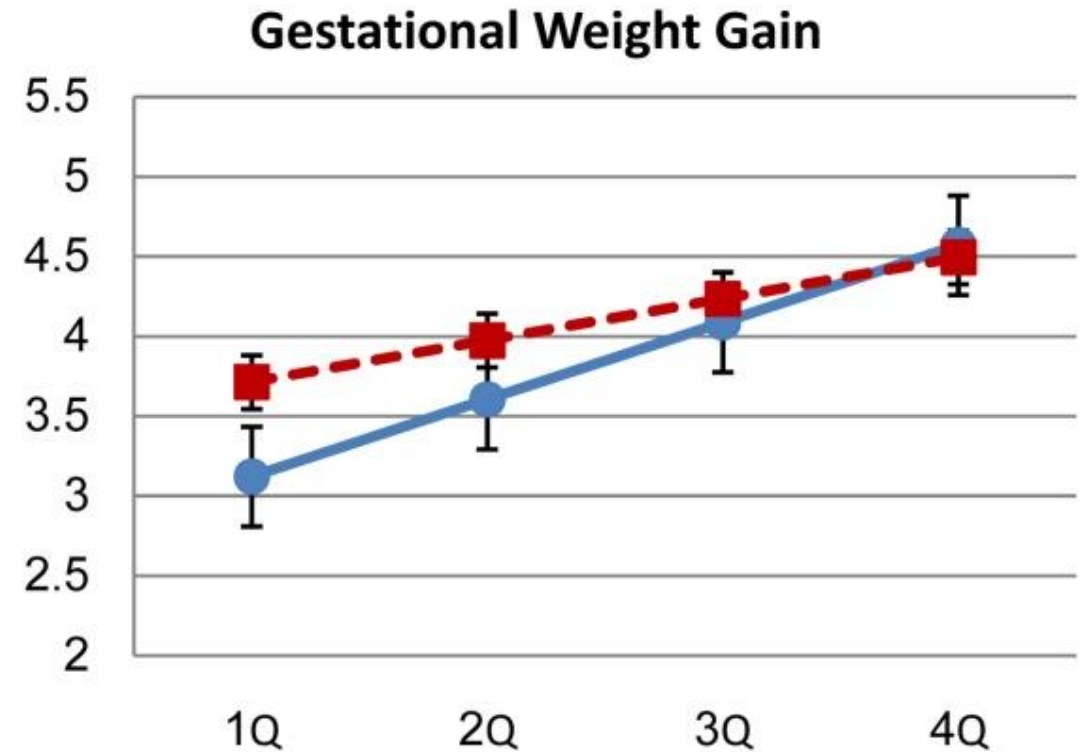
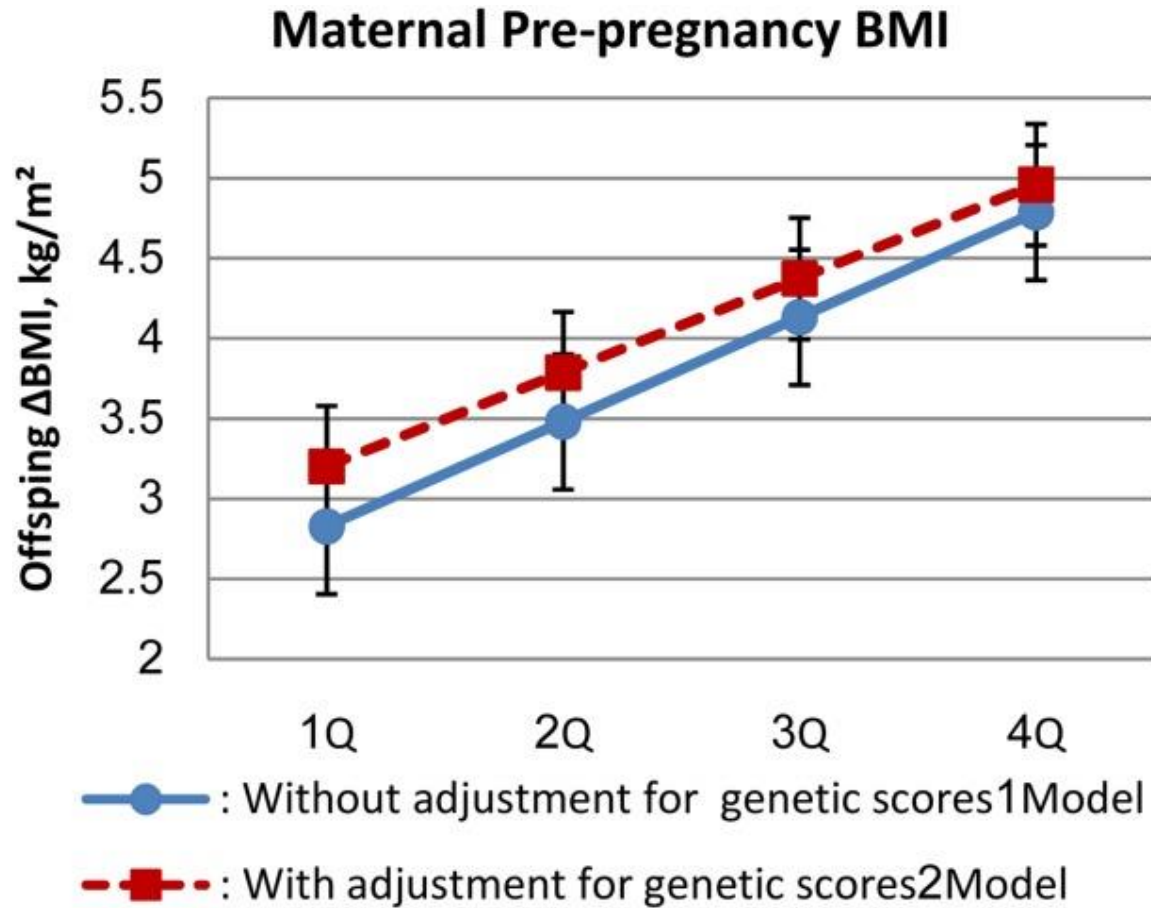


# The interactions between genetics & TV watching and PA



# Is Obesity A Disease? Maternal Pre-Prgraming

## Maternal Obesity and Offspring Weight Change between age 17-32

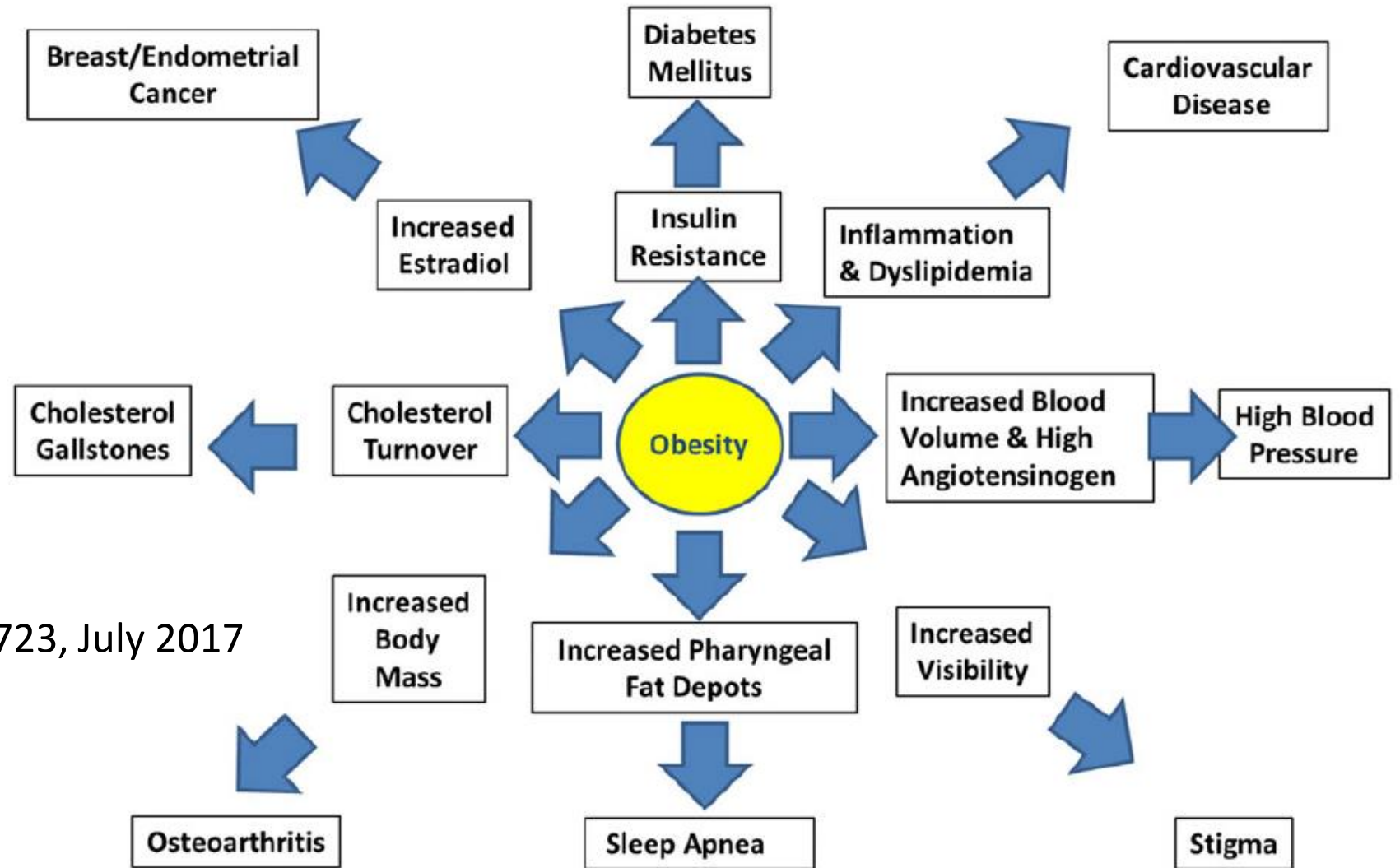




# Are these diseases?..... Why Not Obesity?

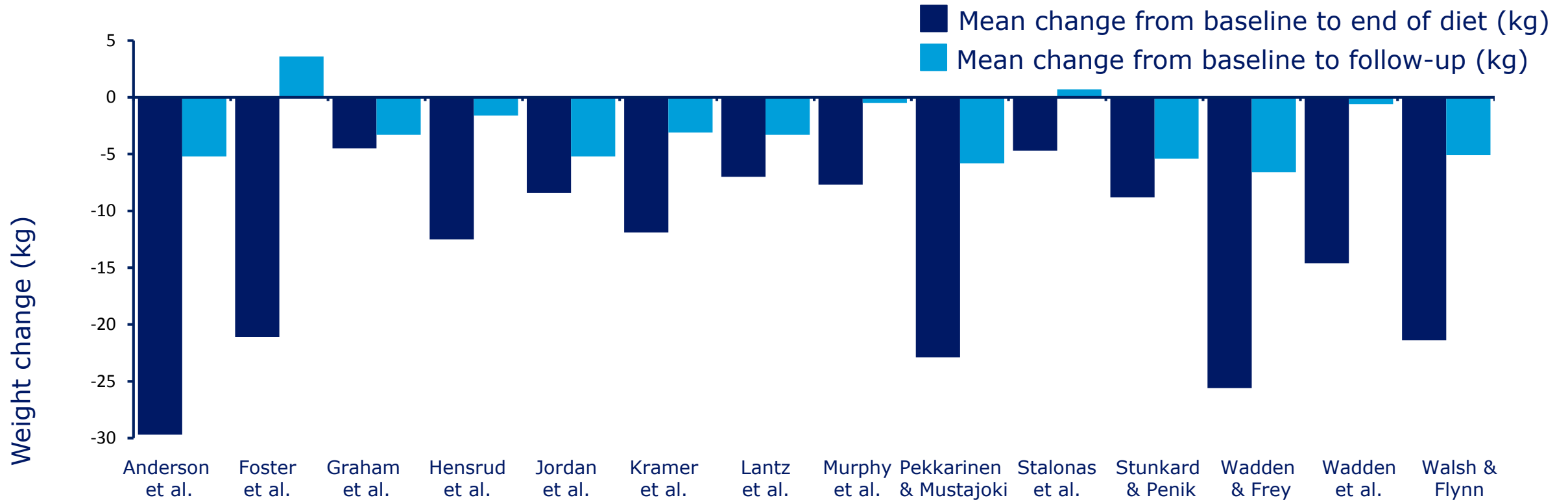
- Hypertension (BP)
- Hyperglycaemia (Glucose, diabetes)
- Hyperlipidaemia (TC, LDL, Triglycerides)
  
- Why not obesity (weight/ fat mass)

# Obesity as a disease process



WOF; Obesity Reviews 18, 715–723, July 2017

# Maintenance of weight loss is challenging



# Benefits of Weight Loss.... REDUCING THE RISK OF

- Type 2 Diabetes
- Hypertension
- Obstructive Sleep Apnoea
- Cardiovascular Disease
- NAFLD/NASH
- Some Cancers
- Mortality
- And many more

# We Will Only Be Able To Address Obesity When We Address All The Contributing Factors

## Understanding systems



A bicycle is a system made up of **many separate parts**



**No single part** operates the system **alone**

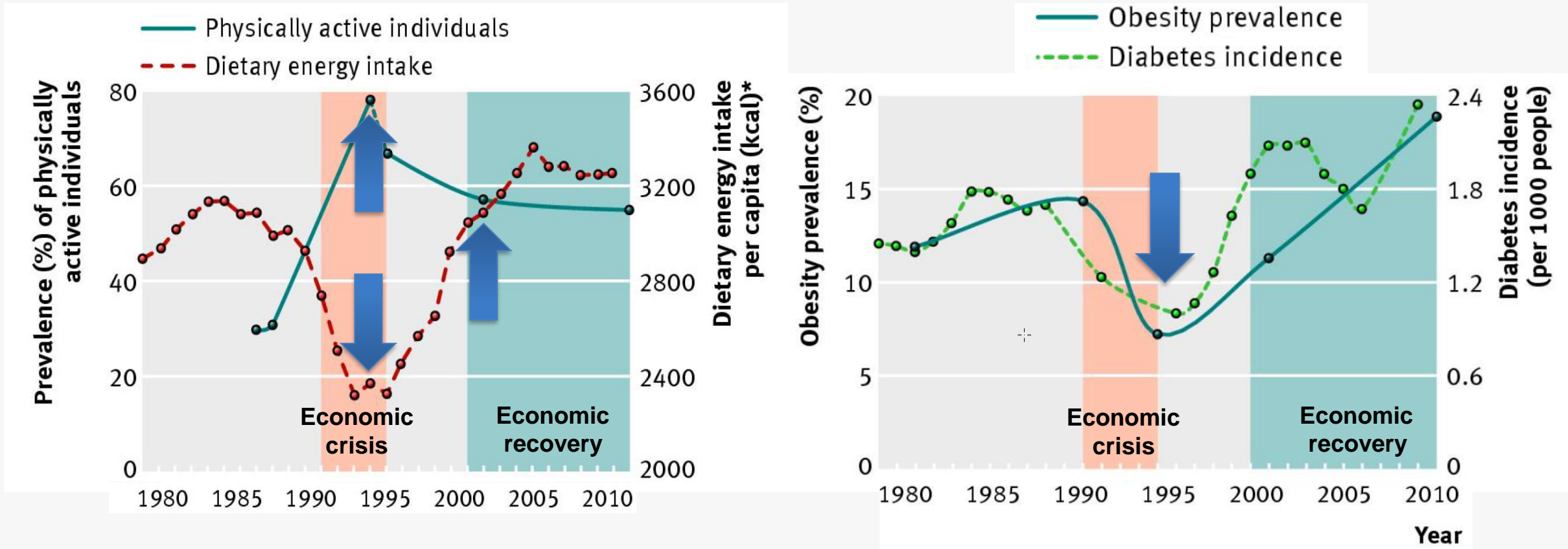


The bicycle can only be ridden when **all parts work together**

The function of the system is different from **the sum of the parts**



# The Cuban economic crisis: impact on obesity and diabetes



UNIVERSITY OF BIRMINGHAM

COLLEGE OF MEDICAL AND DENTAL SCIENCES

# Summary And Conclusions

- Time to change the narrative about obesity
- No “Eat Less and Move More”
- Recognise Obesity as a chronic disease requiring lifelong treatment and support
- Address the underlying biological and environmental factors leading to Obesity
- Work on prevention and treatment Simultaneously
- Challenge and eliminate obesity stigma





**Obesity is A Chronic Disease; Treat It As  
Such  
Treat People With Dignity And Respect**

**Thank You**

 [@AbdTahrani](https://twitter.com/AbdTahrani)