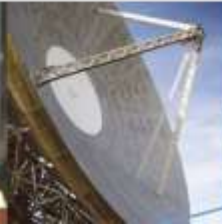


# POPULATION HEALTH, HEALTH SYSTEMS AND INNOVATION (PHHSI)

**Committed to excellence in research,  
training and service delivery**

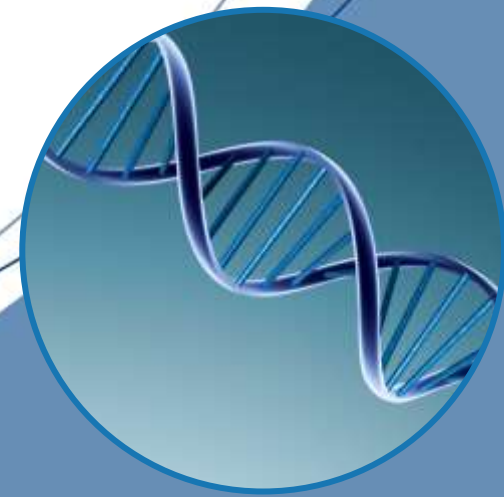


## RESEARCH SEMINAR SERIES

### **Overweight and obesity: An early start with long-term health consequences**

**Seminar 27<sup>th</sup> March 2015**

**Population Health, Health  
Systems and Innovation**

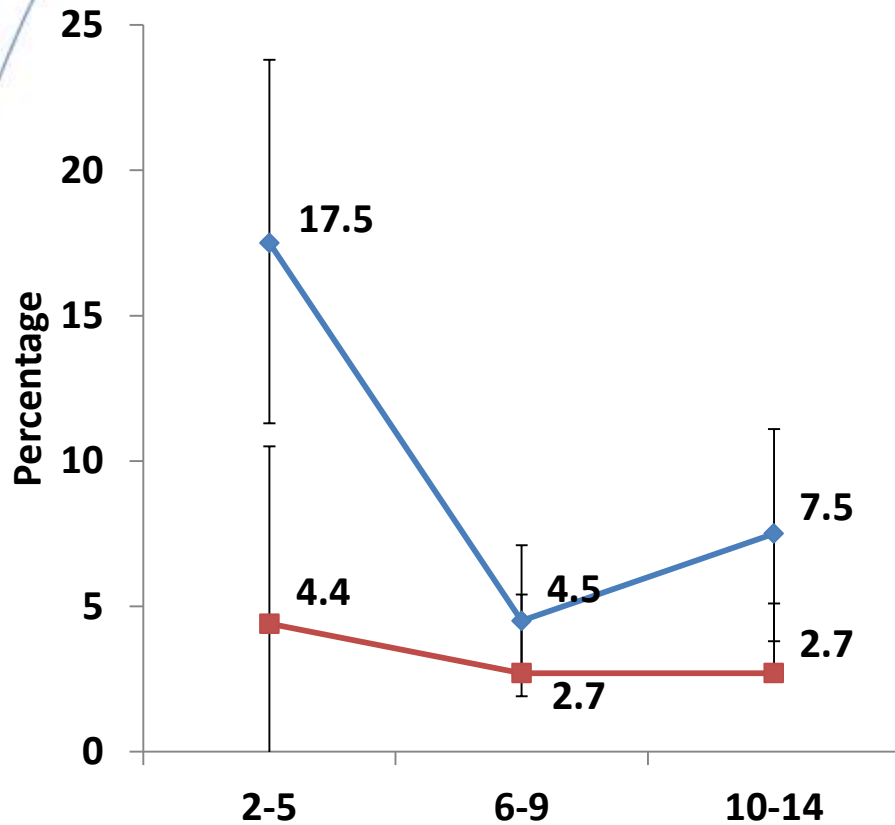


# Childhood obesity globally

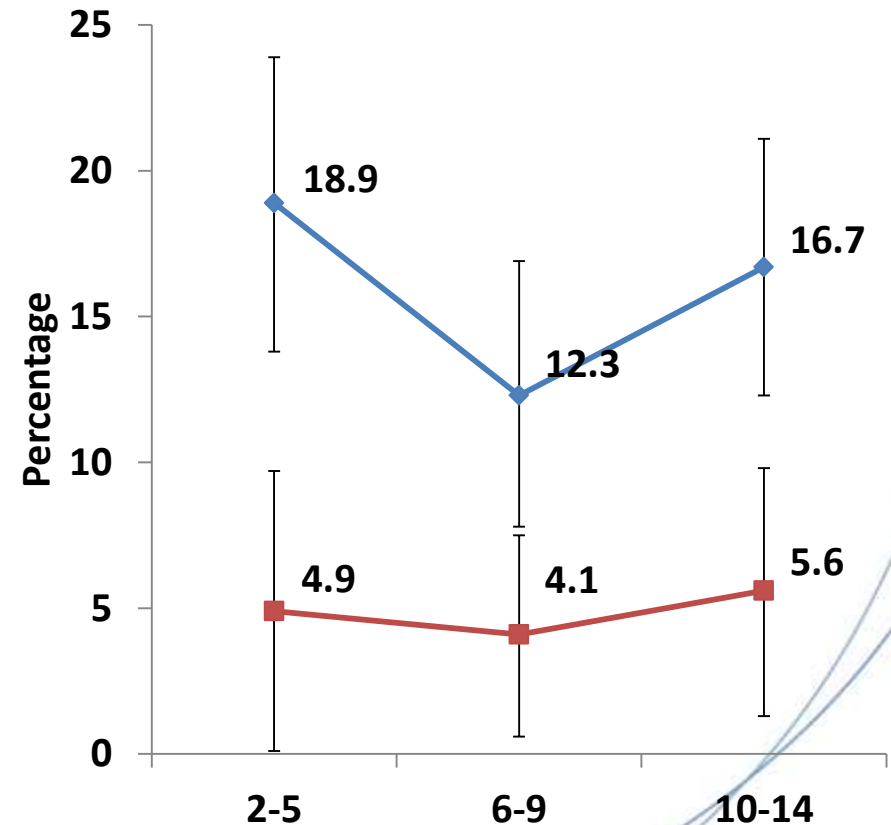
- 43 million children (**35 million in developing countries**) were estimated to be overweight and obese in 2010; 92 million were at risk of overweight
- The **worldwide** prevalence of childhood overweight and obesity increased from **4.2% in 1990 to 6.7% in 2010** a trend expected to reach **9.1%**, or '60 million in 2020
- The estimated prevalence of childhood overweight and obesity in **Africa in 2010 was 8.5%** and is expected to reach **12.7% in 2020**

# Prevalence of overweight and obesity of children aged 2-14 years by sex & age, SA 2012

Males (n=2123)



Females (n=2155)

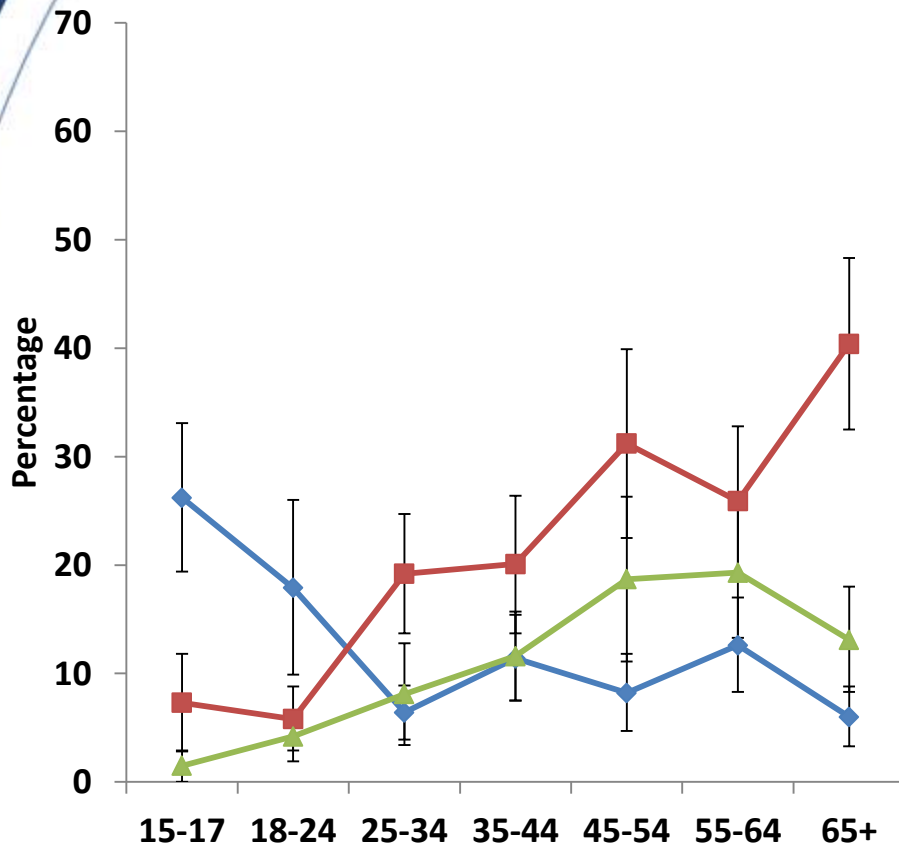


◆ Overweight (BMI 25-29.9)    ■ Obese (BMI 30+)

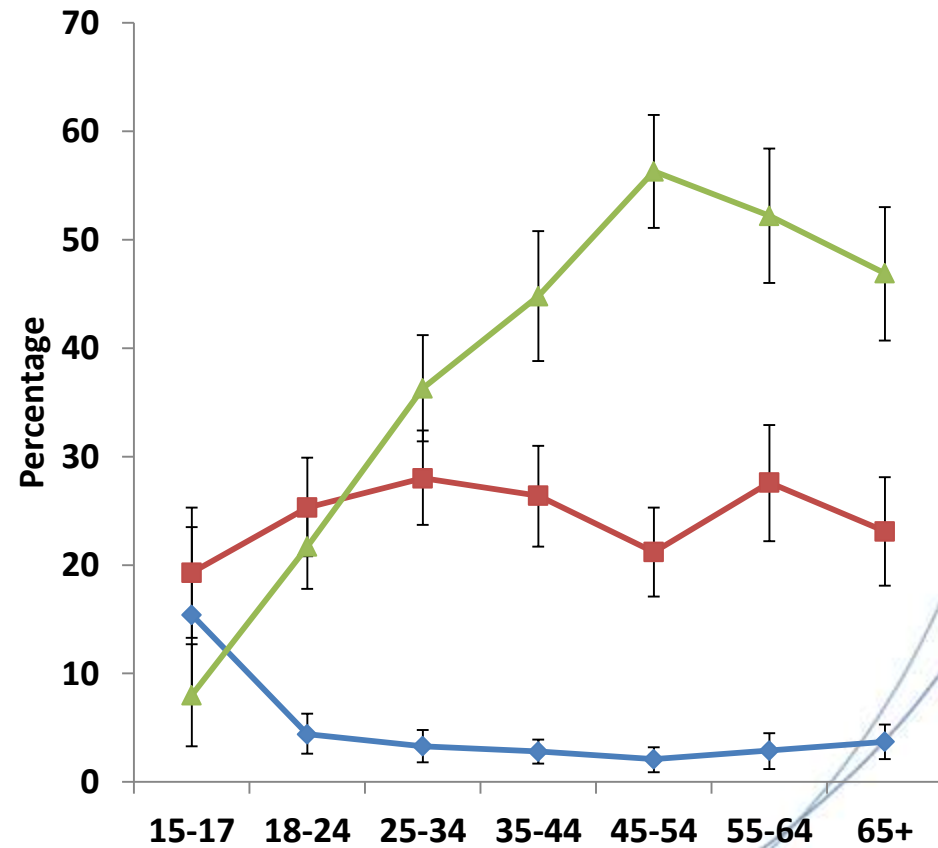
SANHANES

# Prevalence of underweight, overweight and obesity by sex and age, SA 2012

## Males (n=2572)



## Females (n=4695)



◆ Underweight (BMI < 18.5)    
 ■ Overweight (BMI 25-29.9)    
 ▲ Obese (BMI 30+)

**SANHANES**





# Associations: Early on later health

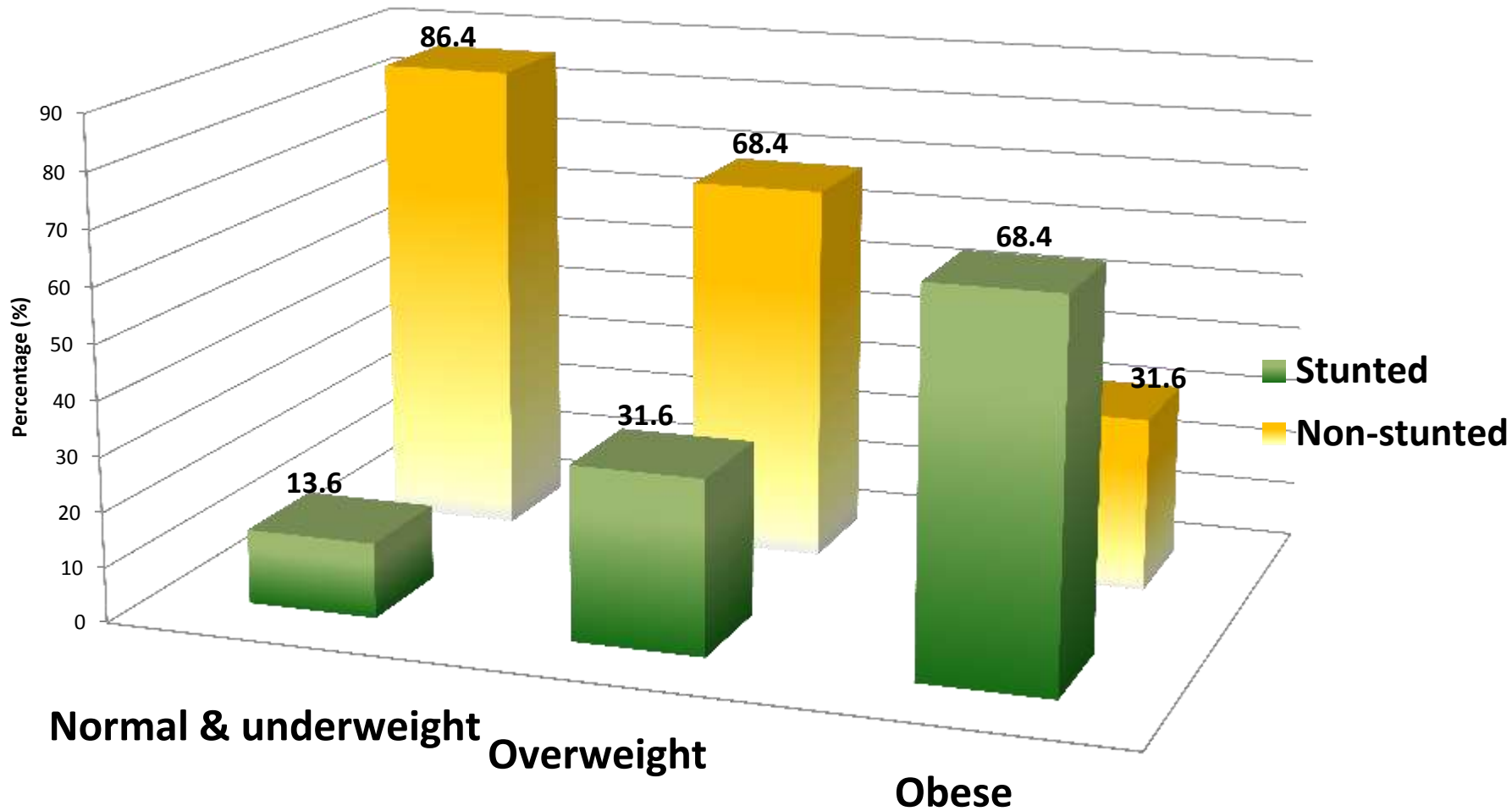
- **Overweight 2-5 year olds were >4 times as likely to become overfat fat adults as were children with a BMI <50<sup>th</sup> centile**
- **The combination of early stunting and adolescent obesity may be an explosive combination**
- **Maternal overweight during pregnancy is associated with hypertensive disorders, gestational diabetes, respiratory complications, thromboembolic events and premature labour**
- **Fetal and newborn complications include congenital defects, large for gestational age infants, stillbirths, shoulder dystocia**

Freedamn DS, et al 2005; Kimani-Murage, EW, et al. 2010; Aviram A, et al. 2011

# National surveys and key findings: Data on Children

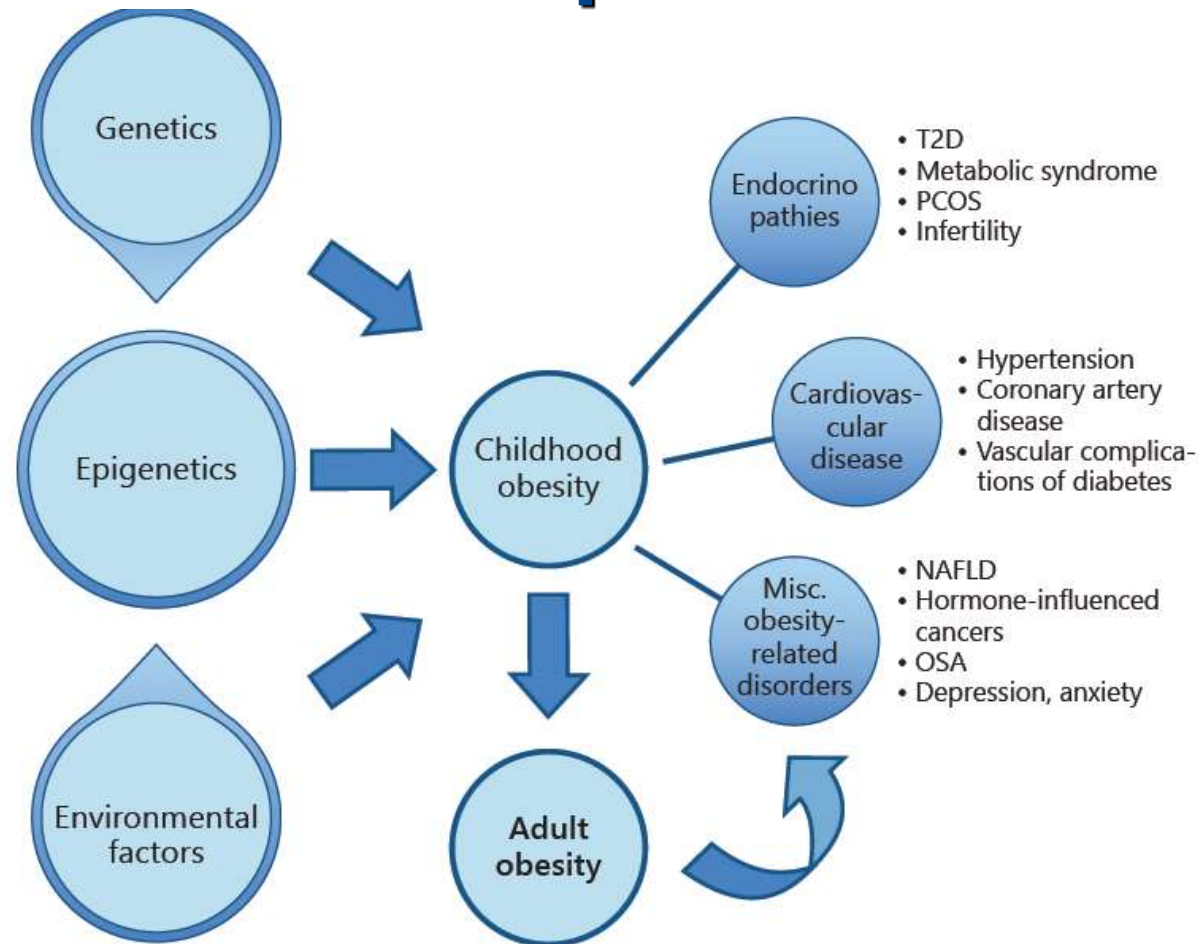
Prevalence	SAVACG 1994	NFCS, 1999	NFCS-1, 2005	SANHANES -1, 2012
Stunting	20+%	20+%	20+%	20+%
Vitamin A deficiency	33.3%	-	63.6%	43.6%
Iron def. anaemia	5.0%	-	7.6%	1.9%
Food secure HH	-	25%	19.8%;	45.6%

# Stature and body weight in 3 to 9-year-old children from Gauteng and Mpumalanga (N=519)

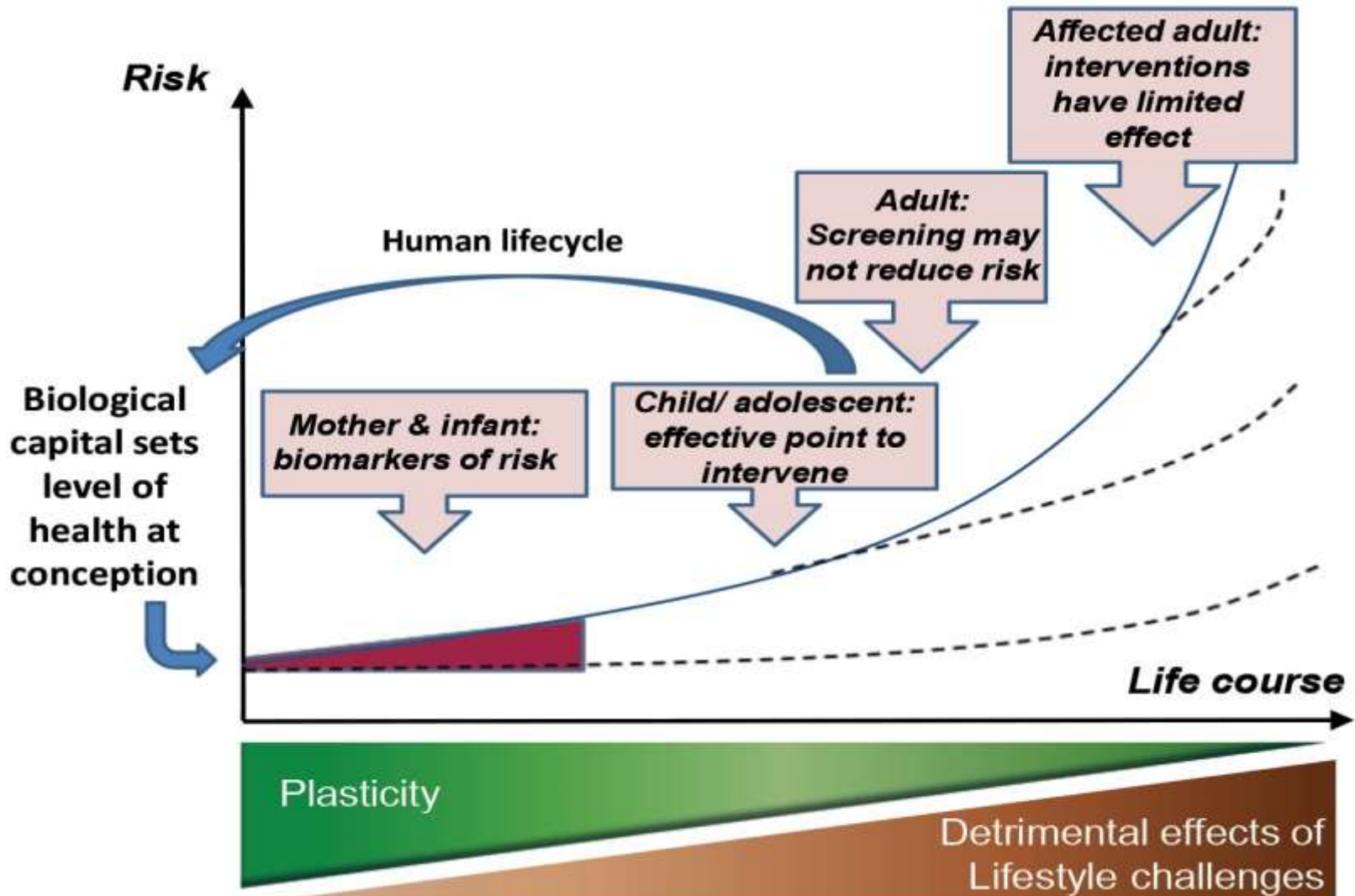




# Childhood obesity and adult complications



# Windows of opportunity



# Prenatal and early life influences

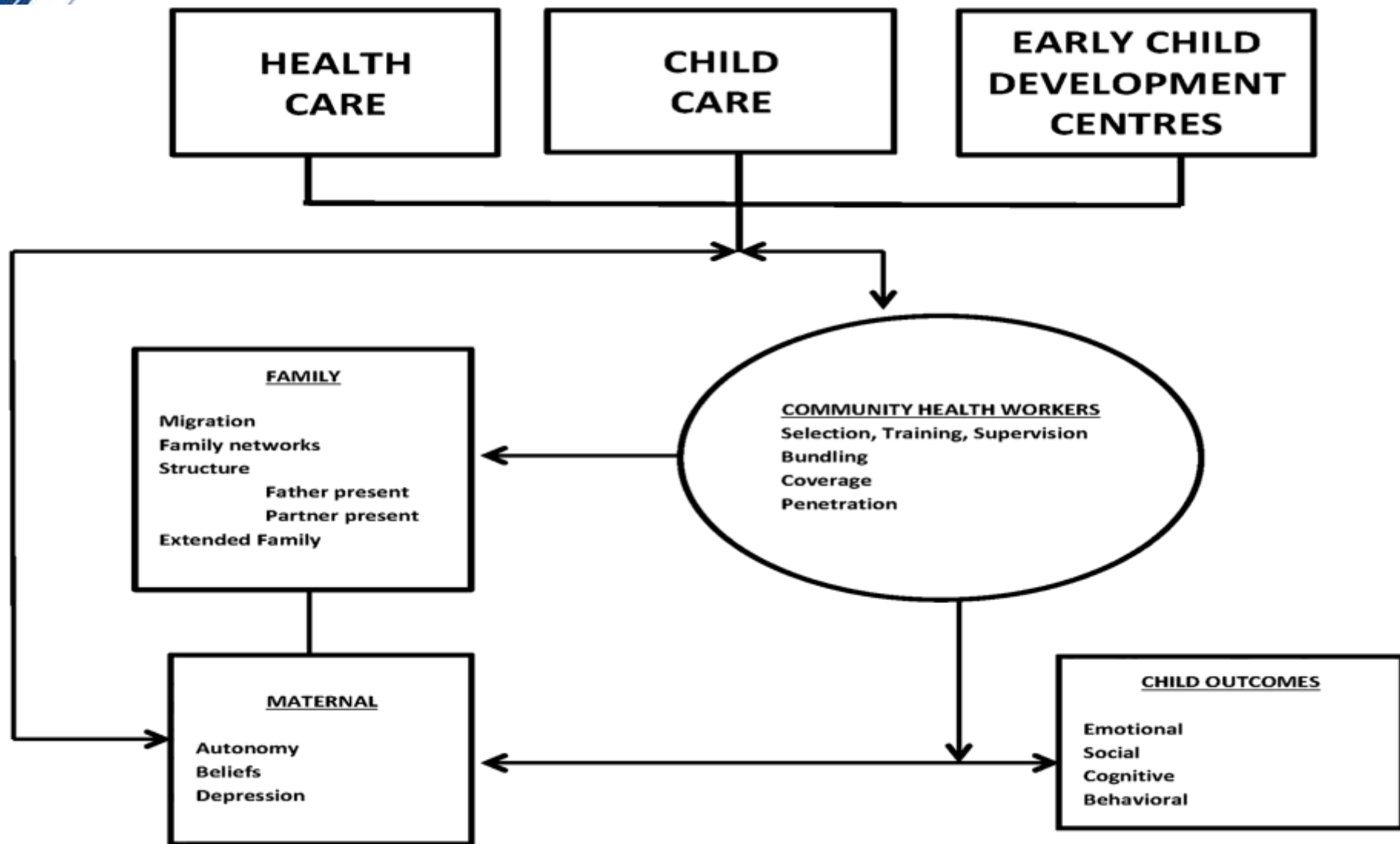
## Prenatal influences on obesity:

- Smoking during pregnancy
- Weight gain during pregnancy
- Blood sugar levels during pregnancy

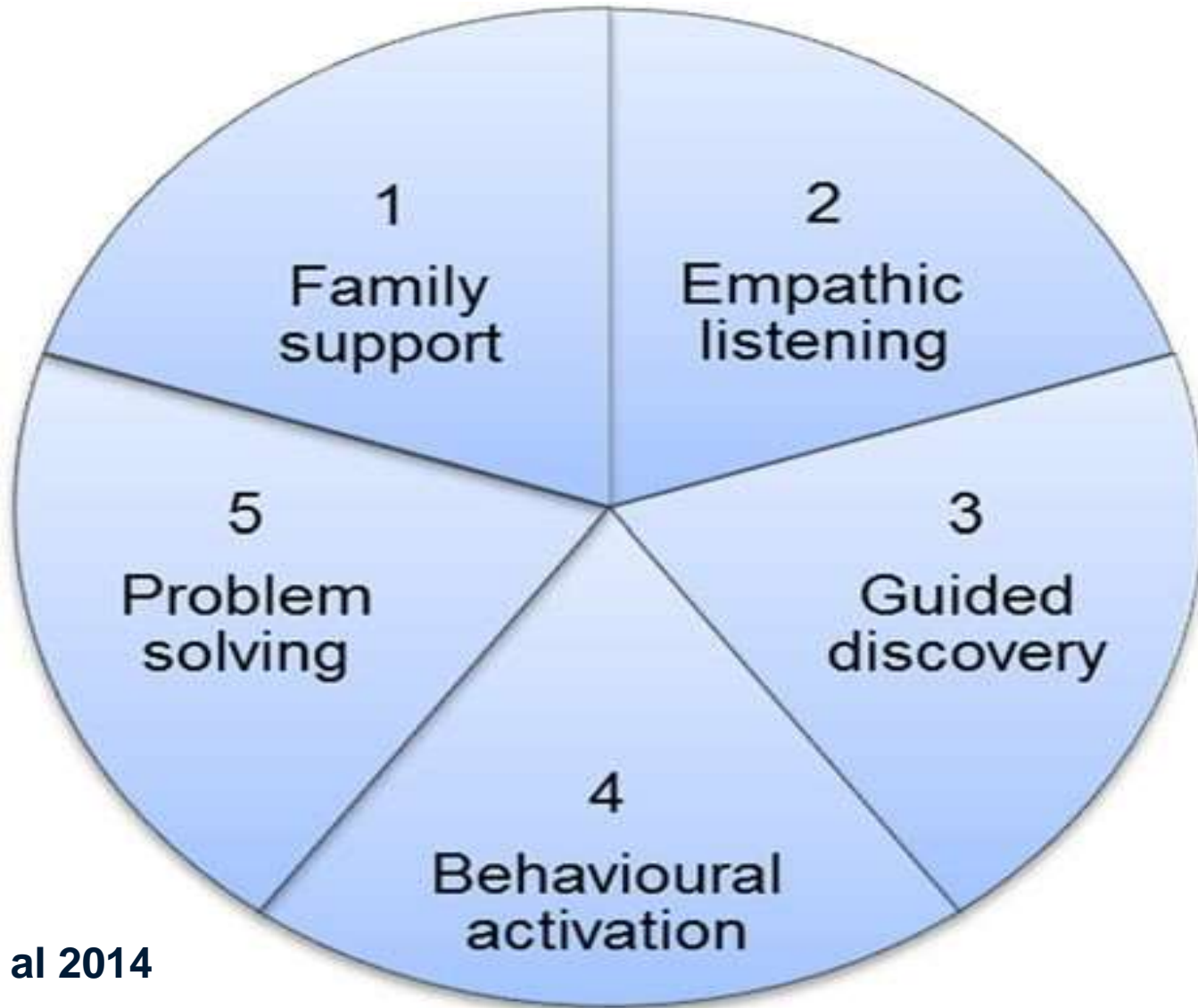
## Postnatal influences on obesity:

- Rapid weight gain in infancy
- Duration of breast feeding
- Sleeping patterns in infancy

**Could pre-and post-natal influences have an additive effect??**



# The five pillar: Maternal psychosocial well-being



# Core Actions

## Governments:

- Leadership and governance
- Healthy public health policies (DoH: obesity)
- Resources
- Intelligence systems
- Support systems for policy implementation
- Workforce capacity and development
- Partnerships organizational relationships, and networks for coordination
- Communications

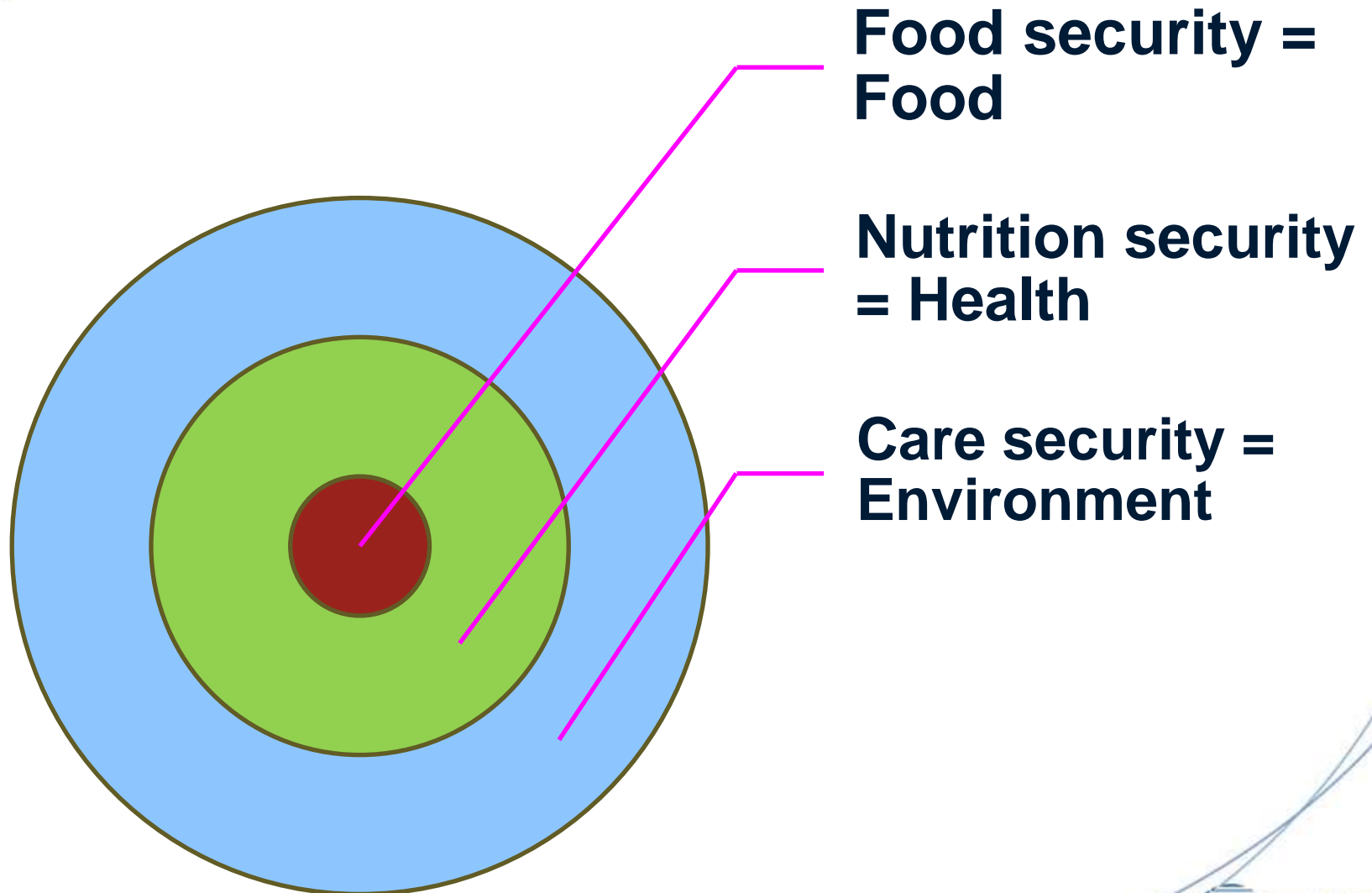


# Core Actions

## International Agencies:

- UN, WHO; global standards, indicators for ECD
- Private sector
- Civil Society
- Health professionals
- Individuals

# The Common Agenda (3 in one policy)



slide

A circular inset image of a nutrition label with the following text:

Amount Per Serving	
Calories	110
Total Fat	2g
Saturated Fat	1g
Cholesterol	55mg
Sodium	55mg
Potassium	85mg
Total Carbohydrate	1g
Dietary Fiber	0g
Sugars	1g
Protein	22g

