

# DOUBLE BURDEN OF MALNUTRITION AFRICA

SHANE NORRIS

UNIVERSITY OF THE WITWATERSRAND

IAEA WORKSHOP OCT 2017

# AFRICA

**“The only man I envy is the man who has not yet been to Africa - for he has so much to look forward to ”**

***Richard Mullin***

- **1.28 Billion people (current)**
- **Diverse**
- **Complex**
- **Challenging**

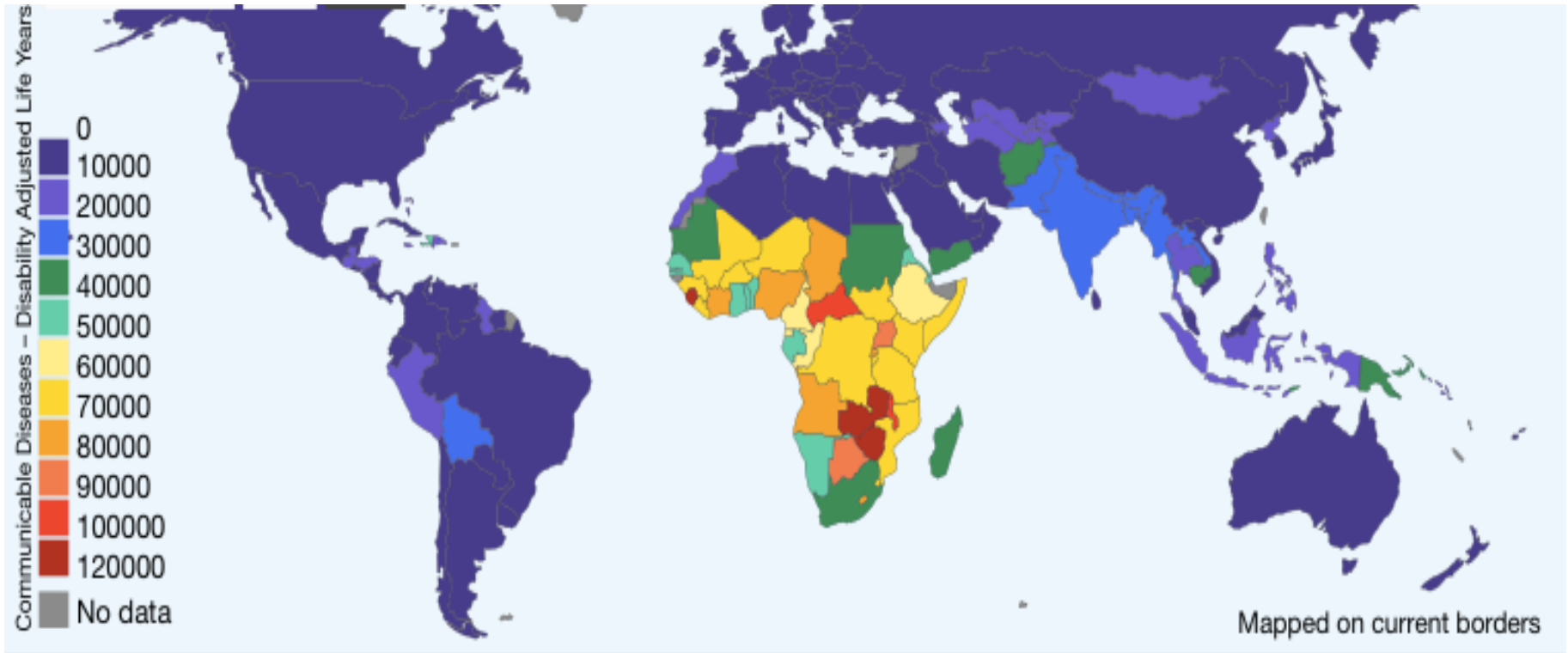
# AFRICA

**“As Africans, we need to share common recognition that all of us stand to lose if we fail to transform our continent”**

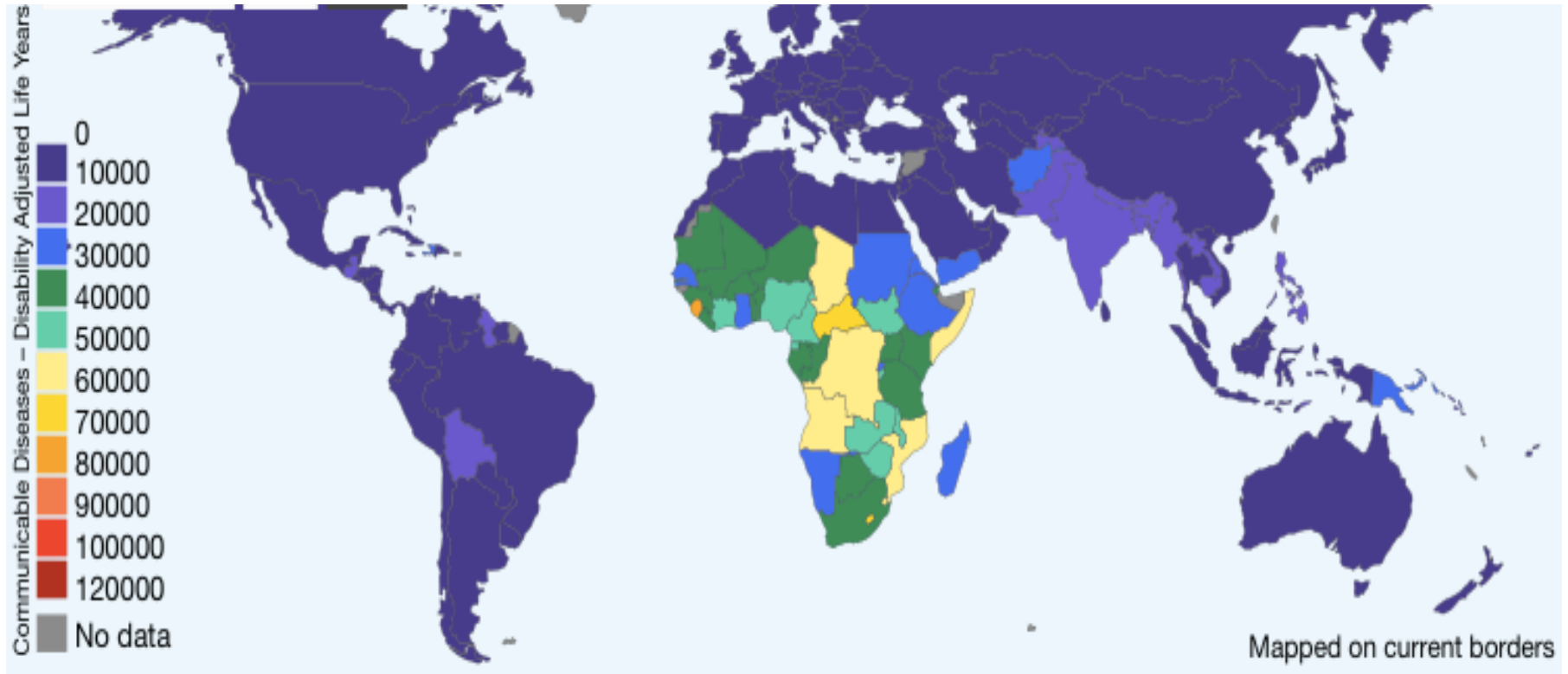
***Thabo Mbeki***

- GDP (PPP): **US\$ 6.76 trillion (2017)**
- GDP growth: **Per capita 5.2%**

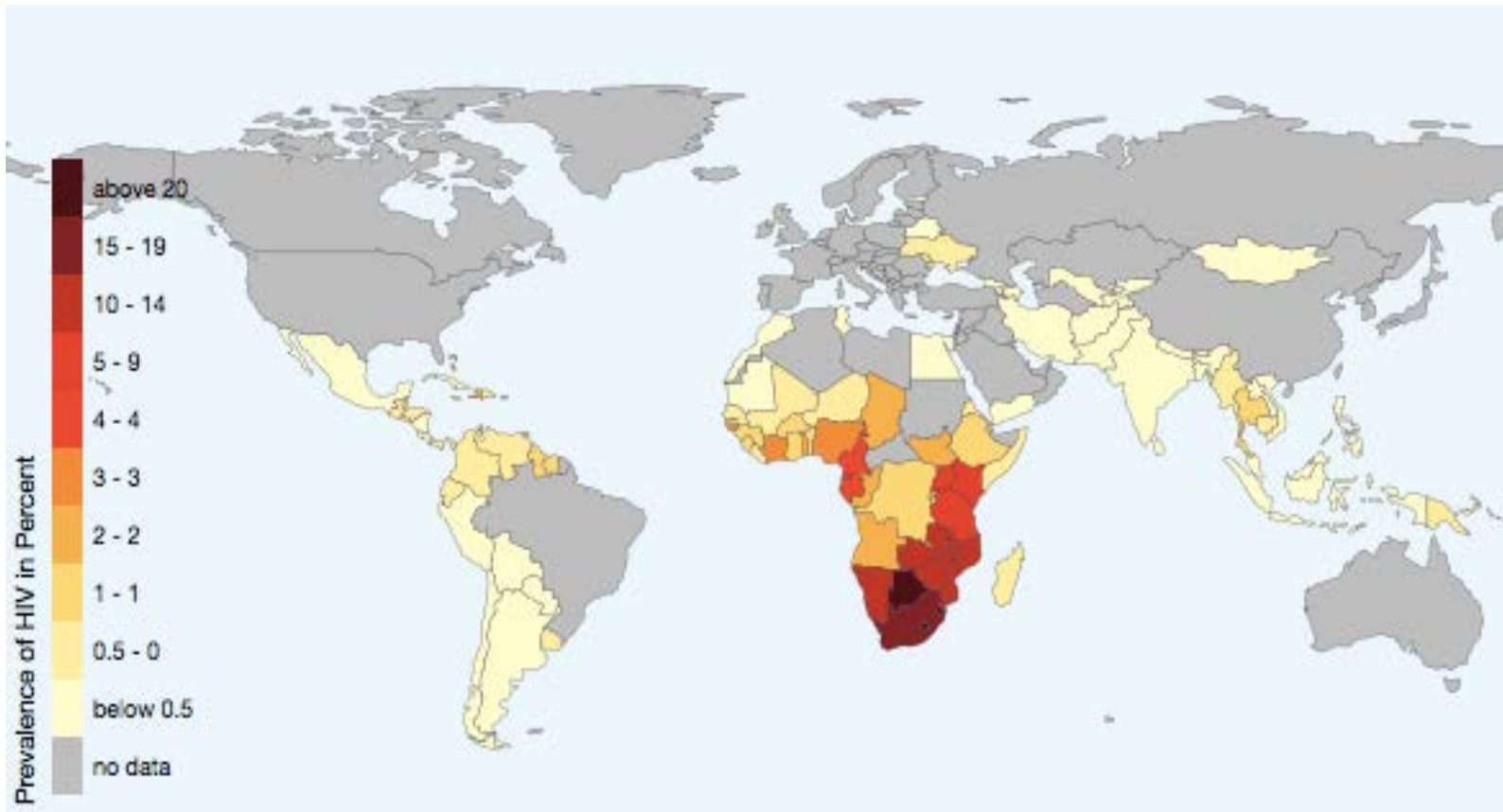
# Communicable disease burden 2000



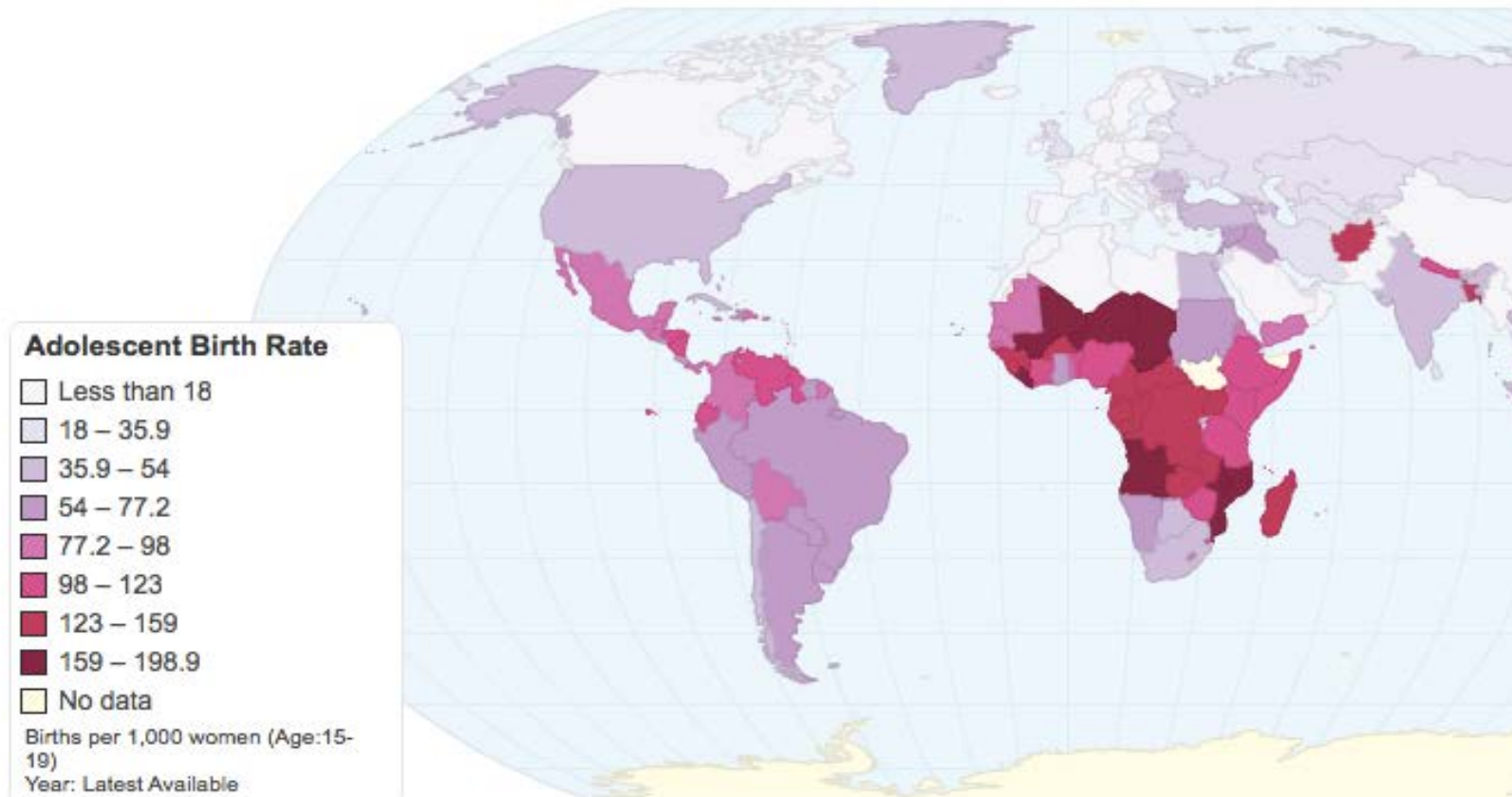
# Communicable disease burden 2012



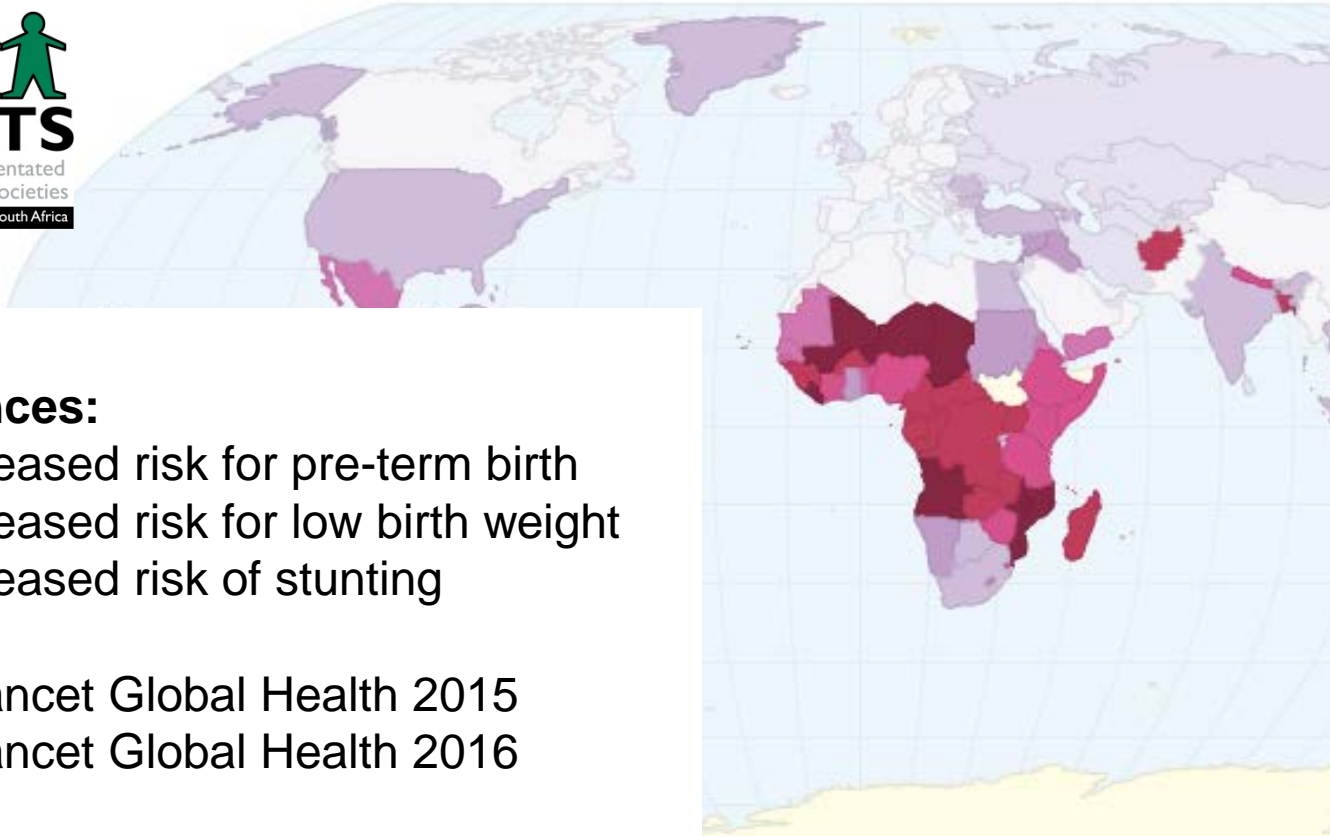
# HIV infection 2012



# Adolescent pregnancy



# Adolescent pregnancy



## Consequences:

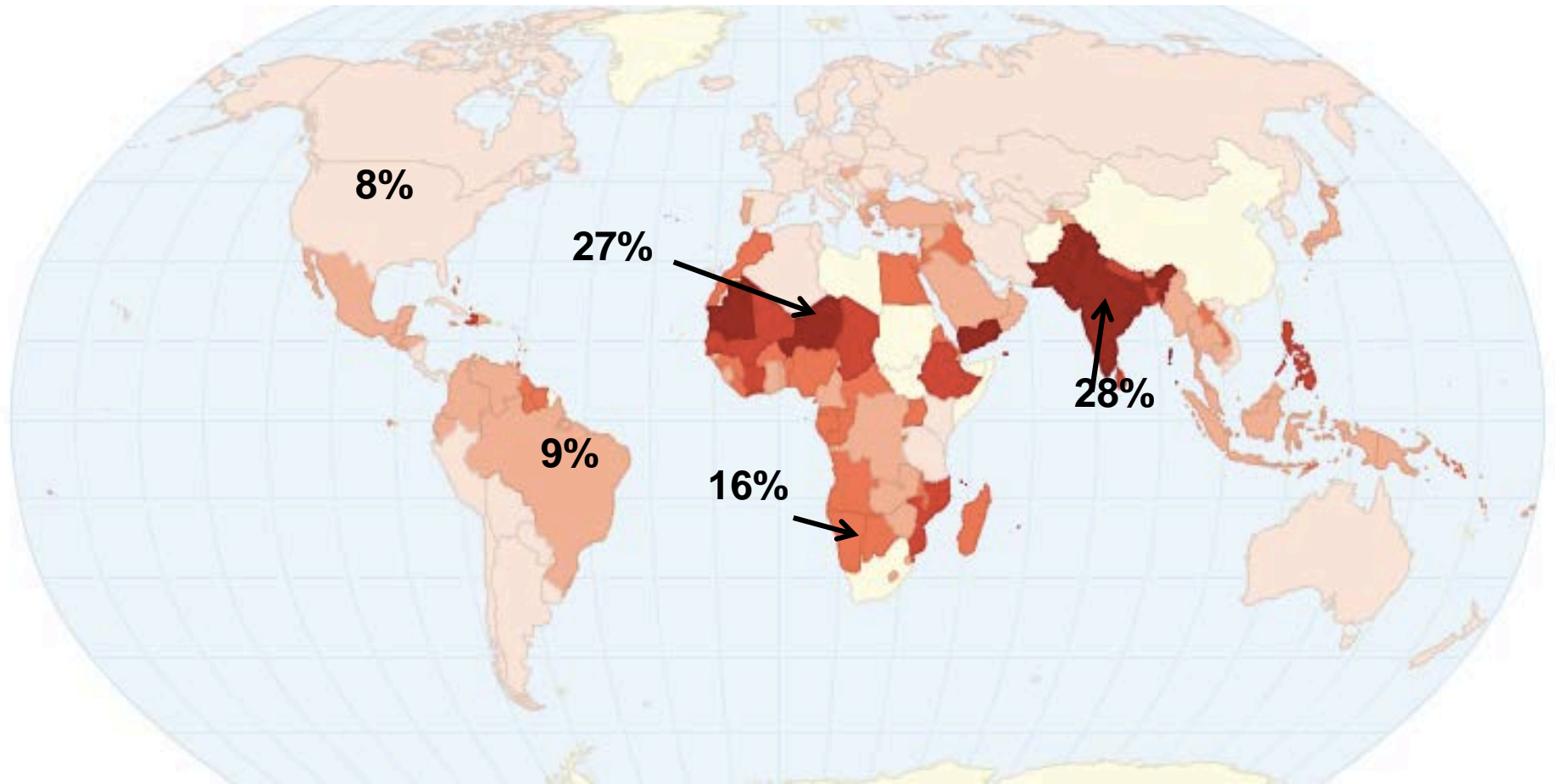
- 26% increased risk for pre-term birth
- 18% increased risk for low birth weight
- 46% increased risk of stunting

Fall et al, Lancet Global Health 2015

Fall et al, Lancet Global Health 2016

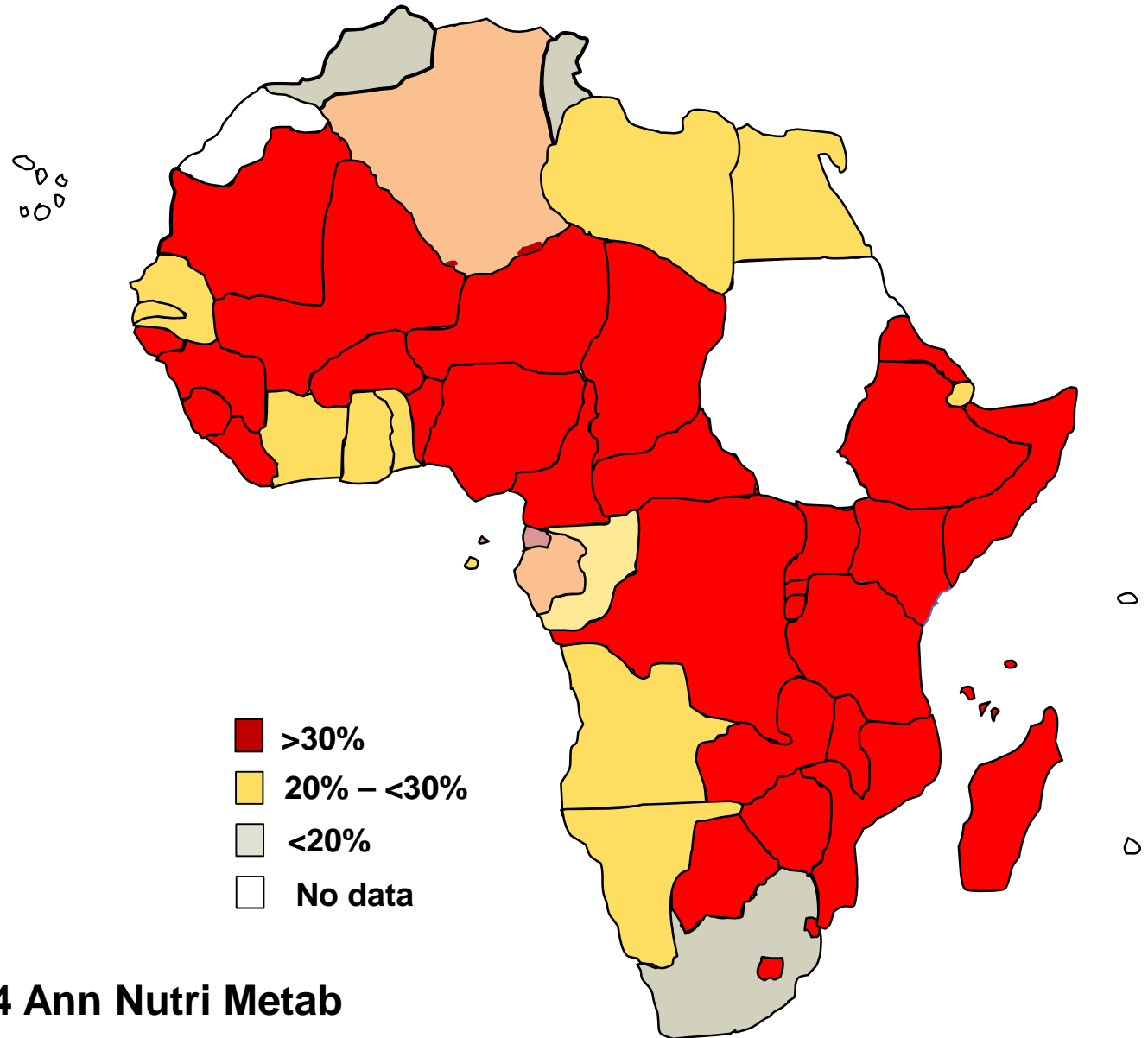


# Low birthweight



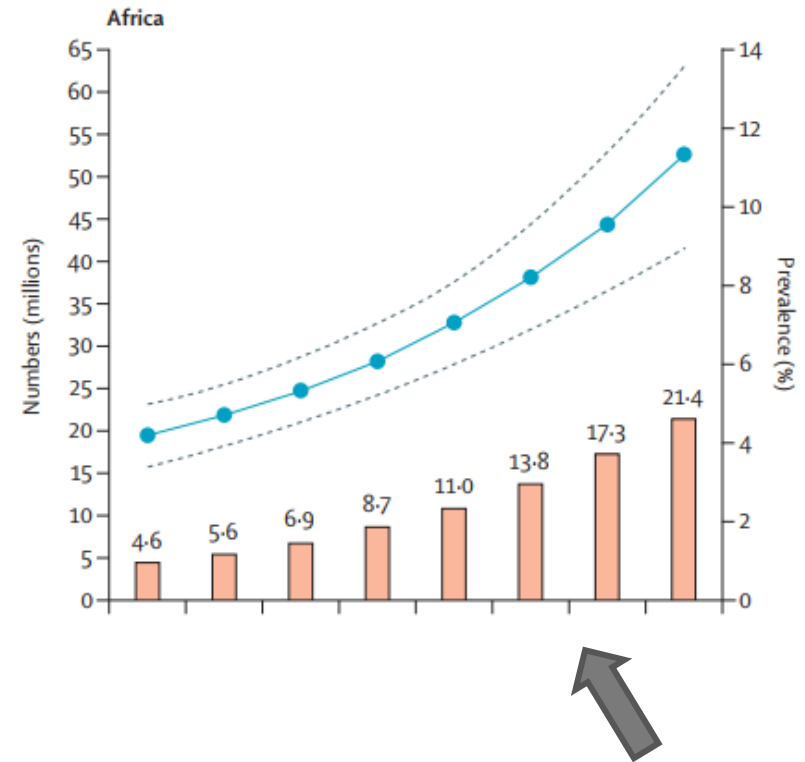
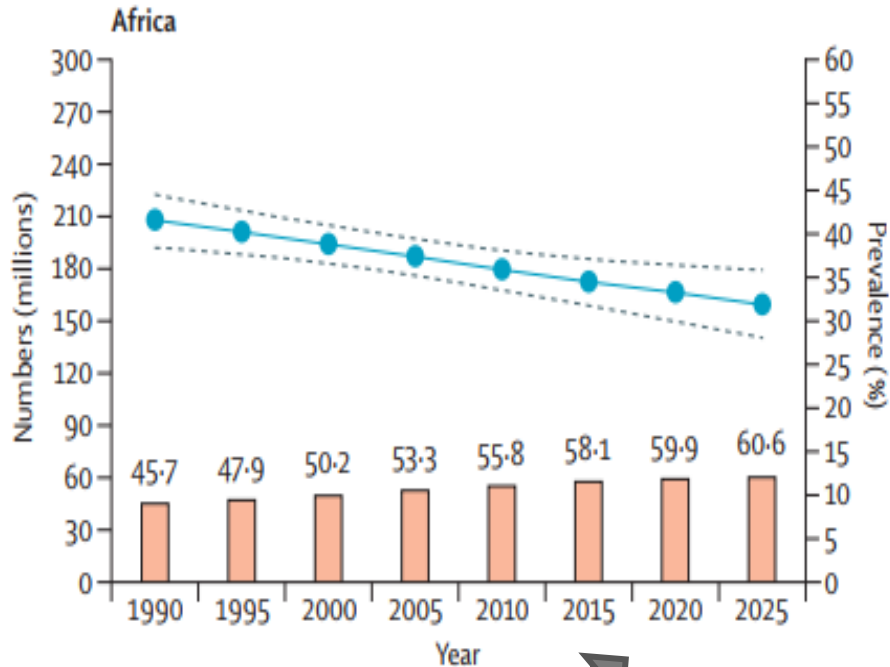
UNICEF, World Bank, 2012-2015

# Stunting



Norris et al. 2014 Ann Nutri Metab

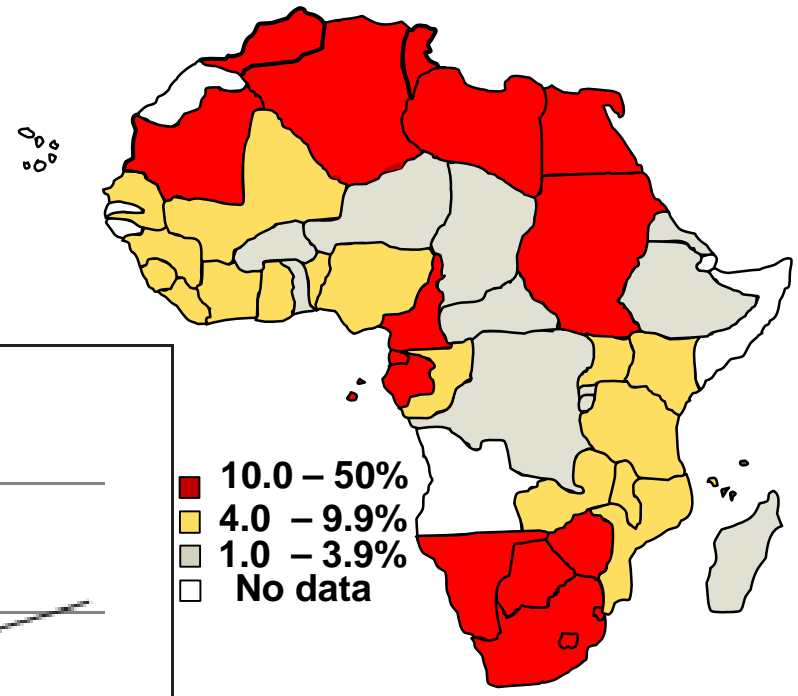
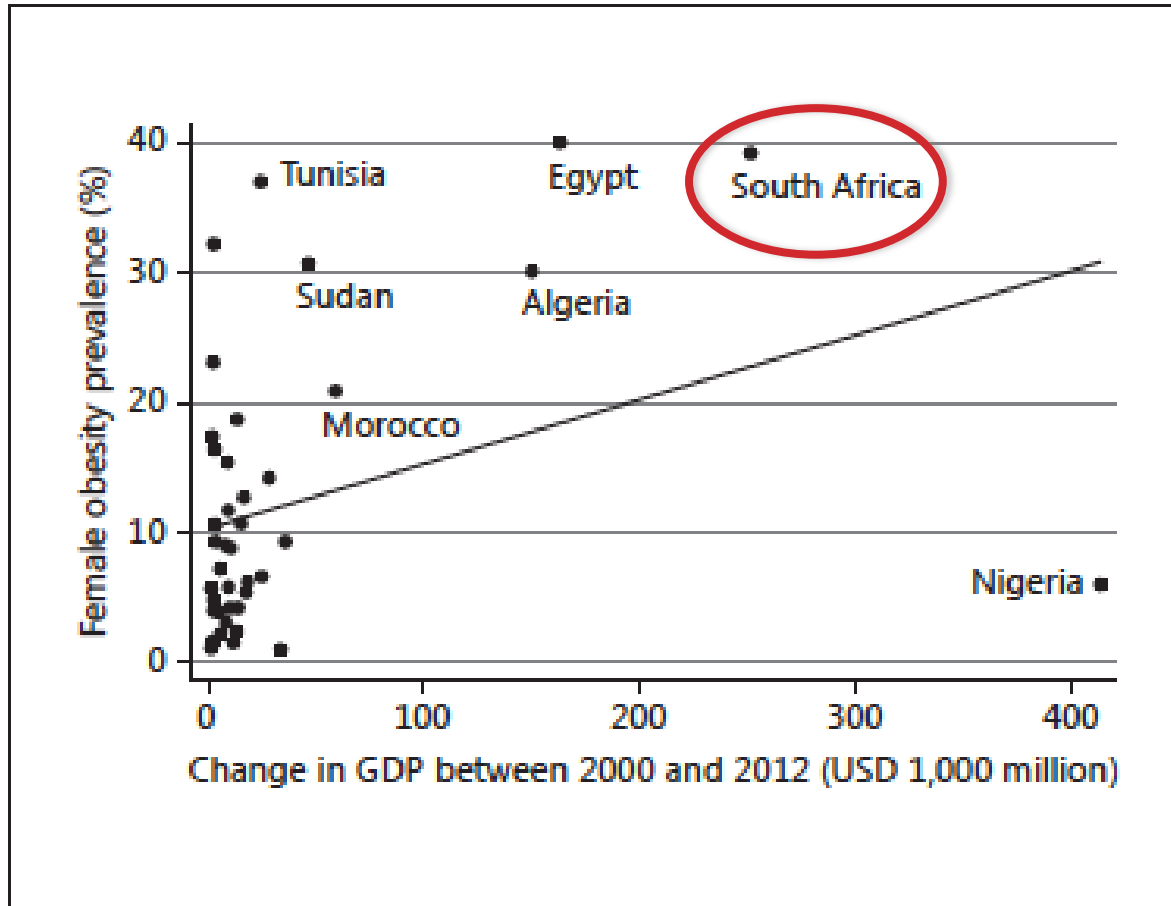
# AFRICA



**Persistent high prevalence of under 5 stunting (chronic undernutrition)**

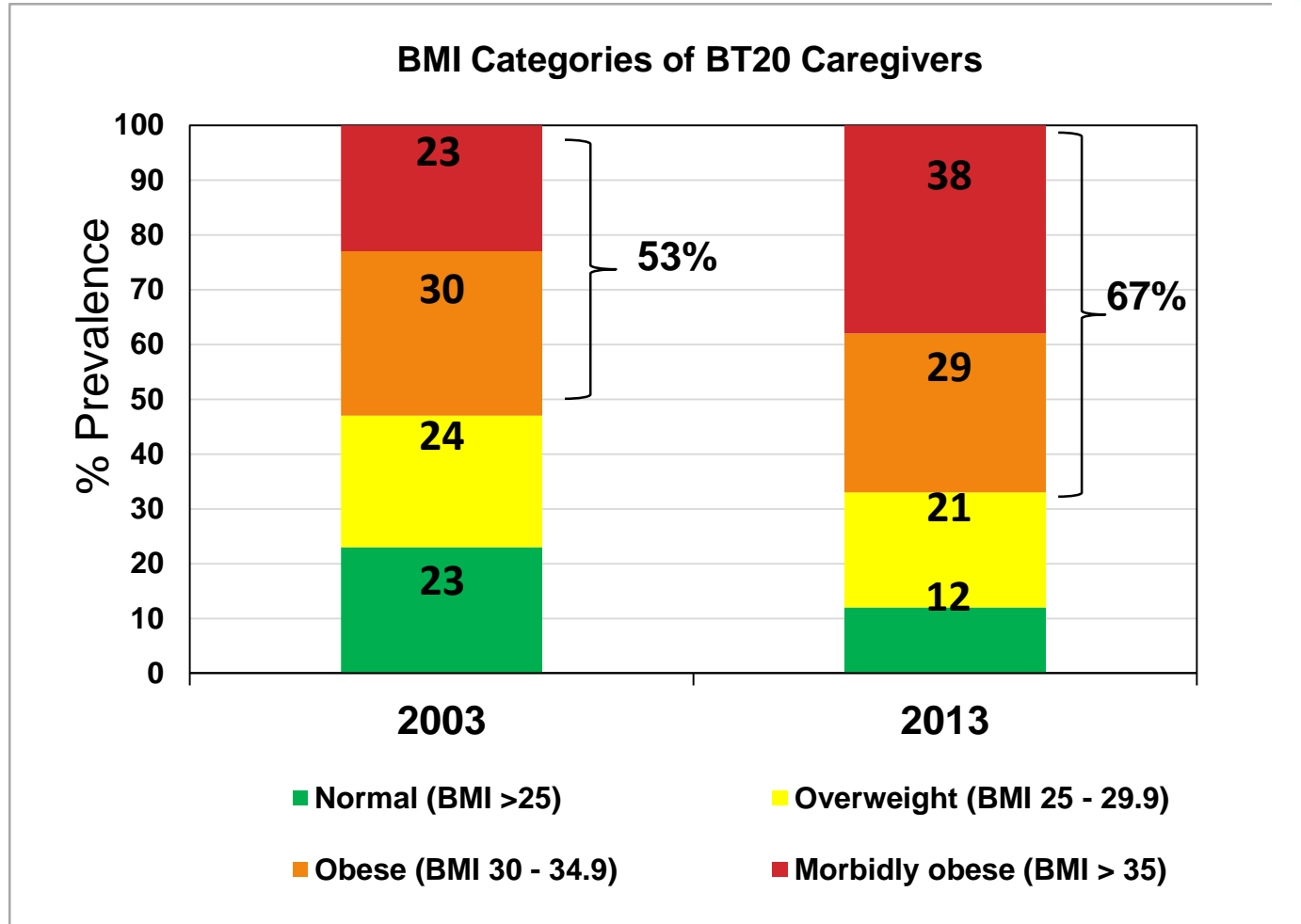
**Rapid increases in childhood overweight**

# OBESITY



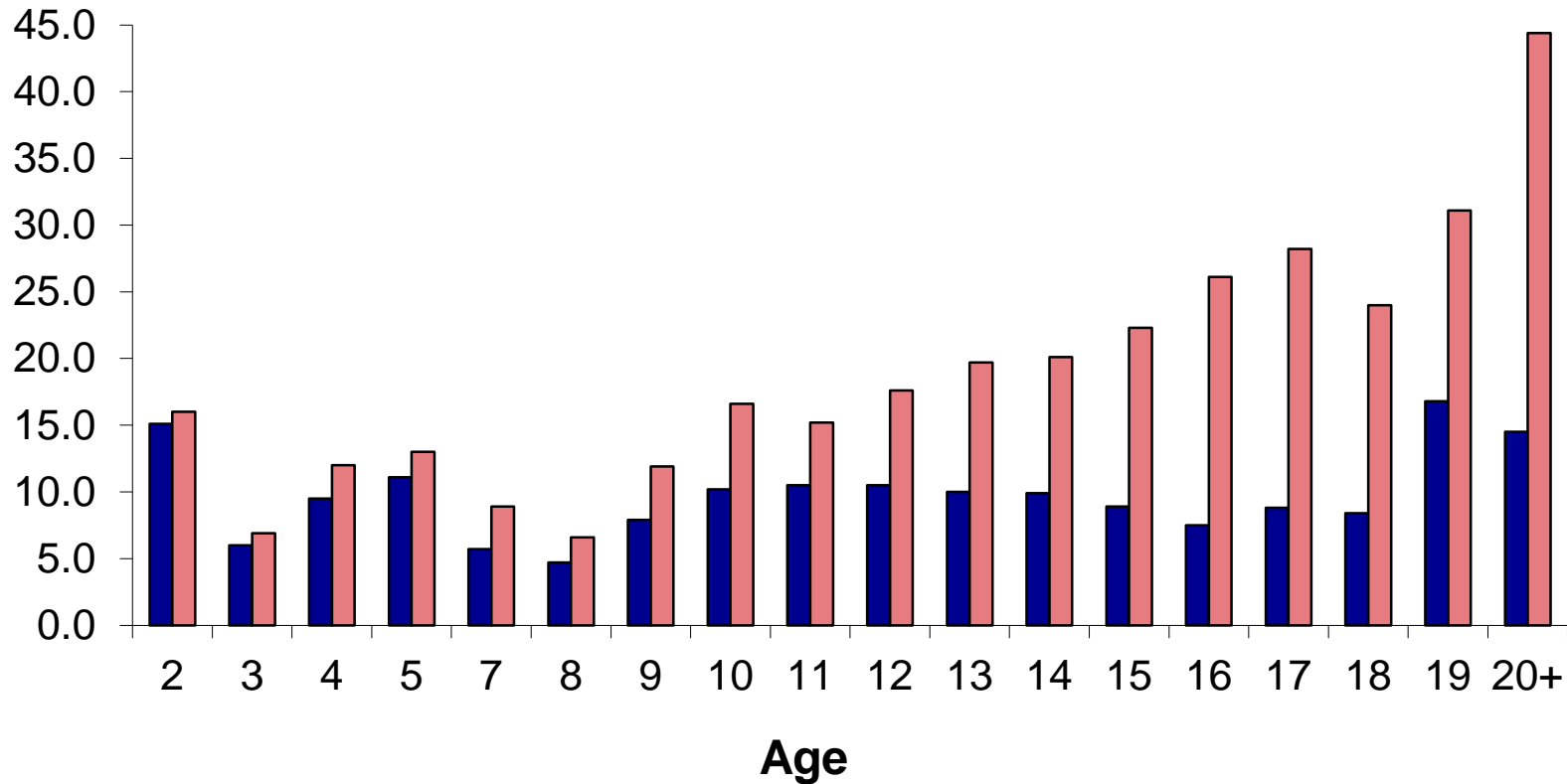
**ADULT FEMALE OBESITY**

# Bt20 Moms



Unpublished data, Micklesfield

# OVERWEIGHT & OBESITY PREVALENCE



Norris et al. Unpublished

# KOTA



Inexpensive: \$1-2

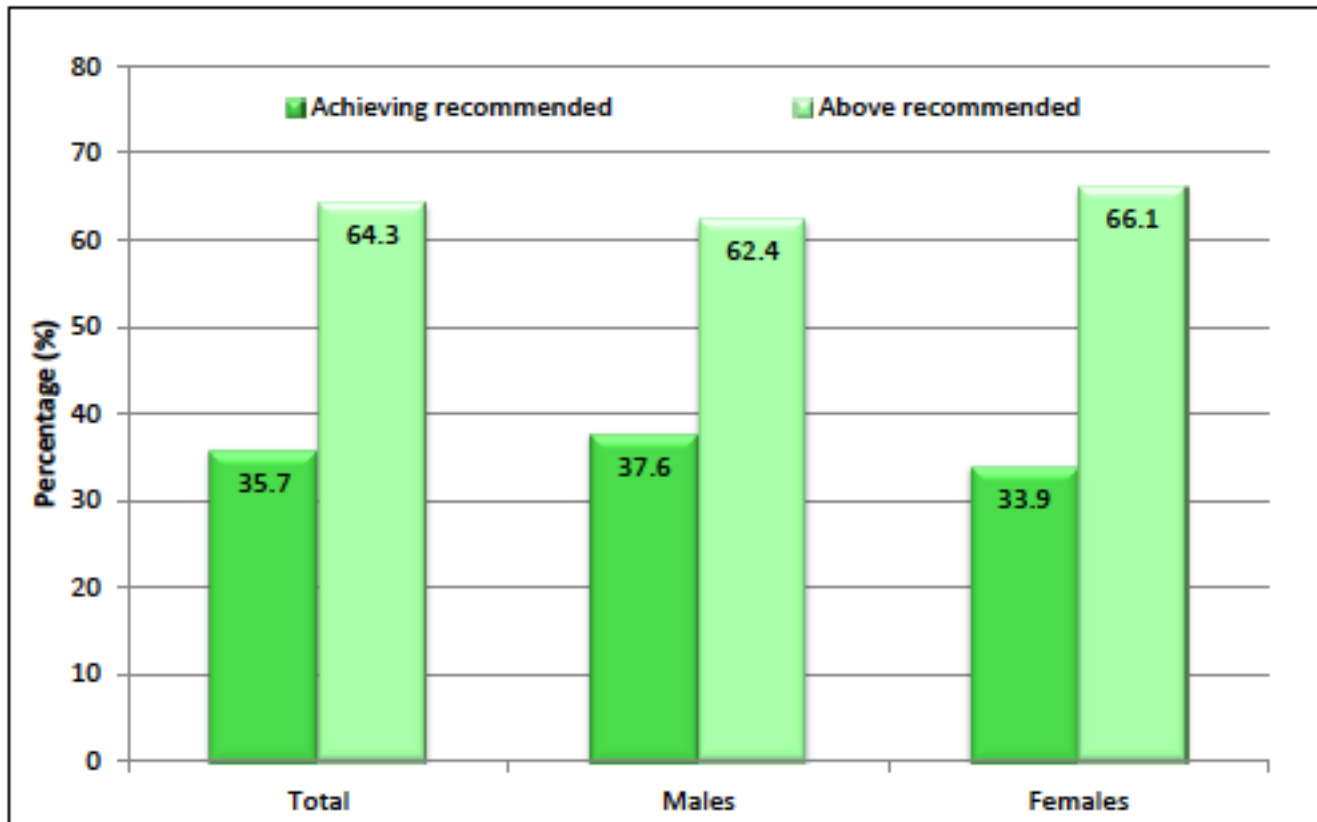
Informal vendors

Energy dense: 1283 kca

Ave consumption of fast food in Soweto = 30items/week

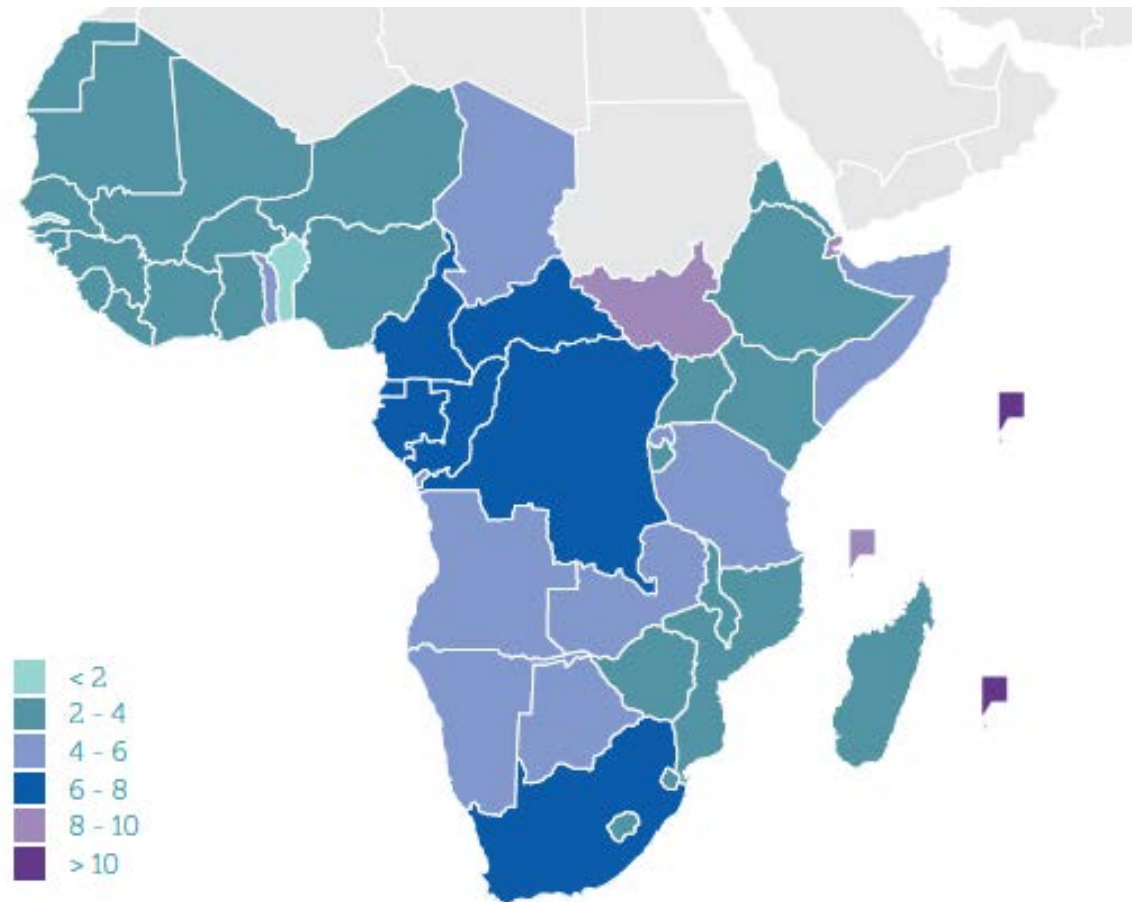
# DIETARY INTAKE

Percentage achieving WHO guidelines (added sugars; 11.4% of total energy)



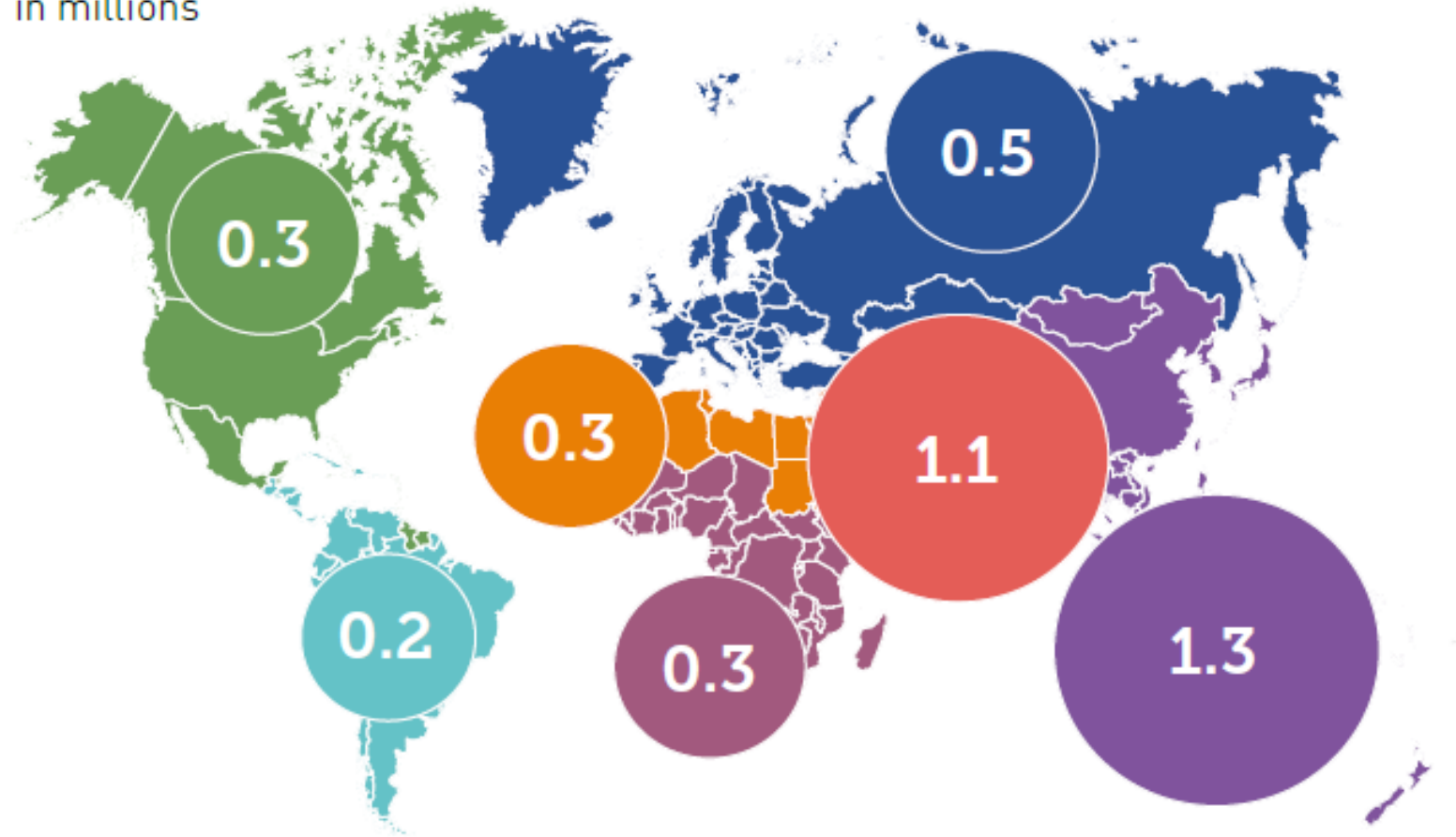


# Type-2 Diabetes



# DIABETES: MORTALITY

Number of deaths due to diabetes (20-79 years) in 2017  
in millions



# AFRICA

- Rapid demographic and nutrition transitions
- Complex & heterogeneous
- Multiple burdens of health (malnutrition, obesity communicable & non-communicable)

THANK YOU!

