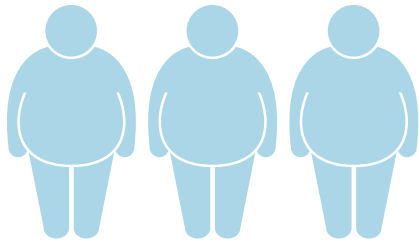


Obesity in Sub-Saharan Africa

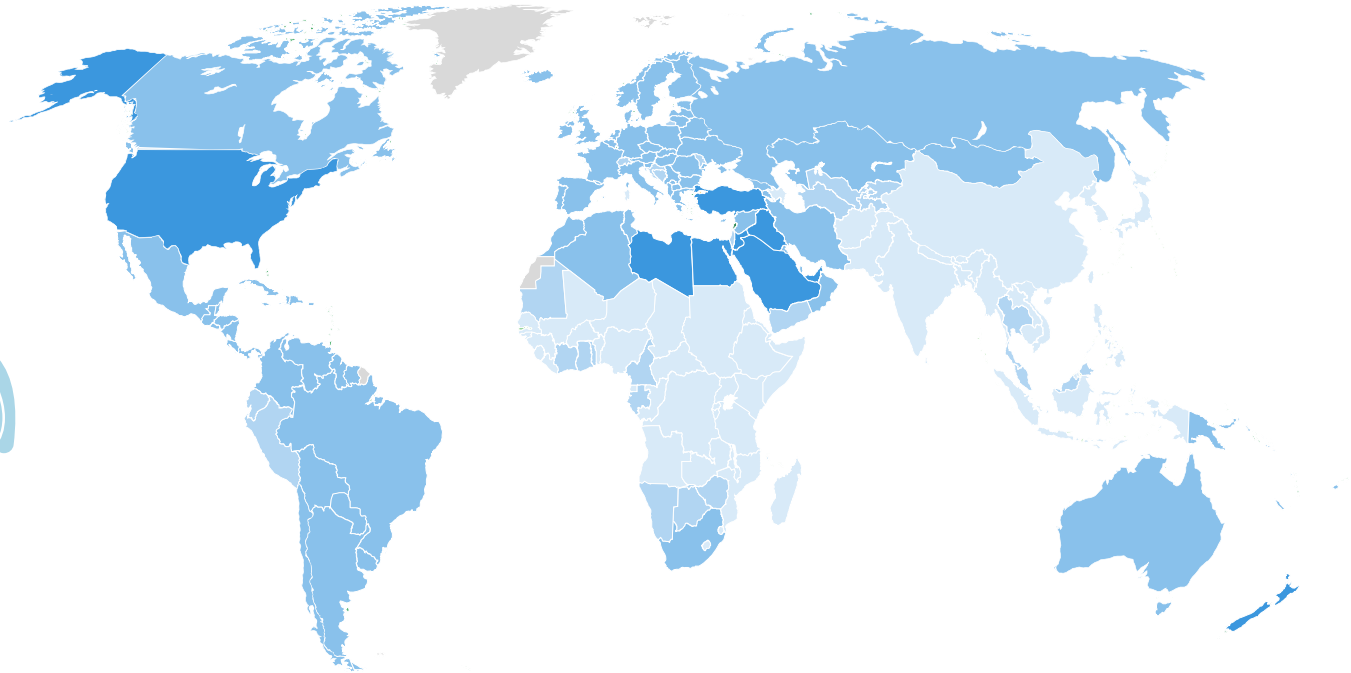
Marisa Noeth
Endocrinologist
December 2023

Obesity is a global pandemic



650

million people
live with obesity²



Global Prevalence of Obesity among Adults¹ (%)

<10.0 10.0–19.9 20.0–29.9 ≥30.0 Not applicable

**People diagnosed
with obesity
(<40%)**

**People receiving evidence-
based
anti-obesity treatment*
(<20%)**

Sub-Saharan Africa

46 of Africa's 55 countries

All south of Sahara

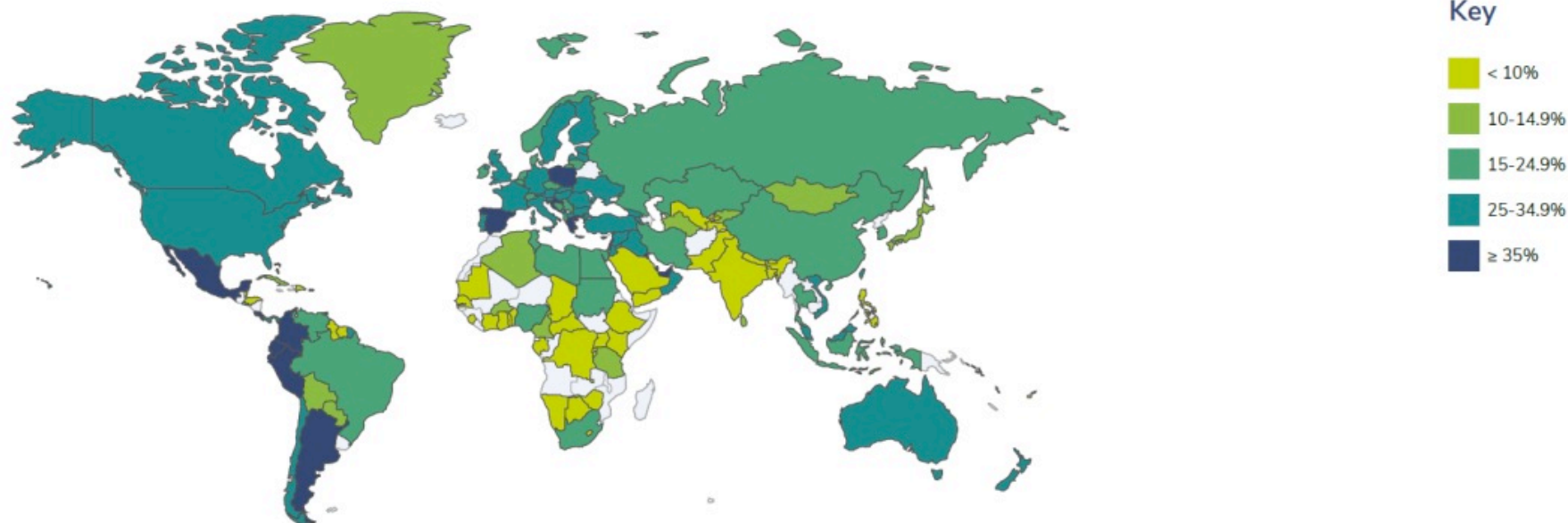
Djibouti, SADR, Somalia and Sudan excluded when
UN development programme applies



Boys living with overweight or obesity



Boys living with either overweight or obesity, Newest available data



Africa region	Americas region	Eastern Mediterranean region	European region	SE Asia region	Western Pacific region
Seychelles: 28.1%	Mexico: 43.1%	Kuwait: 54.3%	Cyprus: 47.9%	Indonesia: 21.1%	Malaysia: 33.2%
Nigeria: 18.6%	Argentina: 42.2%	Qatar: 44.9%	Greece: 43.9%	Thailand: 18.2%	Brunei Darussalam: 30.5%
South Africa: 16.2%	Peru: 37.8%	United Arab Emirates: 43.1%	San Marino: 39%	Sri Lanka: 13.7%	New Zealand: 29.7%

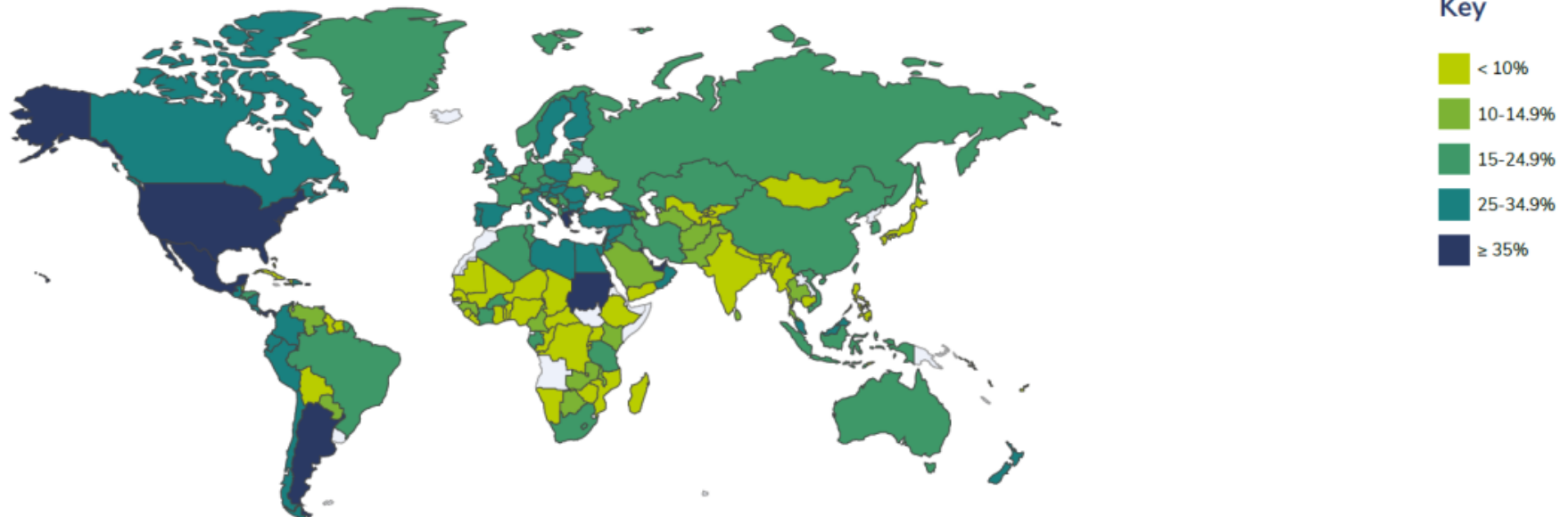
These maps include the most accurate and appropriate data available to us as the time of production. The maps only display data from surveys using measured heights and weights. Due to differences in survey methodology not all surveys are directly comparable and maps should be interpreted with care. Further survey details and references are available on the individual country pages.

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Girls living with obesity or overweight



Girls living with either overweight or obesity, Newest available data



Africa region

Seychelles: 35.6%
 South Africa: 23.6%
 Algeria: 20%

Americas region

Mexico: 44.6%
 Panama: 39.9%
 Argentina: 39.9%

Eastern Mediterranean region

Kuwait: 44.6%
 Sudan: 41.6%
 Qatar: 40.4%

European region

Greece: 40.4%
 Cyprus: 39%
 Croatia: 33.2%

SE Asia region

Indonesia: 18.9%
 Thailand: 14.7%
 Sri Lanka: 10.6%

Western Pacific region

Federated States of
 Micronesia: 41.3%
 New Zealand: 29.5%
 Brunei Darussalam: 26.3%

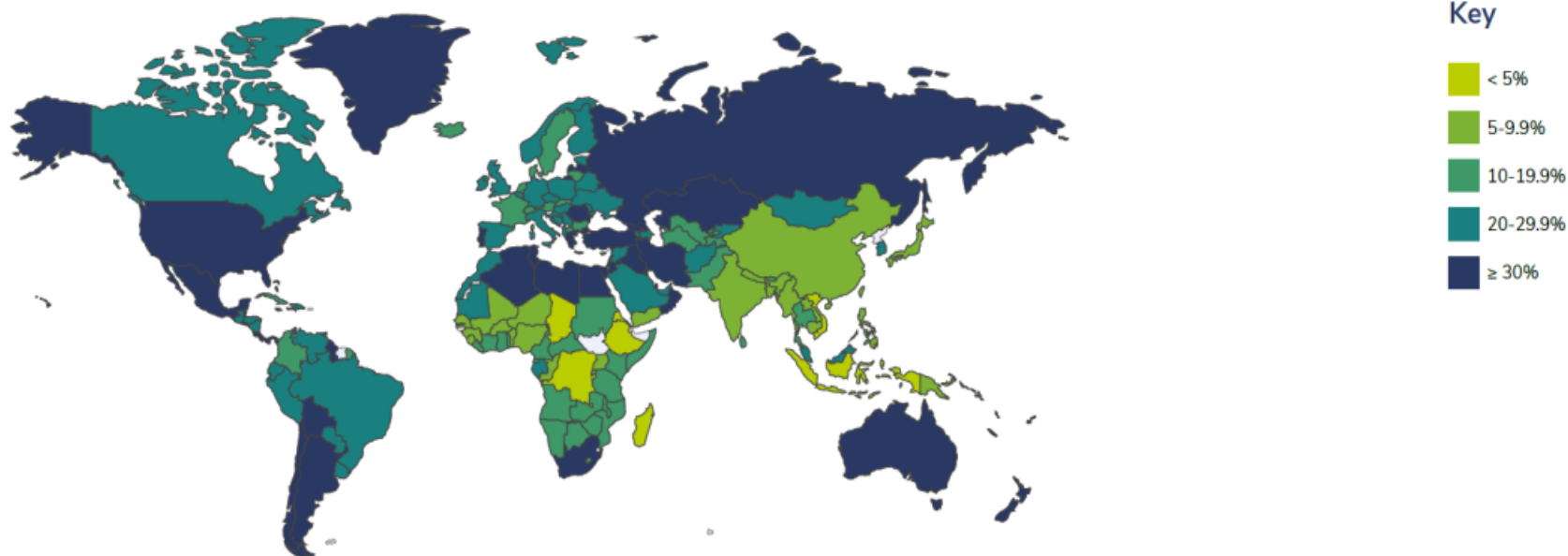
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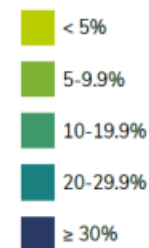
Women living with overweight or obesity



Women living with obesity, Newest available data



Key



Africa region

Mauritius: 41.6%
 South Africa: 41%
 Seychelles: 39%
 Eswatini: 30.9%
 Algeria: 30.1%

Americas region

Antigua and Barbuda: 60%
 Bahamas: 54.8%
 Saint Kitts and Nevis: 52.5%
 Saint Lucia: 46.4%
 Barbados: 43.4%

Eastern Mediterranean region

Kuwait: 49.1%
 Egypt: 48.8%
 Libya: 47.4%
 Qatar: 43.2%
 Iraq: 42.6%

European region

Georgia: 36%
 Romania: 34.1%
 Greece: 33.6%
 Latvia: 32.6%
 Portugal: 32%

SE Asia region

Maldives: 22.8%
 Sri Lanka: 15.2%
 Bhutan: 14.9%
 Thailand: 12%
 Bangladesh: 8.6%

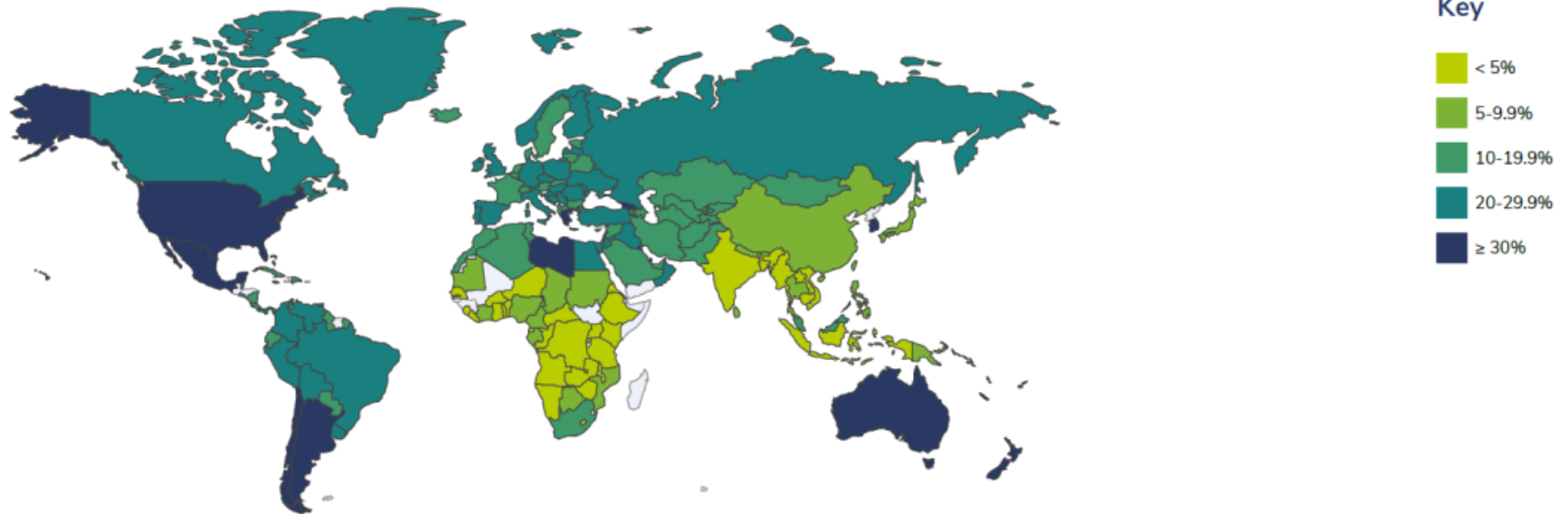
Western Pacific region

Tonga: 82.8%
 Wallis and Futuna: 73.7%
 Cook Islands: 70.7%
 Samoa: 66.9%
 Niue: 62.7%

These maps include the most accurate and appropriate data available to us as the time of production. The maps only display data from surveys using measured heights and weights. Due to differences in survey methodology not all surveys are directly comparable and maps should be interpreted with care. Further survey details and references are available on the individual country pages.

Men living with overweight or obesity

Men living with obesity, Newest available data



Africa region

Mauritius: 29.9%
Seychelles: 22%
Algeria: 14.1%
South Africa: 11%
Eswatini: 8.8%

Americas region

United States: 42.2%
Saint Kitts and Nevis: 37.9%
Argentina: 32.6%
Bahamas: 31.8%
Mexico: 31.5%

Eastern Mediterranean region

Qatar: 39.5%
Kuwait: 37.6%
Libya: 33.8%
Bahrain: 33%
Lebanon: 26.6%

European region

Malta: 36.9%
Greece: 30.5%
Georgia: 30.2%
Romania: 29.4%
Czechia: 29.1%

SE Asia region

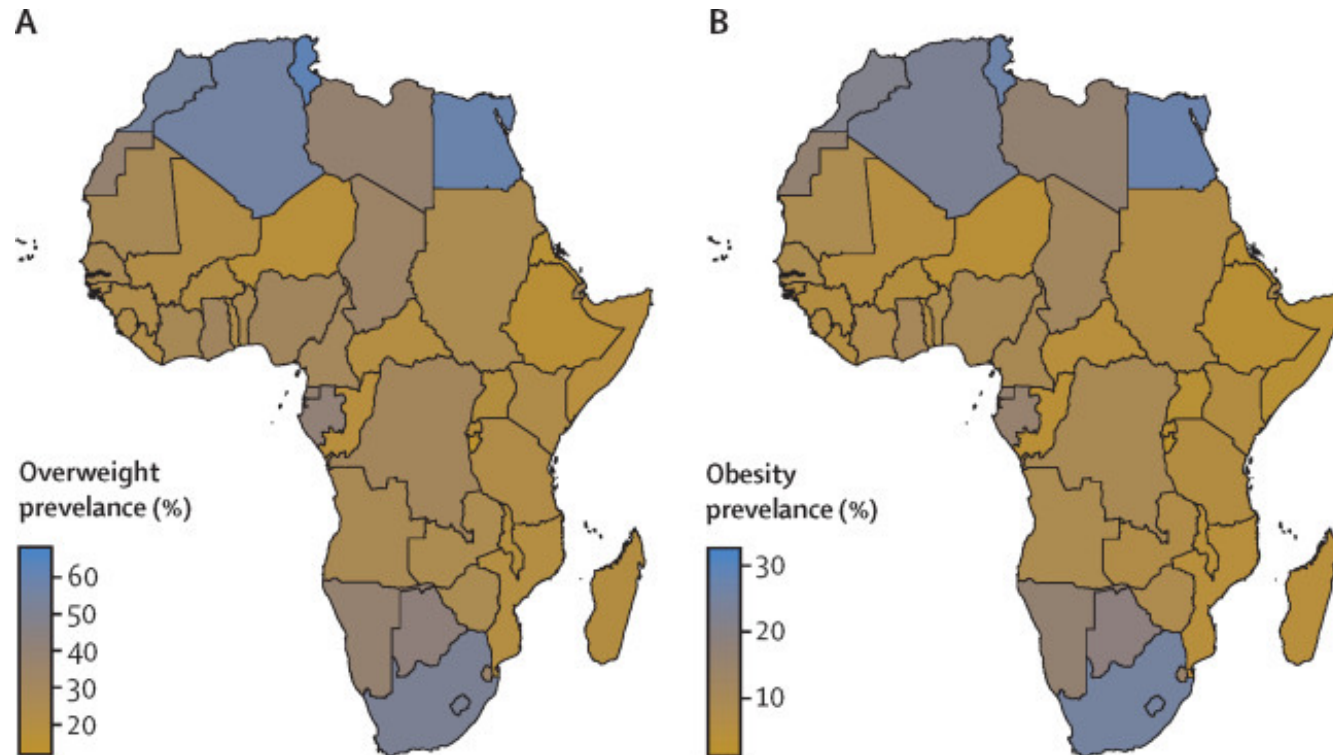
Maldives: 14.1%
Bhutan: 8.4%
Thailand: 7%
Sri Lanka: 6.3%
Nepal: 5.9%

Western Pacific region

Tuvalu: 70.7%
Cook Islands: 68.7%
Tonga: 66.8%
Wallis and Futuna: 66.7%
Niue: 59.2%

These maps include the most accurate and appropriate data available to us as the time of production. The maps only display data from surveys using measured heights and weights. Due to differences in survey methodology not all surveys are directly comparable and maps should be interpreted with care. Further survey details and references are available on the individual country pages.

Obesity/overweight in Africa



Situation will worsen if country specific cut-offs are used
BMI > 22.2 kg/m² for males and > 24.5 kg/m² for females according to the new Ethiopian cut-off

Increase in obesity prevalence 1975 - 2016

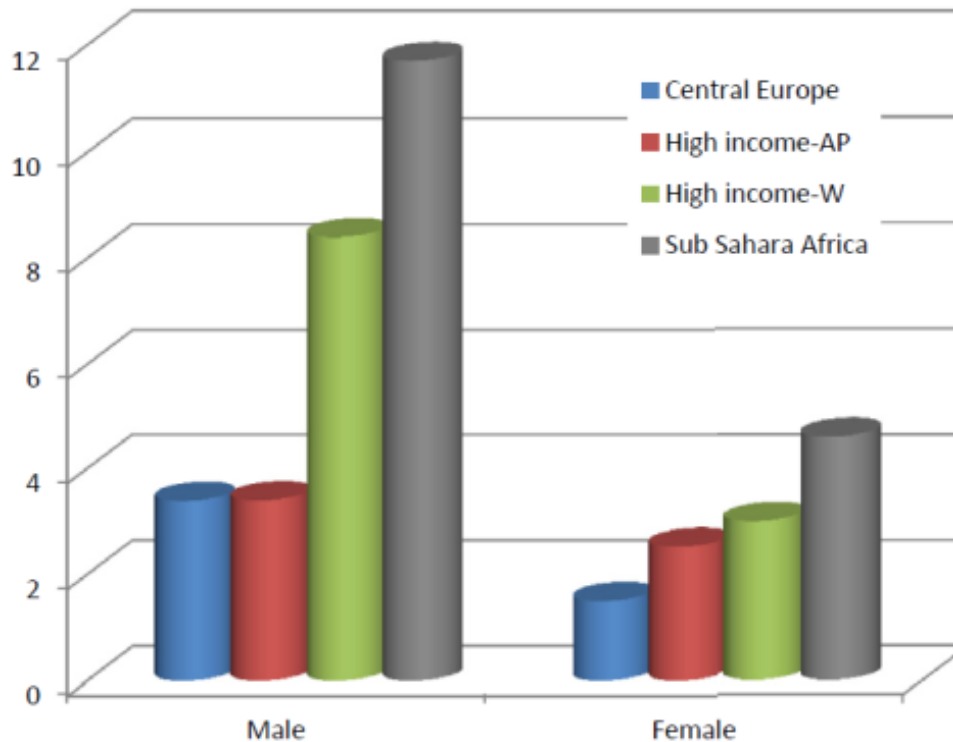
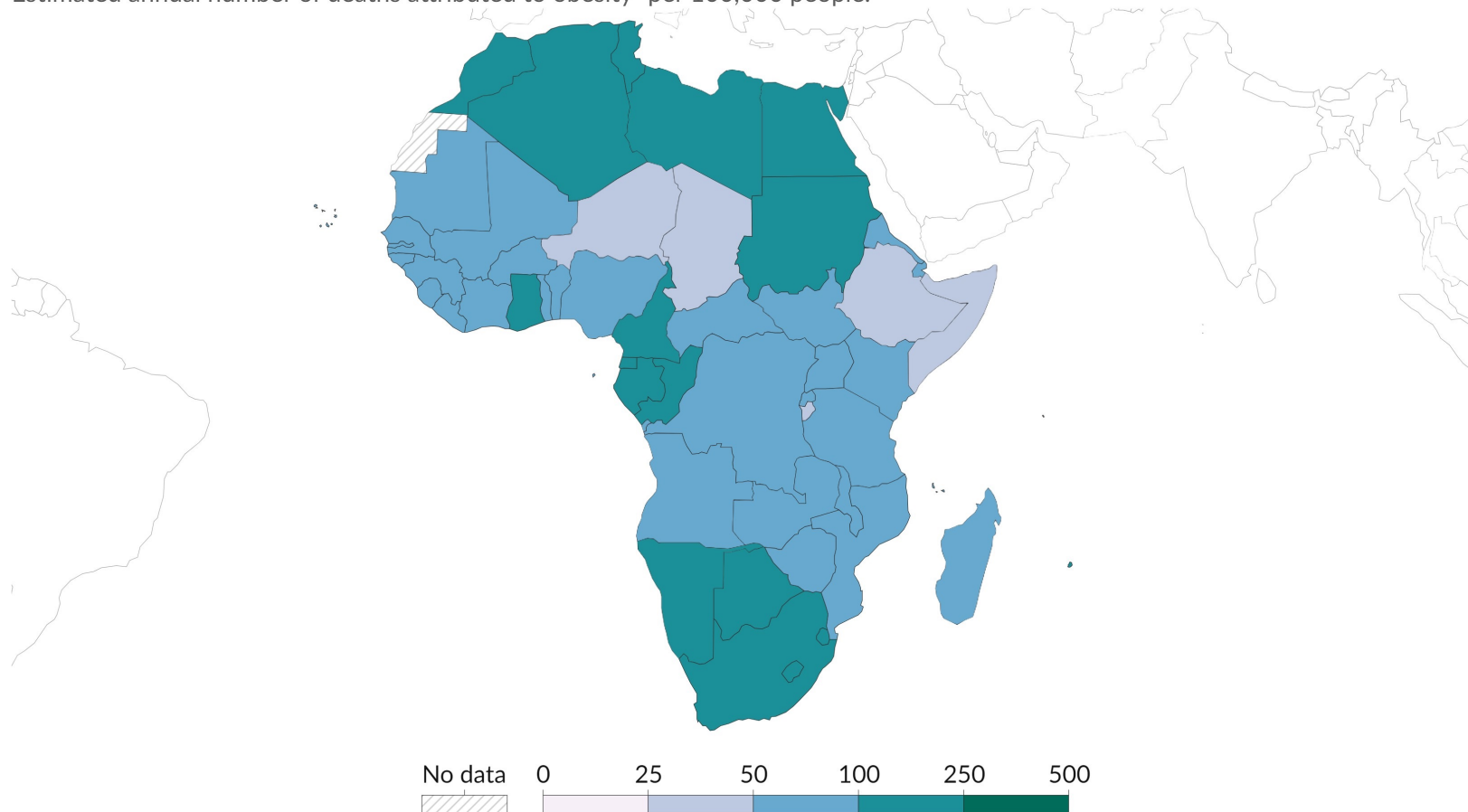


Figure 3. Increase in the prevalence of obesity between 1975 and 2016 classified by region. Bars show the ratio of obesity prevalence rates in 2016 to those in 1975. Abbreviations: AP, Asian Pacific; W, Western countries.

Death rate from obesity, 2019

Estimated annual number of deaths attributed to obesity¹ per 100,000 people.




Data source: IHME, Global Burden of Disease (2019)

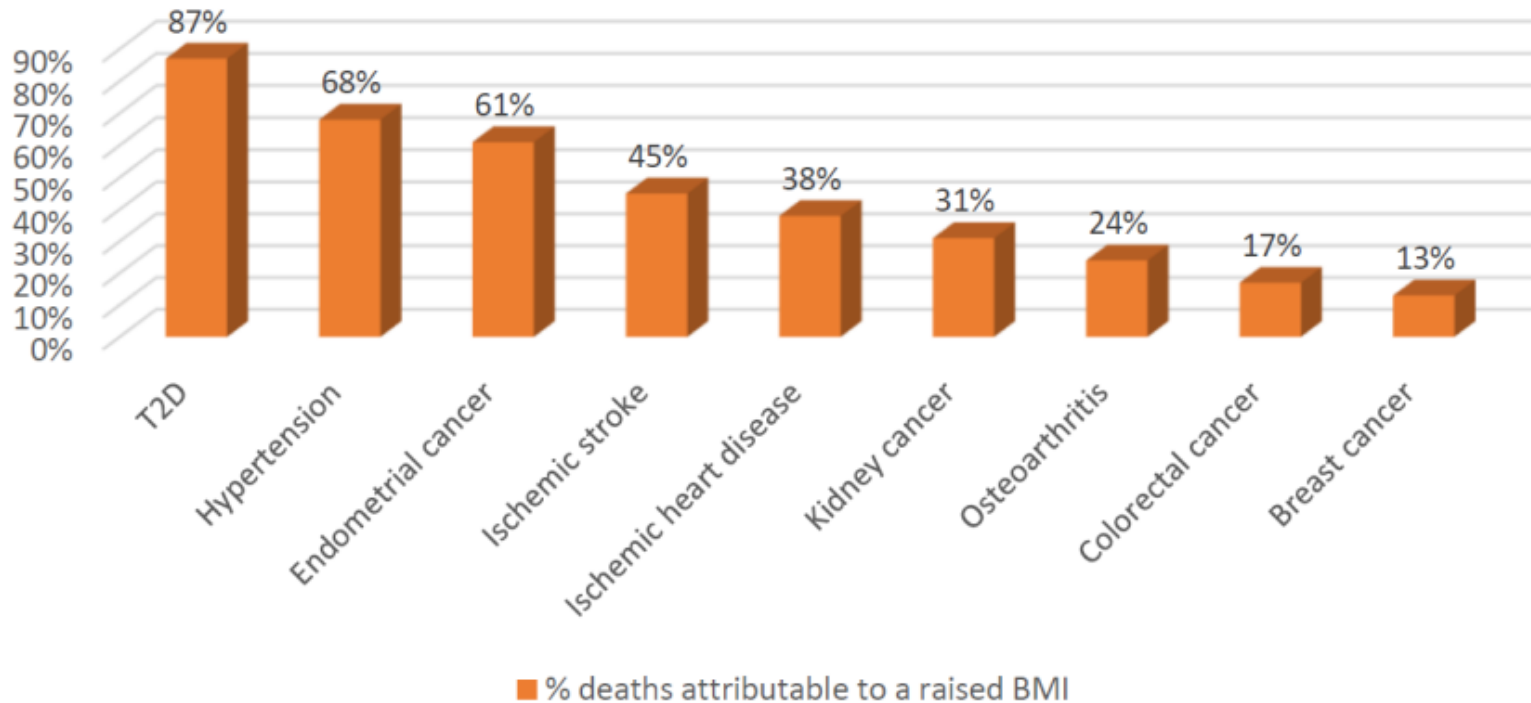
OurWorldInData.org/obesity | CC BY

Note: To allow for comparisons between countries and over time, this metric is age-standardized². Obesity is defined as having a body-mass index (BMI) ≥ 30 . BMI is a person's weight (in kilograms) divided by their height (in meters) squared.

1. Obesity: Obesity is defined as having a body-mass index (BMI) above 30. A person's BMI is calculated as their weight (in kilograms) divided by their height (in meters) squared. For example, someone measuring 1.60 meters and weighing 64 kilograms has a BMI of $64 / 1.6^2 = 25$. Obesity increases the mortality risk of many conditions, including cardiovascular disease, gastrointestinal disorders, type 2 diabetes, joint and muscular disorders, respiratory problems, and psychological issues.

2. Age standardization: Age standardization is an adjustment that makes it possible to compare populations with different age structures, by standardizing them to a common reference population.  Read more: [How does age standardization make health metrics comparable?](#)

Deaths attributable to raised BMI in South Africa



Obesity in Sub-Saharan Africa

Individual:

```
graph TD; A[Individual:] --- B[Malnutrition]; A --- C[Obesity]
```

Malnutrition

Obesity

- Lack of inclusive environment for physical activity (infrastructure, safety)
- Lack of community networks to promote physical activity
- Increased use of technology (computer games, TV)
- Time-special challenges (transport, work distance)

Insufficient Physical Activity

- Individual and lifestyle factors
- Perceived high cost of healthy foods
- Environmental influence
- Socialization – culture and psychosocial
- Portion sizes purchased and in restaurants
- Easily available ultra-processed foods
- Purchasing power

Poor Diet

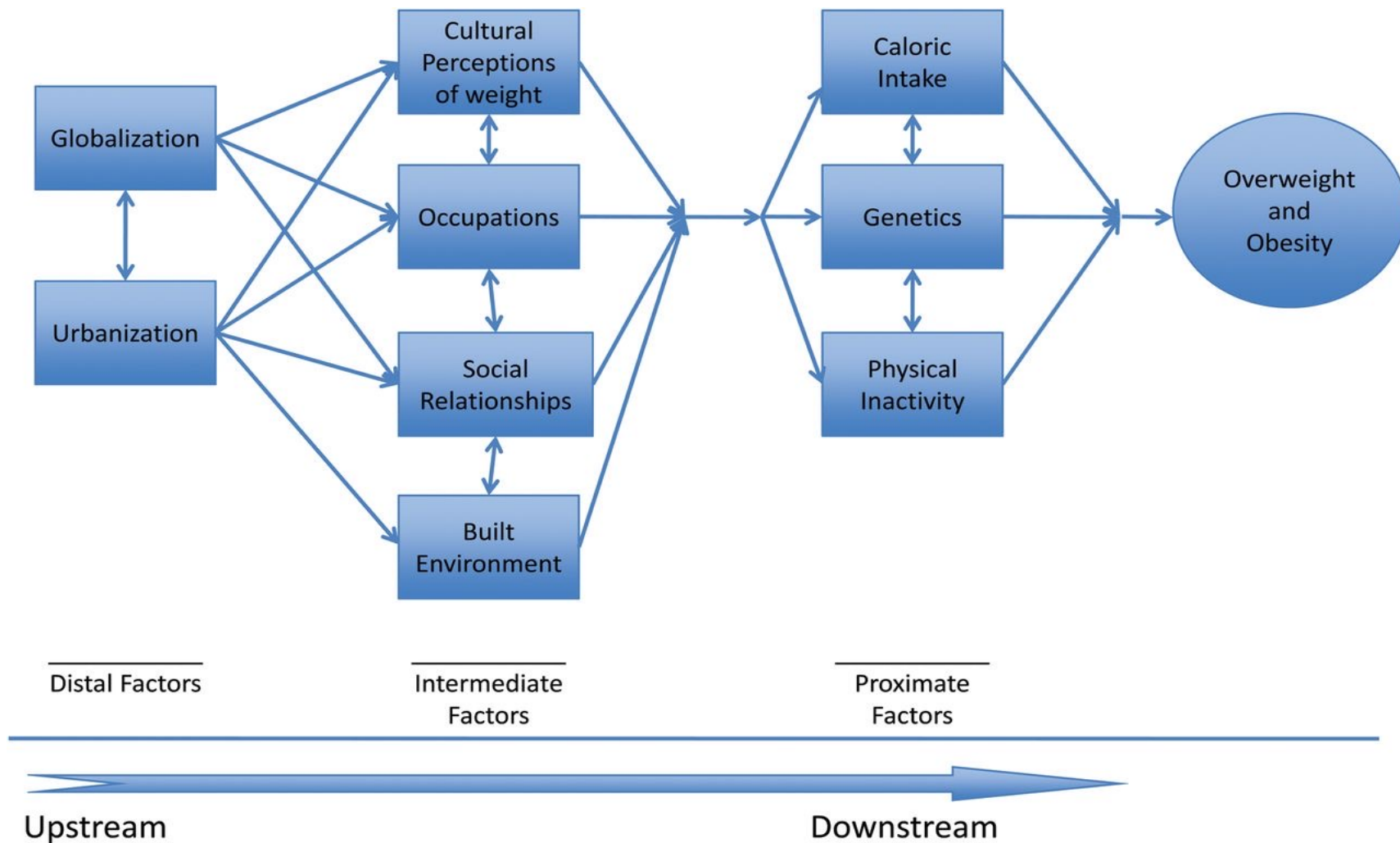
- Limited access to appropriate information
- Consequences poorly understood
- Knowledge of energy content of food
- High coverage of advertisements of unhealthy foods

Lack of Knowledge

Poor early childhood feeding practices

- Early introduction of complementary feeding
- Poor feeding practices of low birth weight babies
- Using food as a reward
- Early introduction of unhealthy food to children

A causality continuum model for obesity in sub-Saharan Africa.



Nutrition transition

Low- income African countries

- Early stage of nutrition transition
- Overweight/obesity concentrated in those with higher socio-economic status
- Urbanization and improvement in living conditions too limited to trigger large scale diffusion to lower those with lower socio-economic status

Nutrition transition

Lower-middle income African countries

- Social shift in obesity from richest to poorest
- In parallel with economic development
- driven by changes in environmental conditions (i.e., access to food), living conditions, weight perceptions, and anti-obesity public policies

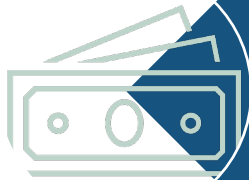
Rich:

- higher exposure to thinness ideals and
- increased aversion to obesity-related health problems
- tend to adopt strategies to avoid weight gain and related morbidity.

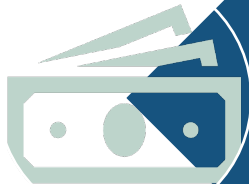
Poorest:

- value stoutness as a symbol of health and success.
- do not have the economic resources or environmental conditions that allow them to eat sufficiently
- Often overweight/obese but malnourished.

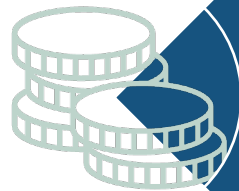
Cost



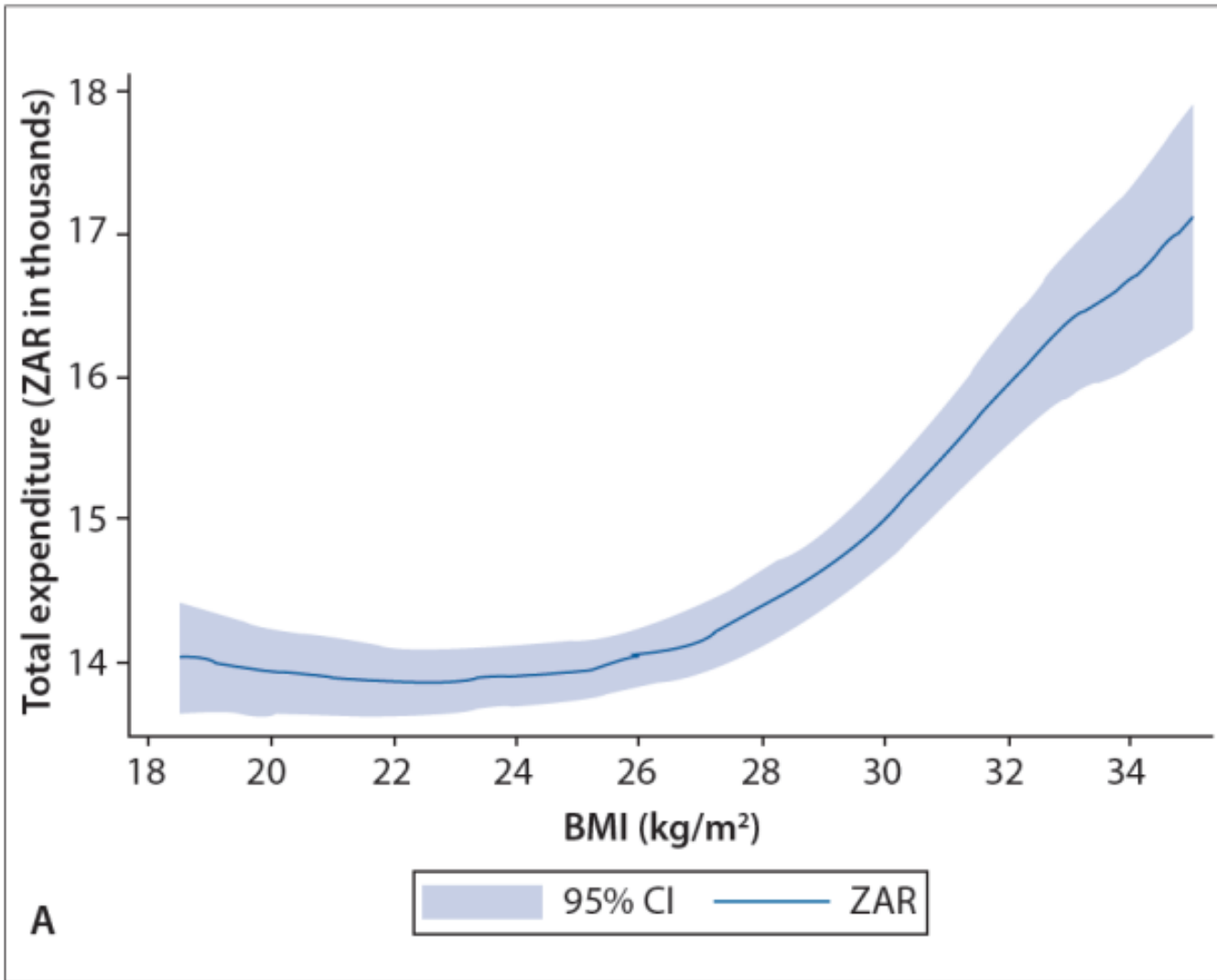
Based on our calculations overweight and obesity are costing South Africa's health system R33 billion (US\$1.9bn) a year.



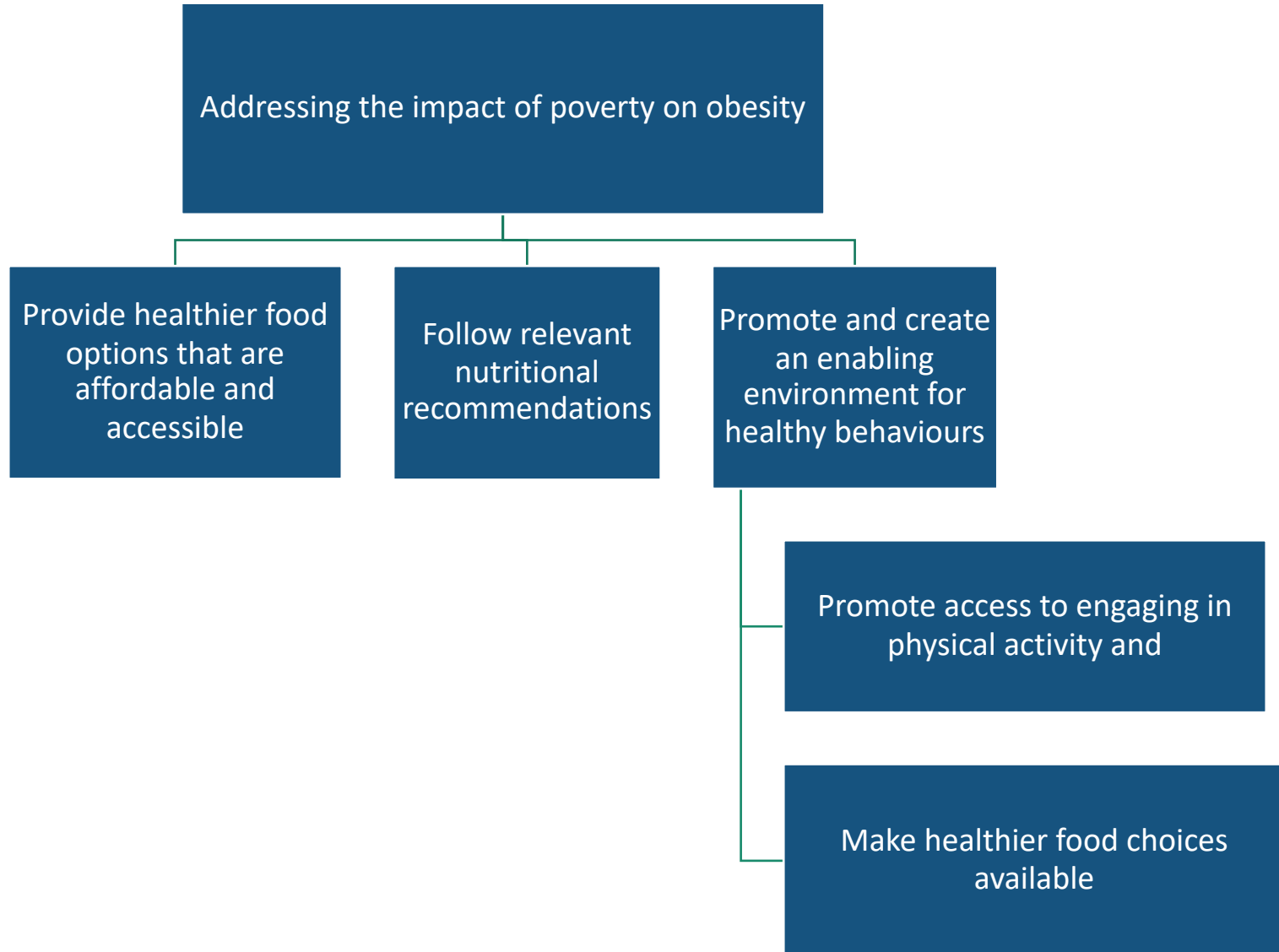
This represents 15.38% of government health expenditure and is equivalent to 0.67% of GDP.



Annual per person cost of overweight and obesity is R2,769.



SA government policy



SA government policy

The strategy focuses on six broad goals.

Goal 1: Create an institutional framework to support inter-sectoral engagement

Goal 2: Create an enabling environment that supports availability and accessibility to healthy food choices in various settings

Goal 3: Increase the percentage of the population engaging in physical activity (PA)

Goal 4: Support obesity prevention in early childhood (in-utero – 12 years)

Goal 5: Communicate with, educate and mobilise communities

Goal 6: Establish a surveillance system and strengthen monitoring, evaluation and research

Strategic Objective 1: Healthy food is available and easily accessible in government workplaces and in schools.

Strategic Objective 2: An enabling environment is in place to facilitate equitable access to physical activity opportunities.

Strategic Objective 3: Education and communication at different levels is evidence-based to prevent and manage obesity.

Strategic Objective 4: The health care system is equipped to address obesity prevention and **management**.

Strategic Objective 5: An effective monitoring, evaluation and research system is in place.

Strategic Objective 6: Policy and legislation support a healthy food environment.

“Sugar tax”

Kenya, Zambia, Rwanda, Tanzania and Uganda: motivated by tax revenue

South Africa: improvement in health

Political, economy and health:

Link between SSB and obesity is well established

Independent cause of diabetes

Estimates indicate that one 330 ml SSB serving containing between 586J (140 calories) and 626J (150 calories) can result in a weight increase of up to 6.8 kg in one year in a person consuming a standard American diet over a year

Complex disease with complex solutions

