

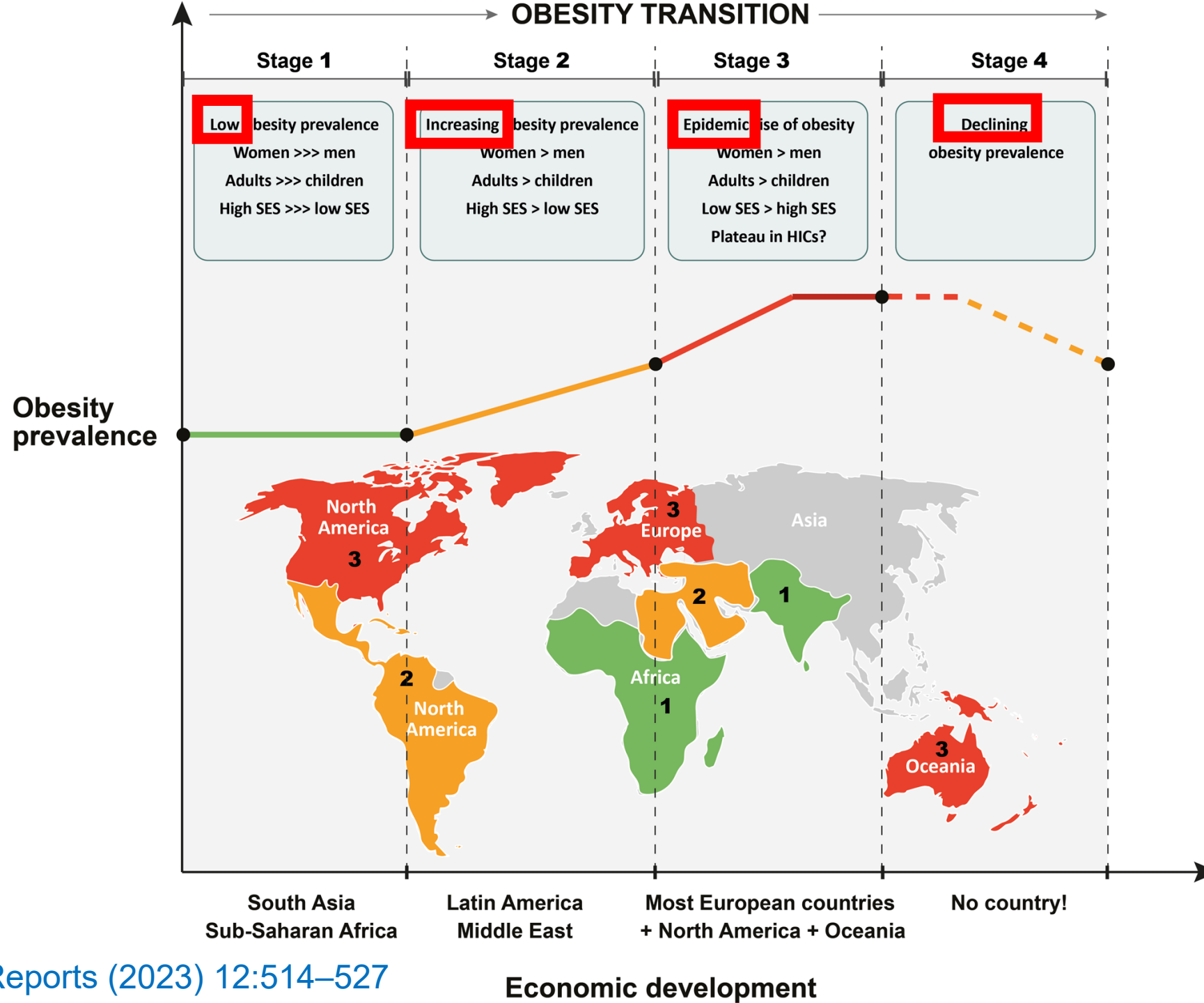
I numeri
dell'obesità oggi
e le ricadute
socio-sanitarie
nell'adulto

Simona Bo



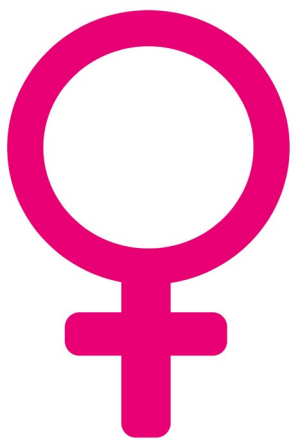


PREVALENZA DI OBESITA'



Worldwide trends in underweight and obesity from 1990 to 2022: a pooled analysis of 3663 population representative studies with 222 million children, adolescents, and adults

Published Online February 29, 2024
[https://doi.org/10.1016/S0140-6736\(23\)02750-2](https://doi.org/10.1016/S0140-6736(23)02750-2)



BMJ (NCD-RisC)*

1990



2022



- Underweight
- Obesity
- High-income English-speaking countries
- Eastern Europe
- The Caribbean
- Central Asia
- East Africa
- Northwestern Europe
- Southern Latin America
- East Asia and the Pacific
- Middle East and north Africa
- West Africa
- Southwestern Europe
- Central Latin America
- Southeast Asia
- Polynesia and Micronesia
- Central and southern Africa
- Central Europe
- Andean Latin America
- South Asia
- Melanesia
- Other sub-Saharan Africa



1990

2022

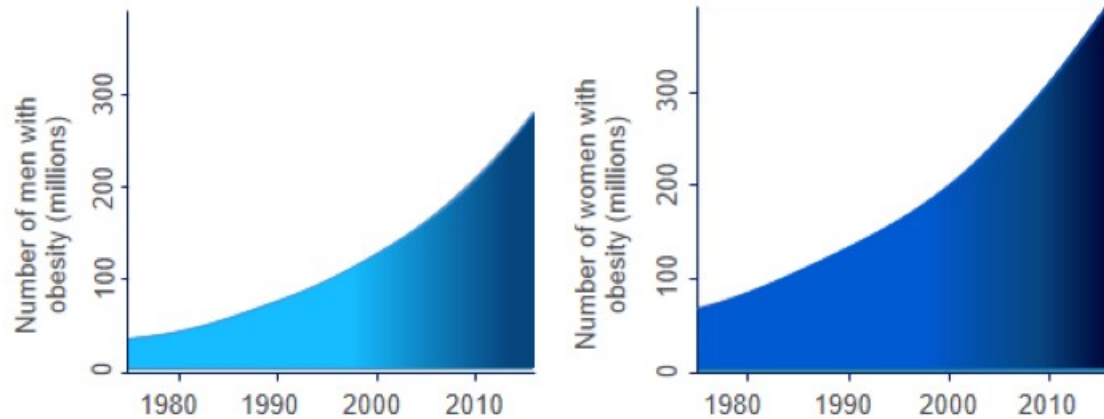


- Underweight
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- Melanesia
- East Africa
- West Africa
- Central and southern Africa
- Other sub-Saharan Africa

Obesity Is a Serious Chronic Disease

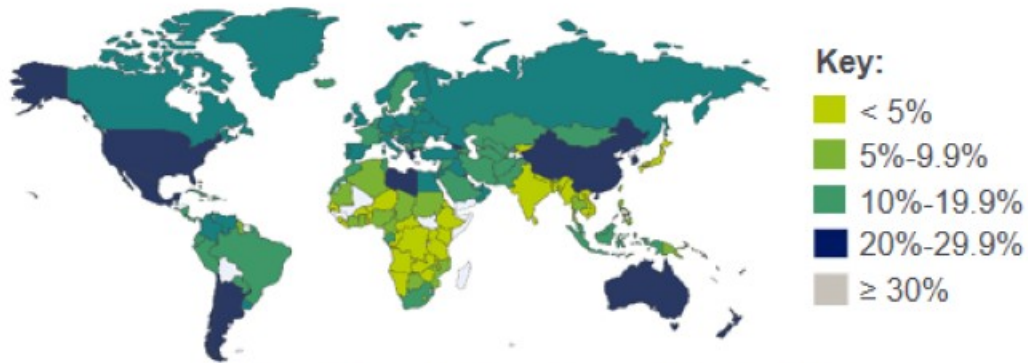
Alarming Facts

Global Prevalence of Obesity

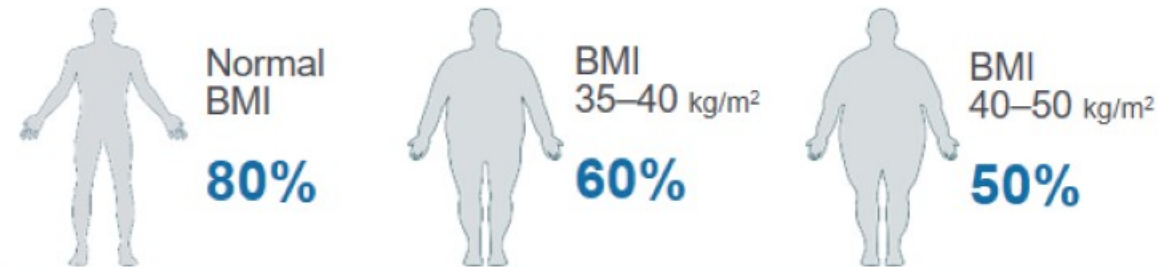


- 764 million adults live with obesity (WOF 2022 data)
- 39% to 49% of world's population are people who are living with overweight/obesity (2.8-3.5 bn people)
- Socioeconomic factors contribute to obesity, which drives health inequalities

Obesity Rates Are Increasing Globally



Life Expectancy Decreases as BMI Increases



↓ chance of reaching age 70

BMI, body mass index; WHO, World Health Organization; WOF, World Obesity Federation. Adapted from NCD Risk Factor Collaboration (NCD-RisC). Lancet. 2017;390:2627-2642; WHO. Accessed August 21, 2023. <https://apps.who.int/gho/data/node.main.A896?lang=en> and <https://www.who.int/news-room/fact-sheets/detail/obesity-and-overweight>; World Obesity Atlas. Accessed August 21, 2023. <https://www.worldobesity.org/resources/resource-library/world-obesity-atlas-2023>; Prospective Studies Collaboration. Lancet 2009;373:1083-1096.

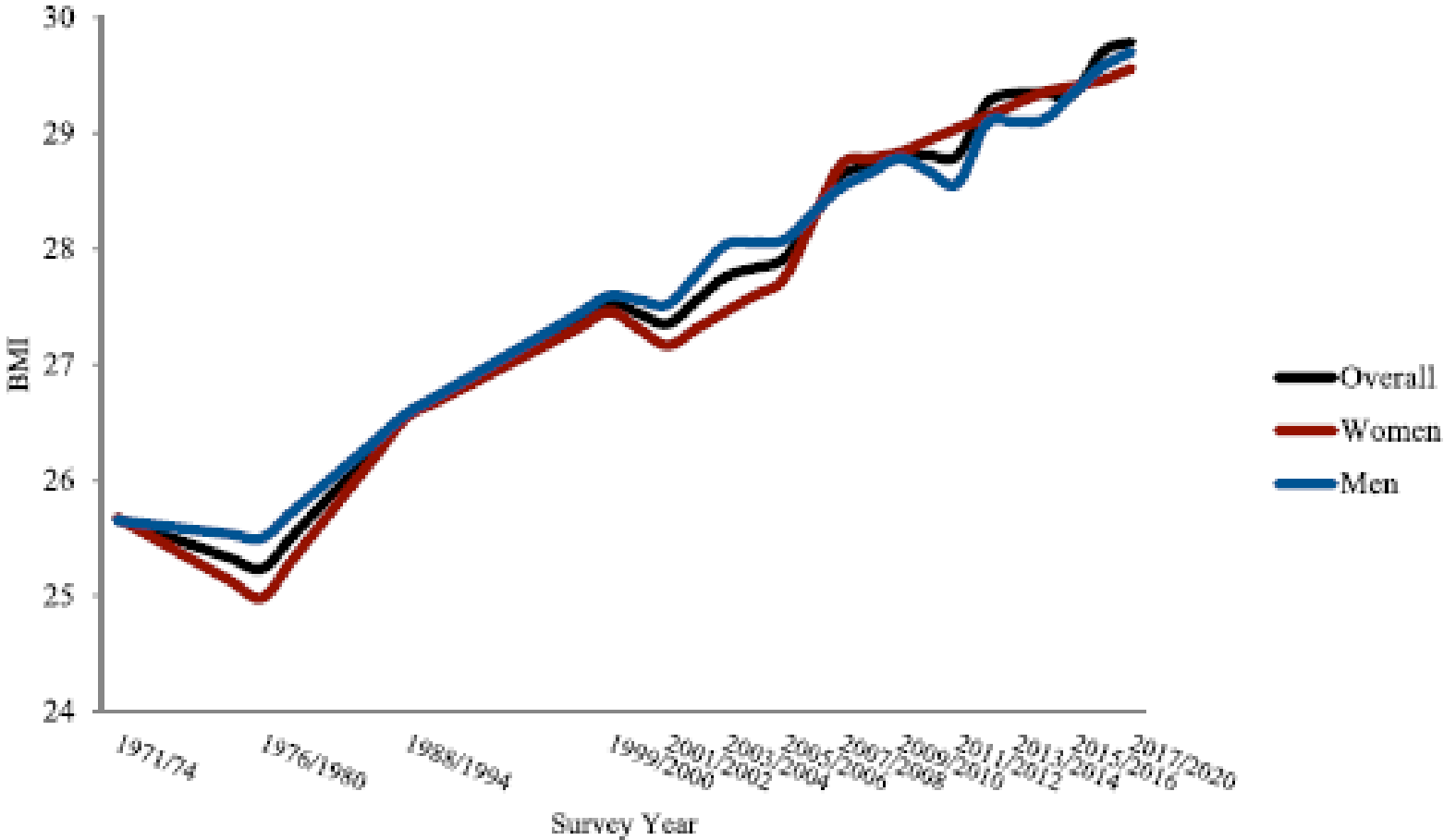


Fig. 1. Historical trends in BMI for adults age 20+ years, 1971–2020: NHANES

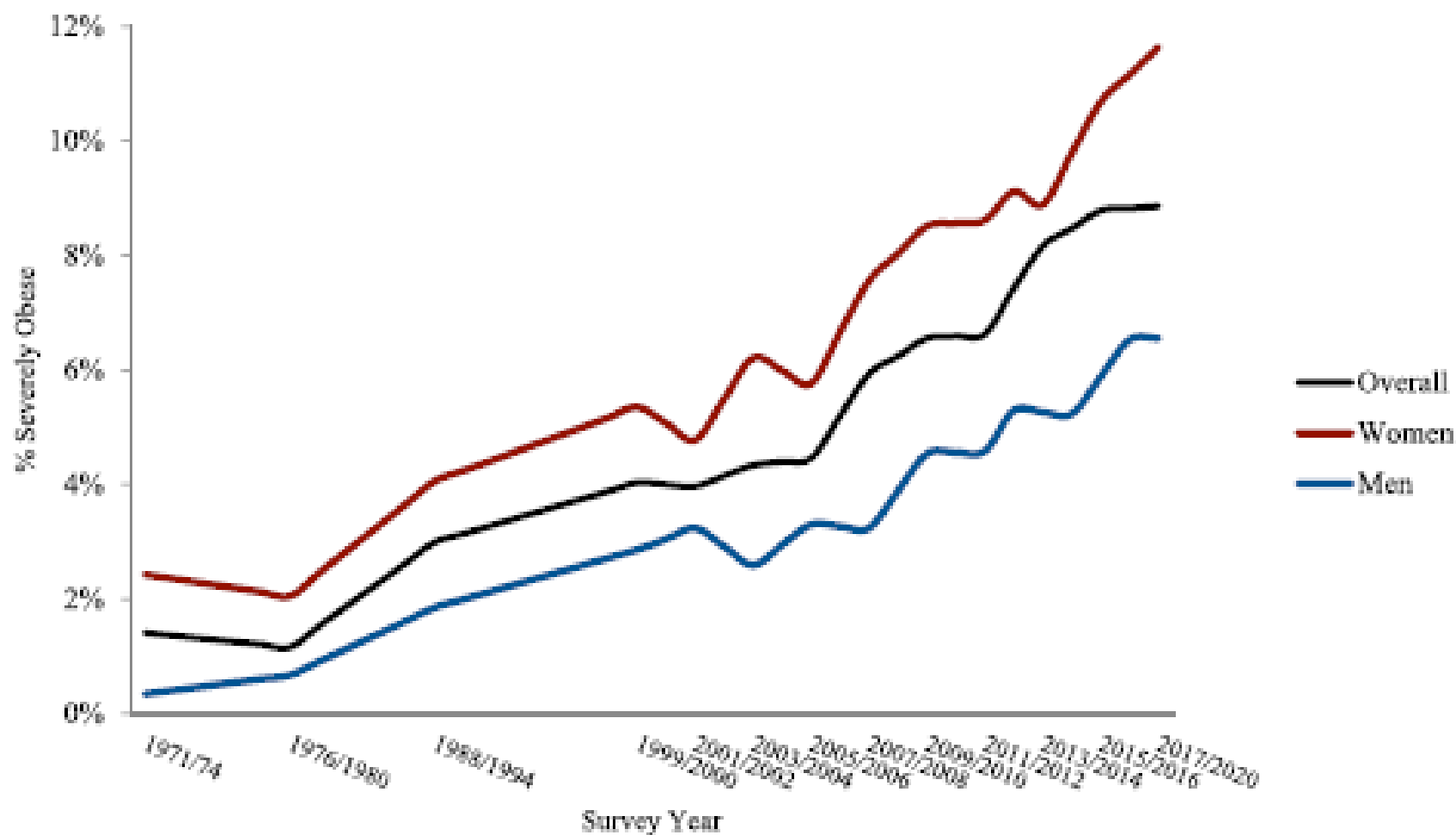
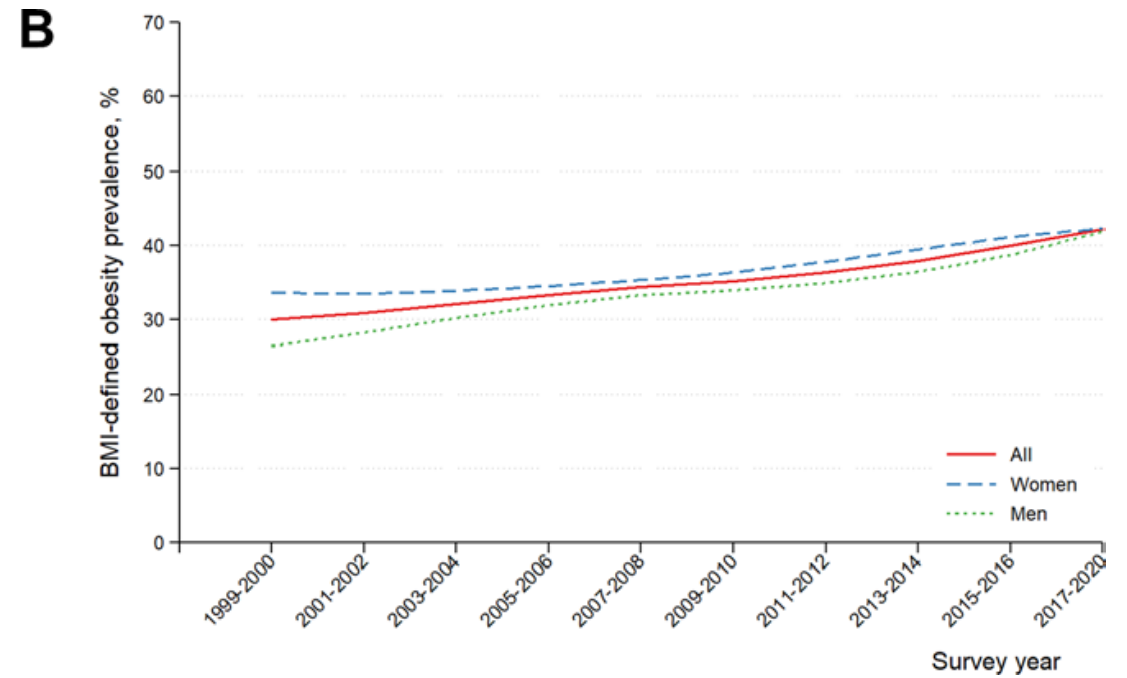
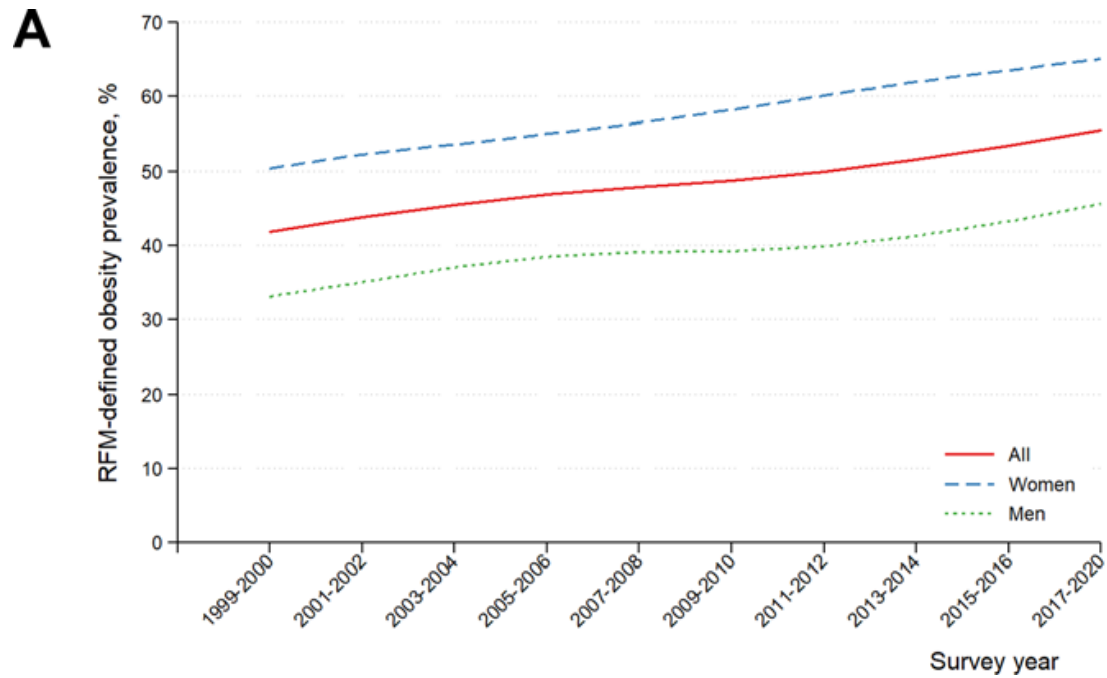


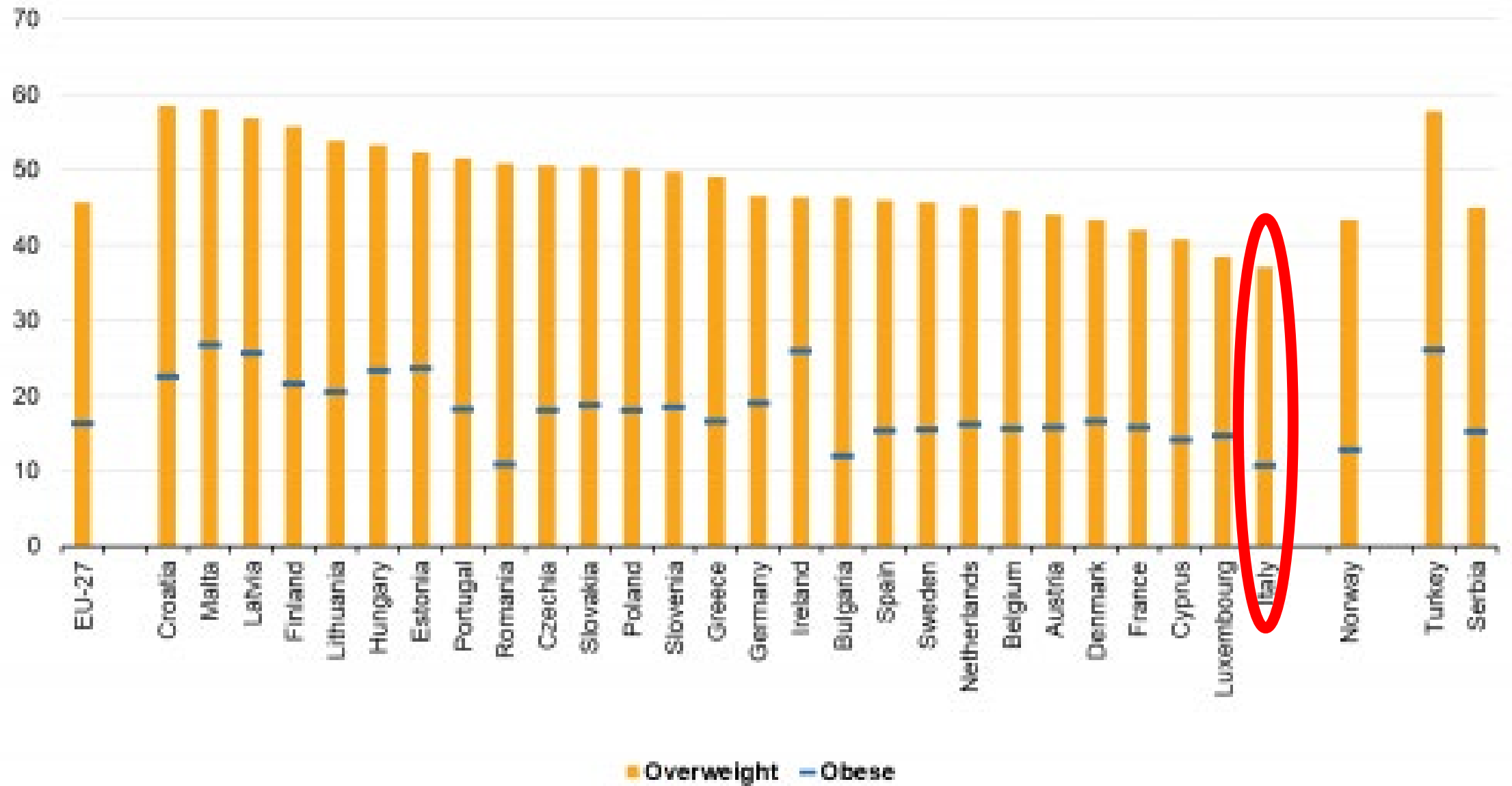
Fig. 3. Historical trends in severe obesity for adults age 20+ years, 1971–2020: NHANES

Temporal trends in obesity defined by the relative fat mass (RFM) index among adults in the United States from 1999 to 2020: a population-based study



Proportion of overweight and of obese women, 2019

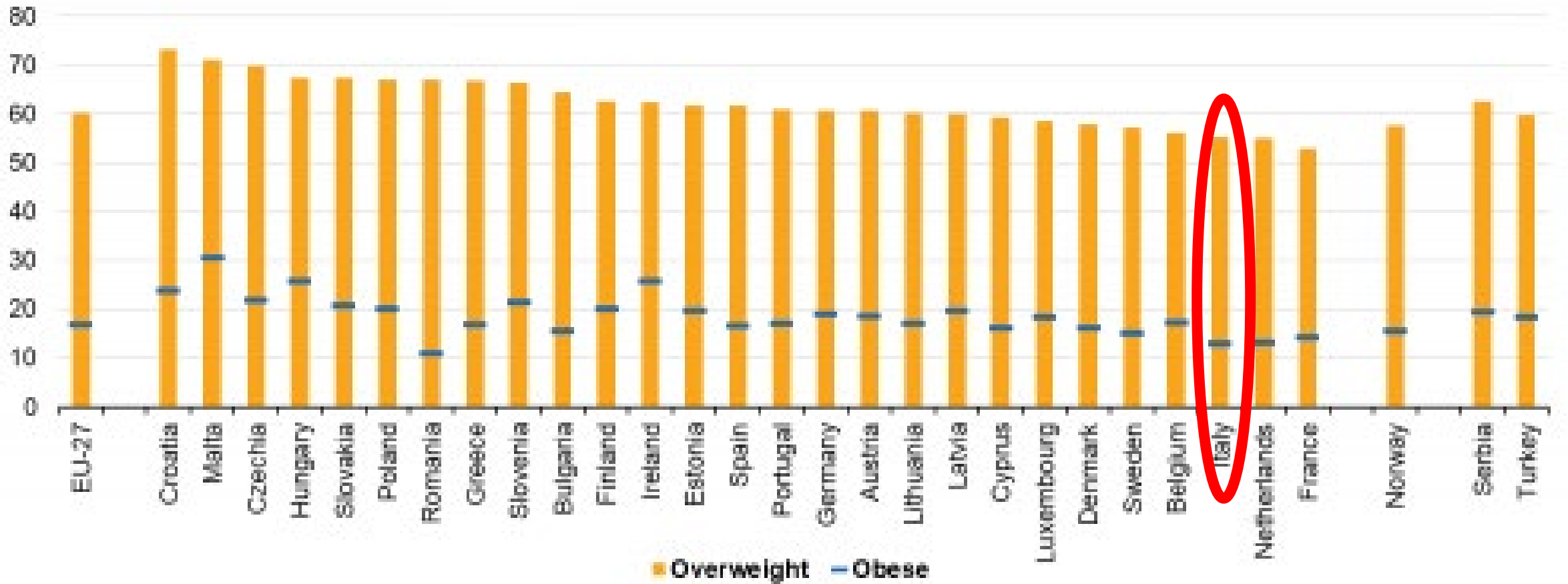
(%)



Note: population aged 18 and over.

Source: Eurostat (online data code: hfh_shis_bmf1e)

Proportion of overweight and of obese men, 2019
(%)



Note: population aged 18 and over.

Source: Eurostat (online data code: Nth_ehis_bmi/e)

Eccesso ponderale per regione di residenza

Passi 2021-2022

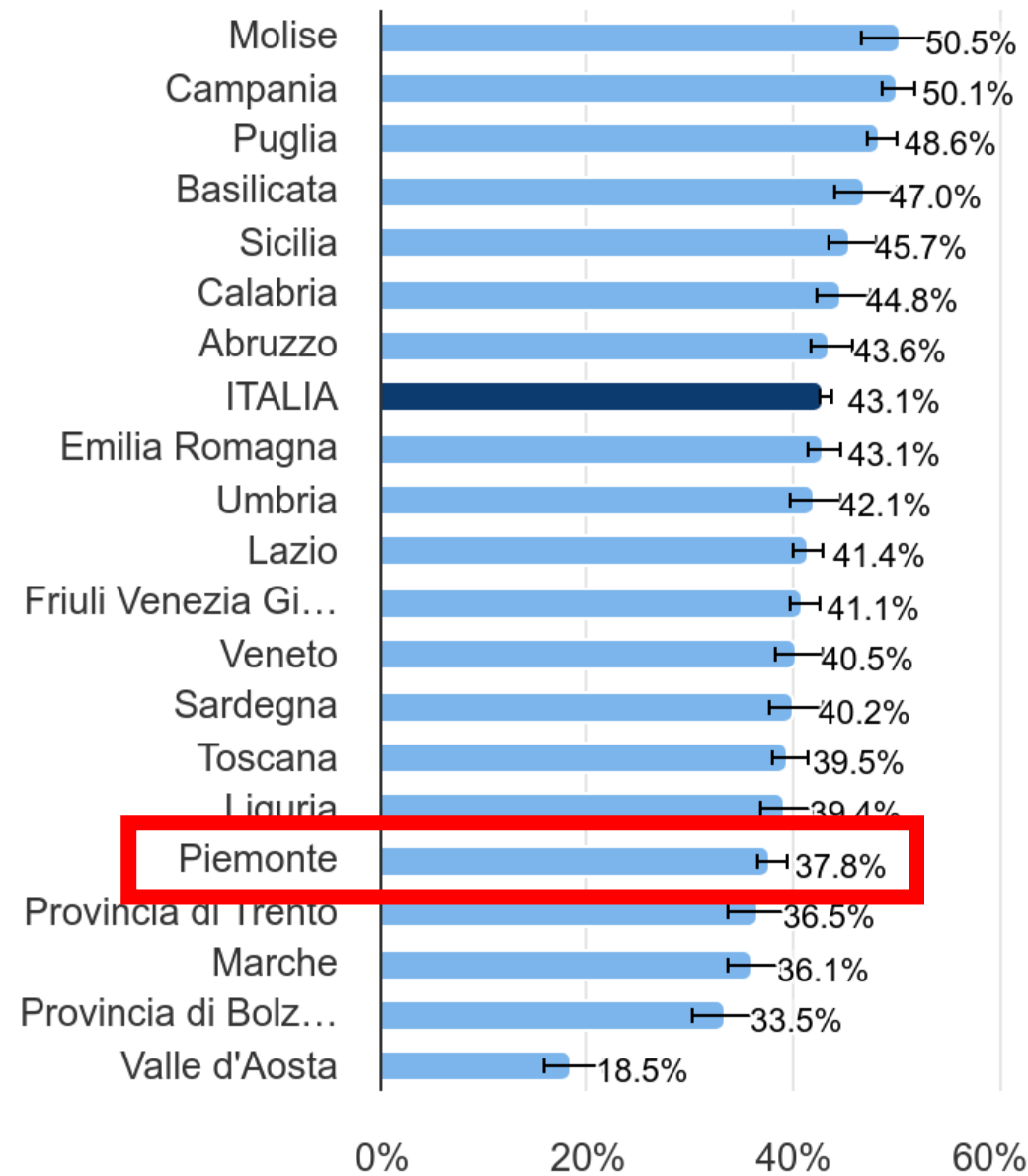


- peggiore del valore nazionale
- simile al valore nazionale
- migliore del valore nazionale

Sorveglianza Passi

Eccesso ponderale per regione di residenza

Passi 2021-2022



Sorveglianza Passi

Anno 2022	sottopeso	normopeso	sovrappeso	obesità
18-24 anni	9	70	17.4	3.6
25-34 anni	5.3	64.8	24	5.9
35-44 anni	3.1	55.2	32.3	9.5
45-54 anni	2.2	49	36.7	12.1
55-59 anni	1.9	45.8	38.2	14.2
60-64 anni	1.4	43.2	41.8	13.6
65-74 anni	1.4	39.7	42.3	16.7
75 anni e più	2.6	41.9	42.2	13.3
18 anni e più	3.1	50.6	35	11.4

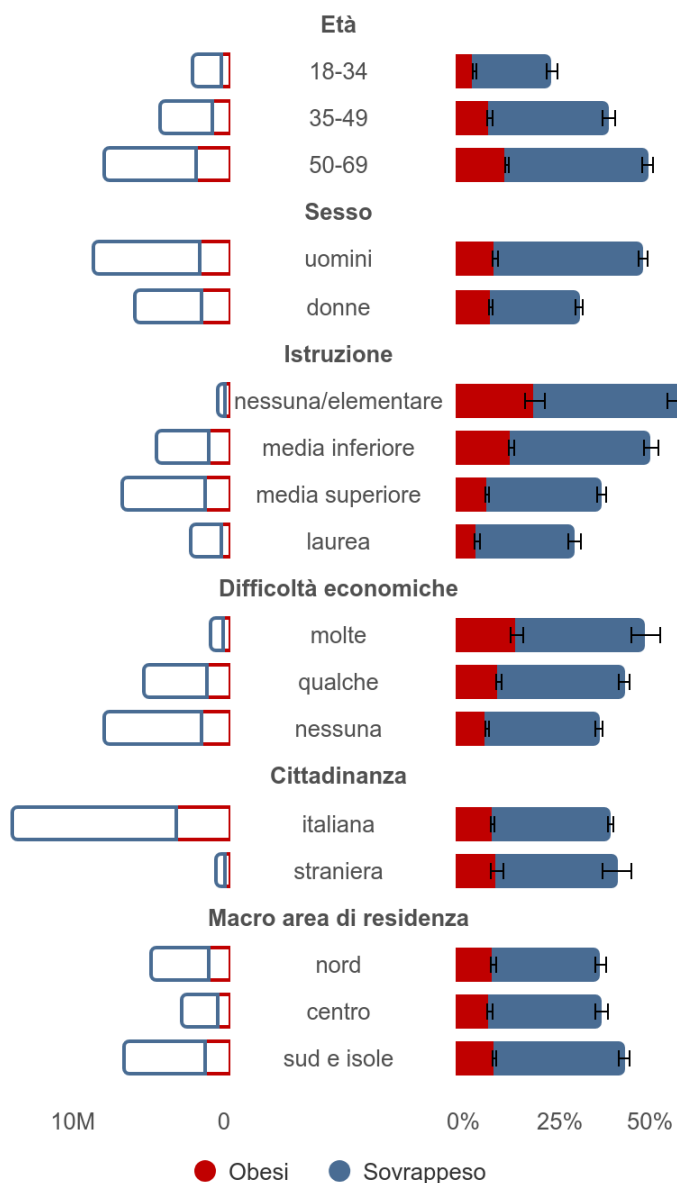


I.Stat

il tuo accesso diretto
alla statistica italiana

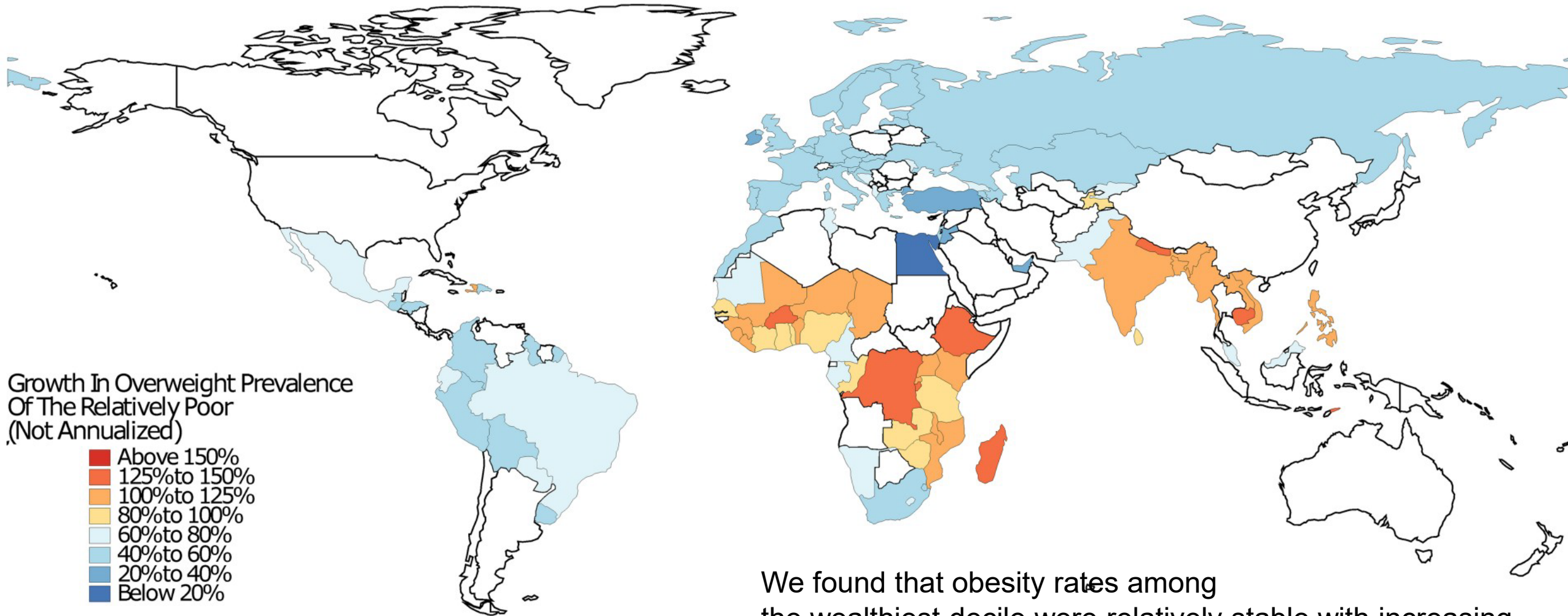
Eccesso ponderale per caratteristiche socio-demografiche e stime di popolazione ITALIA

Popolazione di riferimento: 39352580
Totale:43.1% (IC95%: 42.5-43.6%)



TITOLO DI STUDIO	sottopeso	normopeso	sovrappeso	obesità
8 anni e più				
licenza di scuola elementare, nessun titolo di studio	2.2	37.4	42.9	17.5
licenza di scuola media diploma	2.5	44.8	38.5	14.2
laurea e post-laurea	3.2	54.5	33	9.4
	4.8	61.3	27.5	6.4
in altra condizione	3.7	37.5	38.6	20.2
casalinga-o	2.6	48.9	33.8	14.7
ritirato-a dal lavoro	2	40.4	43.2	14.3
disoccupato	3.9	50.6	33.2	12.3
lavoratore in proprio, coadiuvante familiare, co.co.co.	2.2	47.7	38.6	11.5
totale	3.1	50.6	35	11.4
operaio, apprendista	2.2	49.6	37.3	11
occupato	2.8	53.5	34.3	9.4
dirigenti, imprenditori, liberi professionisti	2.4	53	36.5	8.1
direttivo, quadro, impiegato	3.5	58.6	29.8	8
in cerca di prima occupazione	4.5	60.9	26.6	8
studente	10	72.6	14.6	2.9

A Percent Change in Overweight Prevalence Among the Relatively Poor (2016 to 2040)



Our sample used 182 Demographic and Health Surveys and World Health Surveys ($n=2.24$ million respondents) from 1995 to 2016.

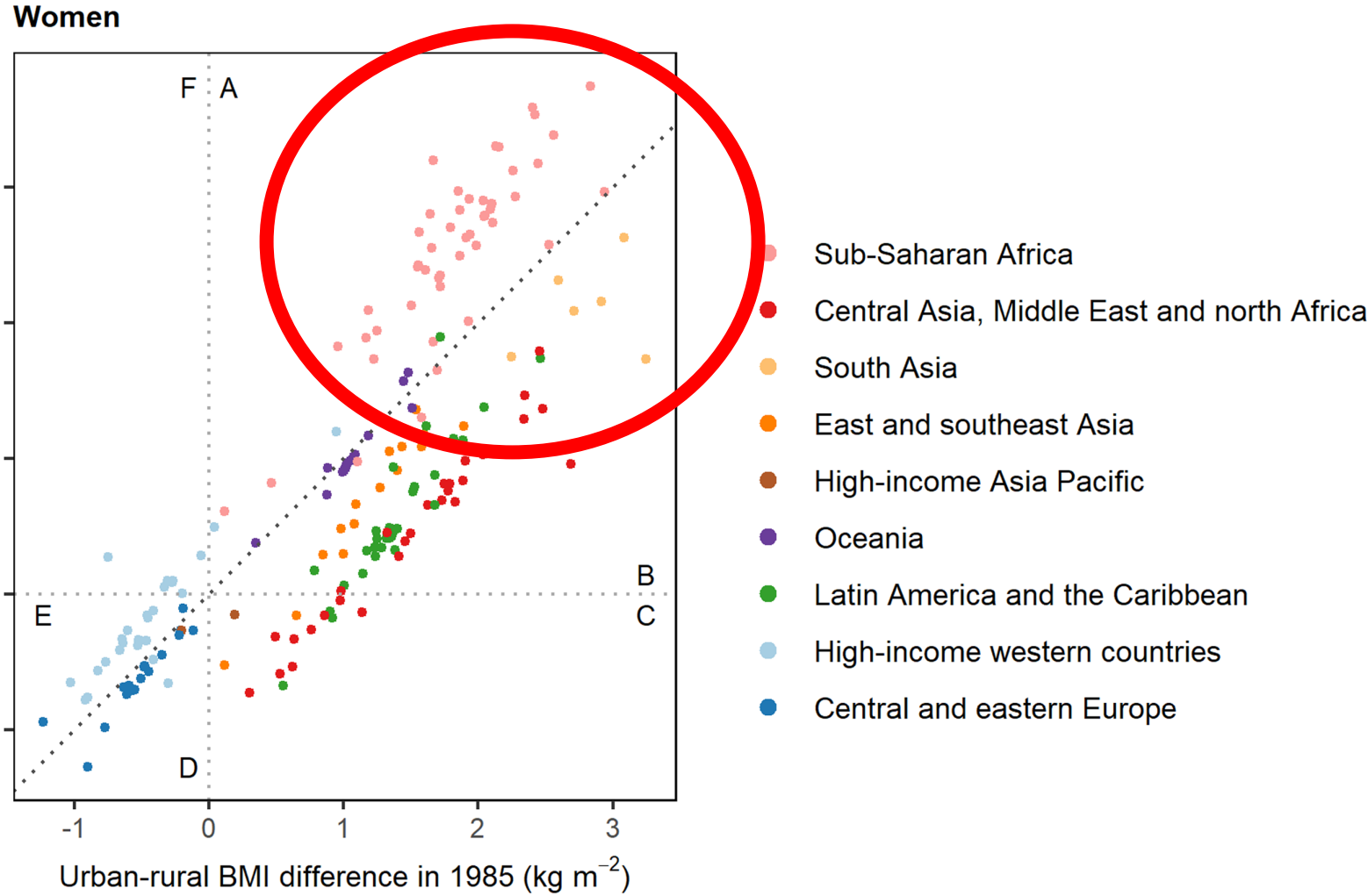
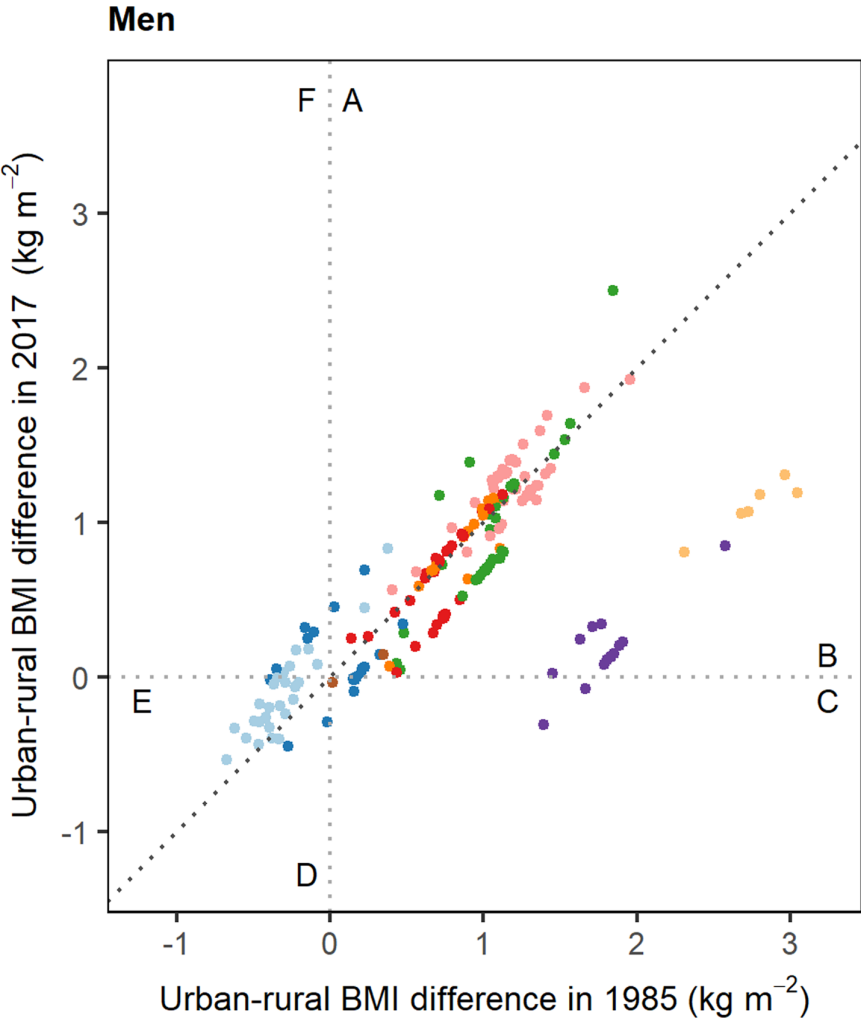
[PLoS Med 16\(11\): e1002968](#)

We found that obesity rates among the wealthiest decile were relatively stable with increasing national wealth, and the changing gradient was largely due to increasing obesity prevalence among poorer populations (3.5% [95% uncertainty interval: 0.0%–8.3%] to 14.3% [9.7%–19.0%]).

Rising rural body-mass index is the main driver of the global obesity epidemic in adults

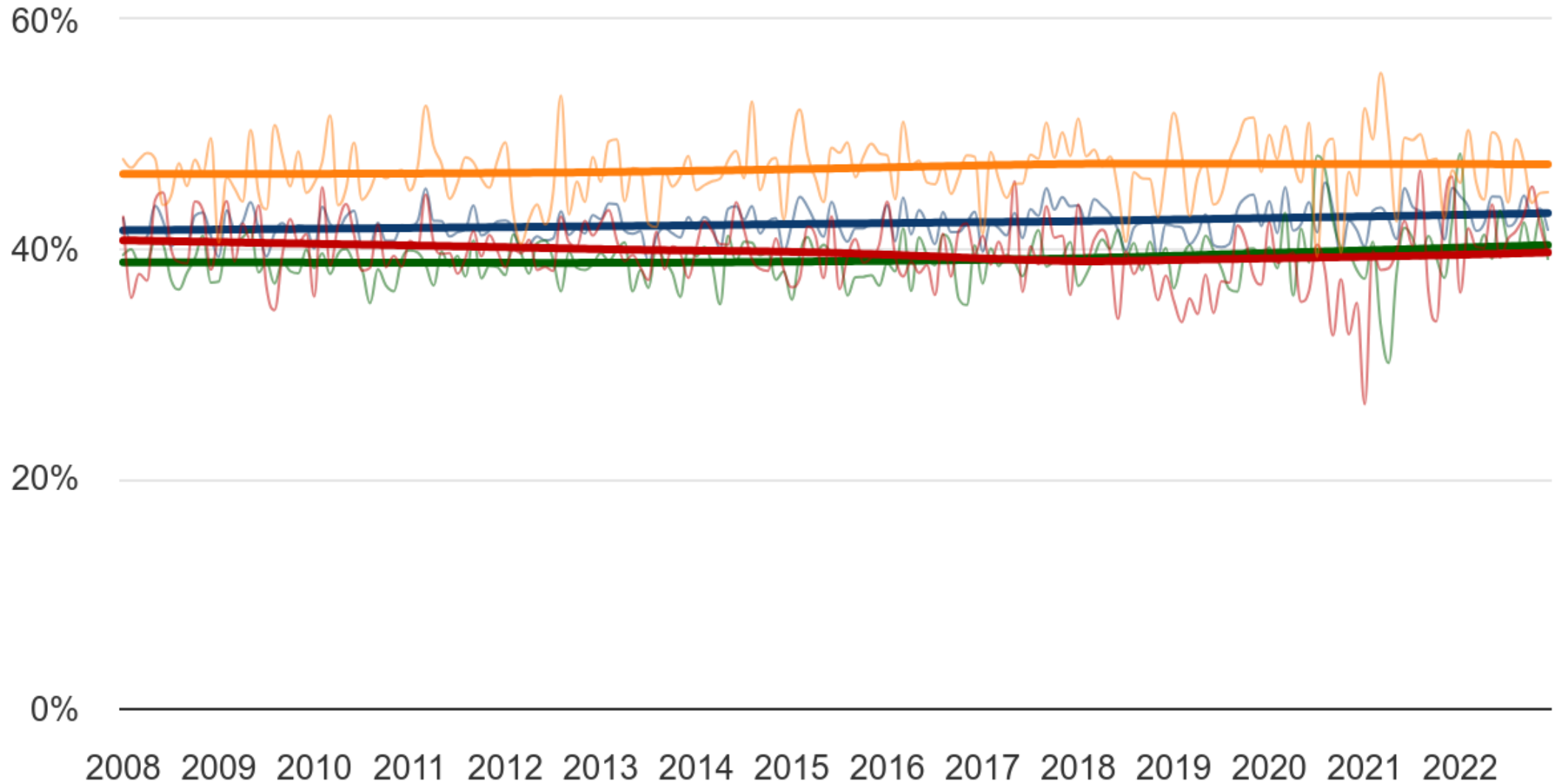
NCD Risk Factor Collaboration (NCD-RisC)*

260 | NATURE | VOL 569 | 9 MAY 2019



Serie storica Eccesso ponderale per area geografica

Passi 2008-2022



— ITALIA *

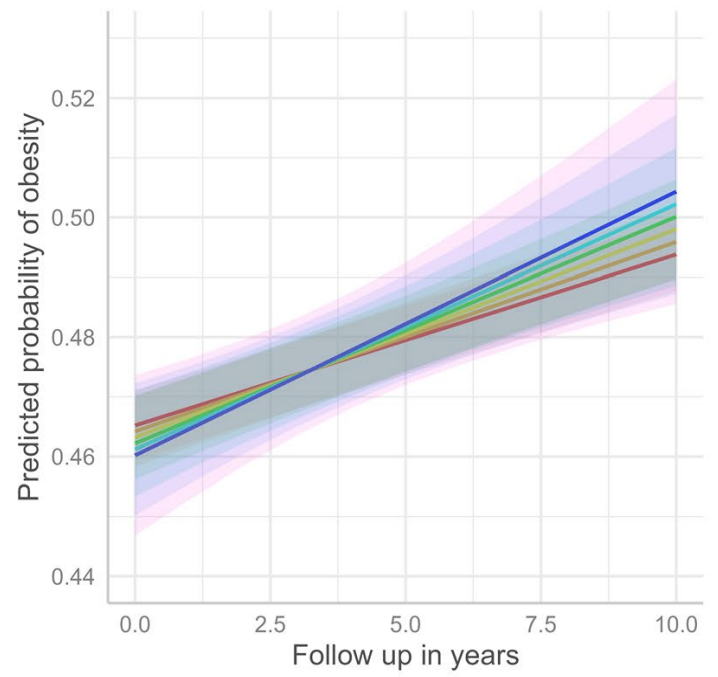
— Nord *

— Centro *

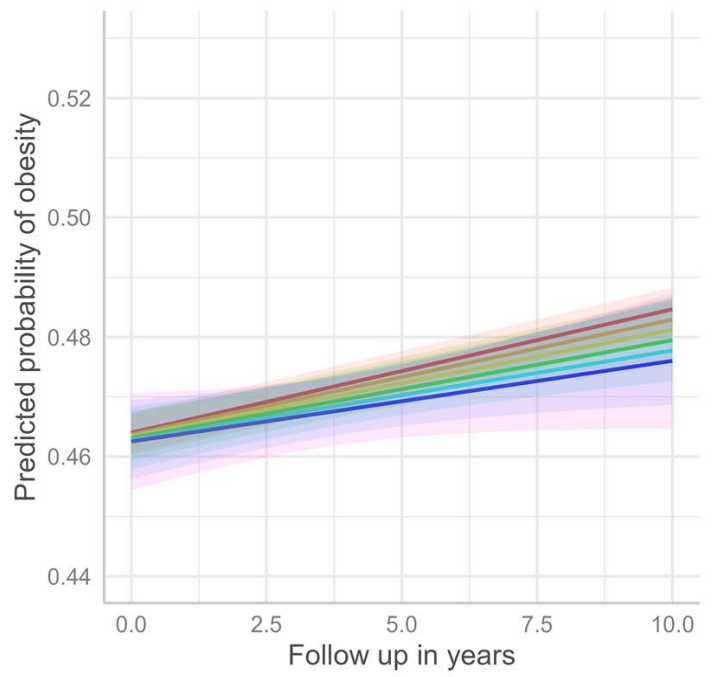
— Sud e Isole

(* p-value <0.05)

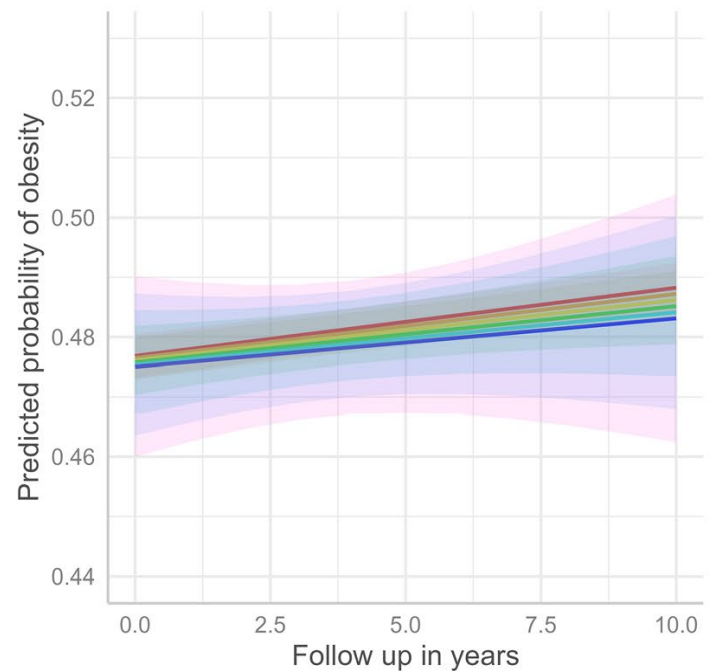
High density urban communities



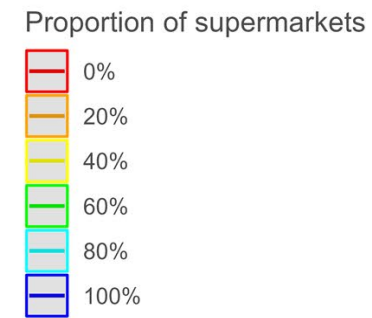
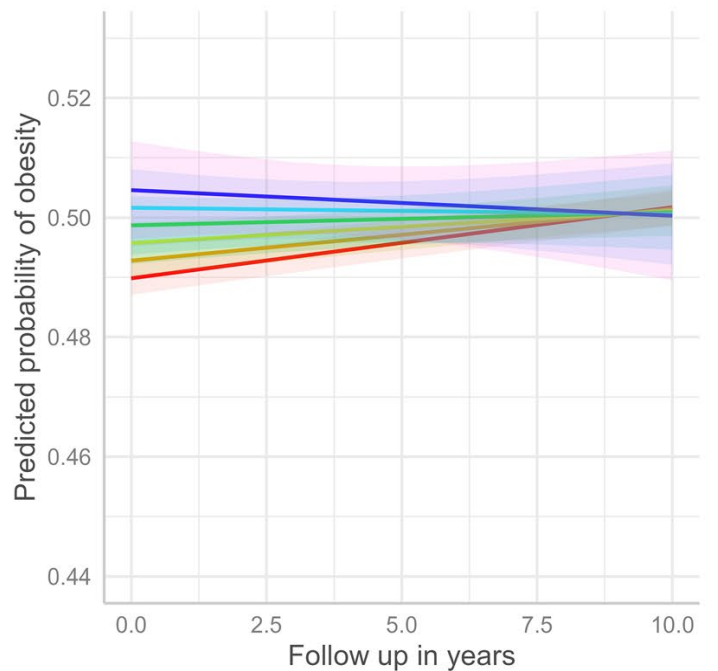
Low density urban communities

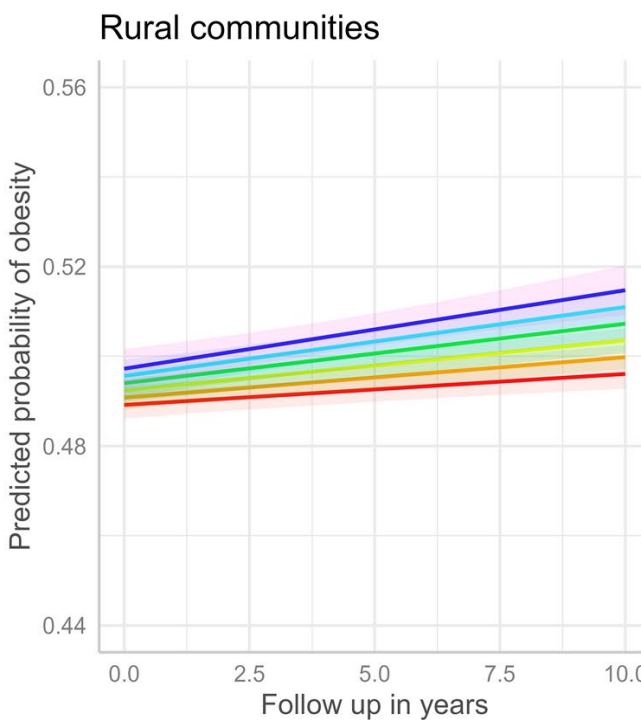
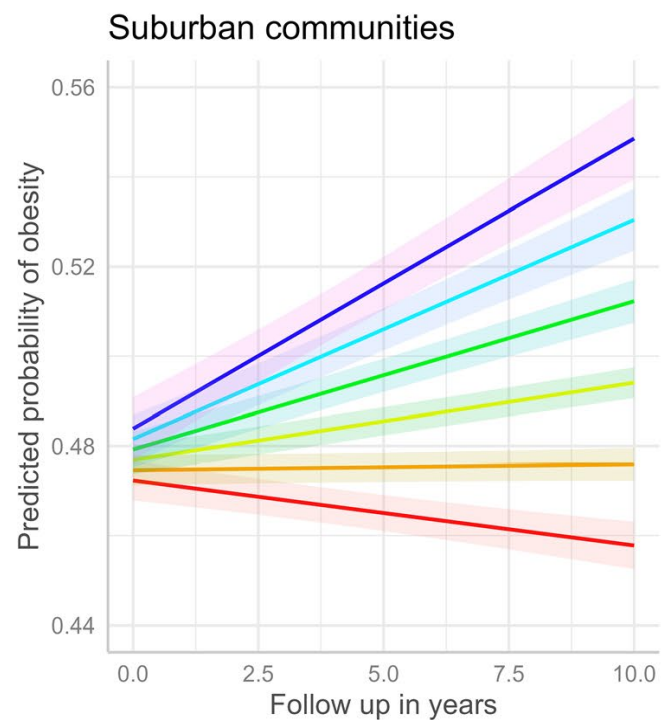
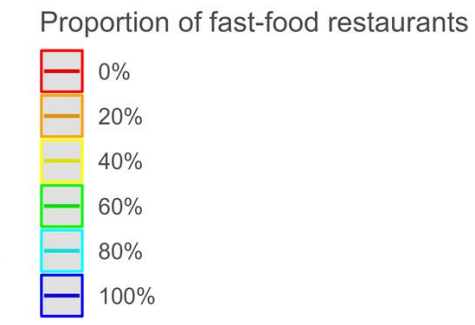
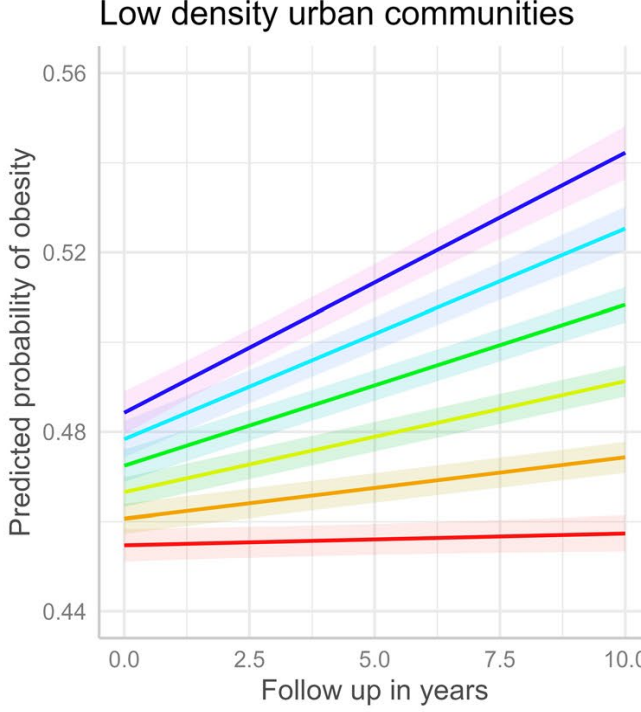
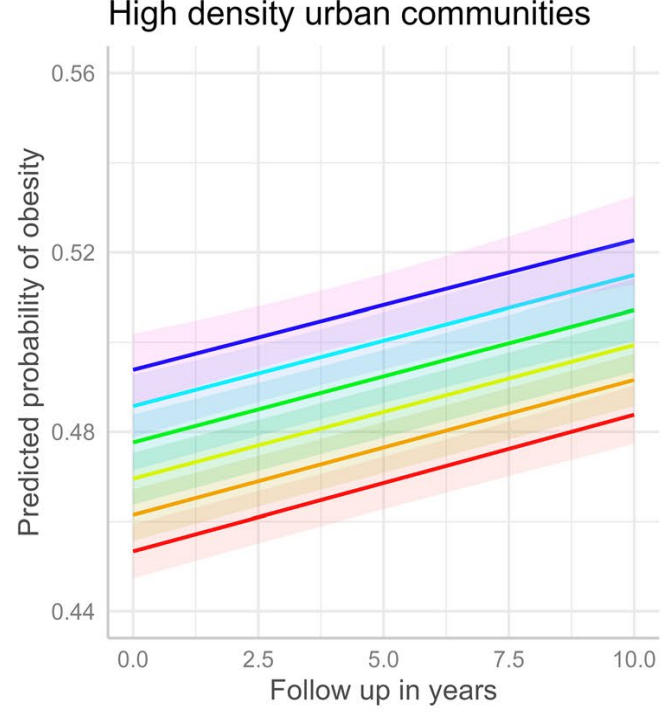


Suburban communities



Rural communities





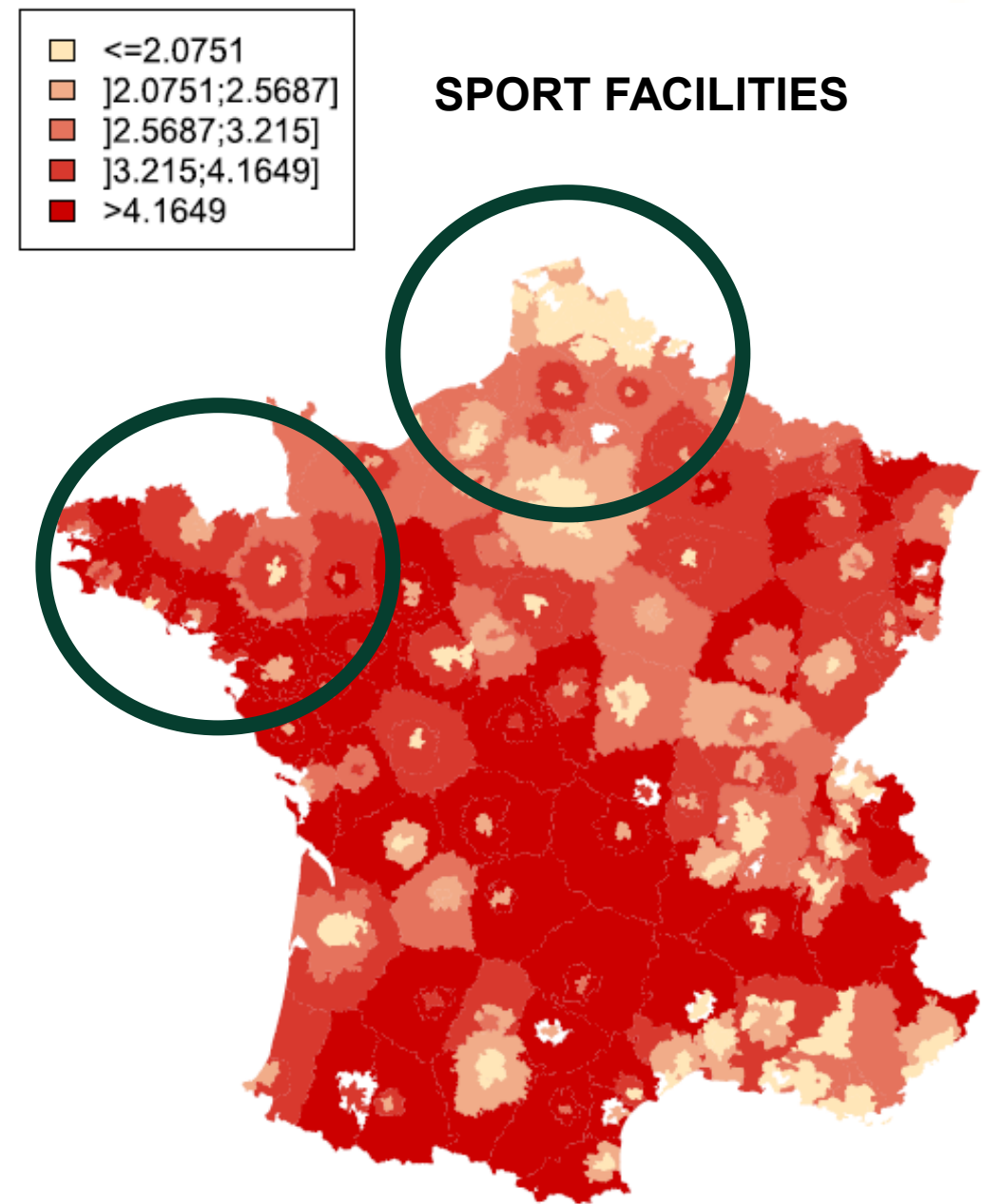
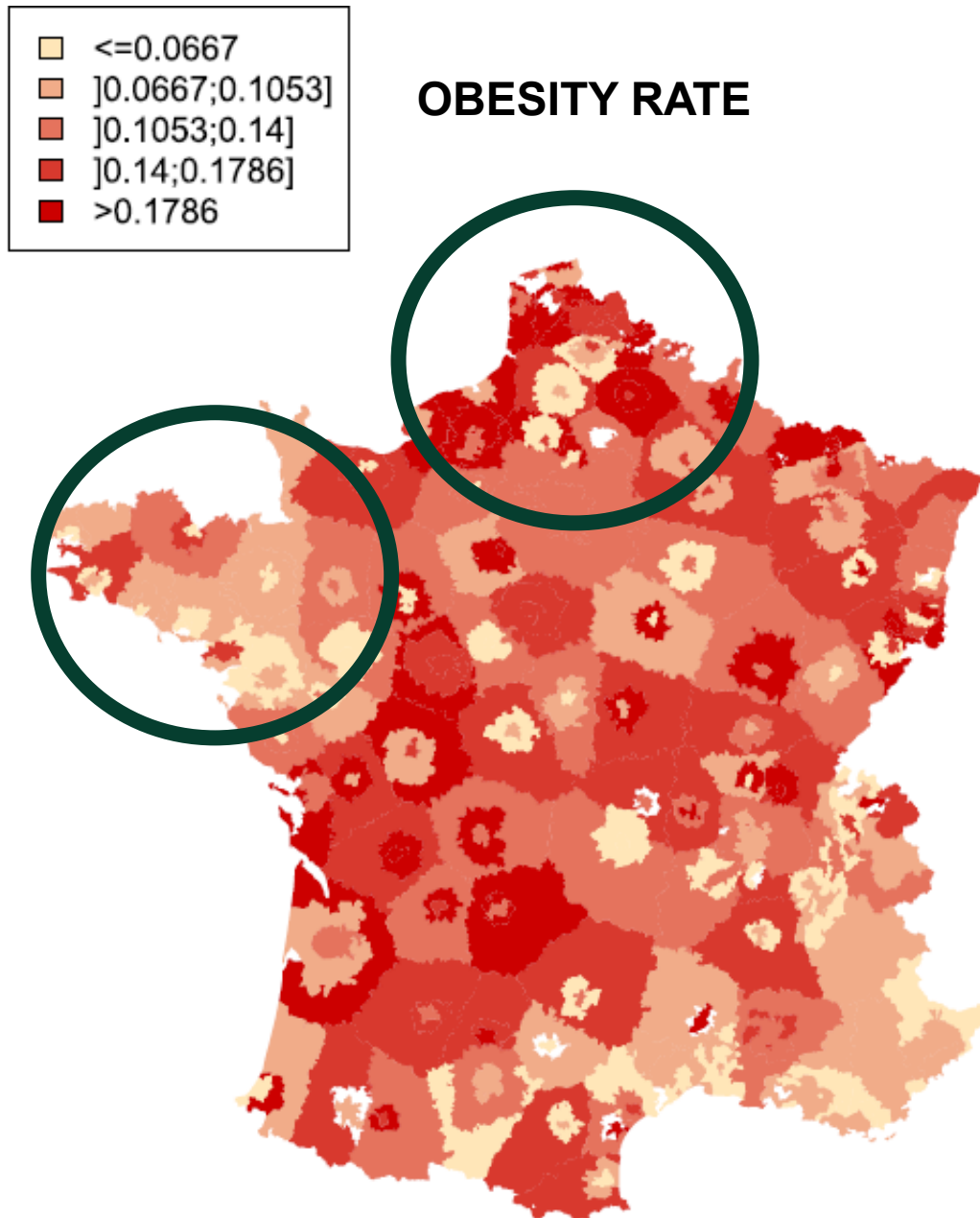


Fig. 2. Map of the Quantile Distribution of the Obesity Rate variable.

Spatial Distribution of the Sports Facilities Ratio variable.

Incremento obesità nelle città e nelle periferie (2001-2021)



AREE METROPOLITANE



(da 6,8% a **8,8%**)

NELLE LORO PERIFERIE



(da 8,2% a **12,1%**)

Transport sector

Promote pedestrian- and bicycle-friendly street design, greater investment in public transport, and designate streets and areas in central business districts as car-free



Urban lighting

Regulate light exposure at night, increase daylight and increase consideration of the function of the clock in maintaining human health



Neighbourhood

Increase recreational spaces, such as extending pedestrian and bicycle paths, sports facilities, and increasing green areas



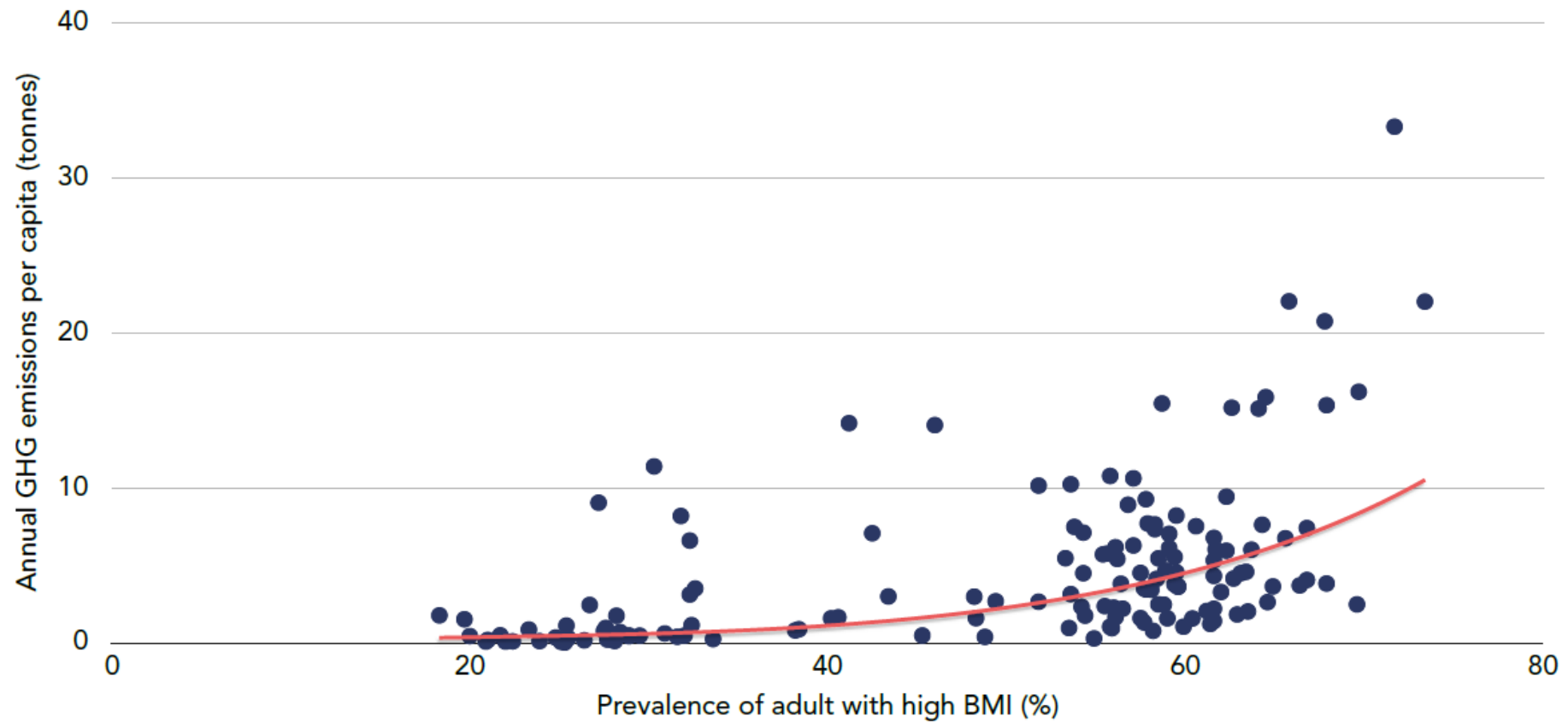
Food sector

Reduce the density of fast-food restaurants, provide menu labelling, train 'health chefs' and reshape the opening and closing times of restaurants




**Obesogenic environments:
It is time to re-shape our cities**

Figure 1.4: Correlation between adult BMI and annual GHG emissions per capita



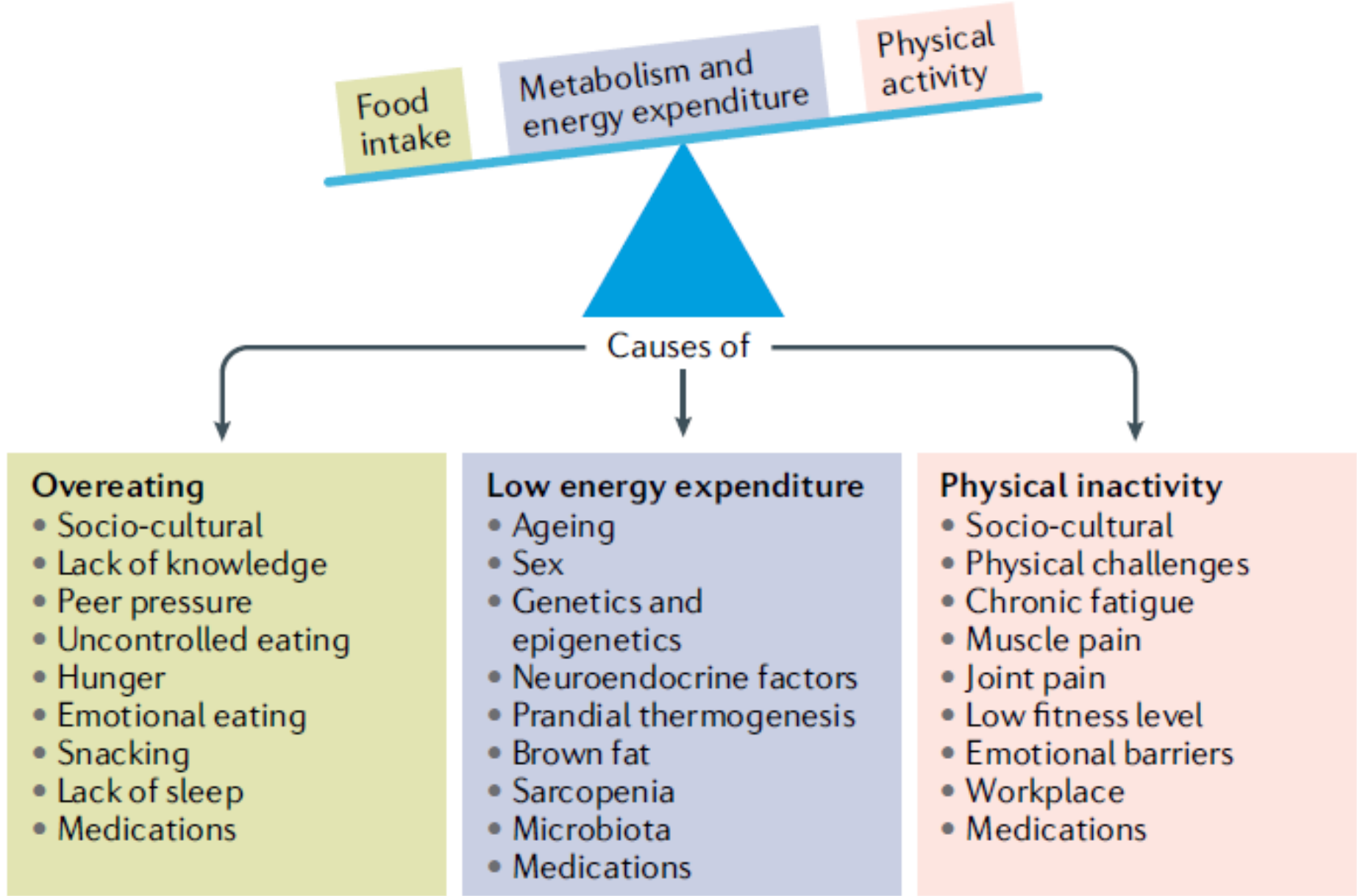
Source: World Obesity Federation analysis using data from NCD RisC, 2024 and International Energy Authority, 2023.



The Global Syndemic of Obesity, Undernutrition, and Climate Change: *The Lancet* Commission report

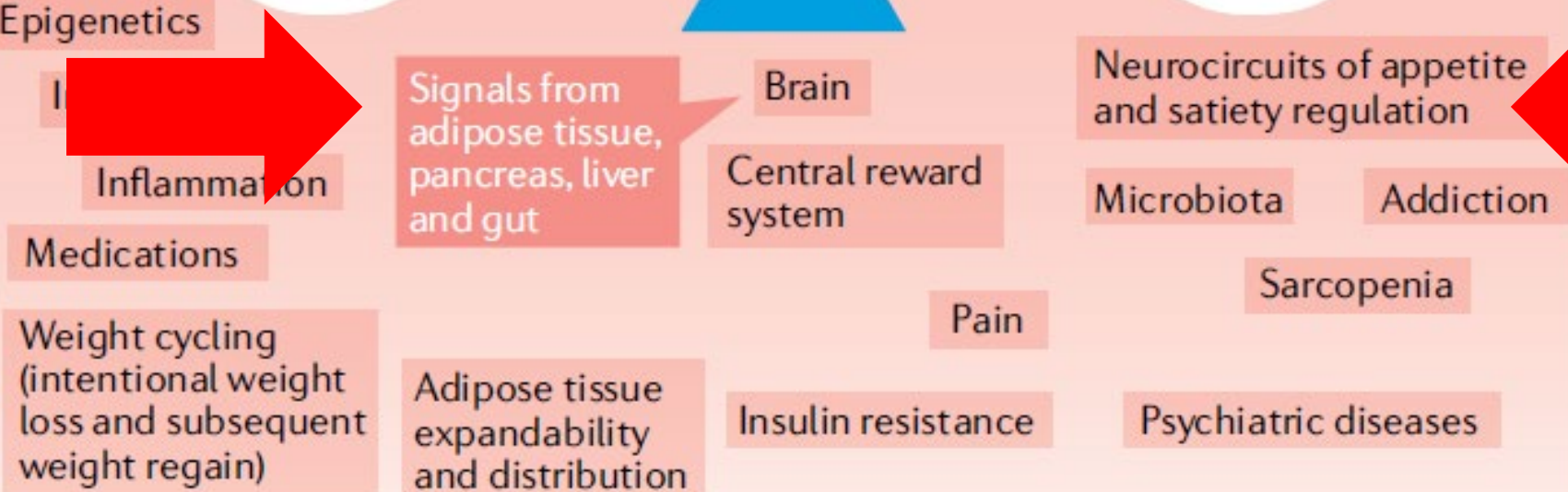
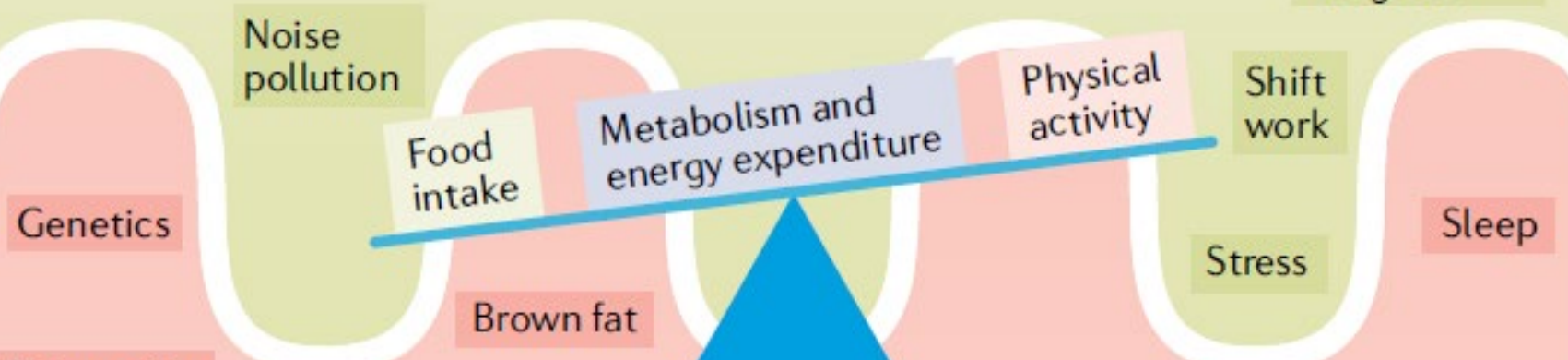
Lancet 2019; 393: 791-846

Malnutrition in all its forms, including obesity, undernutrition, and other dietary risks, is the leading cause of poor health globally. In the near future, the health effects of climate change will considerably compound these health challenges. Climate change can be considered a pandemic because of its sweeping effects on the health of humans and the natural systems we depend on (ie, planetary health). These three pandemics—obesity, undernutrition, and climate change—represent The Global Syndemic that affects most people in every country and region worldwide. They constitute a syndemic, or synergy of epidemics, because they co-occur in time and place, interact with each other to produce complex sequelae, and share common underlying societal drivers. This Commission recommends comprehensive actions to address obesity within the context of The Global Syndemic, which represents the paramount health challenge for humans, the environment, and our planet in the 21st century.



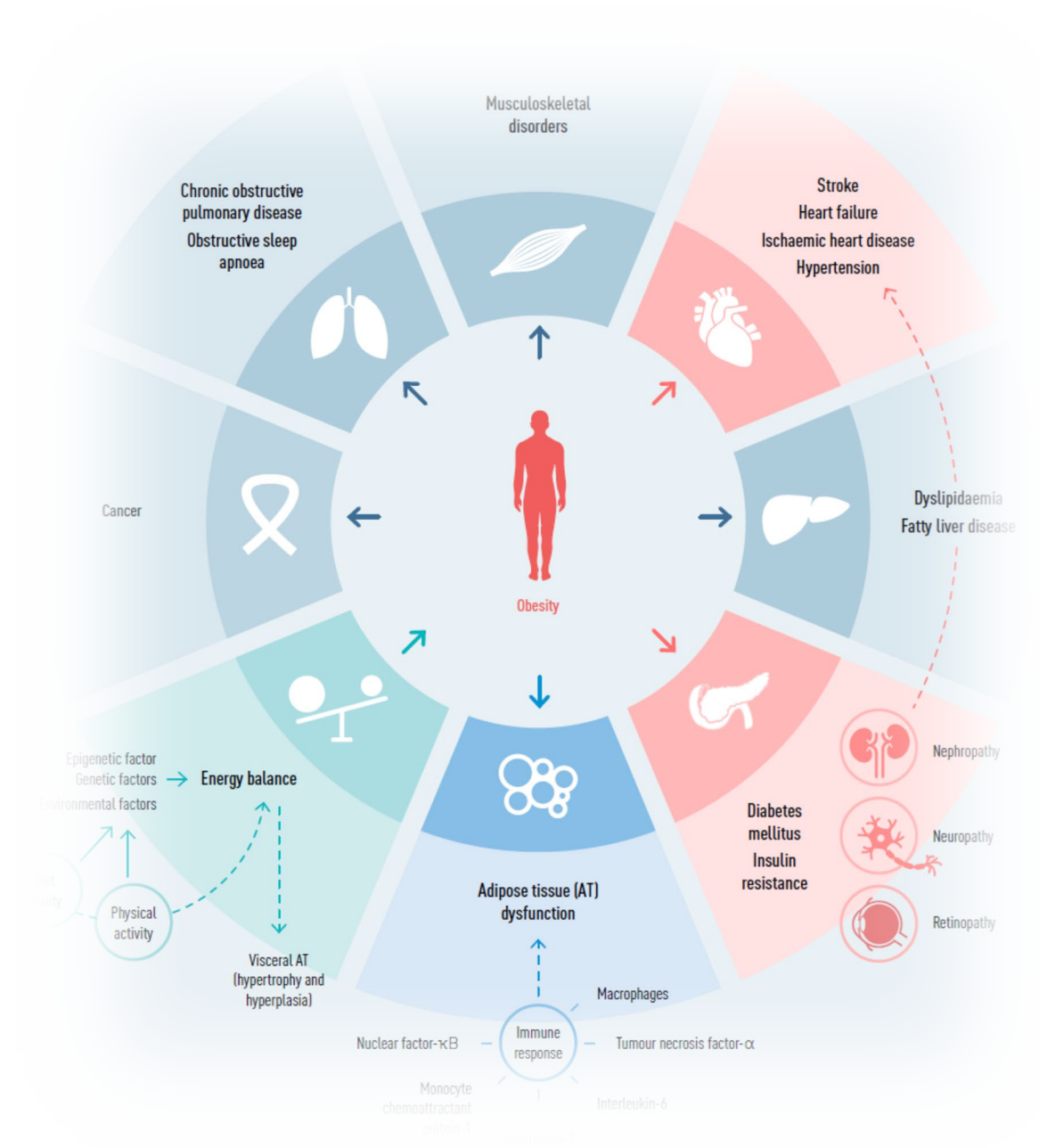
Environment and/or society

Eating culture Television Transportation Smoking
Policies Computer games Social media Food marketing
Economic systems Food environment Workplace Recreational drug use



Biology

RICADUTE SOCIO-ECONOMICO- SANITARIE

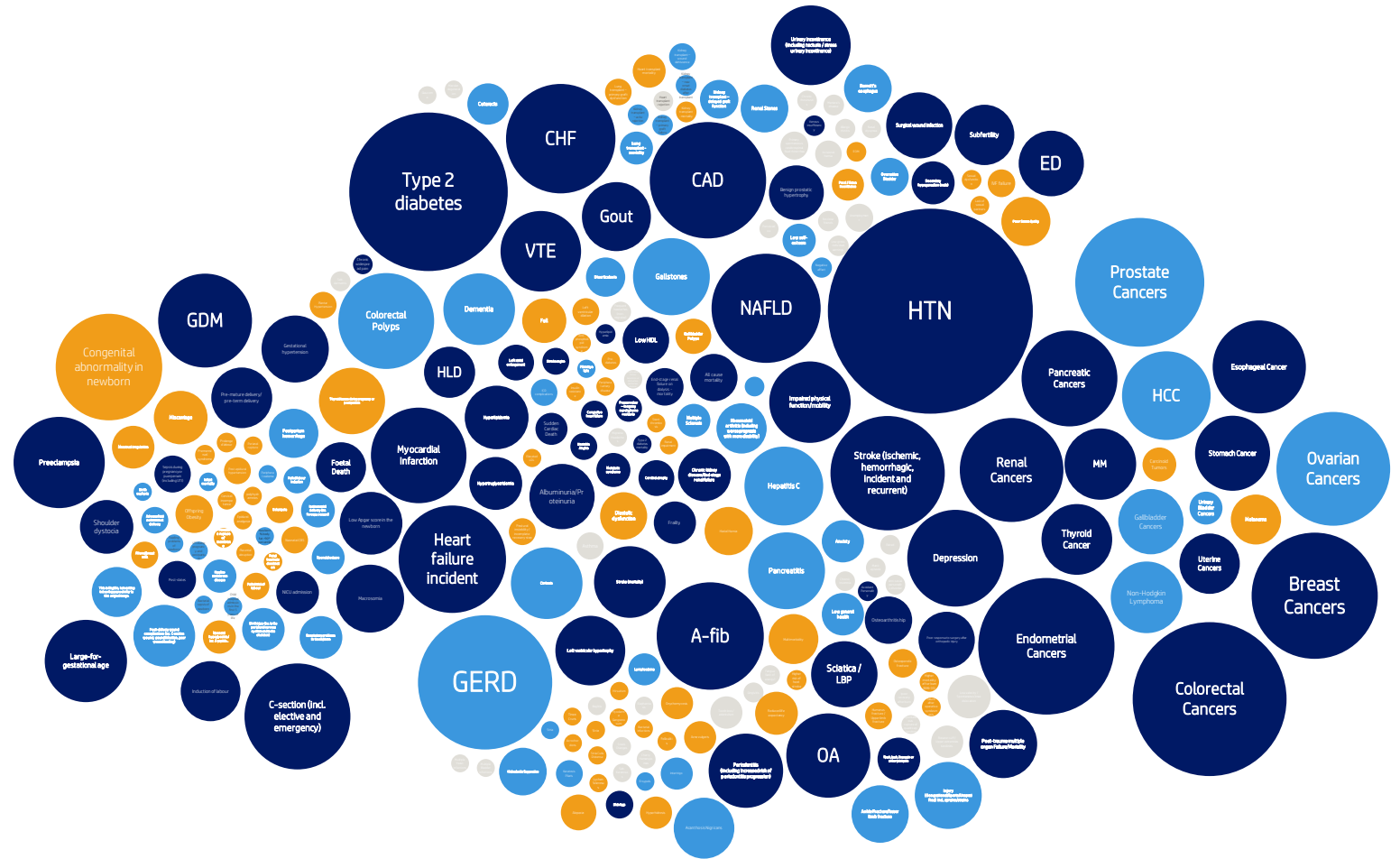


Obesity is associated with multiple complications

	GRADE	Strength of evidence
■	4	Very strong
■	3	Strong
■	2	Moderate
■	1	Weak

Size of circle reflects number of articles

229+ complications affecting EVERY organ system and medical specialty



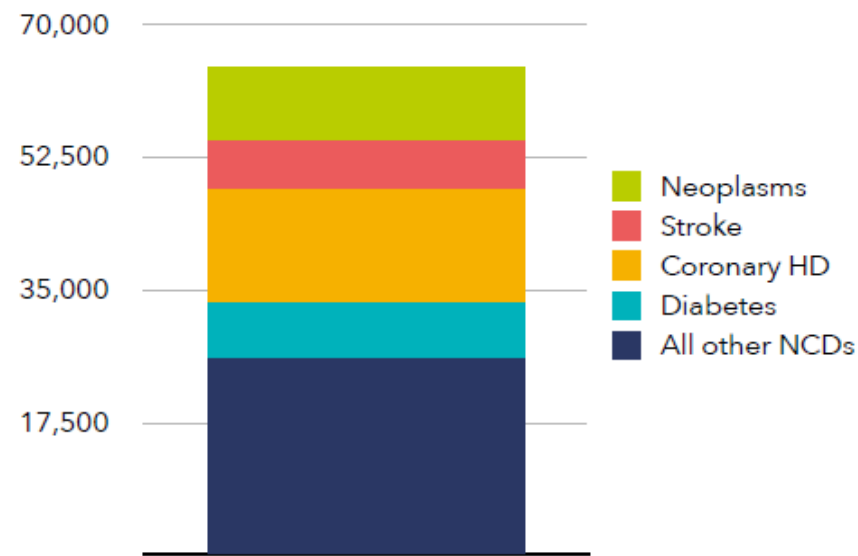
A-fib, atrial fibrillation; CAD, coronary artery disease; CHF, congestive heart failure; ED, erectile dysfunction; EOM, eosinophilic otitis media; GDM, gestational diabetes mellitus; GERD, gastroesophageal reflux disease; HCC, hepatocellular carcinoma; HTN, hypertension; HLD, hyperlipidemia; MM, multiple myeloma; NAFLD, non-alcoholic fatty liver disease; OA, osteoarthritis; VTE, venous thromboembolism.
Horn et al. Postgrad Med 2022;134:359–75.

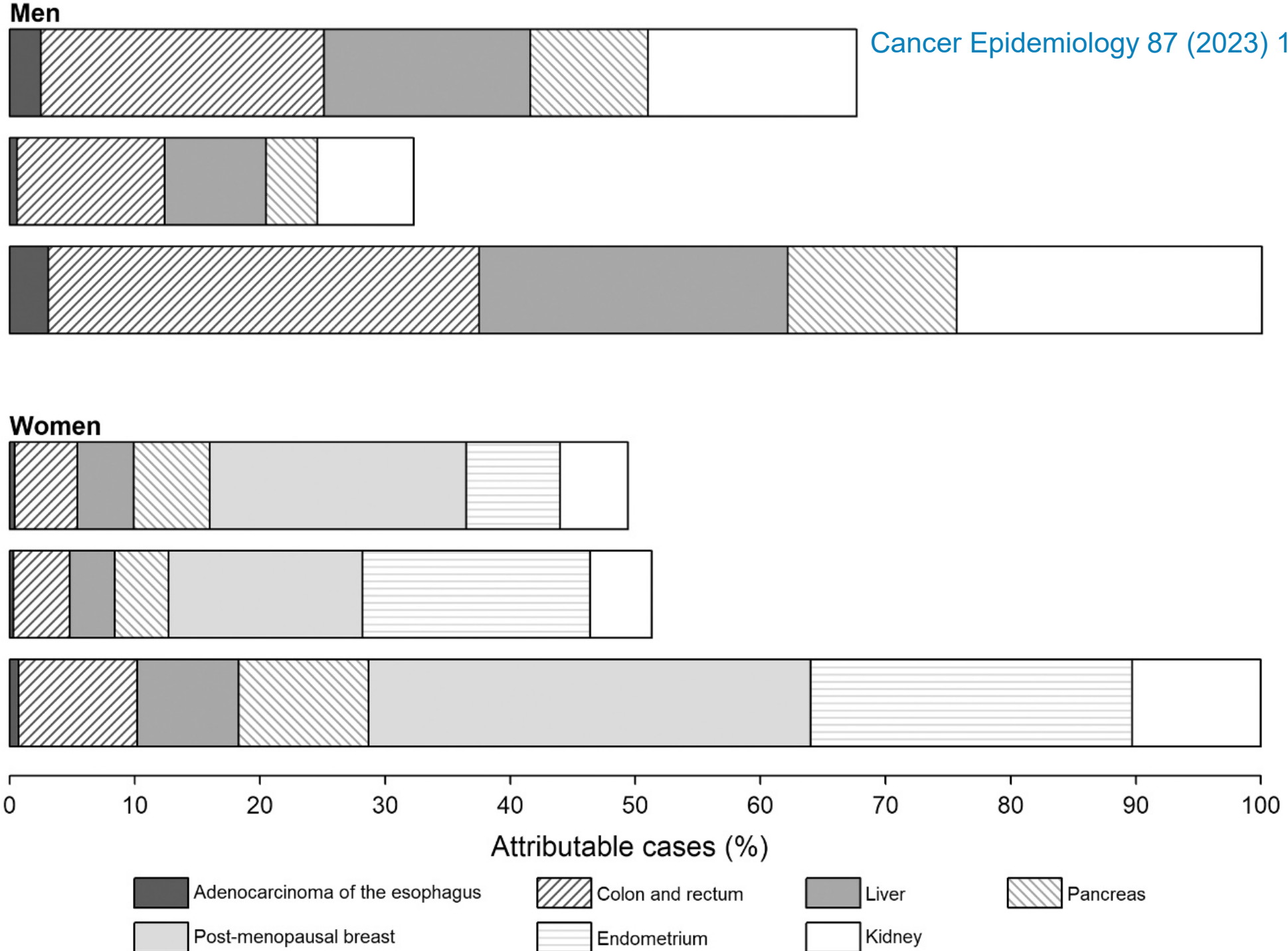
World Obesity Atlas 2024

Non-communicable diseases (NCDs) in adults attributed to high BMI, 2019

	Person-years lost (DALYs) to NCDs due to high BMI in 2019	Deaths from NCDs due to high BMI in 2019
All non-communicable diseases	1,454,677	64,136
of which diabetes mellitus	364,711	7,406
of which coronary (ischaemic) heart disease	238,909	15,018
of which stroke	140,788	6,479
of which cancers (neoplasms)	178,406	9,483

Deaths from NCDs due to high BMI in adults 2019



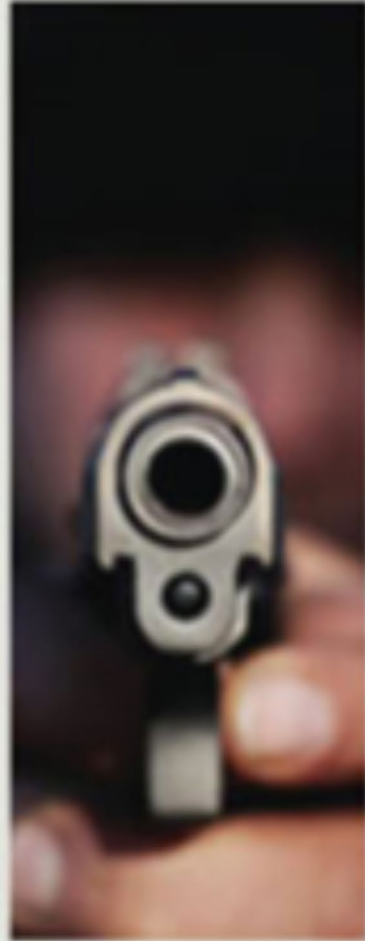


\$2.1 trillion



Smoking

\$2.1 trillion



Armed violence,
war, and terrorism

\$2.0 trillion



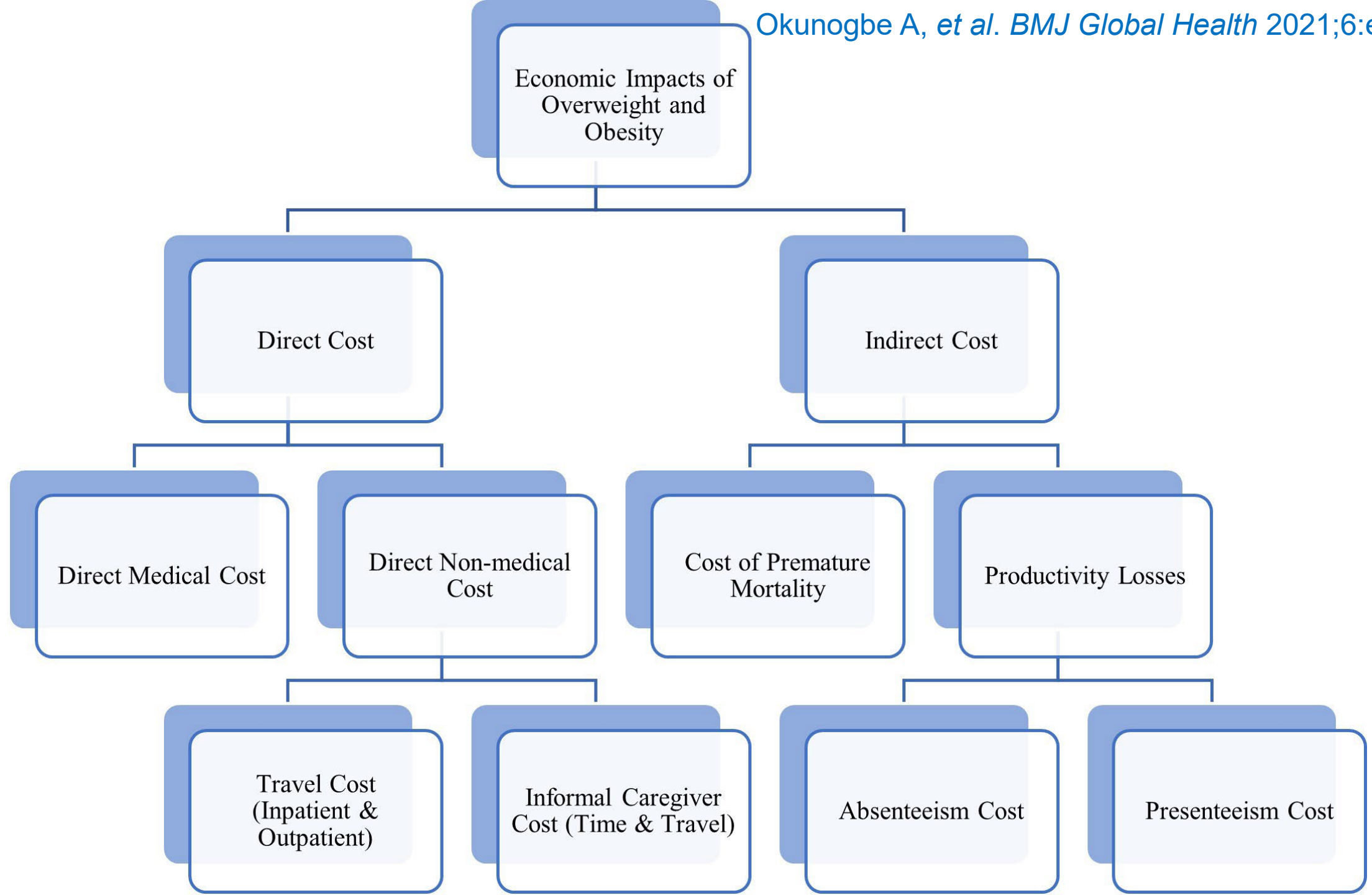
Obesity

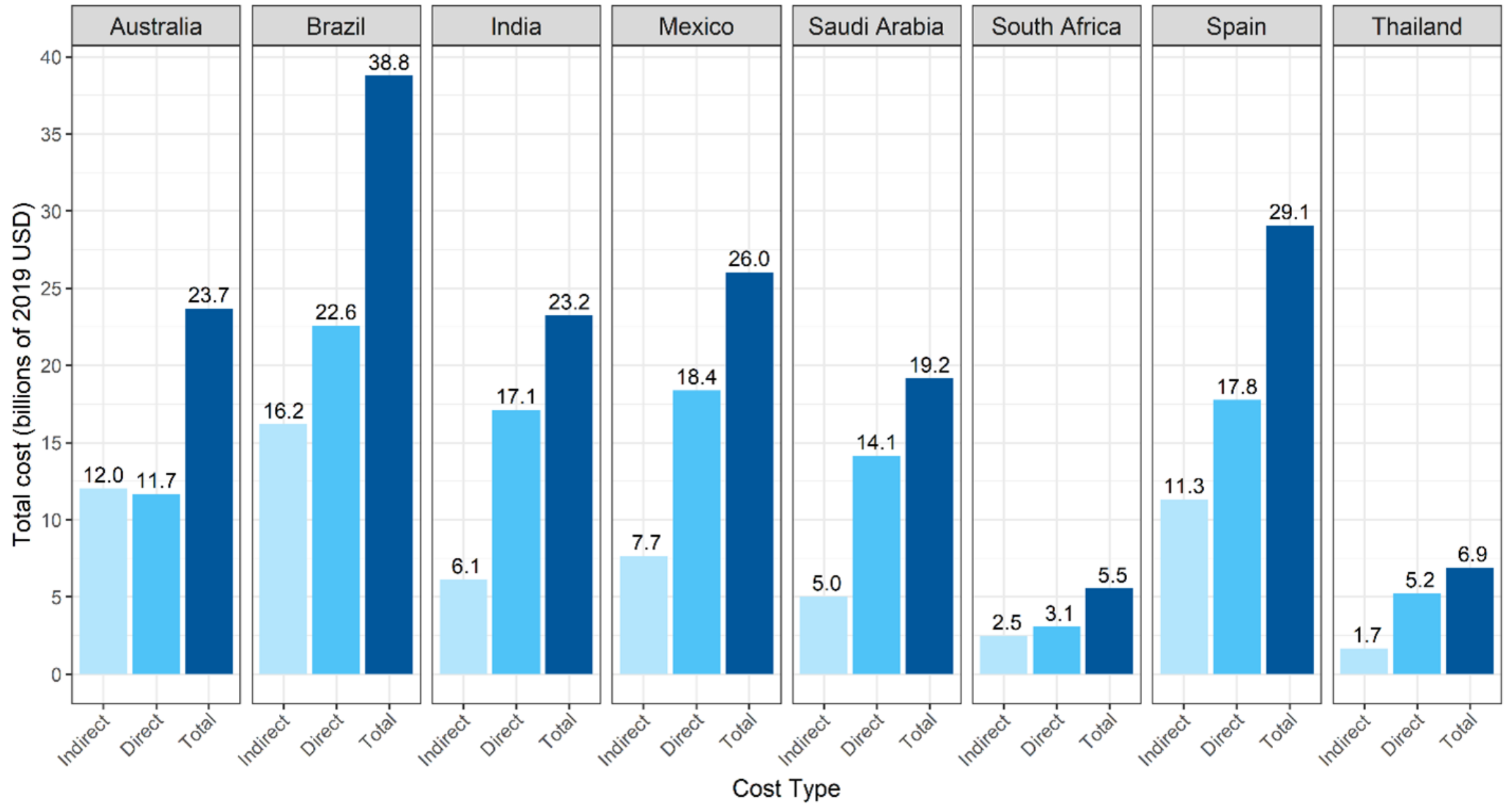
\$1.4 trillion

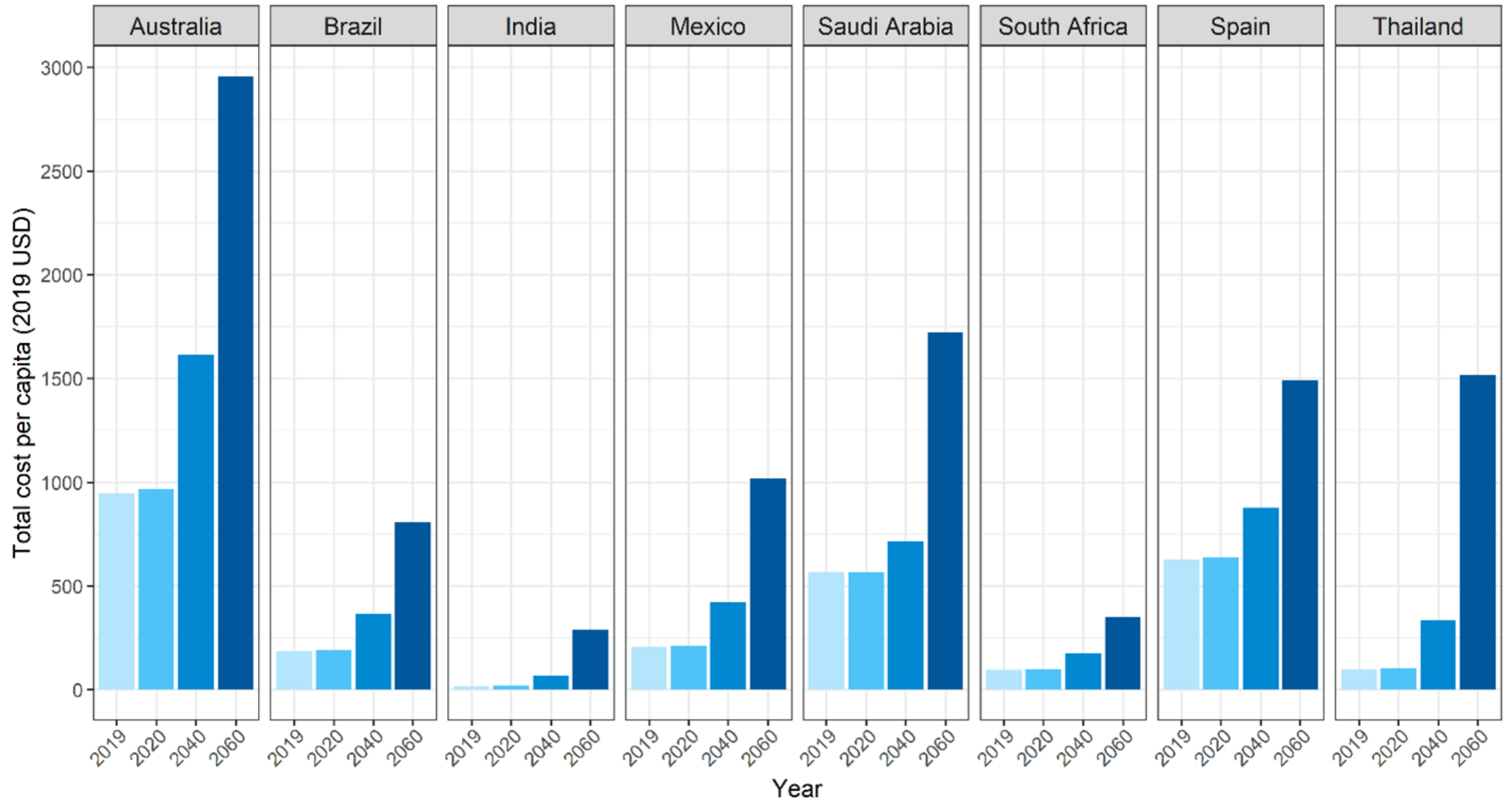


Alcoholism

RICADUTE ECONOMICHE









Source: World Bank

Total population: 61m

Life expectancy: 83.2 (2017)

Income group: High income

GDP spent on health: 8.9% (2016)

ORGANIZZAZIONE PER LA COOPERAZIONE E LO SVILUPPO ECONOMICO



Riduzione dell'aspettativa di vita attribuibile al sovrappeso

Anni, media periodo 2020-2050



2.7

Riduzione dell'aspettativa di vita rispetto ad altri paesi



Costi sanitari attribuibili al sovrappeso

% della spesa totale pro-capite, media periodo 2020-2050



9.0

Percentuale della spesa sanitaria rispetto ad altri paesi



Costi del mercato del lavoro attribuibili al sovrappeso

EUR pro-capite, media periodo 2020-2050



461

Costi del mercato del lavoro pro-capite rispetto ad altri paesi



Aumento della pressione fiscale attribuibile al sovrappeso

EUR pro-capite, media periodo 2020-2050



289

Imposta pro-capite rispetto ad altri paesi



più basso*

più alto

Riduzione effettiva della forza lavoro dovuta al sovrappeso

In numero di lavoratori a tempo pieno, media periodo 2020-2050

571,205

42% Presenzialismo

35% Disoccupazione

19% Assenteismo

4% Prepensionamento

Effetto del sovrappeso su variabili macroeconomiche

Media periodo 2020-2050

2.8%

Diminuzione del PIL dovuta al sovrappeso

0.9

Aumento % dell'aliquota fiscale media necessaria a coprire l'impatto del sovrappeso

• I costi legati a NON intraprendere azioni contro l'obesità sono enormi e non giustificati

• L'epidemia di obesità è complessa e non ha soluzioni semplici

• Le soluzioni da intraprendere devono tenere conto delle disparità socio-demografiche

• Una singola azione (es. tassa sul junk food, sussidi per incoraggiare l'esercizio) non è sufficiente

• È necessario attuare politiche di prevenzione a livello di intere comunità (e non selettive)

Quod me putrit
me destruit

Grazie