



# **CANCER GUIDELINE**

## **EPIDEMIOLOGY & BURDEN OF CANCER**

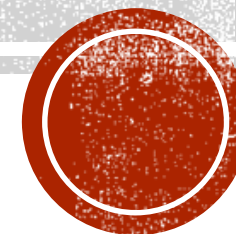
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**Janbazan Medical & Engineering Research Center**

**Date: ۲-بهمن-۱۴۰۴**

**Time: 8:00-11:30**



# GLOBAL CANCER BURDEN: PROGRESS, PROJECTIONS, AND CHALLENGES

**LANCET: Vol 406 October 11, 2025**

**Estimated – Globally in 2023:**

- **1 in 5** worldwide develop cancer during their lifetime
- **New cancer diagnoses** :18.5 million (16.4–20.7)
- **Most diagnosed cancer (Prevalent)**
  - Breast cancer, followed by -tracheal, bronchus, and lung-, colorectal, prostate, and stomach cancers
- **Cancer deaths:** 10.4 million (9.6 to 10.9),
- **Leading cause of cancer death**
  - Trachea, bronchus, and lung, followed by colorectal, stomach, breast, and oesophageal cancers.
- **DALYs with 97% of these being due to YLLs:** total of 271 million (255–285)



# GLOBAL CANCER BURDEN: PROGRESS, PROJECTIONS, AND CHALLENGES

**LANCET: Vol 406 October 11, 2025**



- **Global age- standardised cancer mortality rate decreased by 23·9% (19·1 to 29·1) from 1990-2023:**
  - **Decline observed in :** High income –27·3% [–25·5 to –30·1]) and Upper-middle income countries (–33·5% [–25·7 to –41·4])
  - **Increased observed in:** Low-income 14·2% [–0·3 to 31·1] and Lower-middle-income 16·6% [3·9 to 32·8]
- **Projection (Rise numbers) from 2024 to 2050:**
  - **Cancer diagnoses** 60·7% (41·9–80·6)
  - **Deaths** 74·5% (50·1–104·2)
  - **By 2050: 30·5 million** (22·9–38·9) new cancer Dx. and **18·6 million** (15·6–21·5) deaths



# CANCER DISPARITIES

Original Investigation | Global Health

## Global Disparities of Cancer and Its Projected Burden in 2050

Habtmu Mellie Bizuayehu, PhD, MPH<sup>1</sup>; Kedir Y. Ahmed, PhD<sup>1</sup>; Getiye Dejenu Kibret, PhD<sup>2,3</sup>; [et al](#)

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### Disparities

- Human Development Index(HDI), geographic regions, cancer type, age, and sex
- **Higher** MIR: for **rare and less common cancer types**, among **males**, by age group ( $\leq 19$  or  $\geq 75$  years), and for **low- and medium-HDI** countries
- **Cancer cases and deaths** are projected to nearly **triple** in **low-income countries by 2050** compared to a moderate increase in high-income countries (142.1% vs 41.7% for cancer cases and 146.1% vs 56.8% for cancer deaths).
- **Greater increases** among **males** compared with females projected:
  - cancer cases (15.8%) and
  - deaths (8.0%)



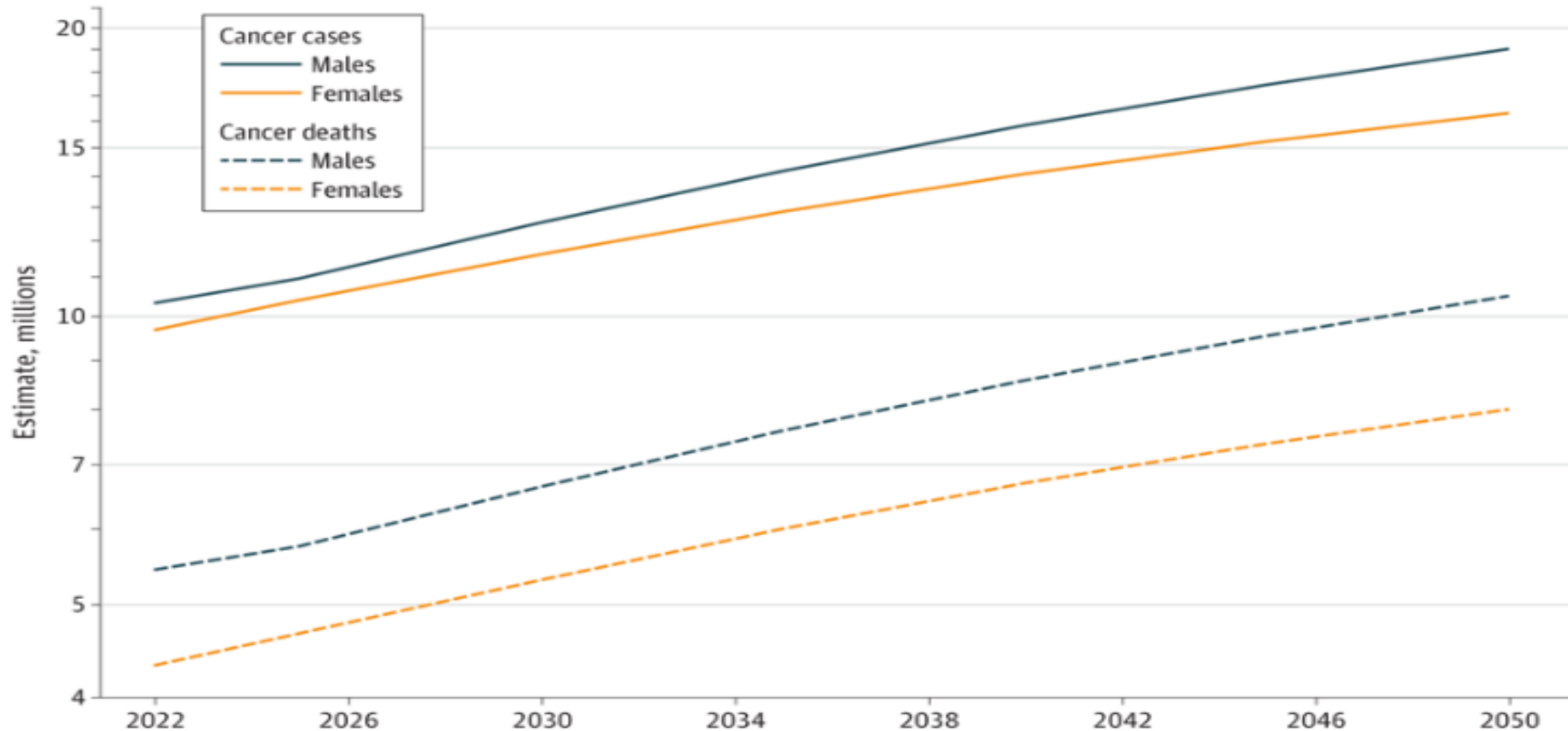
# CANCER DISPARITY TREND BY SEX

## Global Disparities of Cancer and Its Projected Burden in 2050

Habtamu Mellie Bizuayehu, PhD, MPH<sup>1</sup>; Kedir Y. Ahmed, PhD<sup>1</sup>; Getiye Dejen Kibret, PhD<sup>2,3</sup>; et al

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**Figure 1. Worldwide Projected Number of Cancer Cases and Deaths by Sex, 2022-2050**





# CANCER- PREVALENCE & DALY(BOD)

**Most common cancers?**

**Male:**

**Female:**

**Cancer DALY?**





# The most common cancers in men

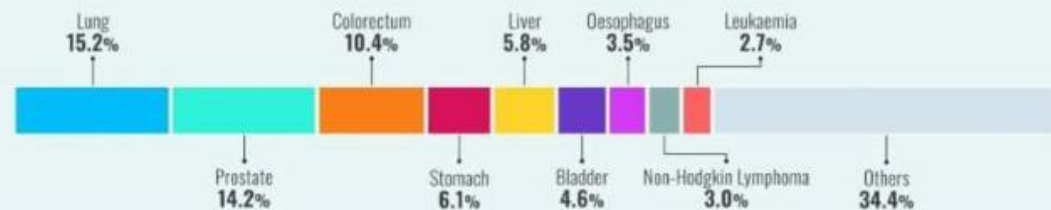
The most commonly diagnosed types of cancer in men (excl. NMSC)

- Prostate
- Oesophagus
- Colorectum
- Liver
- Stomach
- Kaposi sarcoma
- Lip, oral cavity
- Lung

According to the World Health Organization, lung cancer was diagnosed in 1.6 million men in 2022 and caused 1.2 million deaths. It is the most common cancer among men in 33 of 185 countries.



DISTRIBUTION OF THE MOST COMMON CANCERS IN MEN BY THEIR SHARE OF TOTAL NEW CASES



# The most common cancers in women

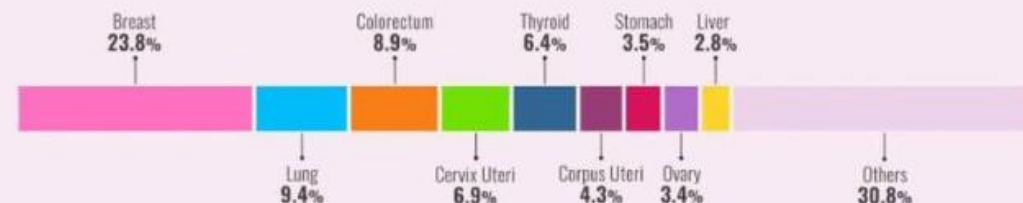
The most commonly diagnosed types of cancer in women (excl. NMSC)

- Breast
- Cervix uteri
- Liver
- Lung

According to World Health Organization, breast cancer was diagnosed in 2.3 million women in 2022 and caused 670,000 deaths. In 157 out of 185 countries, it was the most common cancer among women.



DISTRIBUTION OF THE MOST COMMON CANCERS IN WOMEN BY THEIR SHARE OF TOTAL NEW CASES



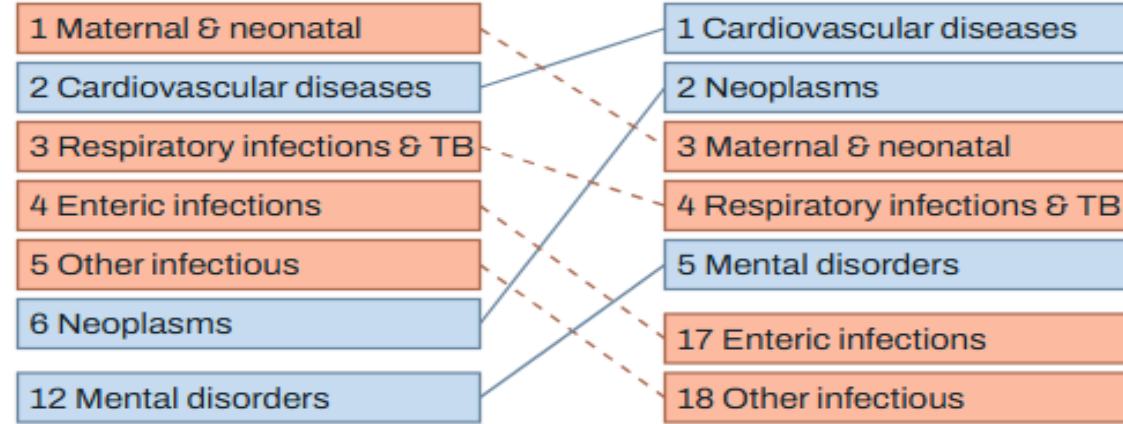
# CANCER, GLOBAL, DALLY, BOTH SEX 2023: ALL AGES

[HTTPS://WWW.HEALTHDATA.ORG](https://www.healthdata.org)

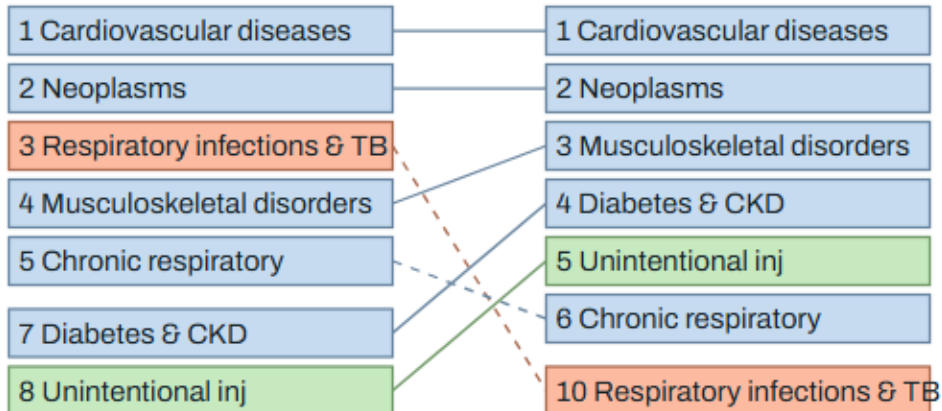


**Global**  
**Both sexes, All ages, DALYs per 100,000**  
**1990 rank      2023 rank**

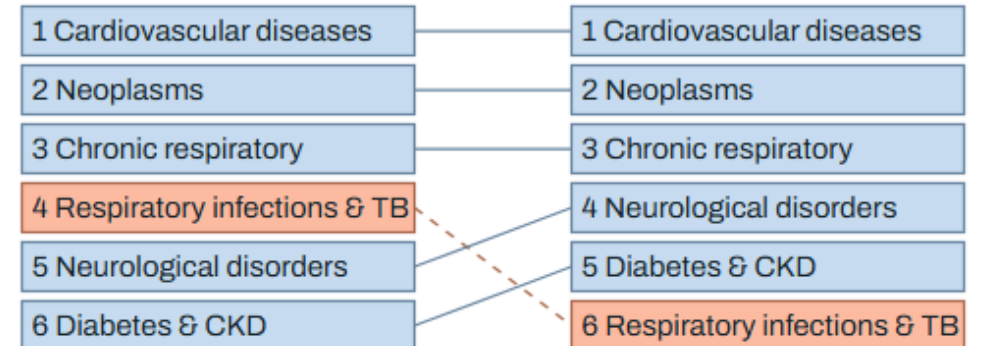
Communicable, maternal, neonatal, and nutritional diseases  
Non-communicable diseases  
Injuries



**Global**  
**Both sexes, 50-69 years, DALYs per 100,000**  
**1990 rank      2023 rank**



**Global**  
**Both sexes, 70+ years, DALYs per 100,000**  
**1990 rank      2023 rank**

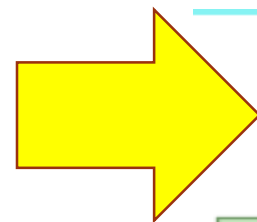




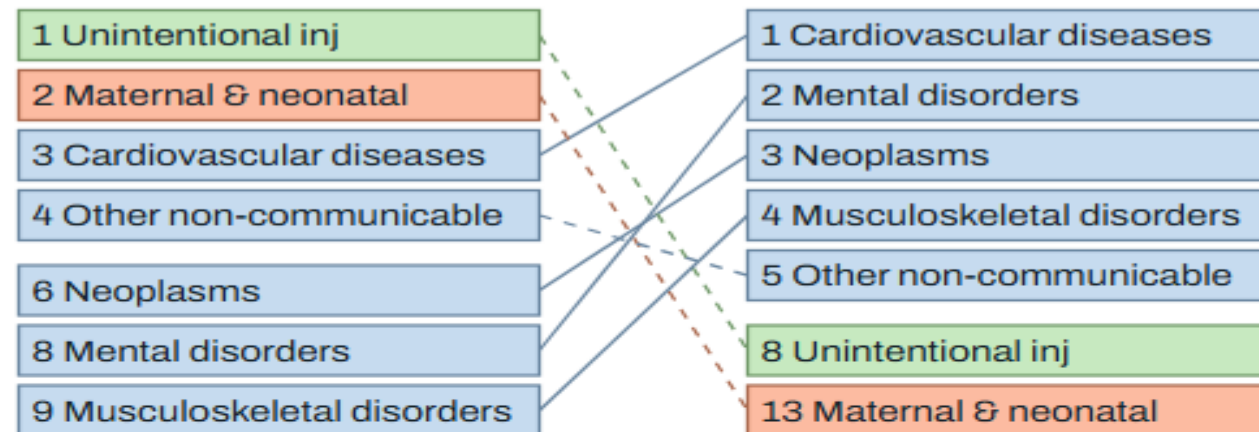
# CANCER, DALLY, BOTH SEX 2023: ALL AGES IRAN ~ GLOBAL

[HTTPS://WWW.HEALTHDATA.ORG](https://www.healthdata.org)

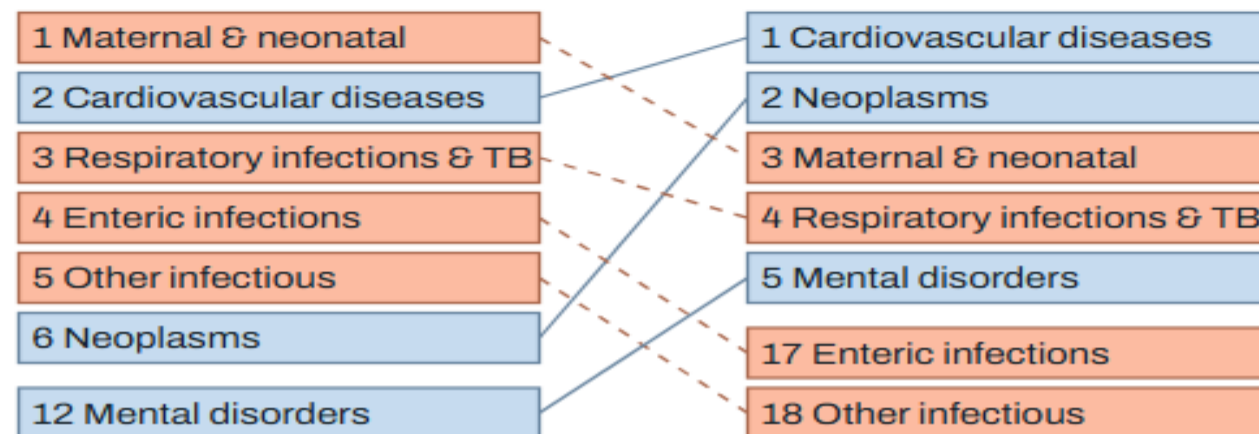
- Communicable, maternal, neonatal, and nutritional diseases
- Non-communicable diseases
- Injuries



## Iran (Islamic Republic of) Both sexes, All ages, DALYs per 100,000 1990 rank      2023 rank



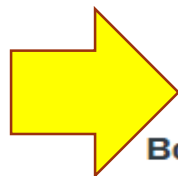
## Global Both sexes, All ages, DALYs per 100,000 1990 rank      2023 rank





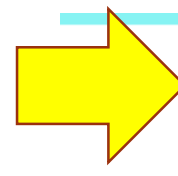
# CANCER, BOD, DALLY, BOTH SEX 2023: 50-69 YRS ~ +70 YRS

# IRAN ~ GLOBAL



Iran (Islamic Republic of)  
Both sexes, 50-69 years, DALYs per 100,000

1990 rank	2023 rank
1 Cardiovascular diseases	1 Cardiovascular diseases
2 Neoplasms	2 Neoplasms
3 Unintentional inj	3 Musculoskeletal disorders
4 Musculoskeletal disorders	4 Diabetes & CKD
5 Diabetes & CKD	5 Mental disorders
7 Mental disorders	7 Other non-communicable
11 Other non-communicable	10 Unintentional inj



Iran (Islamic Republic of)  
Both sexes, 70+ years, DALYs per 100,000

1990 rank	2023 rank
1 Cardiovascular diseases	1 Cardiovascular diseases
2 Neoplasms	2 Neoplasms
3 Diabetes & CKD	3 Diabetes & CKD
4 Unintentional inj	4 Neurological disorders
5 Sense organ diseases	5 Chronic respiratory
6 Chronic respiratory	6 Sense organ diseases
7 Neurological disorders	12 Unintentional inj

## Global

Both sexes, 50-69 years, DALYs per 100,000

1990 rank	2023 rank
1 Cardiovascular diseases	1 Cardiovascular diseases
2 Neoplasms	2 Neoplasms
3 Respiratory infections & TB	3 Musculoskeletal disorders
4 Musculoskeletal disorders	4 Diabetes & CKD
5 Chronic respiratory	5 Unintentional inj
7 Diabetes & CKD	6 Chronic respiratory
8 Unintentional inj	10 Respiratory infections & TB

## Global

Both sexes, 70+ years, DALYs per 100,000

1990 rank	2023 rank
1 Cardiovascular diseases	1 Cardiovascular diseases
2 Neoplasms	2 Neoplasms
3 Chronic respiratory	3 Chronic respiratory
4 Respiratory infections & TB	4 Neurological disorders
5 Neurological disorders	5 Diabetes & CKD
6 Diabetes & CKD	6 Respiratory infections & TB

# GBD:1990-2019 ALL AGE:

**GBD non-communicable diseases: 3(1990) to 6 out 10**

■ Communicable, maternal, neonatal, and nutritional diseases  
■ Non-communicable diseases  
■ Injuries

## A All ages

Leading causes 1990	Percentage of DALYs 1990	Leading causes 2019	Percentage of DALYs 2019	Percentage change in number of DALYs, 1990-2019	Percentage change in age-standardised DALY rate, 1990-2019
1 Neonatal disorders	10.6 (9.9 to 11.4)	1 Neonatal disorders	7.3 (6.4 to 8.4)	-32.3 (-41.7 to -20.8)	-32.6 (-42.1 to -21.2)
2 Lower respiratory infections	8.7 (7.6 to 10.0)	2 Ischaemic heart disease	7.2 (6.5 to 7.9)	50.4 (39.9 to 60.2)	-28.6 (-33.3 to -24.2)
3 Diarrhoeal diseases	7.3 (5.9 to 8.8)	3 Stroke	5.7 (5.1 to 6.2)	32.4 (22.0 to 42.2)	-35.2 (-40.5 to -30.5)
4 Ischaemic heart disease	4.7 (4.4 to 5.0)	4 Lower respiratory infections	3.8 (3.3 to 4.3)	-56.7 (-64.2 to -47.5)	-62.5 (-69.0 to -54.9)
5 Stroke	4.2 (3.9 to 4.5)	5 Diarrhoeal diseases	3.2 (2.6 to 4.0)	-57.5 (-66.2 to -44.7)	-64.6 (-71.7 to -54.2)
6 Congenital birth defects	3.2 (2.3 to 4.8)	6 COPD	2.9 (2.6 to 3.2)	25.6 (15.1 to 46.0)	-39.8 (-44.9 to -30.2)
7 Tuberculosis	3.1 (2.8 to 3.4)	7 Road injuries	2.9 (2.6 to 3.0)	2.4 (-6.9 to 10.8)	-31.0 (-37.1 to -25.4)
8 Road injuries	2.7 (2.6 to 3.0)	8 Diabetes	2.8 (2.5 to 3.1)	147.9 (135.9 to 158.9)	24.4 (18.5 to 29.7)
9 Measles	2.7 (0.9 to 5.6)	9 Low back pain	2.5 (1.9 to 3.1)	46.9 (43.3 to 50.5)	-16.3 (-17.1 to -15.5)
10 Malaria	2.5 (1.4 to 4.1)	10 Congenital birth defects	2.1 (1.7 to 2.6)	-37.3 (-50.6 to -12.8)	-40.0 (-52.7 to -17.1)
11 COPD	2.3 (1.9 to 2.5)	11 HIV/AIDS	1.9 (1.6 to 2.2)	127.7 (97.3 to 171.7)	58.5 (37.1 to 89.2)
12 Protein-energy malnutrition	2.0 (1.6 to 2.7)	12 Tuberculosis	1.9 (1.7 to 2.0)	-41.0 (-47.2 to -33.5)	-62.8 (-66.6 to -58.0)
13 Low back pain	1.7 (1.2 to 2.1)	13 Depressive disorders	1.8 (1.4 to 2.4)	61.1 (56.9 to 65.0)	-1.8 (-2.9 to -0.8)
14 Self-harm	1.4 (1.2 to 1.5)	14 Malaria	1.8 (0.9 to 3.1)	-29.4 (-56.9 to 6.6)	-37.8 (-61.9 to -6.2)
15 Cirrhosis	1.3 (1.2 to 1.5)	15 Headache disorders	1.8 (0.4 to 3.8)	56.7 (52.4 to 62.1)	1.1 (-4.2 to 2.9)
16 Meningitis	1.3 (1.1 to 1.5)	16 Cirrhosis	1.8 (1.6 to 2.0)	33.0 (22.4 to 48.2)	-26.8 (-32.5 to -19.0)
17 Drowning	1.3 (1.1 to 1.4)	17 Lung cancer	1.8 (1.6 to 2.0)	69.1 (53.1 to 85.4)	-16.2 (-24.0 to -8.2)
18 Headache disorders	1.1 (0.2 to 2.4)	18 Chronic kidney disease	1.6 (1.5 to 1.8)	93.2 (81.6 to 105.0)	6.3 (0.2 to 12.4)
19 Depressive disorders	1.1 (0.8 to 1.5)	19 Other musculoskeletal	1.6 (1.2 to 2.1)	128.9 (122.0 to 136.3)	30.7 (27.6 to 34.3)
20 Diabetes	1.1 (1.0 to 1.2)	20 Age-related hearing loss	1.6 (1.2 to 2.1)	82.8 (75.2 to 88.9)	-1.8 (-3.7 to -0.1)
21 Lung cancer	1.0 (1.0 to 1.1)	21 Falls	1.5 (1.4 to 1.7)	47.1 (31.5 to 61.0)	-14.5 (-22.5 to -7.4)
22 Falls	1.0 (0.9 to 1.2)	22 Self-harm	1.3 (1.2 to 1.5)	-5.6 (-14.2 to 3.7)	-38.9 (-44.3 to -33.0)
23 Dietary iron deficiency	1.0 (0.7 to 1.3)	23 Gynaecological diseases	1.2 (0.9 to 1.5)	48.7 (45.8 to 51.8)	-6.8 (-8.7 to -4.9)
24 Interpersonal violence	0.9 (0.9 to 1.0)	24 Anxiety disorders	1.1 (0.8 to 1.5)	53.7 (48.8 to 59.1)	-0.1 (-1.0 to 0.7)
25 Whooping cough	0.9 (0.4 to 1.7)	25 Dietary iron deficiency	1.1 (0.8 to 1.5)	13.8 (10.5 to 17.2)	-16.4 (-18.7 to -14.0)



# GBD:1990-2019(AGE 50-74):

■ Communicable, maternal, neonatal, and nutritional diseases  
■ Non-communicable diseases  
■ Injuries

20 out 25 first

&

9 out of 10 first

4 out of 20 of non-communicable diseases: cancer

E 50-74 years

Leading causes 1990

Percentage of DALYs  
1990

Leading causes 2019

Percentage of DALYs  
2019

Percentage change in  
number of DALYs,  
1990-2019

Percentage change in  
age-standardised DALY  
rate, 1990-2019

1 Ischaemic heart disease	12.5 (11.6 to 13.4)	1 Ischaemic heart disease	11.8 (10.7 to 12.9)	46.1 (35.6 to 56.4)	-29.1 (-34.2 to -24.1)
2 Stroke	10.9 (10.0 to 11.8)	2 Stroke	9.3 (8.5 to 10.1)	31.5 (19.5 to 42.9)	-36.3 (-42.1 to -30.8)
3 COPD	6.5 (5.5 to 7.1)	3 Diabetes	5.1 (4.6 to 5.7)	156.1 (143.4 to 167.9)	24.5 (18.5 to 30.4)
4 Tuberculosis	4.0 (3.6 to 4.4)	4 COPD	4.7 (4.2 to 5.2)	12.0 (0.9 to 32.3)	-45.9 (-51.4 to -36.2)
5 Lung cancer	3.6 (3.3 to 3.9)	5 Lung cancer	3.9 (3.4 to 4.3)	64.3 (48.8 to 80.2)	-19.8 (-27.3 to -12.1)
6 Diabetes	3.1 (2.8 to 3.4)	6 Low back pain	3.1 (2.3 to 4.0)	72.1 (70.0 to 74.3)	-15.9 (-16.9 to -14.9)
7 Cirrhosis	2.8 (2.6 to 3.1)	7 Cirrhosis	2.7 (2.4 to 3.0)	44.6 (33.2 to 57.1)	-29.1 (-34.7 to -23.0)
8 Low back pain	2.8 (2.1 to 3.7)	8 Chronic kidney disease	2.3 (2.1 to 2.5)	130.2 (113.0 to 145.6)	12.1 (3.7 to 19.5)
9 Diarrhoeal diseases	2.6 (1.6 to 4.0)	9 Age-related hearing loss	2.2 (1.5 to 3.0)	100.8 (96.0 to 104.9)	-2.6 (-4.9 to -0.5)
10 Stomach cancer	2.4 (2.2 to 2.6)	10 Road injuries	2.1 (1.9 to 2.3)	72.9 (56.5 to 83.9)	-15.2 (-23.2 to -9.9)
11 Road injuries	1.9 (1.8 to 2.0)	11 Other musculoskeletal	1.9 (1.4 to 2.6)	172.0 (160.6 to 187.4)	33.6 (28.0 to 40.2)
12 Lower respiratory infections	1.8 (1.6 to 2.0)	12 Tuberculosis	1.9 (1.7 to 2.1)	-27.8 (-36.2 to -16.9)	-64.7 (-68.9 to -59.4)
13 Age-related hearing loss	1.7 (1.2 to 2.3)	13 Lower respiratory infections	1.8 (1.6 to 1.9)	49.8 (37.9 to 62.4)	-27.5 (-33.3 to -21.5)
14 Chronic kidney disease	1.6 (1.4 to 1.7)	14 Depressive disorders	1.7 (1.3 to 2.3)	107.3 (104.7 to 110.1)	1.5 (0.2 to 2.9)
15 Asthma	1.5 (1.2 to 1.9)	15 Colorectal cancer	1.7 (1.6 to 1.9)	95.1 (80.8 to 108.2)	-5.1 (-12.1 to 1.2)
16 Hypertensive heart disease	1.5 (1.2 to 1.7)	16 Falls	1.7 (1.5 to 2.0)	88.3 (76.5 to 100.0)	-8.4 (-14.1 to -2.6)
17 Falls	1.4 (1.3 to 1.6)	17 Stomach cancer	1.7 (1.5 to 1.9)	6.3 (-5.0 to 18.9)	-48.1 (-53.6 to -42.0)
18 Colorectal cancer	1.4 (1.3 to 1.5)	18 Osteoarthritis	1.5 (0.8 to 2.9)	113.6 (110.9 to 116.4)	4.1 (2.8 to 5.4)
19 Depressive disorders	1.3 (0.9 to 1.7)	19 Blindness and vision loss	1.4 (1.1 to 2.0)	88.8 (81.9 to 95.8)	-8.6 (-12.0 to -5.0)
20 Blindness and vision loss	1.2 (0.9 to 1.6)	20 Breast cancer	1.4 (1.3 to 1.5)	85.0 (69.9 to 99.4)	-9.5 (-16.9 to -2.5)
21 Liver cancer	1.2 (1.0 to 1.3)	21 Diarrhoeal diseases	1.4 (0.9 to 2.1)	-21.0 (-42.4 to 11.9)	-61.0 (-72.1 to -45.8)
22 Breast cancer	1.2 (1.1 to 1.2)	22 Hypertensive heart disease	1.3 (1.0 to 1.5)	36.7 (20.8 to 58.8)	-33.8 (-41.7 to -23.4)
23 Oesophageal cancer	1.1 (0.9 to 1.2)	23 Headache disorders	1.2 (0.4 to 2.5)	102.5 (88.7 to 108.2)	-1.2 (-7.4 to 2.3)
24 Osteoarthritis	1.1 (0.6 to 2.2)	24 Oral disorders	1.2 (0.8 to 1.8)	90.5 (86.0 to 94.7)	-7.4 (-9.6 to -5.1)
25 Self-harm	1.1 (1.0 to 1.2)	25 Neck pain	1.1 (0.7 to 1.7)	115.9 (110.5 to 122.2)	5.7 (3.0 to 8.5)

Communicable, maternal, neonatal, and nutritional diseases  
Non-communicable diseases  
Injuries

# GBD:1990-2019 (AGE +75):

GBD in Elderly non-communicable diseases: 20 out 25 first & 8 out of 10 first

A All ages

Leading causes 1990	Percentage of DALYs 1990	Leading causes 2019	Percentage of DALYs 2019	Percentage change in number of DALYs, 1990-2019	Percentage change in age-standardised DALY rate, 1990-2019
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F 75 years and older

1 Ischaemic heart disease	18.6 (17.1 to 19.7)	1 Ischaemic heart disease	16.2 (14.6 to 17.6)	66.6 (57.7 to 74.2)	-32.4 (-35.8 to -29.4)
2 Stroke	15.5 (14.3 to 16.7)	2 Stroke	13.0 (11.7 to 14.0)	60.5 (48.7 to 72.5)	-33.4 (-38.3 to -28.5)
3 COPD	9.9 (8.6 to 10.7)	3 COPD	8.5 (7.5 to 9.2)	63.6 (49.1 to 86.1)	-31.0 (-37.1 to -21.9)
4 Alzheimer's disease	3.8 (1.7 to 8.6)	4 Alzheimer's disease	5.6 (2.6 to 12.2)	180.0 (168.0 to 194.7)	2.6 (-2.1 to 6.6)
5 Lower respiratory infections	3.3 (3.0 to 3.6)	5 Diabetes	4.0 (3.6 to 4.3)	190.7 (179.4 to 201.0)	23.1 (18.6 to 27.5)
6 Diarrhoeal diseases	3.1 (2.0 to 4.5)	6 Lower respiratory infections	3.3 (2.9 to 3.6)	87.4 (76.2 to 99.6)	-25.3 (-29.3 to -20.4)
7 Diabetes	2.6 (2.4 to 2.9)	7 Lung cancer	2.6 (2.3 to 2.8)	164.3 (143.6 to 183.8)	16.4 (7.4 to 24.9)
8 Hypertensive heart disease	2.3 (1.9 to 2.5)	8 Falls	2.6 (2.2 to 2.9)	166.4 (151.1 to 183.4)	6.4 (0.4 to 13.3)
9 Age-related hearing loss	2.0 (1.5 to 2.7)	9 Chronic kidney disease	2.5 (2.3 to 2.7)	196.0 (173.9 to 211.1)	21.6 (12.6 to 27.4)
10 Lung cancer	1.9 (1.8 to 2.0)	10 Age-related hearing loss	2.5 (1.9 to 3.3)	137.8 (132.0 to 143.9)	-2.2 (-4.3 to -0.2)
11 Falls	1.8 (1.6 to 2.1)	11 Hypertensive heart disease	2.4 (1.8 to 2.7)	106.0 (68.5 to 131.7)	-15.1 (-31.5 to -5.0)
12 Tuberculosis	1.8 (1.6 to 2.1)	12 Diarrhoeal diseases	1.9 (1.2 to 3.0)	15.1 (-16.8 to 65.3)	-51.0 (-64.9 to -30.4)
13 Low back pain	1.7 (1.2 to 2.3)	13 Low back pain	1.8 (1.3 to 2.4)	105.7 (100.2 to 111.4)	-12.5 (-13.8 to -11.3)
14 Chronic kidney disease	1.6 (1.5 to 1.8)	14 Colorectal cancer	1.7 (1.5 to 1.8)	126.9 (113.4 to 138.3)	-4.5 (-9.7 to 0.1)
15 Stomach cancer	1.6 (1.4 to 1.7)	15 Blindness and vision loss	1.7 (1.3 to 2.2)	124.7 (119.3 to 130.7)	-7.4 (-9.9 to -4.8)
16 Blindness and vision loss	1.4 (1.1 to 1.8)	16 Atrial fibrillation	1.3 (1.1 to 1.5)	148.6 (134.8 to 161.9)	-1.8 (-6.9 to 2.5)
17 Colorectal cancer	1.4 (1.3 to 1.5)	17 Stomach cancer	1.3 (1.1 to 1.4)	55.0 (43.8 to 66.6)	-32.9 (-37.5 to -28.0)
18 Asthma	1.2 (1.0 to 1.7)	18 Prostate cancer	1.1 (1.0 to 1.4)	117.0 (102.1 to 142.3)	-8.5 (-14.6 to 2.1)
19 Cirrhosis	1.2 (1.0 to 1.3)	19 Cirrhosis	1.1 (1.0 to 1.2)	82.3 (62.1 to 100.9)	-21.3 (-30.2 to -13.5)
20 Prostate cancer	1.0 (0.8 to 1.2)	20 Parkinson's disease	1.1 (1.0 to 1.2)	153.7 (138.7 to 166.6)	6.0 (0.0 to 11.1)
21 Atrial fibrillation	1.0 (0.8 to 1.2)	21 Osteoarthritis	1.1 (0.6 to 2.1)	139.5 (136.5 to 142.6)	0.8 (-0.4 to 2.1)
22 Osteoarthritis	0.9 (0.5 to 1.7)	22 Oral disorders	0.9 (0.6 to 1.3)	112.0 (106.4 to 117.6)	-10.9 (-12.9 to -8.8)
23 Oral disorders	0.8 (0.6 to 1.2)	23 Tuberculosis	0.9 (0.8 to 1.0)	-6.3 (-16.9 to 14.6)	-59.2 (-64.0 to -50.3)
24 Parkinson's disease	0.8 (0.8 to 0.9)	24 Asthma	0.8 (0.7 to 1.0)	25.2 (3.2 to 41.2)	-46.2 (-55.9 to -39.8)
25 Upper digestive diseases	0.8 (0.7 to 0.9)	25 Road injuries	0.8 (0.7 to 0.9)	110.0 (99.8 to 118.1)	-9.3 (-13.5 to -5.9)



# GLOBAL CANCER BURDEN: RISK FACTORS



**LANCET: Vol 406**  
**October 11, 2025**

VIEW CONTENT BY RISK FACTOR



Alcohol



Dietary exposures



Environmental  
exposures



Hormones



Infections



Obesity



Occupational  
exposures



Radiation



Tobacco

**Cancer deaths  
attributable to known  
risk factors :**

**41.7% (37.8–45.4)**

**Obesity 4-8%**

**Alcohol 4-5%**

JAMA Insights

**Alcohol and Cancer Risk**

Kenneth L. Morford, MD<sup>1,2</sup>; Jeanette M. Tetrault, MD<sup>1,2</sup>; Patrick G. O'Connor, MD, MPH<sup>1,2</sup>

» Author Affiliations | Article Information

Cite Permissions Metrics

JAMA

Published Online: August 6, 2025

2025;334(10):908-909.

doi:10.1001/jama.2025.11229

<https://pmc.ncbi.nlm.nih.gov/articles/PMC/9857052>

<https://jamanetwork.com/journals/jama/article-abstract/2837352>

GBD 2023 Cancer Collaborators. The global, regional, and national burden of cancer, 1990–2023, with forecasts to 2050: a systematic analysis for the Global Burden of Disease Study 2023. Lancet 2025; published online Sept 24. [https://doi.org/10.1016/S01406736\(25\)01635-6](https://doi.org/10.1016/S01406736(25)01635-6).

Janbazan Medical and Engineering Research Center (JMERC)





ABOUT

DATA SOURCES &amp; METHODS

ANALYSIS TOOLS

FUNDERS

HELP



PIE CHART



BAR CHART



MAP



TREEMAP CHART



SUNBURST CHART

Continent

The world

Anatomical site

All sites

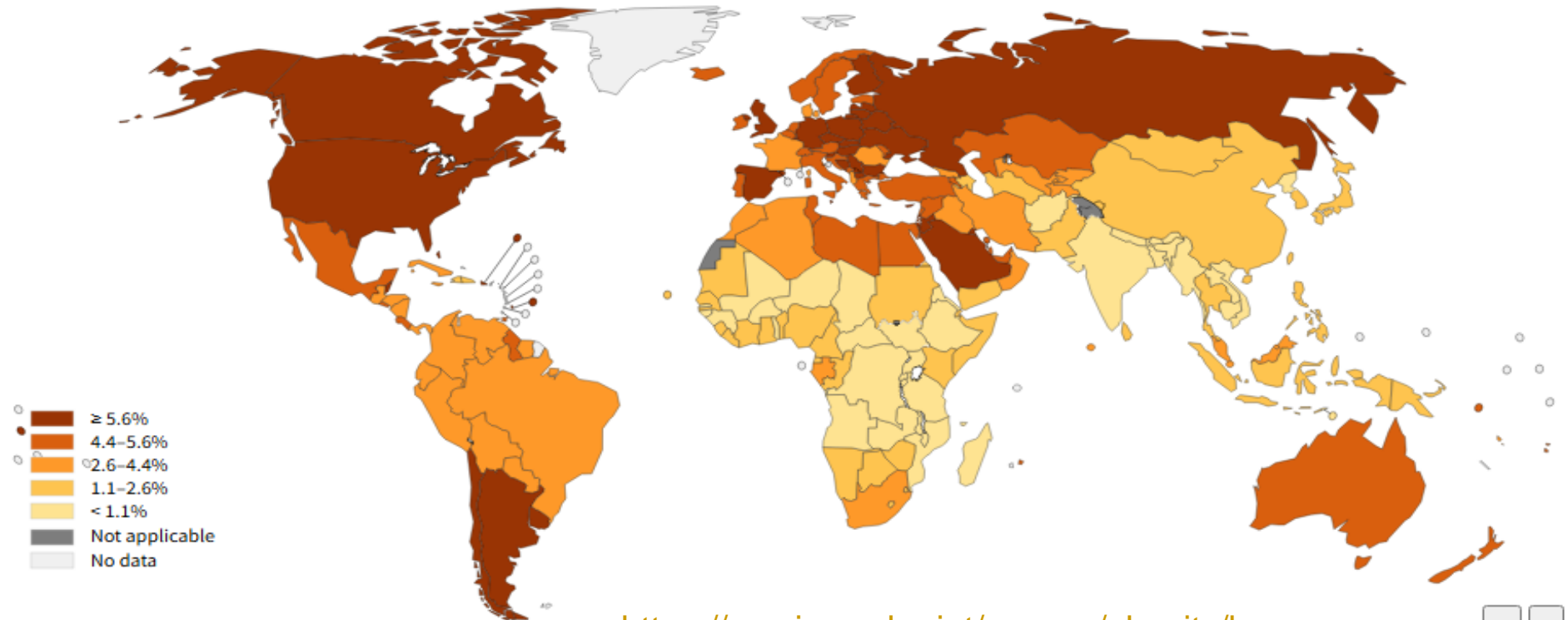
Sex

Both

Scenario

Attributable fraction

Fraction (%) of all cancer cases (at all anatomical sites) among both sexes (worldwide) in 2012 attributable to excess body mass index, by country





ABOUT

DATA SOURCES &amp; METHODS

ANALYSIS TOOLS

FUNDERS



PIE CHART



BAR CHART



MAP



TREEMAP CHART

Continent

Asia

Anatomical site

All sites

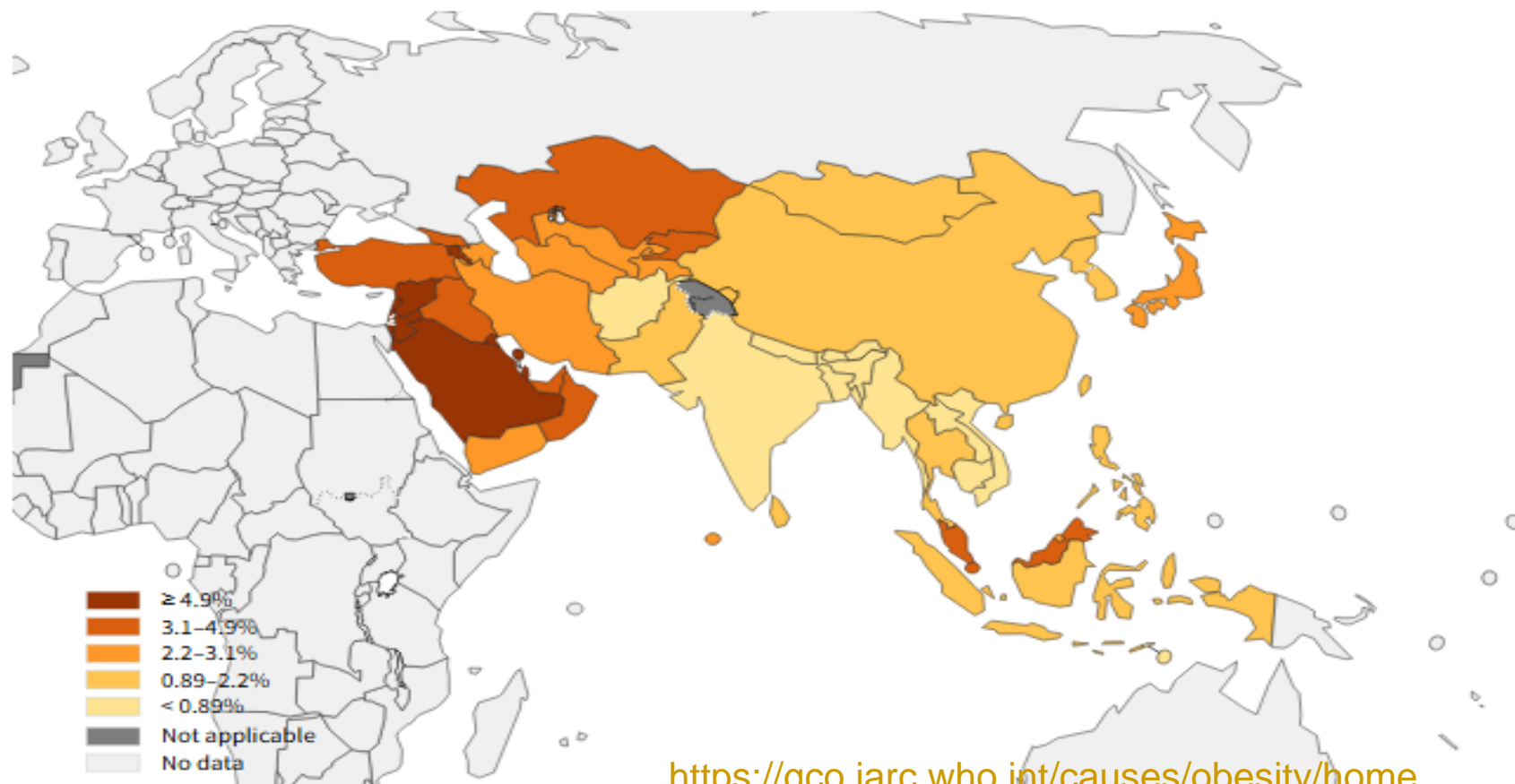
Sex

Both

Scenario

Attributable fraction

Fraction (%) of all cancer cases (at all anatomical sites) among both sexes in Asia in 2012 attributable to excess body mass index, by country



<https://gco.iarc.who.int/causes/obesity/home>

IARC





ABOUT

DATA SOURCES &amp; METHODS

ANALYSIS TOOLS

FUNDERS

HELP



PIE CHART



BAR CHART



MAP



TREEMAP CHART



SUNBURST CHART

Continent

The world ▼

Anatomical site

All sites ▼

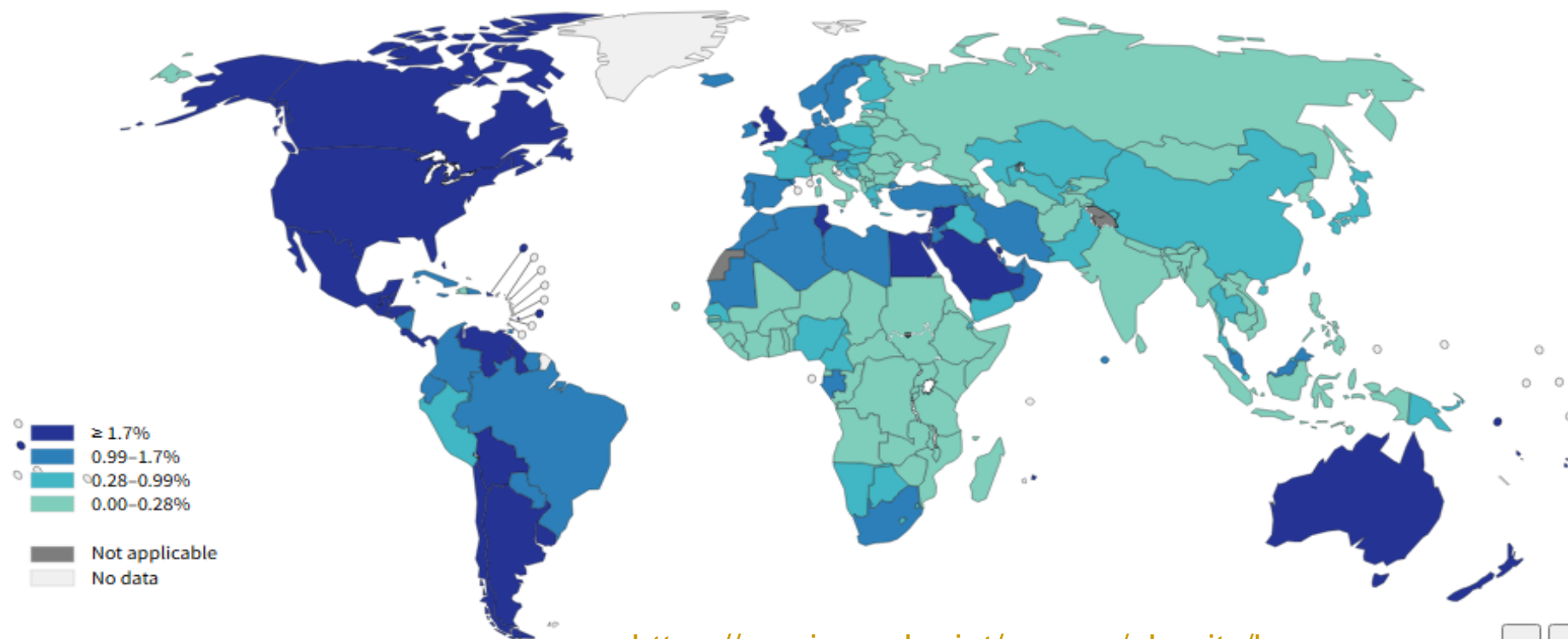
Sex

Both ▼

Scenario

Preventable fraction ▼

Fraction (%) of all cancer cases (at all anatomical sites) among both sexes (worldwide) in 2012 that could have been prevented if mean population-level body mass index values had remained constant since 1982, by country





ABOUT

DATA SOURCES &amp; METHODS

ANALYSIS TOOLS

FUNDERS

HELP



PIE CHART



BAR CHART



MAP



TREEMAP CHART



SUNBURST CHART

Continent

Asia

Anatomical site

Colon

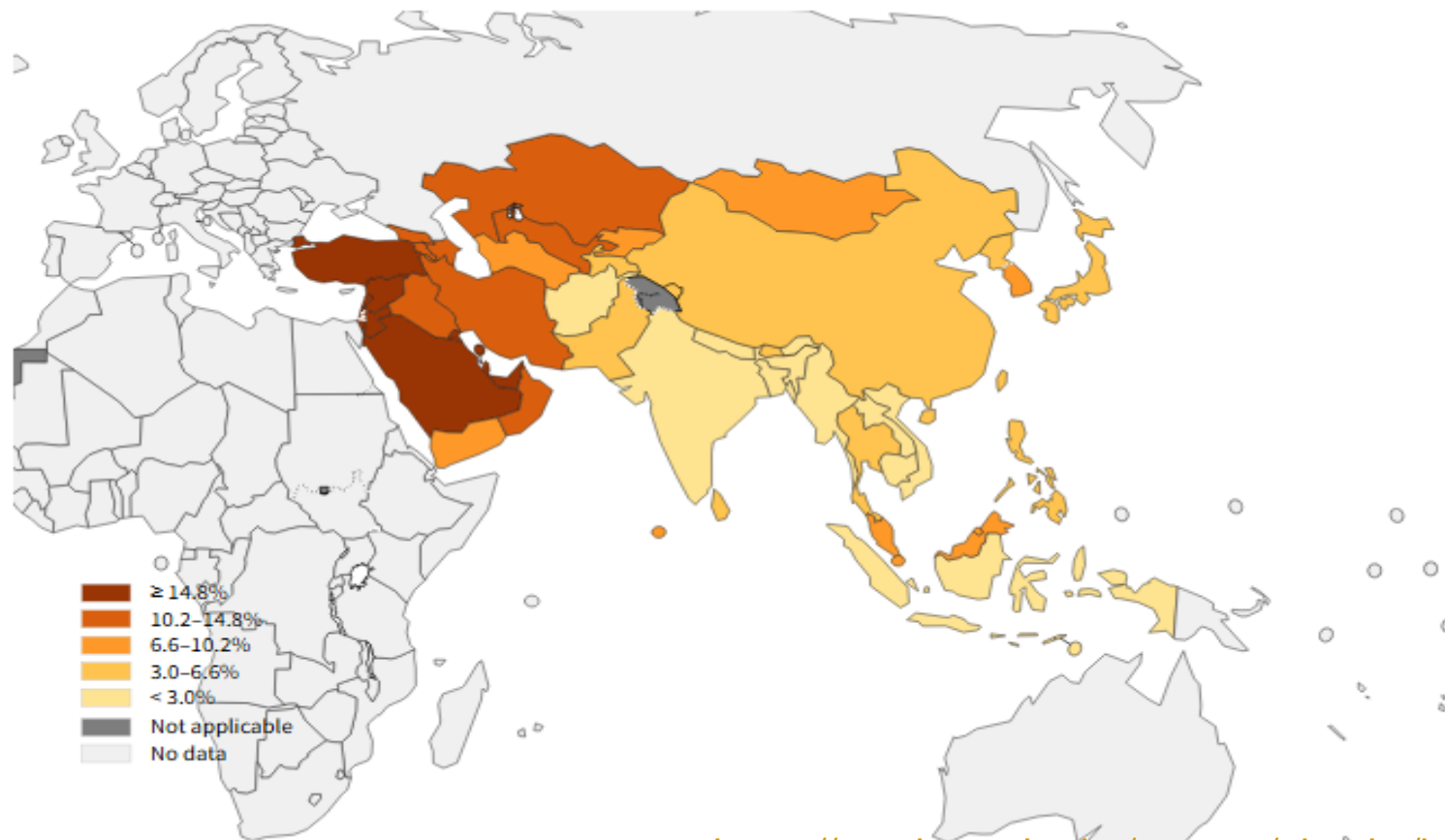
Sex

Both

Scenario

Attributable fraction

Fraction (%) of all colon cancer cases among both sexes in Asia in 2012 attributable to excess body mass index, by country







ABOUT

DATA SOURCES &amp; METHODS

ANALYSIS TOOLS

FUNDERS

HELP



PIE CHART



BAR CHART



MAP



TREEMAP CHART



SUNBURST CHART

Cancer cases (at all anatomical sites) among both sexes in 2012 attributable to excess body mass index, by region/continent

Anatomical site

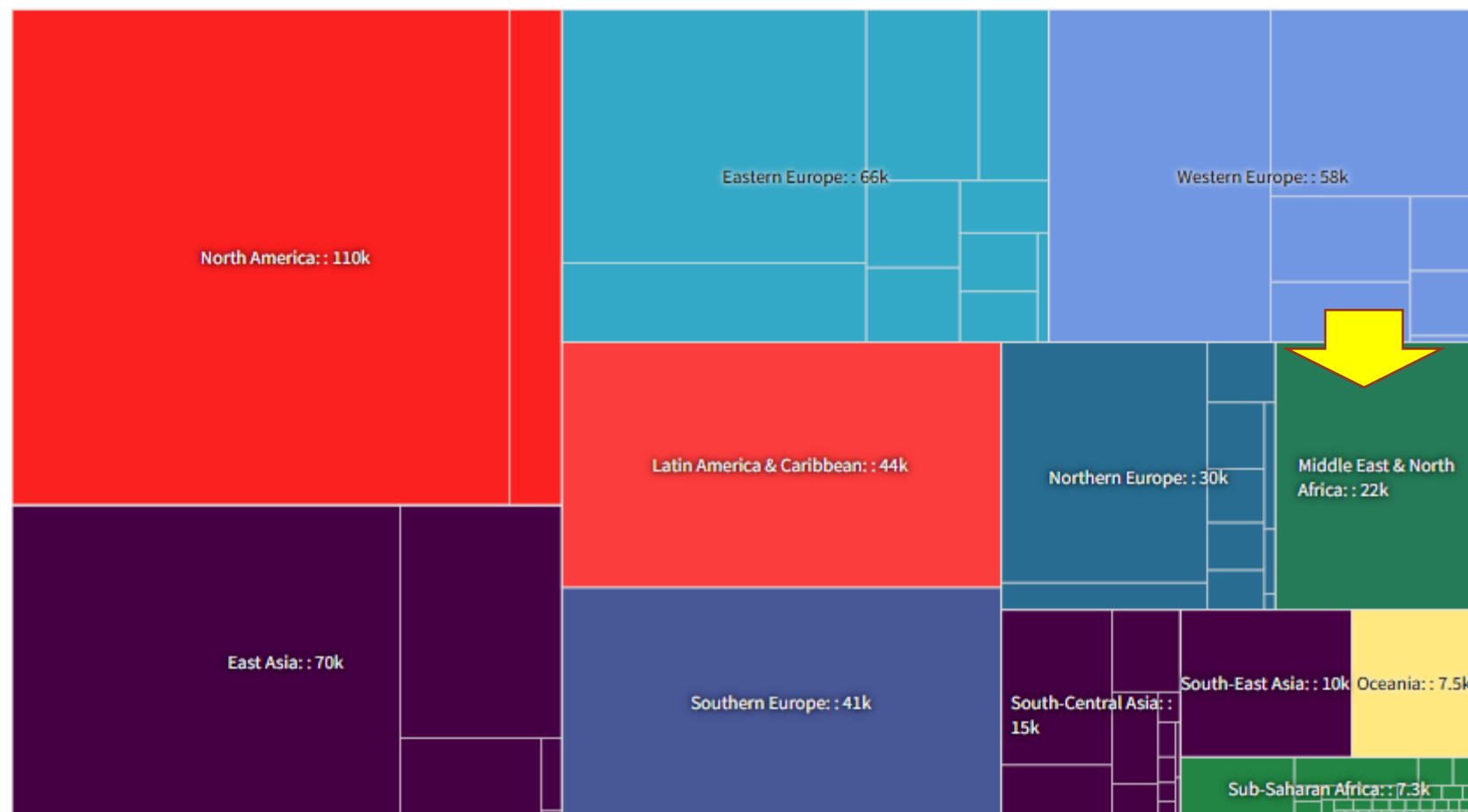
All sites

Sex

Both

Scenario

Attributable cases





ABOUT

DATA SOURCES &amp; METHODS

ANALYSIS TOOLS

FUNDERS

HELP



PIE CHART



BAR CHART



MAP



TREEMAP CHART



SUNBURST CHART

Anatomical site

All sites

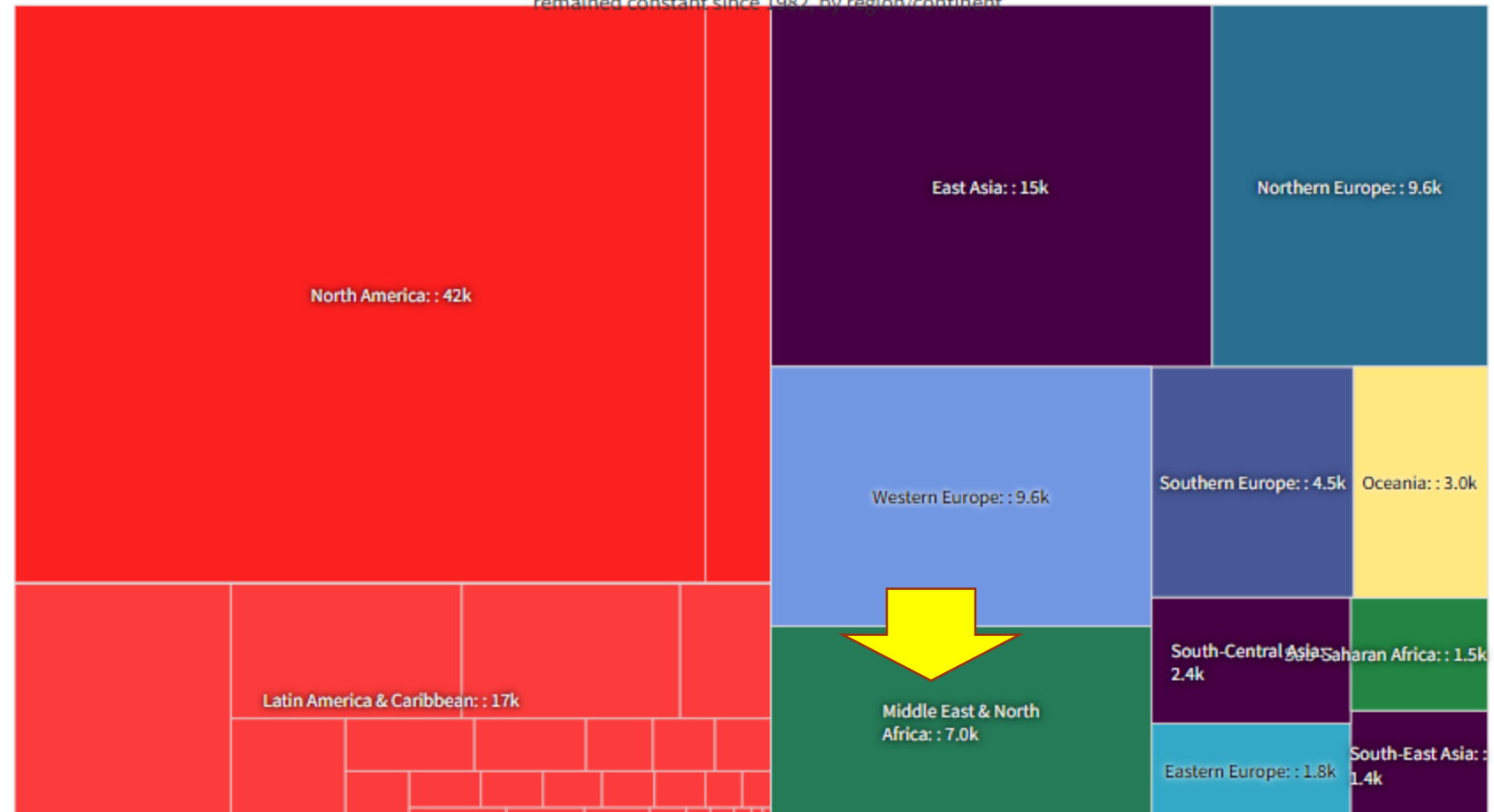
Sex

Both

Scenario

Preventable cases

Cancer cases (at all anatomical sites) among both sexes in 2012 that could have been prevented if mean population-level body mass index values had remained constant since 1982, by region/continent





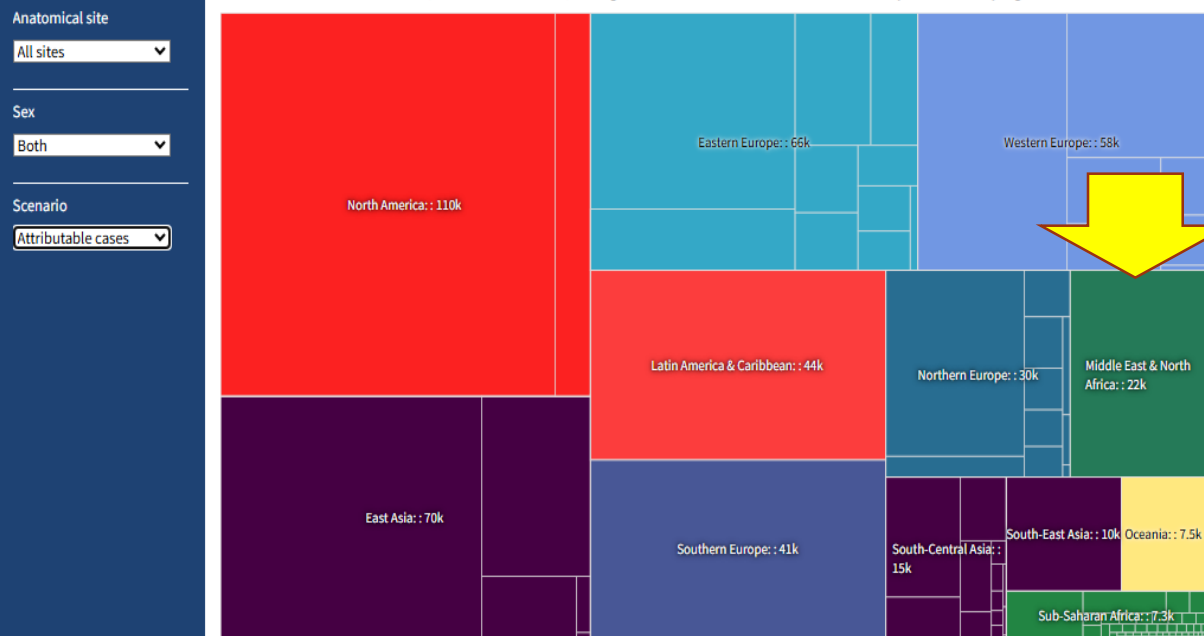
# CANCER ATTRIBUTABLE TO OBESITY



ABOUT DATA SOURCES & METHODS ANALYSIS TOOLS FUNDERS HELP

PIE CHART BAR CHART MAP TREEMAP CHART SUNBURST CHART

Cancer cases (at all anatomical sites) among both sexes in 2012 attributable to excess body mass index, by region/continent



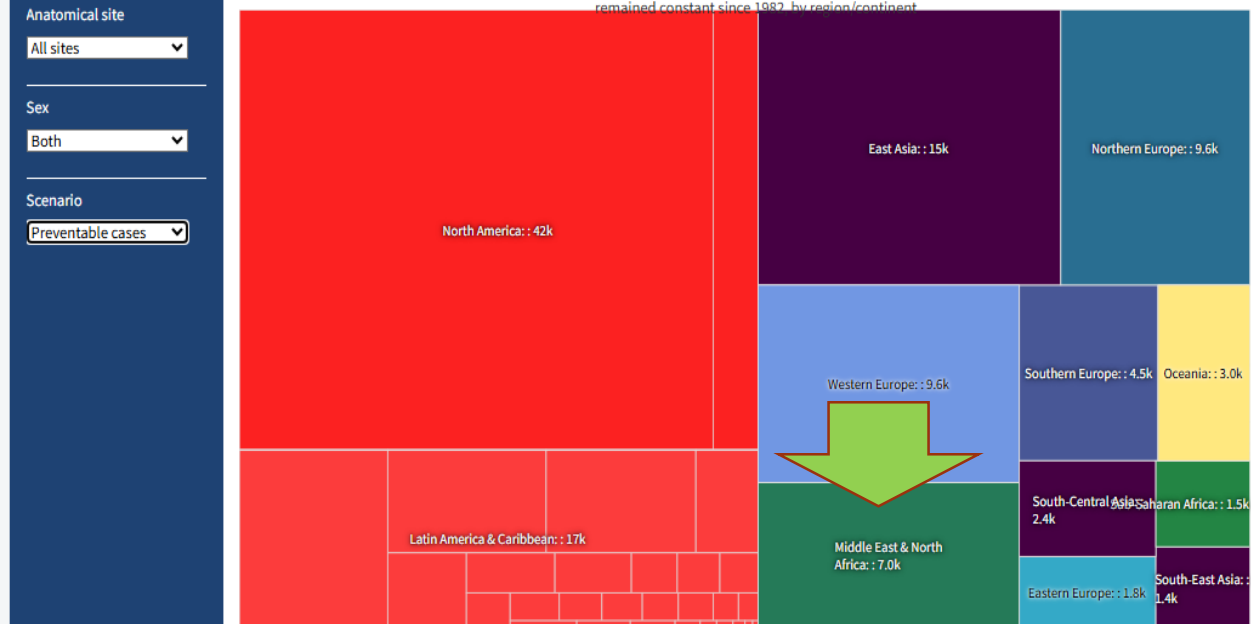
# CANCER ATTRIBUTABLE TO OBESITY



ABOUT DATA SOURCES & METHODS ANALYSIS TOOLS FUNDERS HELP

PIE CHART BAR CHART MAP TREEMAP CHART SUNBURST CHART

Cancer cases (at all anatomical sites) among both sexes in 2012 that could have been prevented if mean population-level body mass index values had remained constant since 1982, by region/continent





ABOUT

DATA SOURCES &amp; METHODS

ANALYSIS TOOLS

HELP

 PIE CHARTS BAR CHARTS MULTIBAR CHARTS MAPS SUNBURST CHARTS

Display by

Population attributable

Region

World

Cancer site

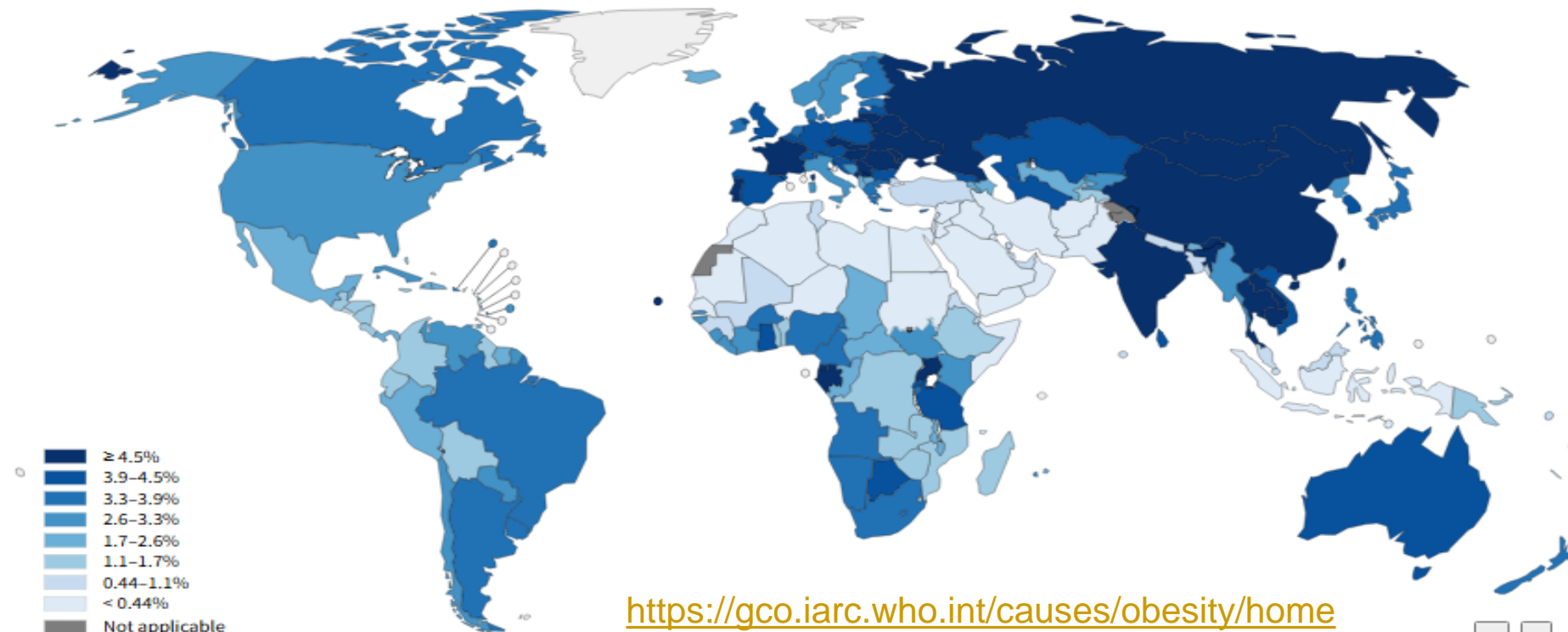
All cancers except non

Sex

Both sexes

Scale 

Ranked

Estimated PAF in 2020 attributable to alcohol drinking,  
both sexes<https://gco.iarc.who.int/causes/obesity/home>**PAF (World): 4.1%**

The boundaries and names shown and the designations used on this map do not imply the expression of any opinion whatsoever on the part of the World Health Organization concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. Dotted and dashed lines on maps represent approximate border lines for which there may not yet be full agreement.

Map production: IARC  
World Health OrganizationWorld Health  
Organization

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ABOUT

DATA SOURCES &amp; METHODS

ANALYSIS TOOLS

HELP

 PIE CHARTS BAR CHARTS MULTIBAR CHARTS MAPS SUNBURST CHARTS

Display by

Population attributable

Region

World

Cancer site

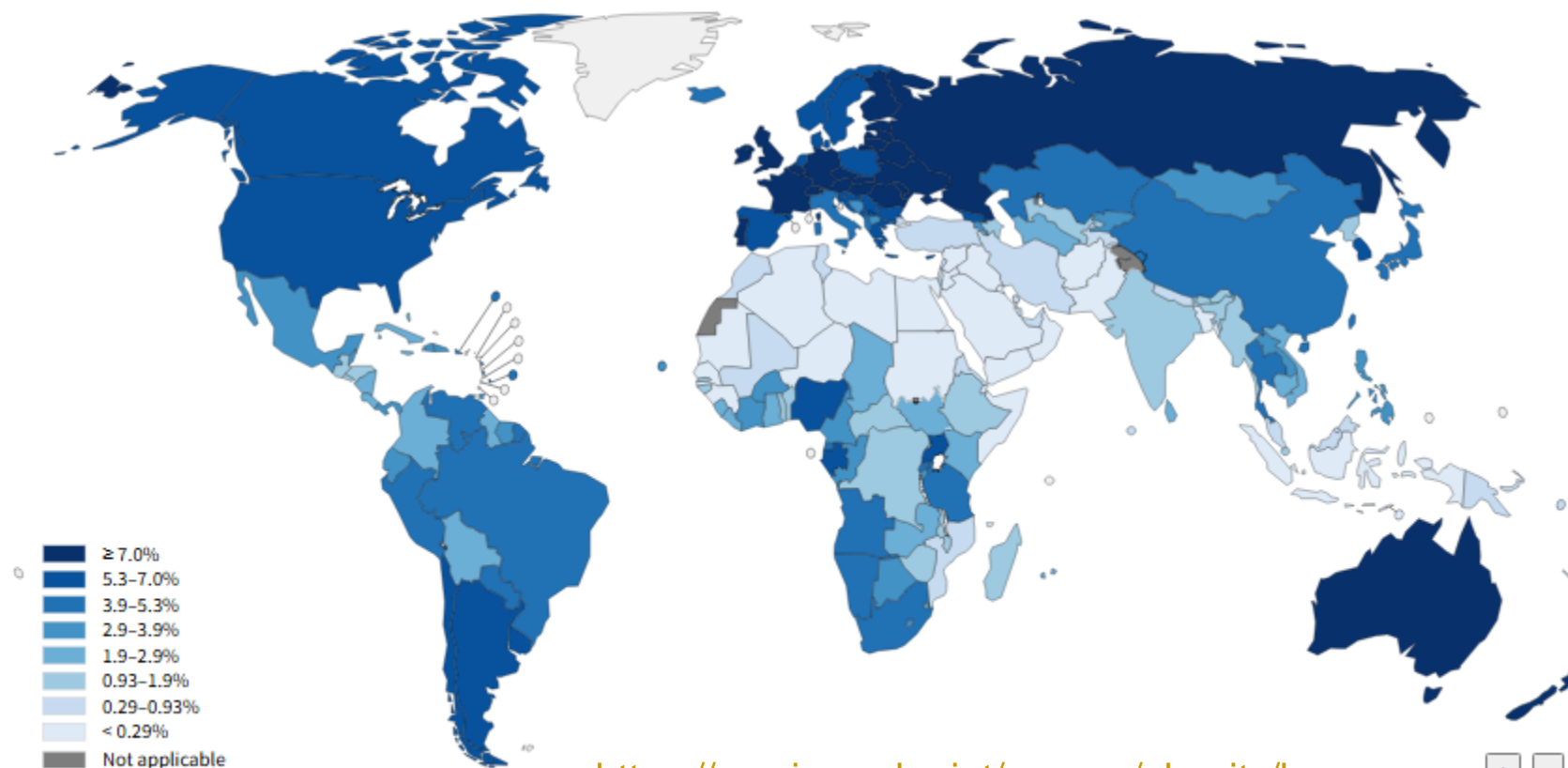
Breast

Sex

Both sexes

Scale 

Ranked

Estimated PAF in 2020 attributable to alcohol drinking,  
breast cancer, both sexes<https://gco.iarc.who.int/causes/obesity/home>

RC)








ABOUT

DATA SOURCES &amp; METHODS

ANALYSIS TOOLS

HELP

 PIE CHARTS BAR CHARTS MULTIBAR CHARTS MAPS SUNBURST CHARTS

Display by

Population attributab ▾

Region


World ▾

Cancer site

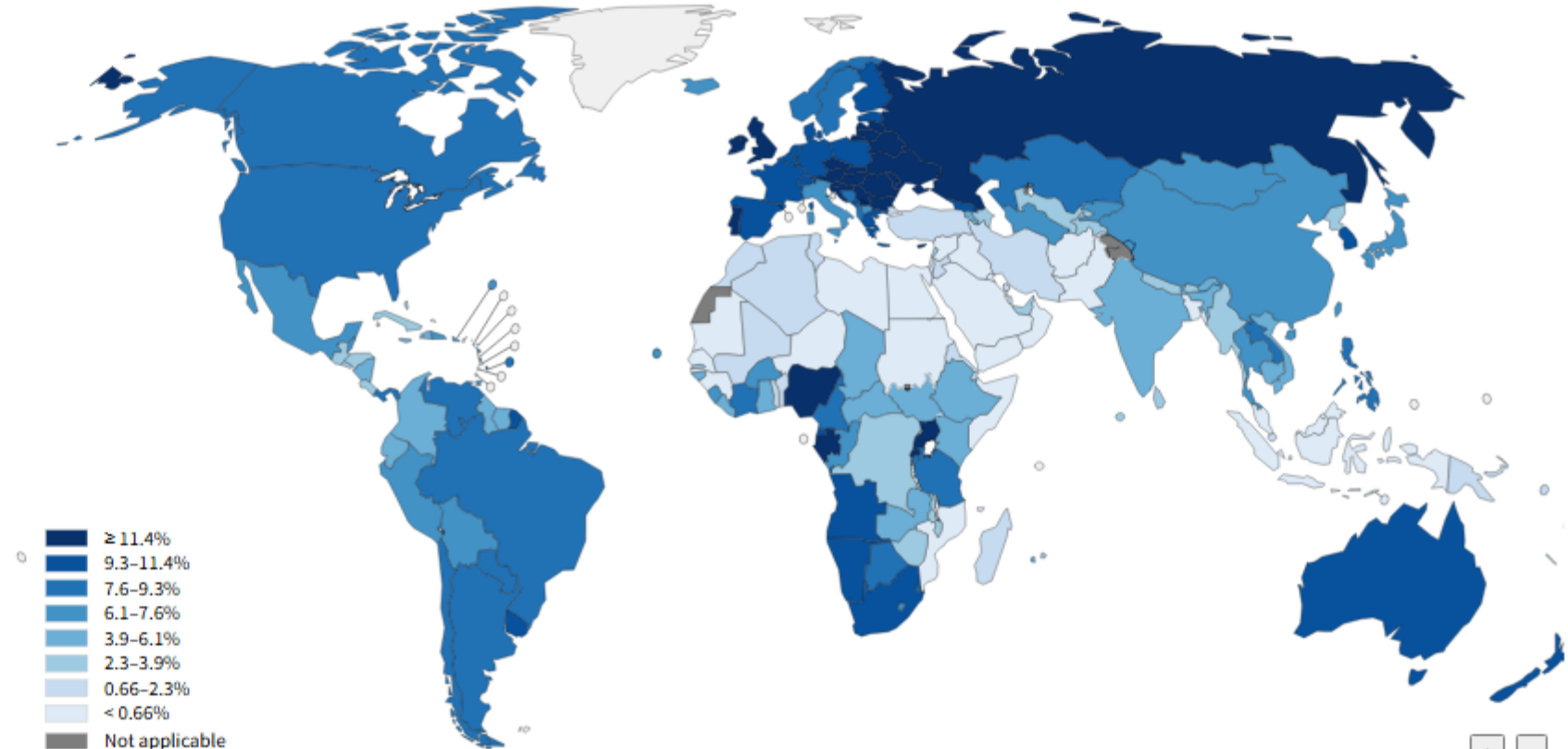
Colon ▾

Sex

Both sexes ▾

Scale 

Ranked ▾

Estimated PAF in 2020 attributable to alcohol drinking,  
colon cancer, both sexes

(C)





ABOUT

DATA SOURCES &amp; METHODS

ANALYSIS TOOLS

HELP

 PIE CHARTS BAR CHARTS MULTIBAR CHARTS MAPS SUNBURST CHARTS

Display by

Population attributable

Region


World

Cancer site

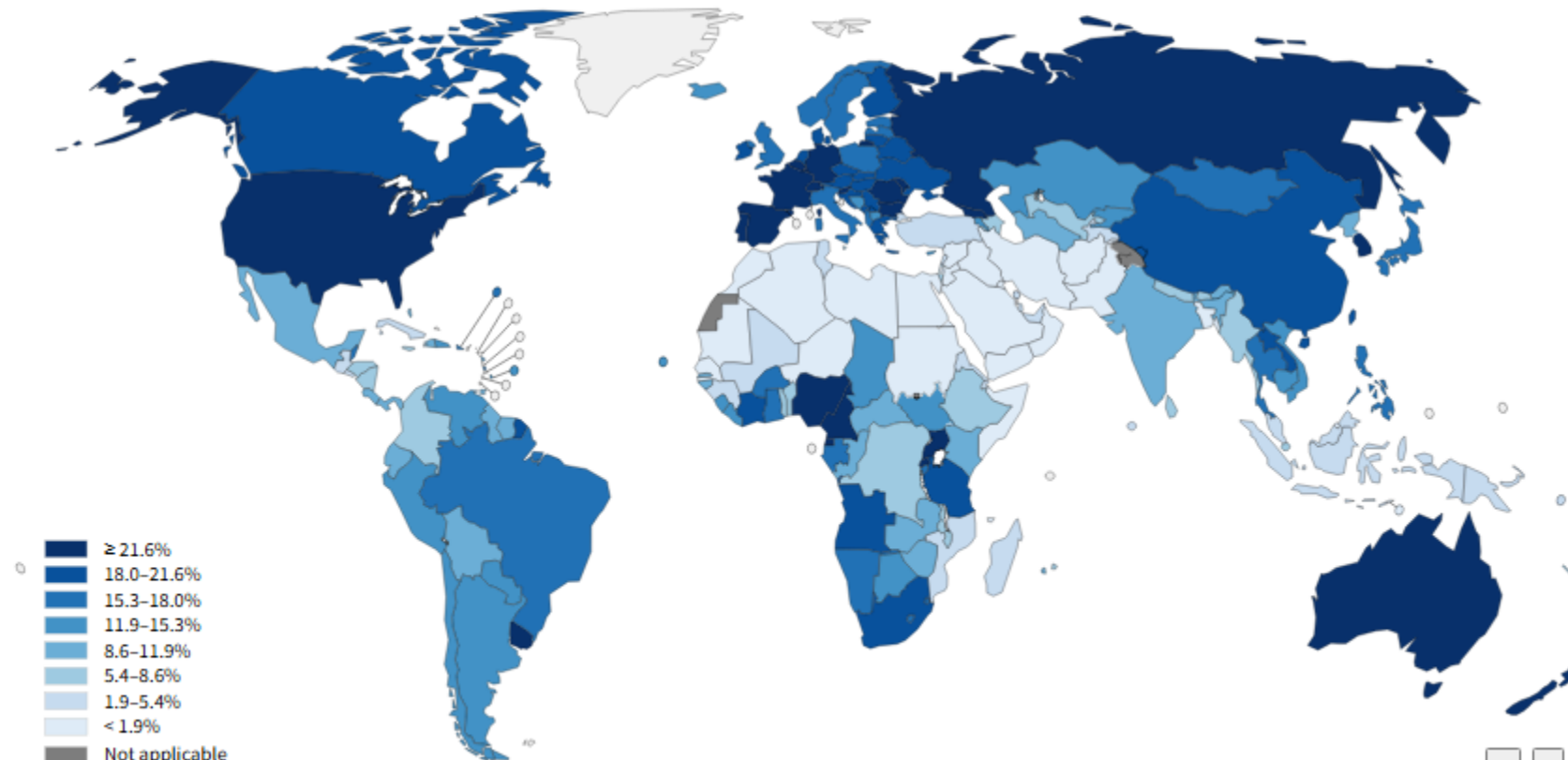
Liver

Sex

Both sexes

Scale 

Ranked

Estimated PAF in 2020 attributable to alcohol drinking,  
liver cancer, both sexes



## Achievement or Challenge?

- **Mean age: 32 yrs**

- **Elderly rate:**

- ❖ **2016: 9/5%                      2024: 11%**

- ❖ **Estimation:                      2030: 15%**

- **Estimation:                      2050: 30%**

**1410:15%**

**1430: 30%**

**In 25yrs**

**سونامی سالمندی**

Letter to the Editor

## The Growth of Aging Population in Iran: An Achievement or a Challenge?

Bakhtiar Pirooz, Amjad Mohamadi-Bolbanabad & Azad Shokri

Pages 711-714 | Published online: 10 Apr 2024

“ Cite this article    <https://doi.org/10.1080/01634372.2024.2340725>





## MASSAGE TO TAKE HOME

# بحران سالمندی و ایران

## ورود به آستانه سالمندی قبل از توسعه یافتگی

حقوق بازنشستگی، بازدهی صندوق ها پایین، ناتوانی بیمه، افزایش تورم، قادر نبودن  
فرزندان به پرستاری/کمک و به تامین هزینه های اضافه والدین





# آینده پژوهی ساختار جمعیتی در ایثارگران (جانباز/شاهد) 2024

3 میلیون کل و 1 میلیون شاهد و جانباز

➤ در حال حاضر: 25.5٪ جمعیت سالمند:



چالش جدی ۶۰-۶۹ ساله ها

+ ۷۰ سال حدود ۱۵٪

70.8٪ جمعیت سالمند:

(n=595,172)

➤ سال ۱۴۱۰



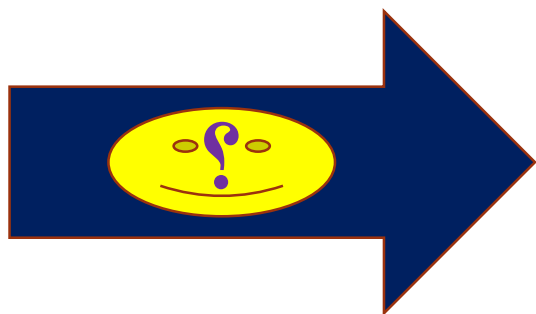
چالش جدی ۷۰ سال و بالاتر

+ ۷۰ سال حدود ۶۵٪

81.5٪ جمعیت سالمند:

(n=580,365)

➤ سال ۱۴۲۰



زنگ خطر "چالش فرصت یا بحران":

آمادگی برای مواجهه این شیفت جمعیتی چقدر است؟  
آیا زیرساخت های لازم برای ارائه خدمات مهیا است؟





# GLOBAL CANCER BURDEN: PROGRESS, PROJECTIONS & CHALLENGES

LANCET: Vol 406 October 11, 2025

**Future of cancer control depends on decisive, collective action today**

- Cancer remains a **major public health challenge**
- **Prevention** is the most significant public health **challenges** of the 21st century.
- Prevention play **critical role** in the fight against cancer
- **40%** of all cancer **prevented** with effective **primary prevention** measures
- **Mortality** can be reduced through **early detection** of cancers
- **Goals achievement**

Governments prioritize funding, strengthen health systems, reduce inequalities, and invest in robust cancer control initiatives and research on prevention, intervention, and implementation

THE LANCET

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COMMENT · Volume 406, Issue 10512, P1536-1537, October 11, 2025

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Global cancer burden: progress, projections, and challenges

Qingwei Luo · David P Smith

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Estimates of cancer burden and comprehensive analyses of cancer trends, risk factors, and future





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**Mousavi.b@gmail.com**

