

Obesity, Bariatric Surgery and Cancer

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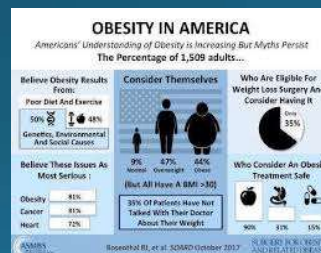


ASMBS /NORC Survey



Obesity in America

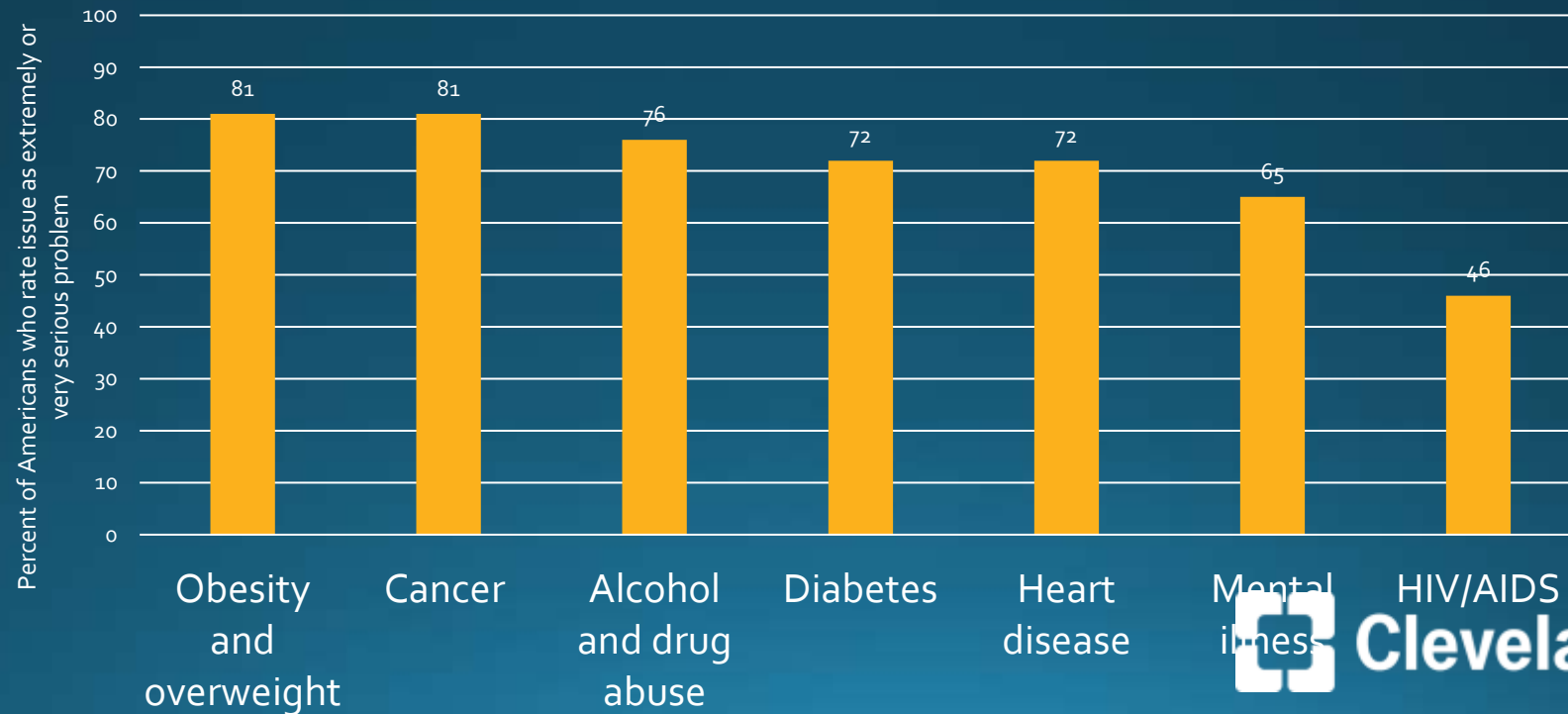
Partner with National Opinion Research Center
NORC at the University of Chicago.





Growing Awareness of Risks of Obesity Itself

- **86% view obesity as a very high risk** to a person's overall health
- **Obesity and cancer tie** as the top 2 most often cited serious health





Epidemiology

- **640 million** affected by the obesity disease worldwide
- Increases risk of **> 13 types of cancer**
- **USA, Europe, Middle East**

Moore et al. JNCI J Natl Cancer Inst (2018) 110(6): djx244





Epidemiology. Obesity in America

- The US obesity prevalence was 41.9% in 2017.
- From 1999 –2000 through 2017 –March 2020, US obesity prevalence increased from 30.5% to 41.9%.
- During the same time, the prevalence of severe obesity increased from 4.7% to 9.2%.
- The estimated annual medical cost of obesity in the United States was nearly \$173 billion in 2019 dollars.
- By 2030, 51% of US population will be considered Obese (CDC,2018).

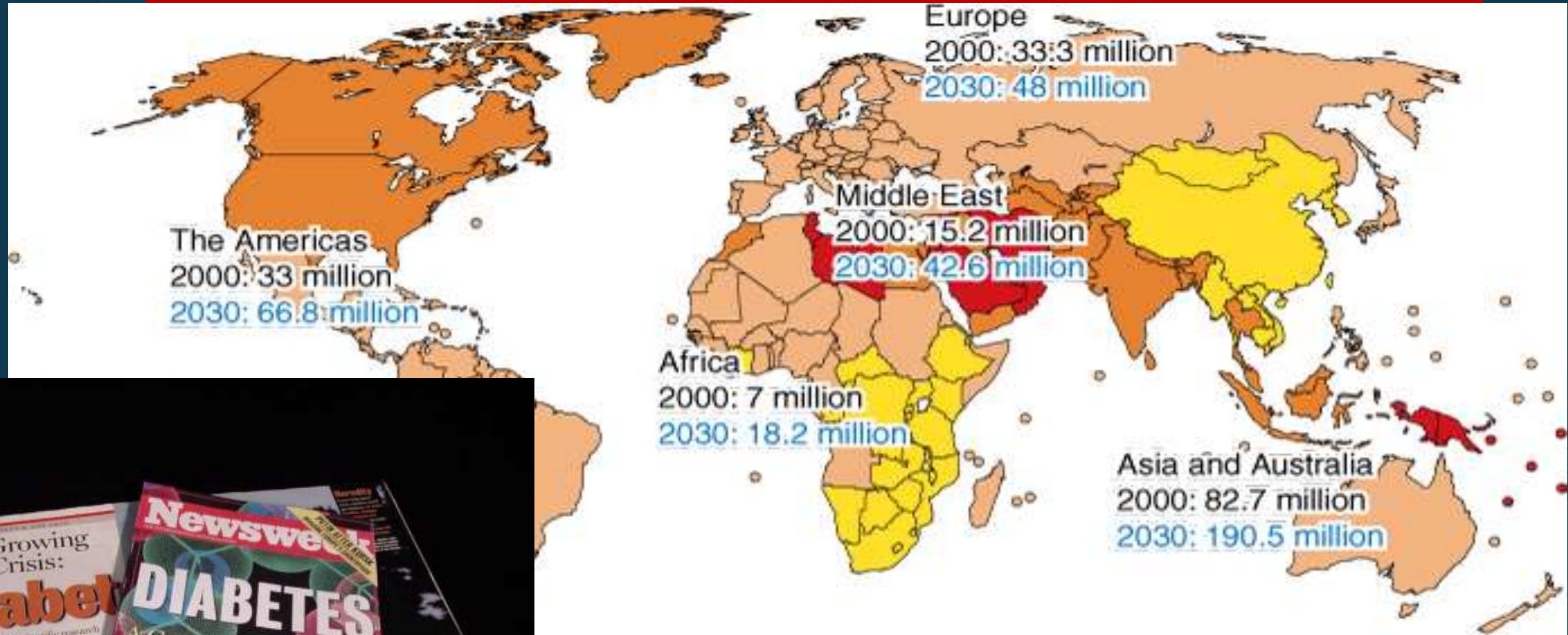


Epidemiology. Obesity in America

- According to the CDC, the prevalence of obesity is **highest among African-Americans adults (48.1%)**, followed by Hispanics (42.5%), and then whites (34.5%).
- **Overweight- and obesity-related cancer incidence rates are higher among older persons (ages ≥ 50 years) than younger persons; higher among females than males;** and higher among non-Hispanic black and non-Hispanic white adults compared with other groups.

(CDC, 2018).

Worldwide Prevalence of DM

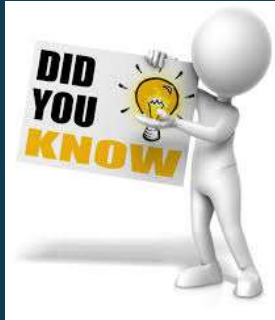


Prevalence of diabetes (%) in persons 35-64 years



○ = number of people with diabetes in 2000
○ = number of people with diabetes in 2030

Adapted from S Wilde et al: Diabetes Care 27 : 1047, 2004



2014 study observed a **200% increased risk of cancer** among adults with **overweight and elevated blood glucose**, compared with a **50% increased risk among adults with overweight and normal glucose**.

Moore LL, Chadid S, Singer MR, Kreger BE, Denis GV. Metabolic health reduces risk of obesity-related cancer in Framingham study adults. *Cancer Epidemiol Biomarkers Prev* 2014;23:2057-2065.



Centers for Disease Control and Prevention

MMWR

Morbidity and Mortality Weekly Report

Early Release / Vol. 66

October 3, 2017

Vital Signs: Trends in Incidence of Cancers Associated with Overweight and Obesity — United States, 2005–2014

C. Brooke Steele, DO¹; Cheryll C. Thomas, MSPH¹; S. Jane Henley, MSPH¹; Greta M. Massetti, PhD¹; Deborah A. Galuska, PhD²; Tanya Agurs-Collins, PhD³; Mary Puckett, PhD¹; Lisa C. Richardson, MD¹



Methods

New cancer cases diagnosed during **2005–2014** from registries affiliated with **NPCR** and **SEER** programs in each state and DC.

Only cases of **invasive cancer** were Included.

Cancer site was classified by **anatomic site** and **histology**.

Trends with and without colorectal cancer were analyzed.

Cancer site	%	2005	2014	2005–2014		% Increase in risk for cancer per 1 kg/m ² increase in BMI [¶]
		Rate [†] (95% CI)	Rate [†] (95% CI)	% Change in rates	Average annual percent change in rates [§]	
Breast (in postmenopausal women)	31	90.5 (90.1–91.0)	92.6 (92.2–93.0)	2	0.2	2
Colon and rectum	22	49.7 (49.4–49.9)	38.4 (38.2–38.6)	-23	-2.9 [§]	2
Male		58.1 (57.7–58.5)	44.1 (43.7–44.4)	-24	-3.1 [§]	
Female		43.1 (42.8–43.4)	33.7 (33.4–34.0)	-22	-2.8 [§]	
Kidney (renal cell)	9	14.4 (14.2–14.5)	15.4 (15.2–15.5)	7	0.7 [§]	5
Male		19.5 (19.3–19.7)	20.9 (20.7–21.1)	7	0.7 [§]	
Female		10.2 (10.0–10.3)	10.6 (10.4–10.7)	4	0.4	
Endometrium (corpus uterus) (female only)	8	23.9 (23.7–24.1)	26.5 (26.3–26.8)	11	1.1 [§]	8
Thyroid	8	10.3 (10.2–10.4)	14.4 (14.3–14.6)	40	4.0 [§]	1
Male		5.3 (5.1–5.4)	7.4 (7.2–7.5)	40	4.0 [§]	
Female		15.2 (15.0–15.4)	21.3 (21.1–21.5)	40	4.0 [§]	
Pancreas	7	11.7 (11.6–11.9)	12.6 (12.5–12.7)	7	0.8 [§]	2
Male		13.3 (13.1–13.5)	14.4 (14.2–14.5)	8	0.8 [§]	
Female		10.5 (10.3–10.6)	11.1 (10.9–11.2)	6	0.7 [§]	
Multiple myeloma	4	5.6 (5.5–5.7)	6.0 (6.0–6.1)	8	1.1	2
Male		6.9 (6.7–7.0)	7.5 (7.3–7.6)	9	1.2 [§]	
Female		4.6 (4.5–4.8)	4.9 (4.8–5.0)	6	1.1 [§]	
Liver	4	5.5 (5.4–5.6)	7.0 (7.0–7.1)	29	2.9 [§]	5
Male		8.8 (8.6–8.9)	11.2 (11.0–11.3)	28	2.9 [§]	
Female		2.7 (2.6–2.8)	3.4 (3.3–3.5)	26	2.5 [§]	
Ovary (female only)	3	13.1 (12.9–13.2)	11.0 (10.8–11.2)	-16	-2.0 [§]	1
Adenocarcinoma of the esophagus	2	2.9 (2.8–2.9)	2.9 (2.8–2.9)	-1	-0.5	9
Male		5.5 (5.4–5.7)	5.4 (5.2–5.5)	-3	-0.7 [§]	
Female		0.8 (0.7–0.8)	0.8 (0.7–0.8)	2	-0.4	
Gastric cardia	1	1.9 (1.9–2.0)	2.1 (2.0–2.1)	8	1.2 [§]	4
Male		3.4 (3.3–3.5)	3.6 (3.5–3.7)	7	1.1 [§]	
Female		0.8 (0.7–0.8)	0.8 (0.8–0.9)	6	0.8 [§]	
Gallbladder	1	1.1 (1.1–1.2)	1.1 (1.1–1.2)	-1	-0.1	5
Male		0.8 (0.7–0.8)	0.8 (0.8–0.8)	3	0.1	
Female		1.4 (1.4–1.5)	1.4 (1.3–1.5)	-1	-0.1	
Meningioma	<1	0.1 (0.1–0.2)	0.1 (0.1–0.1)	-29	-3.8 [§]	4
Male		0.1 (0.1–0.1)	0.1 (0.1–0.1)	-17	-2.7 [§]	
Female		0.2 (0.1–0.2)	0.1 (0.1–0.1)	-35	-4.0 [§]	
All overweight- and obesity-related cancers	—	173 (173–174)	170 (169–170)	-2	-0.3 [§]	—
All overweight- and obesity-related cancers except colorectal cancer	—	123 (123–124)	132 (131–132)	7	0.8 [§]	—
Cancers not related to overweight and obesity	—	306 (305–306)	267 (267–268)	-13	-1.4 [§]	—

Steele, C. B. et al. Vital Signs : Trends in Incidence of Cancers Associated with Overweight and Obesity — United States, 2005–2014. MMWR. Morbidity and Mortality Weekly Report 66, 1052–1058 (2017).





Conclusions

Overweight- and obesity-related cancers accounted for **40% of all cancers** diagnosed in 2014.

About **55%** of cancers diagnosed in women and **24%** of those diagnosed in men are overweight and obesity related cancers.

Endometrial, ovarian, and postmenopausal female breast cancers accounted for **42%** of new cases of overweight-and obesity-related cancers in 2014



What are we thinking of ??



What are we waiting For ??



Similar scenarios ??????

A call to Action

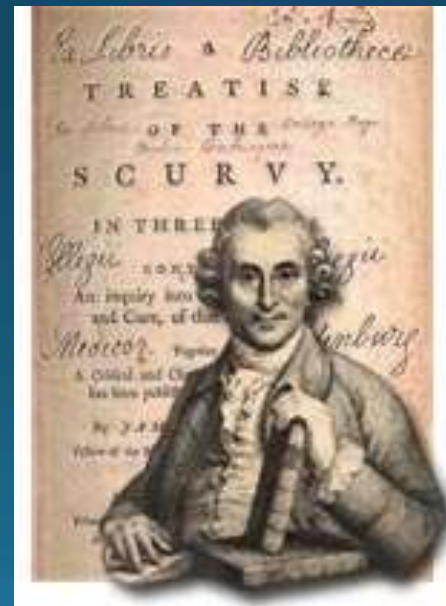


- From the **16th to 19th Century Scurvy** killed more than **2 million sailors**. More than warfare, shipwreck, syphilis combined.
- Most horrifying was that for **300 years medical experts knew** how to **prevent it but did nothing about it**.
- In the **1600** captains **started to distribute lemons and oranges to the sailors**, but the British Army stopped that practice because it was too expensive.





- In **1747 James Lind MD** conducted an experiment and gave some sailors citrus and others vinegar.
- **The ones taking citrus survived and were disease free** and took care of the ones taking vinegar.





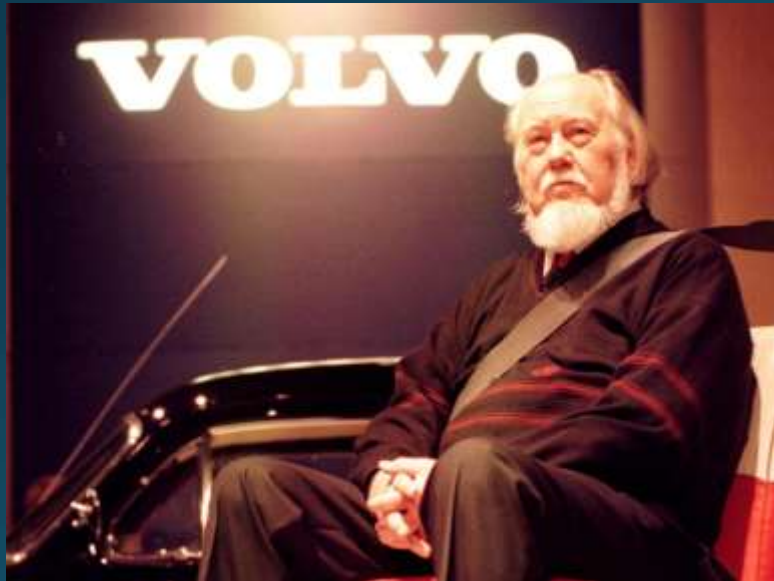
Asbestos exposure ?

- First death recorded in **1906**
- Chemical was **banned in 1976** (70 years later)





Seat belts invented long before 1960's when they became mandatory.

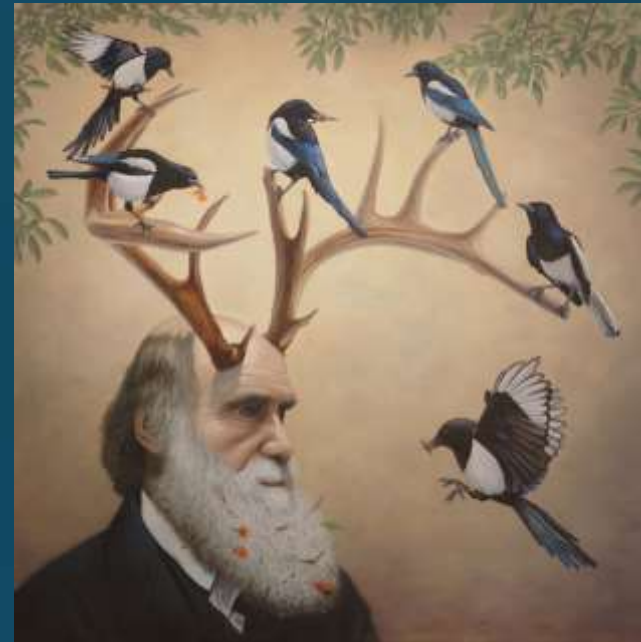
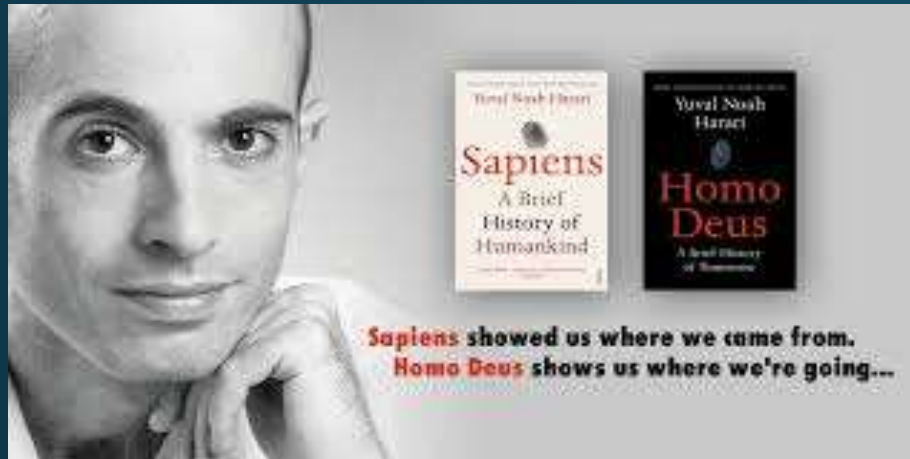


1959

Nihls Bohlin



1968



Adaptation

- ✓ Natural Selection
- ✓ Intelligent Design
- ✓ Develop bodies , brains and minds
- ✓ Cyborgs



Bariatric, Metabolic and Oncologic Surgery





News > Medscape Medical News > Conference News > American Medical Association (AMA) 2013 Annual Meeting

AMA Declares Obesity a Disease

Marcia Frellick
June 19, 2013



CHICAGO — Physicians voted overwhelmingly to label obesity as a disease that requires a range of interventions to advance treatment and prevention.

H-440.842

Public Health

Recognition of Obesity as a Disease H-440.842

Topic: Public Health
Meeting Type: Annual
Action: NA
Council & Committees:

Policy Subtopic: NA
Year Last Modified: 2013
Type: Health Policies

AMA Declares Obesity a Disease

The AMA now recognizes obesity as a disease.

By LIZ NEPORENT

American Medical Association / Founded

May 7, 1847

People also search for



American
College of
Physicians



American
Hospital
Association



Accreditation
Council for
Grad...

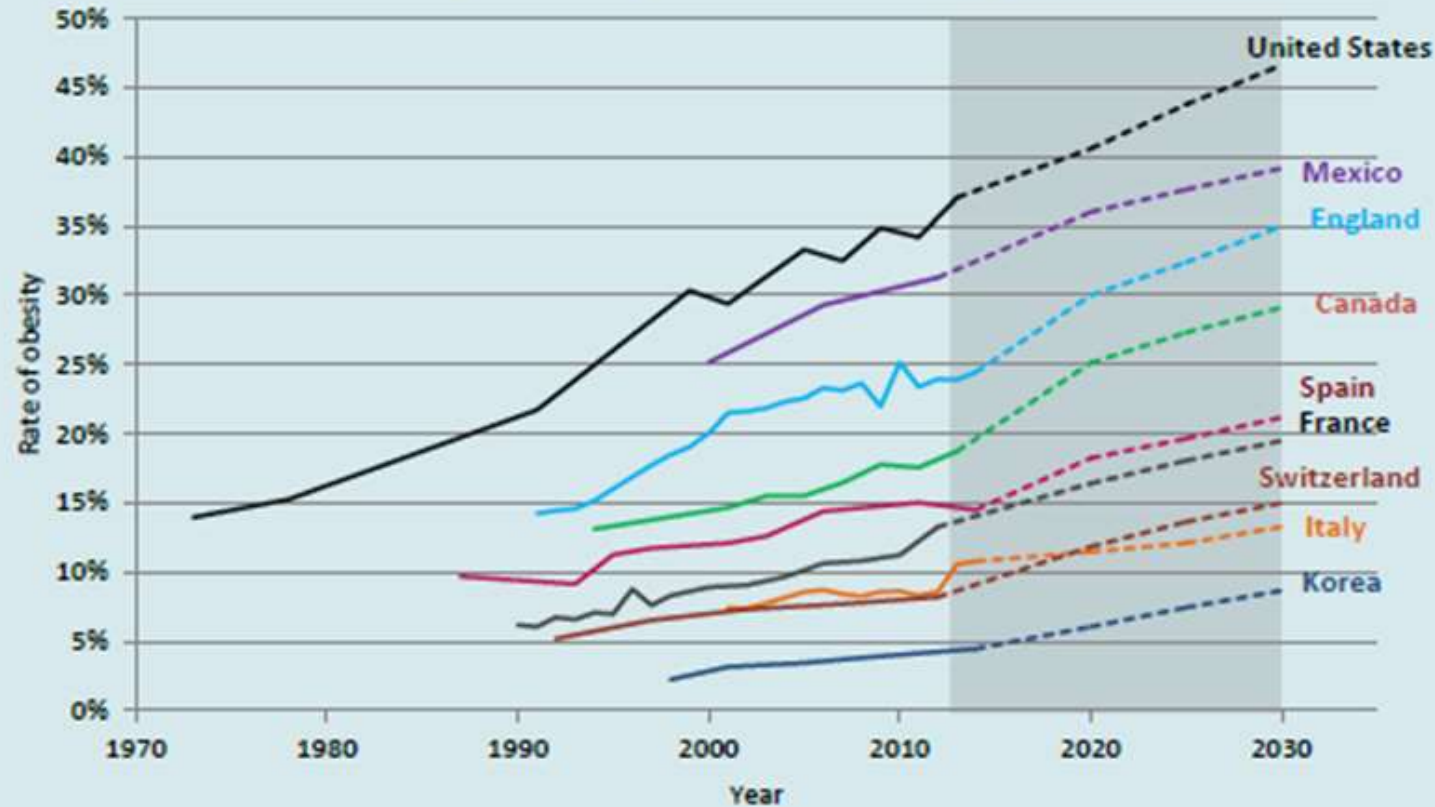


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Bariatric, Metabolic and Oncologic Surgery



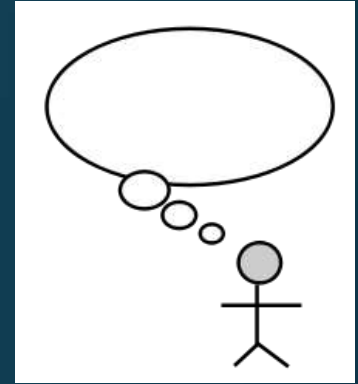
Figure 5: Projected rates of obesity



Note: Obesity defined as Body Mass Index (BMI) $\geq 30\text{kg/m}^2$. OECD projections assume that BMI will continue to rise as a linear function of time.
Source: OECD analysis of national health survey data.



Final Thoughts

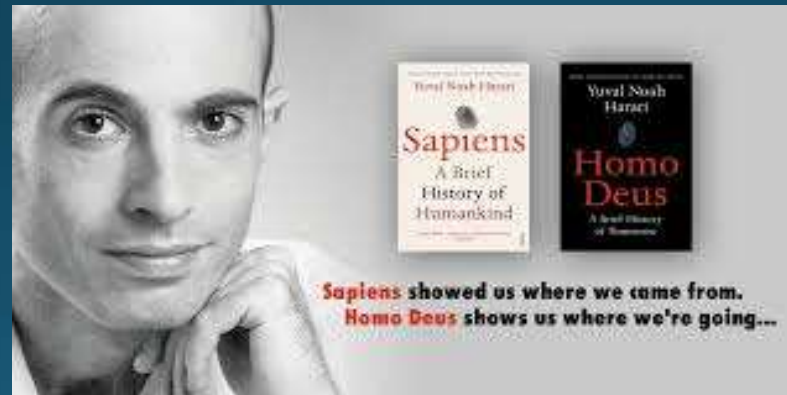


- More people are dying from Old Age than Disease
- More people are dying from Suicide than Violence
- **More people are dying from Obesity than Starvation**

Deaths from obesity: global burden of disease, injuries and risk factors study 2013, Lancet 18 (2014).
Global Health Observatory Data Repository 2012, World Health Organization./http://app-s.who.int/gho/data
Noah Yuval Harari in Homo Deus. A Brief History of Tomorrow. Harper Collins Publishers

“While humanity has been able to overcome famine, plague and wars, Obesity has become a pandemic and it is out of control and continues to spread”

“In 2022 Sugar is far more dangerous and life threatening than Gun Powder ”



“ We are our own worst enemies ”



“ The World Health Organization describes obesity as one of today’s most blatantly visible yet most neglected public health problems “

World Health Organization (WHO). Obesity: preventing and managing the global epidemic. Report of a WHO consultation. World Health Organ Tech Rep Ser 245 [Internet] 2000;894:i–xii, 1-253. Available from: <http://www.ncbi.nlm.nih.gov/pubmed/11234459>



Every life deserves world class care.