WORLD FARMERS' ORGANISATION
SCIENTIFIC COUNCIL

IMS Debriefing Meeting

Frederic Leroy; Peer Ederer

15 July 2021

Disclaimer

We are not nutritionists

We can read English

PURE

"We did not find significant associations between unprocessed red meat and poultry intake and mortality or major cardio-vascular disease."

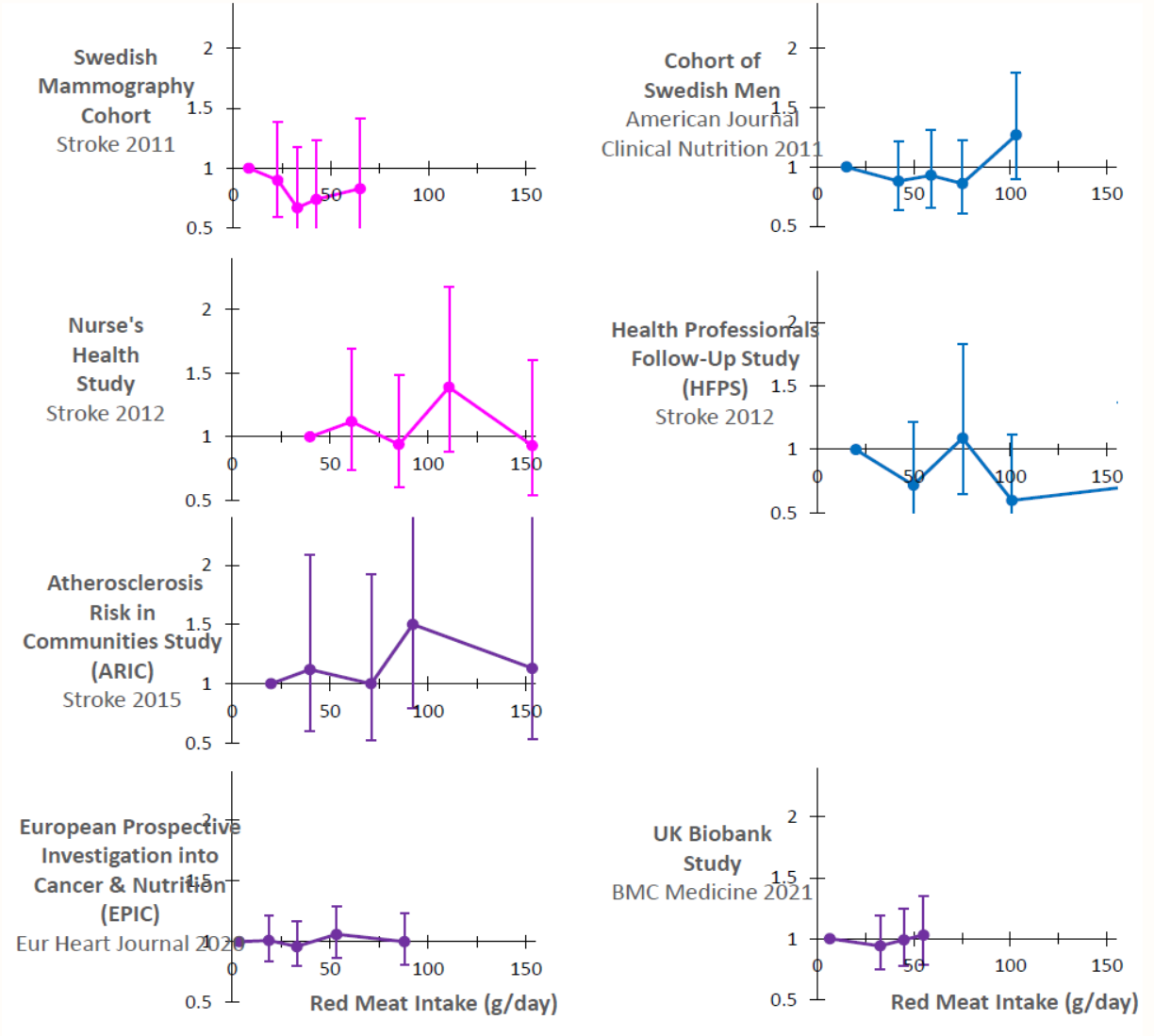
Source: PURE - the largest and most representative epidemiological study worldwide, with a cohort of 134,297 individuals enrolled from 21 low-, middle-, and high-income countries followed over 9.5 years, conducted by the global PURE consortium and published in March 2021

AIM

"The panel suggests that adults continue current unprocessed red meat consumption."

Source: AIM - Four systematic reviews of 122 studies and a corresponding dietary guideline conducted by the independent NutriRECS panel using internationally accepted standards for guideline methodology suggested by the Cochrane Handbook on systematic reviews, The Institute of Medicine and GRADE, published in October 2019,

The Evidence



Authors Global Burden of Disease Study

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AAf prepared the first draft. KAF and KMC constructed the figures and tables. AAf and PJS developed models for dietary risks. CJLM provided overall guidance. JSS managed the project. AAf and ECM finalised the manuscript on the basis of comments from other authors and reviewer feedback. All other authors provided data, reviewed results, or reviewed and contributed to the paper.

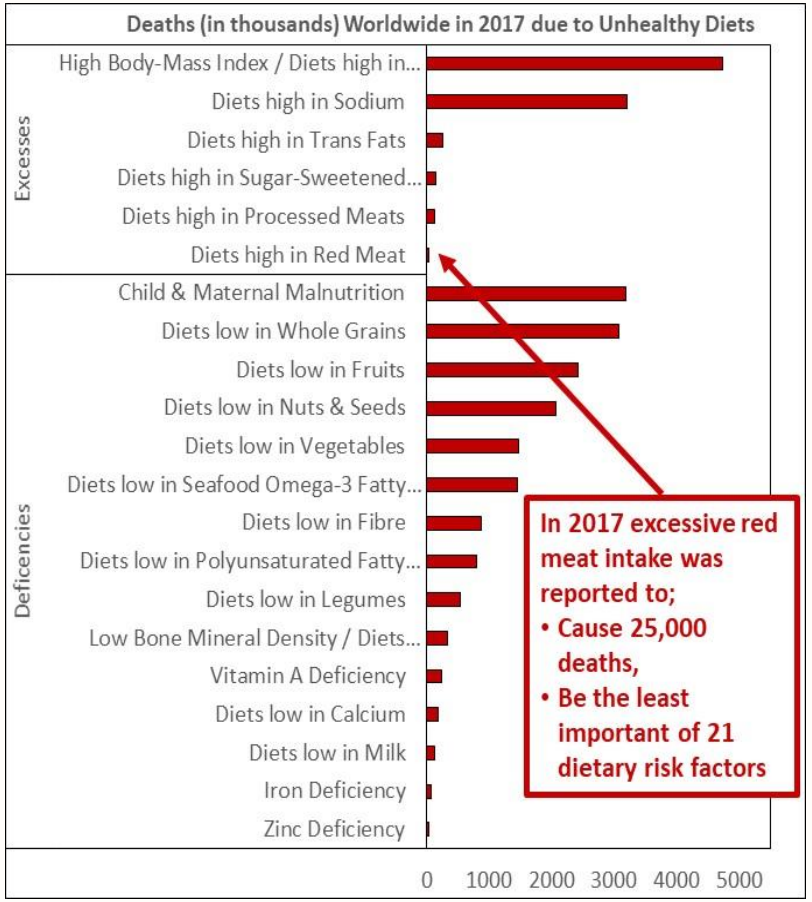
Declaration of interests

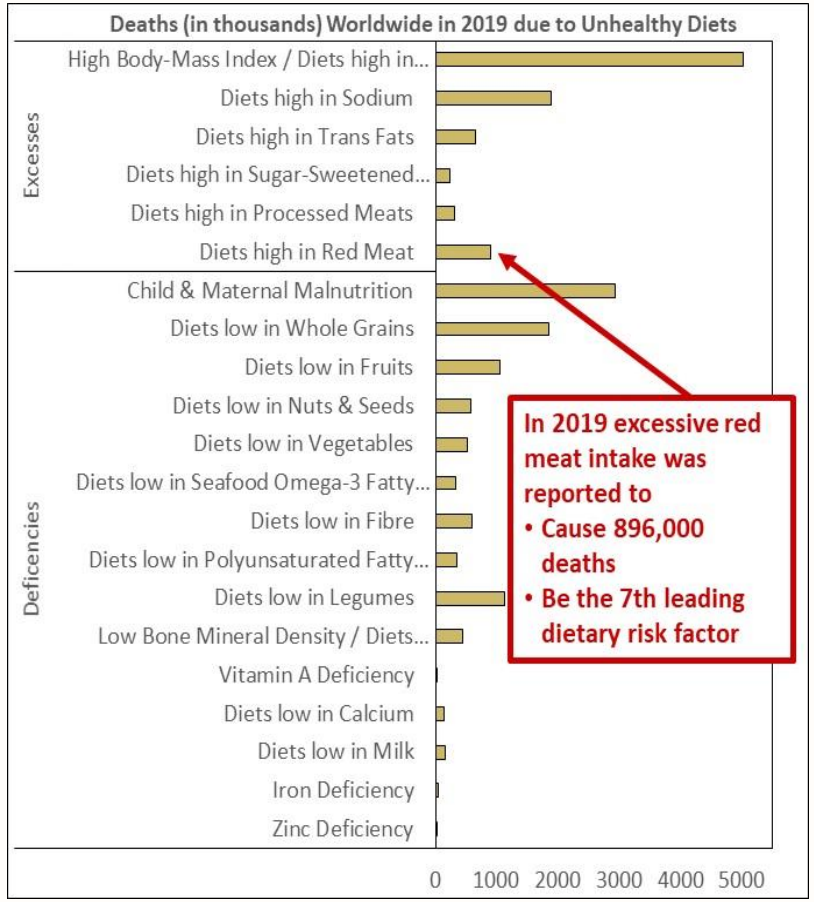
JMG reports grants from Unilever. LJ reports personal fees from Mills Scientific Council. SL reports personal fees from Amgen, Berlin-Chemie, Merck Sharp & Dohme (MSD), Novo Nordisk, Sanofi-Aventis, Synlab, Unilever, and Upfield, and non-financial support from Preventicus. SL is also a member of the Scientific Board of the German Nutrition Society and a coauthor of the evidence-based guideline Fat Intake and Prevention of Nutrition-Related Diseases of the German Nutrition Society. WMâ reports grants and personal fees from Siemens Diagnostics, Aegerion Pharmaceuticals, Amgen, AstraZeneca, Danone Research, Pfizer, BASF, Numares AG, and Berlin-Chemie; personal fees from Hoffmann LaRoche, MSD, Sanofi, and Synageva; grants from Abbott Diagnostics; and employment with Synlab Holding Deutschland GmbH. WMe is currently a program analyst for Population and Development at the Peru Country Office of the United Nations Population Fund-UNFPA, an institution that does not necessarily endorse this study. RMi reports grants from the US National Institutes of Health, Bill & Melinda Gates Foundation, and Unilever; and personal fees from World Bank and Bunge. DM reports research funding from the US National Institutes of Health and the, Bill & Melinda Gates Foundation; personal fees from GOED, DSM, Nutrition Impact, Pollock Communications, Bunge, Indigo Agriculture, Amarin, Acasti Pharma, and America's Test Kitchen; scientific advisory board roles with Elysium Health (with stock options), Omada Health, and DayTwo; and chapter royalties from UpToDate. In addition, DM is listed as a co-inventor on patents US8889739 and US9987243 issued to Tufts University (Somerville, MA, USA; unlicensed) for use of trans-palmitoleic acid to prevent and treat insulin resistance, type 2 diabetes, and related conditions, as well as reduce metabolic risk factors. CDR reports personal fees from Dairy Management Institute. AES reports personal fees from IEM, Novartis, Servier, and Abbott. AGT reports grants from National Health and Medical Research Council, Australia. All other authors declare no competing interests.

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Red Meat – Global Burden of Disease Study





Red Meat – Global Burden of Disease Study

GBD: “We found sufficient evidence supporting the causal relationship of red meat intake with ischaemic heart disease, breast cancer, haemorrhagic stroke, and ischaemic stroke and added these outcomes to previously found relationships with diabetes mellitus and colon cancer”

The red meat TMREL (theoretical minimum risk exposure level) changed from 22·5g/day to 0 g/day



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Scientific Magic: from 0.038 to 8.1 mio deaths



PNAS

Analysis and valuation of the health and climate change cobenefits of dietary change

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Edited by David Tilman, University of Minnesota, St. Paul, MN, and approved February 9, 2016 (received for review November 22, 2015)

Given the availability of consistent epidemiological data, we focused on changes in the consumption of red meat, and of fruits and vegetables, which together accounted for more than half of diet-related deaths in 2010 (4), and also on the fraction of people who

(VGT) diet are 7.3 million avoided deaths (CI, 7.0–7.6 million) and 114 million life years saved (CI, 111–118 million) and for the vegan (VGN) diet 8.1 million avoided deaths (CI, 7.8–8.5 mil-

GBD 2010, deaths: Low in fruits: 4.9 mio (39%); low in vegetables: 1.8 mio (14%); high in red meats: 0.038 mio (0.3%)

The WHO Fake

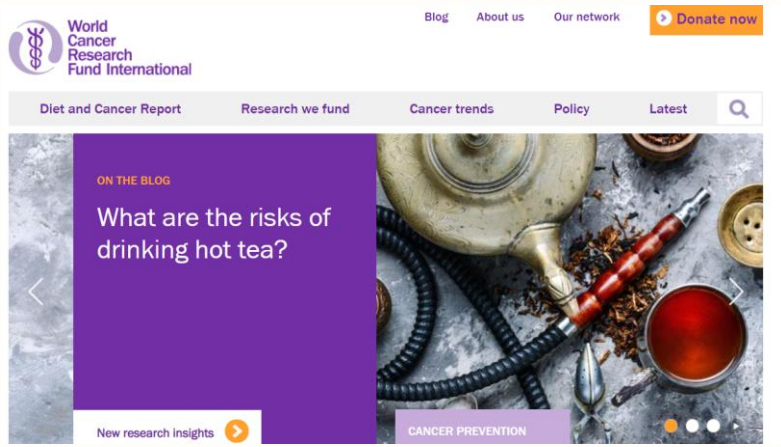
WHO 2015: 22 experts from 10 different countries had assessed 800 relevant studies on cancer in humans, of which 700 provided epidemiological data on red meat, and 400 provided such data on processed meat….estimated that every 50 grams of daily processed meat portion increases the risk of colorectal cancer by about 18%. As for red meat, every 100 grams of daily red meat increases the risk of colorectal cancer by about 17%.

WHO documentation 2018: Only **8** epidemiological study establishes a statistical connection, **24** do NOT.

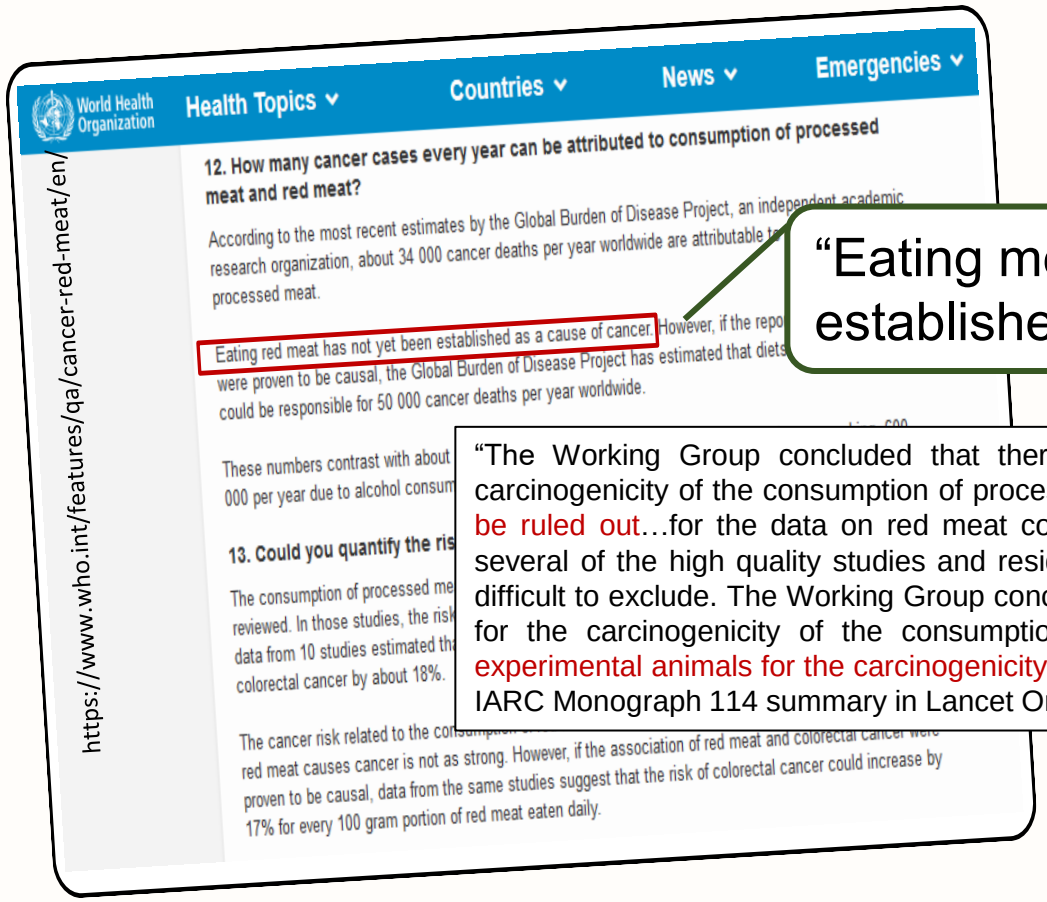
Dr Teresa Norat, 2011:
Imperial College London



"When analyzed separately, colorectal cancer risk was related to intake of fresh red meat (RR for 100 g/ day increase = 1.17, 95% CI = 1.05−1.31) and processed meat (RR for 50 g/day increase = 1.18, 95% CI = 1.10−1.28)."



What does WHO *really* claim?



"Eating meat has **not** yet been established as a cause of cancer"

World Health Organization

"The Working Group concluded that there is sufficient evidence in human beings for the carcinogenicity of the consumption of processed meat. Chance, bias, and confounding could not be ruled out…for the data on red meat consumption, since no clear association was seen in several of the high quality studies and residual confounding from other diet and lifestyle risk is difficult to exclude. The Working Group concluded that there is limited evidence in human beings for the carcinogenicity of the consumption of red meat. There is inadequate evidence in experimental animals for the carcinogenicity of consumption of red meat and of processed meat." IARC Monograph 114 summary in Lancet Oncology (Oct. 26, 2015)

What does WHO *really* claim?







This!



Regul Toxicol Pharmacol. 2016 Dec;82:158-166. doi: 10.1016/j.yrtph.2016.10.014. Epub 2016 Oct 22.

Classification schemes for carcinogenicity based on hazard-identification have become outmoded and serve neither science nor society.

Boobis AR[1], Cohen SM[2], Dellarco VL[3], Doe JE[4], Fenner-Crisp PA[5], Moretto A[6], Pastoor TP[7], Schoeny RS[8], Seed JG[9], Wolf DC[10].

[…] Because a risk-based decision framework fully considers hazard in the context of dose, potency, and exposure the unintended downsides of a hazard only approach are avoided, e.g., health scares, unnecessary economic costs, loss of beneficial products, adoption of strategies with greater health costs, and the diversion of public funds into unnecessary research.

Dietary context, not red meat as such!

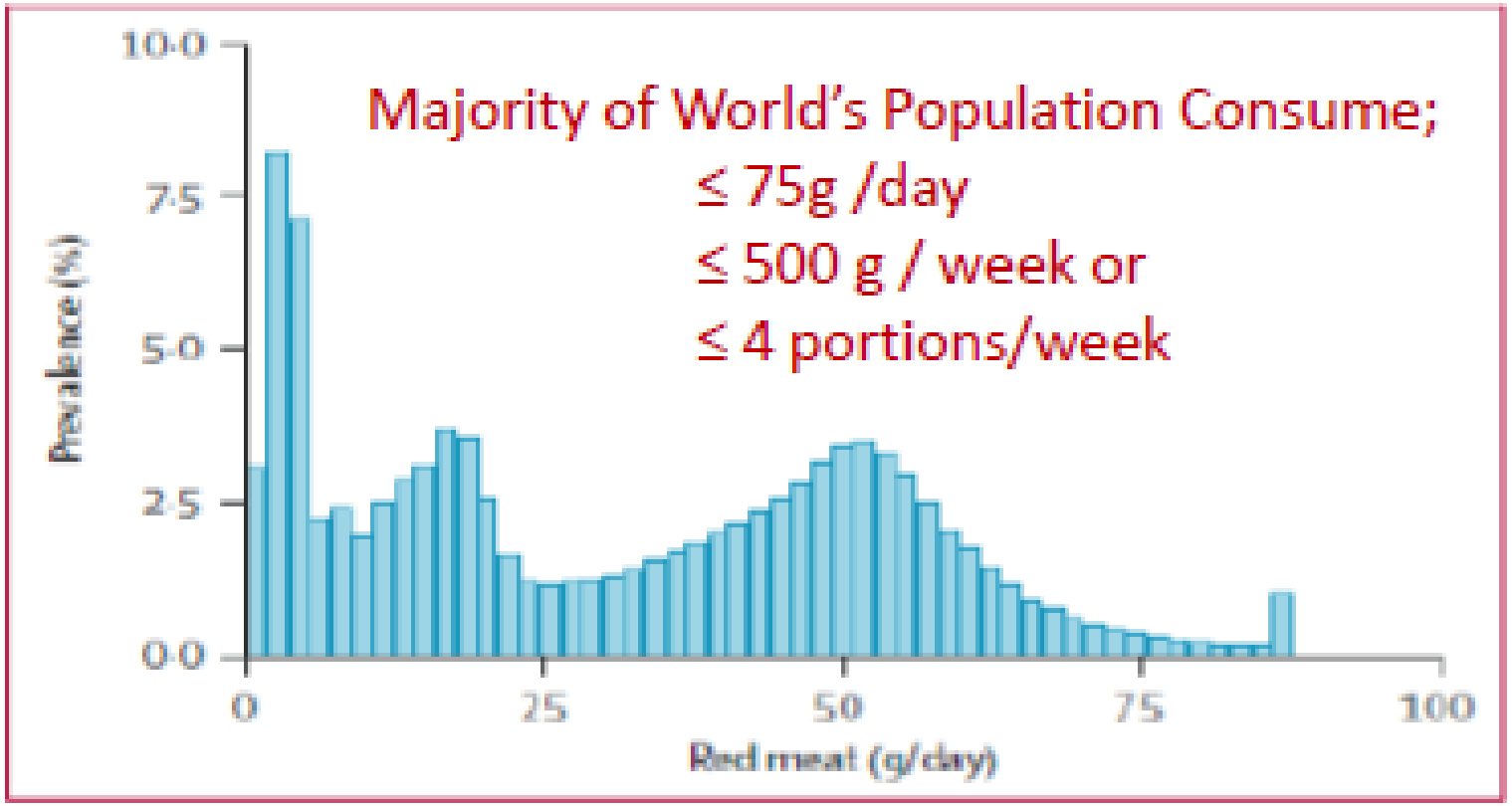
Co-consumption of Vegetables and Fruit, Whole Grains, and Fiber Reduces the Cancer Risk of Red and Processed Meat in a Large Prospective Cohort of Adults from Alberta's Tomorrow Project

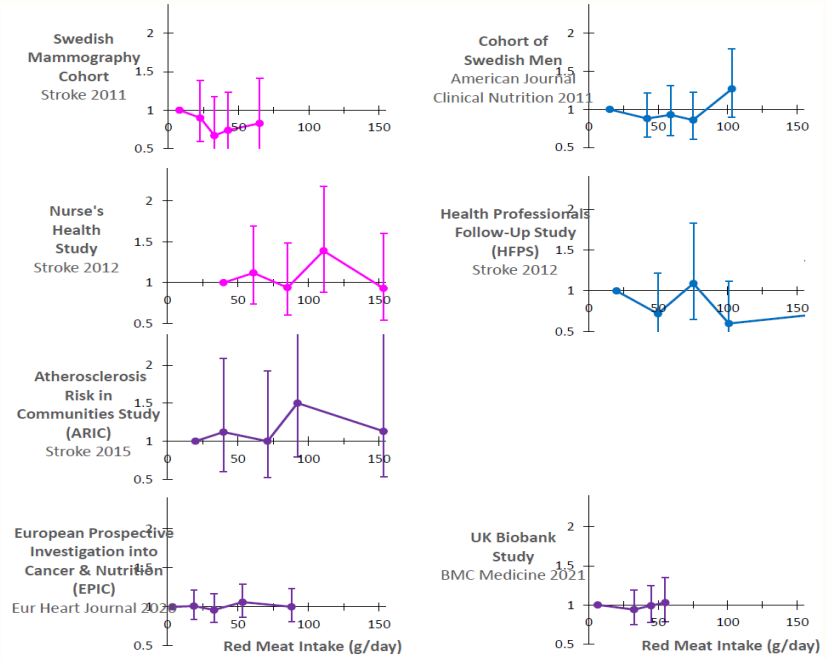
by Katerina Maximova [1,*], Elham Khodayari Moez [1], Julia Dabravolskaj [1], Alexa R. Ferdinands [1], Irina Dinu [1], Geraldine Lo Siou [2], Ala Al Rajabi [3] and Paul J. Veugelers [1]

	All-Cause Cancers [b]		
	Vegetables and Fruit (Serving/Day) [d]		
	<55 years: <4	<55 years: 4–6	<55 years: >6
	≥55 years: <3	≥55 years: 3–5	≥55 years: >5
Red meat (gram/week) [e]			
<250	1.04 (0.79–1.36)	1.02 (0.89–1.17)	Ref.
250–500	1.17 (0.92–1.47)	1.01 (0.85–1.21)	0.88 (0.76–1.02)
>500	**1.31 (1.02–1.69)**	1.01 (0.79–1.29)	0.78 (0.57–1.05)

https://www.mdpi.com/2072-6643/12/8/2265

So why the hyperbolic approach to red meat?





Why are protective effects not factored in?

- Iron deficiency
- Stunting
- Cognitive development
- Dementia
- Depression
- Sarcopenia
- …

