

We Know What Foods Are Healthy— Right?

NINA TEICHOLZ, PHD

AUTHOR

SCIENCE JOURNALIST

Background

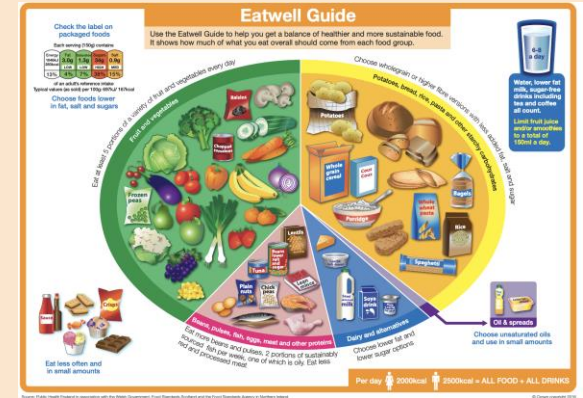
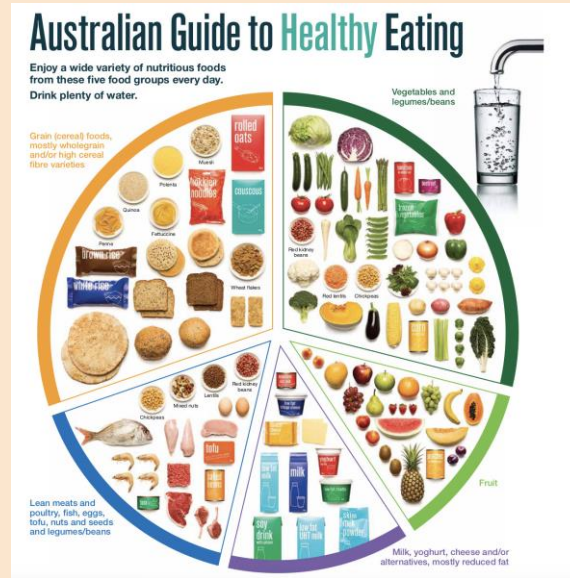
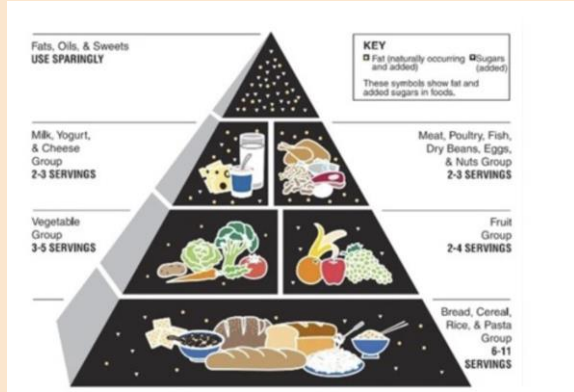
- **Ph.D. in nutrition**
- **20 years of research on nutrition & health**
- **Author of a bestselling book and journal articles**

What we think is a healthy diet

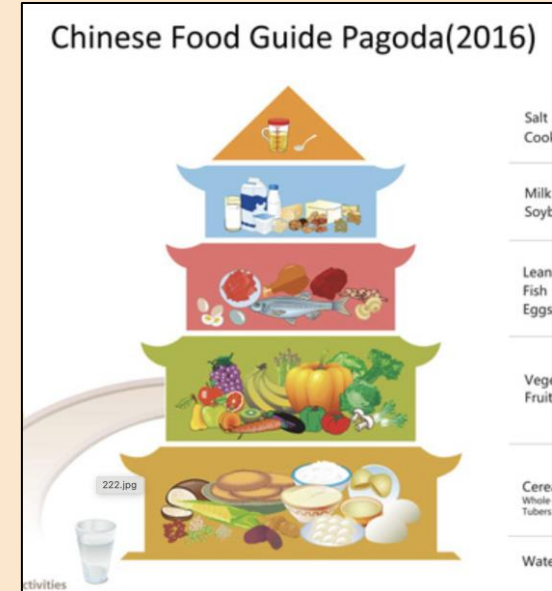
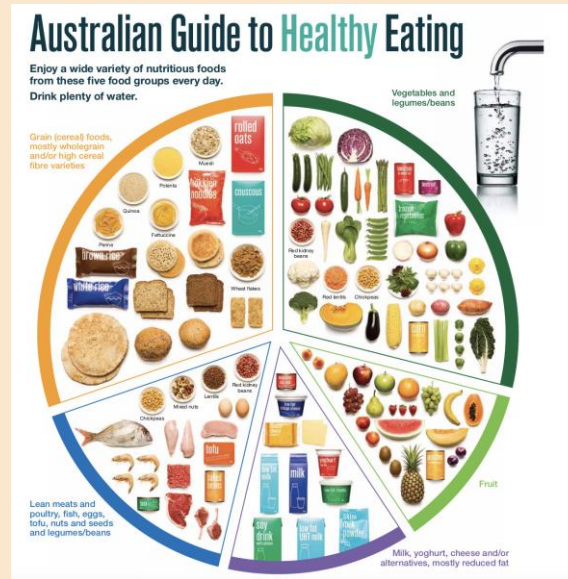
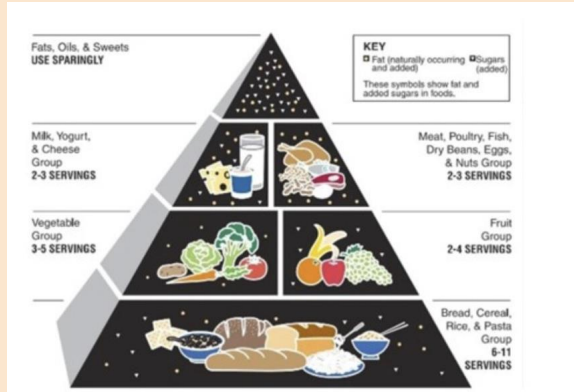


Canada's
food guide

This diet is virtually the same world-wide



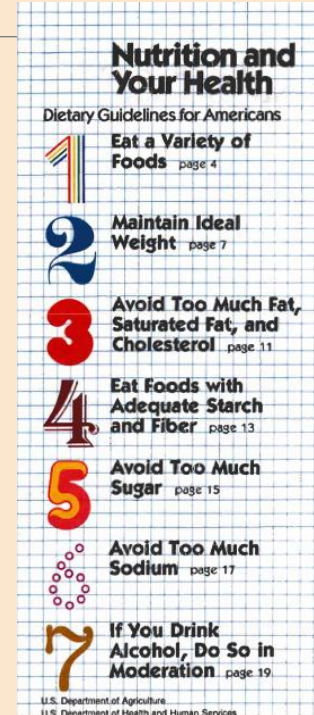
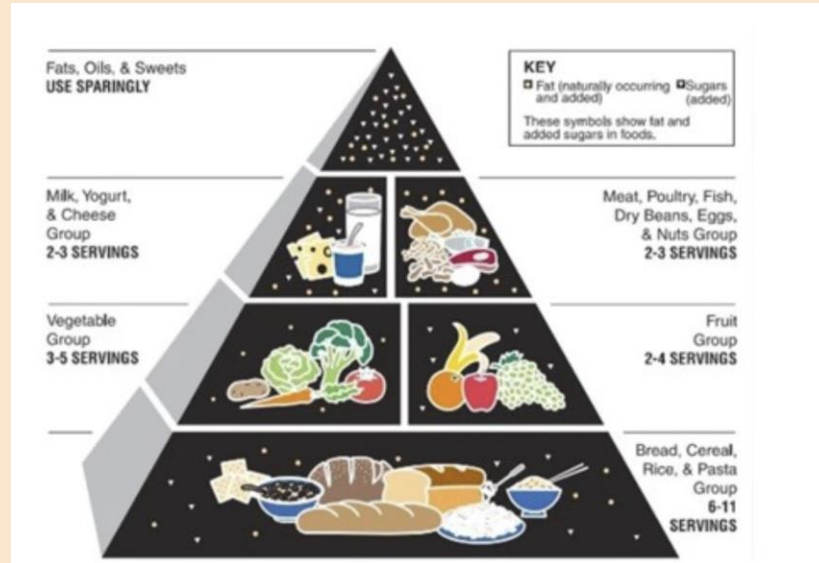
This diet is virtually the same world-wide



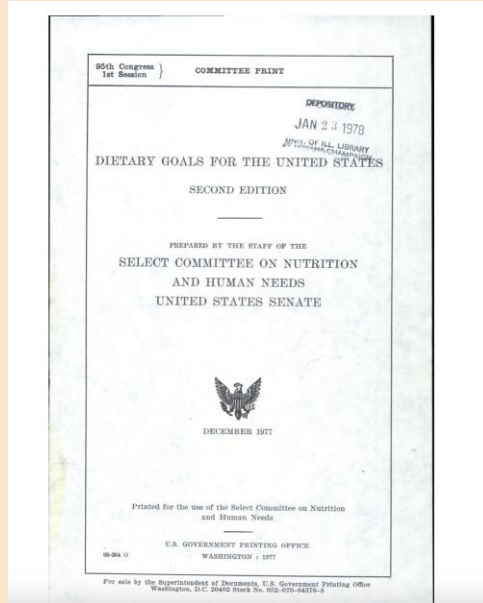
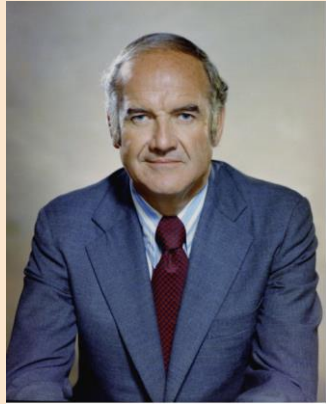
What Did Our Great, Great Grandparents Eat?

- The average American today eats 4 lbs butter/year
 - vs. 13-20 lbs in 1908
- The average American today eats 100 lbs meat/year
 - vs. 136-200 lbs in 1908
- A 1957 popular diet book recommends “reducing red meat to no more than *4 times a week.*”

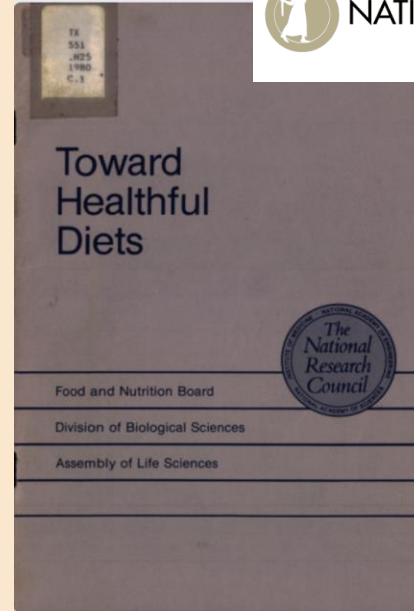
Where it all Began: US Dietary Guidelines for Americans



Where it all Began: US Dietary Guidelines for Americans



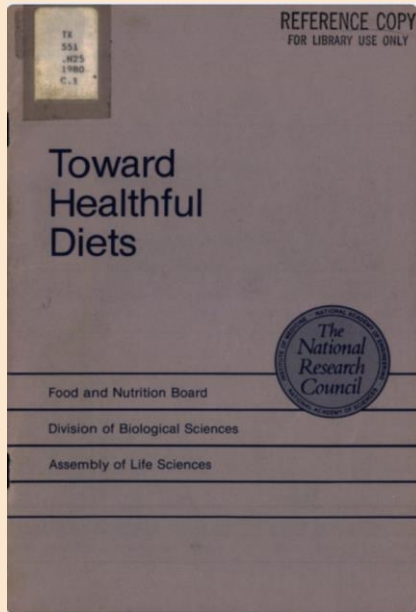
1978



1980



NATIONAL ACADEMY OF SCIENCES



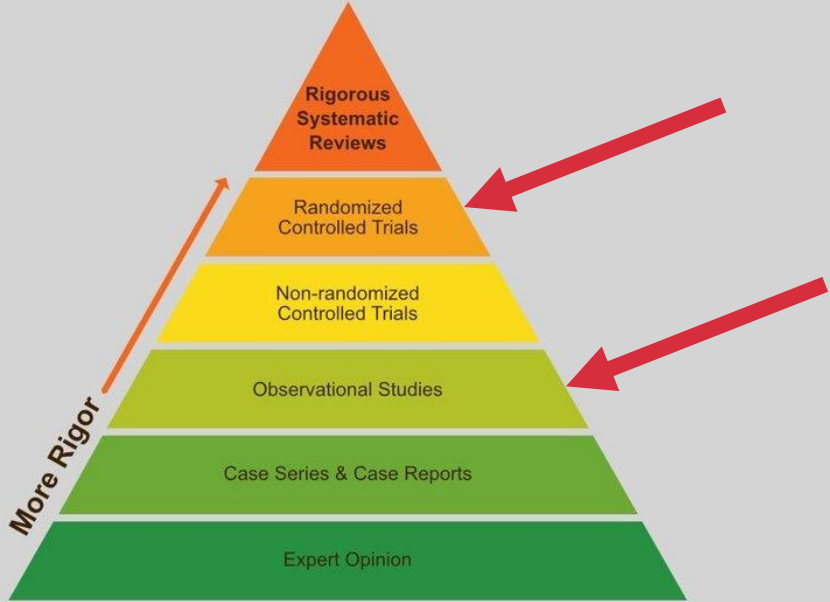
1980



NATIONAL ACADEMY OF SCIENCES

Conclusion:
Studies on the proposed diet had
“generally unimpressive results.”

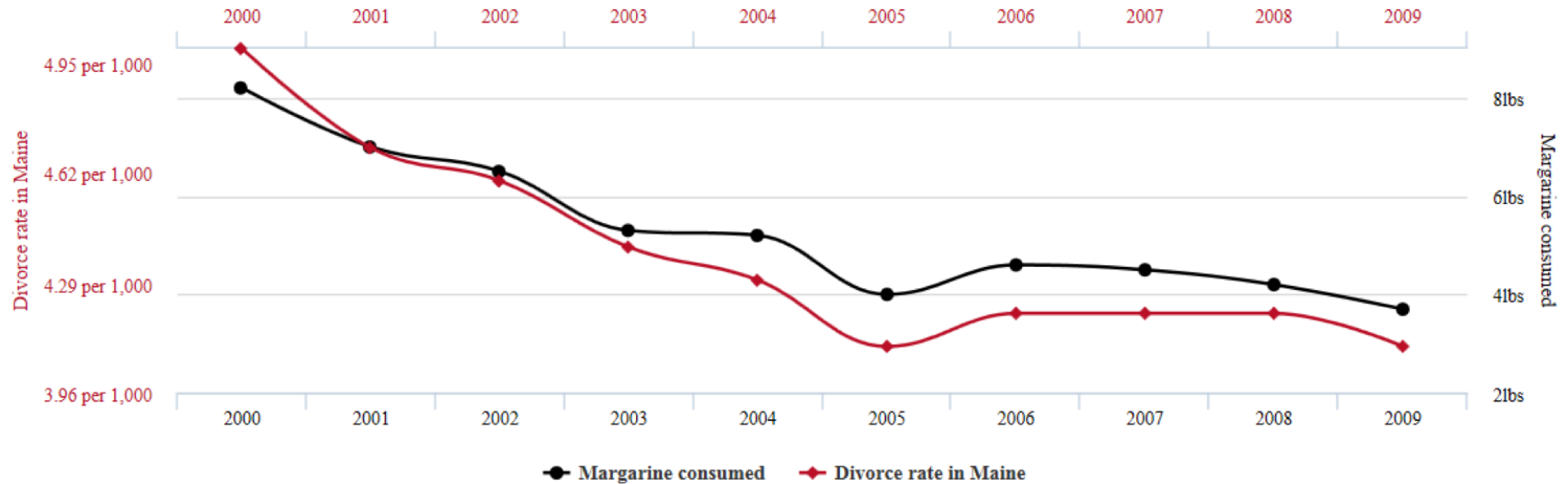
Pyramid of Evidence



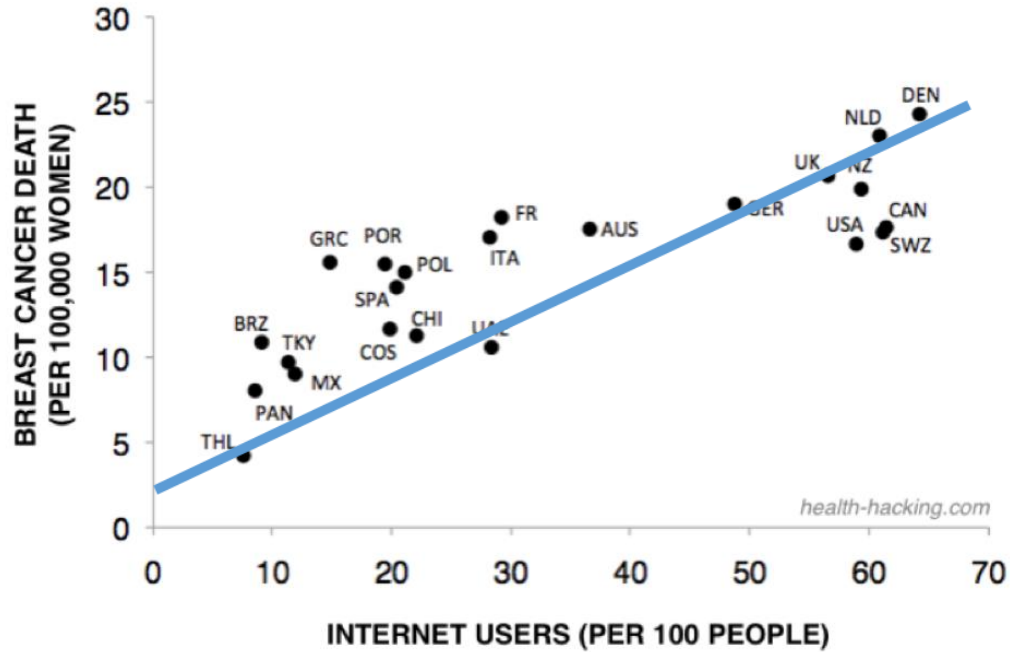
Inevitability of False Positives

Divorce rate in Maine correlates with Per capita consumption of margarine

Correlation: 99.26% ($r=0.992558$)



Inevitability of False Positives



Why This is a Particular Problem in Nutrition

- Difficulty of accurately measuring what people eat (the Food Frequency Questionnaire, or FFQ)
- People lie about what they consume
- “Healthy User” bias

Healthy User Bias--explained

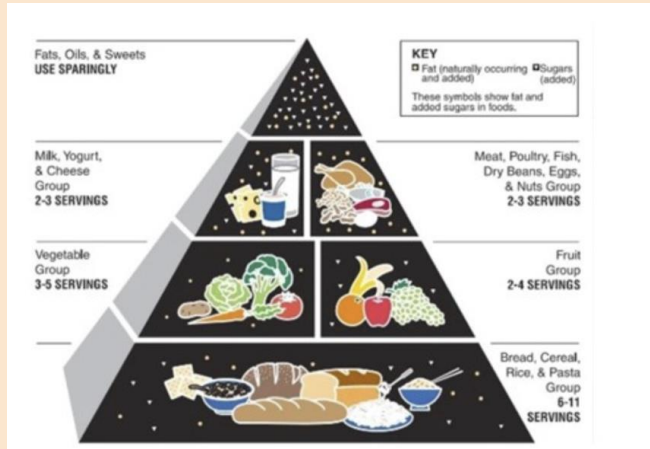
Meat Eater



alamy - 2F6FJNT

Non-Meat Eater







Problems with
the new contract
for junior doctors

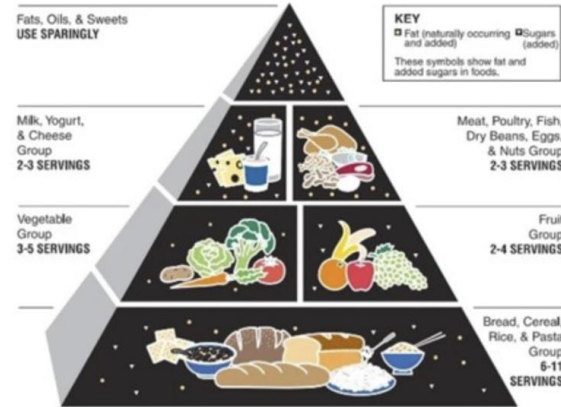
Knee arthroscopy:
why do rates differ
across the UK?

Inflammatory
bowel disease
CPD/CME hours

Bisphosphonates
and osteoporosis
CPD/CME hours



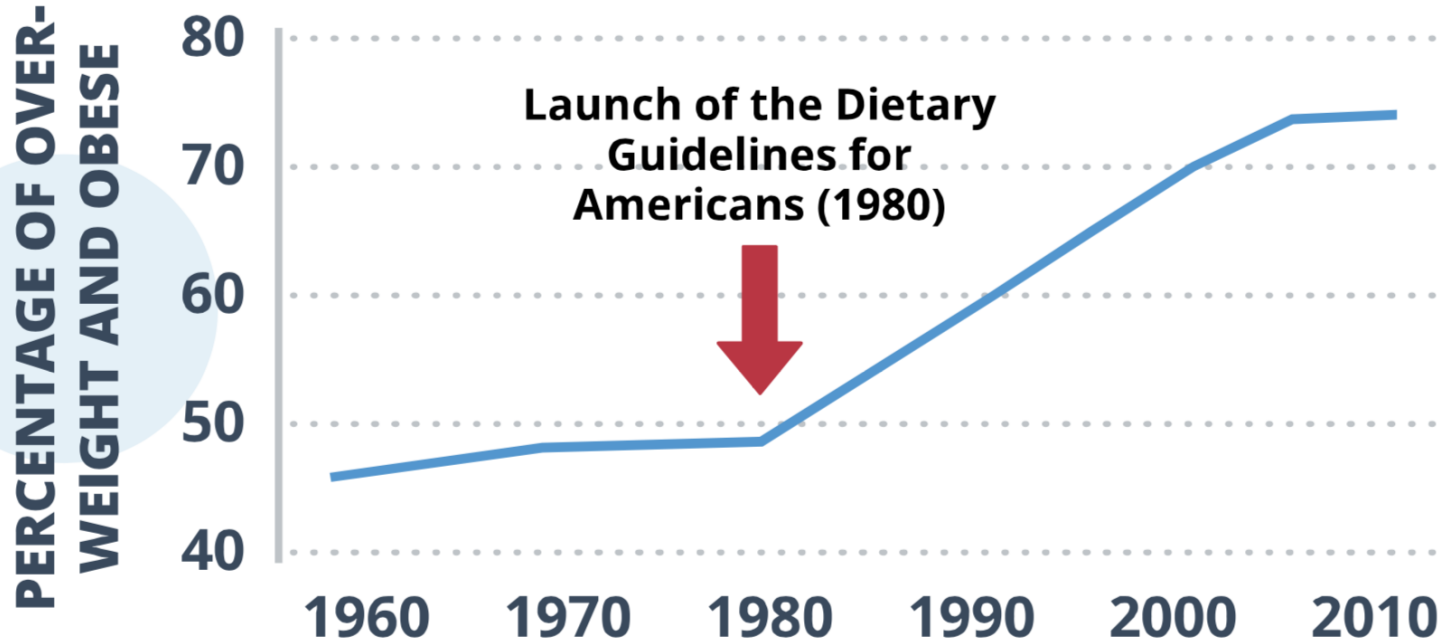
**How dietary
guidelines are
out of step with
science**



Finding:

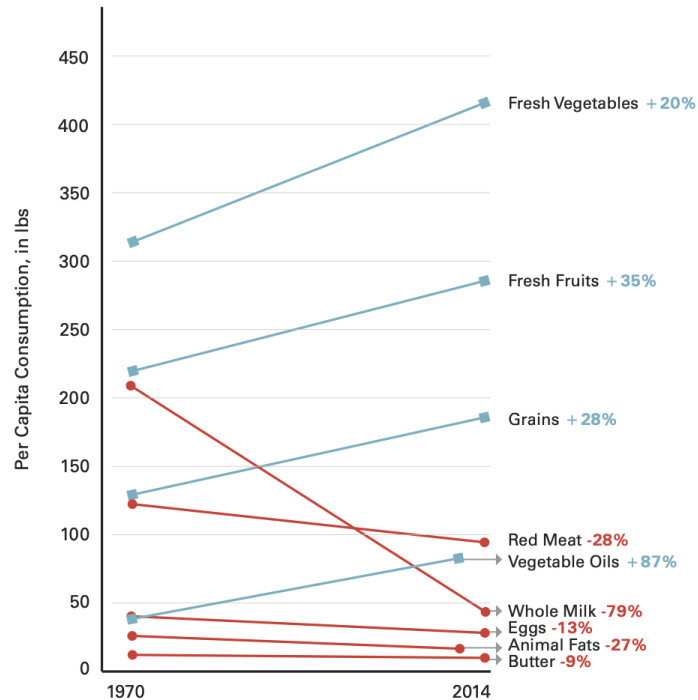
“The recommended diets are supported by a minuscule quantity of rigorous evidence that only marginally supports claims that these diets can promote better health than alternatives.”

RISE IN U.S. OVERWEIGHT/OBESITY COINCIDES WITH BEGINNING OF DIETARY GUIDELINES



Food Availability

1970 - 2014

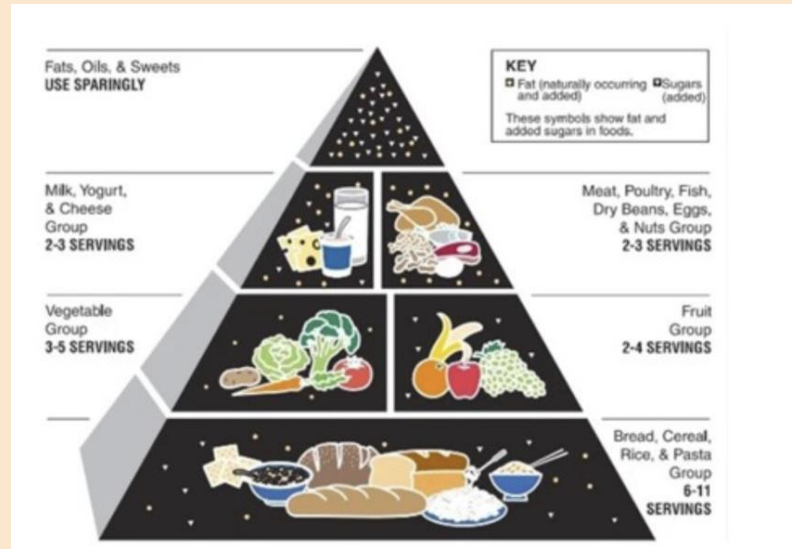


 Foods the guidelines recommend to **increase**

 Foods the guidelines recommend to **decrease**

NOTES: The latests data on animal fats and vegetable oils are reported from 2010, not 2014; Food consumption (food availability minus loss) is also calculated in this report, and the trends track closely with those of food availability. This chart has been constructed with availability data because the units of measurement are consistent across food categories, whereas they differ.

SOURCE: Jeanine Bentley, U.S. Trends in Food Availability and a Dietary Assessment of Loss-Adjusted Food Availability, 1970-2014, EIB-166, U.S. Department of Agriculture, Economic Research Service, January 2017; chart by Nina Teicholz.



Is it possible that our idea of a healthy diet has not led to better health because it is based on weak evidence?

Loma Linda, CA
Nicoya, Costa Rica

BLUE ZONES

LONGEVITY HOTSPOTS

LOMA LINDA
CALIFORNIA

NICOYA
COSTA RICA

SARDINIA
ITALY

ICARIA
GREECE

OKINAWA
JAPAN

Sardinia, Italy
Icaria, Greece
Okinawa, Japan

BLUE ZONE LIFE LESSONS



MOVE NATURALLY



RIGHT TRIBE



RIGHT OUTLOOK



EAT WISELY



FOOD GUIDELINES

MONTHLY

Retreat from meat: Blue zones centenarians eat about 2 oz or less about 5x per month



Reduce dairy



WEEKLY

Slash sugar: Consume only 28 grams (7 teaspoons) of added sugar daily



Eliminate eggs: No more than 3 per week



Go easy on fish: Fewer than 3 oz, up to 3 times weekly



DAILY

Snack on nuts: About 1-2 handful a day



Drink mostly water: About 7 glasses / day; coffee, tea, and wine in moderation



Daily dose of beans: Half-cup to one cup / day



Go wholly whole: Single-ingredient, raw, cooked, ground, or fermented, and not highly processed



95-100% plant-based

”Retreat from meat” (2 oz <5x/month)

Reduce dairy

Eliminate eggs (<3/week)

Go easy on fish (<3 oz, 3x/week)

Slash sugar (7 teaspoons a day)

Snack on nuts

Daily dose of beans

”Go wholly whole” on grains

Drink water

SEE THAT YOUR DIET IS 95-100 PERCENT PLANT-BASED



Cold
Spring
Harbor
Laboratory

bioRxiv

THE PREPRINT SERVER FOR BIOLOGY

New Results

 [Follow this preprint](#)

Supercentenarian and remarkable age records exhibit patterns indicative of clerical errors and pension fraud

 Saul Justin Newman

doi: <https://doi.org/10.1101/704080>



Senior Researcher, Center for Longitudinal Studies at University College, London



LEVERHULME
CENTRE
FOR
**DEMOGRAPHIC
SCIENCE**

Centenarian data are unreliable

- **In 1997, Italy discovered it was paying 30,000 pensions to dead people.**
- **In 2011, Greek insurers caught paying the pensions of 1,473 dead people who had ‘survived’ past the age of 90.**
- **In Okinawa, 90% of birth and death records destroyed by WWII bombing**

The possibility of pension fraud...

The New York Times

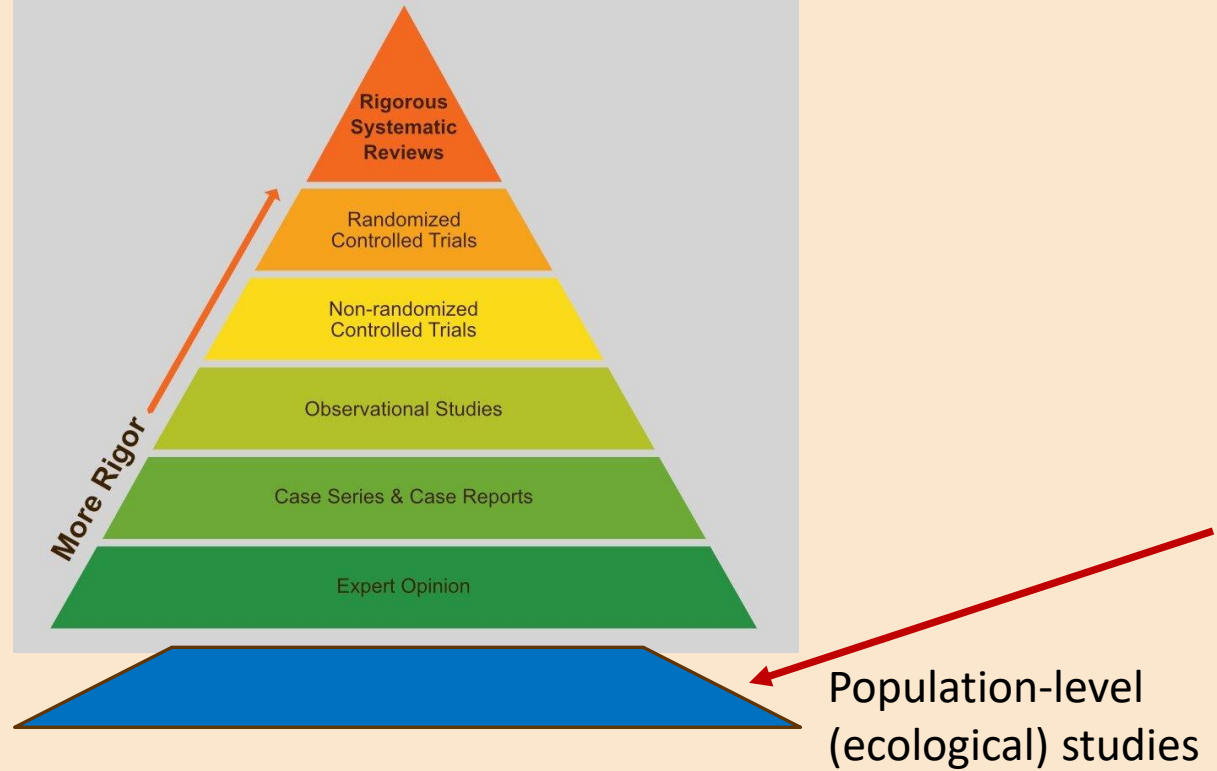
Do People in 'Blue Zones' Actually Live Longer?

The premise is catchy, but some think it's based on faulty data.

Dr. Newman:

“Every indication was that these high densities of supercentenarians were just down to poverty and fraud.”

Pyramid of Evidence



[NAM Perspect.](#) 2020; 2020: 10.31478/202001d.

PMCID: PMC8406509

Published online 2020 Jan 21. doi: [10.31478/202001d](#)

PMID: [34532678](#)

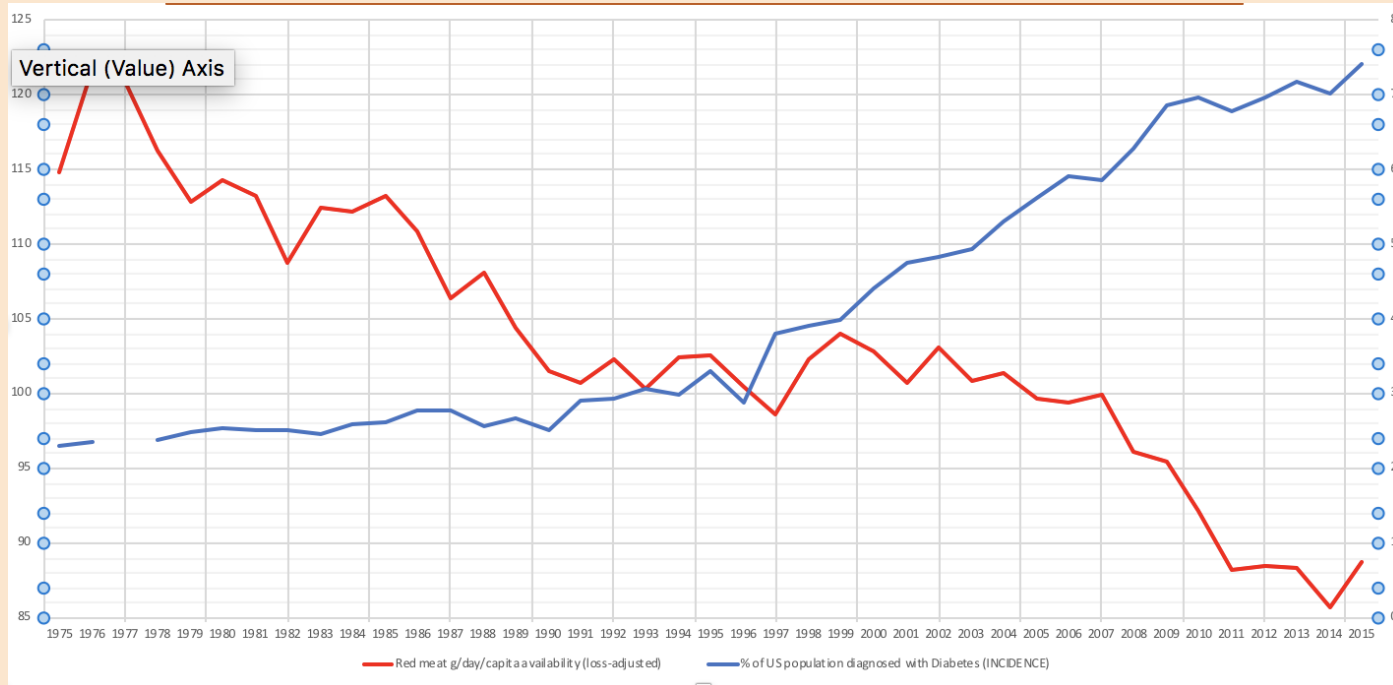
People in Hong Kong Have the Longest Life Expectancy in the World: Some Possible Explanations

[Roger Yat-Nork Chung](#), MHS, PhD and [Sir Michael Marmot](#), MBBS, MPH, PhD, FRCP, FFPHM, FMedSci

“Hong Kong’s per capita meat consumption is the highest in the world, and people in Hong Kong are not particularly active in general.”

Red Meat and Diabetes

Red meat availability (g/day/per capita) vs Incidence of Diabetes



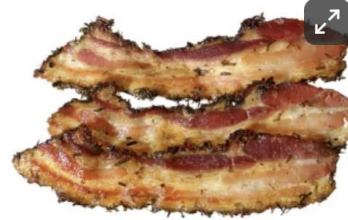
Rate of diabetes

Red meat availability

FOOD & DRINK

OMG! Bacon causes cancer

By Amber Sutherland and Chris Perez
Published Oct. 26, 2015, 9:05 a.m. ET



Opinion
EDITORIAL

Meat as a Cause of

By The Editorial Board
Oct. 28, 2015



EATING AND HEALTH

Bad Day For Bacon: Processed Meats Cause Cancer, WHO Says

OCTOBER 26, 2015 - 10:31 AM ET

 Allison Aubrey



By —
Nalkan
Akpan

Leave a
comment

Bacon, hot dogs and processed meats cause cancer, WHO says

Do red and processed meats cause cancer?

Nine years ago, WHO said yes, but insiders say the process was flawed and biased

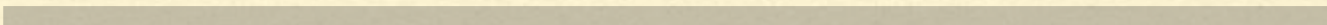
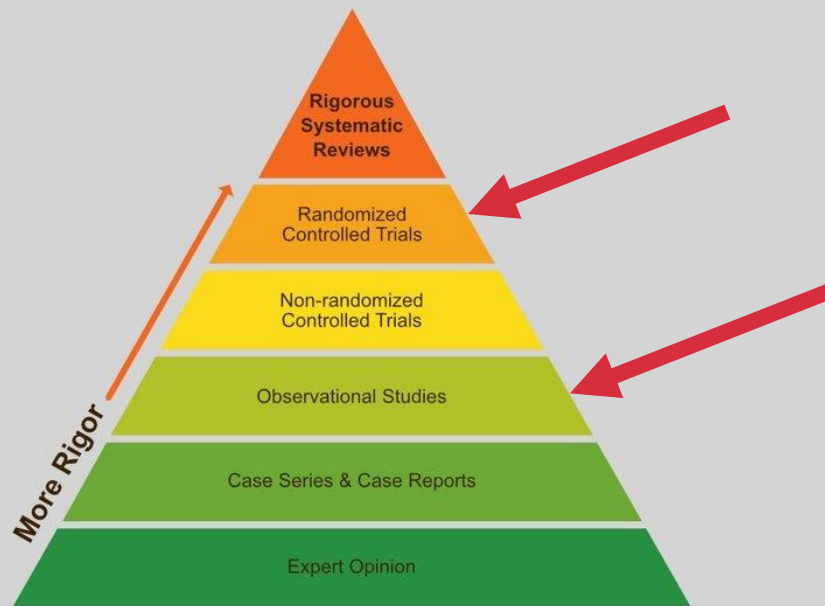


NINA TEICHOLZ

OCT 21, 2024 · PAID

- This conclusion was based 100% on the epidemiological data
- Eating meat raises the risk of colorectal cancer only a tiny amount: from 4.5% to 4.68%.
- The more rigorous data (clinical trials)---were ignored

Pyramid of Evidence





ORIGINAL ARTICLE



Lack of Effect of a Low-Fat, High-Fiber Diet on the Recurrence of Colorectal Adenomas

Authors: Arthur Schatzkin, M.D., Dr.P.H., Elaine Lanza, Ph.D., Donald Corle, M.S., Peter Lance, M.D., Frank Iber, M.D., Bette Caan, Dr.P.H., Moshe Shike, M.D., [+9](#), and the Polyp Prevention Trial Study Group* [Author Info & Affiliations](#)

Published April 20, 2000 | N Engl J Med 2000;342:1149-1155 | DOI: 10.1056/NEJM200004203421601

Randomized, controlled clinical trial on 2,079 men and women with confirmed colorectal adenomas (a precursor of colorectal cancer)

Tested the hypothesis that a diet low in fat and high in fruits, vegetables, and fiber vs. a control diet

Could this prevent recurrence of the adenomatous polyps?



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Published April 20, 2000 | N Engl J Med 2000;342:1149-1155 | DOI: 10.1056/NEJM200004203421601

Findings at 4 years: “[A]dopting a diet that is low in fat and high in fiber, fruits, and vegetables **does not influence the risk of recurrence of colorectal adenomas.**”

8-year follow-up study: same findings.

PMID: 17855692

Women's Health Initiative

Funded by the National Institutes of Health

8-year randomized, controlled clinical trial on nearly 49,000 women

Diet was reduced in fat, saturated fat (lower red meat and full-fat dairy), and higher in fruits and vegetables.

The largest trial conducted in the *history of nutrition*.

→ No effect on breast cancer, ovarian cancer, endometrium cancer, colorectal cancer.

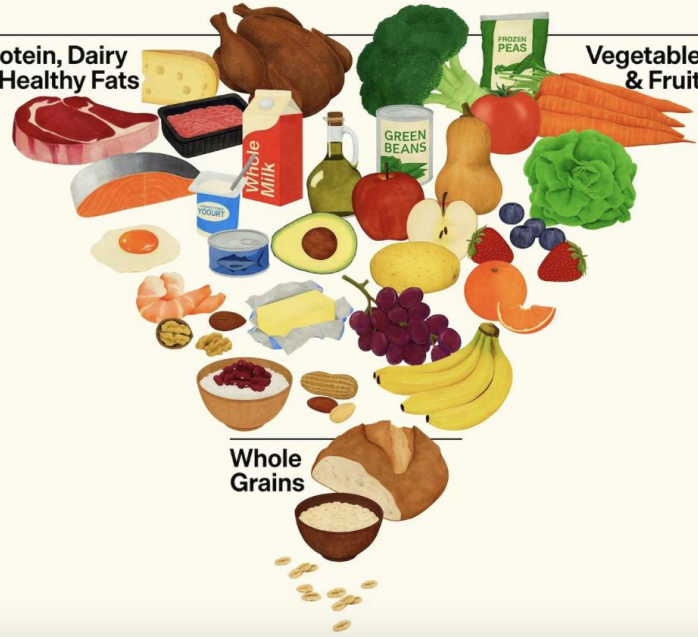
Eat Real Food



**Protein, Dairy
& Healthy Fats**

**Vegetables
& Fruits**

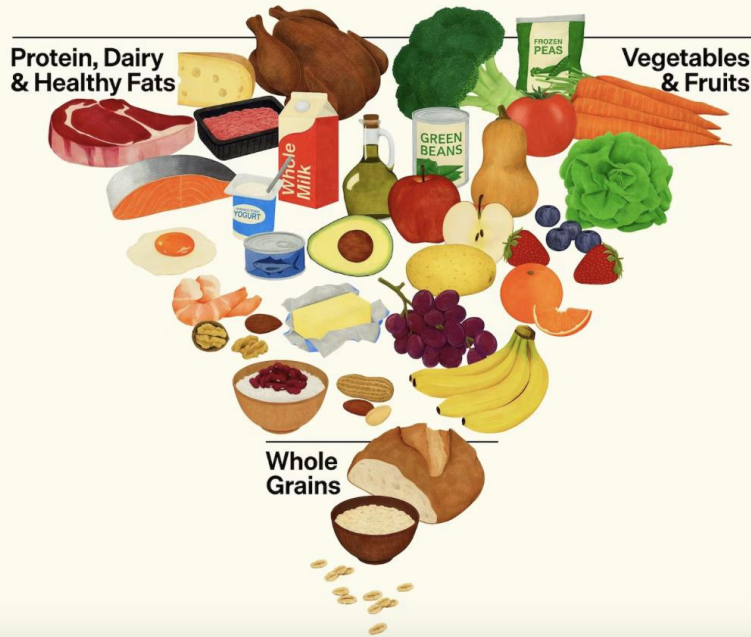
**Whole
Grains**



Scientific Rigor of the Current Guidelines

- The process *was* very unconventional
- Rigorous systematic reviews
- Clinical trial data were properly prioritized

Eat Real Food



- Reduced grains
- Reduced added sugars
- Higher fat and protein

Nina Teicholz, PhD
Science journalist, Author
Founder, The Nutrition Coalition



@bigfatsurprise



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