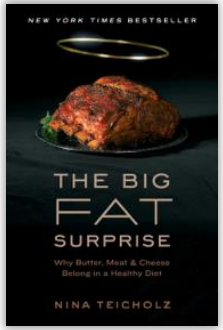
Presentation to:
International Dairy Foods Association

"The Science and Politics of Dietary Fat"



Nina Teicholz

Investigative science journalist
Author, ***The Big Fat Surprise***
Professor (Adjunct), New York University, Health Policy & Management
Executive Director, The Nutrition Coalition

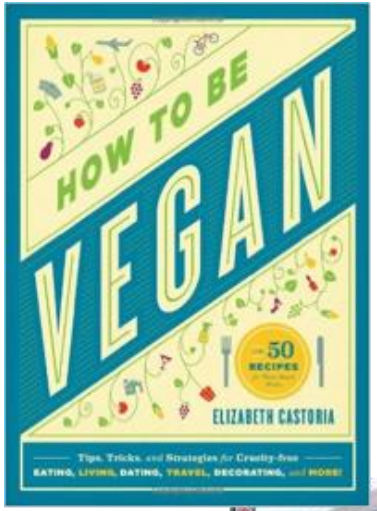
“**A gripping narrative**” that should be read researchers, clinicians and healthcare providers.” —The Lancet

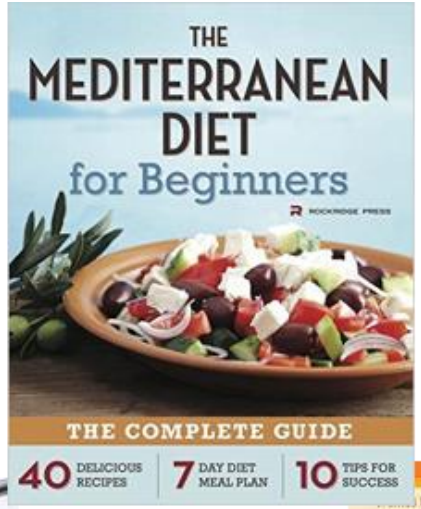
“**Impressive . . This book shook me. . . Teicholz has done a remarkable job**” The BMJ (British Medical Journal)

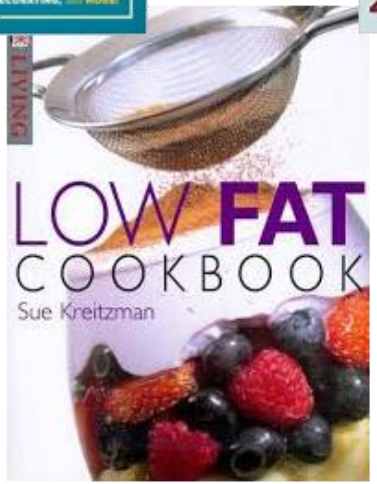
“**A page-turner…a nutrition thriller**” The Economist

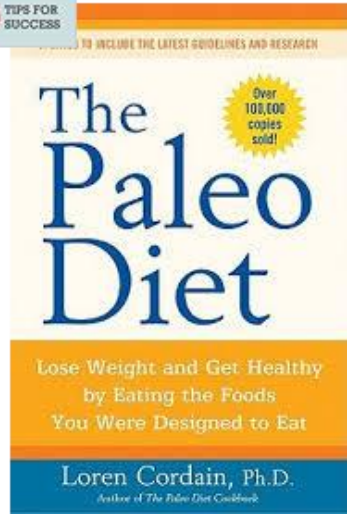
“**A Best Book of the year**” — Wall Street Journal , Mother Jones, Forbes, Times of London, BBC Food, The Economist

A very confusing diet world out there!









I came to this without any preconceptions

A vegetarian for 25+ years

From Berkeley, CA

Moved to NYC

A journalist

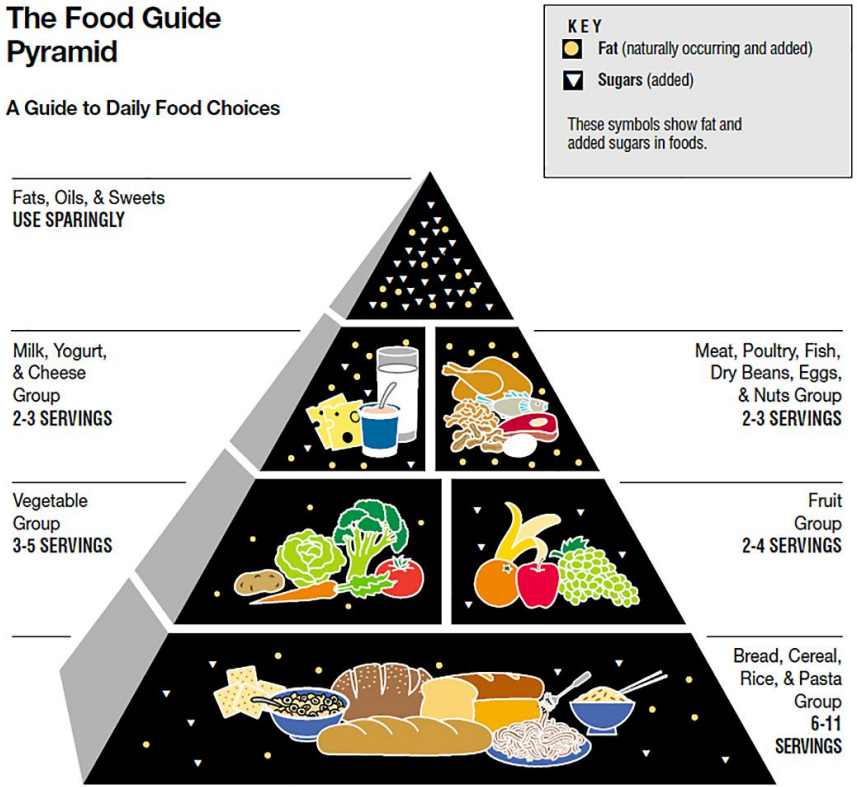
Undertook nearly **10** years of research

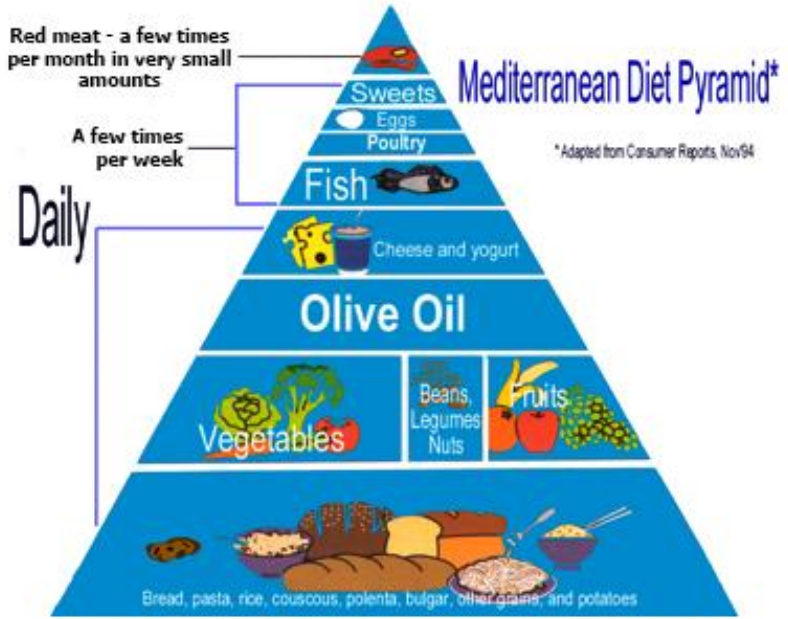
18 years,, 145 lbs

Disclosure:

I receive **no industry support** of any kind - not for my book or any subsequent research/work.

Current Diet Recommendations





Mediterranean Pyramid

Sources: USDA for Food Guide Pyramid, Harvard School of Public Health for Med Diet Pyramid.

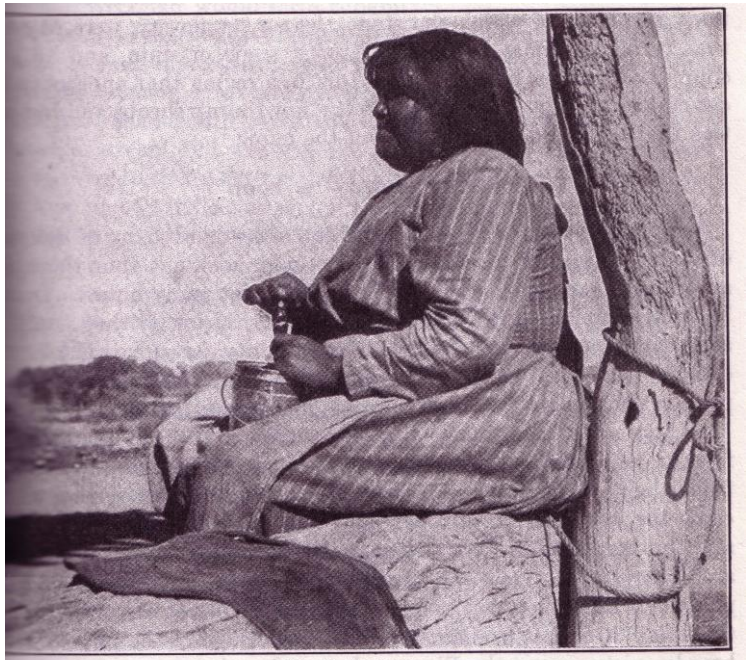
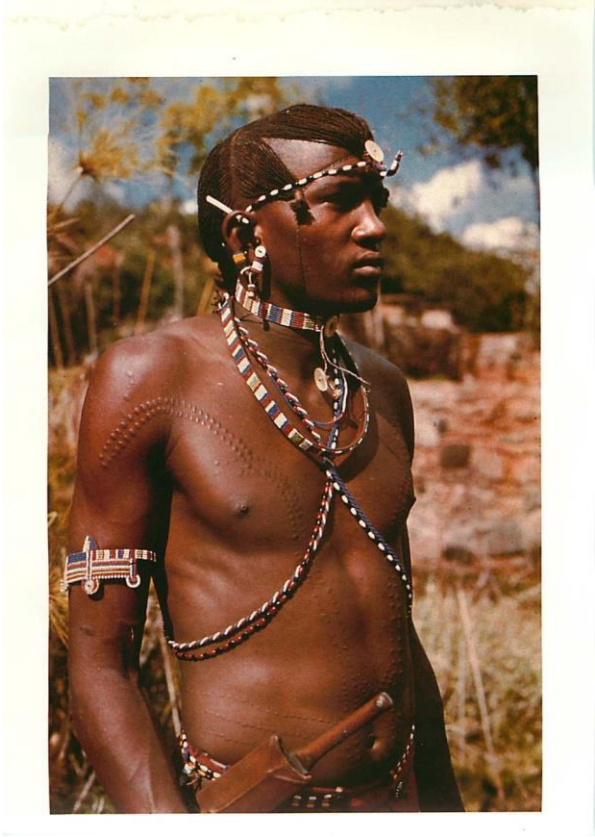
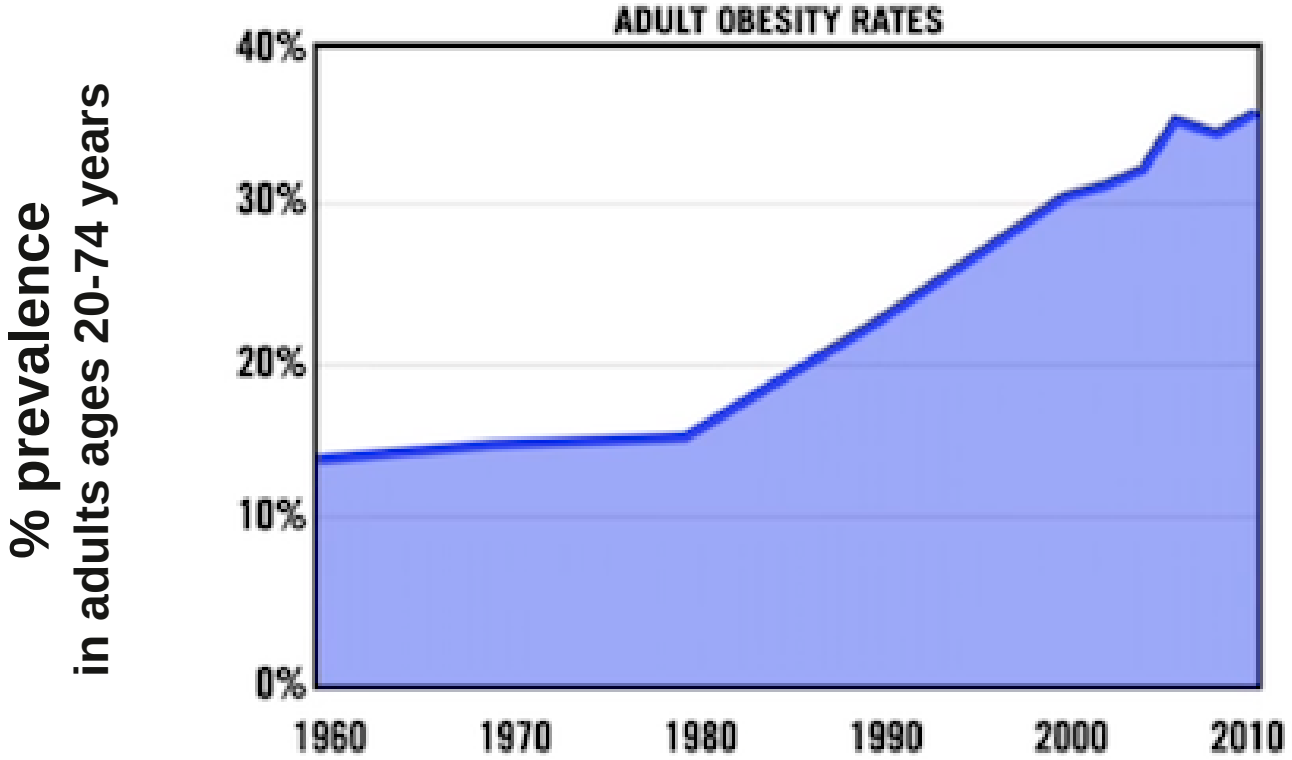


FIG. 2. Fat Louisa.



We need to explain this:



Data from NHANES and NHES surveys

How it All Started

Los Angeles Examiner
Giant of Journalism
FINAL EDITION

EISENHOWER HEART ATTACK

MARYLAND HANDS UCLA 7-0 DEFEAT

Latest Photo—Taken Friday

President Taken to Hospital, Coronary Thrombosis Victim

Executive Placed Under Oxygen Tent

2d Term Hope Fades; '56 Free-for-All Seen

Many in Party Doubt That Eisenhower Could Dictate GOP Nominee

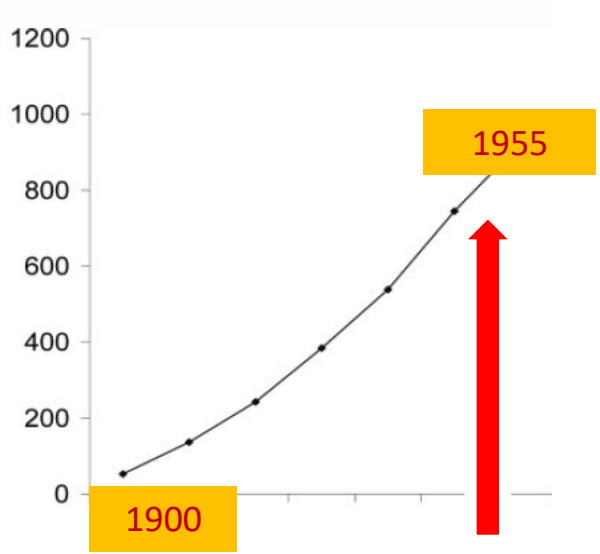
Turn Back Clock? Sure!

SMOG
We're Losing the Battle —and Why!

Less Clouds, High of 77

Mamie Spends Night Near Ike at Hospital

Rate of heart disease per 100,000 people



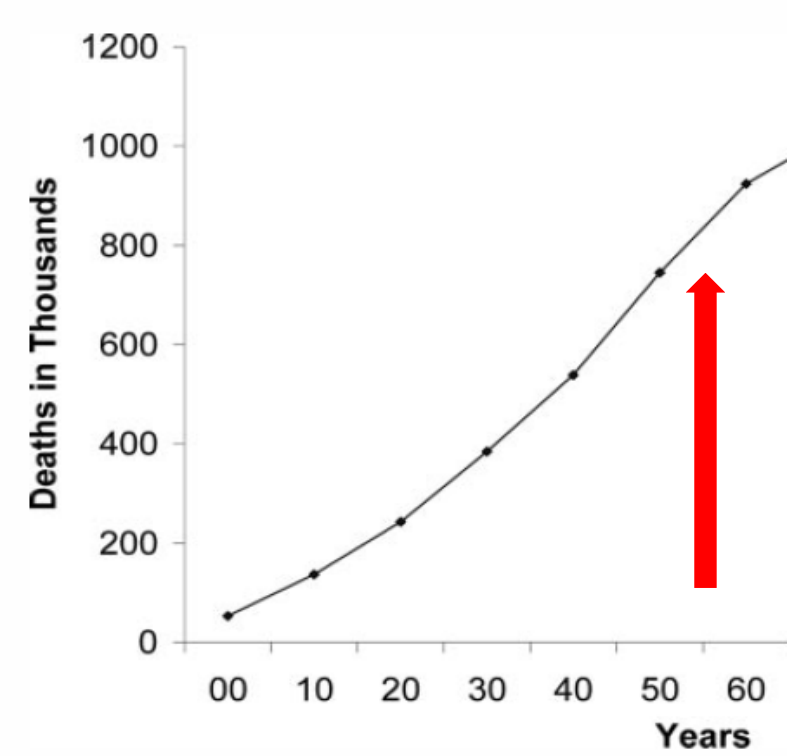
Source: CDC data

What causes heart disease?

- Vitamin deficiency
- Type A Personality
- Auto Exhaust

Source: Mann, George V., “Diet and Coronary Heart Disease.” *Archives of Internal Medicine* 104 (1959): 921–929, 922.

…And smoking!

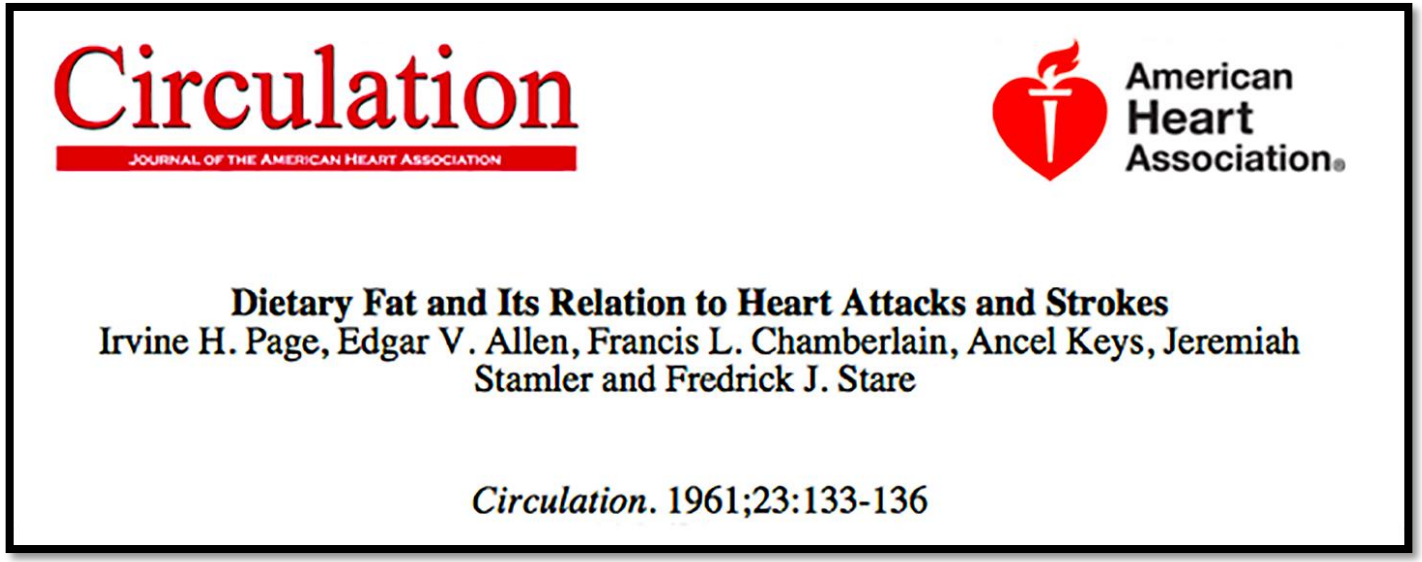


Eisenhower was a chain smoker - 4 packs a day
Americans Had Become Smokers

Ancel Keys' "Diet-heart hypothesis"

Saturated Fat/ Dietary cholesterol → Raised cholesterol (in the blood) → Heart Attack

1961: The American Heart Association



Circulation

JOURNAL OF THE AMERICAN HEART ASSOCIATION

American Heart Association

Dietary Fat and Its Relation to Heart Attacks and Strokes

Irvine H. Page, Edgar V. Allen, Francis L. Chamberlain, Ancel Keys, Jeremiah Stamler and Fredrick J. Stare

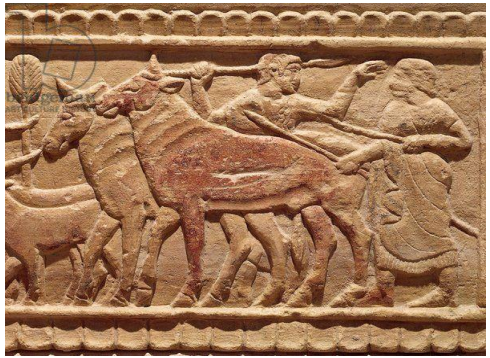
Circulation. 1961;23:133-136

First advice anywhere in the world to limit saturated fats and cholesterol in order to prevent heart disease


BUTTER

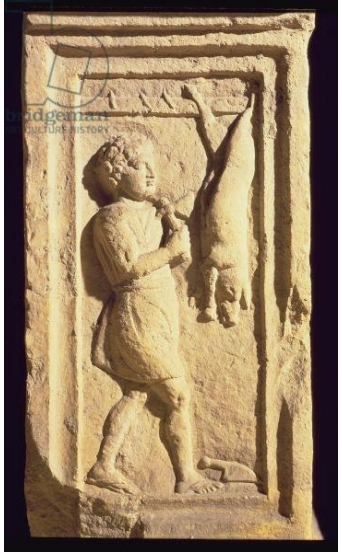

SOFT MARGARINE
Margarine
Crisco
Pure Vegetable Oil
Mazola
CORN OIL

The original, natural fats

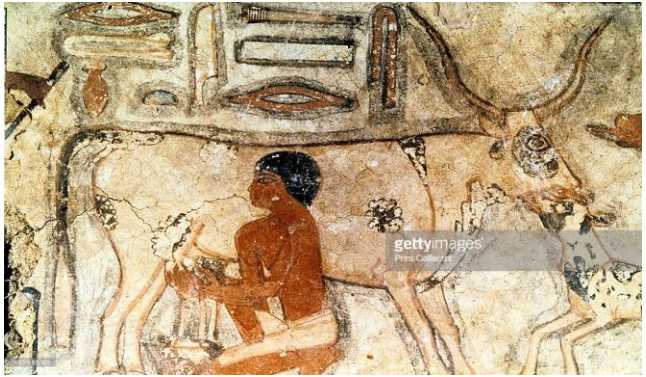


Tallow

Suet

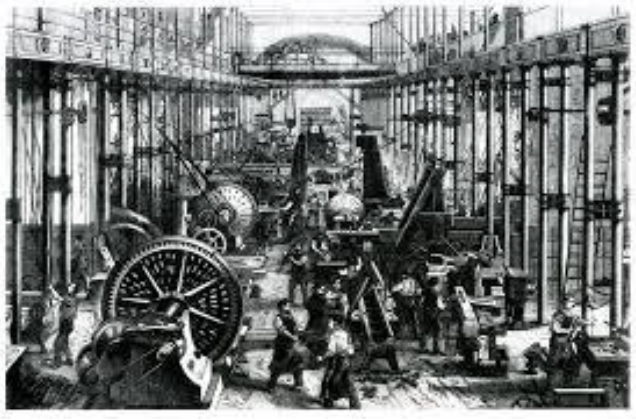


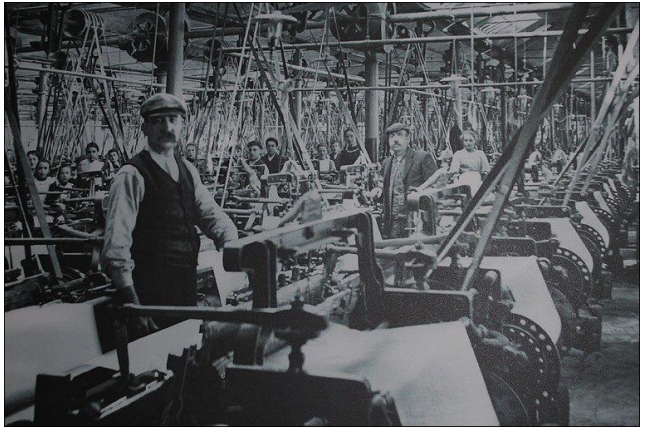
Lard

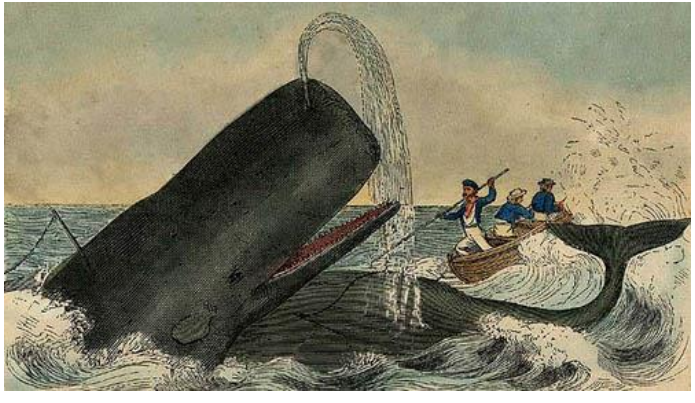


Butter

Oils used as lubricants for machinery in industrial revolution







TRADE-MARK FOR VEGETABLE FATS.

Registered July 20, 1915.

105,415. Application filed March 13, 1915. Serial No. 85,126.

STATEMENT.

To all whom it may concern:

Be it known that BERLIN MILLS COMPANY, a corporation duly organized and existing under the laws of the State of Maine, and located in Berlin, in the county of Coos and State of New Hampshire, and doing business in said Berlin, has adopted and used the trade-mark shown in the accompanying drawing, for vegetable fats, in Class No. 46, Foods and ingredients of foods.

The trade-mark has been continuously used in the business of said corporation since on or about August 1, 1913.

The trade-mark is printed or otherwise displayed upon paper wrappers or labels affixed to metal cans or other packages containing the goods.

BERLIN MILLS COMPANY,
[L. S.] By O. B. BROWN, *Treas.*

KREAM KRISP

DECLARATION.

of Coos ss. de- might be calculated to deceive; that said trade-mark is used by said corporation in commerce among the several States of the United States; that the drawing presented represents the trade-mark sought to be

THE PROCTER & GAMBLE COMPANY, OF CINCINNATI, OHIO.

TRADE-MARK FOR COOKING-FAT.

117,704. Application filed December 15, 1914. Serial No. 58,305.

Registered July 24, 1917.

STATEMENT.

To all whom it may concern:

Be it known that THE PROCTER & GAMBLE COMPANY, a corporation duly organized under the laws of the State of Ohio, and located in the city of Cincinnati, in the county of Hamilton and State of Ohio, whose principal office is located in the Gwynne Building, northeast corner of Sixth and Main streets, Cincinnati, Ohio, has adopted and used the trade-mark shown in the accompanying drawing, for cooking-fat, in Class 46, Foods and ingredients of foods.

The trade-mark has been continuously used in the business of said corporation since June 1st, 1911.

The trade-mark is applied or affixed to the goods, or to the packages containing the same, by placing thereon a printed label on which the trade-mark is shown.

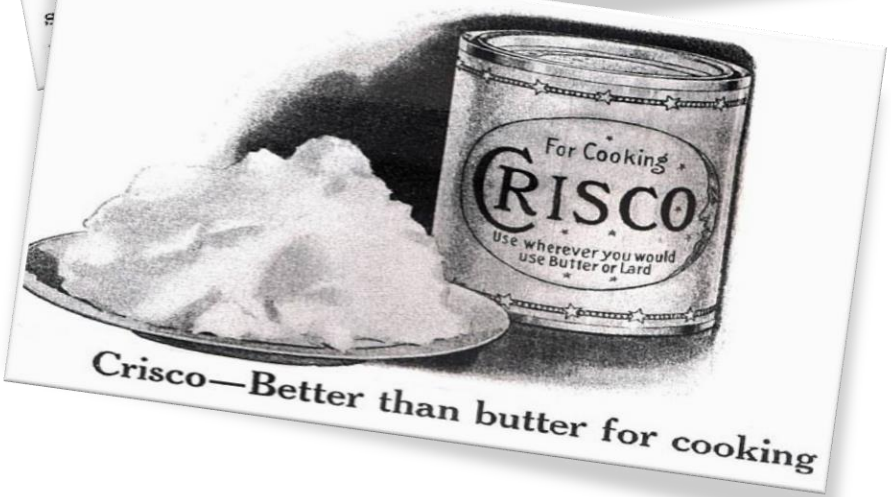
THE PROCTER & GAMBLE COMPANY,
By H. L. FRENCH, *Secretary.*

CRISCO

DECLARATION.

tate of Ohio, county of Hamilton, ss:

H. L. FRENCH, being duly sworn, deposes and says that he is the secretary of the corporation the applicant named in the fore- is used by said corporation in commerce among the several States of the United States; that the description and drawing presented truly represent the trade-mark



Vegetable Oils enter the food supply

Margarine


THE FINEST SPREAD FOR BREAD
What the housewife should know about
JELKE
GOOD LUCK
MARGARINE

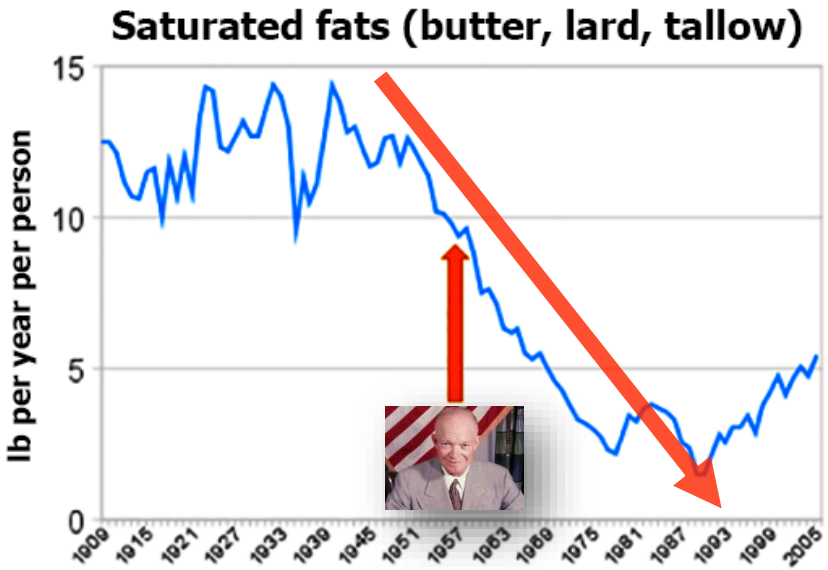

ONE POUND NET
TASTI-SPRED
OLEOMARGARINE

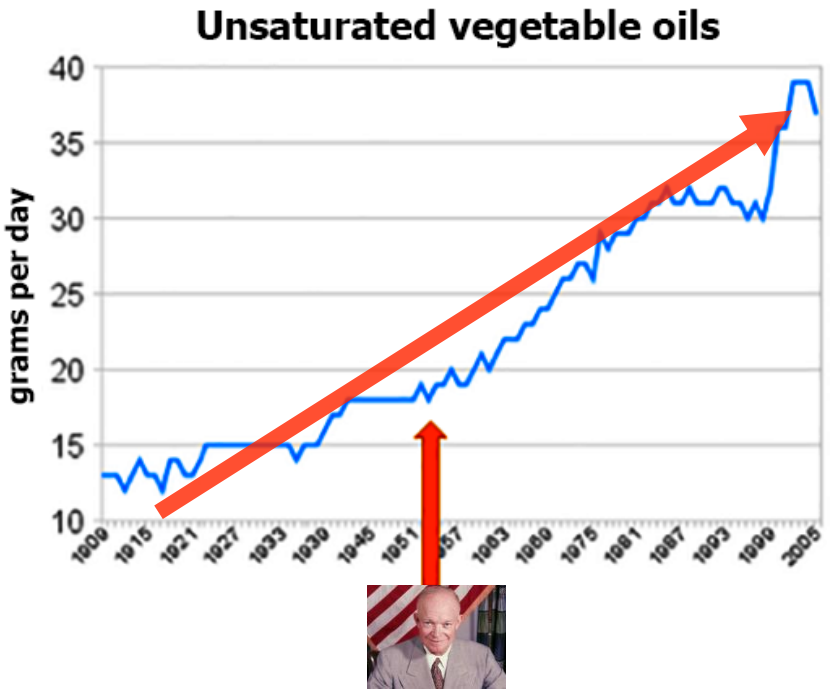

ACT OF AUGUST 2, 1886
UNITED STATES
INTERNAL REVENUE
SERIES OF 1886
CANCELLATION BY STEELDIE
OLEOMARGARINE STAMP
Issued APR 18 1889
Oleomargarine Package No. 24713 Factory No.
Affixed and Cancelled
By Collector
District
CONN.
No. 1014163


It's Time to Give the Consumer a Break.
REPEAL ALL FEDERAL ANTI-MARGARINE LAWS!
30 STATES ENJOY YELLOW MARGARINE
BUT DON'T ENJOY PAYING TAXES ON IT

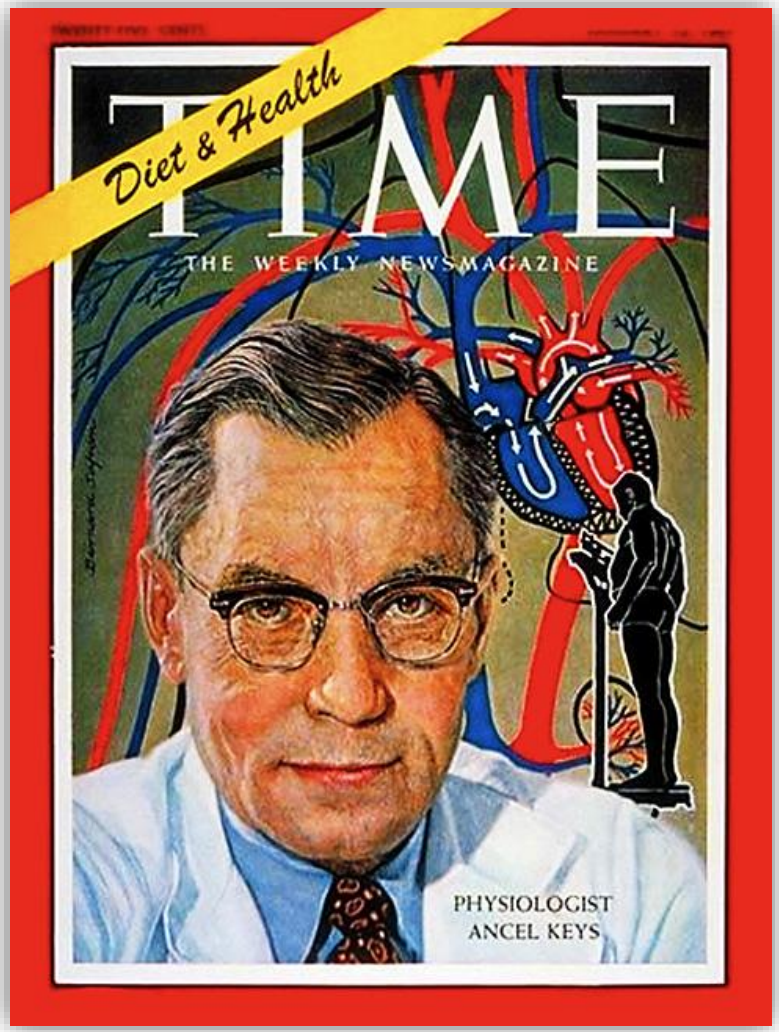
Vegetable cooking oils

Animal fats vs. Vegetable fats Consumption Change in the 20th century





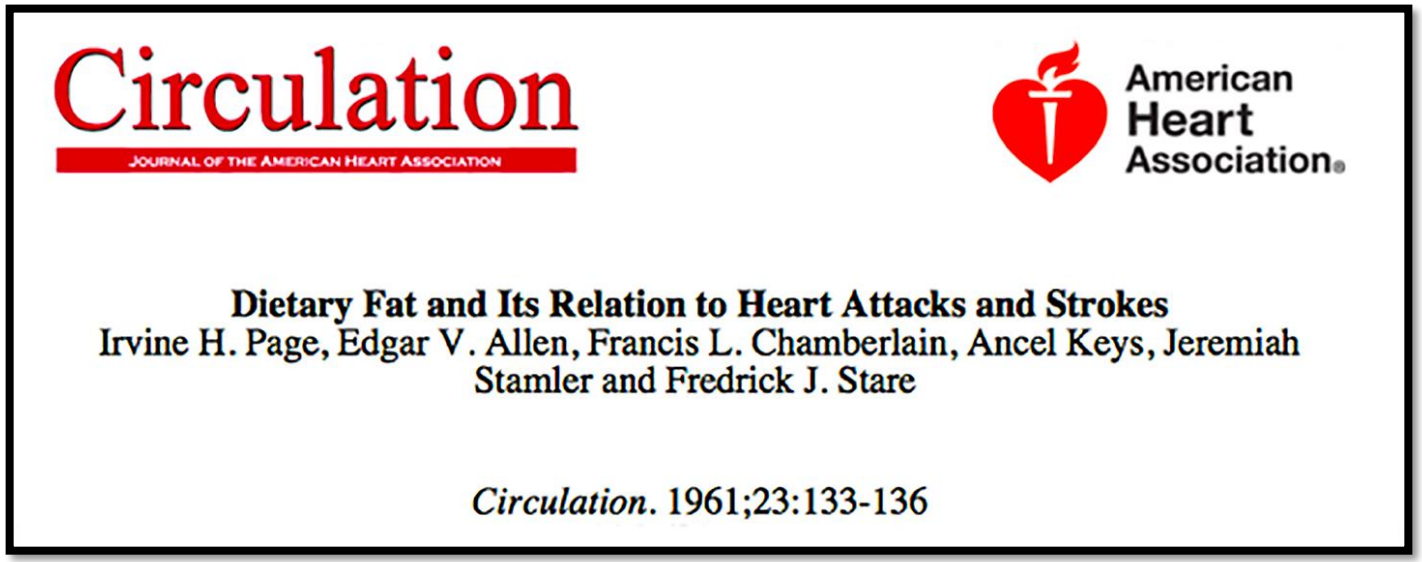
Source: USDA



Ancel Keys was
"Mr. Cholesterol"

The most influential nutrition scientist of the 20th century

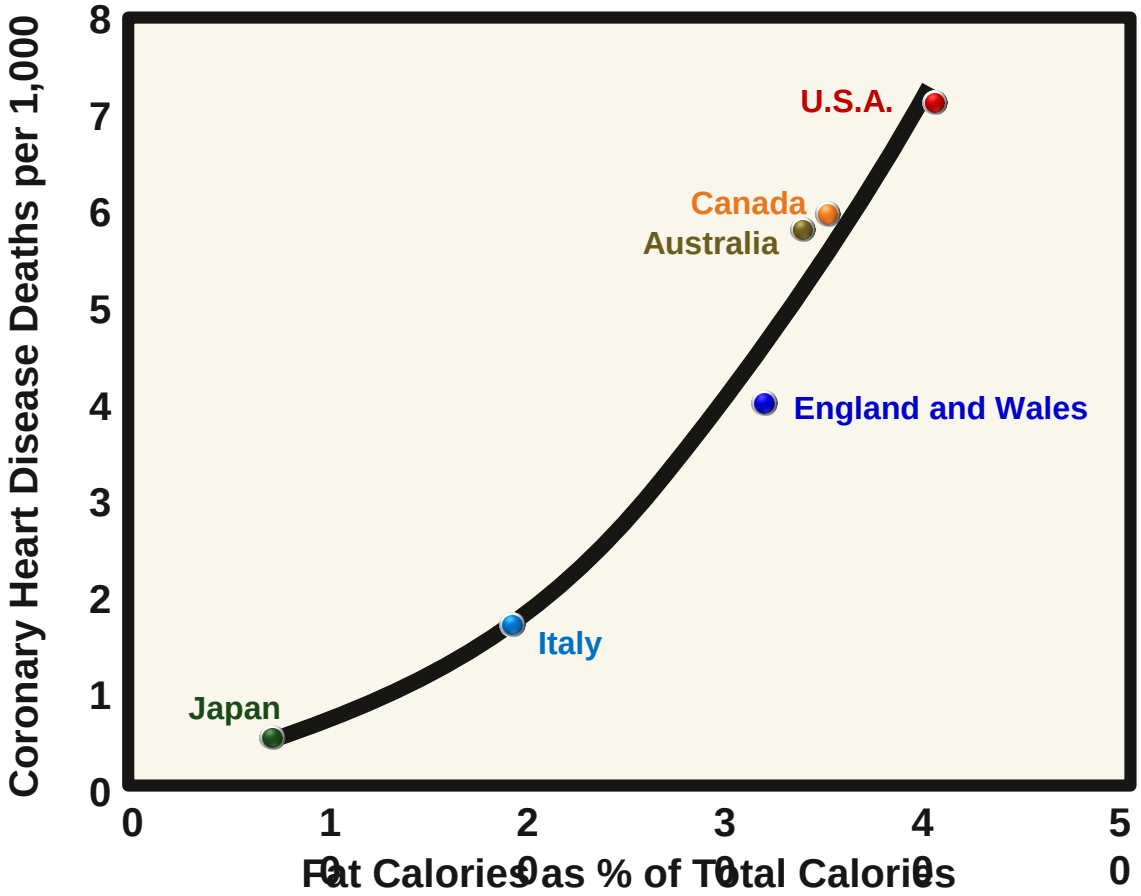
1961:
American Heart Association recommends polyunsaturated oil to fight heart disease



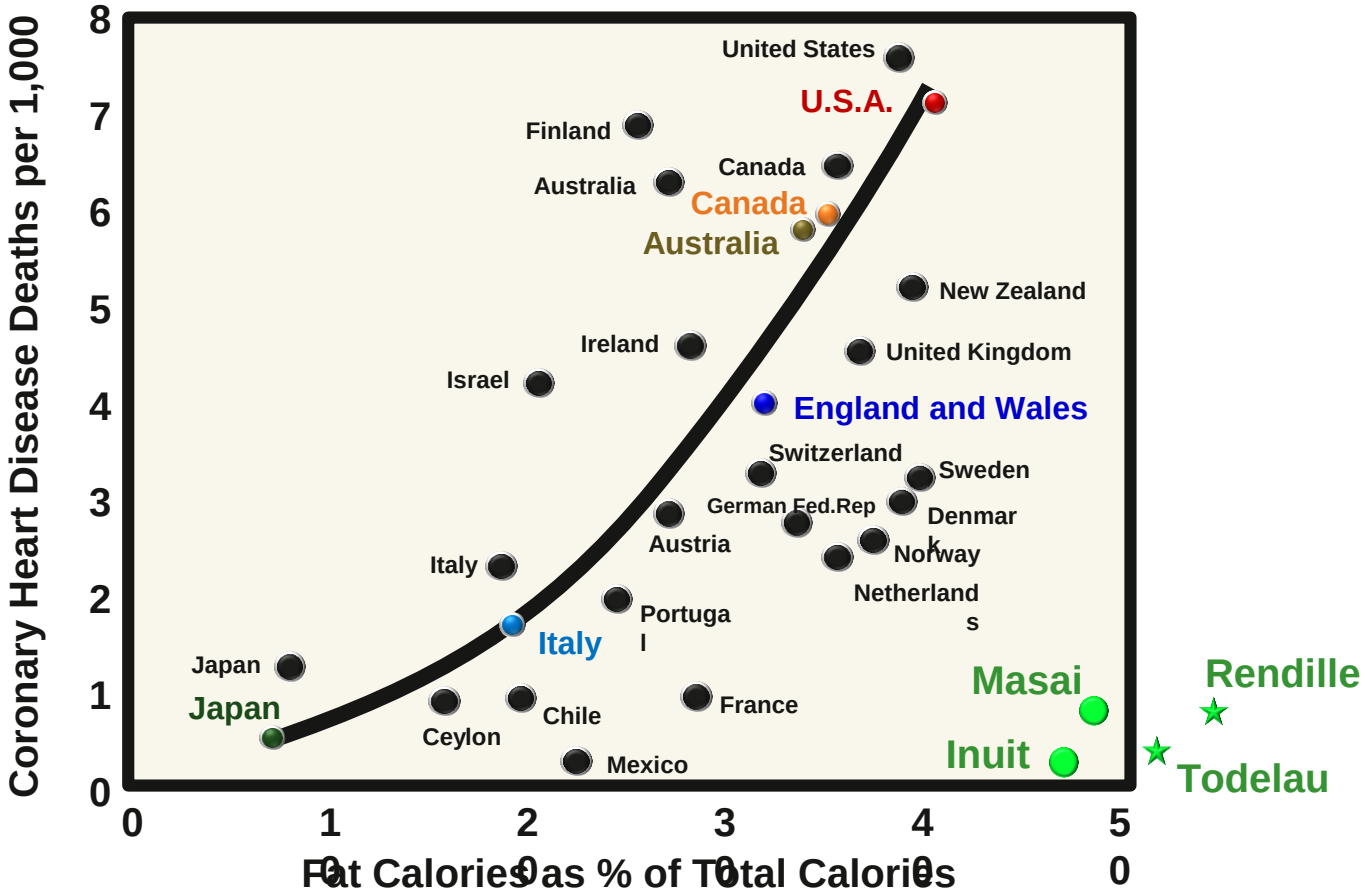
What Was the Evidence??

The Seven Countries Study

What Keys submitted as evidence



What Keys didn't submit as evidence



Other problems with the 7 Country Study

- While Keys *did* find that although saturated fats seemed linked to heart disease….**there was no difference in *total* mortality**
- Dietary data was sampled from < 500 men out of 12,970, or ***less than 4%***

Studying the islanders on Crete….
who were long-lived

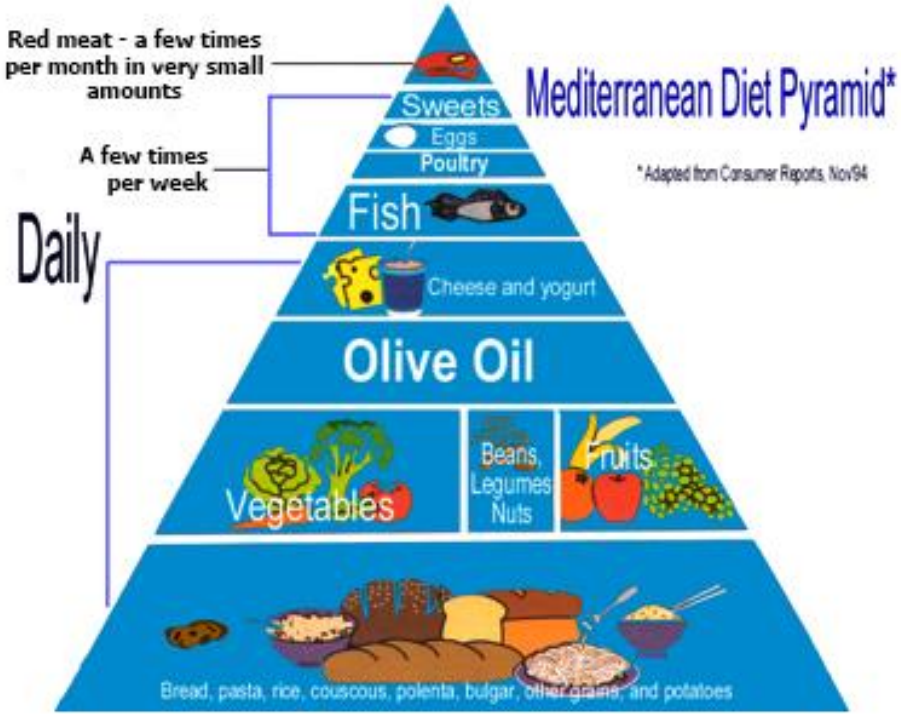
….during Lent

“The Greek Orthodox fast is a strict one and means abstaining from all foods of animal origin, including fish, cheese, eggs and butter”

—Contemporary Observer

Outsized impact of the Cretans

- Only 30-33 men
- Yet this data convinced Walter Willett, founder of the “Mediterranean Diet”
- Now Co-Commissioner of EAT-Lancet, telling everyone to go vegan….based on *this* Cretan data.



Mediterranean Pyramid

EAT Lancet Report

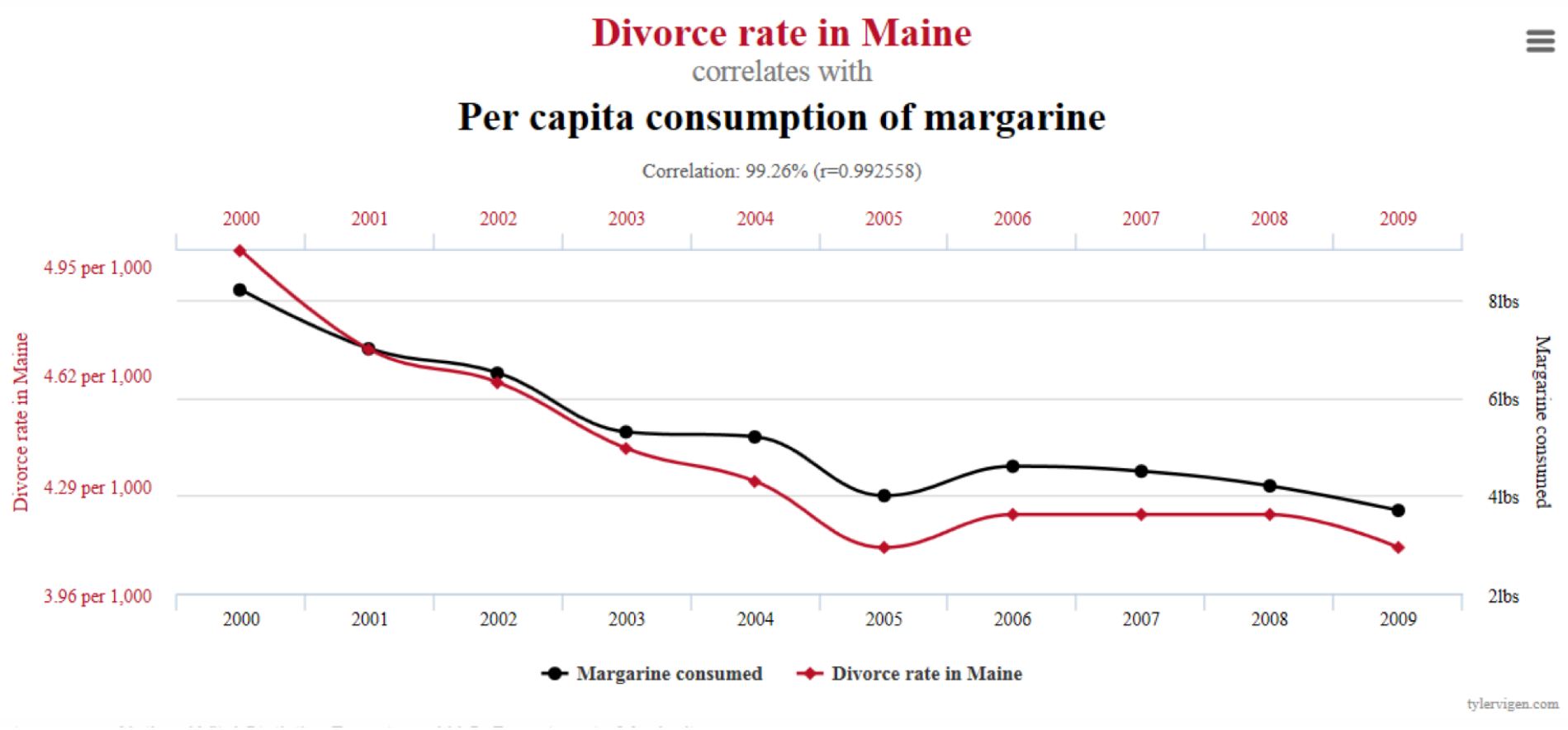
According to the report, you can eat 8 tsp of sugar but only 1 cup whole milk

Ultimate problem:

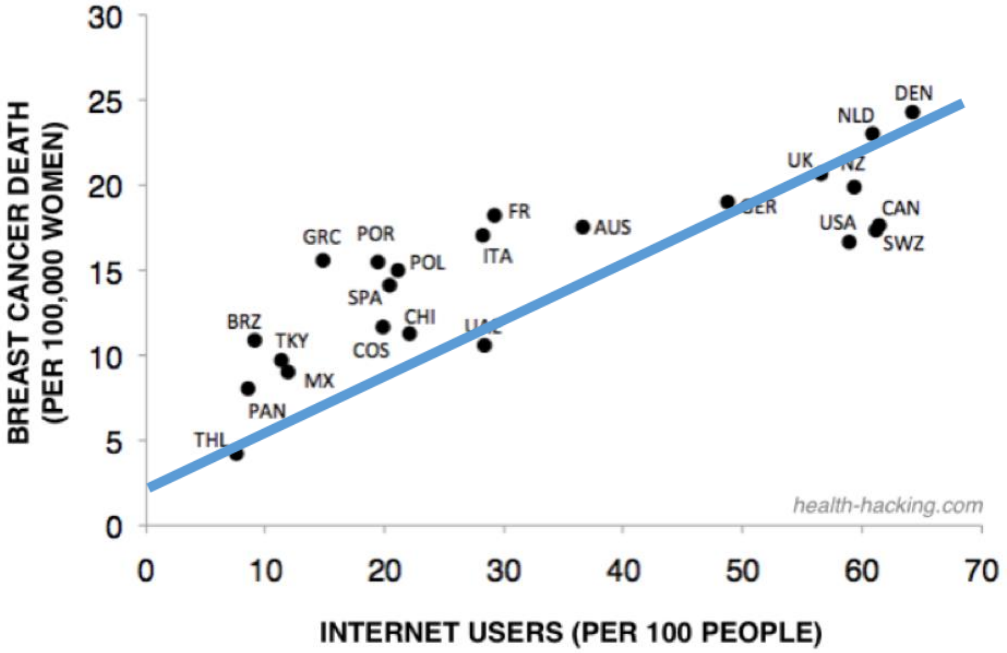
The 7 Countries Study was an epidemiological study

*Can show **association**…*
*but not establish **causation***

Inevitability of False Positives



Inevitability of False Positives



Scientists knew this was weak evidence….

So governments around the world undertook randomized controlled clinical trials (the "gold standard")

- There were actually a large number of government-funded, randomized, controlled clinical trials
- On "hard endpoints"
- On altogether more than **25,000** men and women, in experiments lasting 1 to 12 years
- **RESULTS: No effect** of saturated fats on cardiovascular mortality or total mortality

Source: Teicholz, N, *BMJ* 2015

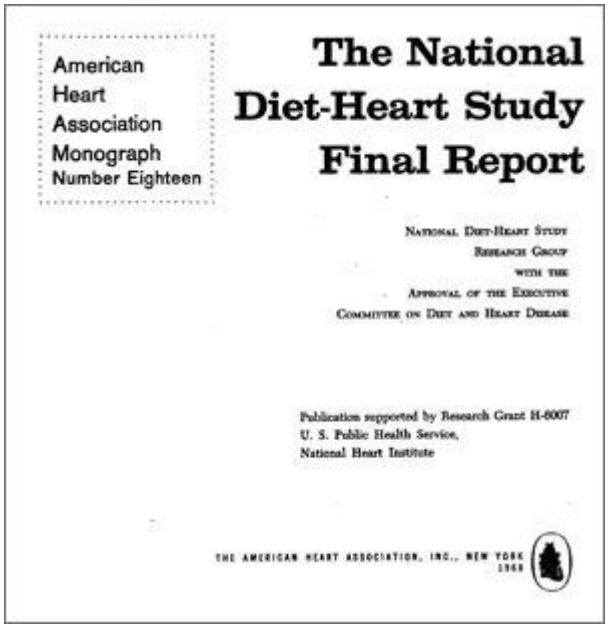
Yes, these diets reduced cholesterol…

- Usually by around 13%
- But this reduction in cholesterol had no effect on cardiovascular mortality

The diet-heart hypothesis is the most tested hypothesis in the history of nutrition and disease

And the results were null

And in nearly a dozen of these studies…


American Heart Association Monograph Number Eighteen

The National Diet-Heart Study Final Report

National Diet-Heart Study Research Group with the Approval of the Executive Committee on Diet and Heart Disease

Publication supported by Research Grant H-6007 U. S. Public Health Service, National Heart Institute

THE AMERICAN HEART ASSOCIATION, INC., NEW YORK 1968

L.A. Veterans Trial

NIH-funded

Editors, “Diet and Atherosclerosis” 1969, 940

Oslo study

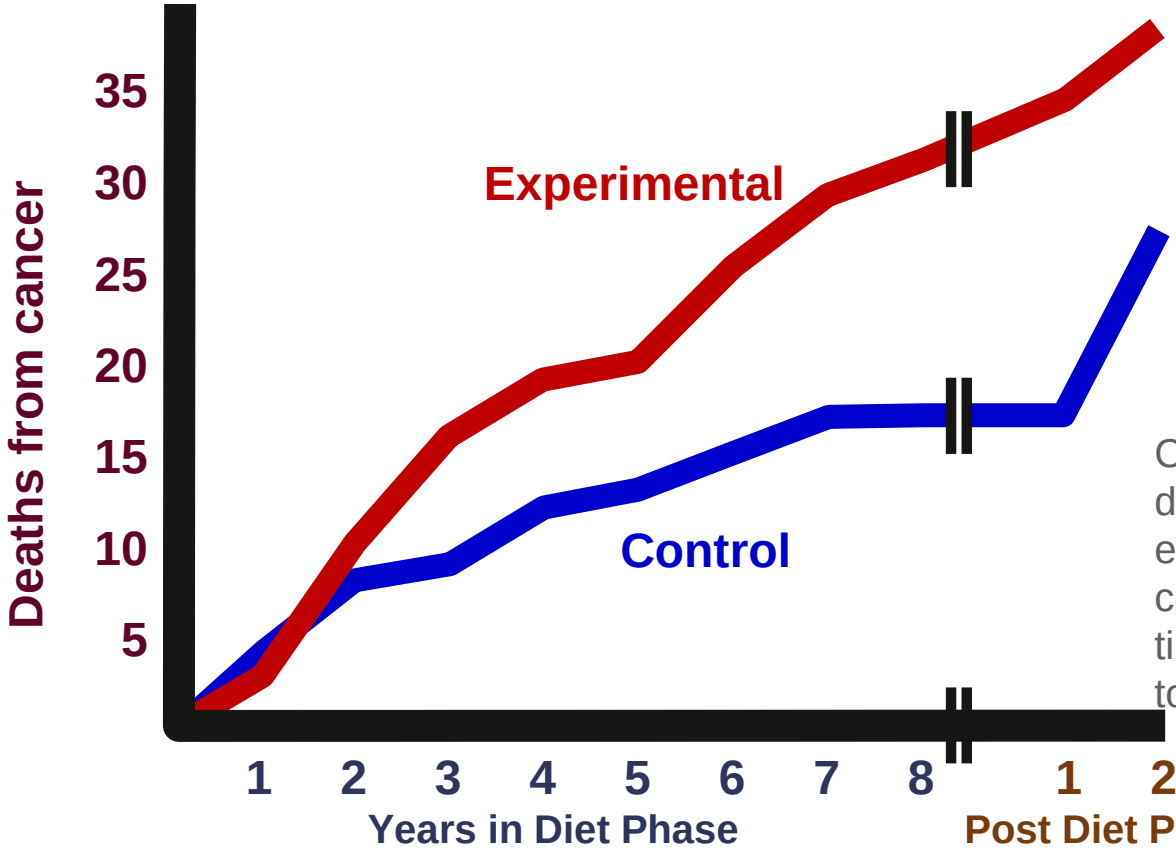
Leren 1966, 88

“MRFIT” Trial

NIH-funded

Multiple Risk Factor Intervention Trial Research Group, Journal of the American Medical Association, 1982

L.A. Veterans Trial—risk of cancer



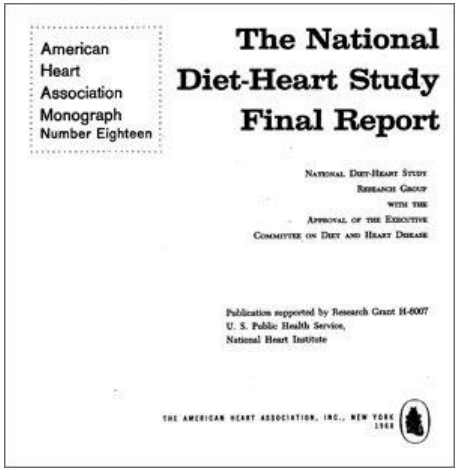
Cumulative carcinoma deaths in experimental and control group from time of randomization to time of death

The Politics of Nutrition Science

NIH National Heart, Lung, and Blood Institute

American Heart Association

Learn and Live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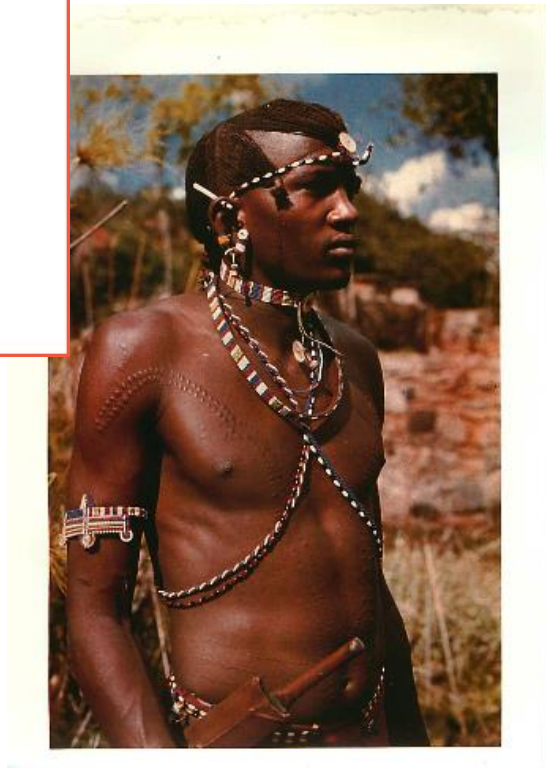
Publication supported by Research Grant H-6007 U. S. Public Health Service, National Heart Institute

The American Heart Association, Inc., New York 1968

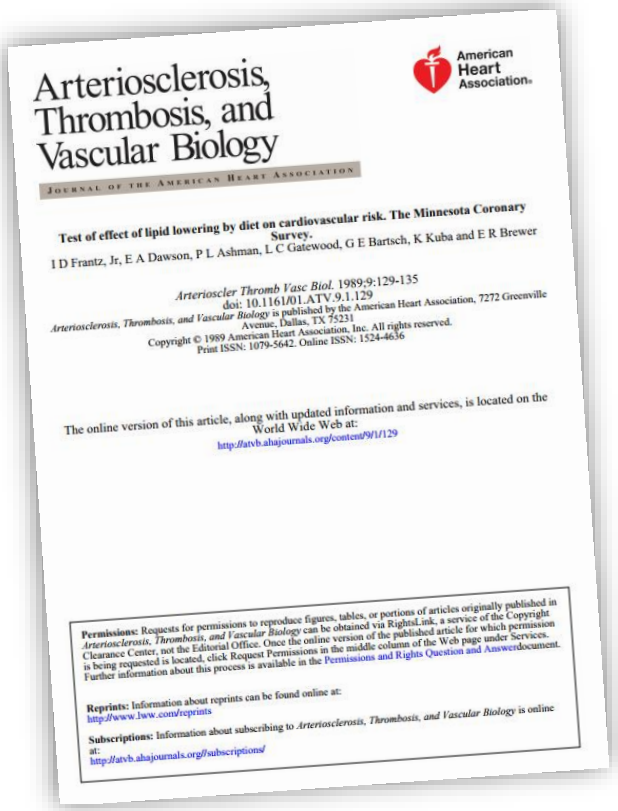
Silencing the critics: George Mann

George Mann
Vanderbilt University

FRAMINGHAM HEART STUDY
Three Generations of Dedication
1948 1971 2002
A Project of the National Heart, Lung, and Blood Institute and Boston University



Selection Bias: the Minnesota Coronary Survey



Arteriosclerosis, Thrombosis, and Vascular Biology

JOURNAL OF THE AMERICAN HEART ASSOCIATION

American Heart Association.

Test of effect of lipid lowering by diet on cardiovascular risk. The Minnesota Coronary Survey.

I D Frantz, Jr, E A Dawson, P L Ashman, L C Gatewood, G E Bartsch, K Kuba and E R Brewer

Arterioscler Thromb Vasc Biol. 1989;9:129-135
doi: 10.1161/01.ATV.9.1.129

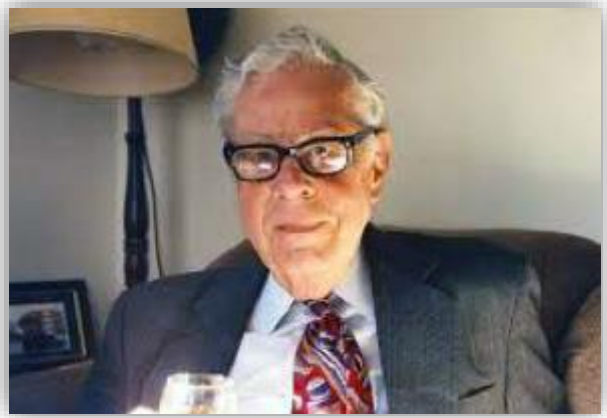
Arteriosclerosis, Thrombosis, and Vascular Biology is published by the American Heart Association, 7272 Greenville Avenue, Dallas, TX 75231

Print ISSN: 1079-5642. Online ISSN: 1524-4636

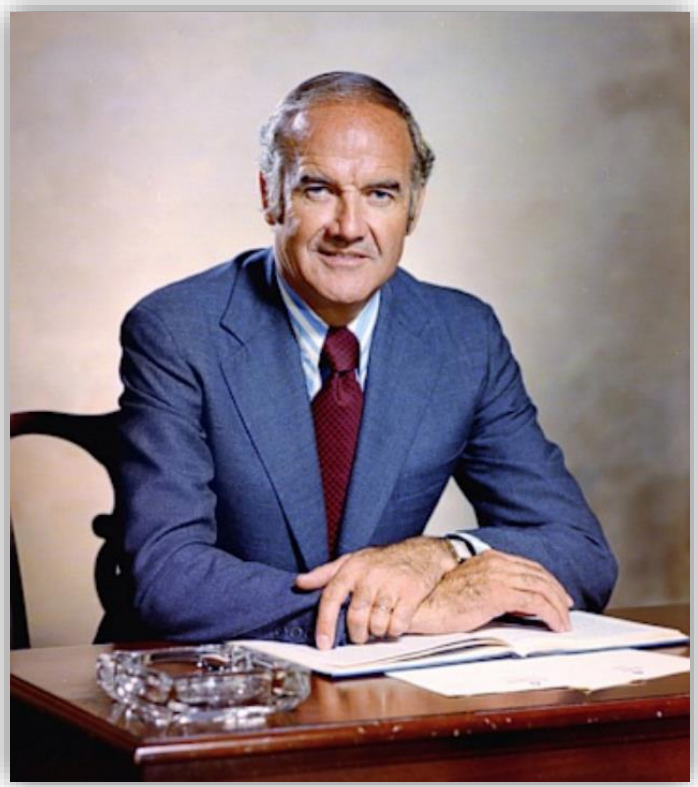
The online version of this article, along with updated information and services, is located on the World Wide Web at:
http://atvb.ahajournals.org/content/9/1/129

***The BMJ* 2015:**

The ***more*** the men
lowered their cholesterol,
the ***more*** likely they were
to **die** from cardiovascular death.

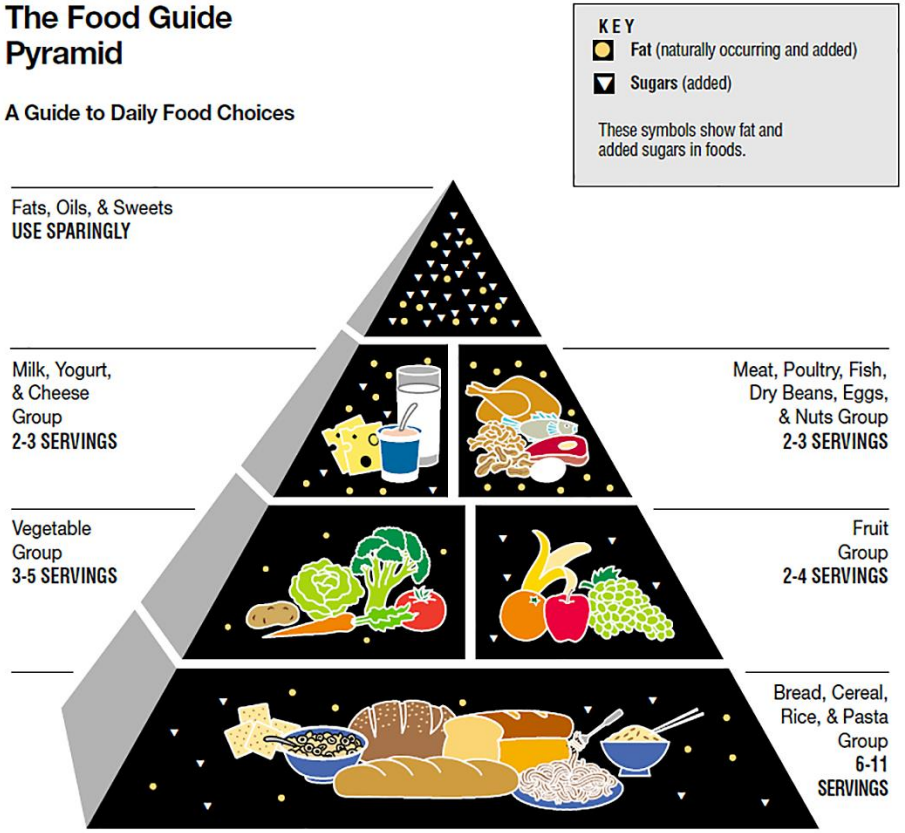


US Dietary Goals



Bachrach/Getty Images

Senator George McGovern



Source: US Dept of Agriculture

Rate of Overweight/Obesity in US

Source: CDC data

Isn’t it all our fault?

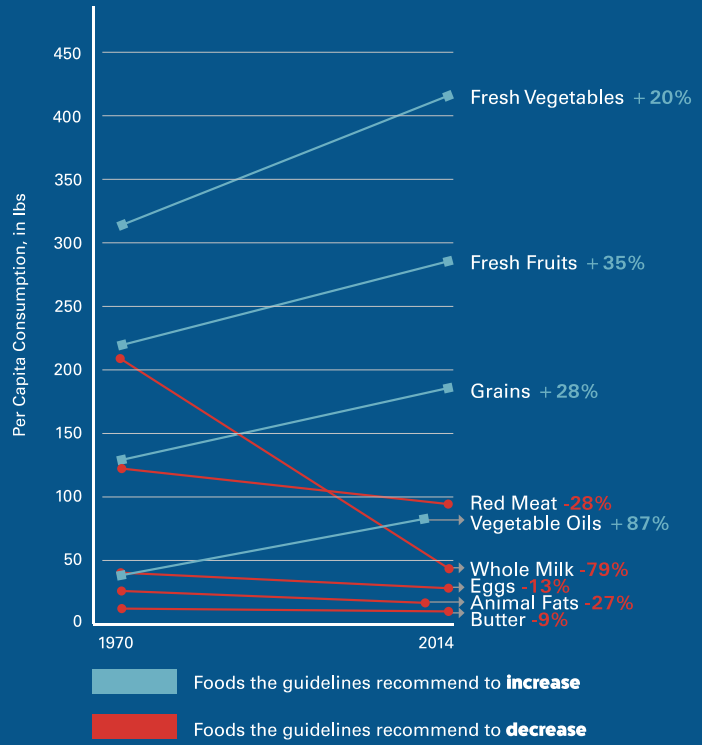
People don’t follow the **Dietary Guidelines** faithfully enough

People **exercise** too little

AMERICANS HAVE FOLLOWED THE US DIETARY GUIDELINES

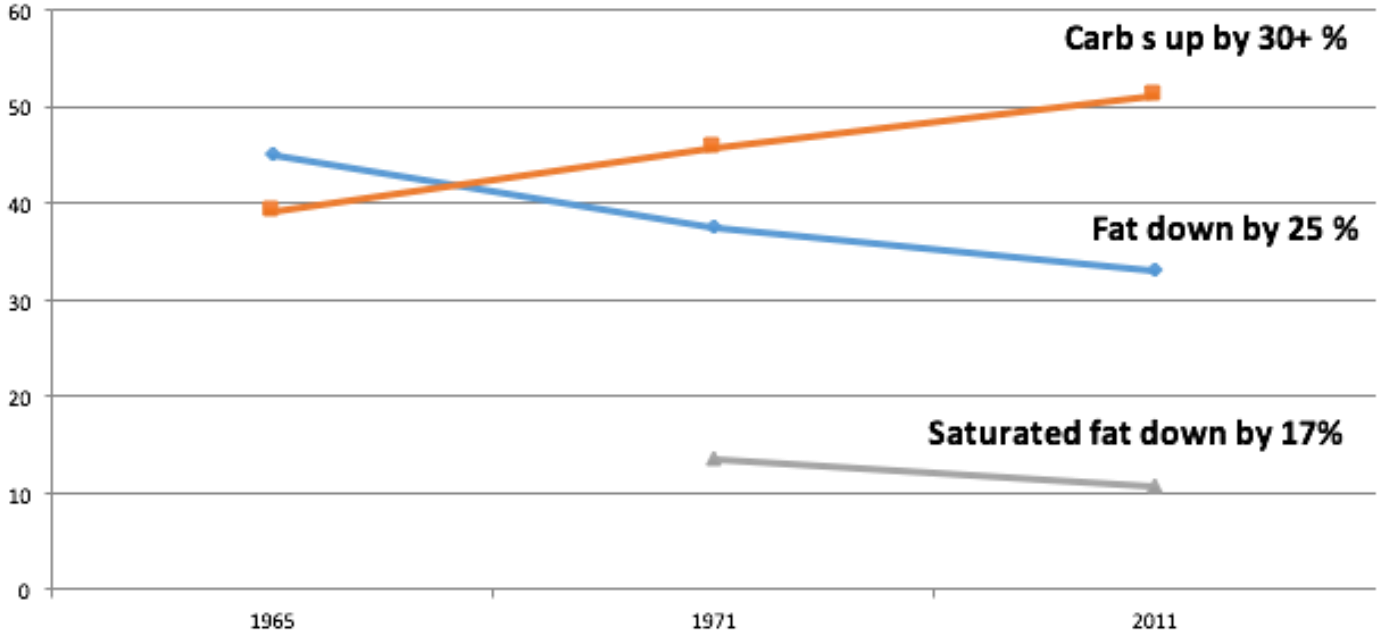
Food Availability

1970 - 2014



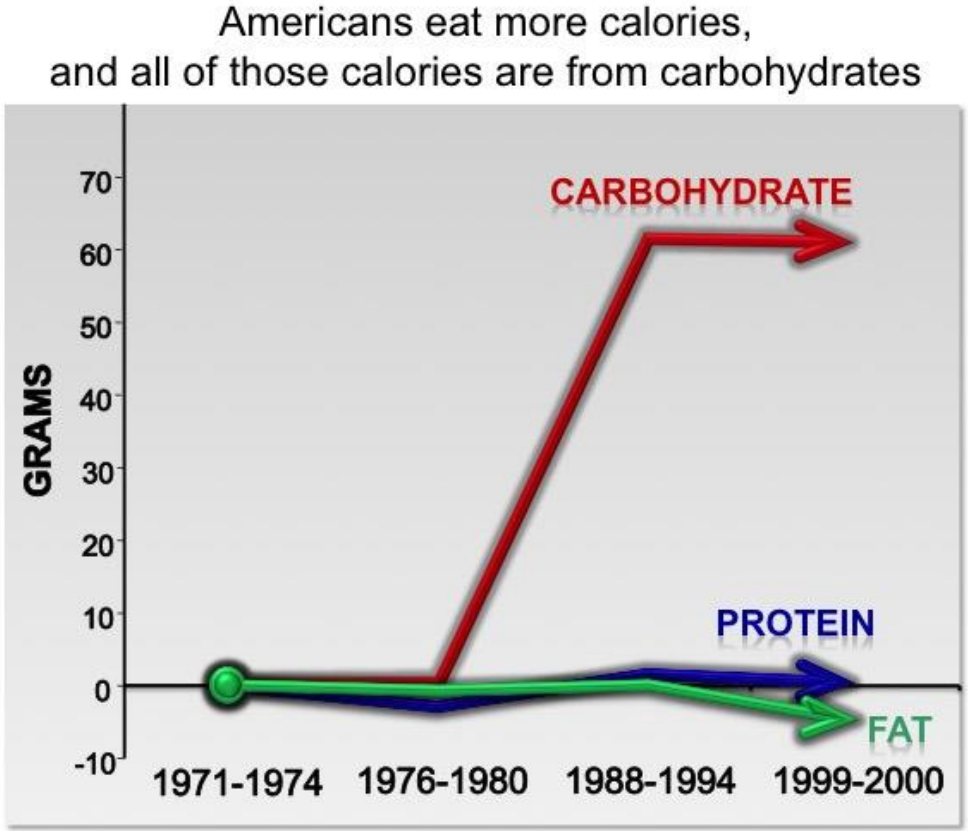
NOTES: The latests data on animal fats and vegetable oils are reported from 2010, not 2014; Food consumption (food availability minus loss) is also

Major macronutrient shift in US 1965-2011



Source: Cohen et. al., *Nutrition*, 2015, volume 31, Issue 5, 727-732

Yes, we eat more calories, but…



Source: Centers for Disease Control and Prevention, "Trends in Intake of Energy and Macronutrients --- United States, 1971—2000," MMWR Weekly, February 6, 2004 / 53(04);80-82; Chart by Nina Teicholz.

On exercise…

"…physical activity is generally insufficient by itself to bring about clinically significant weight loss…a dietary intervention is usually needed"

Physical Activity Guidelines Advisory Committee Report, U.S. Office of Disease Prevention and Health Promotion, 2008

"sedentary behavior cannot be shown to lead to obesity."

Report by the 2015 Dietary Guidelines Advisory Committee

<u>Conclusion:</u>

You can't exercise your way out of a bad diet

Maybe it's not our fault after all…

Maybe its' the fault of the Dietary Guidelines themselves…

What does the science now say?

#1: Saturated fats do **NOT** cause CVD death

Now >16 meta-analyses and systematic reviews looking at link between saturated fats and heart disease.

Taken together, these conclude that **saturated fats:**

- Are **not associated with** heart disease
- Have **no effect on** cardiovascular mortality

Canadian

HEART & STROKE™ FOUNDATION

The following recommendations do not include a threshold or limit for saturated fat

RECOMMENDATIONS

The science of nutrition is ever-evolving with new evidence emerging all the time. It is becoming increasingly clear that what has the most impact on health is the overall quality of one's diet, combined with the types and quantity of food consumed. The following recommendations do not include a threshold or limit for saturated fat and instead focus on a healthy balanced dietary pattern, which can help Canadians reduce consumption of saturated fats.

The Heart and Stroke Foundation recommends that:

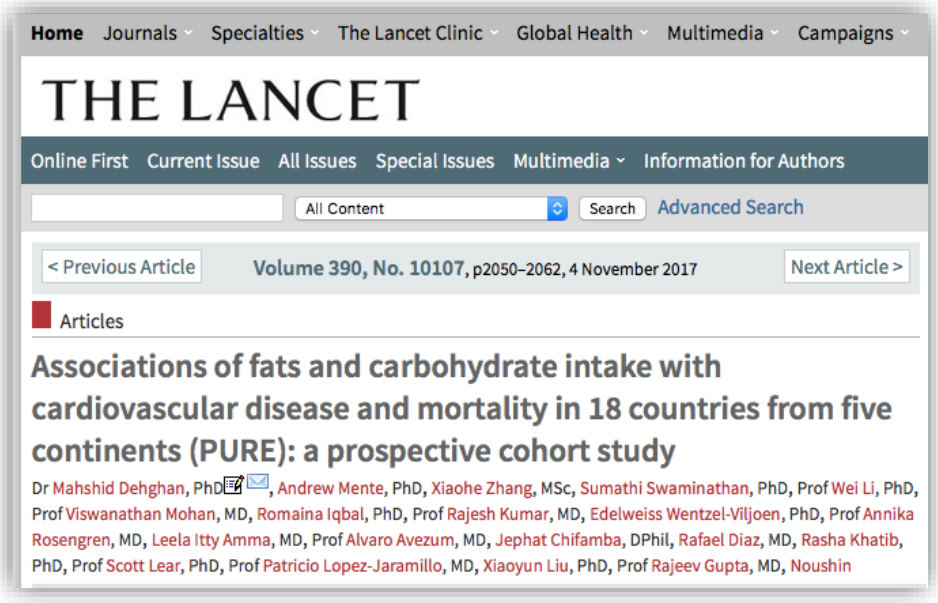
CANADIANS

1. Eat a healthy balanced diet.
   - Consume a variety of natural/whole and minimally

https://www.heartandstroke.ca/-/media/pdf-files/canada/position-statement/saturatedfat-eng-final.ashx

“We’re all **afraid** of saturated fat,
but saturated fat actually appears **good** for you.”

Salim Yusuf, Chair, Dept. of Cardiovascular Disease,. McMasters University Medical School



Paradigm change on saturated fats?

THE LANCET

Perspectives

Book

Fat and heart disease: challenging the dogma

Many readers will be incensed by this book. If you think saturated fats and cholesterol are bad for you, you'll be incensed. If you think the fat story is exaggerated, you'll be incensed. If you trust in the objectivity of science to inform health policy, you'll be incensed. Stories of shocking scientific corruption and culpability by government agencies are all to be found in Nina Teicholz's bestseller *The Big Fat Surprise*. This is a disquieting book about scientific incompetence, evangelical ambition, and ruthless silencing of dissent that has shaped our lives for decades.

It is important that people trust scientists. Despite the increasing number of retracted papers, society still puts scientists near the top of professions that are trusted. In the UK's 2016 Ipsos MORI Veracity Index, scientists were trusted by 80% of the British public. Unfortunately, this might be changed by Teicholz's exposé that claims the public were misled into thinking that high levels of dietary saturated fats are the cause of heart disease.

Poor science was at the start of the problem, claims Teicholz. *The Big Fat Surprise* tells us that the diet-heart hypothesis was formulated and promoted by Ancel Keys. He embarked on an epidemiological study, the Seven Countries Study, that aimed to identify a correlation between dietary saturated fats and heart disease. The first published results of this study seemed to support the relation between fat intake and heart disease, but Teicholz tells us of bias in selecting countries and in selecting data (excluding much data from one country). Such limitations would make this study difficult to publish in a respectable journal today. Furthermore, the follow-up time was short, and when longer term data were collected these did not support the hypothesis—but often these results were not published.

Part of the scientific process is rigorous peer review and debate. Many voices were raised against the interpretation of the Seven Countries Study. Dissent, however, was barely tolerated and Teicholz describes how the discussions degenerated into personal attacks. Teicholz explains how this came about in the second half of the 20th century.

"Researchers, clinicians, and health policy advisers should read this provocative book that reminds us about the importance of good science and the need to challenge dogma..."

After his heart attacks, US President Dwight Eisenhower offered government support for further scientific investigation into dietary fats and heart disease. Proponents of the link between dietary fat and heart disease were therefore in the ascendancy and obtained positions as government advisers, as editorial board members, and on grant-giving bodies. From these powerful positions they largely silenced critics by making it difficult to publish papers that disagreed with their views. Furthermore, as Teicholz documents, researchers who applied for grants for research that might challenge the key opinion leaders in the fat debate had their grant applications rejected. Teicholz reports that one grant applicant was told "Your opposition to Keys is going to cost you your grant." In science today it is still a criticism of peer review that reviewers are not likely to look objectively at results that disagree with their own work. When research grants and publications are dependent on the goodwill of reviewers, science that challenges dogma can be stifled.

Teicholz goes on to report that agencies with the job of protecting health were also complicit in providing advice based on the weak science of a few key opinion leaders. Promises of massive funding, together with a lack of rigorous evaluation of the strength of the evidence, seem to have resulted in entrenched positions on dietary fat intake. On the basis of epidemiological data, but ignoring the evidence from direct scientific interventions with dietary saturated fats, the mantra of low-fat diets became established. Parallels can be found in other dietary recommendations today where foods are promoted, or condemned, on the basis of absent or poor scientific evidence.

The Big Fat Surprise is a gripping narrative, but readers might be incredulous at some of Teicholz's claims and want to check the references. When many of those papers are read again from a more critical perspective, the angst and anger will rise. Teicholz reminds us to critically question research and, more importantly, challenge unjustified extrapolation; remember that associations do not provide evidence of causality; and to be alert for misrepresentation and non-reporting of inconvenient results.

Researchers, clinicians, and health policy advisers should read this provocative book that reminds us about the importance of good science and the need to challenge dogma—especially when (with the best of intentions) agencies might use scientific data to advocate societal changes. *The Big Fat Surprise* also shows that the quest for scientific truth should not be subsumed to personal ambition. Furthermore, in providing a challenge to the demonisation of saturated fats, this book should encourage us to challenge other so-called facts.

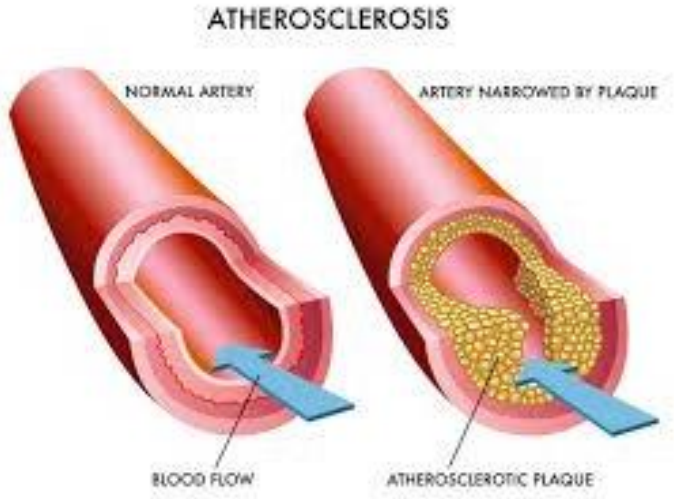
Stuart Spencer
stuart.spencer@lancet.com

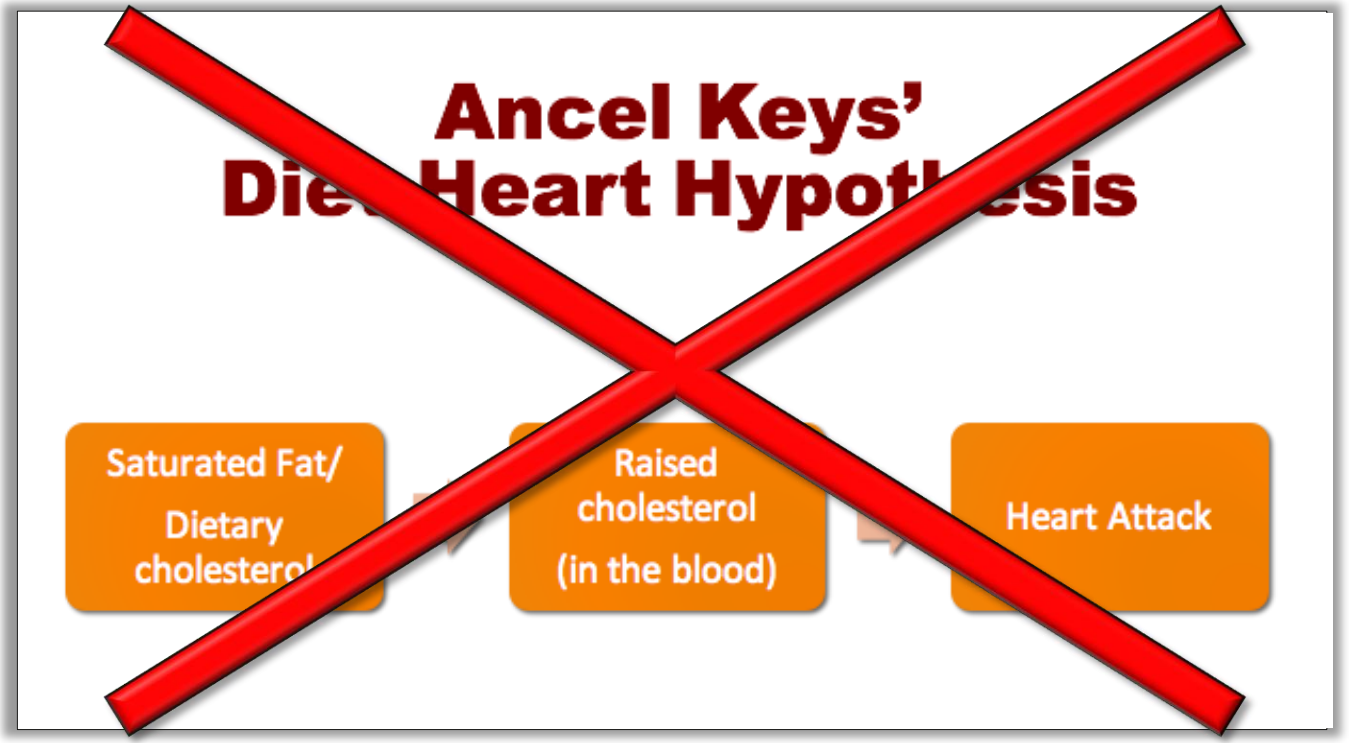
The Big Fat Surprise
Nina Teicholz. Simon & Schuster
Pp 496. US$17.00.
ISBN 9781451624434

www.thelancet.com Vol 390 August 19, 2017

731

#2: Eating cholesterol does not worsen blood cholesterol




Ancel Keys'
Die Heart Hypot sis
Saturated Fat/
Dietary
cholesterol
Raised
cholesterol
(in the blood)
Heart Attack

Cholesterol caps are gone

- Dropped by the American Heart Association in 2013
  - “Insufficient evidence”
- Dropped by the US Dietary Guidelines in 2015
  - ”Cholesterol is no longer a nutrient of concern for overconsumption”

#3: The low-fat diet doesn't work

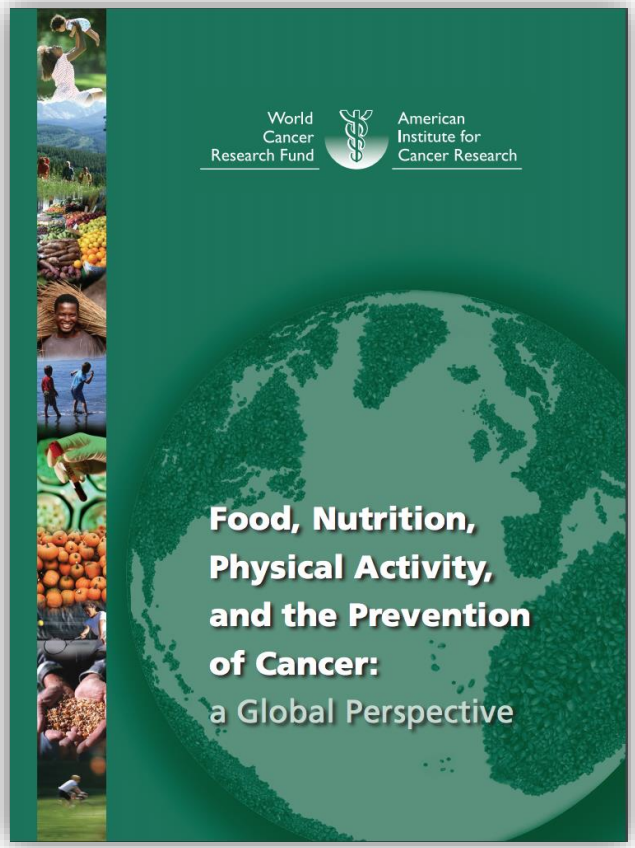
Tested in NIH-funded, randomized controlled clinical trials including the Women's Health Initiative and others.

On **>65,000** men and women (mainly women)

Conclusions:

- The low-fat diet **cannot** be shown to be effective at fighting obesity, diabetes, heart disease, or any kind of cancer.
- These studies showed that the **low-fat diet** actually **increased heart-disease risk.**
- That is why there is **no longer** a "low-fat" diet recommendation.

#4: Fat does not cause cancer



World Cancer Report 2007

No association between

fat *of any kind* and **cancer**

There is no more “low-fat diet” recommendation

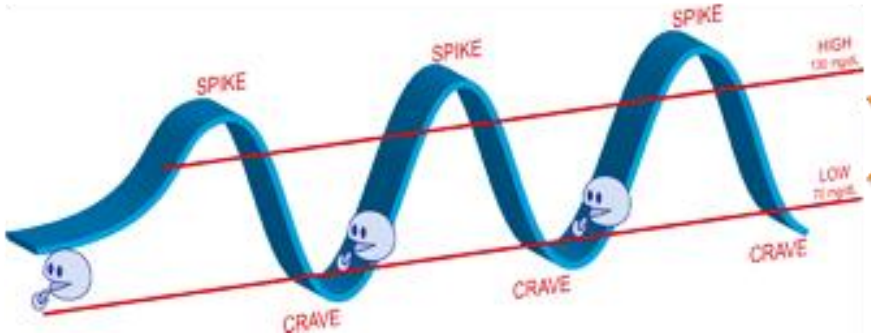
- Dropped by the American Heart Association
- US Dietary Guidelines started tip-toeing away from the ”low-fat” diet starting in 2000

Carbohydrate-Insulin Hypothesis

Fattening Carbohydrates → **Increased Insulin Levels** → **Obesity**

Path to Diabetes

Consistent exposure to insulin over time



What is the evidence supporting this theory?

- More than **70** controlled clinical **trials** on nearly **7,000 people**
- More than 32 trials 6 months or longer & 6 trials 2 years long
- Low-carb consistency leads to **equal or more weight loss** than low-fat
- Low-carb improves most cardiovascular risk factors

LATEST: Largest-ever study on T2 diabetics.
350+ subjects on a **"ketogenic" diet**.
1 year results: **~60% *reversed* their diabetes.**

What About Dairy?

Increasing number of studies showing that full-fat dairy is good for health

Eur J Clin Nutr. 2017 Dec 11. doi: 10.1038/s41430-017-0042-5. [Epub ahead of print]

Effect of whole milk compared with skimmed milk on fasting blood lipids in healthy adults: a 3-week randomized crossover study.

Engel S[1], Elhauge M[2], Tholstrup T[2].

> **Results** **Whole milk increased HDL cholesterol concentrations** significantly compared to skimmed milk ($P < 0.05$). There were **no significant differences** between whole milk and skimmed milk **in effects on total and LDL cholesterol, triacylglycerol, insulin, and glucose concentrations**.

J Nutr. 2014 Jul;144(7):1081-90. doi: 10.3945/jn.113.183640. Epub 2014 Apr 17.

Dairy intakes at age 10 years do not adversely affect risk of excess adiposity at 13 years.

Bigornia SJ[1], LaValley MP[2], Moore LL[3], Northstone K[4], Emmett P[4], Ness AR[5], Newby PK[6].

> **Children in the highest quartile of full-fat dairy intakes** vs. those in the lowest quartile had a **reduced risk of excess** TBFM (total **body fat** mass)

How is full-fat dairy possibly *good* for you?

1. **Saturated fats raise your HDL "good" cholesterol** (and this is the only food known to do so) (cite research)
2. Many animal foods are highly nutritious *and those nutrients are most bioavailable*
3. **Saturated fats are *stable*** and do not oxidize when heated: ideal for cooking
4. **Fat and protein are *satiating***

State of Nutrition for Dairy

- No more caps on cholesterol (AHA, USDA Dietary Guidelines)
- Yet caps on saturated fat remain and are the reason for low-fat dairy, low demand for milk
- Competition from soy products

Plant Based

Lifestyle

In the 2015 U.S. Dietary Guidelines for Americans

Dairy

Healthy intake: Healthy eating patterns include fat-free and low-fat (1%) dairy, including milk, yogurt, cheese, or fortified soy beverages (commonly known as "soymilk"). Soy beverages fortified with calcium, vitamin A, and vitamin D, are included as part of the dairy group because they are similar to milk based on nutrient composition and in their use in meals. Other products sold as "milks" but made from plants (e.g., almond, rice, coconut, and hemp "milks") may contain calcium and be consumed as a source of calcium, but they are not included as part of the dairy group because their overall nutritional content is not similar to dairy milk and fortified soy beverages (soymilk). The recommended amounts of dairy in the Healthy U.S.-Style Pattern are based on age rather than calorie level and are 2 cup-equivalents per day for children ages 2 to 3 years, 2½ cup-equivalents per day for children ages 4 to 8 years, and 3 cup-equivalents per day for adolescents ages 9 to 18 years and for adults.

NUTRITION COALITION

For evidence-based nutrition policy

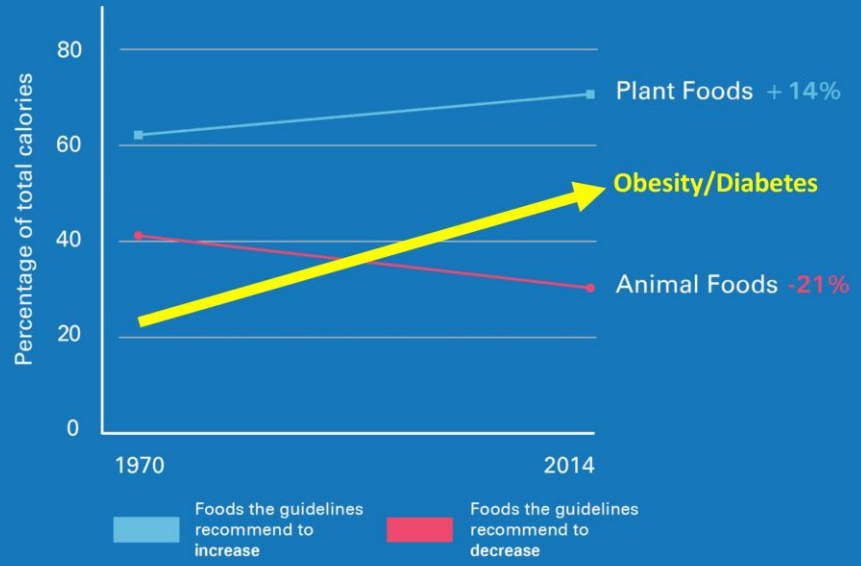
A 501(C)(3) NON-PROFIT, NON-PARTISAN
EDUCATIONAL ORGANIZATION

Washington, D.C.

FOOD CONSUMPTION IN U.S.

Plant-based vs. animal-based as % of total calories

1970-2014



NOTES: Loss-Adjusted Food Availability data serve as a proxy for food consumption. Data on added fats and oils and rice were unavailable after 2010. Added fats and oils and added sugars are added to foods during processing or preparation. They do not include naturally occurring fats and sugars in food (e.g., fats in meat or sugars in fruits).

"Animal foods" include fish, meat, dairy, eggs, and animal fats; "Plant foods" include grains, fruits, vegetables, oils from plants, nuts, and added sugars. These are all the categories reported by the USDA in the ERS report (See source).

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.

U.S. Dietary Guidelines “Lack Scientific Rigor”

REPORT EXCERPTS:

“To develop a trustworthy DGA, the process needs to be redesigned.”

“The current DGA process for reviewing the science falls short of meeting the best practices for conducting systematic reviews.”

“Methodological approaches and scientific rigor for evaluating the scientific evidence need to be strengthened.”

“The adoption and widespread translation of the DGA requires that they be universally viewed as valid, evidence-based, and free of bias and conflicts of interest to the extent possible. This has not routinely been the case.”

“The methodological approaches to evaluating the scientific evidence require increased rigor to better meet current standards of practice.”

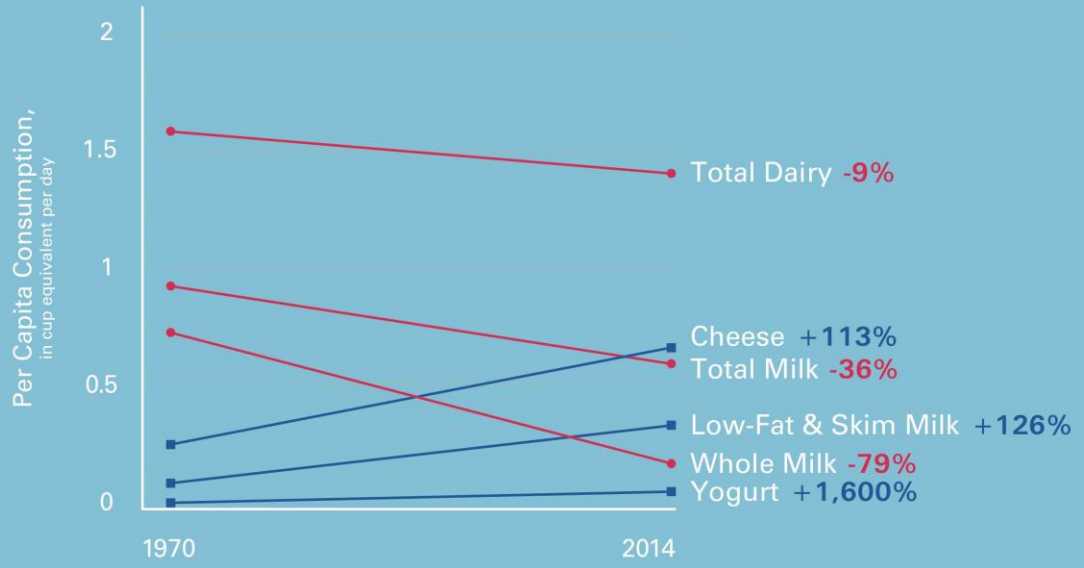
The Nutrition Coalition

- A non-industry backed non-profit, non-partisan group dedicated to **evidenced-based guidelines.**
- We do not endorse any one diet. We simply want our national dietary policy to be based on **rigorous science (i.e., controlled clinical trials and not epidemiological evidence)**

The evidence-based issue for milk is *saturated fat*

DAIRY CONSUMPTION IN THE U.S.

1970-2014



NOTES: Consumption is calculated by the USDA from food availability, minus an estimation of food loss.

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

- Last Dietary Guidelines Advisory Committee did not properly review the literature on saturated fat. (Teicholz, BMJ, 2015)

  - Never did a proper systematic review on saturated fats

  - No committee has EVER systematically reviewed any of the large, NIH-funded trials on saturated fats.

  - The committee rolled over the 10% cap on saturated fats without rigorous scientific review.

NUTRITION COALITION

Lesson for the Next Dietary Guidelines Committee: We Need A Diversity of Opinion

October 17, 2018

www.nutritioncoalition.us

2015 Dietary Guidelines Advisory Committee:

A large majority (11 out of 14, or nearly 80%) had consistently published work in favor of plant-based, low-animal-fat, vegetarian diets, and that many had built their careers promoting these types of diets.

What can *you do?*

Selection of 2020-2025 Dietary Guidelines Committee is happening NOW

Secretary Perdue: Your Leadership Urgently Needed on Advisory Committee for Next Dietary Guidelines

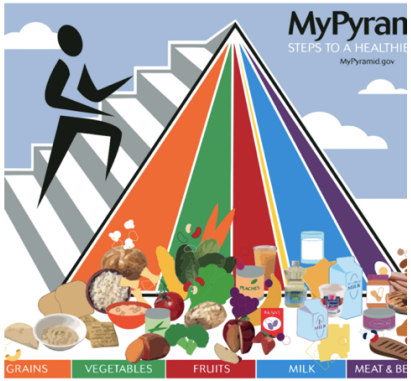
January 18, 2019

www.nutritioncoalition.us

USDA will include of reviews of saturated fats and low-carb diets in the 2020 Guidelines

Thousands tell USDA: Update Guidelines to Reflect the Latest Science on Saturated Fat and Low-Carb Diets

April 4, 2018



The U.S. Department of Agriculture (USDA) heard from thousands of concerned citizens about the need to update the 2020-2025 U.S. Dietary Guidelines on topics where the science has evolved, particularly on saturated fats and low-carbohydrate diets.

Read More →

What the letter asks for:

Secretary Perdue: Your Leadership Urgently Needed on Advisory Committee for Next Dietary Guidelines

January 18, 2019

By Dr. Dawn Lemanne, Dr. Mark Cucuzzella, and Dr. Jake Kushner

We have written an **urgent letter to Sonny Perdue**, Secretary of the U.S. Department of Agriculture, and we hope that you will consider joining us.

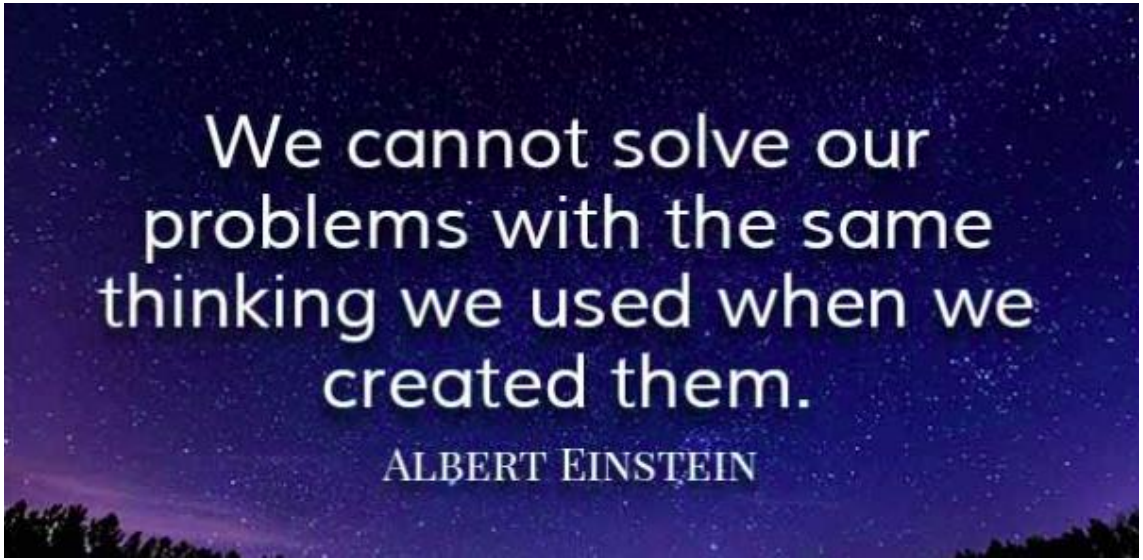
Read More →

www.nutritioncoalition.us

1. Most importantly, **an expert in evidence-based policy who knows how to evaluate science** and who understands that controlled clinical trials should be prioritized over observational evidence.
2. An **non-status-quo expert on saturated fats**
3. An **expert on low-carbohydrate diets**

Why This is so Important Now?

The future of change?

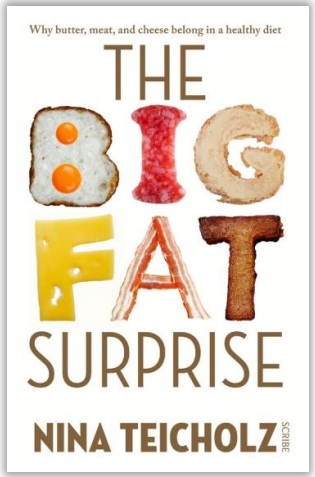


The failure of the guidelines to combat nutrition-related diseases over the last 40 years is unacceptable.

The fact that these guidelines don’t reflect the latest and most rigorous evidence is a travesty of science and a tragedy for public health.

Truth is a kind of justice, and we ask that this justice be served for the American people.

NUTRITION COALITION



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