

2024-2025 Topic Proposal:

Reforming Federal Food Programs and Dietary Guidelines

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Introduction and Overview

Americans are suffering through an epidemic of chronic disease, led by cardiovascular disease, obesity, diabetes, poor mental health, digestive disorders, autoimmune diseases, and cancer. Public health officials advise lifestyle changes and doctors prescribe drugs that address symptoms, but rarely causes.

The Centers for Disease Control reports “90% of the nation’s \$3.8 trillion in annual health care expenditures are for people with chronic and mental health conditions.”^{1 2} and a 2022 study concludes: “U.S. cardiometabolic health has been poor and worsening, with only 6.8% of adults having optimal cardiometabolic health, and disparities by age, sex, education, and race/ethnicity.”³

Yet few Americans know what “metabolic health” means. The problem is compounded by wide disagreements among doctors and nutritionists on what to advise patients with high blood pressure, elevated cholesterol, obesity, pre-diabetes and type 2 diabetes. Critics say the U.S. health care system is biased toward prescribing drugs and medical procedures for symptoms instead of diet and lifestyle changes to address root causes (usually metabolic syndrome/insulin resistance).

Debaters will have an opportunity to survey the divergent opinions and research on America’s escalating chronic health problems. Health and nutrition challenges are especially stark for minorities and low-income families. Poor neighborhoods have plenty of fast food restaurants and convenience stores for often unhealthy foods, but few grocery stores. (This is partly a consequence of federal government SBA loan guarantees available for fast food franchises but not grocery stores⁴).

The Federal Dietary Guidelines for Americans contribute to the problem by limiting federal food programs to arguably poor quality meals. These restrictions impact food served in public schools, hospitals, nursing homes, military bases, and prisons. The Federal Dietary Guidelines for Americans continue to promote low-fat foods (including banning full-fat dairy), and restrict saturated fat as unhealthy. Quality nutrition research does not support the Federal Dietary Guidelines for Americans, especially for those (the majority) who are metabolically unhealthy. Promoting low-fat foods translates to promoting diets higher in carbohydrates. All sides oppose excess sugar but to compensate for the poor taste of low-fat, sugar is often added (chocolate low-fat milk in schools, for example).

Among the challenges for debating this topic is the wide scope of chronic health conditions linked to poor metabolic health. With poor nutrition the source of most chronic disease, this is as much a health care reform topic as a nutrition, meals programs, and dietary guidelines reform topic.

Earlier drafts of this paper focused mostly to obesity and type 2 diabetes since the most published research on nutrition documents the success of dietary changes (away from the Standard American Diet (SAD)), and to Mediterranean and low-carb diets. But even here there is wide disagreements over the cause of surging obesity and type 2 diabetes in Americans of all ages.

Current public health guidelines tend to “blame the victim”: they advise overweight people to just “eat less and exercise more” which views chronic health problems as caused by being overweight rather than the reality which is excess weight gain is a consequence of poor metabolic health. People with metabolic syndrome/insulin resistance become “carbohydrate intolerant,” they have trouble metabolizing the excess carbohydrates in the Standard American Diet (SAD), which in turn is a consequence of decades of public health officials promoting the low-fat Food Pyramid and Food Plate.

The debate here is between the “energy balance theory of obesity” and the “carbohydrate insulin model,” discussed below.⁵

But providing a wider range of research and debate for the poor health of Americans:

- Some blame the obesity epidemic on much larger portion sizes and American eating out far more often.
- And on overly-processed, shelf-stable packaged foods with sugar and seed-oil calories, but little nutrition.
- Food companies are blamed for designing snacks to be hard-to-resist, even addictive. Popular soft-drinks with high-fructose corn syrup are blamed.
- A culture of snacking through the day (popularized by nutritionists), instead of the traditional one or two main meals each day with a long overnight fast.
- The overuse of antibiotics in childhood disrupting microbiome diversity and contributing to poor gut health and constant inflammation.

Most Americans are unhealthy. But medical, nutrition, and public health experts disagree on the causes and contributors and disagree even on what foods are healthy. For example Tamar Haspel, writes in a June 2023 *Washington Post* piece “Don’t Believe the Backlash: Saturated Fat Actually is Bad for You”⁶ and Nina Teicholz replies in a July 2, 2023 *Unsettled Science* post “Canceling the Science on Saturated Fats WashPost columnist Tamar Haspel pretends decades of science don't exist,”⁷ noting:

On saturated fats, Haspel’s arguments are squarely mainstream. In fact, her arguments are an almost exact replica of the strategy taken by the American Heart Association (AHA), the U.S. Department of Agriculture (USDA), and the World Health Organization (WHO) in defending their continued caps on saturated fats against a large body of scientific evidence to the contrary.

And quotes Frank Hu in an earlier post: “*I was wondering if we should have a separate section on low-carb diets rather than burying it,*” wrote Harvard nutrition professor Frank Hu about the official expert report for the 2015 U.S. Dietary Guidelines for Americans. *Over the past decade, thousands of scientists, doctors and others have urged officials overseeing our nation’s nutrition policy to pay*

*attention to studies on low-carbohydrate diets, yet even as the science has advanced rapidly, the federal agencies in charge of the guidelines seem ever-more intent on ignoring and yes, burying the science.*⁸

Again on the poor metabolic health of Americans: “Only 1 in 8 Americans are achieving optimal metabolic health, which carries serious implications for public health”⁹ and “Between 1999 and 2000 and 2017 and 2018, U.S. cardiometabolic health has been poor and worsening, with only 6.8% of adults having optimal cardiometabolic health, and disparities by age, sex, education, and race/ethnicity. These novel findings inform the need for nationwide clinical and public health interventions to improve cardiometabolic health and health equity.”¹⁰

The Center for Disease Control’s Overweight & Obesity page links to its “Childhood Overweight & Obesity” includes: “Obesity is complex. Many factors can contribute to excess weight gain including behavior, genetics and taking certain medications. But societal and community factors also matter: [child care](#) and [school](#) environments, [neighborhood design](#), access to [healthy, affordable foods](#) and beverages, and access to safe and convenient places for physical activity affect our ability to make healthy choices.”¹¹

And the “healthy, affordable foods” link opens: “Healthy Food Environments: Improving Access to Healthier Food” noting: “Each year, chronic diseases account for 70% of all deaths in the United States. Poor diets lead to chronic illnesses such as heart disease, type 2 diabetes, and obesity.” And “Each year, chronic diseases account for 70% of all deaths in the United States. Poor diets lead to chronic illnesses such as heart disease, type 2 diabetes, and obesity.”¹²

The debate over what foods are healthy

Again a challenge for debaters is that medical and nutrition communities strongly disagree on what foods are healthy. The Federal Dietary Guidelines recommend lean meat (or plant-based protein sources), low-fat dairy, and many servings of whole grains and vegetables. Critics argue these dietary recommendations are not based on sound research and in any case do not apply to the majority of Americans who are metabolically unhealthy. How are we to improve access to healthy foods if experts don’t agree on which foods are healthy?

The White House Conference on Hunger, Nutrition, and Health (March 24, 2023), reports on the September 2022 conference: Ending Hunger and Reducing Diet-Related Diseases and Disparities, from White House Conference on Hunger, Nutrition, and Health: ¹³

Millions of Americans are affected by food insecurity and diet-related diseases — including heart disease, obesity, and type 2 diabetes — which are some of the leading causes of death and disability in the U.S. The toll of hunger and these diseases is not distributed equally, disproportionately impacting underserved communities...

Possible Resolutions

Resolved: The United States Federal Government should significantly reform dietary guidelines for Federal Food Assistance Programs. (or...of food assistance programs for one or more of the following: public schools, hospitals, nursing homes¹⁴, military, or low-income families). *Federal Food Assistance Programs*: FNS Nutrition Programs, <https://www.fns.usda.gov/programs>

Resolved: The United States Federal Government should significantly reform food assistance programs for one or more of the following: public schools, hospitals, nursing homes, the military, or low-income families.

Resolved: The USFG Dietary Guidelines for Americans should be significantly changed to reflect the reality that most Americans are not metabolically healthy.

In 1980, when the Guidelines were launched, they were meant to help healthy Americans prevent diseases such as obesity. At the time, the majority of Americans were healthy, so focusing on prevention made sense. ... Over the years, however, Americans have largely lost their good health. Now, some 93% of Americans have at least one symptom of metabolic disease, such as abdominal obesity or high blood pressure, for which they are taking medication. The Guidelines are therefore now out-of-step with the majority of Americans. • <https://www.nutritioncoalition.us/the-guidelines-have-not-always-provided-the-best-dietary-advice-for-americans>

Resolved: The federal Dietary Guidelines for Americans should be changed to include only published, peer-reviewed and trustworthy evidence on diet and health.

(Dietary Guidelines have historically excluded the vast majority of rigorous evidence on diet and health.

<https://www.nutritioncoalition.us/2025-dietary-guidelines>

[Review question: ...So, while the guidelines effect everybody, in theory, how many do they actually effect?

Reply: *By law, the Guidelines also must be followed by all federal nutrition programs, including food assistance programs, **which touch one in four Americans every month** (they are the single-biggest expense at the USDA).*

These include: National School Lunch Program (NSLP); Supplemental Nutrition Assistance Program (SNAP) (formerly "Food Stamps"); Special Nutritional Program for Women, Infants and Children (WIC); Feeding programs for the elderly. [Bold added.] Source: "US Dietary Guidelines for Americans—101" <https://www.nutritioncoalition.us/dietary-guidelines-for-americans-dga-introduction>

Resolved: The Dietary Guidelines for Americans should reflect research on the effectiveness of Low-Carb Diets in reducing obesity and type 2 diabetes.

"I was wondering if we should have a separate section on low-carb diets rather than burying it," wrote Harvard nutrition professor Frank Hu about the official expert report for the 2015 U.S. Dietary Guidelines for Americans.... <https://www.nutritioncoalition.us/2025-dietary-guidelines-info/usda-ignores-science> and limits on saturated fat are not supported by current research. <https://unsettledscience.substack.com/p/usda-ignoring-the-science-on-low> and *(US nutritionists call for dietary guideline limits on saturated fat intake to be lifted, BMJ 2020;371:m4226 | doi: 10.1136/bmj.m4226* *The letter concludes that "there is no strong scientific evidence that the current population-wide upper limits on commonly consumed saturated fats in the US will prevent cardiovascular disease or reduce mortality. A continued limit on these fats is not justified."*

<https://www.nutritioncoalition.us/bmj-saturated-fat-limits>

Reforming the Federal Dietary Guidelines, Foods Programs, and Nutrition Policies

Gregory Rehmke • July 10 2023

Over forty years ago the *Dietary Guidelines for Americans* were established, setting federal public health and nutritional policies and programs:

*In 1980, the first publication of the Dietary Guidelines for Americans was released. Since then, the Dietary Guidelines have become the cornerstone of Federal food and nutrition guidance.*¹⁵

The *Dietary Guidelines for Americans* followed hearings chaired by Senator George McGovern: *In 1977, after years of discussion, scientific review, and debate, the U.S. Senate Select Committee on Nutrition and Human Needs, led by Senator George McGovern, released Dietary Goals for the United States.*¹⁶

However, of the seven Dietary Goals recommended, all but one (reduce sugar) were controversial dietary advice at the time and based on limited epidemiological studies. (Passage of the Dietary Guidelines was rushed due to fears that saturated fat was causing an epidemic of heart attacks and heart disease. The theory advanced by the influential Ancel Keys was that saturate fat was “clogging” arteries.¹⁷ So the Dietary Guidelines first and foremost advocated reducing fat, especially saturated fat in the American diet.)

What if its all been a big fat lie?¹⁸ (title of Gary Taubes’ 2002 *New York Times Magazine* cover story)

A growing network of nutrition researchers¹⁹ argue that America’s escalating rates of cardiovascular disease, obesity, and type 2 diabetes since the 1980s are consequences this misguided dietary change: increasing low-fat foods meant increased carbohydrates (since protein levels stay about the same). Americans followed (in part) the Dietary Guidelines as the processed food industry, responding to public health authorities, developed and marketed hundreds of new low-fat foods.

Expanding federal nutrition programs and policies also increased low-fat, high-carbohydrate meals in federally-funded food assistance programs, schools, hospitals, nursing homes, military bases, and prisons that served foods based on the Dietary Guidelines.²⁰ For an overview of this history see *Did the Government Make Us Fat?* (Goodman Institute Brief Analysis No 142, February 24, 2022).²¹

America’s obesity epidemic has also been blamed on other causes, from the fast-food industry (expanding from 100 McDonald’s in 1960 to 250,000 total fast food outlets today²²), to highly-processed *junk foods* and candies for sale today at 40% of all retail outlets, to oversized portions served at restaurants, and to less active work and lifestyles.

Some blame increased consumption of sugar and high-fructose corn syrup in foods and soft drinks. Dr. Robert Lustig and other medical researchers argue fructose consumption causes increasing obesity.²³ Still others blame “industrial seed oils,” marketed as *vegetable oils* for cooking and as an ingredient in packaged high-carb foods. These polyunsaturated oils (PUFAs) are considered healthy by public health

authorities, but easily oxidize and are believed a source of inflammation by nutrition researchers. So, ongoing and relevant debates over PUFAs as good or bad for our health, along with a similar debate over saturated fats as healthy or dangerous.²⁴ Federal Dietary Guidelines advocate reducing saturated fats and recommend polyunsaturated fats (PUFAs). And, no surprise, nutrition researchers disagree, with many supporting PUFAs. “However, evidence from observational studies and randomized clinical trials demonstrates that replacing saturated fat with carbohydrates, specifically refined, has no benefit on CVD risk, while substituting polyunsaturated fats for either saturated fat or carbohydrate reduces risk. A significant body of research supports the unique health benefits of dietary patterns and foods that contain plant and marine sources of unsaturated fats.”²⁵

Other research points to changes in our gut microbiome from overuse of antibiotics as a major contributor to obesity, along with overconsumption of processed foods.^{26 27} Research continues at The Center for Human Microbiome Studies at Stanford University.²⁸ See also Tim Spector’s *The Diet Myth*.²⁹

Still others point to dieting itself as unnatural and disrupting our natural instinct to eat until full. Constant fears of being overweight, promoted by thin culture and diet industry have unfortunate metabolic and mental health consequences. Books like *Don’t Diet* and *Intuitive Eating* offer “eat until full” dietary advice.³⁰ (However, most doctors, nutritionists, and public health officials advise “eat less and exercise more”: a misleading energy balance theory of obesity that suggests people are overweight due to gluttony and sloth. Instead, obesity is now understood to be a problem of impaired blood glucose metabolism, that is, carbohydrate intolerance and insulin resistance. Discussed further below.)

The problem of engineered addictive sugar and carbohydrate-rich foods

Ultra-processed snacks are designed by the food industry to be addictive (say critics), and a culture of snacking and sipping through the day has emerged (and is predicted to continue into the future in the movie WALL-E). Consuming many small meals each day is recommended by nutritionists and the federal dietary guidelines.³¹ But critics say snacking is problematic and fewer larger meals is a healthier tradition and lifestyle (intermittent fasting also called time-restricted eating).³² Most religions and cultural traditions include fasting as well as feasting, rather than all-day snacking and small meals.

Public health policies face challenges when new research appears to undermine existing policies and programs. Nutritional science is rarely settled and disagreements continue on ethical, religious, and environmental grounds, as well as on conflicting nutritional theories and research. The current Dietary Guidelines for Americans are based on weak epidemiological studies rather than more recent and reliable Randomized Control Trials (RCT). See: “Scientific Panel on New Dietary Guidelines Draws Criticism From Health Advocates” (*New York Times*, June 17, 2020)³³

Time magazine provides a history of federal dietary policies in *The U.S. Food Guidelines Have Always Been Controversial* (*Time*, Jan. 7, 2016).³⁴ The 2016 date is important since the article is reviewing the then new 2015-2020 Dietary Guidelines (health.gov)³⁵.

Scientific and policy controversy over the 2015-2020 and the current *2020-2025 Dietary Guidelines*³⁶ can support a dynamic and educational national high school debate season. Student's health is at stake, along with their parents and grandparents.

Childhood obesity worldwide has increased ten-fold since the 1970s.³⁷ And "In the United States, the percentage of children and adolescents affected by obesity has more than tripled since the 1970s."³⁸

Critics claim the federal Dietary Guidelines³⁹ are biased and not based on current nutritional research. The Departments of Health and Human Services (HHS) and Agriculture (USDA) appoint members of each Dietary Guidelines Advisory Committee to review the Guidelines. Critics claim most have strong biases and financial ties to industry. ("95% of Expert Committee for the 2020 Dietary Guidelines Had Tie with a Food or Pharmaceutical Company"⁴⁰). Of course it is in the nature of things that experts in any field are likely to have employment or funding ties to the industry where their expertise is valued.

Majorities of Americans, young and old, suffer from chronic diseases, though many are as yet undiagnosed ("Approximately 96 million American adults—more than 1 in 3—have prediabetes. Of those with prediabetes, more than 80% don't know they have it."⁴¹).⁴² A University of North Carolina study found: "Only 1 in 8 Americans are achieving optimal metabolic health, which carries serious implications for public health."⁴³

The March 2023 White House Conference on Hunger, Nutrition, and Health⁴⁴ reports on the September 2022 conference: *Ending Hunger and Reducing Diet-Related Diseases and Disparities*, from White House Conference on Hunger, Nutrition, and Health: ⁴⁵

Millions of Americans are affected by food insecurity and diet-related diseases — including heart disease, obesity, and type 2 diabetes — which are some of the leading causes of death and disability in the U.S. The toll of hunger and these diseases is not distributed equally, disproportionately impacting underserved communities...

Students researching federal nutritional policies and the Federal Dietary Guidelines will face an avalanche of conflicting resources and advocacy, ranging from medical conference presentations, to documentaries, podcasts, medical societies, to hundreds of major nutrition and diet companies selling their services, books, and podcasts. Discussed and linked to in: *Did the Government Make Us Fat?*⁴⁶

Students can further research the nutritional debates and politics with their school lunches, long a topic of state and federal political wrangling, see "How School Lunch Became the Latest Political Battleground," *New York Times*, Oct. 7, 2014⁴⁷ and still are today, "How the Politics of School Food Shape What Kids Eat," (*CivilEats*, September 26, 2022)⁴⁸

[Added May 1: April 27, 2023 *Washington Post* on American Heart Association Dietary Guidance (April 27, 2023) “Popular keto and paleo diets aren’t helping your heart, report says: An analysis of various diets gave low marks to some of the most popular ones for straying from heart-healthy eating guidelines.”⁴⁹]

Further Notes and Links on Nutrition Policies and Controversies

Healthier food as alternative to diets, pills, or surgery

- “Medical Care Alone Won’t Halt the Spread of Diabetes: Now experts are calling for walkable communities, improved housing, and access to health care and better food, particularly in minority communities., Scientists Say” (*New York Times*, October 5, 2022)

At: www.nytimes.com/2022/10/05/health/diabetes-prevention-diet.html

- Why Experts Are Urging Swifter Treatment for Children With Obesity (*New York Times*, January 27, 2023) At: www.nytimes.com/2023/01/27/health/obesity-children-guidelines.html

The American Academy of Pediatrics recently issued new guidelines for treating the more than 14 million children and adolescents with obesity in the United States. The recommendations came as a surprise to many parents, and to some experts, as they encourage vigorous behavioral interventions even for very young children, as well as drug treatment or surgery for adolescents.

- More Kids Get Weight-Loss Surgery to Treat Obesity (*Wall Street Journal*, April 19, 2023)

At: <https://www.wsj.com/articles/weight-loss-surgery-obesity-children-ed0d4261>

Critics of surgery and pharmacological approaches recommend instead dietary changes: less cereal, sugar, other carbohydrates, fewer sodas and fruit drinks, more fish, meat, whole-fat dairy (for those not lactose intolerant). More sleep and less stress (“bullying” in article above) would help as well.

Reform of the *Dietary Guidelines for Americans* will impact health care procedures and costs. Reformers advocate lifestyle changes (not diets) and “food as medicine” instead of or in addition to medications for most chronic conditions. Fast-growing companies and expanding networks of direct primary care doctors who focus on metabolic health as they de-prescribe medications to address and resolve chronic health care conditions. See, for example, the doctors, nutritionists, medical researchers presenting at low-carb conferences: Low Carb Denver 2023, Metabolic Health Summit, and Low Carb USA/Society of Metabolic Health Practitioners.⁵⁰

Central to nutritional disagreements are two competing theories: *the energy balance theory of obesity* and the *carbohydrate/insulin theory*:

For nearly a century, obesity research has been predicated on the belief that the cause of the disorder “is an energy imbalance between calories consumed and calories expended,” to quote the World Health Organization. By this ubiquitous thinking, obesity is an energy balance disorder: People get fat because they take in more calories than they expend. They stay lean when they don’t.



- How a ‘fatally, tragically flawed’ paradigm has derailed the science of obesity (*STAT News*, September 13, 2021)

At: www.statnews.com/2021/09/13/how-a-fatally-tragically-flawed-paradigm-has-derailed-the-science-of-obesity/

The paper, published in the American Journal of Clinical Nutrition offers an alternative model to the eat-less-move-more message and argues that success in weight loss, as well as weight-loss maintenance, is more about what you eat and less about how much you eat.

- The carbohydrate-insulin model: a physiological perspective on the obesity pandemic. (*The American Journal of Clinical Nutrition* (December 2021) At: www.sciencedirect.com/science/article/pii/S0002916522005172)

Weight loss, the study found, is all about our hormonal response to certain macronutrients. Study authors include several of the most prominent nutrition scientists in the country.

The calories in, calories out concept is 'tragically flawed,' new research suggests (*Today*, September 20, 2021) At: www.today.com/health/new-paper-shows-overeating-does-not-drive-obesity-t231615

More on alternative theories to obesity and modern health problems:

- People eat out more and serving sizes are much larger. Discussed in Michael Pollan’s classic *The Omnivore’s Dilemma* (2006, p 100-108).
- Portion size: cause and solution to overweight and obesity? (*British Nutrition Fd.*, Oct. 6, 2022) At: www.nutrition.org.uk/news/2022/portion-size-cause-and-solution-to-overweight-and-obesity/
- Are Increasing Portion Sizes and Ingestive Frequency Driving Obesity? (*Nutrition.org*, Dec. 14, 2021) Reviewing an *Advances in Nutrition* article. At: <https://nutrition.org/are-increasing-portion-sizes-and-ingestive-frequency-driving-obesity/>
- Warning: Commercial Dishwashers Can Damage the Gut and Lead to Chronic Disease At: <https://scitechdaily.com/warning-commercial-dishwashers-can-damage-the-gut-and-lead-to-chronic-disease/>
- Addictive foods as problem: Joan Iffland, author of *Processed Food Addiction* and other books, At: www.drjoaniffland.com. Also, the Food Addiction Institute, At: <https://foodaddictioninstitute.org/>.
- Classic overview article: How the Ideology of Low Fat Conquered America, (*Journal of the History of Medicine and Allied Sciences*, April 2008). At: <https://academic.oup.com/jhmas/article/63/2/139/772615>
- ‘Percent of adults aged 20 and over with obesity: 42.5% (2017-2018), Percent of adults aged 20 and over with overweight, including obesity: 73.6% (2017-2018)’ CDC At: <https://www.cdc.gov/nchs/fastats/obesity-overweight.htm>

- Adult Obesity Causes & Consequences (CDC, accessed Dec. 31, 2021). At: <https://www.cdc.gov/obesity/adult/causes.html>
- Let's eat for the health of it pamphlet (pdf). At: https://fns-prod.azureedge.net/sites/default/files/27_DGCB-LEFTHOI.pdf
- Nina Teicholz - 'Science and Politics of Red Meat in 2021' (YouTube, April 24, 2021). At: <https://youtu.be/GNRo-IbQ1Jo>
- 8 Years of Low Carb at Norwood Surgery by Dr David Unwin | #PHCvcon2021 (May 8, 2021). At: https://youtu.be/XyB-UNjt_V0 and What predicts drug-free type 2 diabetes remission? Insights from an 8-year general practice service evaluation of a lower carbohydrate diet with weight loss, *BMJ Nutrition, Prevention & Health* (David Unwin, *et al*, January 10, 2023) <https://nutrition.bmj.com/content/early/2023/01/02/bmjnph-2022-000544>
- Insights from a general practice service evaluation supporting a lower carbohydrate diet in patients with type 2 diabetes mellitus and prediabetes: a secondary analysis of routine clinic data including HbA1c, weight and prescribing over 6 years (*BMJ Nutrition, Prevention & Health*, January 12, 2021). At: <https://nutrition.bmj.com/content/early/2021/01/11/bmjnph-2020-000072?versioned=true>
- Global Weight Loss Products and Services Market Report 2021: The Business of Weight Loss in the 20th and 21st Centuries (CISION, August 13, 2021). At: <https://www.prnewswire.com/news-releases/global-weight-loss-products-and-services-market-report-2021-the-business-of-weight-loss-in-the-20th-and-21st-centuries-301354957.html>
- The \$72 Billion Weight Loss & Diet Control Market in the United States, 2019-2023 - Why Meal Replacements are Still Booming, but Not OTC Diet Pills - ResearchAndMarkets.com (AP, February 25, 2019). At: <https://apnews.com/press-release/business-wire/business-lifestyle-health-united-states-ec35f3315f9a4816985615391f41815a>
- Virta Health's Diabetes Reversal Treatment Drives Savings of More Than \$10k Per Patient Over Two Years, New Analysis Shows. (Virta Health, September 15, 2021) "Using a methodology validated by Milliman, Inc., the study highlights monthly savings of \$425 per Virta patient for commercial payers" At: <https://www.virtahealth.com/blog/virta-healths-diabetes-reversal-treatment-drives-savings-of-more-than-10k-per-patient-over-two-years-new-analysis-shows>
- Long-Term Effects of a Novel Continuous Remote Care Intervention Including Nutritional Ketosis for the Management of Type 2 Diabetes: A 2-Year Non-randomized Clinical Trial, (*Frontiers in Endocrinology*, June 5, 2019). At: <https://www.frontiersin.org/articles/10.3389/fendo.2019.00348/full>
- "The Society of Metabolic Health Practitioners (SMHP) represents all researchers and practitioners working to improve metabolic health around the world through education, training, and support of

evidence-based nutritional approaches, including carbohydrate restriction, as a valid therapeutic option or intervention.” At: <https://thesmhp.org/>

- CrossFit is amassing an army of doctors trying to disrupt health care (Vox, Dec 13, 2018). At: www.vox.com/science-and-health/2018/12/13/18095546/crossfit-greg-glassman-doctors-health-care-prevention
- *The Big Fat Surprise: Why Butter, Meat & Cheese Belong in a Healthy Diet*, Simon & Schuster, 2014. At: <https://thebigfatsurprise.com/>
- *Good Calories; Bad Calories* (Gary Taubes, 2007). At: garytaubes.com/works/books/good-calories-bad-calories/
- How Sami Inkinen and His \$2.2 Billion Company Reshapes the Future of Diabetes At: <https://envzone.com/how-sami-inkinen-and-his-2-2-billion-company-reshapes-the-future-of-diabetes/>
- First Nations Ancestral Food for Better Health (NormalNutrition, January 29, 2023) At: <https://normalnutrition.substack.com/p/first-nations-ancestral-food-for>
- Brain Energy and Metabolic Minds (NormalNutrition, January 18, 2023) At: <https://normalnutrition.substack.com/p/brain-energy-and-metabolic-minds>
- Our Outdated, Unscientific Dietary Guidelines, (*Unsettled Science*, August 18, 2022) At: <https://unsettledscience.substack.com/p/our-outdated-unscientific-dietary>
- An analysis of the recent US dietary guidelines process in light of its federal mandate and a National Academies report (PNAS Nexus, July 20, 2022) At: <https://academic.oup.com/pnasnexus/article/1/3/pgac107/6647007>
- *Anti-Diet: Reclaim Your Time, Money, Well-Being, and Happiness Through Intuitive Eating*, December 24, 2019) At: www.amazon.com/Anti-Diet-Reclaim-Well-Being-Happiness-Intuitive/dp/0316420352
- *Intuitive Eating*, 4th Edition, June 23, 2020) At: www.amazon.com/Intuitive-Eating-4th-Anti-Diet-Revolutionary/dp/1250255198
- Federal Nutritional Guidance and the Politics of Science: A Tale of Regulatory Capture Bradley K. Hobbs¹ and Nikolai G. Wenzel, *Int. J. Food System Dynamics* 11 (5), 2020, 413-424 DOI: <http://dx.doi.org/10.18461/ijfsd.v11i5.64>

Abstract: This paper examines US government involvement in nutrition and agriculture. Specifically, it attempts to explain the existence of conflicting information presented by scientific versus government sources in the food pyramid. We start by examining the theory of the politicization of science and regulatory capture. We then examine federal nutrition advice through this theoretical framework. The paper concludes that the negative consequences of federal intervention for everyday

Americans call for an alternative approach of decentralization, with an emphasis on private regulators, with government sticking to its core functions, rather than engaging in politicized favoritism.

Author note: Many posts on my nutritional research and journey at NormalNutrition.substack.com

End Notes

¹ National Center for Chronic Disease Prevention and Health Promotion (NCCDPHP). At: <https://www.cdc.gov/chronicdisease/about/costs/index.htm#ref1>

² Prevalence of Optimal Metabolic Health in American Adults: National Health and Nutrition Examination Survey 2009-2016 (Metab Syndr Relat Disord, 2019 Feb;17) <https://pubmed.ncbi.nlm.nih.gov/30484738/>

³ Trends and Disparities in Cardiometabolic Health Among U.S. Adults, 1999-2018 (J Am Coll Cardiol, 2022 Jul 12) <https://pubmed.ncbi.nlm.nih.gov/35798448/>

⁴ Chin Jou, *Supersizing Urban America: How Inner Cities Got Fast Food with Government Help*, (University of Chicago Press, 2017) <https://press.uchicago.edu/ucp/books/book/chicago/S/bo14193313.html>

⁵ How a 'fatally, tragically flawed' paradigm has derailed the science of obesity (STAT News, September 13, 2021 At: www.statnews.com/2021/09/13/how-a-fatally-tragically-flawed-paradigm-has-derailed-the-science-of-obesity/

⁶ <https://www.washingtonpost.com/food/2023/06/09/saturated-fat-nutrition-debate-settled/>

⁷ <https://unsettledscience.substack.com/p/canceling-the-science-on-saturated>

⁸ USDA Ignoring the Science on Low-Carb Diets, (Unsettled Science, June 26, 2022) <https://unsettledscience.substack.com/p/usda-ignoring-the-science-on-low>

⁹ "Only 12 percent of American adults are metabolically healthy, Carolina study finds," (UNC Gillings School of Global Public Health, Wednesday, November 28th, 2018) <https://www.unc.edu/posts/2018/11/28/only-12-percent-of-american-adults-are-metabolically-healthy-carolina-study-finds/>

¹⁰ "Trends and Disparities in Cardiometabolic Health Among U.S. Adults 1999-2018" (J Am Coll Cardiol. 2022, July 12, PubMed: <https://pubmed.ncbi.nlm.nih.gov/35798448/>

¹¹ <https://www.cdc.gov/obesity/index.html> and <https://www.cdc.gov/obesity/childhood/index.html>

¹² Healthy Food Environments: Improving Access to Healthier Food (CDC) <https://www.cdc.gov/nutrition/healthy-food-environments/improving-access-to-healthier-food.html>

¹³ <https://health.gov/our-work/nutrition-physical-activity/white-house-conference-hunger-nutrition-and-health>

¹⁴ Consider the conclusion from this 2010 study in Spain: "**Conclusions:** Among possible strategies to improve the nutritional value of the meals, could be a reduction in the fat and cholesterol contents and an increase in carbohydrate and fiber contents, by replacing some red meat dishes by legumes, bread and refined cereals by whole meal foods, and fat full dairy products by low fat equivalents." This conclusion is exactly the opposite of most quality (RCT) studies recommending reducing carbohydrates and increasing high quality fat, including full-fat dairy (for those not lactose intolerant) instead of low-fat. It is today illegal to offer whole milk in American schools. The status quo is fat-phobic and has been since the federal Food Pyramid (now plate) and the passage of the Federal Dietary Guidelines for Americans. I begin with this to emphasize the importance of student research and debate on nutrition policy.

[Strategies for improving nutritional value of the meals offered by public nursing homes for the elderly] [Article in Spanish] (Nutr Hosp. 2010 Nov-Dec.) <https://pubmed.ncbi.nlm.nih.gov/21519774/>

¹⁵ History of the Dietary Guidelines, <https://www.dietaryguidelines.gov/about-dietary-guidelines/history-dietary-guidelines>

¹⁶ Dietary goals for the United States (1977) <https://nalcd.nal.usda.gov/catalog/1759572>

¹⁷ Diet and Fat: A Severe Case of Mistaken Consensus, John Tierney, *New York Times*, October 9, 2007. <https://www.nytimes.com/2007/10/09/science/09tier.html>
Defending Ancel Keys: Bad Science or Bad Journalism? Top Experts Come Together to Address Nutrition Myths (Bluezones.com, August, 2017).

<https://www.bluezones.com/2017/08/top-experts-come-together-to-address-nutrition-myths/>
Critical of Keys: The hidden truth behind Ancel Keys' famous fat graph (Andreas Eenfeldt, DietDoctor, September 19, 2016. <https://www.dietdoctor.com/the-hidden-truth-behind-ancel-keys-famous-fat-graph>

¹⁸ What if its all been a big fat lie? Gary Taubes (New York Times Magazine, July 7, 2002), <https://www.nytimes.com/2002/07/07/magazine/what-if-it-s-all-been-a-big-fat-lie.html>

Thirty years later, America has become weirdly polarized on the subject of weight. On the one hand, we've been told with almost religious certainty by everyone from the surgeon general on down, and we have come to believe with almost religious certainty, that obesity is caused by the excessive consumption of fat, and that if we eat less fat we will lose weight and live longer. On the other, we have the ever-resilient message of Atkins and decades' worth of best-selling diet books, including "The Zone," "Sugar Busters" and "Protein Power" to name a few. All push some variation of what scientists would call the alternative hypothesis: it's not the fat that makes us fat, but the carbohydrates, and if we eat less carbohydrates we will lose weight and live longer.

¹⁹ At, for example, Mark Hyman at The Cleveland Clinic, David Ludwig at Harvard Medical School, Eric Westman at Duke, Jeff Volek at The Ohio State University, Mark Cucuzzella at West Virginia Medical School,

²⁰ US Dietary Guidelines for Americans—101 (Nutrition Coalition) <https://www.nutritioncoalition.us/dietary-guidelines-for-americans-dga-introduction>

By law, the Guidelines also must be followed by all federal nutrition programs, including food assistance programs, which touch one in four Americans every month (they are the single-biggest expense at the USDA). These include:

- National School Lunch Program (NSLP);
- Supplemental Nutrition Assistance Program (SNAP) (formerly "Food Stamps");
- Special Nutritional Program for Women, Infants and Children (WIC);
- Feeding programs for the elderly

The Guidelines direct food in military mess halls as well as FDA regulations on food, including information on packaging. For example, the Guidelines inform health claims (whether a food can be advertised as "healthy") and the information listed on the back of the package (the "Nutrition Facts" panel).

In summary, more Guidelines are undoubtedly the single-most influential lever on the our food supply as well as our ideas about what constitutes a healthy diet.

²¹ Did The Government Make Us Fat? (Greg Rehmke, Goodman institute, February 24, 2022) <https://www.goodmaninstitute.org/wp-content/uploads/2022/02/BA-142-Did-the-Govt.-Make-Us-Fat.pdf>

²² *The Blue Zones Challenge* by Dan Beuttner, National Geographic, 2022, p. 7

²³ Sugar Is a Poison, Says UCSF Obesity Expert (UCSF, June 25, 2009) <https://www.ucsf.edu/news/2009/06/104177/sugar-poison-says-ucsf-obesity-expert> and How to Eat Less Sugar

(*New York Times*, Nov. 1, 2022) <https://www.nytimes.com/explain/2022/how-to-eat-less-sugar> and The True Dangers Of Sugar with Dr. Robert Lustig (Podcast, Dr. Hyman (Cleveland Clinic), Nov. 2, 2022) <https://drhyman.com/blog/2022/11/02/podcast-ep624/>

²⁴ Seed oils bad or good? Bad: Omega-6 vegetable oils as a driver of coronary heart disease: the oxidized linoleic acid hypothesis (BMJ Openheart, 2018) <https://openheart.bmj.com/content/5/2/e000898> and Association of long-term consumption of repeatedly heated mix vegetable oils in different doses and hepatic toxicity through fat accumulation (Lipids Health Dis. April 13, 2020) <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7155260/> and overview article with history and links How Industrial Seed Oils Are Making Us Sick (Chris Kresser, February 19, 2019) <https://chriskresser.com/how-industrial-seed-oils-are-making-us-sick/> and contra: Scientists debunk claims of seed oil health risks (Harvard T.H. Chan School of Public Health, June 22, 2022) <https://www.hsph.harvard.edu/news/hsph-in-the-news/scientists-debunk-seed-oil-health-risks/> and: Are seed oils bad for you? Sorting myths from facts (*Seattle Times*, March 6, 2023) <https://www.seattletimes.com/life/wellness/are-seed-oils-bad-for-you-sorting-myths-from-facts/>

²⁵A healthy approach to dietary fats: understanding the science and taking action to reduce consumer confusion (*Nutrition Journal*, Aug. 30, 2017) <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5577766/>

²⁶ “antibiotics appear to produce changes in the bacterial make-up of the stomach (also known as the gut microbiome), which has been positively linked with weight gain and metabolism,” Antibiotic Use and Obesity—Is There a Link? (endocrineweb, August 10, 2022) <https://www.endocrineweb.com/news/obesity/62830-antibiotic-use-obesity-there-link>

²⁷ The Invisible Extinction, <https://www.theinvisibleextinction.com/about>
The Invisible Extinction spotlights the extraordinary work and charismatic personalities of renowned scientists Martin Blaser, and his partner in the lab and in life, Gloria Dominguez-Bello, as they endeavor to save the vanishing microbes that are essential for our survival. The film joins them on this urgent quest from the USA to Venezuela, China, Israel, and Switzerland, showing us how the overuse of antibiotics, elective C-sections, and processed foods are driving the destruction of our inner ecology, which is happening even faster than climate change.

²⁸ The Center for Human Microbiome Studies, Stanford Medicine, <https://iti.stanford.edu/center-for-human-microbiome-studies.html>

²⁹ Food for Life by Tim Spector review – the science of eating well, *The Guardian*, November 3, 2022) <https://www.theguardian.com/books/2022/nov/03/food-for-life-by-tim-spector-review-the-science-of-eating-well>

³⁰ *Why can't we just eat intuitively, as some books (Anti-Diet and Intuitive Eating, for example) recommend? (Normal Nutrition Overview)* <https://normalnutrition.substack.com/p/normal-nutrition-overview>

³¹ Report on recent study advocating many small meals: Eating Fewer Meals May Beat Intermittent Fasting for Weight Loss (Everyday Health, January 19, 2023) <https://www.everydayhealth.com/weight/eating-fewer-meals-may-beat-fasting-for-weight-loss-study-finds/>

³² The Benefits of Intermittent Fasting (Jane Brody *New York Times*, February 17, 2020) <https://www.nytimes.com/2020/02/17/well/eat/the-benefits-of-intermittent-fasting.html>

³³ “Scientific Panel on New Dietary Guidelines Draws Criticism From Health Advocates” (*New York Times*, June 17, 2020) <https://www.nytimes.com/2020/06/17/health/diet-nutrition-guidelines.html>

³⁴ The U.S. Food Guidelines Have Always Been Controversial (*Time*, Jan. 7, 2016) <https://time.com/4125642/dietary-guidelines-history/>

³⁵ Evidence from randomised controlled trials did not support the introduction of dietary fat guidelines in 1977 and 1983: a systematic review and meta-analysis, *OpenHeart*, 2015) <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4316589/> *National dietary guidelines were introduced in 1977 and 1983, by the US and UK governments, respectively, with the ambition of reducing coronary heart disease (CHD) by reducing fat intake. To date, no analysis of the evidence base for these recommendations has been undertaken. ... Conclusions: Dietary recommendations were introduced for 220 million US and 56 million UK citizens by 1983, in the absence of supporting evidence from RCTs.*

³⁶ https://www.dietaryguidelines.gov/sites/default/files/2020-12/Dietary_Guidelines_for_Americans_2020-2025.pdf

³⁷ Childhood obesity rates rise 10-fold since the ‘70s (MedicalNewsToday, January 19, 2022) <https://www.medicalnewstoday.com/articles/319710>

³⁸ Obesity, (CDC Healthy Schools) <https://www.cdc.gov/healthyschools/obesity/index.htm>

³⁹ <https://www.dietaryguidelines.gov/>

⁴⁰ Conflicts of interest for members of the U.S. 2020 Dietary Guidelines Advisory Committee (*Public Health Nutrition*, March 21, 2022) <https://www.cambridge.org/core/journals/public-health-nutrition/article/conflicts-of-interest-for-members-of-the-us-2020-dietary-guidelines-advisory-committee/843992D8901540296BCEB43D716C1497>

⁴¹ Prediabetes – Your Chance to Prevent Type 2 Diabetes, CDC Diabetes
<https://www.cdc.gov/diabetes/basics/prediabetes.html>

⁴² Count me in. My blood tests (fasting glucose and A1C) indicated I was pre diabetic in 2019. I only noticed after learning about blood tests in 2020. Reducing sugar and carbohydrates after May 2020 my blood glucose normalized and my weight fell by 20 pounds through May and other 20 pounds through November 2020. My father passed away in April 2020 after a decade or more struggling with type 2 diabetes. Incentive for dietary change.

⁴³ Only 12 percent of American adults are metabolically healthy, Carolina study finds, (UNC Gillings School of Global Public Health, Wednesday, November 28th, 2018)
<https://www.unc.edu/posts/2018/11/28/only-12-percent-of-american-adults-are-metabolically-healthy-carolina-study-finds/>

⁴⁴ [White House Conference on Hunger, Nutrition, and Health](#) (health.gov, March 24, 2023) <https://health.gov/our-work/nutrition-physical-activity/white-house-conference-hunger-nutrition-and-health>

⁴⁵ <https://health.gov/our-work/nutrition-physical-activity/white-house-conference-hunger-nutrition-and-health>

⁴⁶ Did The Government Make Us Fat? (Goodman Institute, February 24, 2022) <https://www.goodmaninstitute.org/wp-content/uploads/2022/02/BA-142-Did-the-Govt.-Make-Us-Fat.pdf>

⁴⁷ How School Lunch Became the Latest Political Battleground (New York Times, Oct. 7, 2014)
<https://www.nytimes.com/2014/10/12/magazine/how-school-lunch-became-the-latest-political-battleground.html>

⁴⁸ How the Politics of School Food Shape What Kids Eat, (CivilEats, September 26, 2022)
<https://civileats.com/2022/09/26/politics-school-food-weaver-hightower-unpacking-school-lunch/>

⁴⁹ Popular keto and paleo diets aren't helping your heart, report says (*Washington Post*, April 27, 2023) <https://www.washingtonpost.com/wellness/2023/04/27/keto-paleo-diet-heart-health/>, reporting on Popular Dietary Patterns: Alignment With American Heart Association 2021 Dietary Guidance: A Scientific Statement From the American Heart Association (*Circulation*, April 27, 2023) <https://www.ahajournals.org/doi/10.1161/CIR.0000000000001146>. And DietDoctor post with praise and critical of earlier version AHA report, New AHA report, but same old dogma (DietDoctor, Dec. 19, 2019) <https://www.dietdoctor.com/new-aha-report-but-same-old-dogma>

⁵⁰ Low Carb Denver 2023, <https://lowcarbconferences.com/> Metabolic Health Summit, <https://metabolichealthsummit.com/> and Low Carb USA/Society of Metabolic Health Practitioners, <https://www.lowcarbusa.org/smhp-symposiums/boca-2023/>