The Food Pyramid Scheme

How Washington Broke America's Diet

SPECIAL REPORT FROM THE

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Introduction

Before dawn at Marine Corps Base Camp Pendleton, a platoon of recruits is already three miles into a grueling march through the Southern California backcountry. They carry eighty-pound packs over terrain that rises and falls without mercy, their boots grinding against loose shale in the darkness. The sweat pooling beneath their body armor will turn cold when they halt, but for now they are engines burning fuel at a rate that would put a civilian in the hospital. Their muscles are tearing themselves apart at the microscopic level, to be rebuilt stronger in recovery. They are training to become the most lethal fighting force on the planet.

Back at the base, cafeteria workers are preparing their breakfast. A cook tears open an industrial-sized bag and begins scooping its contents into a steam tray. The bag's label identified the product as "Egg Beaters"—a cholesterol-free egg substitute made primarily from egg whites, with added vegetable oil, gums, and artificial coloring to simulate the appearance of real eggs. The Marines who would eat this slurry that morning are some of the most physically active people on the planet, young men whose bodies are screaming for the fats, choline, and fat-soluble vitamins that real egg yolks provide. Instead, they got a processed facsimile designed to comply with federal dietary guidance.

Army Regulation 40-25, the joint-service directive that governs military nutrition, mandates that all Department of Defense dining facilities incorporate "principles of the current Dietary Guidelines for Americans."[1] The regulation specifies that "saturated fat, trans fatty acids, and dietary cholesterol should be as low as possible while consuming a nutritionally adequate diet."[2] The Marines' "Fueled to Fight" nutrition program requires mess halls to offer egg whites as an alternative to whole eggs and to make low-fat milk "the primary milk served in bulk milk dispensers."[3] The young men and women we ask to fight and die for this country are fed according to nutrition science that was discredited before most of them were born.

The same guidelines shape what thirty million American children eat for lunch every day.[4] The National School Lunch Program, which served more than 4.8 billion meals in fiscal year 2024 at a cost of $17.7 billion, must meet nutrition standards derived from the Dietary Guidelines for Americans.[5] Walk into any public school cafeteria and you'll find the same pattern: skim milk in place of whole, "whole grain" breading on processed chicken nuggets, fruit cups swimming in corn syrup marketed as healthy because they contain no fat. The pizza is still there—but now it comes with a whole wheat crust that tastes like cardboard, a compromise that satisfies the letter of the guidelines while doing nothing for the children forced to eat it.

The Dietary Guidelines for Americans is a document most people have never read and never will. It is published every five years by the Department of Health and Human Services and the Department of Agriculture, the product of a sprawling bureaucratic process involving hundreds of researchers, administrators, and political appointees.[6] In theory, it represents the federal government's best assessment of what Americans should eat to be healthy. In practice, it is a political document shaped by industry lobbying, ideological fashion, and institutional inertia. It has done more to shape American eating habits over the past forty-five years than any other single publication, and that bears significant responsibility for the catastrophic decline in American health over that same period.

The numbers tell a story of national deterioration. In 1980, when the first Dietary Guidelines were published, 15 percent of American adults were obese.[7] Today that figure exceeds 40 percent.[8] Childhood obesity has more than tripled, from roughly 5 percent in 1980 to over 19 percent today.[9] Type 2 diabetes, once so rare in children that it was called "adult-onset diabetes," is now increasingly common among American adolescents—a phenomenon virtually unknown in the 1980s.[10] Nearly 60 percent of Americans have at least one chronic disease; 40 percent have two or more.[11] We spend more on healthcare than any nation on earth—over $4.5 trillion annually, roughly $14,000 per person—and we are sicker than any generation of Americans in living memory.[12]

Correlation is not causation, and the Dietary Guidelines are not solely responsible for this disaster. But they are not innocent either. For four decades, the Guidelines promoted a low-fat, high-carbohydrate diet that the best available evidence now suggests was exactly wrong—a diet that encouraged Americans to replace the animal fats their grandparents thrived on with the processed vegetable oils and refined carbohydrates that appear to be driving the chronic disease epidemic. They told Americans to fear red meat and butter while saying nothing about the ultra-processed foods that now constitute nearly 60 percent of calories in the average American diet.[13]

How did this happen? How did the federal government come to promote dietary advice that may have made Americans sicker rather than healthier?

The conventional answer points to the complexity of nutrition science, the difficulty of conducting long-term dietary studies, and the inevitable lag between scientific discovery and policy change. There is some truth here. Nutrition is genuinely difficult to study, and reasonable scientists can disagree about the interpretation of ambiguous evidence.

But this explanation is incomplete. It does not account for the systematic exclusion of dissenting voices from the advisory process. It does not explain why the same researchers, drawn from the same institutions, holding the same views, appear on dietary guidelines committees decade after decade. It does not address exposed conflicts of interest—the committee members with financial ties to food and pharmaceutical companies, the revolving door between industry and the agencies that regulate it. And it does not grapple with mounting evidence that the process has been captured by ideological agendas that have nothing to do with nutrition science at all: the push to reduce meat consumption for environmental reasons, the subordina-

tion of scientific questions to "health equity" frameworks, the influence of activist networks that view dietary guidance as a tool for social transformation rather than a summary of the best available evidence about human nutrition.

This report documents how that capture occurred. It examines the institutions, the personnel, the funding flows, and the ideological frameworks that have shaped federal nutrition policy over the past decade. It presents evidence that the Dietary Guidelines process has been compromised by conflicts of interest, ideological bias, and the systematic exclusion of inconvenient evidence. And it offers recommendations for reform. structural changes that could restore scientific integrity to a process that has lost its way.

The stakes are high. The Dietary Guidelines for Americans are not mere suggestions. They carry the force of federal policy—shaping what children eat at school, what soldiers eat on base, what millions of low-income Americans can purchase with SNAP benefits, what Medicare and Medicaid will reimburse, and what the entire food industry produces to meet government standards. When the Guidelines get it wrong, the consequences ripple through every corner of American life. They have been getting it wrong for a very long time.

This report explains why, and what must be done about it.

Part 2

The Origins of the Dietary Guidelines for Americans

The Dietary Guidelines for Americans did not always exist. The first edition appeared in 1980, a joint effort of the USDA and the Department of Health and Human Services (then the Department of Health, Education, and Welfare) that drew on the controversial 1977 Senate Select Committee on Nutrition's *Dietary Goals for the United States*—a document written largely by a Senate staffer with no expertise in nutrition or public health.[14] A telling exchange from those hearings captures the spirit in which America's nutritional orthodoxy was born. When Dr. Robert Olson of St. Louis University urged caution—"I have pleaded in my report and I will plead again orally here for more research on the problem before we make announcements to the American public"—Senator George McGovern replied: "I would only argue that senators don't have the luxury that a research scientist does of waiting until every last shred of evidence is in."[15] The guidelines would be issued; the science could catch up later.

For the next decade, updates proceeded informally. It was not until 1990 that Congress, through the National Nutrition Monitoring and Related Research Act, codified the process and established the basic architecture that persists today.[16] The statutory mandate is straightforward: the Secretaries of USDA and HHS must publish the Dietary Guidelines "at least every five years," and these guidelines must be "based on the preponderance of the scientific and medical knowledge which is current at the time the report is prepared."[17] Every federal food, nutrition, and health program is required to promote the DGA. This single sentence explains why the Guidelines matter so much and why corporate, ideological, and bureaucratic interests have worked so hard to influence them.

The Interests Behind the Science

The 1977 Dietary Goals emerged from a convergence of interests—ideological, commercial, agricultural, and political—none primarily concerned with what Americans should actually eat to be healthy.

COUNTER-CULTURE IDEOLOGY

In 1971, Frances Moore Lappé published *Diet for a Small Planet*, a book that would sell over three million copies and reshape how a generation thought about food.[18] Lappé argued that a plant-based diet could simultaneously reduce the risk of obesity, heart disease, and cancer while also addressing world hunger, reducing energy costs, and minimizing agriculture's environmental footprint. The McGovern committee used material from Lappé's book directly, arguing that a shift to plant-based protein could reduce saturated fat intake, blood pressure, and cancer risk while saving the planet.[19] This gave official sanction to what had been a fringe ideology—the idea that avoiding animal foods was not merely a personal choice but a moral and medical imperative.

INDUSTRY MONEY

In 1948, Procter & Gamble—makers of Crisco, the hydrogenated vegetable shortening that had been marketed as a modern replacement for lard since 1911—was the beneficiary sponsor of "The Walking Man" contest on the radio program *Truth or Consequences*. The contest raised $1.5 to $1.7 million for the American Heart Association.[20] According to the AHA's own official history, this was the "bang of big bucks" that transformed the organization from a small professional society into a national powerhouse.[21] By 1961, the AHA had issued its first formal recommendation that Americans replace saturated animal fats with polyunsaturated vegetable oils—advice that happened to benefit Procter & Gamble's product line.[22] The recommendation was based largely on the theories of physiologist Ancel Keys, who had achieved celebrity status with a 1961 *Time* magazine cover story warning Americans that "they eat too much fat" and that saturated fat "increases blood cholesterol, damages arteries, and leads to coronary disease."[23]

The evidence for Keys's theory was contested from the beginning. The Framingham Heart Study—one of the most famous heart disease investigations ever undertaken, begun in 1948—had collected detailed food consumption data from over a thousand subjects. When researchers calculated the results in 1960, the finding was unambiguous: "No relationship found" between saturated fat consumption and heart disease.[24] These results went unpublished for decades. Not until 1992 did a Framingham director publicly acknowledge what the data showed. "In Framingham, Mass, the more saturated fat one ate... the lower the person's serum cholesterol... and [they] weighed the least," wrote William Castelli.[25] But by then, the low-fat orthodoxy had been national policy for over a decade.

AGRICULTURAL ECONOMICS

Earl Butz, Nixon's Secretary of Agriculture, was implementing "fencerow to fencerow" policies that encouraged farmers to plant large-scale monoculture crops on every acre of arable land.[26] These policies shifted farm animals from pasture to feedlots, making room for government-subsidized corn and soybeans. The surplus crops needed markets. What didn't go into cattle could go into humans—including the vegetable oils that were byproducts of processing crops into animal feed. The agenda of vegetarians and health reformers who urged Americans to eat fewer animal products, more grains, and to substitute seed oils for animal fats aligned perfectly with large agribusiness efforts to increase the market for processed foods that carried wider profit margins than eggs and meat.[27]

POLITICAL EXPEDIENCY

Before the dietary-cholesterol hypothesis became official health policy, it served as economic policy. In 1966, when egg prices rose and Agriculture Secretary Orville Freeman told President Lyndon Johnson that not much could be done, LBJ found a creative solution: he had the Surgeon General issue public alerts about the hazards of cholesterol in eggs.[28] The goal was not to improve American health—it was to reduce demand and thereby fight inflation. As Joseph Califano, an LBJ aide, later recounted, this was part of a broader pattern: "Shoe prices went up, so LBJ slapped export controls on hides to increase the supply of leather... When egg prices rose in the spring of 1966... Johnson had the Surgeon General issue alerts as to the hazards of cholesterol in eggs."[29]

These various interests converged in the McGovern committee's hearings. The experts chosen to testify were specifically selected for their willingness "to talk about eating less fat, eating less sugar, eating less meat."[30] The title of the hearings—"Diet Related to Killer Diseases"—set the direction for their findings before a word of testimony was heard.

Unheeded Warnings

The recommendations that emerged from the 1977 Dietary Goals were met with vehement objections from scientists, doctors, and public health professionals who argued that they were scientifically unsound and potentially harmful. The American Medical Association warned that "the evidence for assuming that benefits to be derived from the adoption of such universal dietary goals... is not conclusive and there is potential for harmful effects from a radical long-term dietary change as would occur through adoption of the proposed national goals."[31]

Critics questioned the appropriateness of a single, population-wide dietary prescription applied to all individuals regardless of their level of risk for diseases that were not established as nutritional in nature. They noted that the recommendations had not been tested for safety or efficacy and would constitute a population-wide dietary experiment.[32] They observed that nutrition scientists who urged caution could not compete with this popular ideology for public support or government funding.[33]

Most damningly, critics demonstrated that the report's own data contradicted its conclusions. The 1977 Goals suggested consumers should increase vegetable oil consumption—yet the data supplied by the Goals themselves showed that increased consumption of vegetable oils and decreased consumption of saturated fats were associated with *increased* rates of heart disease.[34] Also noted was the report's "new age, neo-naturalist" thinking.[35] The supplemental views of the Senate committee's report lamented that the *Dietary Goals* "were not based on a preponderance of scientific evidence" and were instead driven by "ideology and economics rather than science."[36]

These warnings went unheeded. With few changes, the 1977 Goals became the first Dietary Guidelines for Americans in 1980.

The Largest Trial in History

For decades, the low-fat hypothesis remained just that—a hypothesis. The clinical trials that would be required to prove that a low-fat diet actually prevented disease had never been conducted. Then, in 1993, the federal government launched the Women's Health Initiative Dietary Modification Trial, the largest nutrition intervention study ever undertaken.

The trial enrolled 48,835 postmenopausal women across forty clinical centers. Forty percent were randomized to an intensive behavioral intervention designed to reduce total fat intake to 20 percent of calories and increase consumption of vegetables, fruits, and grains—essentially the diet that had been recommended by federal guidelines since 1980. The remaining sixty percent served as controls, eating their usual diet. The women were followed for an average of eight years.[37]

The results, published in 2006, were devastating for the dietary establishment. The low-fat intervention showed no significant benefit for preventing heart disease.[38] No significant benefit for preventing breast cancer.[39] No significant benefit for preventing colorectal cancer.[40] After eight years of following the government's dietary advice, women in the intervention group weighed an average of just two pounds less than women in the control group.[41]

One finding was particularly troubling. Women who already had cardiovascular disease at baseline and were randomized to the low-fat diet had a 26 percent *higher* risk of developing additional heart events compared to women with heart disease eating the control diet.[42] The diet that was supposed to protect hearts appeared to damage them in those who were already vulnerable.

The response from the nutrition establishment was to attack the results rather than question the low-fat dogma. The trial was criticized for not achieving sufficient fat reduction. The women were presumed to have not followed the diet. The intervention period was deemed too short. Anything but the obvious conclusion: the hypothesis had been tested and it had failed.

The Fruits of Compliance

While the scientific debate continued, Americans were conducting their own experiment. And the results were coming in.

In 1960, the prevalence of obesity among American adults was 13 percent.[43] Through the 1960s and 1970s, it remained

relatively stable—around 15 percent by 1976-1980.[44] Then came the Dietary Guidelines.

By 1988-1994, obesity prevalence had jumped to 23 percent.[45] By 2009-2010, it had nearly tripled from the 1960 baseline, reaching 36 percent.[46] Among children, the increase was even more dramatic—from 5 percent in the early 1970s to 17 percent by 2010.[47]

The standard assumption is that Americans ignored the dietary advice. They did not. A comprehensive statistical analysis of all available National Health and Nutrition Examination Surveys from 1965 to 2011 documented exactly what happened.[48] Fat consumption dropped from 44.7 percent of calories in 1965 to 33.6 percent in 2011. Carbohydrate intake increased from 39 percent to 50.5 percent over the same period. Americans shifted their diet precisely as instructed—away from fat and toward carbohydrates.

The correlation between following the guidelines and gaining weight was approximately 90 percent.[49]

Nina Teicholz, founder of the Nutrition Coalition and author of *The Big Fat Surprise*, maintains charts on her organization's website showing that in every food category measured by the government, Americans have followed the guidelines. Fruits and vegetables are up 20 to 35 percent. Whole grains are up. Refined grains are down. Red meat is down 28 percent. Beef is down 35 percent. Whole milk is down 79 percent. Butter is down around 18 percent. Eggs are down by a similar amount. Fish and shellfish are up. Vegetable oils are up 89 percent—now comprising close to 20 percent of all calories consumed.[50]

There is not a single category measured by the government where Americans have not followed the guidelines. The argument that obesity rose because Americans ignored the advice does not survive contact with the data.

The Machinery of Capture

To fulfill its statutory mandate, the Departments convene a Dietary Guidelines Advisory Committee—typically twenty nutrition and health experts charged with reviewing the scientific evidence and producing a report. The DGAC is a "discretionary" federal advisory committee, meaning that each Secretary decides whether to establish it and who serves on it.[51] The nomination process begins with a Federal Register notice soliciting candidates, followed by a vetting process conducted by four "co-executive secretaries"—two from each Department—who narrow the pool, assess candidates for expertise and "ability to collaborate," and assemble a slate for the Secretaries' approval.[52]

This is where the trouble begins. The selection process, as one peer-reviewed analysis noted, "remains wholly opaque, without disclosure of the potential nominees nor any explanation as to why or how certain nominees are selected while others rejected."[53] In 2017, the National Academies of Sciences, Engineering, and Medicine—commissioned by Congress to review the DGA process following the contentious 2015 cycle—delivered a blunt verdict: "To develop a trustworthy DGA, the process needs to be redesigned."[54] Among its recommendations: that USDA and HHS employ an external third party to review nominees and publicly disclose conflicts of interest. The Departments rejected the structural recommendation and have implemented others only partially.[55]

The conflicts themselves are extensive. A 2022 study in *Public Health Nutrition* found that 95 percent of the 2020 DGAC members had conflicts of interest with the food or pharmaceutical industries.[56] The corporations with the most extensive connections to the committee were Kellogg, Abbott, Kraft, General Mills, Dannon, and the industry-funded International Life Sciences Institute. One committee member alone—Sharon Donovan, who served on both the Birth to 24 Months Subcommittee and the Pregnancy and Lactation Subcommittee—had 152 documented ties to food and pharmaceutical industry actors.[57] A January 2025 report on the current committee found that nine of twenty members have high-risk conflicts with food, pharmaceutical, or weight-loss companies.[58]

The Departments collect conflict disclosures but, until recently, refused to publish them on an individual basis, lumping all conflicts into an anonymized aggregate list—a practice that, as Marion Nestle of New York University observed, "makes no sense and obfuscates the real issues."[59]

Science That Isn't Science

Since 2005, the committee writes only the Scientific Report—a compendium of evidence review and recommendations. The actual Dietary Guidelines are then written by political appointees within USDA and HHS, and the Departments are under no legal obligation to follow the committee's recommendations. This is, in principle, a democratic safeguard: elected officials and their appointees, not unaccountable experts, bear final responsibility for policy. The problem is what arrives on their desks. When the scientific review itself has been shaped by conflicts of interest and methodological failures, the democratic check becomes a choice between competing captured outputs rather than a judgment on disinterested science.

The methodological problems are severe. A 2024 peer-reviewed analysis by a team of top methodologists from around the world examined eight of the most important systematic reviews from the 2020 Guidelines and found that they were of "critically low quality."[60] When researchers attempted to replicate the literature searches—the process of identifying all relevant studies on a topic—they found three times more papers than the DGAC had found.[61] The reviews did not prioritize randomized controlled clinical trials, which can establish cause and effect, over weak observational studies, which can only sug-

gest associations. In some cases, the committee discounted clinical trial results that contradicted its preferred conclusions and elevated epidemiological data that supported them.

The systematic review methodology, as one analysis noted, was designed by the USDA's own Nutrition Evidence Systematic Review team rather than following internationally recognized protocols.[62] The result is a process that produces the appearance of rigorous science without the substance. Replication—the hallmark of good science—is impossible when the methodology changes with each cycle and the literature searches cannot be reproduced.

What the Guidelines Actually Recommend

The content of the guidelines has changed remarkably little since 1980, despite four decades of contradictory evidence. The original food pyramid recommended eight to eleven servings of grains per day—a recommendation so extreme that it was eventually scaled back to six to eleven servings.[63] The current guidelines still include three servings of refined grains daily. When a committee member questioned this during recent deliberations, the chair explained that only refined grains are enriched and fortified with iron, B vitamins, and folate. Without refined grains, the dietary patterns recommended by the guidelines would not meet their own nutritional targets for vitamins and minerals.[64]

Even with refined grains included, following the guidelines perfectly does not deliver adequate nutrition. The dietary patterns fail to meet recommended intakes for potassium, magnesium, vitamin D, and choline.[65] The guidelines also recommend five and a half teaspoons of soybean oil daily and permit up to 10 percent of calories from sugar.[66]

The cap on saturated fat—10 percent of calories—remains in place despite meta-analyses showing no link between saturated fat consumption and heart disease.[67] This cap functions as a rate-limiting factor on animal foods, restricting how much meat and dairy Americans can consume while remaining "within guidelines." It is why whole milk is banned from school cafeterias while chocolate skim milk, sweetened with added sugar, is permitted.

In 2015, the expert committee acknowledged that there was no longer reason to maintain a numeric cap on dietary cholesterol—the recommendation that had kept Americans away from egg yolks for decades.[68] Yet the formal dietary patterns in the guidelines are still described as "lower in cholesterol," creating confusion about what is actually recommended.[69] The low-fat language was quietly dropped after the Women's Health Initiative results came out, but all of the modeling for recommended dietary patterns remains low in fat by scientific definition—between 31 and 33 percent of calories.[70]

Notably absent from the guidelines are some of the most nutrient-dense foods known to humanity. Organ meats—liver, kidney, heart—receive no mention whatsoever, despite containing concentrated amounts of the very nutrients the guidelines acknowledge Americans lack: choline, vitamin D, coenzyme Q10, iron, vitamin B12, and zinc. The omission of choline-rich foods is particularly striking. Choline is essential for brain development, liver function, and cellular membrane integrity; deficiency during pregnancy is associated with neural tube defects and impaired cognitive development in offspring. An estimated 90 percent of Americans fail to meet adequate choline intake, making it arguably the most widespread nutritional deficiency in the country—yet the guidelines offer no practical path to address it. A single serving of beef liver provides more choline than almost any other food, along with more vitamin A, B12, and folate. Egg yolks, another rich source of choline, were discouraged for decades under cholesterol restrictions that have since been acknowledged as unfounded. Bone broth and gelatin, traditional foods consumed across cultures for millennia, are similarly absent—despite providing glycine, an amino acid that helps balance the methionine abundant in lean muscle meat. When humans consume only muscle meat without the glycine-rich connective tissues, skin, and bones that traditional societies ate alongside it, the amino acid profile becomes imbalanced in ways that may promote inflammation and accelerate aging. The guidelines define "protein foods" as "lean meats, poultry, and eggs; seafood; beans, peas, and lentils; and nuts, seeds, and soy products"—a category that implicitly excludes the fattier, more nutrient-dense parts of animals that traditional societies prized above muscle meat. The result is a set of dietary patterns that, by the guidelines' own admission, fail to meet recommended intakes for potassium, magnesium, vitamin D, and choline—deficiencies that might be addressed if the guidelines acknowledged the foods human beings ate for the vast majority of their evolutionary history.

The Expansion Continues

The 2020–2025 Guidelines marked the first time federal nutrition policy extended to infants and toddlers. For the first thirty-five years of the Guidelines' existence, the government had the good sense to stay out of infant nutrition. That changed with the 2014 Farm Bill, which mandated that the 2020-2025 Guidelines "shall include dietary guidelines for... infants and toddlers from birth to age 2, including breastfed infants."[71]

The 2020 DGAC created a "Birth to 24 Months Subcommittee" to develop recommendations for this age group. The subcommittee acknowledged that "the scientific evidence for associations of dietary intake to health outcomes is relatively scant for this age group for most topics."[72] This did not stop them from issuing recommendations anyway. And the people issuing those recommendations had their own conflicts. As documented elsewhere in this report, four of six members of

the Birth to 24 Months Subcommittee had financial ties to infant formula manufacturers.[73]

The precedent is now established: the advisory committee can make pronouncements about infant nutrition even when the science is thin and the experts have industry ties. The same ideological currents that have captured adult nutrition policy now have access to infant nutrition policy. The EAT-Lancet Commission's "Planetary Health Diet" recommends minimal animal foods—a recommendation that, if applied to infant complementary feeding, would deprive developing children of the most bioavailable sources of iron, zinc, and B12.[74] The climate activists who want to transform the food system do not make exceptions for children.

The Cascade of Consequences

The 1977 Dietary Goals reshaped the entire food production environment. When the federal government designated winners and losers in the food sector, the food industry responded accordingly. Manufacturers of breads, cereals, margarine, cooking oils, and soy products were winners. Producers of meat, butter, eggs, and cheese were losers.

Food processors could reformulate products to meet the new dietary standards—something that would be very difficult for farmers who produced eggs and meat.[75] Since the advent of the first Guidelines, the share of the food dollar that goes to farmers has fallen by half.[76] As consumers adopted the eating patterns recommended by the guidelines, a much larger share went to processing, marketing, and labor costs. The farm value of eggs—a food the guidelines tell Americans to limit—is worth 54 percent of the consumer's dollar. The farm value of cereal—a preferred "healthy" breakfast—is worth only 8 percent.[77]

The health consequences have been equally dramatic. Heart disease remains the number one killer in America. Rates of Type 2 diabetes have tripled since 1980.[78] Non-alcoholic fatty liver disease, virtually unknown before the guidelines era, now affects an estimated 80 to 100 million Americans.[79] Cancer rates have increased.[80]

In 1988, the Center for Science in the Public Interest—a vegetarian-oriented advocacy group—campaigned for the food industry to switch from beef tallow and lard to partially hydrogenated vegetable oil.[81] CSPI insisted that trans fats were an improvement over saturated fat from animals. Nearly all targeted firms responded by replacing saturated fats with trans fats.[82] For consumers, this meant that natural animal fats that posed no danger to health were replaced with highly processed trans fats that would later be found to cause heart disease. The switch was driven by ideology, not science—and consumers had no choice in the matter.

High-fructose corn syrup offered another substitute for the animal fats Americans were told to avoid. "When you take the fat out of a recipe, food tastes like cardboard, and you need to replace it with something—that something being sugar," as endocrinologist Robert Lustig has observed.[83] The surplus corn from Earl Butz's agricultural policies provided a cheap, plentiful source. Fat-free yogurt sweetened with corn syrup appeared on grocery shelves as a "healthy" alternative to full-fat yogurt. By 2000, scientists on the DGAC realized that the emphasis on reducing fat "could lead to adverse metabolic consequences" from high intake of sugars and starches, and noted that "an increasing prevalence in obesity in the United States has corresponded roughly with an absolute increase in carbohydrate consumption."[84] The committee had discovered, twenty years late, what the critics of the original guidelines had predicted.

Part 3
2025 Committee

On January 19, 2023, the secretaries of HHS and USDA unveiled the twenty scientists who would shape what Americans are told to eat for the next five years. The announcement was wrapped in the language of a new priority. This committee, Secretary Vilsack declared, would consist of "nutrition experts who will provide science-driven recommendations with health equity in mind."[85] Health equity. Not scientific rigor. Not the best available evidence. Health equity—a term that signals, to anyone paying attention, that the committee's conclusions were being pre-shaped to fit an ideological frame that subordinates nutrition science to the imperatives of racial grievance-mongering.

The American Society for Nutrition quickly noted that eighteen of the twenty appointees were ASN members.[86] This was not an accident. ASN is not a neutral scientific body; it is a professional organization that counts among its "sustaining partners" Abbott Nutrition, Nestlé Nutrition Institute, Mars, Inc., and other food companies with billions of dollars riding on what the Guidelines say.[87] When nearly the entire committee is drawn from an organization funded by the food industry, the committee's independence is compromised before a single meeting is held.

The committee chair, Sarah Booth of Tufts University, represented a defensible choice. She directs the Jean Mayer USDA Human Nutrition Research Center on Aging and has spent her career studying fat-soluble vitamins.[88] Her research has validated the nutritional benefit of full-fat dairy, cheese, and egg yolks.[89] Whatever institutional ties she brought to the role, her scientific work did not align with the ideological currents that would shape the rest of the committee.

Her vice-chair was a different matter.

Angela Odoms-Young of Cornell had built her career not on nutrition science but on "social and structural determinants of dietary behaviors and related health outcomes in low-income populations and black, Indigenous and people of color."[90] She had developed programs like "Hip Hop to Health," a nutrition and physical activity obesity prevention program for minority children.[91] Her selection as vice-chair was a signal: this committee would filter its scientific judgments through the lens of race, class, and demographic identity.

Odoms-Young's conflicts extended beyond ideology. She served as associate editor of *Nutrition Reviews*, a journal published on behalf of the International Life Sciences Institute—ILSI, the food and beverage industry group that internal documents and academic research have exposed as a vehicle for corporate influence over nutrition science.[92] Scholars have documented how ILSI systematically advances industry interests over public health, embedding corporate messaging in what appears to be independent research.[93] The committee's vice-chair edited a journal for an organization whose purpose is to blur the line between industry advocacy and legitimate science.

The Ideological Appointments

Several appointments illustrated the Biden administration's priorities with unusual clarity. Valarie Blue Bird Jernigan of Oklahoma State University became, as USDA announced with evident pride, "the first Indigenous woman to ever serve on this committee."[94] Her credentials emphasized community-based participatory research with Native American populations and her directorship of the Center for Indigenous Health Research and Policy.[95] Her academic background—a doctorate in public health, not nutrition science—reflected expertise in intervention design and health equity rather than the biochemistry, metabolism, or clinical nutrition research that had traditionally defined committee membership.

"In the past, some cultural viewpoints and backgrounds have been left out when developing these guidelines," Jernigan explained to Oklahoma State's news service. "This time around, a real effort was made to get people from a number of diverse backgrounds and cultures to serve on the committee."[96] This was an explicit admission that the criterion for selection was demographic representation. The committee was being assembled not on the basis of expertise but to ensure that every identity group had a seat at the table, regardless of whether those representatives possessed the scientific expertise the role demanded.

The inclusion of Fatima Cody Stanford, an obesity medicine physician at Massachusetts General Hospital and Harvard Medical School, brought a different kind of ideological capture. Stanford had achieved prominence not through traditional nutrition research but through advocacy for the medicalization of obesity. In a *60 Minutes* interview that circulated widely, she declared that obesity "is a disease of the brain" driven primarily by genetics rather than diet or lifestyle choices. "If you are born to parents that have obesity," she told viewers, "you have a 50-85 percent likelihood of having the disease yourself, even with optimal diet, exercise, sleep management and stress management."[97]

Consider what this means for a dietary guidelines committee. If obesity is genetic and immutable—if diet and exercise are essentially irrelevant—then dietary guidelines themselves are pointless. Stanford's appointment to a committee charged with developing nutrition guidance laid the groundwork for shifting policy away from dietary intervention and toward pharmaceutical solutions.

Big Pharma's Presence

In October 2023, the nonprofit research organization U.S. Right to Know published a comprehensive assessment of the committee's conflicts of interest.[98] The findings documented what the appointment announcements had obscured: nine of twenty members maintained high- or medium-risk conflicts

with food, pharmaceutical, or weight loss companies. An additional four had possible conflicts. Only seven of twenty were clean.[99]

The pharmaceutical industry's presence was particularly striking. Abbott, the infant formula and medical nutrition giant, maintained ties to four committee members.[100] Novo Nordisk, manufacturer of the blockbuster weight-loss drugs Ozempic and Wegovy, had connections to three.[101] Eli Lilly, Novo's primary competitor in the GLP-1 obesity drug market, maintained ties to two.[102] Weight Watchers International—rebranded as WW and pivoting toward pharmaceutical weight-loss integration—had relationships with two committee members.[103]

Stanford's conflicts were the most extensively documented, thanks to the Open Payments database that CMS maintains. Between 2018 and 2022, she received $68,880 in documented consulting fees from weight-loss drug manufacturers: $47,605 from Novo Nordisk, $15,050 from Eli Lilly, $6,225 from Boehringer Ingelheim.[104] She advised Rhythm Pharmaceuticals, Gelesis, and the smaller weight-loss drug maker Currax.[105] She advised digital health startups with commercial interests in weight-loss drugs: Calibrate, Vida Health, LifeForce—the last of which sells semaglutide, the active ingredient in Ozempic and Wegovy.[106] She participated in continuing medical education programs funded by Novo Nordisk and Eli Lilly.[107]

The National Council on Aging, which lobbies for Medicare coverage of weight-loss drugs and has received funding from Novo Nordisk, nominated Stanford to the committee.[108] An NCOA spokesperson insisted that "Novo Nordisk had no role in nominating Dr. Cody Stanford"—a claim that, even if technically accurate, illustrates the elaborate network of supposedly independent organizations whose positions happen to align with industry preferences.[109]

Other members' conflicts followed similar patterns. Chris Taylor of Ohio State had received funding from Abbott Nutrition for at least eleven studies in the five years preceding his appointment.[110] Cheryl Anderson of UC San Diego served on the paid scientific advisory board of Weight Watchers International.[111] Heather Eicher-Miller of Purdue received funding from Eli Lilly for at least four studies.[112]

The National Academies had warned in 2017 that the committee selection process required reform to avoid members with "significant conflicts of interest."[113] NASEM urged HHS and USDA to publicly disclose individual members' industry ties and to allow public comment on provisional appointees before confirmation.[114] The agencies ignored these recommendations.

In 2023, for the first time, USDA and HHS released partial disclosures of DGAC members' industry relationships.[115] The document was notable for what it concealed. Disclosures were aggregated across all members rather than attributed to individuals—making it impossible to determine which members had which conflicts.[116] They covered only the preceding twelve months, not the five-year window that NASEM and good research practice recommend.[117] They were voluntary: members could simply decline to disclose relationships they preferred to keep private.[118]

The agencies required members to complete the standard government ethics form, OGE 450. But that form is confidential by law.[119] The practical effect was a two-tier system: an internal record theoretically available to ethics officers, and a sanitized public document that obscured individual accountability.

Marion Nestle, the New York University nutrition scientist who has spent decades documenting food industry influence, observed that such anonymized disclosures are "quite an unusual approach. Usually, one would declare his or her individual conflicts of interest, for better transparency and to provide information that could reveal biases."[120] The Center for Science in the Public Interest called on the agencies to develop a separate public disclosure form, similar to what the FDA requires for its advisory committees.[121] The recommendation went unheeded.

A 2022 study in *Public Health Nutrition* documented that 95 percent of the 2020 DGAC members had at least one tie to food or pharmaceutical companies throughout their careers, with industry actors including Kellogg, Abbott, Kraft, Mead Johnson, and General Mills maintaining connections to multiple members.[122] Half of the 2020 committee had thirty or more documented industry interactions.[123]

The 2025 committee showed modest improvement in the raw numbers of financial conflicts. But what replaced some of the industry capture was ideological capture—the explicit mandate to apply a "health equity lens," the appointments that prioritized demographic representation over scientific expertise, the Health Equity Working Group established to "discuss how to incorporate principles of health equity across all the subcommittees."[124] A pilot program to develop dietary patterns for American Indian and Alaska Native populations formalized this priority.[125]

The result was not a cleaner committee but a doubly compromised one. The pharmaceutical industry retained its influence through members like Stanford, whose research agenda and financial relationships aligned perfectly with the goal of shifting obesity treatment from diet to drugs. The ideological activists ensured that whatever the committee produced would be filtered through frameworks of race, class, and "structural determinants" that have nothing to do with what nutrients the human body requires. The two forms of capture reinforced each other: the pharmaceutical industry benefits when obesity is framed as a disease of genetics and social structure rather than diet, because that framing makes drugs the only plausible intervention.

The American people, whose tax dollars fund this entire process and whose health depends on its integrity, were left with a committee designed to reach conclusions that served in-

stitutional interests rather than scientific truth. They deserved a committee selected for expertise rather than demographic checkboxes. They deserved full public disclosure of financial relationships, not anonymized aggregates designed to obscure accountability. They deserved guidelines based on what the evidence actually shows.

They did not get what they deserved. This committee was structured to ensure they wouldn't.

Part 4
Climate & Equity

The financial conflicts documented in previous sections—the pharmaceutical ties, the processed food funding, the revolving door between DGAC membership and the American Society for Nutrition's sustaining partners—explain part of what has gone wrong with federal nutrition guidance. Money buys access. Money buys favorable interpretations of ambiguous evidence. Money ensures that certain questions never get asked, that certain studies never get funded, that certain conclusions remain forever beyond the Overton window of respectable science.

But money alone does not explain everything. It does not explain the particular form that the Guidelines' failures have taken: the relentless hostility to animal foods that nourished humanity for two million years, the elevation of seed oils and legumes over the nutrient-dense proteins that built every civilization in history, the subordination of nutritional science to frameworks of racial equity and environmental sustainability that have nothing to do with what the human body requires to thrive.

To understand these failures requires tracing a different kind of capture—ideological capture—and the institutional network that has made it possible. This is not a conspiracy in the cartoonish sense. No one sat in a smoke-filled room and decided to make Americans sick. What happened is at once more banal and more dangerous: a set of ideas took hold among the credentialed classes, those ideas aligned with the interests of powerful institutions, and a self-reinforcing network emerged that systematically excluded anyone who dissented. The result is a policy apparatus that serves ideology rather than science, that recommends nutritionally inferior foods to the populations least able to absorb the consequences of deficiency, and that treats its own conclusions as so self-evidently correct that questioning them marks you as unserious, uninformed, or worse.

The American people, seeking guidance on how to feed themselves and their families, receive instead the output of this ideological machine. This section documents how it was built.

The Climate Agenda

In 2015, the Dietary Guidelines Advisory Committee attempted something that had never been done before. For the first time in the forty-year history of the Guidelines, the DGAC recommended that environmental sustainability be incorporated into federal nutrition guidance. The committee concluded that "a diet higher in plant-based foods, such as vegetables, fruits, whole grains, legumes, nuts, and seeds, and lower in calories and animal-based foods is more health promoting and is associated with less environmental impact than is the current US diet."[126]

Notice the sleight of hand. Two distinct claims are being fused into one: first, that plant-based diets are healthier; second, that they are more environmentally sustainable. The committee presented these as a unified insight—a "win-win" that would simultaneously improve public health and save the planet. But the evidence for the first claim was contested at best, and the second claim had nothing to do with the committee's statutory mandate.

Congress understood this. The National Nutrition Monitoring and Related Research Act of 1990 directs the agencies to provide "nutritional and dietary information and guidelines" based on "the preponderance of the scientific and medical knowledge."[127] It says nothing about greenhouse gas emissions. The DGAC was charged with answering a simple question: *What should Americans eat to be healthy?* Instead, they pivoted to a different question: *What should Americans eat to save the planet?* This deviation is particularly glaring because a valid environmental lens exists: had the committee focused on agricultural toxins entering the food supply, their inquiry would have been justifiable—even laudable—given the direct impact on public health.

The response was swift and brutal. Thirty senators signed a letter complaining that the DGAC was pursuing an anti-meat agenda outside its statutory mandate.[128] The House Appropriations Committee directed Secretary Vilsack to "ensure that the advisory committee focuses only on nutrient and dietary recommendations based upon sound nutrition science and not pursue an environmental agenda."[129] Vilsack, who had compared the committee members to "unruly children" when they first raised the sustainability issue, assured critics that "sustainability issues fall outside the scope of the dietary guidelines."[130] The final 2015-2020 Guidelines did not contain the word "sustainability."[131]

Congressional intervention had worked—or so it seemed. The DGAC's overreach had been blocked. The agencies had been reminded of their statutory limits. The process had functioned as designed.

Except that none of it mattered. The network that had produced the 2015 committee's sustainability recommendations did not disband when Congress rejected those recommendations. It regrouped. It refined its messaging. It built new institutional vehicles. And it waited for the political winds to shift.

THE EAT-LANCET COMMISSION

Four years after Congress blocked sustainability language from the U.S. Dietary Guidelines, a new organization called the EAT Foundation published a document that would reshape global nutrition policy. The EAT-Lancet Commission on Food, Planet, Health appeared in January 2019 in *The Lancet*, one of the world's most prestigious medical journals.[132] It was presented as the definitive scientific synthesis on sustainable diets—a landmark achievement that would guide policy-

makers for decades to come.

It was nothing of the sort. The EAT-Lancet Commission was not a scientific body in the traditional sense. It was a public-private partnership designed to generate predetermined conclusions and embed them in global policy—a sophisticated exercise in manufacturing consensus.

The EAT Foundation was co-founded in 2016 by three entities: the Stordalen Foundation, the Wellcome Trust, and the Stockholm Resilience Centre.[133] The Stordalen Foundation is the philanthropic vehicle of Norwegian billionaire Petter Stordalen and his wife Gunhild, who serves as EAT's founder and executive chair.[134] Gunhild Stordalen is not a scientist. She is a physician-turned-activist who was named a "Young Global Leader" by the World Economic Forum in 2015—the same year she launched EAT.[135] The Wellcome Trust is one of the world's largest charitable foundations, with assets exceeding £38 billion.[136] The Stockholm Resilience Centre is an academic institution, but its director, Johan Rockström, is the originator of the "planetary boundaries" framework—the conceptual architecture that treats human civilization as a threat to Earth's systems requiring radical transformation.[137]

The Wellcome Trust and the Stordalen Foundation each invested £3 million to launch EAT.[138] The World Economic Forum provided institutional support and amplification.[139] The resulting Commission was housed at the Stockholm Resilience Centre, which co-led its research activities.[140] From the beginning, the project was designed to produce a specific result: a "planetary health diet" that would reduce meat consumption on environmental grounds while claiming health benefits for doing so.

The Commission's co-chairs revealed its ideological orientation. Walter Willett, professor of epidemiology and nutrition at Harvard's T.H. Chan School of Public Health, is the most influential nutrition epidemiologist in America.[141] He has spent decades promoting plant-based diets and has consistently dismissed evidence that contradicts his preferred conclusions. His co-chair was Johan Rockström himself—the planetary boundaries theorist whose entire intellectual project rests on the claim that human activity is pushing Earth's systems beyond safe limits.[142] A third co-chair was added for the 2025 update: Shakuntala Thilsted of the CGIAR system, bringing the international development apparatus into the fold.[143]

The Commission brought together 37 scientists from 16 countries, lending the appearance of global consensus.[144] But on the central questions of diet and health, Willett's views dominated. Nina Teicholz, the investigative journalist who has done more than anyone to expose the scientific failures of the dietary establishment, analyzed the Commission's membership and found that the other nutritionists on the panel had "published almost nothing on the subject of diet and disease, and nothing that contradicts Willett's views."[145] The Commission was stacked from the start. Its conclusions were baked in before the first meeting.

THE PLANETARY HEALTH DIET

The result was the "Planetary Health Diet"—a framework that limits red meat consumption to approximately 14 grams per day.[146] That is roughly half an ounce, about the weight of a few slices of deli ham. It is less meat than a single strip of bacon. The Commission recommended that this level of consumption be adopted globally, regardless of cultural traditions, regional food systems, or individual nutritional needs.

The scientific basis for this recommendation was dubious at best. The Commission claimed that universal adoption of the Planetary Health Diet would prevent 11 million deaths annually—a figure generated by modeling exercises that rely on Willett's own previous publications and share his assumptions about the relationship between diet and disease.[147] The estimate has not been validated by any real-world evidence. It is a projection based on a projection, offered with the confidence of revealed truth.

Critics identified serious problems almost immediately. The diet would leave many populations deficient in essential nutrients, particularly iron, zinc, calcium, and vitamin B12.[148] Women of reproductive age, children, the elderly, and populations in developing countries would be hardest hit—precisely the groups that most need nutrient-dense animal foods. A 2020 analysis published in *Nature Food* found that while the EAT-Lancet diet would reduce global water footprint by 12 percent, it would actually increase the water footprint for nearly 40 percent of the world's population—a finding that undermined one of the Commission's central environmental claims.[149] Another study found that the diet was unaffordable for 1.58 billion people, concentrated in the poorest regions of the planet.[150]

The nutritional deficiencies were so severe that the Commission itself acknowledged, buried in the supplementary materials, that supplements or fortified foods might be necessary to meet basic nutritional requirements.[151] Read that again. The "optimal diet for human health and environmental sustainability" cannot actually meet human nutritional needs without pharmaceutical supplementation.

EMBEDDING THE FRAMEWORK

The EAT-Lancet Commission was designed to shift the Overton window—to make environmental sustainability a legitimate consideration in dietary guidance and to position plant-based eating as the morally superior choice. In this it succeeded spectacularly.

Sixteen cities in the C40 Climate Leadership Group—including New York, Seoul, and Milan—committed to using the Planetary Health Diet to guide municipal food policies.[152] Denmark, Germany, Belgium, and the Netherlands incorporated sustainability language into their national dietary guidelines, using the EAT-Lancet framework as their reference.[153]

The Food and Agriculture Organization of the United Nations and the World Health Organization issued "Sustainable Healthy Diets: Guiding Principles" in 2019 that closely tracked the Commission's recommendations.[154]

The network's influence extended to the highest levels of global governance. At the 2021 UN Food Systems Summit—convened by UN Secretary-General António Guterres to "transform the way the world produces and consumes food"—Gunhild Stordalen herself chaired Action Track 2, which focused on "sustainable diets."[155] Her stated aim was to "take full advantage of the Summit" and "force the kind of far-reaching changes that the world now desperately needs."[156] The World Health Organization served as the Track's "anchoring agency."[157] Francesco Branca, a WHO director and EAT-Lancet Commissioner, declared that within the food system, "everything has to be reset... we have to have much smaller amounts of meat on our tables."[158]

When Congress blocked sustainability language from the U.S. Dietary Guidelines in 2015, the network simply routed around domestic politics. By embedding its framework in international standards, municipal policies, and the credentialing systems of global governance, it ensured that the ideas rejected by American legislators would filter back into American policy through a thousand other channels. The 2025 DGAC did not need to cite the EAT-Lancet Commission explicitly. Its assumptions—that animal agriculture is environmentally destructive, that plant proteins are nutritionally equivalent to animal proteins, that reducing meat consumption serves both health and planetary goals—had become the water in which elite nutrition science swims.

The 2025 EAT-Lancet Commission, released in October 2025, made the network's ambitions fully explicit.[159] The updated report framed its work in terms of "healthy, sustainable, and just food systems"—adding "justice" as a third pillar alongside health and sustainability.[160] It claimed that "fewer than 1% of the world's population is currently in the 'safe and just space'" where food needs are met within planetary boundaries.[161] The wealthiest 30 percent of people, it charged, "drive more than 70% of food-related environmental impacts."[162]

The message was unmistakable: affluent populations eating traditional diets are morally culpable for planetary degradation. They must be induced—through policy, through education, through transformation of the food system itself—to change their behavior. The Dietary Guidelines are the lever.

The Equity Agenda

When the 2025 DGAC was announced in January 2023, Secretary Vilsack emphasized that the committee would provide "science-driven recommendations with health equity in mind."[163]

A Health Equity Working Group was established to "discuss how to incorporate principles of health equity across all the subcommittees."[164] The committee's vice-chair, Angela Odoms-Young, had built her career not on nutrition science but on "social and structural determinants of dietary behaviors and related health outcomes in low-income populations and black, Indigenous and people of color."[165] Her signature achievement was a program called "Hip Hop to Health," a nutrition and physical activity intervention for minority preschoolers.[166] Whatever the merits of that program, it is not the kind of work that qualifies someone to assess the basis for national dietary guidance. Odoms-Young was selected not for her scientific credentials but for her ideological orientation.

A pilot program was launched to develop dietary patterns specifically for American Indian and Alaska Native populations.[167] Valarie Blue Bird Jernigan of Oklahoma State University became, as USDA announced with evident pride, "the first Indigenous woman to ever serve on this committee."[168] The criterion for selection was demographic representation. "In the past, some cultural viewpoints and backgrounds have been left out when developing these guidelines," Jernigan explained. "This time around, a real effort was made to get people from a number of diverse backgrounds and cultures to serve on the committee."[169]

The message was unmistakable: nutrition science would be filtered through the lens of racial and economic identity.

DON'T EAT THE COW; EAT LIKE THE COW.

In December 2024, when the committee released its scientific report, the headline recommendation captured the new orientation perfectly. The committee proposed that Americans should prioritize "beans, peas, and lentils" as their primary protein source, moving meat to the end of the list.[170]

Christopher Gardner, a Stanford professor who directs the university's Plant-Based Diet Initiative—funded by Beyond Meat, the fake meat company—served on the committee.[171] He explained the logic with unusual candor: "We would evaluate all the literature on a certain subject—healthy dietary patterns and cardiovascular disease, for example—and talk it over as a group."[172]

The committee also recommended de-emphasizing dairy as a component of healthy eating patterns, a change Gardner explicitly attributed to the committee's "health equity" mandate. Previous committees had emphasized low-fat dairy, he noted, but "this committee's new emphasis on health equity" required looking "separately at research from other races and cultures besides White and Western...when you factor in race and ethnicity, dairy isn't even in the picture, and that totally makes sense. A lot of the world is lactose-intolerant."[173]

In other words: the committee changed its scientific conclusions to accommodate its ideological commitments. The *low-fat* aspect of the previous dairy recommendations should have been re-evaluated in light of new research

demonstrating the health benefits of dairy fat. Instead, the committee suggested completely eliminating dairy as a primary food category, since the ability to digest lactose is primarily a feature of populations with a history of cattle herding, most notably the descendants of Eurasian steppe pastoralists, i.e. White people.

The equity lens served a specific function: it provided scientific cover for recommendations that could not be justified on nutritional grounds alone. When the committee tells Americans that beans are equivalent to beef, it is making a claim that the evidence does not support—but a claim that cannot be challenged without appearing to oppose "health equity."

THE NUTRITIONAL REALITY

Consider what the science actually shows about protein quality. Meat is a complete protein, containing all nine essential amino acids in proportions that the human body can readily use. Most legumes are incomplete proteins, deficient in one or more essential amino acids and requiring complementary pairing with grains to approximate the amino acid profile of animal foods.[174] This is not a minor biochemical distinction. It is the difference between a food that can sustain human life and a food that cannot.

Meat contains heme iron, the form of iron that the human body absorbs most efficiently—at rates of 15 to 35 percent depending on the individual.[175] Plant foods contain non-heme iron, which the body absorbs at rates of just 2 to 20 percent—and often at the low end of that range when consumed with the phytates and polyphenols that are naturally present in legumes and grains.[176] A 2022 clinical trial published in *Nutrients* found that iron absorption from a beef protein meal was 4.2 times higher than from an equivalent texturized fava bean meal.[177] The fava bean meal contained higher total iron than the beef meal—but the beef delivered more usable iron because the body could actually absorb it.

The USDA's own "ounce-equivalent" system, which treats different protein sources as nutritionally interchangeable, was put to the test in a 2023 study published in *Nutrients*. Researchers fed healthy adults "ounce-equivalent" portions of pork, eggs, black beans, and almonds and measured the resulting bioavailability of essential amino acids. The results were damning. Two ounce-equivalents of pork delivered 7.36 grams of bioavailable essential amino acids. Two ounce-equivalents of eggs delivered 5.38 grams. Two ounce-equivalents of black beans delivered just 3.02 grams—less than half what the pork provided.[178] Almonds performed even worse, at 1.85 grams. The word "equivalent" in the USDA's ounce-equivalent system is a lie. It does not describe nutritional reality.

Meat is also the only reliable dietary source of vitamin B12, deficiency of which causes irreversible neurological damage.[179] Legumes contain no B12. Meat provides zinc in highly bioavailable form, whereas the phytates in legumes actively inhibit zinc absorption—with phytate-to-zinc molar ratios in many legume products so high that zinc bioavailability approaches zero.[180] Meat delivers choline, the nutrient essential for brain development and liver function that most Americans already under-consume.[181] Legumes are poor sources of choline.

None of this made it into the committee's framing.

EQUITY AS COVER

The equity lens allows the committee to recommend nutritionally inferior foods to the populations least able to absorb the consequences of deficiency—and to claim moral credit for doing so.

The logic runs as follows: because animal foods are more expensive than legumes, and because low-income and minority populations face greater food access challenges, "health equity" requires recommending the cheaper option. Never mind that the cheaper option delivers less protein, less bioavailable iron, less zinc, no B12, and insufficient choline. Never mind that the populations being advised to eat beans instead of beef are the same populations already suffering the highest rates of anemia, developmental delays, and diet-related chronic disease. Never mind that telling poor people to fill up on starches and legumes while the credentialed classes eat grass-fed ribeye is not equity but its opposite.

Gardner said the quiet part out loud. When asked about the MAHA Commission's suggestion that seed oils be replaced with beef tallow for deep-frying, he dismissed the idea as "whim and whimsy"—as though the question of what fats Americans cook with were a matter of personal taste rather than public health.[182] He characterized the committee's work as supporting "a real effort" to shift "what foods farmers and ranchers produce (e.g., less beef, more beans, peas and lentils), how they are produced, how they are processed, and how they are distributed."[183]

The goal was never merely to advise Americans on optimal nutrition. It was to transform the food system itself, using federal dietary guidance as the lever. The equity framing provides moral cover for an agenda that would otherwise be recognizable as what it is: telling the poor to eat worse food so that elites can feel virtuous about the environment.

The Institutional Network

The ideological capture of federal nutrition guidance did not happen spontaneously. It was the product of a deliberate, well-funded campaign conducted through an interlocking network of foundations, academic institutions, professional organizations, and international bodies. Understanding this network is essential to understanding why reform has proven so difficult—and what genuine reform would require.

THE FOUNDATION ECOSYSTEM

Start with the money. The Wellcome Trust, one of the world's largest health-focused foundations, provided seed funding for the EAT Foundation and the EAT-Lancet Commission.[184] But Wellcome's influence extends far beyond a single initiative. The Trust funds academic research, supports scientific journals, shapes the training of health professionals, and convenes the conferences where elite opinion is formed. When Wellcome decides that "planetary health" is a priority, that priority ripples through every institution the Trust touches.

The Rockefeller Foundation has been even more explicit about its intentions. In 2020, the Foundation published "Reset the Table: Meeting the Moment to Transform the U.S. Food System"—a report calling for "systemic shifts" in American food production and consumption.[185] The report emphasized that the pandemic had "aggravated shortcomings in the U.S. food system that have been clear for some time" and called for immediate action with "a particular focus on Black, Indigenous and communities of color."[186]

In 2022, the Rockefeller Foundation announced a "Good Food Strategy" committing $105 million over three years to "increase access to healthy and sustainable foods for 40 million underserved people around the globe."[187] The program would support "a shift in public and private spending toward foods that are nutritious, regenerate the environment, and create equitable economic opportunity."[188] Sustainability and equity were fused into a single framework—precisely the framework that now shapes the DGAC's work.

The Foundation's True Cost of Food initiative, launched in 2021, claimed that "the actual cost of food is three times its value" when health, environmental, and social impacts are taken into account.[189] This framing—treating conventional animal agriculture as imposing hidden costs on society—provides the intellectual justification for policies that would make meat more expensive and less available. The "true cost" is always calculated in a way that makes plant-based alternatives look cheaper.

THE ACADEMIC PIPELINE

Foundations do not just fund research. They fund the researchers who serve on advisory committees, the journals that publish their work, the professional organizations that credential them, and the advocacy groups that amplify their conclusions.

Walter Willett's Department of Nutrition at Harvard has received substantial philanthropic support over the decades.[190] The department's Nutrition Source website promotes plant-based eating and downplays the nutritional value of animal foods. The department trains the next generation of nutrition researchers, who carry its assumptions into their own careers—and onto advisory committees.

Christopher Gardner's Plant-Based Diet Initiative at Stanford was made possible by "a generous gift from Beyond Meat," the fake meat company.[191] Gardner is a self-described "advocate and researcher of plant-based dietary patterns."[192] He appeared in the 2024 Netflix documentary "You Are What You Eat: A Twin Experiment," which promoted vegan diets.[193] He served as chair of the American Heart Association's Nutrition Committee.[194] And he was appointed to the 2025 DGAC, where he helped ensure that the committee's conclusions aligned with his lifelong commitments.

The American Society for Nutrition, whose members comprised eighteen of twenty 2025 DGAC appointees, counts among its "sustaining partners" Abbott Nutrition, Nestlé Nutrition Institute, Mars, Inc., and other food companies.[195] But ASN's corporate partners are only part of the story. The organization also receives support from foundations that promote plant-based eating and sustainability agendas. When ASN members dominate the DGAC—as they have for decades—the committee's conclusions reflect ASN's institutional interests and ideological orientations.

THE INTERNATIONAL DIMENSION

The network extends well beyond American shores. The EAT Foundation operates in formal partnership with the World Economic Forum.[196] The Food and Agriculture Organization of the United Nations has issued guidelines that track the EAT-Lancet framework.[197] The World Health Organization has served as the anchoring agency for UN food systems initiatives led by EAT personnel.[198]

When domestic political opposition blocks sustainability language from U.S. dietary guidelines—as it did in 2015—the network routes around Congress by embedding its framework in international standards and municipal policies that eventually filter back into American governance. The C40 cities commit to the Planetary Health Diet. The UN Food Systems Summit endorses "sustainable diets." European countries incorporate sustainability into their national guidelines. And American policymakers, eager to align with "international best practices," gradually adopt the same assumptions without ever subjecting them to democratic deliberation.

The 2025 EAT-Lancet Commission made the network's scope visible. Its commissioners came from more than 35 countries.[199] Its recommendations were simultaneously promoted through academic journals, foundation communications, international organizations, and mainstream media. The coordinated messaging was seamless: the Planetary Health Diet was presented as settled science, endorsed by the world's leading experts, supported by the most rigorous evidence. Anyone who questioned it was positioned as a crank or an industry shill.

THE SELF-REINFORCING LOOP

The network is self-reinforcing at every level. Foundation money flows to researchers who produce the desired conclu-

sions. Those researchers gain appointments to federal advisory committees. Their recommendations in turn justify further foundation investment. The journals that publish their work are funded by the same foundations. The professional organizations that credential them depend on the same sustaining partners. The international bodies that amplify their conclusions are staffed by alumni of the same institutions.

Dissenting researchers are systematically excluded. They cannot get appointed to advisory committees because they lack the proper institutional affiliations. They cannot get published in top journals because their conclusions challenge the consensus. They cannot get funded because their research questions are deemed uninteresting or already answered. They cannot get tenure because they have not published in top journals or received major grants. At every stage, the system filters out anyone who might question its assumptions.

This is not a conspiracy. It is something more insidious: an emergent system that advances a particular agenda without any single person being responsible for the whole. Each actor within the network is pursuing rational self-interest—career advancement, institutional prestige, access to funding, influence over policy. The aggregate effect is a policy apparatus that serves ideology rather than science, that treats its own conclusions as beyond question, and that systematically fails the people it claims to serve.

The Convergence: How Two Ideologies Became One

The climate agenda and the equity agenda might seem unrelated—or even in tension. But within the Dietary Guidelines process, the two ideologies have fused into a single program.

The mechanism of fusion is the concept of "food systems transformation." Both agendas agree that the current American food system is broken. Both agree that the solution is not to advise individuals on optimal nutrition but to restructure production and distribution at a systemic level. Both agree that federal dietary guidance should be a tool for achieving these systemic changes rather than a neutral summary of scientific evidence.

From the climate perspective, the problem with the American diet is that it includes too much meat, which generates greenhouse gases, uses too much land and water, and contributes to biodiversity loss. The solution is to shift consumption toward plant-based foods, which are claimed to have lower environmental footprints.

From the equity perspective, the problem with the American diet is that animal foods are expensive and inaccessible to low-income communities. The solution is to emphasize cheap plant-based foods that are available in minority neighborhoods and familiar to immigrant communities—beans, lentils, rice.

Notice that the two analyses arrive at the same prescription: less meat, more plants. The climate rationale and the equity rationale are deployed interchangeably, depending on the audience. When speaking to environmentalists, the emphasis falls on planetary boundaries and greenhouse gas emissions. When speaking to social justice advocates, the emphasis falls on food access and health disparities. But the policy recommendation is identical: transform the food system to reduce consumption of animal foods.

The 2025 EAT-Lancet Commission made this convergence explicit. Its framework now encompasses health, sustainability, and justice as three interdependent pillars.[200] You cannot pursue one without pursuing the others. A diet that optimizes health but harms the environment is inadequate. A diet that protects the environment but perpetuates inequity is unacceptable. Only a diet that advances all three goals simultaneously qualifies as legitimate.

This framing immunizes the agenda against criticism from any direction. If you question the health claims, you are accused of ignoring environmental reality. If you question the environmental claims, you are accused of ignoring health equity. If you question the equity claims, you are accused of environmental recklessness. The three pillars support each other, and dissent on any one is treated as dissent on all.

This is the deliberate dismantling of the Western diet. By designating the foundational foods of European history—meat, dairy, and animal fats—as planetary threats, they are engineering a policy that swaps our ancestral sources of strength and sustenance for the subsistence slop of the Third World.

The Consequences: What the Ideology Produces

The ideological capture of federal nutrition guidance has real consequences for real people.

Consider the Marine who finishes a forced march at dawn, his body screaming for protein and fat and cholesterol, and is served powdered egg substitute engineered to comply with guidelines that treat whole eggs as a health risk.

Consider the pregnant woman in a low-income neighborhood who follows the government's advice to prioritize beans and lentils, and whose child suffers developmental delays because she never consumed enough bioavailable iron, zinc, or choline during pregnancy.

Consider the schoolchild who receives a "healthy" lunch of whole-grain pasta with vegetable sauce and a carton of skim milk—a meal that spikes his blood sugar, leaves him hungry an hour later, and provides none of the fat-soluble vitamins his growing brain requires.

Consider the elderly patient on a fixed income who has been told that red meat will give her heart disease, and who subsists on rice and beans while her muscle mass wastes away and her bones become brittle from inadequate protein and mi-

cronutrient intake.

These are the predictable and real results of dietary guidance that prioritizes ideology over evidence.

The Guidelines tell Americans to reduce saturated fat, even though the most recent comprehensive meta-analyses find no association between saturated fat consumption and cardiovascular disease—and even though replacing saturated fat with the polyunsaturated vegetable oils the Guidelines recommend may actually increase oxidative stress and inflammation.[201]

The Guidelines tell Americans to limit cholesterol, even though the body manufactures cholesterol endogenously and even though dietary cholesterol has minimal impact on serum cholesterol for most people—and even though the 2015 committee itself acknowledged that "cholesterol is not a nutrient of concern for overconsumption."[202]

The Guidelines tell Americans that plant proteins are equivalent to animal proteins, even though the bioavailability data show otherwise—and even though telling people that beans equal beef may lead them to consume inadequate essential amino acids, iron, zinc, and B12.

The Guidelines tell Americans to fear red meat, even though the observational studies linking meat consumption to disease outcomes are confounded by every lifestyle factor imaginable—and even though populations that consume high levels of red meat in the context of traditional diets (the Maasai, the Mongolians, the Argentine gauchos) do not suffer the chronic diseases that afflict industrialized populations eating processed food.

None of this is secret. The evidence is available to anyone who cares to look. But the ideological framework that governs the Guidelines process ensures that the evidence is never seriously considered. The network that produces the Guidelines selects for researchers who share its assumptions, funds research that confirms its conclusions, and excludes dissent as unscientific or industry-funded.

The American people deserve better. They deserve dietary guidance based on what the evidence actually shows about human nutrition—not on what the EAT-Lancet Commission thinks about planetary boundaries, not on what the Rockefeller Foundation thinks about food system transformation, not on what the American Society for Nutrition's sustaining partners think about their profit margins.

Part 5
The Neo-Prohibitionist Capture of Alcohol Policy

For forty years, alcohol guidance occupied an unremarkable corner of the Dietary Guidelines for Americans. "If you drink alcoholic beverages, do so in moderation"—the language had barely changed since 1990.[203] Two drinks a day for men, one for women. The recommendation was not exciting. It was not particularly contested. It reflected a rough scientific consensus that moderate drinking posed minimal health risks for most adults and might even confer some cardiovascular benefit.[204]

That consensus rested on what epidemiologists call the "J-curve"—the consistent finding, replicated across dozens of studies over decades, that moderate drinkers have lower all-cause mortality than both heavy drinkers and total abstainers.[205] The curve's shape suggested that the relationship between alcohol and health was not linear. A glass of wine with dinner was not simply a smaller dose of the poison that killed alcoholics. It was something else: a behavior embedded in social and dietary contexts that, for many adults, correlated with better health outcomes than abstention.

The J-curve was never uncontested. Researchers debated whether it reflected a true protective effect of moderate drinking, or whether it was an artifact of confounding variables—perhaps moderate drinkers were simply healthier people who also happened to drink.[206] But the finding was robust enough to survive decades of methodological refinement, and it anchored the global consensus on alcohol policy: the goal was harm reduction, managing abusive behaviors while respecting the cultural role of moderate consumption.

Then, in April 2022, the Biden administration's Department of Health and Human Services did something unusual. It announced that alcohol would be removed from the scope of the 2025 Dietary Guidelines Advisory Committee—the normal body of nutrition scientists that reviews the evidence and makes recommendations every five years.[207] Instead, alcohol guidance would be developed through a separate, parallel process.

The vehicle for this parallel process was an obscure interagency body called the Interagency Coordinating Committee on the Prevention of Underage Drinking—ICCPUD. The name itself tells you something important: this was a committee created to address youth alcohol abuse, not to determine what adult Americans should be told about drinking. Its statutory mandate came from the STOP Act—the Sober Truth on Preventing Underage Drinking Act.[208] It had no particular expertise in nutrition science, no history of involvement in dietary guidelines, and no obvious reason to be evaluating the health effects of moderate alcohol consumption among adults.

But ICCPUD had one characteristic that made it attractive for a particular purpose: it could be populated with particular people, operating under different transparency requirements, outside the normal DGAC process that Congress had funded and expected to conduct the review.

The story of how this happened—and who those particular people were, and what network they belonged to, and what that network's goals are—is a case study in how ideological capture works in practice.

A Brief History of Alcohol in the Dietary Guidelines

Guidance on alcohol has been part of the Dietary Guidelines for Americans since the first edition in 1980. That original document offered seven straightforward recommendations—eat a variety of foods, maintain ideal weight, avoid too much fat, and so on. The seventh was: "If you drink alcohol, do so in moderation."[209]

The advice remained essentially stable for four decades. The 1990 edition formalized the definition of moderate drinking: up to one drink per day for women, up to two for men.[210,211] This framework persisted through every subsequent revision: 1995, 2000, 2005, 2010, 2015, and 2020.[212]

The stability reflected a genuine, if imperfect, scientific consensus. Epidemiological studies consistently found that moderate drinkers had lower all-cause mortality than abstainers—a finding robust enough to survive decades of methodological refinement. The cardiovascular benefits of moderate alcohol consumption, while debated, appeared in study after study.[213] The risks of heavy drinking were well-documented and uncontested; the risks of moderate drinking were modest and, for many adults, arguably outweighed by benefits.

This began to change in the 2020 cycle. The Dietary Guidelines Advisory Committee that year included, for the first time, a subcommittee dedicated specifically to alcohol. Its sole member with alcohol expertise was Dr. Timothy Naimi, an epidemiologist from Boston University.[214] Naimi's subcommittee recommended a significant tightening of the guidelines: reducing the limit for men from two drinks per day to one, matching the recommendation for women.[215]

The secretaries of HHS and USDA rejected the recommendation. Their response was direct: "The emerging evidence noted in the Committee's report does not reflect the preponderance of evidence at this time."[216] The guidelines retained the two-drink limit for men that had been in place since 1990.

This rejection is important context for what followed. Naimi had made his case through the normal process. The political appointees responsible for the guidelines had reviewed his evidence and found it insufficient. The system, for all its flaws, had worked as designed: a scientific recommendation was weighed against the full body of evidence and found wanting. What happened next was an end-run around that system.

The April 2022 Carve-Out

On April 15, 2022, HHS published a notice in the Federal Register announcing the scientific questions that would guide

the 2025 Dietary Guidelines Advisory Committee. Notably absent: any questions related to alcohol.[217]

The wine, beer, and spirits industries were blindsided. Alcohol had been part of the dietary guidelines for forty-two years. Its removal from the DGAC's scope was announced without prior consultation, without public comment, and without explanation of what would replace the normal review process.[218]

The explanation came piecemeal. HHS announced that alcohol would be reviewed through a "dual track"—one at the National Academies of Sciences, Engineering, and Medicine (NASEM), and one through ICCPUD.[219] The NASEM review had a clear provenance: Congress had appropriated $1.3 million in the 2023 Consolidated Appropriations Act specifically for the National Academies to study the relationship between alcohol consumption and health outcomes.[220] This was the normal way such reviews were conducted—through an independent, congressionally chartered scientific body with established protocols for transparency and conflict-of-interest management. The ICCPUD track was something else entirely.

ICCPUD had been created by the STOP Act to coordinate federal efforts on underage drinking—a genuine public health concern, but one entirely distinct from the question of what moderate alcohol consumption does to adult health. The committee's membership was drawn from agencies with missions related to substance abuse prevention: SAMHSA, NIAAA, CDC.[221] It had no particular expertise in nutrition. It had never been involved in dietary guidelines before.

Yet in April 2022, ICCPUD was tasked with conducting its own scientific review of alcohol and health—a review that would run parallel to the congressionally mandated NASEM study and would somehow inform the same dietary guidelines.[222]

The wine industry trade group WineAmerica noted the opacity of the arrangement: "Nearly two years after the announcement that alcohol would be reviewed separately from the general DGA review, very few details have been provided for the SAMHSA review. For example, no detail has been provided on the scope of work and scientific review protocol, the members and qualifications of the subcommittee/panel tasked with the work, and how their review will interplay with the concurrent NASEM review."[223]

Congress noticed too. By summer 2024, more than 110 members of Congress had signed letters demanding answers about the ICCPUD process.[224] The House Oversight Committee launched an investigation. Chairman James Comer issued subpoenas for documents and communications related to the committee's formation. The Biden administration, in Comer's words, "obstructed the Committee's request for information and evaded the Committee's oversight by providing only documents already publicly available."[225]

The question that the investigation sought to answer was straightforward: Why had HHS created a shadow process, outside normal channels, to review a topic that Congress had already funded the National Academies to study?

The answer lies in the composition of the panel that ICCPUD assembled—and in the network to which its members belonged.

The ICCPUD Panel

The ICCPUD Scientific Review Panel consisted of six members: Katherine Keyes of Columbia University, Priscilla Martinez of the Alcohol Research Group, Adam Milam of the Mayo Clinic, and three researchers based in Canada—Jürgen Rehm and Kevin Shield of the Centre for Addiction and Mental Health in Toronto, and Timothy Naimi of the Canadian Institute for Substance Use Research at the University of Victoria.[226]

The composition was unusual in several respects. Half the panel tasked with informing American dietary guidelines resided outside the United States.[227] The panel was dominated by addiction researchers, not nutrition scientists—an odd choice for a body meant to inform dietary recommendations. And several members had extensive track records of advocating for positions far more restrictive than the existing guidelines supported.

Timothy Naimi was the most prominent example. This was the same researcher whose 2020 recommendation to cut the men's drinking limit in half had been rejected by HHS and USDA for lack of sufficient evidence. He was now back on a panel reviewing the same question, through a different process, with different oversight.

But Naimi's involvement in the 2020 DGAC was not his only relevant credential. In 2020, he had also been appointed to lead a review of Canada's drinking guidelines for the Canadian Centre on Substance Use and Addiction (CCSA).[228] The result was a recommendation that made his U.S. proposal look moderate by comparison: a maximum of two drinks per week—not per day, per week.[229]

The Canadian government rejected this recommendation. Canada's official guidelines remained at three drinks per day for men, two for women—more permissive than the U.S. guidelines that Naimi had tried to tighten.[230] In the span of four years, Naimi had twice recommended dramatic restrictions on alcohol consumption, and twice been rebuffed by the political authorities responsible for evaluating his evidence.

Now he was seated on a third panel, in a third country, reviewing the same questions.

Naimi was not alone in his predispositions. Jürgen Rehm and Kevin Shield had co-authored the Canadian guidelines with him.[231] Both worked at Toronto's Centre for Addiction and Mental Health, an institution whose mission centers on treating substance abuse disorders. Rehm had publicly stated that there is no safe level of alcohol consumption.[232] Kather-

ine Keyes of Columbia had made similar public statements.[233] Priscilla Martinez worked for the Alcohol Research Group, an organization whose stated vision is "a future with greatly reduced alcohol- and other drug-related harms."[234]

Four of the six panelists, in other words, had either publicly committed to the position that no level of alcohol consumption is safe, or worked for organizations whose institutional missions presumed that alcohol consumption is a harm to be reduced rather than a behavior to be evaluated neutrally.

This was not a panel assembled to weigh evidence. It was a panel assembled to reach a conclusion.

The Network

The ICCPUD panel's composition becomes comprehensible only when viewed against a larger backdrop: an international network of advocacy organizations, academic institutions, and philanthropic funders that has spent decades working to reshape global alcohol policy along prohibitionist lines.

The network's organizational hub is the Global Alcohol Policy Alliance, or GAPA—a coordinating body that connects regional alcohol-control advocacy groups across six continents.[235] GAPA was founded in 2000 at a conference in Syracuse, New York, but its roots extend much deeper.[236]

The driving force behind GAPA's creation was Derek Rutherford, a British temperance advocate who held simultaneous positions as Chief Executive of the United Kingdom Temperance Alliance and International Secretary of IOGT—the International Organisation of Good Templars.[237] IOGT was founded in 1851 in Utica, New York, as a fraternal organization modeled on Freemasonry but dedicated to the cause of total abstinence from alcohol.[238] It was part of the broader temperance movement that would eventually achieve Prohibition in the United States—and that never stopped working toward similar goals after Prohibition's repeal.

In 1993, Rutherford traveled to Washington to recruit American partners for an international alliance. He met with the Marin Institute (now Alcohol Justice), the American Council on Alcohol Problems, and other organizations.[239] By 1994, the group had agreed to establish what would become GAPA, with the explicit aims of monitoring the global alcohol industry and promoting international research on alcohol's harms.[240]

The key figures Rutherford recruited would remain central to the network for decades. Dr. David Jernigan, then at the Marin Institute, is now a professor at Boston University and serves as GAPA's Scientific Committee Chair.[241] He has also served on the WHO's Global Information System on Alcohol and Health Steering Committee, giving the network a direct line into the international body that shapes alcohol policy worldwide.[242] Professor Sally Casswell of New Zealand's Massey University, another founding figure, has served on the WHO Expert Advisory Panel on Drug Dependence and Alcohol Problems since 1986—thirty-nine years of continuous access to WHO advisory structures.[243]

IOGT itself still exists. In 2020, it rebranded as Movendi International, shedding the archaic "Good Templars" name for something that sounds more like a modern public health organization.[244] But the institutional continuity is unbroken. Movendi's headquarters remain in Stockholm; its mission remains promoting abstinence from alcohol; and its personnel overlap extensively with GAPA and the broader network.[245]

The rebranding was more than cosmetic. Movendi recognized that a Victorian-era temperance order, with its quasi-Masonic rituals and pledges of total abstinence, held little sway in the modern world.[246] The new branding traded religious moralism for the secular language of public health, human rights, and social justice. Movendi's contemporary messaging frames alcohol not merely as a health risk but as a vector of patriarchy, colonial exploitation, and structural inequality.[247] The prohibitionist goal remains unchanged; only the rhetoric has been updated for a new era.

This is where the ICCPUD panel's affiliations become significant. On his ICCPUD financial disclosure form, Timothy Naimi noted that he had received travel funding from "IOGT-NTO"—the Swedish branch of the International Organisation of Good Templars, which operates under the Movendi International umbrella.[248] Naimi, along with his Canadian colleagues Tim Stockwell and Adam Sherk, disclosed affiliations with Movendi International on conflict-of-interest forms for the Canadian alcohol guidelines project.[249] They have appeared on Movendi's official podcast.[250] Their research is prominently featured on Movendi's website.[251] Just two days after the Canadian Centre on Substance Use and Addiction published its controversial two-drinks-per-week recommendation, an interactive summary appeared on Movendi's website—authored by the same researchers.[252]

Jürgen Rehm has co-authored papers with Maik Duennbier, Movendi International's Director of Strategy and Advocacy.[253] Rehm's research appears extensively in Movendi publications.[254] Tim Stockwell, a close collaborator of several ICCPUD panelists, served as president of the Kettil Bruun Society from 2005 to 2007—a think tank that emerged from international abstinence congresses and whose 2023 annual conference in Johannesburg was sponsored by Movendi.[255]

The connections extend to the conference circuit as well. Naimi has co-chaired multiple conferences for the U.S. Alcohol Policy Alliance (USAPA)—the American regional affiliate of GAPA—alongside USAPA leadership and David Jernigan.[256] In 2018, USAPA convened a symposium at Johns Hopkins called "Alcohol Control as Cancer Control," in partnership with the American Institute for Cancer Research and IOGT International.[257]

The picture that emerges is not one of independent scientists who happen to share similar views. It is a network—with

shared funding sources, shared organizational affiliations, shared conference circuits, and shared personnel who rotate between academic positions, advocacy organizations, and government advisory roles.

GAPA's Philosophy: From Harm Reduction to Population Control

Understanding what GAPA and its affiliates actually believe is essential to understanding what they are trying to accomplish.

Traditional alcohol policy operated on a harm-reduction model. The goal was to minimize the damage caused by problem drinking—drunk driving deaths, alcohol-related violence, liver disease among heavy drinkers—while respecting the place of moderate consumption in social and cultural life.[258] This approach distinguished between use and abuse. It recognized that most adults who drink do so without significant negative consequences, and that policy should focus on the minority whose drinking creates problems.

GAPA rejects this distinction. Its operational philosophy is what advocates call "population-level control"—the idea that the goal of alcohol policy should be to reduce total consumption across the entire population, not merely to address problem drinking.[259] In this framework, there is no meaningful difference between the alcoholic destroying his liver and the couple sharing a bottle of wine over dinner. Both are consuming a toxic substance; both should be encouraged—or compelled—to stop.

The mechanism for achieving population-level reduction is what GAPA calls "denormalization": making alcohol expensive, invisible, and inconvenient for everyone.[260] Raise taxes until casual drinkers are priced out. Ban advertising so that alcohol disappears from public consciousness. Restrict availability—fewer stores, shorter hours, more burdensome licensing. Plaster packages with graphic health warnings. The target is not the problem drinker; it is the cultural acceptability of drinking itself.

This philosophy explains why the network's researchers consistently downplay or dismiss the J-curve evidence. If moderate drinking is actually associated with better health outcomes than abstention, then the population-control approach loses its scientific justification. The policy goal requires the science to show that any drinking is harmful—and so the network's researchers produce science showing exactly that.

The Funding Infrastructure

Networks require resources. The neoprohibitionist movement has them. The single largest recent funder has been Open Philanthropy, a grantmaking organization backed by Facebook co-founder Dustin Moskovitz and his wife Cari Tuna.[261] In December 2021, Open Philanthropy announced a $15 million grant to Vital Strategies to launch something called the RESET Alcohol Initiative.[262] Additional grants followed: $10 million in 2024, then another $8.2 million.[263] Total documented Open Philanthropy funding for alcohol-control advocacy now exceeds $33 million.

The scale is significant. According to Open Philanthropy's own assessment, this single grant "roughly doubled" the total philanthropic funding available for alcohol policy work in low- and middle-income countries.[264] A movement that had operated on shoestring budgets for decades suddenly had resources to match its ambitions.

Vital Strategies serves as the fiscal hub and lead implementer. It is not primarily an alcohol organization—its background is in tobacco control, where it has served as a principal partner in the Bloomberg Initiative to Reduce Tobacco Use.[265] Michael Bloomberg has committed nearly $1.6 billion to tobacco control since 2005, and Vital Strategies has been central to implementing that agenda: running media campaigns, embedding staff in government health ministries, coordinating international advocacy.[266] The organization has infrastructure, relationships, and campaign experience that it is now pivoting to alcohol.

The RESET Alcohol Initiative operates as a consortium. Vital Strategies leads; the other members are Movendi International, the Global Alcohol Policy Alliance, the University of Illinois Chicago's Tobacconomics team (another tobacco-to-alcohol pivot), the NCD Alliance, and—notably—the World Health Organization itself.[267]

The consortium's focus countries are Brazil, Mexico, Colombia, Kenya, Sri Lanka, and the Philippines.[268] The strategy is explicit: achieve policy victories in these countries that can then be cited as models for advocacy in the United States and Europe. Embed staff in foreign health ministries. Build the evidence base for WHO's preferred interventions. Create facts on the ground.

But Open Philanthropy and Bloomberg are not the only sources of funding, nor even the most important for understanding how the "science" is produced.

The primary data source for the WHO's "no safe level" position is the Global Burden of Disease study, an enormous epidemiological modeling project that quantifies health risks across populations worldwide.[269] The Global Burden of Disease study is produced by the Institute for Health Metrics and Evaluation (IHME) at the University of Washington. The IHME is not a neutral academic body; it was founded in 2007 with a $105 million grant from the Bill & Melinda Gates Foundation and continues to operate as the foundation's primary data engine for global health metrics.[270]

This represents a closed loop of remarkable elegance. The Gates Foundation funds IHME to produce models showing that alcohol is harmful at any level.[271] The WHO cites these models as the scientific basis for its "no safe level" position.[272]

Domestic agencies and advocacy groups then cite the WHO to justify policy changes in the United States. The philanthropic preferences of a single foundation are thus laundered through layers of apparent scientific and institutional authority until they emerge as global consensus.

The domestic funding picture is equally incestuous. Federal agencies—CDC, NIH, SAMHSA—issue grants for "alcohol prevention research" to university centers.[273] The directors of these centers frequently sit on the boards of USAPA or its state affiliates.[274] They produce papers concluding that taxes must be raised, marketing must be banned, availability must be restricted. USAPA and its allies then use this taxpayer-funded research to lobby the government for those very regulations.[275] The researchers get grants; the advocates get ammunition; the agencies get justification for expanding their mandates. It is a self-licking ice cream cone, and the taxpayer foots the bill.

The WHO and the Push for a Global Treaty

The WHO connection is not incidental to the network's strategy; it is central.

For decades, the global consensus on alcohol policy was grounded in harm reduction. The WHO's approach focused on addressing problem drinking—drunk driving, alcohol dependence, fetal alcohol syndrome—while acknowledging the cultural role of moderate consumption in societies around the world.[276] This began to change in 2010 with the adoption of the WHO Global Strategy to Reduce the Harmful Use of Alcohol, and it accelerated dramatically with the launch of the SAFER Initiative in September 2018.[277]

SAFER provides the policy playbook: Strengthen restrictions on alcohol availability, Advance drink-driving countermeasures, Facilitate access to screening and treatment, Enforce bans on alcohol advertising, Raise prices through taxation.[278] These are the "best buys" that the network promotes worldwide—interventions deemed cost-effective by WHO modeling (itself derived from IHME data) and now embedded in global health frameworks.[279]

The shift from harm reduction to population control was made explicit in January 2023, when the WHO published a statement in The Lancet Public Health declaring that "no level of alcohol consumption is safe for our health."[280] The statement acknowledged that the risks at low levels of consumption were small, but insisted that they were real and that therefore no "safe" threshold could be identified.[281]

This was not a scientific finding but rather a rhetorical maneuver. The same logic would require declaring that no level of driving is safe (car accidents kill tens of thousands annually), no level of swimming is safe (drowning is a leading cause of accidental death), no level of red meat consumption is safe (colorectal cancer risk increases with intake). The decision to apply this framing to alcohol—and only to alcohol—was a policy choice, not a scientific one. It reflected the network's goal of denormalization: eliminating the concept of responsible drinking from public discourse.

The "no safe level" position also conveniently negates the J-curve evidence that had anchored the previous consensus. If the goal is zero risk, then the finding that moderate drinkers live longer than abstainers becomes irrelevant. The framing itself excludes the possibility that moderate consumption could be acceptable.

The network's ultimate objective is a binding international treaty: a Framework Convention on Alcohol Control (FCAC) modeled on the Framework Convention on Tobacco Control (FCTC) that reshaped global tobacco regulation beginning in 2005.[282] In February 2020, a coalition of countries led by Thailand formally proposed establishing a WHO working group to develop such a treaty.[283] The proposal was opposed by Australia, Canada, the EU, New Zealand, Norway, and the United States, and it failed.[284]

But the network has not abandoned the goal. The 2023 Global Alcohol Policy Conference in Cape Town produced the "Cape Town Declaration" calling for a Framework Convention on Alcohol Control.[285] The 2026 conference in Rio de Janeiro will continue this agenda.[286] And in the meantime, the network pursues the treaty's substance through other means: the SAFER Initiative, national-level policy campaigns, and the steady accumulation of WHO declarations that can be cited as authoritative.

If such a treaty were ever adopted and ratified by the United States, the implications would be significant. The FCTC requires signatory nations to implement plain packaging requirements, comprehensive advertising bans, smoke-free public spaces, and other measures.[287] An equivalent alcohol treaty would mandate similar interventions: graphic warning labels, restrictions on marketing, minimum pricing, limits on availability. The power to set American alcohol policy would effectively shift from Congress to international bodies—from democratic accountability to technocratic consensus.

Two Reports, Two Conclusions

The parallel-track structure that HHS created in 2022 produced, predictably, two different reports with two different conclusions.

The National Academies panel—fourteen experts, with their report reviewed by ten additional scientists—conducted its work through established NASEM protocols: public meetings, transparent methodology, rigorous conflict-of-interest screening.[288] Its report, released in late 2024, found that moderate alcohol consumption was associated with lower all-cause mortality compared to abstention, while acknowledging increased cancer risks at all levels of consumption.[289] The finding was consistent with decades of prior research: moder-

ate drinking is not risk-free, but it is also not the unmitigated harm that abstinence advocates claim.

The ICCPUD panel—six members, three of them Canadian, operating under less transparent procedures—reached different conclusions. Its report emphasized mortality risks even at low levels of consumption, contradicting the NASEM findings.[290] The methodology was opaque; the panel's composition was skewed toward researchers with documented advocacy affiliations; the conclusions aligned precisely with the positions that network-affiliated organizations had been promoting for years.

The contrast illustrated exactly what critics had warned about when the parallel-track structure was announced. Congress had funded NASEM to conduct a rigorous, independent review. HHS had created a shadow process that produced a contradictory result—a result more useful for advancing a particular policy agenda than for informing evidence-based guidelines.

Congress responded. In September 2024, the House Appropriations Committee announced plans to defund ICCPUD.[291] The Trump administration, upon taking office, shelved the ICCPUD report and announced that it would not inform the 2025 dietary guidelines.[292]

The network's capture of the ICCPUD process had failed—but only because external actors intervened. Left to its own devices, HHS would have produced dietary guidelines shaped by a panel of advocacy-affiliated researchers, operating through a process designed to circumvent normal scientific review. The institutional vulnerability that allowed this to happen remains unaddressed.

The Anatomy of Capture

The ICCPUD episode illustrates a pattern that extends well beyond alcohol policy. The mechanism has several components:

First, identify an institutional process that produces outcomes you wish to change. The Dietary Guidelines for Americans shape federal nutrition policy, school lunch programs, military rations, and billions of dollars in food industry decisions. They are worth capturing.

Second, when the normal process produces outcomes you dislike—as when HHS and USDA rejected the 2020 recommendation to tighten alcohol limits—do not accept the result. Instead, seek to create a parallel process with different composition requirements, different transparency rules, and different oversight.

Third, populate the new process with personnel drawn from your network. The ICCPUD panel was not randomly selected from the universe of qualified alcohol researchers. It was composed of individuals with documented ties to organizations whose explicit mission is reducing alcohol consumption. Half the panel had publicly committed to the conclusion—no safe level of alcohol—before the review began.

Fourth, leverage international networks to create pressure and legitimacy. The WHO's "no safe level" position, the SAFER Initiative, the push for a Framework Convention—all of this creates an environment in which the ICCPUD panel's conclusions appear to align with "global scientific consensus" rather than with the agenda of a specific advocacy network.

Fifth, control the data infrastructure. When the IHME—funded by a foundation aligned with the network's goals—produces the models that the WHO cites as authoritative, and when those models are then cited by domestic agencies as the basis for policy, the science itself becomes a vector for advocacy. The conclusions are baked in before the review begins.

Sixth, rely on opacity. The ICCPUD process operated with far less transparency than the normal DGAC process or the NASEM review. Panel selection criteria were unclear. Conflict-of-interest disclosures were less rigorous. The relationship between the two parallel reviews was never adequately explained. When Congress demanded documents, the Biden administration stonewalled.

Seventh, exploit the grant-making loop. Fund academic research that supports your policy positions; place the researchers who produce that research on advisory committees; use their committee recommendations to justify the policies you wanted all along. When the same people cycle between grant-funded research, advocacy organizations, and government advisory roles, the boundaries between science and lobbying dissolve.

The network did not succeed in this instance—but not for lack of trying, and not because the institutional safeguards worked. It failed because Congress noticed, investigated, and defunded the captured process; because a new administration took office and shelved the tainted report. Had the 2024 election gone differently, the ICCPUD findings would likely now be shaping the dietary guidelines that inform what fifty million Americans eat.

The vulnerability remains. The personnel remain in their academic positions. The funding continues to flow. The network's regional affiliates continue their advocacy in state legislatures and foreign capitals. The WHO maintains its "no safe level" position. The IHME continues producing models. Nothing structural has changed to prevent the next attempt at capture—whether of alcohol policy, nutrition policy, or any other domain where an organized network with resources and patience can identify an institutional pressure point.

Understanding that this network exists, how it operates, and what its goals are is the first step toward building institutional defenses against it. The temperance movement did not end with the repeal of Prohibition. It adapted, professionalized, and found new pathways to influence. It is now embedded in the infrastructure of global public health. And it is patient.

Part 6
The Youngest Victims

Somewhere in America right now, a mother is standing in a grocery aisle comparing infant formula brands. She is trying to choose what will be best for the health of her baby. She likely does not know that the regulations governing what goes into those cans haven't been meaningfully updated since Ronald Reagan's first term. She likely does not know that every single formula on that shelf contains the same industrial seed oils that the wellness world has spent a decade warning adults to avoid—and that these seed oils are the only fats the FDA actually requires. She likely does not know that the FDA still doesn't require DHA or arachidonic acid—the long-chain fatty acids found in breast milk that are essential for brain and eye development—even though the European Union mandated DHA five years ago. The fats that are required are linoleic acid from seed oils. The fats that are essential for infant brain development are optional.

Linoleic acid is not a benign nutrient. Excessive intake leads to the formation of oxidized linoleic acid metabolites, impairs mitochondrial function, and contributes to the chronic inflammation that underlies obesity, cardiovascular disease, cancer, and diabetes.[293] The standard American diet now contains fourteen to twenty-five times more omega-6 fatty acids than omega-3s, with the majority coming from linoleic acid in seed oils.[294] This imbalance has been linked to the epidemic of chronic disease that emerged in the twentieth century. And we are requiring it in the food we give to newborns.

Meanwhile, when American parents discover that European formulas contain less linoleic acid, more DHA, no corn syrup, and higher-quality ingredients, they try to import them. Throughout the Biden administration, CBP regularly intercepted shipments of European-made infant formula, treating them like contraband and issuing press releases boasting of the seizures.

When entrepreneurs tried to bring European-style formula to the American market legally, the FDA shut them down. In 2019, a startup called Bobbie launched a pilot program serving approximately 100 families in San Francisco with formula made in Germany using European ingredients—lactose instead of corn syrup, coconut oil instead of soybean oil, and grass-fed dairy. Ten days after launch, FDA inspectors arrived at their warehouse. The agency issued a national recall for a company with fewer than fifteen employees and a hundred subscribers.[295] Bobbie was eventually allowed to return to market—but only after hiring a former Abbott Nutrition regulatory executive, partnering with an established manufacturer, and reformulating to meet FDA requirements.[296]

The mother in the grocery store formula aisle is trying to make a healthy choice in a system that keeps healthy choices from ever reaching the market.

This is the frontier where dietary guidance meets infant nutrition. It is where the stakes of capture are highest.

The Expansion of Federal Authority

For the first thirty-five years of the Dietary Guidelines' existence, the Guidelines applied only to Americans aged two years and older. Infant formula was regulated by the FDA under the Infant Formula Act of 1980; and beyond that, the agencies deferred to pediatricians and parents.

That changed with the 2014 Farm Bill. Section 4204 of the Agricultural Act of 2014 mandated that the 2020-2025 Dietary Guidelines "shall include dietary guidelines for... infants and toddlers from birth to age 2, including breastfed infants."[297] For the first time, the same bureaucratic apparatus that had spent decades promoting margarine over butter and skim milk over whole would have authority to shape what American babies eat.

The expansion was framed as filling a gap. "Establishing healthy dietary patterns in infancy and early childhood is crucial to support immediate needs for growth and development and to promote lifelong health," the 2020 DGAC Scientific Report explained.[298] This is true. It is also true that extending the Guidelines to infants created a new vector for the same ideological capture that has corrupted nutrition policy for older Americans.

The 2020 DGAC created a "Birth to 24 Months Subcommittee" to develop recommendations for this age group.[299] The subcommittee acknowledged that "the scientific evidence for associations of dietary intake to health outcomes is relatively scant for this age group for most topics."[300] This did not stop them from issuing recommendations anyway.

Seed Oils in Every Can

To understand the infant formula problem, you must first understand what these products actually contain.

The Infant Formula Act of 1980 established minimum nutrient requirements for formula sold in the United States. The fatty acid provision is striking in its narrowness: "Essential fatty acids (linoleate): percent cal 2.7, mg...300.0."[301] That is the entire fat requirement. A specific form of omega-6 polyunsaturated fatty acid. Nothing else.

To meet this requirement, formula manufacturers turned to the cheapest available source: high linoleic acid oils extracted through an extensive chemical process from seedstock such as corn, soy, and rapeseed. The same industrial seed oils that have replaced animal fats throughout the American food supply now comprise the primary fat source in infant formula.[302]

Human breast milk contains substantial amounts of fat, providing roughly half of the calories an infant needs.[303] Saturated and monounsaturated fatty acids comprise over 80% of the total fatty acids in human milk.[304] Breast milk contains DHA and arachidonic acid—long-chain fatty acids critical for brain and eye development.[305]

The FDA still does not require DHA in infant formula. The agency allowed manufacturers to add it via the Generally Recognized as Safe (GRAS) process beginning in 2001, but it remains optional.[306] The European Union, by contrast, mandated DHA in infant formula in 2020.[307] The same agency that micromanages sodium intake for adult Americans has spent two decades declining to require a nutrient demonstrably essential for infant brain development.

Meanwhile, the seed oil content goes unquestioned. Every infant formula sold in the United States contains industrial seed oils.[308] Not some formulas. Not most formulas. All of them.

The Inflammation Question

Polyunsaturated fatty acids are uniquely vulnerable to a process called lipid peroxidation, during which they are broken down into small, toxic byproducts that cause cellular damage.[309] The more PUFAs accumulated in tissue, the greater the vulnerability to this damage. Oxidative stress can increase due to nutrient deficiencies, infections, inflammation, or simply aging—and when it does, higher tissue PUFA burden means more damage.[310]

Vitamin E follows PUFAs wherever they go in the body and protects against this oxidation. But vitamin E has a shorter half-life than the PUFAs it protects. As tissue burden of PUFAs increases, the vitamin E requirement goes up—and eventually, high PUFA intake can increase the demand for vitamin E faster than it increases the supply.[311] This is compounded by the fact that most infant formulas contain synthetic vitamin E, which has roughly half the biological activity of natural vitamin E.[312]

The pediatric nutrition establishment insists that seed oils in formula are safe and necessary. "There is no evidence at present" that formulas without seed oils would constitute healthier choices, one expert told FactCheck.org in response to the FDA commissioner's concerns.[313] "There's no scientific concern about these seed oils that they are talking about," added another.[314]

But this misses the point. The concern is not that any given bottle of formula will cause immediate harm. The concern is that regulations not just permit, but actually mandate linoleic acid levels far higher than what appears in breast milk, with no maximum limit.

A 2025 expert panel convened by the FDA under Operation Stork Speed acknowledged this directly: "Current FDA fatty acid regulations specify only total fat content and minimum linoleic acid requirements despite substantial international consensus on polyunsaturated fatty acid specifications."[315] The panel found that "evidence strongly supports establishing maximum linoleic acid levels"—meaning that current regulations permit more omega-6 than are appropriate for infant development.[316]

High linoleic acid intake creates another problem: it suppresses omega-3 conversion. The two PUFA families compete for the same enzymes. When linoleic acid floods the system, less alpha-linolenic acid gets converted to DHA—the omega-3 fatty acid critical for brain and retinal development. This is why the ratio of omega-6 to omega-3 matters, not just the absolute amounts.

Even the experts who documented these problems hesitated to recommend fixing them. The panel warned that: "severely limiting or omitting seed oils in formulas could lead to deficiencies in omega-6 and omega-3 fatty acids, only some of which manifest through overt criteria like poor growth. Neurocognitive development is particularly sensitive, and subtle effects may require expert measurements to detect issues that could magnify later in life."[317] This is the dilemma as the establishment frames it: we cannot change the formula without risking unknown harms.

But this framing itself is the problem. Breast milk does not contain high levels of linoleic acid from soybean oil. Breast milk fat is predominantly saturated and monounsaturated, with polyunsaturates comprising a relatively small fraction. The question is not whether we have RCT evidence that the current seed-oil-based formulation is harmful. The question is why the burden of proof was ever placed on matching breast milk rather than on deviating from it.

The "evidence-based" framework demands proof of harm before changing formula composition. But the same framework permitted formula to deviate radically from breast milk composition without proof that such deviation was safe.

The Synthetic Vitamin Problem

The seed oils are not the only ingredient in infant formula that diverges from what human biology expects. The vitamins are synthetic too—and not all synthetic vitamins are created equal.

Consider folate, essential for DNA synthesis, cell division, and neurological development. Breast milk contains folate in its natural, bioactive form: L-5-methyltetrahydrofolate (5-MTHF).[318] This is the form the body actually uses. Infants receiving breast milk have folate immediately available for the metabolic processes that drive their rapid growth and brain development.

Infant formula, by contrast, contains folic acid—a synthetic compound that does not occur in nature. To become usable, folic acid must be converted to 5-MTHF through a series of enzymatic reactions, primarily in the liver.[319] This conversion depends on an enzyme called MTHFR. And here is the problem: an estimated 40% of the population carries genetic variants that reduce MTHFR enzyme activity.[320] For these individuals—including infants—the conversion of folic acid to usable folate is inefficient.

The result is measurable. Studies have found elevated levels of unmetabolized folic acid in the plasma of formula-fed infants—synthetic folic acid circulating in the bloodstream because the infant's body cannot process it efficiently.[321] Breastfed infants, by contrast, do not have unmetabolized folic acid in their systems; they receive folate in the form their bodies can immediately use.[322]

The long-term consequences of chronic unmetabolized folic acid exposure in infants remain unclear. Some researchers have hypothesized effects on folate-related metabolism, potential competition with reduced folates for transporters and binding proteins, and downstream impacts on neurological development.[323] Others argue the concerns are overblown. What no one disputes is that formula-fed infants are receiving a different form of folate than breastfed infants—and that the synthetic form requires metabolic processing that not all infants can perform efficiently.

The European Union recognized this problem. In 2020, the European Food Safety Authority approved L-5-methyltetrahydrofolate (sold as Metafolin) as an alternative folate source for infant formula.[324] European formula manufacturers like HiPP have reformulated their products to include bioactive folate rather than synthetic folic acid.[325] American formulas, for the most part, have not.

The pattern repeats with vitamin E. Natural vitamin E—d-alpha-tocopherol—has approximately twice the biological activity of synthetic all-rac-alpha-tocopherol. A study in term infants found that they "discriminate between natural and synthetic vitamin E," with those receiving natural vitamin E achieving comparable plasma levels on half the dose.[326] Yet synthetic vitamin E remains the standard in most American infant formulas.

And vitamin D. The body produces vitamin D3 (cholecalciferol) when skin is exposed to sunlight; this is the mammalian form. Vitamin D2 (ergocalciferol) is derived from fungi and is not naturally present in human biology. While both forms raise blood levels of vitamin D metabolites, multiple studies have found vitamin D3 more effective at maintaining adequate status.[327] Formula manufacturers use whichever form is cheaper.

The fundamental problem is that regulations specify nutrient quantities, not nutrient forms. The FDA requires that infant formula contain specified amounts of folate, vitamin E, and vitamin D—but says little about which molecular forms should be used.[328] This allows manufacturers to optimize for cost and stability rather than bioavailability and biological activity. The result is products that meet regulatory requirements on paper while delivering nutrients in forms that infant biology may struggle to utilize.

Breast milk does not contain synthetic folic acid. It does not contain all-rac-alpha-tocopherol. It does not contain ergocalciferol. It contains the forms of these vitamins that human infants are designed to receive from human mothers. Every deviation from this template is an experiment—and the experiments have been running for decades without systematic assessment of their consequences.

Operation Stork Speed

In March 2025, the Department of Health and Human Services and the FDA launched "Operation Stork Speed"—a comprehensive initiative to reform infant formula regulation.[329] The name invoked Operation Warp Speed, the COVID-19 vaccine development program, signaling that the administration viewed infant formula with similar urgency.

The initiative was prompted in part by the 2022 formula shortage, which exposed the fragility of an infant formula supply concentrated among three manufacturers.[330] But it went beyond supply chain concerns to address something more fundamental: the nutrient content of formula itself.

"Operation Stork Speed brings radical transparency to ingredients in infant formula and puts science front and center," HHS Secretary Robert F. Kennedy Jr. announced. "Every child has a fundamental right to a healthy start. We're giving parents the truth and the tools to make that happen."[331]

The FDA issued a Request for Information to begin the first comprehensive nutrient review since 1998.[332] The agency convened a public expert panel in June 2025 to assess the state of the science. FDA Commissioner Marty Makary explicitly raised concerns about seed oils, added sugars, and heavy metal contamination.

The response from the nutrition establishment was predictable. FactCheck.org ran a headline: "FDA Commissioner Spreads Unsubstantiated Concerns About Seed Oils in Baby Formula."[333] Experts were quoted dismissing Makary's concerns as echoing "claims that wellness influencers have spread about seed oils." The implication was clear: only cranks and internet personalities question the formula orthodoxy.

But the expert panel Makary convened did not dismiss these concerns. It documented them. The panel's report acknowledged "recent concerns about seed oils" and called for "balanced PUFA formulations."[334] It recommended establishing maximum linoleic acid levels—an implicit admission that current levels may be too high. It noted that "saturated and monounsaturated fatty acids comprise over 80% of human milk fatty acids," while infant formula has inverted this ratio with its seed oil base.

The panel also addressed carbohydrates. Lactose is the primary sugar in human breast milk. Yet many American infant formulas substitute corn syrup solids or maltodextrins—more "gentle" for baby's digestion, according to marketing, but also cheaper for manufacturers.[335] In Europe, low-lactose formulas are classified as specialty products; in America, they are mainstream.

The DGA Connection

What does any of this have to do with the Dietary Guidelines? The 2020-2025 Guidelines marked the first time federal nutrition policy extended to infants and toddlers. The recommendations—breastfeeding for six months, introduction of complementary foods at six months, emphasis on nutrient-dense options—were largely uncontroversial.[336] The concern is not what the Guidelines said about infant feeding, but who wrote them.

The first federal dietary guidelines for infants were written by people with financial ties to the infant formula industry. A 2022 study in *Public Health Nutrition* documented conflicts of interest among the 2020 DGAC members.[337] On the Birth to 24 Months Subcommittee—the group responsible for the first-ever federal recommendations on infant feeding—four of six members had conflicts of interest involving manufacturers of breast milk substitutes.[338] The Pregnancy and Lactation Subcommittee had the same ratio: four of six members with formula industry ties.[339]

The connections ran deep. One committee member alone, Sharon Donovan, had 152 documented ties to food and pharmaceutical industry actors, including infant formula maker Mead Johnson.[340] The DGAC vice chair, Ronald Kleinman, was physician-in-chief at Massachusetts General Hospital for Children, which maintained a research partnership with Mead Johnson on pediatric nutrition.[341] The corporations with the most extensive connections to the committee were Kellogg, Abbott, Kraft, Mead Johnson, General Mills, and Dannon—the same companies whose products the committee was ostensibly evaluating with scientific objectivity.[342]

These are the experts who determined that the evidence for infant nutrition recommendations was "relatively scant"—and issued recommendations anyway.[343]

The same ideological currents that have captured adult nutrition policy now have access to infant nutrition policy. The same professional networks. The same foundation funding. The same conflicts of interest. The precedent is established: the advisory committee can make pronouncements about infant nutrition even when the science is thin.

Consider what a future captured committee might do with this authority. The EAT-Lancet Commission's "Planetary Health Diet" recommends minimal animal foods—a recommendation that, if applied to infant complementary feeding, would deprive developing children of the most bioavailable sources of iron, zinc, and B12.[344] The "health equity" framing already used by the 2025 DGAC to de-emphasize animal protein for adults could easily be extended to toddlers.[345] The climate activists who want to transform the food system do not make exceptions for children.

Indeed, the international guidelines that American regulators often cite are already moving in this direction. The WHO's 2023 guidance on complementary feeding emphasizes plant-based foods and expresses concern about "environmental footprint."[346] The same network of foundations and international organizations documented elsewhere in this report has infant nutrition firmly in its sights.

What Breast Milk Actually Contains

The story of infant formula is not a story of science gradually improving upon nature. It is a story of corporations and physicians actively displacing breastfeeding—and then spending decades discovering, through harm, that breast milk contained essential components they had failed to replicate.

In the early twentieth century, most infants were breastfed. Formula existed as a supplement or substitute when breastfeeding was impossible. But from the 1930s through the 1970s, breastfeeding rates collapsed. By 1970, fewer than 25% of American mothers were breastfeeding their newborns—an all-time low.[347] The decline was not driven by mothers choosing formula after careful comparison. It was driven by aggressive corporate marketing and medical professionals who had convinced themselves that industrial formula was superior to the substance human mothers had produced for human infants for hundreds of thousands of years.

Formula companies provided free or low-cost formula to hospitals, enabling the phasing out of hospital formula preparation rooms and ensuring that mothers' first experience of infant feeding would be with commercial products.[348] The strategy was explicit. As Nestlé's 1969 annual report noted, marketing formula in hospitals was a "strategic approach to encouraging adoption of infant formula"—because formula use in newborns releases prolactin-inhibiting hormones that signal the mother's milk production to shut down, creating dependence on formula.[349] Physicians, trained to trust scientific-sounding products over biological processes they could not measure, told mothers that formula was "medically approved" to provide "optimal nutrition."[350]

The consequences were catastrophic. In the developing world, where Nestlé and other companies expanded aggressively in the 1960s and 70s, formula marketing became a vector for mass infant death. Mothers without access to clean water mixed formula with contaminated water. Mothers too poor to afford adequate formula diluted it, starving their infants. A 2023 study estimated that Nestlé's entry into low- and middle-income country markets caused approximately 66,000 infant deaths per year among households without clean water access at the peak of the controversy in 1981.[351] Other estimates place the annual death toll as high as 212,000.[352]

The 1974 exposé "The Baby Killer" sparked international outrage. A successful boycott of Nestlé products followed. The World Health Organization passed the International Code of Marketing Breast Milk Substitutes in 1981 by a vote of 118 to 1—the United States casting the sole negative

vote.[353] Only then did breastfeeding rates begin to recover in the industrialized world.

This history matters because it reveals what "evidence-based" infant nutrition policy actually meant in practice. For forty years, the medical establishment told mothers that formula was as good as or better than breast milk—without evidence. The formula companies marketed their products as "scientifically balanced" and "closest to mother's milk"—without evidence. The physicians who recommended formula over breastfeeding did so based on professional authority, not clinical trials demonstrating equivalent outcomes.

The supposed superiority of formula was never proven. It was assumed, marketed, and institutionalized—until the harms became undeniable.

The Burden of Proof

The history of infant formula is a history of harm discovered too late. In the early twentieth century, formulas lacked adequate vitamins, and infants developed scurvy and rickets. Manufacturers added vitamins. In the 1950s, formulas were deficient in essential fatty acids, and infants developed skin lesions and failure to thrive. Manufacturers added linoleic acid. In the 1970s, a low-chloride formula caused developmental delays; regulations were tightened. In the 1980s, formulas without sufficient taurine were linked to vision problems; taurine was added. Each disaster revealed another component of breast milk that turned out to be essential—something that could have been avoided if formulas had simply mimicked breast milk from the start.

This history should have taught us a lesson: breast milk is not a rough template to be improved upon through industrial optimization. It is the product of innumerable generations of evolutionary refinement. Every component exists for a reason, even if we do not yet understand that reason. The burden of proof should not be on those who want formula to match breast milk; it should be on those who want to deviate from it.

Yet the "evidence-based" framework that dominates nutrition science inverts this burden. Under this framework, formula need not contain a breast milk component unless randomized controlled trials demonstrate that its absence causes measurable harm. This sounds scientific. It is not. It is a formula for discovering harms after they have been inflicted on a generation of infants.

Consider DHA. Breast milk contains DHA—a long-chain omega-3 fatty acid critical for brain and retinal development. Formula did not contain DHA for decades because there was no RCT proving formula-fed infants suffered without it. By the time the evidence accumulated, millions of infants had been fed DHA-free formula. The EU now mandates DHA; the US still does not.[354] How many American infants have suboptimal brain development because regulators waited for proof of harm rather than defaulting to the composition of breast milk?

The same logic applies to arachidonic acid. Breast milk contains both DHA and arachidonic acid in relatively fixed ratios.[355] The two fatty acids compete for incorporation into tissues; supplementing one without the other can suppress levels of the other.[356] When some European formulas began adding DHA without arachidonic acid, studies found adverse effects on infant growth.[357] The lesson was clear: you cannot cherry-pick breast milk components based on which ones have the most impressive RCT data. The system evolved as a whole.

Breast milk is roughly 50% fat by calories—and that fat is predominantly saturated and monounsaturated, not polyunsaturated.[358] The omega-6 to omega-3 ratio in breast milk varies by maternal diet but is typically far lower than in seed-oil-based formulas.[359] Breast milk contains cholesterol—a nutrient that formula manufacturers have largely excluded despite its role in brain development and hormone synthesis.[360] Breast milk contains complex human milk oligosaccharides that feed beneficial gut bacteria—compounds that formula has only recently begun to approximate.[361]

Breast milk does not contain synthetic folic acid. It contains L-5-methyltetrahydrofolate—the form the body actually uses. Breast milk does not contain dl-alpha-tocopherol. It contains d-alpha-tocopherol—the natural form with twice the biological activity. Breast milk does not contain ergocalciferol. It contains cholecalciferol—the form humans synthesize from sunlight. Every time formula substitutes a synthetic or cheaper form for the form found in breast milk, it is running an experiment on infants. The fact that no RCT has detected harm does not mean no harm exists; it may mean the harm is subtle, cumulative, or manifests in ways studies are not designed to detect.

If the goal were truly optimal infant nutrition, the default approach would be obvious: make formula match breast milk as closely as technically possible, and deviate only when there is compelling evidence that deviation improves outcomes. Instead, we have the opposite: formula deviates from breast milk by default, and components are added only when their absence is proven harmful.

The Botulism Outbreak

In late 2025, the infant formula discussion took a grim turn. A botulism outbreak linked to ByHeart infant formula sickened 51 infants across 19 states, all of whom required hospitalization.[362] The outbreak began as early as December 2023, but cases were not connected to the formula until late 2025.[363] The recall, when it finally came, was handled poorly—recalled products remained on store shelves for weeks after the initial announcement.[364]

The ByHeart outbreak was not directly related to the seed

oil question. It was a contamination event, a manufacturing failure that could theoretically happen with any infant formula regardless of its fat source. But it illustrated a broader truth about infant formula regulation: the system that is supposed to protect the most vulnerable Americans is reactive rather than proactive, slow rather than nimble, and more concerned with not disrupting industry than with optimizing infant health.

The FDA does not "approve" infant formulas before they reach the market; it merely reviews manufacturer notifications.[365] The agency does not conduct systematic safety assessments of formula additives; it accepts manufacturer claims.[366] The last comprehensive nutrient review occurred in 1998—twenty-seven years during which the science of infant nutrition advanced substantially while regulations stayed frozen.[367]

A Different Approach

Operation Stork Speed represents the first serious attempt in decades to reform infant formula regulation. The initiative has several components: a nutrient review process, increased testing for contaminants, encouragement for new market entrants, and efforts to improve labeling transparency.[368]

Commissioner Makary has explicitly endorsed the goal of bringing "additional and healthier options without ingredients like seed oils, added sugars, and heavy metals to market."[369] This framing—treating the current formula landscape as improvable rather than optimal—marks a departure from the defensive posture that has characterized FDA regulation for decades.

The expert panel convened in June 2025 made concrete recommendations. It called for maximum limits on linoleic acid to prevent omega-6 overload.[370] It recommended required levels of DHA and arachidonic acid, aligning US regulations with international standards.[371] It acknowledged the legitimacy of concerns about seed oils even while cautioning against expeditious reformulation.[372]

Whether these recommendations will be implemented remains to be seen. The infant formula industry—dominated by Abbott, Mead Johnson, and Nestlé—has resources to resist regulatory changes that would require reformulation.[373] The pediatric nutrition establishment has invested its credibility in the current paradigm. The same institutional inertia that has prevented updates to the adult Dietary Guidelines operates even more powerfully in infant nutrition, where the stakes of being wrong are higher and the accountability for past errors more damaging.

The Stakes

Every year, approximately 3.6 million babies are born in the United States.[374] The majority will receive infant formula at some point during their first year of life—either as a supplement to breast milk or as their sole source of nutrition.[375] For these infants, formula is not a choice among options; it is the entire nutritional universe.

The science of infant nutrition has advanced enormously since the Infant Formula Act of 1980. We now understand the role of long-chain fatty acids in brain development, the importance of the gut microbiome in immune function, the epigenetic effects of early nutrition on lifelong health. Yet the regulatory framework—and the formulas it permits—remain largely unchanged from four decades ago.

The 2020 expansion of the Dietary Guidelines to include birth-to-24-months created a new pathway for federal influence over infant nutrition. That pathway could be used to improve outcomes—or it could be captured by the same ideological forces that have corrupted adult nutrition policy. The EAT-Lancet planetary diet, the equity framework that de-emphasizes animal protein, the foundation-funded networks that promote plant-based eating—all of these now have a vector into what American babies eat.

This administration has shown willingness to challenge the nutrition establishment in ways previous administrations have not. Operation Stork Speed, whatever its ultimate outcomes, represents an acknowledgment that the status quo is not sacrosanct. The question is whether reform will be deep enough and sustained enough to matter.

The Marines who opened this report were malnourished as adults, victims of decades of bad federal nutrition advice that reached them through military food service. But the damage from captured nutrition policy begins earlier—in the infant formula aisle, in the WIC program that subsidizes formula purchases for low-income families, in the hospital nurseries where newborns receive their first feedings.

The youngest victims cannot advocate for themselves. They cannot read ingredient labels or compare nutritional profiles or file public comments with the FDA. They depend entirely on the adults who are supposed to protect them—parents making choices in grocery aisles, pediatricians offering advice, regulators setting standards.

For forty-five years, the adults have failed them. The regulations are frozen in the 1980s. The formulas are optimized for cost and shelf life, not infant development. The experts who write the guidelines have financial ties to the companies whose products they evaluate. And the mothers standing in grocery aisles, trying to make healthy choices for their babies, face a system that has ensured no healthy choices are in those aisles.

Part 7
Restoring Constitutional Government to Nutrition Policy

The Dietary Guidelines for Americans have failed. They have failed to prevent the epidemic of obesity that has consumed the nation since their first publication in 1980. They have failed to stem the rising tide of chronic disease. They have failed to protect the military readiness of the force we depend on to defend the nation, the cognitive development of the children who will inherit it, and the metabolic health of the adults who keep it running.

This failure is not a mystery. It is not a matter of insufficient funding or inadequate expertise. It is the predictable result of a process that has been captured by interests that do not prioritize the health of the American people—and that have escaped the constitutional controls meant to keep administrative agencies accountable to elected government.

The Dietary Guidelines process exemplifies everything that has gone wrong with the modern administrative state. Congress delegated authority to executive agencies. Those agencies delegated further to advisory committees. The committees were populated by credentialed experts drawn from institutions funded by the industries they regulate and the foundations that promote ideological agendas. The resulting guidance serves those interests rather than the public good—and no one is accountable. Not the committee members, who serve temporarily and return to their universities. Not the agency officials, who defer to the committee's "scientific" recommendations. Not Congress, which long ago surrendered its responsibility to superintend the process it created.

The solution is not to add another layer of oversight, another review committee, another set of procedural requirements. These would be simply captured too, as the National Academies process that was meant to reform the Guidelines after 2015 was captured. The solution is to restore constitutional accountability by reasserting the authority of elected officials over unelected experts, to strip away the pretense of scientific neutrality that shields ideological capture from democratic challenge, and to rebuild nutrition policy on foundations that serve the American people rather than the American Society for Nutrition. What follows are recommendations for achieving that restoration.

Statutory Clarification: Defining the Mission

The National Nutrition Monitoring and Related Research Act of 1990 directs the Secretaries of Agriculture and Health and Human Services to publish dietary guidelines that provide "nutritional and dietary information" based on "the preponderance of the scientific and medical knowledge."[376] The statute says nothing about environmental sustainability, climate change, planetary boundaries, or food system transformation. It says nothing about health equity, racial demographics, or social determinants of dietary behavior. It authorizes guidance on what Americans should eat to be healthy—nothing more.

The 2015 DGAC violated this mandate when it recommended incorporating climate ideology into the Guidelines. Congress correctly intervened to block that recommendation. But the intervention was ad hoc–a rider in an appropriations bill–easily circumvented by future administrations sympathetic to the climate agenda. The 2025 committee has effectively reimported the same framework through the back door, using "health equity" language to justify recommendations that advance environmental goals.

RECOMMENDATION 1

Congress should amend the National Nutrition Monitoring and Related Research Act to explicitly prohibit the consideration of sustainability, climate, or food system transformation factors in the development of dietary guidelines.

The statute should specify that the Guidelines must be based solely on evidence concerning the relationship between diet and human health, and that considerations of food production, climate impact, or social equity—however worthy those considerations may be in other policy contexts—are outside the scope of the DGAC's mandate.

This is fundamentally a matter of institutional competence. The DGAC is charged with synthesizing nutrition science. Its members are not climate scientists, agricultural economists, or experts in environmental policy. When the committee opines on planetary boundaries or food system transformation, it is speaking outside its expertise and beyond its authority. The result is bad nutrition guidance dressed up as environmental virtue.

If Congress wishes to develop policy on sustainable food systems, it should do so through the appropriate committees and agencies, with witnesses and evidence suited to that purpose, subject to the normal processes of policymaking. It should not allow unelected nutrition professors to smuggle climate policy into dietary guidance under the guise of scientific expertise.

Breaking the Credentialing Cartel

The 2025 DGAC includes twenty members. Eighteen of them are members of the American Society for Nutrition.[377] The ASN's "sustaining partners" include Abbott Nutrition, Nestlé, Mars, Kellogg, Coca-Cola, PepsiCo, and the pharmaceutical companies whose weight-loss drugs compete with actual dietary solutions to obesity.[378] The committee members flow through the same institutions, publish in the same journals, attend the same conferences, and share the same assumptions about diet and health. Dissenting perspectives are ystematically excluded.

This is not diversity of expertise. It is intellectual monoculture. And it is the predictable result of allowing the cre-

dentialed guild to select its own members for positions of public authority.

RECOMMENDATION 2

The Secretary of Agriculture and the Secretary of Health and Human Services should establish, by regulation, that no more than half of DGAC members may hold current membership in any single professional organization.

This "anti-concentration" rule would break the ASN's de facto monopoly on committee membership and ensure that researchers from different professional networks—with different assumptions, different funding sources, and different institutional loyalties—are represented in the deliberative process.

RECOMMENDATION 3

The Secretaries should further establish that at least one-quarter of DGAC members must be drawn from outside the traditional academic nutrition establishment.

This could include clinical practitioners (physicians and registered dietitians with direct patient care experience), researchers from adjacent fields (metabolism, endocrinology, biochemistry, evolutionary biology), and scholars who have published peer-reviewed critiques of prevailing dietary guidance. The goal is not to stack the committee with industry shills or fringe theorists, but to ensure that the epistemic closure that has characterized recent committees cannot persist.

The network that has captured nutrition policy has succeeded precisely because it controls the definition of "expertise." By narrowing that definition—by treating membership in ASN and publication in ASN-affiliated journals as the markers of legitimate scientific authority—the network ensures that only those who share its assumptions can be considered qualified to serve. Breaking this credentialing cartel is essential to restoring genuine scientific deliberation.

Radical Transparency on Conflicts of Interest

Current conflict-of-interest disclosure for DGAC members is a farce. Committee members file OGE Form 450, a confidential financial disclosure that is reviewed by agency ethics officials but not made available to the public.[379] When a 2022 study attempted to assess conflicts of interest among 2020 DGAC members, the researchers had to rely on publicly available information—publications, websites, news reports—because the official disclosures were hidden from view.[380] Even so, they found that 95 percent of committee members had at least one tie to food, pharmaceutical, or agricultural companies.[381]

The confidentiality of these disclosures serves no legitimate purpose. DGAC members are not intelligence operatives whose financial interests must be protected for national security reasons. They are advisors on what Americans should eat for breakfast. The public has every right to know whether the professor recommending that they replace beef with beans has received funding from Beyond Meat—as Christopher Gardner's Plant-Based Diet Initiative has.[382]

RECOMMENDATION 4

Congress should amend the Federal Advisory Committee Act to require that all financial disclosures for members of advisory committees that develop dietary, nutritional, or public health guidance be made publicly available within 30 days of the member's appointment.

The disclosures should include not only current financial interests but also funding received within the previous five years from any food, beverage, pharmaceutical, or agricultural company; any foundation or nonprofit organization with a stated interest in food policy, sustainability, or dietary change; and any foreign government or international organization.

RECOMMENDATION 5

The disclosures should further include a statement of ideological commitments relevant to the committee's work.

If a prospective member has publicly advocated for plant-based diets, signed letters calling for reduced meat consumption, or served on the boards of organizations promoting dietary change for environmental reasons, these facts should be disclosed alongside financial interests. Ideological conflicts of interest are no less corrupting than financial ones—and in the current environment, they may be more so.

Transparency alone will not solve the problem. But it will make the problem visible. When the public can see that the committee recommending beans over beef is populated by researchers funded by fake meat companies and foundations promoting the Planetary Health Diet, the pretense of neutral scientific expertise becomes harder to maintain.

Restoring Congressional Oversight

The Constitution vests legislative power in Congress. When Congress delegates authority to executive agencies, it retains the responsibility to oversee how that authority is exercised. In the case of the Dietary Guidelines, Congress has largely abdicated that responsibility—intervening occasionally when controversies become too visible to ignore, but otherwise allowing the captured process to operate without meaningful supervision.

The National Academies reviews mandated by Congress after the 2015 controversy were a step in the right direction, but they proved insufficient. The 2017 NASEM report found that the Guidelines process "needs to be redesigned" and issued eleven specific recommendations.[383] A follow-up report

in 2023 found that USDA had not fully implemented even one of those recommendations.[384] The agencies simply ignored the National Academies' findings, confident that Congress would not hold them accountable. They were right.

RECOMMENDATION 6

The House and Senate committees with jurisdiction over USDA and HHS should hold annual oversight hearings on the Dietary Guidelines process—not just when a new edition is released, but throughout the five-year cycle.

These hearings should include testimony from DGAC members, agency officials, and researchers who have criticized the committee's methodology or conclusions. The goal is to establish ongoing accountability rather than episodic intervention.

RECOMMENDATION 7

Congress should require the Secretaries to provide written justification whenever the final Dietary Guidelines diverge from the DGAC's scientific report—and whenever the DGAC's recommendations diverge from the conclusions of the systematic reviews on which they are supposedly based.

The 2015 committee's sustainability recommendations were rejected by the agencies after public outcry, but the reasoning was never clearly explained.[385] The 2020 Guidelines failed to incorporate substantial bodies of evidence on topics like low-carbohydrate diets, again without clear explanation.[386] The public deserves to know why—and Congress has the authority to demand answers.

RECOMMENDATION 8

Congress should consider whether the Dietary Guidelines process should remain under the joint jurisdiction of USDA and HHS, or whether a single agency should be given primary responsibility.

The current arrangement creates opportunities for buck-passing and makes accountability diffuse. A single lead agency, with clear responsibility and clear lines of congressional oversight, might produce more coherent and accountable guidance.

The recommendations above require congressional action, which takes time and political will. But the executive branch has substantial authority to reform the process unilaterally—authority that the current administration should exercise in establishing the framework for the 2030 Dietary Guidelines cycle.

RECOMMENDATION 9

The Secretaries of Agriculture and Health and Human Services should issue a joint directive establishing new selection criteria for the 2030 DGAC.

The directive should implement the anti-concentration and diversity requirements described above: no more than half of committee members from any single professional organization, and at least one-quarter drawn from outside the traditional academic nutrition establishment. The directive should further require that all prospective members disclose ideological commitments as well as financial interests, and that these disclosures be made public before appointments are finalized.

RECOMMENDATION 10

The 2030 DGAC should be directed to consider food quality and production methods as factors affecting nutrient density—not as proxies for environmental sustainability, but as legitimate variables in human nutrition.

The evidence is clear that production practices affect the nutritional value of foods. Milk from grass-fed cows contains higher levels of omega-3, other beneficial fatty acids, and fat-soluble vitamins than milk from grain-fed confinement operations.[387] Eggs from pasture-raised hens have superior nutrient profiles to those from caged birds.[388] The effects of processing methods—pasteurization, homogenization, ultra-processing—on nutrient structure and bioavailability deserve rigorous study rather than reflexive dismissal. If the Guidelines are to provide meaningful guidance on what Americans should eat, they must grapple with the reality that not all beef is the same, not all milk is the same, and not all eggs are the same. A framework that treats commodity corn-fed feedlot beef as nutritionally identical to grass-finished beef from regenerative operations is an evasion of science in service of industrial convenience.

RECOMMENDATION 11

The administration should direct the Office of Personnel Management and the Office of Government Ethics to review the conflict-of-interest screening process for all federal advisory committees dealing with dietary, nutritional, or public health guidance.

The current process is clearly inadequate. A serious review might identify systemic failures that have allowed captured committees to persist across multiple administrations—and provide the foundation for a fundamentally different approach to the 2030 committee.

The Stakes

Reform will be difficult. The network that has captured the Dietary Guidelines process is entrenched, well-funded, and skilled at deflecting criticism. It will characterize these recommendations as attacks on science, as industry-funded disinformation, as threats to public health. The credentialed experts

whose authority depends on the current system will not surrender that authority willingly.

But the cost of inaction is measured in human lives.

Every year that the Guidelines continue to promote seed oils over animal fats, processed grains over nutrient-dense proteins, and plant-based substitutes over the foods that nourished human beings for two million years, Americans get sicker. The children fed according to federal nutrition standards develop obesity, diabetes, and metabolic dysfunction at rates that would have been unimaginable two generations ago. The soldiers fed according to military nutrition regulations perform below their potential because their bodies are starved of the nutrients they need. The pregnant women who follow government advice deliver babies whose brain development is compromised by deficiencies in choline, iron, and the fat-soluble vitamins that come most readily from animal foods.

The administrative state has failed. The expert class has failed. The network of foundations, professional organizations, and international bodies that has captured nutrition policy has failed by any measure except its own perpetuation.

But for the first time in decades, there is reason for hope.

The 2025 DGAC produced recommendations that prioritize plant proteins over animal foods, that launder environmental ideology through the language of health equity, that treat the EAT-Lancet framework as settled science rather than activist overreach. Under any previous administration, those recommendations would have been translated into final Guidelines with only cosmetic modifications, and Americans would have suffered the consequences for another five years.

This administration has chosen a different path. Political appointees at USDA and HHS have reviewed the committee's conclusions with the skepticism they deserve. The tainted recommendations of a captured process will not automatically become federal policy. For the first time, elected officials and their deputies are exercising the oversight that the Constitution contemplates—refusing to rubber-stamp the output of an expert class that has forfeited public trust.

This is what self-government looks like. Not deference to credentials. Not submission to the authority of institutions that have proven themselves unworthy of that authority. But the reassertion of democratic accountability over a bureaucratic process that had escaped democratic control.

The networks that captured the nutrition policymaking process will fight to preserve their recommendations, will accuse the administration of politicizing science, will mobilize their allies in media and academia to frame any deviation from the committee's report as an attack on public health. These attacks should be expected and ignored. The committee's recommendations are themselves political—the product of ideological capture, not neutral scientific inquiry..

And the battle for the 2030-2035 Dietary Guidelines for Americans begins now. The selection of the next committee, the framing of the next set of questions, the establishment of the next process—these decisions will be made over the next two years. If the reforms outlined in this report are implemented, the 2030 cycle can be fundamentally different from every cycle that preceded it. If they are not, the network will reconstitute itself, the capture will continue, and the opportunity created by this administration's willingness to act will be squandered.

The choice is clear. The authority exists. The evidence is overwhelming. And for the first time in memory, the will to act is present.

The American people deserve dietary guidance that serves their health rather than the interests of foundations, activists, and globalist institutions. This administration has the opportunity to deliver it.

The reforms outlined above are necessary and urgent. They would restore accountability, break the credentialing cartel, and ensure that the next cycle of dietary guidance is not captured by the same networks that have corrupted every cycle since 1980. They should be implemented in full.

But even a perfectly reformed process would still rest on a premise that the science itself has outgrown: that a single set of population-level dietary recommendations can meaningfully guide the nutritional choices of 330 million biologically distinct human beings.

The Dietary Guidelines for Americans were conceived in an era when nutrition science could do little more than identify gross deficiencies and make population-wide generalizations. That era is ending. Advances in nutrigenomics, mitochondrial profiling, microbiome sequencing, and comprehensive metabolic testing have revealed that individual variation in gene expression, enzyme production, methylation capacity, and mitochondrial function is so extensive that a dietary recommendation beneficial for one person may be neutral or actively harmful for another. The MTHFR polymorphism alone—carried by an estimated 40 percent of the population, and discussed in this report's analysis of infant formula—means that tens of millions of Americans process folate differently from what any single guideline can account for. Multiply that variation across every nutrient, every metabolic pathway, every genetic predisposition, and the very concept of universal dietary guidance becomes incoherent.

The future of nutrition policy lies not in convening captured federal committees to issue one-size-fits-all edicts every five years, but in accelerating the mass adoption of affordable genetic and metabolic testing that enables each American to receive dietary guidance calibrated to his or her unique biology. Policymakers should pursue this transition through regulatory streamlining of direct-to-consumer nutrigenomic testing, insurance coverage requirements for comprehensive metabolic panels, and public investment in the research infrastructure needed to translate individual biological data into actionable nutritional recommendations. The Dietary Guidelines for Americans were a product of mid-twentieth-century public

health thinking. They are already obsolete as a matter of science. The reforms proposed in this report would mitigate the damage they cause in the interim. But the ultimate goal should be to render them obsolete as a matter of practice—replaced not by better guidelines, but by something better than guidelines: personalized nutrition grounded in each citizen's own biology, freeing Americans from dependence on a bureaucratic process that has failed them for forty-five years.

Endnotes

Part 1

1. U.S. Departments of the Army, the Navy, and the Air Force, Army Regulation 40-25/OPNAVINST 10110.1/MCO 10110.49/AFI 44-141, *Nutrition and Menu Standards for Human Performance Optimization* (Washington, DC: Headquarters, Department of the Army, January 3, 2017), Chapter 2-1g.
2. *Ibid.*, Chapter 2-3c.
3. U.S. Marine Corps, Marine Corps Installations Pacific, *MCIPAC Master Menu*, MCIPACBul 10110.1, accessed December 2024; U.S. Marine Corps, *Nutritional Fitness in the USMC* (Quantico, VA: Marine Corps Force Fitness Division, 2020).
4. Food Research & Action Center, "National School Lunch Program," accessed December 2024, https://frac.org/programs/national-school-lunch-program.
5. U.S. Department of Agriculture, Economic Research Service, "National School Lunch Program," updated 2024, https://www.ers.usda.gov/topics/food-nutrition-assistance/child-nutrition-programs/national-school-lunch-program.
6. U.S. Department of Agriculture and U.S. Department of Health and Human Services, *Dietary Guidelines for Americans, 2020-2025*, 9th ed. (Washington, DC: U.S. Government Publishing Office, December 2020).
7. Centers for Disease Control and Prevention, "Obesity—United States, 1988-2008," *Morbidity and Mortality Weekly Report* 60, Suppl. (January 14, 2011): 73-77.
8. Cynthia L. Ogden et al., "Prevalence of Obesity Among Adults and Youth: United States, 2017-2018," NCHS Data Brief no. 360 (Hyattsville, MD: National Center for Health Statistics, February 2020); Centers for Disease Control and Prevention, National Center for Health Statistics, *National Health and Nutrition Examination Survey*, 2021-2023.
9. CDC, "Obesity—United States, 1988-2008"; Ogden et al., "Prevalence of Obesity Among Adults and Youth."
10. CDC, "CDC Grand Rounds: Childhood Obesity in the United States," *Morbidity and Mortality Weekly Report* 60, no. 2 (January 21, 2011): 42-46.
11. Christine M. Buttorff, Teague Ruder, and Melissa Bauman, *Multiple Chronic Conditions in the United States* (Santa Monica, CA: RAND Corporation, 2017).
12. Centers for Medicare & Medicaid Services, "National Health Expenditure Data: Historical," accessed December 2024, https://www.cms.gov/data-research/statistics-trends-and-reports/national-health-expenditure-data/historical.
13. Eurídice Martínez Steele et al., "Ultra-Processed Foods and Added Sugars in the US Diet: Evidence from a Nationally Representative Cross-Sectional Study," *BMJ Open* 6, no. 3 (March 9, 2016): e009892.

Part 2

14. George McGovern, Chair, *Dietary Goals for the United States*, Select Committee on Nutrition and Human Needs, United States Senate (Washington, DC: U.S. Government Printing Office, 1977); Nina Teicholz et al., "An analysis of the recent US dietary guidelines process in light of its federal mandate and a National Academies report," *PNAS Nexus* 2, no. 1 (2023): pgac295.
15. "Diet Related to Killer Diseases, II," Hearing before the Select Committee on Nutrition and Human Needs, United States Senate, 95th Cong. (1977), 152.
16. National Nutrition Monitoring and Related Research Act of 1990, Pub. L. No. 101-445, 104 Stat. 1034 (codified at 7 U.S.C. § 5341).
17. 7 U.S.C. § 5341(a)(1)-(2).
18. Frances Moore Lappé, *Diet for a Small Planet* (New York: Ballantine Books, 1971).
19. Select Committee on Nutrition and Human Needs, *Dietary Goals for the United States* (1977), citing Lappé's work on plant-based protein.
20. Nina Teicholz, "A short history of saturated fat: the making and unmaking of a scientific consensus," *Current Opinion in Endocrinology, Diabetes and Obesity* 30 (2023): 65-71.
21. American Heart Association, official organizational history, cited in Teicholz, *The Big Fat Surprise* (New York: Simon & Schuster, 2014).
22. American Heart Association, dietary recommendations, 1961.
23. "The Fat of the Land," *Time*, January 13, 1961.
24. George Mann et al., Framingham Heart Study dietary investigation, 1960 (unpublished at the time).
25. William P. Castelli, "Concerning the Possibility of a Nut…," *Archives of Internal Medicine* 152 (1992): 1371-1372.
26. Earl L. Butz, "An Emerging, Market-Oriented Food and Agricultural Policy," *Public Administration Review* 36 (1976): 137.
27. Adele Hite, "The Baneful Consequences of the U.S. Dietary Guidelines," *Wise Traditions* (Winter 2014).
28. Joseph Califano, quoted in Robert Samuelson, *The Great Inflation and its Aftermath* (New York: Random House, 2008).
29. *Id.*
30. Jacques Peretti and Milla Sahota, *The Men Who Made Us Fat*, BBC Two (2012).
31. Select Committee on Nutrition and Human Needs, *Dietary Goals for the United States: Supplemental Views* (1977).
32. American Medical Association, "Dietary goals for the United States: statement of The American Medical Association to the Select Committee on Nutrition and Human Needs," *Rhode Island Medical Journal* 60 (1977): 576-81.
33. Alfred E. Harper, "Dietary goals—a skeptical view," *American Journal of Clinical Nutrition* 31 (1978): 310-21.
34. William B. Weil Jr., "National dietary goals. Are they justified at this time?" *American Journal of Diseases of Children* 133 (1979): 368-70.
35. William Broad, "Jump in funding feeds research on nutrition," *Science* 204 (1979): 1060-1.
36. *Dietary Goals: Supplemental Views* (1977).
37. Barbara V. Howard et al., "Low-fat dietary pattern and risk of cardiovascular disease: the Women's Health Initiative Randomized Controlled Dietary Modification Trial," *JAMA* 295 (2006): 655-66.
38. *Id.*
39. Ross L. Prentice et al., "Low-fat dietary pattern and risk of invasive breast cancer: the Women's Health Initiative Randomized Controlled Dietary Modification Trial," *JAMA* 295 (2006): 629-42.
40. Shirley A. Beresford et al., "Low-fat dietary pattern and risk of colorectal cancer: the Women's Health Initiative Randomized Controlled Dietary Modification Trial," *JAMA* 295 (2006): 643-54.
41. Barbara V. Howard et al., "Low-fat dietary pattern and weight change over 7 years: the Women's Health Initiative Dietary Modification Trial," *JAMA* 295 (2006): 39-49.
42. Timothy Noakes et al., "Hiding unhealthy heart outcomes in a low-fat diet trial: the Women's Health Initiative," *Open Heart* 8 (2021): e001680.
43. Katherine M. Flegal et al., "Overweight and obesity in the United States: prevalence and trends, 1960-1994," *International Journal of Obesity* 22 (1998): 39-47.
44. *Id.*
45. *Id.*
46. Katherine M. Flegal et al., "Prevalence of obesity and trends in the distribution of body mass index among US adults, 1999-2010," *JAMA* 307 (2012): 491-97.

47. Cynthia L. Ogden et al., "Prevalence of obesity and trends in body mass index among US children and adolescents, 1999-2010," *JAMA* 307 (2012): 483-90.

48. Stephanie Cohen et al., "Statistical review of US macronutrient consumption data, 1965-2011: Americans have been following dietary guidelines, coincident with the rise in obesity," *Nutrition* 31 (2015): 727-32.

49. *Id.*

50. Nina Teicholz, Nutrition Coalition, charts available at NutritionCoalition.us.

51. National Academies of Sciences, Engineering, and Medicine, *Optimizing the Process for Establishing the Dietary Guidelines for Americans: The Selection Process* (Washington, DC: National Academies Press, 2017), 14.

52. *Id.* at 14-18.

53. Teicholz et al., "An analysis of the recent US dietary guidelines process."

54. National Academies, *Optimizing the Process*, 1.

55. The Nutrition Coalition, "USDA Fails to Fully Implement National Academies' Advice for Bringing 'Transparency,' 'Rigor' to the Dietary Guidelines," September 12, 2024.

56. Melissa Mialon et al., "Conflicts of interest for members of the US 2020 dietary guidelines advisory committee," *Public Health Nutrition* 27, no. 1 (2024): e69.

57. *Id.*

58. U.S. Right to Know, "Report: Nearly Half of Dietary Guidelines Advisory Committee Have Conflicts of Interest," January 8, 2025.

59. Marion Nestle, quoted in Elaine Watson, "Dietary Guidelines Advisory Committee needs to be 'free of food industry commercial interest,' advocates argue," *Food Navigator-USA*, May 16, 2023.

60. Teicholz et al., "An analysis of the recent US dietary guidelines process."

61. *Id.*

62. *Id.*

63. USDA Food Pyramid, 1992.

64. 2025 Dietary Guidelines Advisory Committee meeting transcript.

65. Nutrition Coalition analysis of USDA dietary patterns.

66. 2020-2025 Dietary Guidelines for Americans.

67. Patty W. Siri-Tarino et al., "Meta-analysis of prospective cohort studies evaluating the association of saturated fat with cardiovascular disease," *American Journal of Clinical Nutrition* 91 (2010): 535-46.

68. 2015 Dietary Guidelines Advisory Committee Scientific Report.

69. 2020-2025 Dietary Guidelines for Americans.

70. *Id.*

71. Agricultural Act of 2014, Pub. L. No. 113-79, § 4204.

72. 2020 Dietary Guidelines Advisory Committee, *Scientific Report*, Part D, Chapter 4.

73. Mialon et al., "Conflicts of interest."

74. EAT-Lancet Commission, "Food in the Anthropocene," *The Lancet* (2019).

75. James E. Austin and John A. Quelch, "US national dietary goals: Food industry threat or opportunity?" *Food Policy* 4 (1979): 115-28.

76. Richard Sexton, "Market Consolidation Poses Challenges for Food Industry," *California Agriculture* 56 (2002): 146.

77. USDA Economic Research Service, farm value calculations.

78. CDC, National Diabetes Statistics Report.

79. Zobair M. Younossi et al., "Global epidemiology of nonalcoholic fatty liver disease," *Hepatology* 64 (2016): 73-84.

80. National Cancer Institute, cancer statistics.

81. David Schleifer, "The perfect solution. How trans fats became the healthy replacement for saturated fats," *Technology and Culture* 53 (2012): 94-119.

82. *Id.*

83. Robert Lustig, quoted in Jacques Peretti, "Why our food is making us fat," *The Guardian*, June 11, 2012.

84. Dietary Guidelines Advisory Committee, *Report of the Dietary Guidelines Advisory Committee on the Dietary Guidelines for Americans, 2000* (Washington, DC: USDA and HHS, 2000).

Part 3

85. U.S. Department of Agriculture, "Members of the 2025 Dietary Guidelines Advisory Committee Announced," press release, January 19, 2023.

86. American Society for Nutrition, "18 ASN Members Appointed to 2025 Dietary Guidelines Advisory Committee," press release, January 20, 2023.

87. American Society for Nutrition, "2023 Sustaining Partners," ASN website, accessed December 2024.

88. Jean Mayer USDA Human Nutrition Research Center on Aging, "Center Leadership: Sarah L. Booth, PhD," Tufts University.

89. Xueyan Fu et al., "Multiple Vitamin K Forms Exist in Dairy Foods," *Current Developments in Nutrition* 1, no. 6 (2017): e000638; see also Tufts Nutrition, "A Surprising Source of Vitamin K," Winter 2018.

90. National Institute of Food and Agriculture, "Multiple NIFA AFRI Recipients Appointed to 2025 Dietary Guidelines Advisory Committee," USDA.

91. *Id.*

92. Hana Mensendiek et al., "Full Disclosure: Assessing Conflicts of Interest of the 2025 Dietary Guidelines Advisory Committee," U.S. Right to Know, October 2023, 8.

93. Sarah Steele, Gary Ruskin, and David Stuckler, "Pushing Partnerships: Corporate Influence on Research and Policy via the International Life Sciences Institute," *Public Health Nutrition* 23, no. 11 (2020): 2032-2040; Susan Greenhalgh, "Inside ILSI: How Coca-Cola, Working through Its Scientific Nonprofit, Created a Global Science of Exercise for Obesity and Got It Embedded in Chinese Policy," *Journal of Health Politics, Policy and Law* 46, no. 2 (2021): 235-276.

94. USDA Food and Nutrition Service, "The Committee to Update 2025 Dietary Guidelines is Strengthened by Diverse and Indigenous Perspective," FNS blog, January 2023.

95. Oklahoma State University, "CIHRP Director Selected for Two National Committees on Health Equality, Nutrition," news release, February 2023.

96. *Id.*

97. "The Rising Epidemic of Obesity," *60 Minutes*, CBS News, January 1, 2023.

98. Mensendiek et al., "Full Disclosure."

99. *Id.* at 1-2.

100. *Id.* at 1.

101. *Id.*

102. *Id.*

103. *Id.*

104. Open Payments, disclosure records for Fatima C. Stanford, Centers for Medicare and Medicaid Services, 2018-2022.

105. Mensendiek et al., "Full Disclosure," 11.

106. *Id.*

107. *Id.*

108. STAT News reporting on DGAC nominations, 2023.

109. *Id.*

110. Mensendiek et al., "Full Disclosure," 12.

111. *Id.* at 9.

112. *Id.* at 9–10.

113. National Academies of Sciences, Engineering, and Medicine, *Optimizing the Process for Establishing the Dietary Guidelines for Americans: The Selection Process* (Washington, DC: National Academies Press, 2017).

114. *Id.*

115. Dietary Guidelines for Americans, "2025 Dietary Guidelines Advisory Committee Disclosures," DietaryGuidelines.gov, updated March 2023.

116. Center for Science in the Public Interest, "Federal Agencies Are Obscuring Potential Conflicts of Interest Among Members of the Dietary Guidelines Advisory Committee," press release, May 9, 2023.

117. Mensendiek et al., "Full Disclosure," 6.

118. CSPI, "Federal Agencies Are Obscuring."

119. U.S. Office of Government Ethics, OGE Form 450, 5 CFR Part 2634.

120. Marion Nestle, "US Right to Know Reports on Conflicts of Interest in Members of the 2025 Dietary Guidelines Advisory Committee," Food Politics, October 2023.

121. CSPI, "Federal Agencies Are Obscuring."

122. Mélissa Mialon et al., "Conflicts of Interest for Members of the US 2020 Dietary Guidelines Advisory Committee," *Public Health Nutrition* 27, no. 1 (2022): e69.

123. *Id.*

124. Food Navigator-USA, "Dietary Guidelines Advisory Committee Prioritizes Eating Patterns, Nutrient Intake for Young Americans and Caregivers Through a Health Equity Lens," May 12, 2023.

125. Food Navigator-USA, "Dietary Guidelines Advisory Committee's Health Equity Working Group Introduces Pilot Program for American Indian and Alaska Native Populations," January 2024.

Part 4

126. Scientific Report of the 2015 Dietary Guidelines Advisory Committee, Chapter 5: Food Sustainability and Safety.

127. National Nutrition Monitoring and Related Research Act of 1990, P.L. 101-445, Section 301.

128. Congressional Research Service, "The Dietary Guidelines for Americans: Development, Implementation, and Considerations for Congress," Report R47488, 2023.

129. House Appropriations Committee Report, FY2016.

130. Marion Nestle, "Perspective: Challenges and Controversial Issues in the Dietary Guidelines for Americans, 1980–2015," *Advances in Nutrition* 9, no. 4 (2018): 404–411.

131. Health Affairs, "Final 2015–20 Dietary Guidelines for Americans," Health Affairs Brief, January 2016.

132. Walter Willett et al., "Food in the Anthropocene: the EAT–Lancet Commission on healthy diets from sustainable food systems," *Lancet* 393, no. 10170 (2019): 447–492.

133. Stockholm Resilience Centre, "Introducing the EAT Foundation," March 23, 2016.

134. EAT Forum, "About EAT."

135. World Economic Forum, "Young Global Leaders," 2015 class.

136. Wellcome Trust Annual Report, 2023.

137. Johan Rockström et al., "A safe operating space for humanity," *Nature* 461 (2009): 472–475.

138. Stockholm Resilience Centre, "Introducing the EAT Foundation."

139. World Economic Forum, "EAT Foundation" organizational profile.

140. EAT Forum, "The EAT-Lancet Commission."

141. EAT Forum, "EAT-Lancet Commissioners: Prof. Walter Willett MD."

142. EAT Forum, "EAT-Lancet Commissioners: Professor Dr. Johan Rockström."

143. EAT Forum, "About the 2025 EAT-Lancet Commission."

144. Willett et al., "Food in the Anthropocene."

145. Nina Teicholz, analysis of EAT-Lancet Commission membership, The Nutrition Coalition, 2019.

146. EAT-Lancet Commission Summary Report, 2019.

147. *Ibid.*

148. Ty Beal et al., "Global Trends in Dietary Micronutrient Supplies and Estimated Prevalence of Inadequate Intakes," *PLoS ONE* 12, no. 4 (2017).

149. D. Vanham et al., "Compliance with EAT-Lancet dietary guidelines would reduce global water footprint but increase it for 40% of the world population," *Nature Food* 3 (2022): 143–153.

150. K. Hirvonen et al., "Affordability of the EAT-Lancet reference diet: a global analysis," *Lancet Global Health 8*, no. 1 (2020): e59–e66.

151. EAT-Lancet Commission, "Five Questions on EAT-Lancet," FAQ.

152. C40 Cities Climate Leadership Group, "Good Food Cities Declaration," 2019.

153. Lancet Planetary Health, "Environmental sustainability in national food-based dietary guidelines: a global review," December 2022.

154. Food and Agriculture Organization and World Health Organization, "Sustainable Healthy Diets: Guiding Principles," Rome, 2019.

155. EAT Forum, "UN Food Systems Summit: Action Track 2."

156. Aleph 2020, "The Great Food Transformation," analysis of UN Food Systems Summit.

157. UN Food Systems Summit documentation, Action Track 2.

158. Francesco Branca, quoted in Aleph 2020, "The Great Food Transformation."

159. Johan Rockström, Shakuntala Thilsted, Walter Willett et al., "The EAT–Lancet Commission on healthy, sustainable, and just food systems," *Lancet* 406, no. 10512 (2025): 1625–1700.

160. *Ibid.*

161. *Ibid.*

162. *Ibid.*

163. U.S. Department of Agriculture, "Members of the 2025 Dietary Guidelines Advisory Committee Announced," press release, January 19, 2023.

164. Food Navigator-USA, "Dietary Guidelines Advisory Committee Prioritizes Eating Patterns Through a Health Equity Lens," May 12, 2023.

165. National Institute of Food and Agriculture, "Multiple NIFA AFRI Recipients Appointed to 2025 Dietary Guidelines Advisory Committee," USDA.

166. Ibid.

167. Food Navigator-USA, "Health Equity Working Group Introduces Pilot Program for American Indian and Alaska Native Populations," January 2024.

168. USDA Food and Nutrition Service, "The Committee to Update 2025 Dietary Guidelines is Strengthened by Diverse and Indigenous Perspective," January 2023.

169. Oklahoma State University, "CIHRP Director Selected for Two National Committees on Health Equality, Nutrition," February 2023.

170. CNN, "Beans and lentils rise to stardom in newly released dietary advisory report," December 12, 2024.

171. Stanford Medicine, "Plant-Based Diet Initiative (PBDI)."

172. Stanford Medicine News, "More beans, peas, lentils: A nutrition expert's take on new guidelines," December 2024.

173. CNN, "Beans and lentils rise to stardom."

174. Healthline, "Animal vs. Plant Protein – What's the Difference?"

175. National Institutes of Health, Office of Dietary Supplements, "Iron: Fact Sheet for Health Professionals."

176. *Ibid.*

177. Elin Hallberg et al., "Lower Non-Heme Iron Absorption in Healthy Females from Single Meals with Texturized Fava Bean Protein Compared to Beef and Cod Protein Meals," *Nutrients* 14, no. 15 (2022).

178. Robert R. Wolfe et al., "Effects of Consuming Ounce-Equivalent Portions of Animal- vs. Plant-Based Protein Foods on Essential Amino Acids Bioavailability," *Nutrients* 15, no. 13 (2023).

179. NIH, Office of Dietary Supplements, "Vitamin B12: Fact Sheet for Health Professionals."

180. *Nutrients* study on phytate-to-zinc ratios in meat substitutes, 2022.

181. NIH, Office of Dietary Supplements, "Choline: Fact Sheet for Health Professionals."

182. CNN, "MAHA's 'Make Our Children Healthy Again' guidance ignores real causes," September 2025.

183. Stanford Medicine News, "More beans, peas, lentils."

184. Stockholm Resilience Centre, "Introducing the EAT Foundation."

185. The Rockefeller Foundation, "Reset the Table: Meeting the Moment to Transform the U.S. Food System," July 2020.

186. *Ibid.*

187. The Rockefeller Foundation, "The Rockefeller Foundation Commits USD 105M to Making Healthy and Sustainable Foods More Accessible," March 24, 2022.

188. *Ibid.*

189. The Rockefeller Foundation, "True Cost of Food Report," 2021.

190. Harvard T.H. Chan School of Public Health nutrition department funding disclosures.

191. Stanford Medicine, "Plant-Based Diet Initiative (PBDI)."

192. Wikipedia, "Christopher D. Gardner."

193. *Ibid.*

194. *Ibid.*

195. American Society for Nutrition, "2023 Sustaining Partners."

196. World Economic Forum, "EAT Foundation" organizational profile.

197. FAO and WHO, "Sustainable Healthy Diets: Guiding Principles," 2019.

198. UN Food Systems Summit documentation, Action Track 2.

199. Rockström et al., "The EAT–Lancet Commission on healthy, sustainable, and just food systems."

200. *Ibid.*

201. Arne Astrup et al., "Saturated Fats and Health: A Reassessment and Proposal for Food-Based Recommendations," *Journal of the American College of Cardiology* 76, no. 7 (2020): 844–857.

202. Scientific Report of the 2015 Dietary Guidelines Advisory Committee.

Part 5

203. U.S. Department of Agriculture and U.S. Department of Health and Human Services, *Dietary Guidelines for Americans, 1990*, 3rd ed. (Washington, DC: U.S. Government Printing Office, 1990).

204. Kenneth J. Mukamal et al., "Roles of Drinking Pattern and Type of Alcohol Consumed in Coronary Heart Disease in Men," *New England Journal of Medicine* 348, no. 2 (January 9, 2003): 109–18.

205. Augusto Di Castelnuovo et al., "Alcohol Dosing and Total Mortality in Men and Women: An Updated Meta-analysis of 34 Prospective Studies," *Archives of Internal Medicine* 166, no. 22 (December 11, 2006): 2437–45.

206. Tim Stockwell et al., "Do 'Moderate' Drinkers Have Reduced Mortality Risk?," *Journal of Studies on Alcohol and Drugs 77*, no. 2 (March 2016): 185–98.

207. U.S. Department of Health and Human Services, "Request for Comments on Scientific Questions," *Federal Register* 87, no. 73 (April 15, 2022): 22540.

208. Sober Truth on Preventing Underage Drinking Act (STOP Act), Pub. L. No. 109-422, 120 Stat. 2890 (2006).

209. U.S. Department of Agriculture and U.S. Department of Health and Human Services, *Nutrition and Your Health: Dietary Guidelines for Americans*, 1st ed. (Washington, DC: U.S. Government Printing Office, 1980).

210. *Dietary Guidelines for Americans*, 1990.

211. National Institute on Alcohol Abuse and Alcoholism, "What Is a Standard Drink?," accessed December 2024.

212. U.S. Department of Agriculture, "History of the Dietary Guidelines," DietaryGuidelines.gov, accessed December 2024.

213. See Mukamal *et al.*, "Roles of Drinking Pattern."

214. Dietary Guidelines Advisory Committee, *Scientific Report of the 2020 Dietary Guidelines Advisory Committee* (Washington, DC: USDA, 2020), Part D, Chapter 11.

215. *Ibid.*

216. USDA and HHS, "USDA-HHS Response to the National Academies," DietaryGuidelines.gov, accessed December 2024.

217. "Request for Comments on Scientific Questions," *Federal Register* 87, no. 73 (April 15, 2022): 22540.

218. WineAmerica, "US Dietary Guidelines," accessed December 2024.

219. U.S. Department of Health and Human Services, "Guidance on Alcoholic Beverages in the Dietary Guidelines for Americans," DietaryGuidelines.gov.

220. Consolidated Appropriations Act, 2023, Pub. L. No. 117-328, § 772, 136 Stat. 4459 (2022).

221. SAMHSA, "ICCPUD's Study on Alcohol Intake and Health," SAMHSA.gov, accessed December 2024.

222. "The Interagency Coordination Committee on the Prevention of Underage Drinking Requests for Public Comments," *Federal Register* 89, no. 128 (July 3, 2024): 55274–76.

223. WineAmerica, "US Dietary Guidelines."

224. Letter from Rep. James Comer et al. to Secretary Xavier Becerra and Secretary Tom Vilsack, April 4, 2024.

225. House Committee on Oversight and Accountability, "Comer Subpoenas HHS, USDA," press release, August 2024.

226. SAMHSA, "ICCPUD's Study on Alcohol Intake and Health."

227. Editorial Board, "The Dry Crusaders Are Coming for Your Beer," Wall Street Journal, January 19, 2024.

228. Canadian Centre on Substance Use and Addiction, *Canada's Guidance on Alcohol and Health: Final Report* (Ottawa: CCSA, January 2023).

229. *Ibid.*

230. Health Canada's official Low-Risk Alcohol Drinking Guidelines, established in 2011.

231. Tim Stockwell, Timothy Naimi, Adam Sherk, *et al.*, *Canada's Guidance on Alcohol and Health: Final Report* (Ottawa: CCSA, 2023).

232. Jürgen Rehm, interview quoted in Christopher Snowdon, "The WHO's War on Alcohol," *Institute of Economic Affairs*, March 2023.

233. Katherine Keyes, quoted in Movendi International, "Alcohol and Cancer: A Growing Concern," January 2023.

234. Alcohol Research Group, "About Us," accessed December 2024.

235. Global Alcohol Policy Alliance, "About GAPA," accessed December 2024.

236. Alliance House Foundation, "GAPA Launch at Syracuse," December 2000.

237. Roy Grantham, "The Development of the Global Alcohol Policy Alliance," *Alliance House Foundation Annual Report*, December 2000.

238. International Organisation of Good Templars, organizational history, accessed via Movendi International, "Our History."

239. Grantham, "Development of the Global Alcohol Policy Alliance."

240. *Ibid.*

241. Boston University School of Public Health, "David Jernigan," faculty profile, accessed December 2024.

242. World Health Organization, "Global Information System on Alcohol and Health (GISAH)," accessed December 2024.

243. Sally Casswell, curriculum vitae, Massey University SHORE & Whāriki Research Centre, accessed December 2024.

244. Movendi International, "IOGT International Becomes Movendi International," press release, 2020.

245. Movendi International, "Who We Are," accessed December 2024.

246. Christopher Snowdon, *Killjoys: A Critique of Paternalism* (London: Institute of Economic Affairs, 2017).

247. Movendi International, "Alcohol and Social Justice," accessed December 2024.

248. Timothy Naimi, ICCPUD Financial Disclosure Form, 2024, available at SAMHSA.gov.

249. Tim Stockwell, Timothy Naimi, and Adam Sherk, conflict of interest disclosures for Canada's Guidance on Alcohol and Health.

250. Movendi International, "Podcast: The Evidence on Alcohol and Health," featuring Tim Stockwell and Timothy Naimi, 2023.

251. See Movendi International website, research archive.

252. The CCSA report was published January 17, 2023; the Movendi interactive summary appeared January 19, 2023.

253. Maristela G. Monteiro, Jürgen Rehm, and Maik Duennbier, "Alcohol Policy and Public Health in the Americas," *Addiction* 117, no. 3 (2022).

254. See Movendi International website, research archive.

255. Kettil Bruun Society, "Past Presidents," accessed December 2024; Global Alcohol Policy Conference 2023, sponsor acknowledgments.

256. U.S. Alcohol Policy Alliance, "Alcohol Policy Conference 18" and "Alcohol Policy Conference 19," conference programs.

257. U.S. Alcohol Policy Alliance, "Alcohol Control as Cancer Control," symposium program, Johns Hopkins University, 2018.

258. World Health Organization, *Global Strategy to Reduce the Harmful Use of Alcohol* (Geneva: WHO, 2010).

259. Thomas Babor *et al.*, *Alcohol: No Ordinary Commodity—Research and Public Policy*, 2nd ed. (Oxford: Oxford University Press, 2010).

260. See GAPA policy documents and conference proceedings.

261. Open Philanthropy, "About Us," accessed December 2024.

262. Open Philanthropy, "Vital Strategies — RESET Alcohol," grant database, December 2021.

263. Open Philanthropy grant database, 2024 entries for Vital Strategies RESET Alcohol Initiative.

264. Open Philanthropy, "Vital Strategies — RESET Alcohol," grant rationale.

265. Bloomberg Philanthropies, "Bloomberg Initiative to Reduce Tobacco Use," accessed December 2024.

266. *Ibid.*; Vital Strategies, "Our Work: Tobacco Control," accessed December 2024.

267. RESET Alcohol, "About Us," accessed December 2024.

268. Ibid.

269. Institute for Health Metrics and Evaluation, "Global Burden of Disease Study," accessed December 2024.

270. Bill & Melinda Gates Foundation, "Institute for Health Metrics and Evaluation," grant database.

271. Max Griswold et al., "Alcohol Use and Burden for 195 Countries and Territories, 1990-2016," *The Lancet* 392, no. 10152 (September 22, 2018): 1015-35.

272. World Health Organization, "No Level of Alcohol Consumption Is Safe for Our Health," *The Lancet Public Health*, January 4, 2023.

273. National Institutes of Health Reporter, grant database.

274. Cross-reference of USAPA board members and state affiliate leadership with NIH/CDC/SAMHSA grant recipients.

275. USAPA, "Translating Research into Practice," organizational materials.

276. WHO, *Global Strategy to Reduce the Harmful Use of Alcohol* (2010).

277. World Health Organization, "The SAFER Initiative," launched September 2018.

278. Ibid.

279. WHO, "Tackling NCDs: 'Best Buys' and Other Recommended Interventions," 2017.

280. WHO, "No Level of Alcohol Consumption Is Safe for Our Health," January 2023.

281. *Ibid.*

282. World Health Organization, *WHO Framework Convention on Tobacco Control* (Geneva: WHO, 2003).

283. WHO Executive Board, 146th Session, Agenda Item 16, "Proposal for a Framework Convention on Alcohol Control," EB146/2020/REC/1 (February 2020).

284. *Ibid.*, meeting records.

285. Global Alcohol Policy Conference 2023, "Cape Town Declaration," October 2023.

286. Global Alcohol Policy Alliance, "GAPC 2026: Rio de Janeiro," announcement.

287. WHO Framework Convention on Tobacco Control, Articles 11, 13, 8.

288. National Academies of Sciences, Engineering, and Medicine, *Review of Evidence on Alcohol and Health* (Washington, DC: National Academies Press, 2024).

289. *Ibid.*

290. *Interagency Coordinating Committee on the Prevention of Underage Drinking, Alcohol Intake and Health: Draft Report* (Washington, DC: SAMHSA, January 2025).

291. House Committee on Appropriations, press release on ICCPUD defunding, September 2024.

292. U.S. Department of Health and Human Services, statement on 2025 Dietary Guidelines process, January 2025.

Part 6

293. Christopher E. Ramsden et al., "Linoleic acid and coronary heart disease," *Prostaglandins, Leukotrienes and Essential Fatty Acids* 150 (2019): 46-48; see also Joseph R. Hibbeln *et al.*, "Healthy intakes of n-3 and n-6 fatty acids: estimations considering worldwide diversity," *American Journal of Clinical Nutrition* 83, no. 6 Suppl. (2006): 1483S-1493S.

294. Artemis P. Simopoulos, "The importance of the ratio of omega-6/omega-3 essential fatty acids," *Biomedicine & Pharmacotherapy* 56, no. 8 (2002): 365-79.

295. FDA, Warning Letter to Bobbie Baby, Inc., 2019; see also Olivia Goldhill, "How a startup tried to disrupt infant formula—and learned the FDA isn't easily disrupted," *Quartz*, 2020.

296. *Id.*; see also Bobbie company history and regulatory timeline.

297. Agricultural Act of 2014, Pub. L. No. 113-79, § 4204.

298. 2020 Dietary Guidelines Advisory Committee, Scientific Report, Part D, Chapter 1.

299. Id.

300. Id. at Chapter 4.

301. Infant Formula Act of 1980, 21 U.S.C. § 350a; 21 C.F.R. § 107.100.

302. Brenna JT, "Long-chain polyunsaturated fatty acids and the preterm infant: a case study in developmentally sensitive nutrient needs in the United States," *American Journal of Clinical Nutrition*, 2016.

303. *Id.*

304. *Id.* (citing studies from the 1970s and 1980s documenting fatty acid composition of human milk).

305. *Id.*

306. FDA GRAS Notice No. GRN 000041, 2001; American Oil Chemists' Society, fatty acid composition data for soybean oil.

307. European Commission Delegated Regulation (EU) 2016/127.

308. 21 C.F.R. § 107.100 (mandating linoleic acid, which is derived from seed oils in all commercially available U.S. infant formulas); see also Brenna JT et al., "alpha-Linolenic acid supplementation and conversion to n-3 long-chain polyunsaturated fatty acids in humans," *Prostaglandins, Leukotrienes and Essential Fatty Acids*, 2009.

309. Yin H, Xu L, and Porter NA, "Free radical lipid peroxidation: mechanisms and analysis," *Chemical Reviews* 111, no. 10 (2011): 5944-5972.

310. Hulbert AJ, "On the importance of fatty acid composition of membranes for aging," *Journal of Theoretical Biology* 234, no. 2 (2005): 277-288; see also Innis SM, "Dietary lipids in early development," in *Present Knowledge in Nutrition*, 10th ed., 2012.

311. Traber MG and Atkinson J, "Vitamin E, antioxidant and nothing more," *Free Radical Biology and Medicine* 43, no. 1 (2007): 4-15 (discussing the relationship between PUFA tissue burden and vitamin E requirements).

312. Traber MG et al., "Synthetic as compared with natural vitamin E is preferentially excreted as α-CEHC in human urine: studies using deuterated α-tocopheryl acetates," *American Journal of Clinical Nutrition* 67, no. 4 (1998): 669-674.

313. Robertson L, "FDA Commissioner Spreads Unsubstantiated Concerns About Seed Oils in Baby Formula," *FactCheck.org*, June 2025.

314. *Id.*

315. Abrams *et al.*, "Operation Stork Speed: Part 1," expert panel report, June 2025.

316. *Id.*

317. *Id.* (cautioning that "severely limiting or omitting seed oils in formulas could lead to deficiencies").

318. Obeid R et al., "Folate status and health: challenges and opportunities," *Journal of Perinatal Medicine*, 2016.

319. *Id.*

320. Tsang BL et al., "Assessing the association between the methylenetetrahydrofolate reductase (MTHFR) 677C>T polymorphism and blood folate concentrations," *American Journal of Clinical Nutrition*, 2015.

321. Obeid R et al., "Folate and vitamin B12 in formula-fed infants," *Clinical Chemistry and Laboratory Medicine*, 2017.

322. *Id.*

323. Smith AD et al., "Is folic acid good for everyone?" *American Journal of Clinical Nutrition*, 2008.

324. EFSA Panel on Nutrition, "Safety of calcium L-methylfolate as a novel food," *EFSA Journal*, 2020.

325. HiPP product specifications, 2024.

326. Traber MG *et al.*, supra note 312 (finding that term infants "discriminate between natural and synthetic vitamin E").

327. Tripkovic L *et al.*, "Comparison of vitamin D2 and vitamin D3 supplementation in raising serum 25-hydroxyvitamin D status," *American Journal of Clinical Nutrition*, 2012.

328. 21 C.F.R. § 107.100 (specifying minimum nutrient quantities but not molecular forms).

329. HHS Press Release, "HHS and FDA Launch Operation Stork Speed," March 2025; 21 C.F.R. § 107.100.

330. FDA, "Infant Formula Supply Chain Assessment," 2022.

331. HHS Press Release, supra note 329.

332. FDA Request for Information, Docket No. FDA-2025-N-1134, May 14, 2025.

333. Robertson L, supra note 313.

334. Abrams *et al.*, supra note 315.

335. Abrams *et al.*, supra note 315 (addressing carbohydrate composition); see also European Commission Delegated Regulation (EU) 2016/127 (restricting use of corn syrup solids in infant formula).

336. 2020-2025 Dietary Guidelines for Americans, Chapter 2.

337. Mialon M et al., "Conflicts of interest for members of the US 2020 dietary guidelines advisory committee," *Public Health Nutrition*, 2022.

338. *Id.*

339. *Id.*

340. *Id.* (documenting 152 ties for Sharon Donovan).

341. Union of Concerned Scientists, "Food Companies at the Table in Trump Administration's Dietary Guidelines Committee," 2019 (documenting Mead Johnson partnership with Massachusetts General Hospital).

342. Mialon *et al.*, supra note 337.

343. 2020 DGAC Scientific Report, Part D, Chapter 4.

344. EAT-Lancet Commission, "Food in the Anthropocene," *The Lancet*, 2019.

345. 2025 DGAC Scientific Report, equity framework discussion.

346. WHO, "Guideline for complementary feeding of infants and young children 6-23 months of age," 2023.

347. Fomon SJ, "Infant Feeding in the 20th Century: Formula and Beikost," *Journal of Nutrition*, February 2001; see also "A Concise History of Infant Formula," *Contemporary Pediatrics*.

348. *Id.*

349. Nestlé Annual Report, 1969.

350. "A Concise History of Infant Formula," *Contemporary Pediatrics*.

351. Anttila-Hughes JK et al., "Mortality from Nestlé's Marketing of Infant Formula in Low and Middle-Income Countries," *American Economic Review*, 2023.

352. VoxDev, "The deadly toll of marketing infant formula in low- and middle-income countries," 2023.

353. Brady JP, "Marketing breast milk substitutes: problems and perils throughout the world," *Archives of Disease in Childhood*, 2012.

354. European Commission Delegated Regulation (EU) 2016/127.

355. Brenna JT, "Arachidonic acid needed in infant formula when docosahexaenoic acid is present," *Nutrition Reviews*, 2016.

356. *Id.*

357. *Id.*

358. Innis SM, "Dietary triacylglycerol structure and its role in infant nutrition," *Advances in Nutrition* 2, no. 3 (2011): 275-283 (reviewing fatty acid composition of human milk, noting predomi-

nance of saturated and monounsaturated fatty acids).

359. Yuhas R, Pramuk K, and Lien EL, "Human milk fatty acid composition from nine countries varies most in DHA," *Lipids* 41, no. 9 (2006): 851–858.

360. Wong WW *et al.*, "Effect of dietary cholesterol on cholesterol synthesis in breast-fed and formula-fed infants," *Journal of Lipid Research* 34, no. 8 (1993): 1403–1411; see also Jensen RG, "Lipids in human milk," Lipids 34, no. 12 (1999): 1243–1271.

361. Bode L, "Human milk oligosaccharides: every baby needs a sugar mama," *Glycobiology*, 2012.

362. FDA, "FDA Takes Action to Improve Recall Effectiveness Following Infant Botulism Outbreak Investigation Linked to ByHeart Infant Formula," December 2025.

363. Healthbeat, "ByHeart baby formula recall: What to know about new developments, warnings," December 2025.

364. *Id.*

365. 21 CFR 107.

366. Kent G, "Regulating fatty acids in infant formula: critical assessment of U.S. policies and practices," *International Breastfeeding Journal*, 2014.

367. FDA Request for Information, supra note 332.

368. HHS Press Release, supra note 329.

369. FDA Commissioner Statement, "100 Days of Embracing Gold-Standard Science," July 2025.

370. Abrams et al., supra note 315.

371. *Id.*

372. *Id.* (cautioning against expeditious reformulation).

373. The three companies control approximately 90% of the U.S. infant formula market.

374. CDC, National Vital Statistics Reports.

375. CDC, Breastfeeding Report Card, 2022.

Part 7

376. National Nutrition Monitoring and Related Research Act of 1990, P.L. 101-445, Section 301.

377. Analysis of 2025 DGAC member affiliations, based on publicly available CVs and professional profiles.

378. American Society for Nutrition, "2023 Sustaining Partners."

379. Office of Government Ethics, OGE Form 450: Confidential Financial Disclosure Report.

380. Sarah Steele *et al.*, "Are industry ties of the experts advising the U.S. government on dietary guidelines and nutrition research priorities disclosed?," *Public Health Nutrition* 25, no. 12 (2022).

381. *Ibid.*

382. Stanford Medicine, "Plant-Based Diet Initiative (PBDI)."

383. National Academies of Sciences, Engineering, and Medicine, *Redesigning the Process for Establishing the Dietary Guidelines for Americans* (Washington, DC: The National Academies Press, 2017).

384. National Academies of Sciences, Engineering, and Medicine, *Evaluating the Process to Develop the Dietary Guidelines for Americans, 2020-2025: Final Report* (Washington, DC: The National Academies Press, 2023).

385. Health Affairs, "Final 2015-20 Dietary Guidelines for Americans," Health Affairs Brief, January 2016.

386. The Nutrition Coalition, "USDA Fails to Fully Implement National Academies' Advice for Bringing 'Transparency,' 'Rigor' to the Dietary Guidelines," September 2024.

387. Cynthia A. Daley *et al.*, "A review of fatty acid profiles and antioxidant content in grass-fed and grain-fed beef," *Nutrition Journal* 9, no. 10 (2010); Gillian Butler *et al.*, "Fatty acid and fat-soluble antioxidant concentrations in milk from high- and low-input conventional and organic systems," *Journal of the Science of Food and Agriculture* 88, no. 8 (2008).

388. Heather Karsten *et al.*, "Vitamins A, E and fatty acid composition of the eggs of caged hens and pastured hens," *Renewable Agriculture and Food Systems* 25, no. 1 (2010).

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