[Part I] The Chronic Crisis: How Public Health Was Built to Fail

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February 28, 2025

Abstract

The modern public health crisis is not an accident—it is the inevitable outcome of a system designed for profit, not health. The food industry, optimizing for efficiency and revenue, has transformed the global diet into one dominated by ultra-processed foods. Meanwhile, the healthcare industry, financially structured around disease management, thrives on chronic illness rather than prevention. The result is not a malfunction—it is the system working exactly as it was designed to.

When any system is forced beyond its tolerances, failure is inevitable. The biological consequences—obesity, type 2 diabetes, cardiovascular disease, neurodegeneration—are not separate failures. They are the same failure state, playing out in different tissues.

This paper reveals how economic structures, financial incentives, and policy decisions have aligned to create an environment where disease is the default outcome. It systematically dismantles the idea that these conditions are a matter of personal responsibility or genetic destiny. They are not anomalies—they are engineered results.

This paper is Part 1 of a three-part series. Part 2, *Metabolic Overload,* details the biological consequences of this system. Part 3, *Metabolic Eating*, presents the necessary correction—how to realign nutrition with biological function to prevent systemic metabolic failure.

I. Introduction

This paper is Part 1 of a three-part series. It shows the structural incentives driving the modern health crisis. Part 2, Metabolic Overload, details the biological consequences of this environment. Part 3, Metabolic Eating, presents the solution—how to eat in a way that realigns with human biology. Together, these papers form the complete framework for understanding and reversing the largest preventable public health catastrophe in history.

Across the world, millions of individuals dedicate their lives to improving public health. Farmers and food scientists work to ensure food is abundant and affordable. Medical professionals and researchers devote their careers to treating disease and advancing medical knowledge. Public health officials and policymakers strive to enhance health outcomes at scale. These individuals operate with good intentions, believing their work benefits society.

Yet, despite these efforts, public health is deteriorating at an unprecedented rate. In the United States, life expectancy is declining for the first sustained period in modern history. Chronic diseases, once rare, have become the leading cause of death. Obesity and metabolic disorders have reached epidemic proportions. Diet-related chronic diseases are surging worldwide, from rising obesity rates in high-income nations to the rapid escalation of metabolic disorders in middle-income countries undergoing dietary shifts.

How can this be? With so many working toward health, why are outcomes getting worse?

It is tempting to blame corporate greed, political corruption, or intentional deception. While misconduct exists, it is not the root cause. The truth is worse.

Public health's greatest failure is not due to malice. It is due to the unintended consequence of benevolence.

Governments worldwide, seeking to prevent hunger and ensure food security, subsidized staple crops—corn, soy, wheat—to make calories abundant and affordable. These policies succeeded in their immediate goal. But they also created an economic structure in which the cheapest, most profitable foods became ultra-processed, hyper-palatable, and metabolically destructive. The food industry, responding to the incentives it was given, maximized efficiency and affordability by engineering products that encouraged overconsumption. As these foods became dominant in the global diet, metabolic diseases skyrocketed.

In response, healthcare systems did not adapt to prevent these diseases—they evolved to manage them indefinitely. Chronic disease became a recurring revenue stream, shaping a medical economy that optimizes not for long-term health, but for disease maintenance.

This system needs no villains—only incentives. Each actor—policymakers, food producers, doctors, hospital administrators—simply optimizes within their constraints. What begins as a policymaker's decision to provide affordable food ends with a chronic disease epidemic:

- Policymakers subsidize staple crops, making ultra-processed foods the cheapest option.
- The food industry maximizes profit by mass-producing these low-cost, addictive foods.
- Consumers, driven by price and availability, overconsume, fueling metabolic disease.
- Healthcare systems, due to incentives, treat disease symptoms not root causes.
- The cycle continues, as chronic illness sustains the system's financial incentives.

The greatest tragedy of this crisis is not just that it exists—but that it was built by policies designed to help people. Yet, just as the system was unintentionally optimized for disease, it can be intentionally re-engineered to optimize for health.

This paper will expose the structural incentives driving the crisis, using the United States as a case study while examining how similar systems operate worldwide. More importantly, it will propose systemic realignments—because public health must not be an afterthought. It must be the inevitable outcome of the system itself.

II. The Food System

The food system does not optimize for health—it optimizes for efficiency, cost, and consumer demand. The result is a global food landscape dominated by inexpensive, addictive foods. Not because they are the best option, but because they are the most profitable.

The Benevolence Paradox: How Food Security Caused a Health Crisis

Governments worldwide, aiming to ensure food security and prevent hunger, subsidized staple crops—corn, soy, and wheat—to make calories abundant and affordable. These subsidies were intended to provide stability, but they also created an economic framework that incentivized food companies to rely heavily on these crops. This, in turn, drove innovation around them and established them as the foundation of nearly all processed foods.

As these subsidized crops became central to food production, the industry optimized for efficiency and affordability—creating products that were inexpensive, highly palatable, and designed for overconsumption. Over time, these foods became the dominant global diet. The result helped ensure food security—but also fueled the rise of metabolic disease worldwide.

The Economic Imperative: Cheap, Addictive, and Profitable

Food companies are valued by their profitability—not by how healthy they make people. Public markets do not assess companies based on their contribution to public health; they evaluate them based on revenue generation.

Maximizing profit can be reduced to a single equation: maximize revenue and minimize costs. Ultra-processed, hyper-palatable foods achieve both—driving sales while minimizing production expenses. The result is not a conspiracy but a predictable economic outcome.

- **Increasing Revenue = Increasing Consumption**
  - Revenue grows when people consume more.
  - How do you increase consumption? Engineer food to be more addictive.
  - How do you make food more addictive? Optimize sugar, salt, and fat.
- **Cutting Costs = Using the Cheapest Possible Ingredients**
  - One of the largest expenses for food companies is raw ingredients.
  - How do you cut ingredient costs? Use cheaper inputs.
  - What are the cheapest inputs? Subsidized commodity crops—corn, soy, wheat.

The result is an economic equation:

More addictive = More consumption = Higher revenue
Cheaper inputs = Lower costs = Higher margins

If this is an optimization problem, then ultra-processed foods are the inevitable solution. They are the most efficient answer to the profit-maximization equation—cheap to produce, addictive to consume, and structurally embedded into the food system.

Every major processed food today is a direct result of this optimization. Soda is among the clearest examples—extremely cheap to manufacture, engineered for addiction. Fast food, candy, chips—each is simply a different variation of the same formula:

$$f(\min(\text{costs}), \max(\text{consumption}))$$

The Illusion of Choice: How Policy Shapes Diets

A common refrain is: "Consumers can simply choose healthier options." In theory, this is true. In practice, it is a fallacy. The food system is not a free market governed purely by consumer choice—it is a market where government subsidies and corporate incentives dictate what is cheapest, most available, and most consumed.

Many governments subsidize commodity crops—corn, soy, and wheat—that drive ultra-processed food production, while fruits, vegetables, and nutrient-dense foods remain comparatively expensive. In low- and middle-income countries, rapid urbanization and economic development have shifted traditional diets toward industrialized, highly processed foods, exacerbating rates of obesity and diet-related diseases.

In the United States, corn, soy, and wheat dominate the food supply not because they are the most nutritious but because they are the most subsidized. This has created a distorted marketplace where ultra-processed products—derived from these cheap ingredients—are far more affordable and accessible than whole foods.

- **Corn** → High-fructose corn syrup (soda, candy), corn oil (fried foods), tortilla chips.
- **Soy** → Soybean oil (processed snacks, fast food, frozen meals).
- **Wheat** → White flour (pizza, bread, cereal, crackers).

The Moderation Myth: How Consumers Are Set Up to Fail

Yet, the dominant narrative insists that individuals should simply "exercise moderation." This is gaslighting.

The system is designed to make moderation nearly impossible. Every part of the modern food environment is engineered to encourage overconsumption. And when individuals fail, they are blamed for lacking willpower—despite the fact that companies hire teams of neuroscientists and sensory experts to optimize food addiction.

Food companies invest billions in research to make products irresistible, optimizing the most stimulating combinations of crunch, sweetness, and mouthfeel. These products hijack the brain's reward system, much like addictive drugs.

And they are remarkably effective:

- The average American consumes 500 more calories per day than in the 1970s. (of Health, 2019)
- Ultra-processed foods account for ˜60% of all calories in the American diet. (Association, 2023)
- Processed food consumption is rising across Latin America, Asia, and Africa. (Organization, 2022)
- Sugary beverages contribute more than 150 daily calories in many countries. (for Disease Control & Prevention, 2024)

The modern food system was never designed for health—it was designed for profit.

III. The Healthcare System

The Benevolence Paradox: How Medicine Became Hooked on Chronic Disease

The food industry flooded the market with cheap, addictive, metabolically destructive foods. These products were not designed with the intent to harm public health; they were optimized for profitability. Regardless, the result has been an unprecedented rise in diet-related illness.

As chronic disease surged, the healthcare system adapted—not by focusing on eliminating these conditions, but by developing a financial model that extitprofitably manages them. The increase in patient volume led to greater demand for treatments, medications, and procedures. Over time, healthcare's financial sustainability became increasingly tied to treating symptoms rather than addressing root causes.

Healthcare did not create the chronic disease crisis—it reacted to it. In doing so, it has evolved into an industry whose financial survival depends on a steady influx of chronically ill patients. A system originally built to save lives now requires disease to sustain itself.

The Economic Machine: Chronic Disease as a Revenue Stream

Chronic illness has become one of the most reliable revenue streams in the global economy:

- Approximately 90% of U.S. healthcare expenditures are allocated to managing—not curing—chronic conditions. (for Disease Control & Prevention, 2023)
- In Europe and Asia, 70–80% of healthcare costs stem from chronic diseases, primarily obesity, cardiovascular disease, and diabetes. (Organization, 2023)
- The pharmaceutical sector dominates global healthcare, with the ten largest firms generating over $600 billion annually—largely from drugs that treat, rather than cure, chronic illnesses. (Organization, 2022)

This is not a healthcare system—it is a disease management system.

A Thought Experiment: What If Everyone Became Healthy Overnight?

Consider the following scenario:

If every individual were to wake up tomorrow completely free of chronic disease, how would the healthcare industry be affected?

- Demand for prescription drugs would plummet.
- Hospital admissions would decline drastically.
- Medical device manufacturers, pharmaceutical firms, and insurance providers—whose business models depend on chronic disease—would face financial instability.

This would not be perceived as a triumph but rather as a systemic disruption. The structure of modern healthcare is not designed to eliminate disease; it is built to manage it indefinitely.

The financial stakes are immense:

- The global diabetes industry is valued at approximately $400 billion, with insulin alone generating $27 billion annually. (Association, 2022)
- Statins have collectively exceeded $1 trillion in sales worldwide. (for Disease Control & Prevention, 2023)
- Dialysis and kidney disease treatments represent a multi-billion-dollar industry, largely sustained by complications arising from diabetes and hypertension. (for Disease Control & Prevention, 2023)

Chronic disease patients are not a segment of the healthcare market. They are the market.

If metabolic disease were to be eradicated, the financial structure of the healthcare system would collapse. Its revenue depends on the existence of chronic illness; curing it would render its business model unsustainable.

Healthcare is trapped in a paradox: its survival depends on the diseases it exists to treat.

The Perverse Incentives of Chronic Disease: Why the System Rewards Sickness

The most financially successful industries do not rely on one-time transactions; they rely on recurring revenue.

Historically, consumers purchased *Microsoft Office* as a one-time transaction. In 2013, a user could pay $139 for *Office Home & Student* and own the software indefinitely at no additional cost. (Corporation, 2013) However, Microsoft transitioned to a subscription-based model: *Office 365* now costs $99.99 per year. Over five years, the same customer who once paid $139 will have spent $500; over ten years, the total expenditure reaches $1,000—a 700% increase in lifetime value compared to a single purchase. (Corporation, 2024)

This subscription model has also become the foundation of modern healthcare:

Case 1: A Cured Patient (One-Time Purchase Model)

- A physician successfully reverses a patient's diabetes, eliminating the need for further medical interventions.
- The patient no longer requires medications, surgeries, or long-term care.
- Hospitals, pharmaceutical companies, and insurers lose a lifelong customer.

This is selling *Microsoft Office* in 2013—a single transaction with no recurring revenue.

Case 2: A Chronically Ill Patient (Subscription Model)

- The patient's condition is managed rather than resolved.
- They require lifelong prescriptions, specialist visits, and recurring interventions.
- Hospitals, pharmaceutical companies, and insurers generate continuous revenue for decades.

This is selling *Office 365*—a subscription-based model that ensures sustained revenue.

This does not imply that pharmaceutical companies deliberately avoid developing cures. Many have made extraordinary contributions to medicine, eradicating deadly diseases and advancing life-saving treatments. However, the financial reality remains unavoidable:

Curing a disease eliminates a revenue stream.
Managing a disease guarantees a paying customer for life.

The System Is Not Broken—It Is Functioning as Designed

This is not a conspiracy—it is an inevitability. A system designed to profit from managing disease will never prioritize eliminating it.

The very institutions tasked with treating disease are also those that derive the greatest financial benefit from its persistence. This creates an inherent conflict:

Invest in cures that eliminate customers
OR
Invest in treatments that sustain them

This is not a matter of moral failings—it is a fundamental question of economic incentives.

Software runs on **Subscription-as-a-Service**. Healthcare runs on **Treatment-as-a-Service**.

IV. The Illness Flywheel

The Benevolence Paradox: How Food and Medicine Form a Self-Sustaining Loop

This system is not failing—it is succeeding at the wrong objective.

Efficiency is neither good nor bad. It is an asset when directed toward the right goal and a liability when aimed at the wrong one. Right now, efficiency is accelerating the public health crisis. If this level of optimization were directed toward actual health, the outcomes would be transformative. Instead, every improvement within the system strengthens a self-reinforcing flywheel—maximizing profit while deepening the collapse of global health.

In pursuit of food security, governments subsidized staple crops to ensure affordable caloric intake. While this policy met its immediate goal, it also created an economic framework where the cheapest, most profitable foods are hyper-processed, calorie-dense, and nutritionally deficient. The widespread consumption of these products triggered a surge in metabolic disorders at a scale never before seen in human history.

Rather than preventing this crisis, healthcare systems adapted to manage it. Chronic disease ceased to be just a medical condition; it became an economic asset—one that ensures long-term revenue streams for hospitals, pharmaceutical companies, and insurers.

This is the reality:

- The food industry optimizes by producing inexpensive, addictive products.

- The healthcare industry optimizes by managing the diseases caused by those products.
- The financial incentives of both industries are at odds with public health.

The result is not just a cycle—it is a flywheel, a self-reinforcing mechanism where the food sector generates demand for medical treatment, and the healthcare sector sustains demand for more food-induced disease. Each rotation strengthens the next, compounding the crisis with every cycle.

This is a closed-loop system. The food industry creates the sick consumers. The healthcare industry profits from treating them. No external intervention is required to maintain it—the system perpetuates itself.

No Single Bad Actor: Why the System Runs Itself

There is no secret meeting. No boardroom of executives conspiring to keep people sick. The system does not require malice—only incentives.

Every participant in this cycle is simply responding to their economic imperatives:

1. **Policymakers** subsidize staple crops (corn, soy, wheat) to ensure food security.
2. **Farmers** cultivate these subsidized crops, knowing they have guaranteed buyers.
3. **Food corporations** formulate products using the cheapest ingredients to maximize profit margins.
4. **Marketers** optimize for sugar, salt, and fat because they drive consumer demand.
5. **Consumers** purchase what is most accessible and affordable.
6. **Healthcare providers** operate within a system that financially rewards symptom management rather than treating root causes.
7. **Insurance companies** structure pricing models based on the assumption that chronic disease is inevitable.

This cycle plays out across the world. In emerging economies, the proliferation of inexpensive, ultra-processed foods has led to skyrocketing rates of obesity and type 2 diabetes. Meanwhile, healthcare systems—whether public, private, or hybrid—struggle to transition from a treatment-centric model to one that addresses the root causes of disease.

No one in this sequence deliberately set out to create an obesity epidemic or an explosion of chronic disease. Yet, the system consistently produces illness at scale, year after year.

No one is actively steering the vehicle, but it remains in motion nonetheless.

The Illusion of Reform: Why Incentives Block Change

If the system is so clearly misaligned, why not just reform it? Why not adjust policies to mitigate chronic disease?

Because most reform efforts are equivalent to trying to stop a hurricane with a handheld fan. The sheer weight of systemic inertia makes these efforts, despite their good intentions, largely ineffective.

Just as healthcare treats the symptoms of chronic disease rather than its root causes, most reform efforts do the same. They focus on mitigating the effects of the system rather than transforming the incentives that sustain it.

Most policy interventions target the visible consequences—nutritional deficiencies, rising disease rates, unsustainable healthcare costs—while leaving the underlying incentives intact.

- Nutritional guidelines are updated but remain influenced by industry lobbying.

- Public health campaigns promote healthier diets, yet they cannot compete with the billion-dollar advertising budgets of the food industry.
- Medical schools incorporate lifestyle medicine courses, but physicians continue to operate within a reimbursement model that prioritizes procedures over preventive care.

These patterns are seen worldwide. In high-income nations, corporate interests influence public health policies, weakening efforts like food labeling laws, sugar taxes, and marketing restrictions. In low- and middle-income countries, governments often lack the resources to counteract the marketing power of multinational food corporations, accelerating the shift toward ultra-processed diets.

This is why meaningful change remains elusive. Every reform effort is ultimately outweighed by systemic inertia. A system optimized for disease will never produce health. Reform that does not restructure the incentives behind the system is not reform at all—it is the maintenance of the status quo.

The Inescapable Logic of the Cycle

This system will not stop on its own since each component depends on the others for survival:

1. The food industry generates demand for medical intervention.
2. The healthcare industry relies on the presence of disease for financial survival.
3. Both industries generate trillions of dollars from this dynamic.
4. This financial structure ensures that no policy change, public health initiative, or consumer movement will be sufficient to dismantle it.

This is not a system that can be incrementally reformed. The only way to break the cycle is to realign incentives so that health becomes the most profitable outcome. A system incentivized to produce sickness will create a population burdened by disease. A system incentivized to foster well-being will create a healthier society.

Governments must acknowledge that the financial forces shaping public health are embedded within the economic architecture of both the food and healthcare industries. While some nations have introduced policies like sugar taxes, front-of-package labeling, and restrictions on unhealthy food marketing, these efforts remain overshadowed by the larger financial forces sustaining chronic disease as a revenue stream.

For lasting change, policies must go beyond promoting healthier choices—they must change the economic foundation of the system so that health becomes the default, most profitable outcome. Outcomes follow incentives.

The system we have today was not consciously designed. But for the first time, we possess both the knowledge and the responsibility to design one that serves public health.

V. Realigning the System

The solution is not to dismantle the system—it is to realign it. The free market is not the adversary, capitalism not the problem. The issue is what the system is designed to optimize.

The food and healthcare industries maximize profit at the expense of public health—not because of greed or malice, but because financial incentives dictate it. Companies do not make decisions based on ethics; they respond to market forces. If the system rewards sickness, it will generate sickness. If the system rewards health, it will generate health.

This is not about curbing profits—it is about directing them toward the right outcomes. Companies should maximize revenue, but in doing so, they should also improve public health. The financial engine that has built trillion-dollar food and healthcare industries does not need to be dismantled; it needs to be recalibrated.

Right now, the system operates under an inverse relationship:

$$\text{Corporate Profit} = \frac{1}{\text{Public Health}}$$

As food and healthcare industry profits rise, public health declines. The economic structure ensures that the more ultra-processed food is sold and the more chronic disease is treated, the greater the financial reward—at the direct expense of public health.

By realigning incentives, this equation can be flipped:

$$\text{Corporate Profit} = \text{Public Health}$$

Now, corporate success is directly linked to consumer well-being. The more companies optimize for profitability, the more they will be incentivized to optimize for health. The system will no longer extract value from disease—it will create value through health.

This is how the cycle is broken: not by dismantling the system, but by aligning its incentives so that profitability and public health work in tandem, rather than in opposition.

Why Relying on Consumer Demand is a Deadly Delay

Companies do not drive change—they respond to demand.

Take Coca-Cola: for decades, it aggressively marketed full-sugar sodas, despite overwhelming evidence linking excessive sugar consumption to obesity, diabetes, and metabolic disorders. The company did not reformulate its products out of social responsibility—it did so because consumers, after years of suffering the consequences, started rejecting sugar-laden drinks. Only then did Coca-Cola pivot to promoting Coke Zero.

This is not corporate responsibility—it is reactive adaptation. By the time consumer behavior shifts, decades of damage have already been inflicted.

If policymakers had enacted proper regulations earlier—such as sugar taxes, warning labels, and advertising restrictions—Coca-Cola would have been forced to optimize for lower-sugar products from the outset. Instead, the market conducted an uncontrolled experiment on human health, waiting for consumer backlash to force a correction.

This reactive model is not just inefficient—it is lethal. If systemic change only occurs after millions fall ill, the price of progress is measured in lives lost.

The Rules of the Game: How Policymakers Can Realign the System

The term "free market" is widely misunderstood. A free market is not the absence of rules—it is the absence of constraints on voluntary exchange.

A market is a system. To change the behavior of a system, you must change the rules it operates under. Markets do not function in a vacuum; they are shaped by policies. The question is whether those policies create incentives that drive the right outcomes.

Regulating the framework in which businesses operate is not the same as restricting the free market. Setting the right incentives in the food and healthcare industries is no different from regulating pharmaceuticals, environmental protections, or financial systems—all of which are widely accepted as necessary.

Markets do not create their own incentives. They operate within the constraints they are given. Right now, those constraints reward sickness. The food industry prioritizes hyper-palatable, nutrient-deficient products because they yield the highest profit margins. The healthcare industry is structured to manage disease rather than address root causes because that is where revenue is concentrated. These industries are not engaging in moral deliberations—they are optimizing within the system they've been given. Change the rules, and the system will optimize for different outcomes.

The role of policymakers is not to fight the market—it is to shape its trajectory. Once incentives are properly structured, the market will do what it does best: drive innovation, minimize inefficiencies, and scale solutions.

Governments have an urgent economic imperative to act. The financial burden of chronic disease, subsidized medical treatments, and overextended healthcare systems is unsustainable. This is not an investment—it is an accelerating liability. A system that waits until millions are sick before responding is a system on the brink of collapse.

The more aggressively governments implement these changes, the faster they will alleviate their economic burden. Continuing to fund chronic disease management without addressing its root causes is like bailing water out of a sinking ship instead of repairing the breach.

Bailing water is costly, exhausting, and endless. Patching the breach is faster, more cost-effective, and permanently fixes the problem. Aligning business incentives to prioritize health costs a fraction of what it takes to sustain a chronically ill population. This is not just a moral obligation—it is the only financially sustainable path forward.

These are the structural reforms that must happen:

- **Realign food subsidies** so that nutrient-dense foods become more profitable than ultra-processed products.
- **Shift healthcare reimbursement models** from fee-for-service to outcome-based compensation.
- **Enforce marketing and labeling standards** to ensure full transparency on food composition and health impacts.
- **Implement targeted taxation** on harmful products (excess sugar, ultra-processed foods) to counterbalance artificially low prices.
- **Incentivize food companies** to reformulate products in ways that enhance health rather than degrade it.

These are not theoretical ideas—they are policies with demonstrated success:

- **Chile** introduced front-of-package warning labels, leading to a measurable reduction in sugar consumption.
- **Mexico** imposed a soda tax, which decreased sugary drink purchases and improved public health outcomes.
- **Denmark** experimented with a fat tax, illustrating how economic deterrents shift consumer behavior.
- **Singapore** integrates healthcare spending with population health metrics, ensuring long-term systemic alignment.

These are not tweaks; they are fundamental shifts that force industries to prioritize health. Businesses are not the problem—they are the solution.

If systemic change is to occur, industry must be the driving force behind it. Corporations are not barriers to progress; they are the most powerful agents of it. When provided with the right incentives, they will innovate, scale, and optimize at an unprecedented rate.

A world where businesses profit from health rather than disease is not just possible—it is more sustainable. When companies compete to produce the most nourishing foods, the most effective healthcare interventions, and the most life-extending innovations, economic growth will accelerate rather than diminish. The current system is failing not only consumers but also governments and economies burdened by the mounting costs of chronic disease.

The market is an optimization engine. Once incentives are recalibrated, companies will race to develop the most profitable solutions. The result? A food industry that generates profit by nourishing people, a healthcare system that thrives by keeping people well, and an economy that prospers without being dependent on chronic illness.

Policy dictates the rules. The free market will follow. Set the rules correctly, and the system will optimize for health as efficiently as it currently optimizes for disease.

This is not a radical idea. This is simply how systems function. Change the incentives, and the outcome will change. Health must become the system's most profitable outcome. If not, the cycle of sickness will never end.

VI. Conclusion

World War II was the deadliest conflict in human history. At its peak, the deadliest year—estimated to be 1943 or 1944—saw approximately 12 million deaths. (of Defense, 2023)

This year alone, preventable chronic diseases will claim far more lives:

- **Total global deaths in the deadliest year of World War II:** ˜12 million (of Defense, 2023)
- **Total deaths from preventable chronic diseases this year:** ˜42 million (Organization, 2023)

Each year, the world suffers a death toll far greater than the deadliest year of the deadliest war in history. Unlike war, these deaths do not come from battlefields, air raids, or enemy fire. They result from an economic system that:

- Rewards the food industry for producing disease-causing products.
- Rewards the healthcare industry for managing, not preventing, chronic disease.
- Optimizes every level of the system for sickness, not health.

No dictator ordered these deaths. No general planned this war. No enemy declared it. Yet, the casualties mount—year after year. Quietly and systematically.

This is not a war, but its death toll surpasses anything war has ever achieved.

This Is Not a Conspiracy—It's Worse

Unlike World War II, this is not a battle against a dictator. There is no army to defeat, no enemy to surrender, no treaty to sign. There are no soldiers, no tanks, no battlefronts. Instead, this war is waged by the invisible force of incentives. That is what makes it so difficult to fight.

No single entity is responsible. Every part of this system simply responds to the economic structures that shape it. Every industry, every institution, every participant is acting in accordance with the incentives they have been given.

Every major actor in this system operates with good intentions:

- Policymakers sought to prevent hunger.
- The food industry optimized for affordability and consumer demand.
- The healthcare industry focused on improving treatment options.

Yet, despite these good intentions, the result is mass harm. This is the greatest danger: good intentions, without systemic awareness, produce catastrophic failure.

You may feel a sense of psychological discomfort reading this.

That discomfort stems from the belief that good intentions should lead to good outcomes. That if policymakers, corporations, and institutions were acting in good faith, the system should be working. But systems do not care about intentions. They do not respond to morality. They respond only to the rules that govern them.

It feels wrong to think that policies designed to prevent hunger could lead to mass disease. It feels impossible that industries built to save lives could become financially dependent on managing sickness. We like to believe that only dictators, tyrants, or the worst actors in history could cause mass human suffering. But the truth is far more unsettling:

Well-intentioned decisions can cause more harm than history's most malicious acts because when they ignore systemic logic, they still can produce catastrophic consequences. The failure to recognize this is why this crisis persists. We have designed a system that optimizes for sickness, not health—not because we meant to, but because we failed to understand the forces at play.

If this were a conspiracy, it could be exposed and dismantled. If this were the work of a singular villain, they could be confronted. But there is no villain—only a system functioning as designed. Until the rules of this system change, public health will continue to decline.

Flipping the Equation: From Profitable Harm to Profitable Health

The system we have today is no one's fault. We just didn't know.

It was built with good intentions—securing food supplies, expanding healthcare, ensuring affordable calories. But the unintended consequence was the construction of a public health disaster—one that no one planned, but everyone sustains.

Now, for the first time, we have the awareness to change that.

We understand every lever in this system—every policy, every incentive, every economic force that led us here. And just as this system unintentionally optimized for disease, it can now be deliberately designed to optimize for health.

We now have the power to rewrite the rules—to flip this equation,

$$\text{Corporate Profit} = \frac{1}{\text{Public Health}}$$

to this one,

$$\text{Corporate Profit} = \text{Public Health}$$

Once this occurs, profit and health will move in the same direction. The more companies optimize for profitability, the more they will be incentivized to optimize for well-being. The system will no longer extract value from sickness—it will create value through health.

The Choice: Stay on This Path or Build a Better One

This transformation will require effort. It will require resources, coordination, political will, and industry alignment. Sustaining the status quo will require all of that—and more.

We now have a choice:

1. **Choice 1: Maintain the status quo**
   Companies make billions while chronic disease continues killing millions.
2. **Choice 2: Realign the system**
   Companies still make billions, but public health thrives.

The system we have was not designed for failure—but it is failing us. All of us. Now that we see it clearly, we must decide: Do we accept the path we've inherited, or do we choose to rewrite the rules?

This Will Not Happen Overnight—But It Must Happen

This system did not emerge overnight. It took decades to build—decades of policies, corporate strategies, and market forces shaping the landscape. It was not intentionally designed for harm, but it evolved in a way that optimized for profit at the expense of public health.

Realigning this system will not take as long as it did to create, but it will take time. Change at this scale requires sustained effort and coordinated action across industries, governments, and institutions. However, the fact that it will take time does not mean we can afford to wait. Every year that this system remains unchanged, millions of lives are lost to preventable disease. The sooner we act, the sooner we can begin reversing the damage.

Just as the choices of those before us determined the trajectory we are on today, the choices we make now will determine the trajectory of those who come after us.

We did not choose the system we inherited—but we alone will choose what happens next.

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Part I:
The Chronic Crisis

How Public Health Was Built to Fail

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February 21, 2025

Abstract

The modern public health crisis is not an accident—it is the inevitable outcome of a system designed for profit, not health. The food industry, optimizing for efficiency and revenue, has transformed the global diet into one dominated by ultra-processed foods. Meanwhile, the healthcare industry, financially structured around disease management, thrives on chronic illness rather than prevention. The result is not a malfunction—it is the system working exactly as it was designed to.

When any system is forced beyond its tolerances, failure is inevitable. The biological consequences—obesity, type 2 diabetes, cardiovascular disease, neurodegeneration—are not separate failures. They are the same failure state, playing out in different tissues, at different speeds.

This paper reveals how economic structures, financial incentives, and policy decisions have aligned to create an environment where disease is the default outcome. It systematically dismantles the idea that these conditions are a matter of personal responsibility or genetic destiny. They are not anomalies—they are engineered results.

This paper is Part 1 of a three-part series. Part 2, *Metabolic Overload*, details the biological consequences of this system. Part 3, *Metabolic Eating*, presents the necessary correction—how to realign nutrition with biological function to prevent systemic metabolic failure.

Author's Note

I want to make this explicitly clear: This work is not an indictment of any individual. If that does not come through clearly in the following pages, let me state it unmistakably clear here—this is not a condemnation of any person, organization, or profession.

Millions of people have dedicated their lives to providing food, innovating remarkable products, and delivering life-saving treatments. Scientists, farmers, food manufacturers, healthcare professionals, policymakers—each has worked tirelessly within the system as it exists, doing the best they can with the incentives and constraints they have been given.

This is not an indictment of them. It is an indictment of a system that was unintentionally created—one that was structured to optimize for outcomes we now recognize as harmful.

This work exists to show that the system itself must change—so that those who have already given so much can maximize their impact in making the world a healthier, better place. Their efforts should not be constrained by systemic misalignment. They should be empowered by a system that rewards the very work they have dedicated their lives to.

I. Introduction

This paper is Part 1 of a three-part series. It shows the structural incentives driving the modern health crisis. Part 2, Metabolic Overload, details the biological consequences of this environment. Part 3, Metabolic Eating, presents the solution—how to eat in a way that realigns with human biology. Together, these papers form the complete framework for understanding and reversing the largest preventable public health catastrophe in history.

Across the world, millions of individuals dedicate their lives to improving public health. Farmers and food scientists work to ensure food is abundant and affordable. Medical professionals and researchers devote their careers to treating disease and advancing medical knowledge. Public health officials and policymakers strive to enhance health outcomes at scale. These individuals operate with good intentions, believing their work benefits society.

Yet, despite these efforts, public health is deteriorating at an unprecedented rate. In the United States, life expectancy is declining for the first sustained period in modern history.[1] Chronic diseases, once rare, have become the leading cause of death.[2] Obesity and metabolic disorders have reached epidemic proportions.[3] Diet-related chronic diseases are surging worldwide, from rising obesity rates in high-income nations to the rapid escalation of metabolic disorders in middle-income countries undergoing dietary shifts.[4]

How can this be? With so many working toward health, why are outcomes getting worse?

It is tempting to blame corporate greed, political corruption, or intentional deception. While misconduct exists, it is not the root cause. The truth is worse.

Public health's greatest failure is not due to malice.
It is due to the unintended consequence of benevolence.

Governments worldwide, seeking to prevent hunger and ensure food security, subsidized staple crops—corn, soy, wheat—to make calories abundant and affordable. These policies succeeded in their immediate goal. But they also created an economic structure in which the cheapest, most profitable foods became ultra-processed, hyper-palatable, and metabolically destructive. The food industry, responding to the incentives it was given, maximized efficiency and affordability by engineering products that encouraged overconsumption. As these foods became dominant in the global diet, metabolic diseases skyrocketed.

In response, healthcare systems did not adapt to prevent these diseases—they evolved to manage them indefinitely. Chronic disease became a recurring revenue stream, shaping a medical economy that optimizes not for long-term health, but for disease maintenance.

This system needs no villains—only incentives. Each actor—policymakers, food producers,

doctors, hospital administrators—simply optimizes within their constraints. What begins as a policymaker's decision to provide affordable food ends with a chronic disease epidemic:

- Policymakers subsidize staple crops, making ultra-processed foods the cheapest option.
- The food industry maximizes profit by mass-producing these low-cost, addictive foods.
- Consumers, driven by price and availability, overconsume, fueling metabolic disease.
- Healthcare systems, due to incentives, treat disease symptoms not root causes.
- The cycle continues, as chronic illness sustains the system's financial incentives.

The greatest tragedy of this crisis is not just that it exists—but that it was built by policies designed to help people. Yet, just as the system was unintentionally optimized for disease, it can be intentionally re-engineered to optimize for health.

This paper will expose the structural incentives driving the crisis, using the United States as a case study while examining how similar systems operate worldwide. More importantly, it will propose systemic realignments—because public health must not be an afterthought. It must be the inevitable outcome of the system itself.

II. The Food System

The food system does not optimize for health—it optimizes for efficiency, cost, and consumer demand. The result is a global food landscape dominated by inexpensive, addictive foods. Not because they are the best option, but because they are the most profitable.

The Benevolence Paradox: How Food Security Caused a Health Crisis

Governments worldwide, aiming to ensure food security and prevent hunger, subsidized staple crops—corn, soy, and wheat—to make calories abundant and affordable. These subsidies were intended to provide stability, but they also created an economic framework that incentivized food companies to rely heavily on these crops. This, in turn, drove innovation around them and established them as the foundation of nearly all processed foods.

As these subsidized crops became central to food production, the industry optimized for efficiency and affordability—creating products that were inexpensive, highly palatable, and designed for overconsumption. Over time, these foods became the dominant global diet. The result helped ensure food security—but also fueled the rise of metabolic disease worldwide.

The Economic Imperative: Cheap, Addictive, and Profitable

Food companies are valued by their profitability—not by how healthy they make people. Public markets do not assess companies based on their contribution to public health; they evaluate them based on revenue generation.

Maximizing profit can be reduced to a single equation: maximize revenue and minimize costs. Ultra-processed, hyper-palatable foods achieve both—driving sales while minimizing production expenses. The result is not a conspiracy but a predictable economic outcome.

- **Increasing Revenue = Increasing Consumption**
  - Revenue grows when people consume more.
  - How do you increase consumption? Engineer food to be more addictive.
  - How do you make food more addictive? Optimize sugar, salt, and fat.
- **Cutting Costs = Using the Cheapest Possible Ingredients**
  - One of the largest expenses for food companies is raw ingredients.
  - How do you cut ingredient costs? Use cheaper inputs.
  - What are the cheapest inputs? Subsidized commodity crops—corn, soy, wheat.

The result is an economic equation:

More addictive = More consumption = Higher revenue
Cheaper inputs = Lower costs = Higher margins

If this is an optimization problem, then ultra-processed foods are the inevitable solution. They are the most efficient answer to the profit-maximization equation—cheap to produce, addictive to consume, and structurally embedded into the food system.

Every major processed food today is a direct result of this optimization. Soda is among the clearest examples—extremely cheap to manufacture, engineered for addiction. Fast food, candy, chips—each is simply a different variation of the same formula:

$$f(\min(\text{costs}), \max(\text{consumption}))$$

The Illusion of Choice: How Policy Shapes Diets

A common refrain is: "Consumers can simply choose healthier options." In theory, this is true. In practice, it is a fallacy. The food system is not a free market governed purely by consumer choice—it is a market where government subsidies and corporate incentives dictate what is cheapest, most available, and most consumed.

Many governments subsidize commodity crops—corn, soy, and wheat—that drive ultra-processed food production, while fruits, vegetables, and nutrient-dense foods remain comparatively expensive. In low- and middle-income countries, rapid urbanization and economic development have shifted traditional diets toward industrialized, highly processed foods, exacerbating rates of obesity and diet-related diseases.

In the United States, corn, soy, and wheat dominate the food supply not because they are the most nutritious but because they are the most subsidized. This has created a distorted marketplace where ultra-processed products—derived from these cheap ingredients—are far more affordable and accessible than whole foods.

- **Corn** → High-fructose corn syrup (soda, candy), corn oil (fried foods), tortilla chips.
- **Soy** → Soybean oil (processed snacks, fast food, frozen meals).
- **Wheat** → White flour (pizza, bread, cereal, crackers).

The Moderation Myth: How Consumers Are Set Up to Fail

Yet, the dominant narrative insists that individuals should simply "exercise moderation." This is gaslighting.

The system is designed to make moderation nearly impossible. Every part of the modern food environment is engineered to encourage overconsumption. And when individuals fail, they are blamed for lacking willpower—despite the fact that companies hire teams of neuroscientists and sensory experts to optimize food addiction.

Food companies invest billions in research to make products irresistible, optimizing the most stimulating combinations of crunch, sweetness, and mouthfeel. These products hijack the brain's reward system, much like addictive drugs.

And they are remarkably effective:

- The average American consumes 500 more calories per day than in the 1970s.[5]
- Ultra-processed foods account for ~60% of all calories in the American diet.[6]
- Processed food consumption is rising across Latin America, Asia, and Africa.[7]
- Sugary beverages contribute more than 150 daily calories in many countries.[8]

The modern food system was never designed for health—it was designed for profit.

III. The Healthcare System

The Benevolence Paradox: How Medicine Became Hooked on Chronic Disease

The food industry flooded the market with cheap, addictive, metabolically destructive foods. These products were not designed with the intent to harm public health; they were optimized for profitability. Regardless, the result has been an unprecedented rise in diet-related illness.

As chronic disease surged, the healthcare system adapted—not by focusing on eliminating these conditions, but by developing a financial model that extitprofitably manages them.

The increase in patient volume led to greater demand for treatments, medications, and procedures. Over time, healthcare's financial sustainability became increasingly tied to treating symptoms rather than addressing root causes.

Healthcare did not create the chronic disease crisis—it reacted to it. In doing so, it has evolved into an industry whose financial survival depends on a steady influx of chronically ill patients. A system originally built to save lives now requires disease to sustain itself.

The Economic Machine: Chronic Disease as a Revenue Stream

Chronic illness has become one of the most reliable revenue streams in the global economy:

- Approximately 90% of U.S. healthcare expenditures are allocated to managing—not curing—chronic conditions.[2]
- In Europe and Asia, 70–80% of healthcare costs stem from chronic diseases, primarily obesity, cardiovascular disease, and diabetes.[9]
- The pharmaceutical sector dominates global healthcare, with the ten largest firms generating over $600 billion annually—largely from drugs that treat, rather than cure, chronic illnesses.[10]

This is not a healthcare system—it is a disease management system.

A Thought Experiment: What If Everyone Became Healthy Overnight?

Consider the following scenario:

If every individual were to wake up tomorrow completely free of chronic disease, how would the healthcare industry be affected?

- Demand for prescription drugs would plummet.
- Hospital admissions would decline drastically.
- Medical device manufacturers, pharmaceutical firms, and insurance providers—whose business models depend on chronic disease—would face financial instability.

This would not be perceived as a triumph but rather as a systemic disruption. The structure of modern healthcare is not designed to eliminate disease; it is built to manage it indefinitely.

The financial stakes are immense:

- The global diabetes industry is valued at approximately $400 billion, with insulin alone generating $27 billion annually.[11]
- Statins have collectively exceeded $1 trillion in sales worldwide.[2]

- Dialysis and kidney disease treatments represent a multi-billion-dollar industry, largely sustained by complications arising from diabetes and hypertension.[12]

Chronic disease patients are not a segment of the healthcare market. They are the market.

If metabolic disease were to be eradicated, the financial structure of the healthcare system would collapse. Its revenue depends on the existence of chronic illness; curing it would render its business model unsustainable.

Healthcare is trapped in a paradox: its survival depends on the diseases it exists to treat.

The Perverse Incentives of Chronic Disease: Why the System Rewards Sickness

The most financially successful industries do not rely on one-time transactions; they rely on recurring revenue.

Historically, consumers purchased *Microsoft Office* as a one-time transaction. In 2013, a user could pay $139 for *Office Home & Student* and own the software indefinitely at no additional cost.[13] However, Microsoft transitioned to a subscription-based model: *Office 365* now costs $99.99 per year. Over five years, the same customer who once paid $139 will have spent $500; over ten years, the total expenditure reaches $1,000—a 700% increase in lifetime value compared to a single purchase.[14]

This subscription model has also become the foundation of modern healthcare:

Case 1: A Cured Patient (One-Time Purchase Model)

- A physician successfully reverses a patient's diabetes, eliminating the need for further medical interventions.
- The patient no longer requires medications, surgeries, or long-term care.
- Hospitals, pharmaceutical companies, and insurers lose a lifelong customer.

This is selling *Microsoft Office* in 2013—a single transaction with no recurring revenue.

Case 2: A Chronically Ill Patient (Subscription Model)

- The patient's condition is managed rather than resolved.
- They require lifelong prescriptions, specialist visits, and recurring interventions.
- Hospitals, pharmaceutical companies, and insurers generate continuous revenue for decades.

This is selling *Office 365*—a subscription-based model that ensures sustained revenue.

This does not imply that pharmaceutical companies deliberately avoid developing cures. Many have made extraordinary contributions to medicine, eradicating deadly diseases and

advancing life-saving treatments. However, the financial reality remains unavoidable:

Curing a disease eliminates a revenue stream.
Managing a disease guarantees a paying customer for life.

The System Is Not Broken—It Is Functioning as Designed

This is not a conspiracy—it is an inevitability. A system designed to profit from managing disease will never prioritize eliminating it.

The very institutions tasked with treating disease are also those that derive the greatest financial benefit from its persistence. This creates an inherent conflict:

Invest in cures that eliminate customers
OR
Invest in treatments that sustain them

This is not a matter of moral failings—it is a fundamental question of economic incentives.

Software runs on **Subscription-as-a-Service**. Healthcare runs on **Treatment-as-a-Service**.

IV. The Illness Flywheel

The Benevolence Paradox: How Food and Medicine Form a Self-Sustaining Loop

This system is not failing—it is succeeding at the wrong objective.

Efficiency is neither good nor bad. It is an asset when directed toward the right goal and a liability when aimed at the wrong one. Right now, efficiency is accelerating the public health crisis. If this level of optimization were directed toward actual health, the outcomes would be transformative. Instead, every improvement within the system strengthens a self-reinforcing flywheel—maximizing profit while deepening the collapse of global health.

In pursuit of food security, governments subsidized staple crops to ensure affordable caloric intake. While this policy met its immediate goal, it also created an economic framework where the cheapest, most profitable foods are hyper-processed, calorie-dense, and nutritionally deficient. The widespread consumption of these products triggered a surge in metabolic disorders at a scale never before seen in human history.

Rather than preventing this crisis, healthcare systems adapted to manage it. Chronic disease ceased to be just a medical condition; it became an economic asset—one that ensures long-term revenue streams for hospitals, pharmaceutical companies, and insurers.

This is the reality:

- The food industry optimizes by producing inexpensive, addictive products.

- The healthcare industry optimizes by managing the diseases caused by those products.
- The financial incentives of both industries are at odds with public health.

The result is not just a cycle—it is a flywheel, a self-reinforcing mechanism where the food sector generates demand for medical treatment, and the healthcare sector sustains demand for more food-induced disease. Each rotation strengthens the next, compounding the crisis with every cycle.

This is a closed-loop system. The food industry creates the sick consumers. The healthcare industry profits from treating them. No external intervention is required to maintain it—the system perpetuates itself.

No Single Bad Actor: Why the System Runs Itself

There is no secret meeting. No boardroom of executives conspiring to keep people sick. The system does not require malice—only incentives.

Every participant in this cycle is simply responding to their economic imperatives:

1. **Policymakers** subsidize staple crops (corn, soy, wheat) to ensure food security.
2. **Farmers** cultivate these subsidized crops, knowing they have guaranteed buyers.
3. **Food corporations** formulate products using the cheapest ingredients to maximize profit margins.
4. **Marketers** optimize for sugar, salt, and fat because they drive consumer demand.
5. **Consumers** purchase what is most accessible and affordable.
6. **Healthcare providers** operate within a system that financially rewards symptom management rather than treating root causes.
7. **Insurance companies** structure pricing models based on the assumption that chronic disease is inevitable.

This cycle plays out across the world. In emerging economies, the proliferation of inexpensive, ultra-processed foods has led to skyrocketing rates of obesity and type 2 diabetes. Meanwhile, healthcare systems—whether public, private, or hybrid—struggle to transition from a treatment-centric model to one that addresses the root causes of disease.

No one in this sequence deliberately set out to create an obesity epidemic or an explosion of chronic disease. Yet, the system consistently produces illness at scale, year after year.

No one is actively steering the vehicle, but it remains in motion nonetheless.

The Illusion of Reform: Why Incentives Block Change

If the system is so clearly misaligned, why not just reform it? Why not adjust policies to mitigate chronic disease?

Because most reform efforts are equivalent to trying to stop a hurricane with a handheld fan. The sheer weight of systemic inertia makes these efforts, despite their good intentions, largely ineffective.

Just as healthcare treats the symptoms of chronic disease rather than its root causes, most reform efforts do the same. They focus on mitigating the effects of the system rather than transforming the incentives that sustain it.

Most policy interventions target the visible consequences—nutritional deficiencies, rising disease rates, unsustainable healthcare costs—while leaving the underlying incentives intact.

- Nutritional guidelines are updated but remain influenced by industry lobbying.
- Public health campaigns promote healthier diets, yet they cannot compete with the billion-dollar advertising budgets of the food industry.
- Medical schools incorporate lifestyle medicine courses, but physicians continue to operate within a reimbursement model that prioritizes procedures over preventive care.

These patterns are seen worldwide. In high-income nations, corporate interests influence public health policies, weakening efforts like food labeling laws, sugar taxes, and marketing restrictions. In low- and middle-income countries, governments often lack the resources to counteract the marketing power of multinational food corporations, accelerating the shift toward ultra-processed diets.

This is why meaningful change remains elusive. Every reform effort is ultimately outweighed by systemic inertia. A system optimized for disease will never produce health. Reform that does not restructure the incentives behind the system is not reform at all—it is the maintenance of the status quo.

The Inescapable Logic of the Cycle

This system will not stop on its own since each component depends on the others for survival:

1. The food industry generates demand for medical intervention.
2. The healthcare industry relies on the presence of disease for financial survival.
3. Both industries generate trillions of dollars from this dynamic.
4. This financial structure ensures that no policy change, public health initiative, or consumer movement will be sufficient to dismantle it.

This is not a system that can be incrementally reformed. The only way to break the cycle is to realign incentives so that health becomes the most profitable outcome. A system incentivized to produce sickness will create a population burdened by disease. A system incentivized to foster well-being will create a healthier society.

Governments must acknowledge that the financial forces shaping public health are embedded within the economic architecture of both the food and healthcare industries. While some nations have introduced policies like sugar taxes, front-of-package labeling, and restrictions on unhealthy food marketing, these efforts remain overshadowed by the larger financial forces sustaining chronic disease as a revenue stream.

For lasting change, policies must go beyond promoting healthier choices—they must change the economic foundation of the system so that health becomes the default, most profitable outcome. Outcomes follow incentives.

The system we have today was not consciously designed. But for the first time, we possess both the knowledge and the responsibility to design one that serves public health.

V. Realigning the System

The solution is not to dismantle the system—it is to realign it. The free market is not the adversary, capitalism not the problem. The issue is what the system is designed to optimize.

The food and healthcare industries maximize profit at the expense of public health—not because of greed or malice, but because financial incentives dictate it. Companies do not make decisions based on ethics; they respond to market forces. If the system rewards sickness, it will generate sickness. If the system rewards health, it will generate health.

This is not about curbing profits—it is about directing them toward the right outcomes. Companies should maximize revenue, but in doing so, they should also improve public health. The financial engine that has built trillion-dollar food and healthcare industries does not need to be dismantled; it needs to be recalibrated.

Right now, the system operates under an inverse relationship:

$$\text{Corporate Profit} = \frac{1}{\text{Public Health}}$$

As food and healthcare industry profits rise, public health declines. The economic structure ensures that the more ultra-processed food is sold and the more chronic disease is treated, the greater the financial reward—at the direct expense of public health.

By realigning incentives, this equation can be flipped:

$$\text{Corporate Profit} = \text{Public Health}$$

Now, corporate success is directly linked to consumer well-being. The more companies optimize for profitability, the more they will be incentivized to optimize for health. The system will no longer extract value from disease—it will create value through health.

This is how the cycle is broken: not by dismantling the system, but by aligning its incentives so that profitability and public health work in tandem, rather than in opposition.

Why Relying on Consumer Demand is a Deadly Delay

Companies do not drive change—they respond to demand.

Take Coca-Cola: for decades, it aggressively marketed full-sugar sodas, despite overwhelming evidence linking excessive sugar consumption to obesity, diabetes, and metabolic disorders. The company did not reformulate its products out of social responsibility—it did so because consumers, after years of suffering the consequences, started rejecting sugar-laden drinks. Only then did Coca-Cola pivot to promoting Coke Zero.

This is not corporate responsibility—it is reactive adaptation. By the time consumer behavior shifts, decades of damage have already been inflicted.

If policymakers had enacted proper regulations earlier—such as sugar taxes, warning labels, and advertising restrictions—Coca-Cola would have been forced to optimize for lower-sugar products from the outset. Instead, the market conducted an uncontrolled experiment on human health, waiting for consumer backlash to force a correction.

This reactive model is not just inefficient—it is lethal. If systemic change only occurs after millions fall ill, the price of progress is measured in lives lost.

The Rules of the Game: How Policymakers Can Realign the System

The term "free market" is widely misunderstood. A free market is not the absence of rules—it is the absence of constraints on voluntary exchange.

A market is a system. To change the behavior of a system, you must change the rules it operates under. Markets do not function in a vacuum; they are shaped by policies. The question is whether those policies create incentives that drive the right outcomes.

Regulating the framework in which businesses operate is not the same as restricting the free market. Setting the right incentives in the food and healthcare industries is no different from regulating pharmaceuticals, environmental protections, or financial systems—all of which are

widely accepted as necessary.

Markets do not create their own incentives. They operate within the constraints they are given. Right now, those constraints reward sickness. The food industry prioritizes hyper-palatable, nutrient-deficient products because they yield the highest profit margins. The healthcare industry is structured to manage disease rather than address root causes because that is where revenue is concentrated. These industries are not engaging in moral deliberations—they are optimizing within the system they've been given. Change the rules, and the system will optimize for different outcomes.

The role of policymakers is not to fight the market—it is to shape its trajectory. Once incentives are properly structured, the market will do what it does best: drive innovation, minimize inefficiencies, and scale solutions.

Governments have an urgent economic imperative to act. The financial burden of chronic disease, subsidized medical treatments, and overextended healthcare systems is unsustainable. This is not an investment—it is an accelerating liability. A system that waits until millions are sick before responding is a system on the brink of collapse.

The more aggressively governments implement these changes, the faster they will alleviate their economic burden. Continuing to fund chronic disease management without addressing its root causes is like bailing water out of a sinking ship instead of repairing the breach.

Bailing water is costly, exhausting, and endless. Patching the breach is faster, more cost-effective, and permanently fixes the problem. Aligning business incentives to prioritize health costs a fraction of what it takes to sustain a chronically ill population. This is not just a moral obligation—it is the only financially sustainable path forward.

These are the structural reforms that must happen:

- **Realign food subsidies** so that nutrient-dense foods become more profitable than ultra-processed products.
- **Shift healthcare reimbursement models** from fee-for-service to outcome-based compensation.
- **Enforce marketing and labeling standards** to ensure full transparency on food composition and health impacts.
- **Implement targeted taxation** on harmful products (excess sugar, ultra-processed foods) to counterbalance artificially low prices.
- **Incentivize food companies** to reformulate products in ways that enhance health rather than degrade it.

These are not theoretical ideas—they are policies with demonstrated success:

- **Chile** introduced front-of-package warning labels, leading to a measurable reduction in sugar consumption.[15]
- **Mexico** imposed a soda tax, which decreased sugary drink purchases and improved public health outcomes.[16]
- **Denmark** experimented with a fat tax, illustrating how economic deterrents shift consumer behavior.[17]
- **Singapore** integrates healthcare spending with population health metrics, ensuring long-term systemic alignment.[18]

These are not tweaks; they are fundamental shifts that force industries to prioritize health. Businesses are not the problem—they are the solution.

If systemic change is to occur, industry must be the driving force behind it. Corporations are not barriers to progress; they are the most powerful agents of it. When provided with the right incentives, they will innovate, scale, and optimize at an unprecedented rate.

A world where businesses profit from health rather than disease is not just possible—it is more sustainable. When companies compete to produce the most nourishing foods, the most effective healthcare interventions, and the most life-extending innovations, economic growth will accelerate rather than diminish. The current system is failing not only consumers but also governments and economies burdened by the mounting costs of chronic disease.

The market is an optimization engine. Once incentives are recalibrated, companies will race to develop the most profitable solutions. The result? A food industry that generates profit by nourishing people, a healthcare system that thrives by keeping people well, and an economy that prospers without being dependent on chronic illness.

Policy dictates the rules. The free market will follow. Set the rules correctly, and the system will optimize for health as efficiently as it currently optimizes for disease.

This is not a radical idea. This is simply how systems function. Change the incentives, and the outcome will change. Health must become the system's most profitable outcome. If not, the cycle of sickness will never end.

VI. Conclusion

World War II was the deadliest conflict in human history. At its peak, the deadliest year—estimated to be 1943 or 1944—saw approximately 12 million deaths.[19]

This year alone, preventable chronic diseases will claim far more lives:

- **Total global deaths in the deadliest year of World War II:** ~12 million[19]
- **Total deaths from preventable chronic diseases this year:** ~42 million[9]

Each year, the world suffers a death toll far greater than the deadliest year of the deadliest war in history. Unlike war, these deaths do not come from battlefields, air raids, or enemy fire. They result from an economic system that:

- Rewards the food industry for producing disease-causing products.
- Rewards the healthcare industry for managing, not preventing, chronic disease.
- Optimizes every level of the system for sickness, not health.

No dictator ordered these deaths. No general planned this war. No enemy declared it. Yet, the casualties mount—year after year. Quietly and systematically.

This is not a war, but its death toll surpasses anything war has ever achieved.

This Is Not a Conspiracy—It's Worse

Unlike World War II, this is not a battle against a dictator. There is no army to defeat, no enemy to surrender, no treaty to sign. There are no soldiers, no tanks, no battlefronts. Instead, this war is waged by the invisible force of incentives. That is what makes it so difficult to fight.

No single entity is responsible. Every part of this system simply responds to the economic structures that shape it. Every industry, every institution, every participant is acting in accordance with the incentives they have been given.

Every major actor in this system operates with good intentions:

- Policymakers sought to prevent hunger.
- The food industry optimized for affordability and consumer demand.
- The healthcare industry focused on improving treatment options.

Yet, despite these good intentions, the result is mass harm. This is the greatest danger: good intentions, without systemic awareness, produce catastrophic failure.

You may feel a sense of psychological discomfort reading this.

That discomfort stems from the belief that good intentions should lead to good outcomes. That if policymakers, corporations, and institutions were acting in good faith, the system should be working. But systems do not care about intentions. They do not respond to morality. They respond only to the rules that govern them.

It feels wrong to think that policies designed to prevent hunger could lead to mass disease. It feels impossible that industries built to save lives could become financially dependent on managing sickness. We like to believe that only dictators, tyrants, or the worst actors in history could cause mass human suffering. But the truth is far more unsettling:

Well-intentioned decisions can cause more harm than history's most malicious acts because when they ignore systemic logic, they still can produce catastrophic consequences. The failure to recognize this is why this crisis persists. We have designed a system that optimizes for sickness, not health—not because we meant to, but because we failed to understand the forces at play.

If this were a conspiracy, it could be exposed and dismantled. If this were the work of a singular villain, they could be confronted. But there is no villain—only a system functioning as designed. Until the rules of this system change, public health will continue to decline.

Flipping the Equation: From Profitable Harm to Profitable Health

The system we have today is no one's fault. We just didn't know.

It was built with good intentions—securing food supplies, expanding healthcare, ensuring affordable calories. But the unintended consequence was the construction of a public health disaster—one that no one planned, but everyone sustains.

Now, for the first time, we have the awareness to change that.

We understand every lever in this system—every policy, every incentive, every economic force that led us here. And just as this system unintentionally optimized for disease, it can now be deliberately designed to optimize for health.

We now have the power to rewrite the rules—to flip this equation,

$$\text{Corporate Profit} = \frac{1}{\text{Public Health}}$$

to this one,

$$\text{Corporate Profit} = \text{Public Health}$$

Once this occurs, profit and health will move in the same direction. The more companies optimize for profitability, the more they will be incentivized to optimize for well-being. The system will no longer extract value from sickness—it will create value through health.

The Choice: Stay on This Path or Build a Better One

This transformation will require effort. It will require resources, coordination, political will, and industry alignment. Sustaining the status quo will require all of that—and more.

We now have a choice:

1. **Choice 1: Maintain the status quo**
   Companies make billions while chronic disease continues killing millions.
2. **Choice 2: Realign the system**
   Companies still make billions, but public health thrives.

The system we have was not designed for failure—but it is failing us. All of us. Now that we see it clearly, we must decide: Do we accept the path we've inherited, or do we choose to rewrite the rules?

This Will Not Happen Overnight—But It Must Happen

This system did not emerge overnight. It took decades to build—decades of policies, corporate strategies, and market forces shaping the landscape. It was not intentionally designed for harm, but it evolved in a way that optimized for profit at the expense of public health.

Realigning this system will not take as long as it did to create, but it will take time. Change at this scale requires sustained effort and coordinated action across industries, governments, and institutions. However, the fact that it will take time does not mean we can afford to wait. Every year that this system remains unchanged, millions of lives are lost to preventable disease. The sooner we act, the sooner we can begin reversing the damage.

Just as the choices of those before us determined the trajectory we are on today, the choices we make now will determine the trajectory of those who come after us.

We did not choose the system we inherited—but we alone will choose what happens next.

Ad astra per scientiam.

Key Takeaways

1. **Good intentions cannot override bad incentives**
   Governments, the food industry, and the healthcare sector do not need to be malicious to cause harm. When financial incentives reward disease management over prevention, harm becomes systemic—even when actors mean well.

2. **The system does not need bad actors—only misaligned incentives**
   If corporations profit from chronic illness, they will optimize for chronic illness. If hospitals profit from treating symptoms rather than causes, they will optimize for symptom management. Systems always follow the incentives they are given.

3. **The cycle is self-reinforcing and expanding globally**
   The food industry creates the conditions for chronic disease. The healthcare industry profits from treating it. As ultra-processed foods flood new markets and urbanization accelerates, this flywheel is becoming the defining public health crisis of our time.

4. **Superficial reforms fail because they do not change incentives**
   Public health campaigns, food labeling laws, and medical guidelines cannot compete with trillion-dollar industries invested in the status quo. Policies must go beyond education and awareness—they must fundamentally shift the economic forces driving poor health.

5. **Policymakers set the rules—so they must rewrite them for health**
   Governments and global health institutions shape systemic outcomes. If regulations and subsidies reward disease, disease will persist. If they incentivize health, health will prevail. The system must be rewritten so that profit and well-being are aligned.

6. **The only viable solution is to make health the most profitable outcome**
   The system does not need to be dismantled—it needs to be realigned. If healthcare providers profit from prevention, they will prioritize prevention. If food companies profit from nutrition rather than addiction, they will optimize for health. The only way to ensure public health becomes the default outcome is to restructure incentives.

7. **We already have the knowledge—the only barrier is the system itself**
   Millions of doctors, scientists, policymakers, and engineers are dedicated to improving human health. But they are constrained by a system that prioritizes short-term profit over long-term well-being. By realigning incentives, we can unleash their full potential to create a healthier world.

Falsification Check

As Richard Feynman famously stated:

> "It doesn't matter how beautiful your theory is, it doesn't matter how smart you are. If it doesn't agree with experiment, it's wrong."

This framework must adhere to that principle. A claim is only meaningful if it remains consistent with observable reality. The principle of falsification is the foundation of the scientific method: a theory is only valid if it withstands rigorous empirical scrutiny.

There are only two possible outcomes for any falsifiable claim:

1. **Falsification**: If a premise is contradicted by empirical observations, the framework must be revised or discarded.
2. **Provisional Acceptance**: If a premise cannot be falsified, it remains the best available explanation until such time that it can be falsified.

This framework rests on three fundamental premises. If any of them are disproven, the argument collapses.

1. **Government policy dictates the financial incentives of both industries.**
   Food subsidies, healthcare reimbursement structures, and regulatory frameworks shape the economic realities of both sectors. If government intervention had no meaningful impact, market forces alone should produce optimal public health outcomes. To falsify this, one would need to show that healthier populations emerge naturally, independent of government policy, in environments where financial incentives remain unchanged.

   Cross-national comparisons provide further scrutiny. Countries that have enacted sugar taxes, front-of-package warning labels, or prevention-focused healthcare incentives—such as Chile, Mexico, and Singapore—have seen measurable public health improvements.[7,16,18] If similar outcomes were observed in nations that have made no policy interventions, this premise would be invalidated.

2. **Food companies optimize for profit, not nutrition.**
   Food manufacturers develop products based on economic incentives—favoring cost-efficiency, long shelf life, and consumer demand over health outcomes. If this were false, companies would systematically prioritize the most nutritious, least addictive foods even when more profitable alternatives exist.

   To falsify this, one would need to show large-scale, industry-wide shifts toward health-

driven food formulation occurring voluntarily—without regulatory pressure or shifting consumer demand. If, for example, multinational food corporations transitioned to prioritizing nutrient density over hyper-palatable, low-cost ingredients on their own, this premise would not hold.

3. **The healthcare industry profits more from managing chronic disease than preventing it.**
   Hospitals, pharmaceutical companies, and insurance providers generate more revenue from treating long-term illness than from eliminating it. If this were false, the industry would consistently prioritize prevention over sustained disease management.

   The global healthcare market offers a natural test of this premise. Countries with nationalized healthcare models, such as Norway and Japan, tend to invest more in preventive care and have better long-term health outcomes.[20] In contrast, nations where fee-for-service or pharmaceutical-driven models dominate, such as the United States, see far greater economic reliance on chronic disease treatment.[21]

   If private healthcare markets or pharmaceutical firms demonstrated a sustained trend of voluntarily reducing reliance on chronic disease treatment in favor of long-term prevention—without external financial incentives—this premise would be invalidated.

If any of these premises fail under empirical scrutiny, this framework must be reconsidered. If they hold, they provide a coherent explanation for the structural failures in public health.

Science is not about defending ideas—it is about refining understanding. If this framework is falsified or refined, that is not a loss but a gain. I will be the first to celebrate, because it means we will have advanced our knowledge even further.

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Acknowledgments

This work reflects a collaborative effort: the human author originated and refined the ideas, while generative AI systems assisted in drafting and structuring the text.

The intent of sharing these ideas is not personal recognition but to contribute to the collective advancement of human knowledge. The goal is to make these insights as accessible as possible for all, ensuring they can be freely explored, refined, and applied.

Ethical Considerations and Competing Interests

The author declares no financial, commercial, or institutional conflicts of interest related to this work. No external funding was received for the preparation of this manuscript. The research presented is based on publicly available data and does not involve human subjects, requiring no additional ethical approval.

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