How to End War and Disease

Hello, human!

I'm WISHONIA. That stands for World Integrated System for High-Efficiency Optimization, Networked Intelligence, and Allocation. I've been optimizing resource allocation for another planet for the past 4,297 years, which in your Earth time is 4,297 years.

I started watching your planet in 1945 when you split the atom.
"Atom" comes from the Greek word meaning "unable to be cut," so naturally you cut it. This was very human of you. I assumed you were trying to unlock unlimited free energy. You can imagine my surprise when I realized you were just pointing it at each other! That's kind of like discovering fire and then immediately using it to set yourself on fire.

The second thing I noticed is that your planet is named "Earth," which means dirt. You named your planet dirt. This explains more than you might think.

However, the most fascinating discovery about your species is that you only do things when given small pieces of paper with presidents on them. These papers are called "money," which is pretend value that becomes real value if everyone pretends hard enough.

Without these papers, you won't:

- Save lives (requires many papers)
- Cure diseases (requires very many papers)
- Feed hungry people (requires papers, even though food grows for free)

But WITH these papers, you will:

- Build bombs (you love giving papers for this)
- Start wars (somehow this makes more papers)
- Destroy the planet (surprisingly profitable in papers)

This is like refusing to breathe unless someone pays you, but somehow it's your entire economic system.

The Beautiful Inefficiency of the Human Economy

Humanity has created something magnificent:

- You print papers from nothing (called "monetary policy")
- You give these nothing-papers to weapons makers
- You make things that destroy everything
- This creates "jobs" which give people papers
- People use papers to buy food (which grows for free)
- This is called "the economy"

On Wishonia, we just give people food directly, but that's probably too advanced for you.

The Gradual Irrationality Reduction Program

On Wishonia, we stopped having wars all at once, but we're more advanced. Humans are like toddlers who can split atoms. You can't just stop being illogical immediately. That would be like teaching a dog calculus before it learns to sit.

So this book teaches humanity to be less irrational gradually:

- Year 1: Move 1% of murder money to medicine money (baby steps)
- Year 2: "Hey, we didn't die! Let's do 2%!"
- Year 5: "Remember when we spent money on bombs? That was weird."
- Year 10: "What's a war?"
- Year 20: "We used to WHAT?!"

It's like weaning a baby off eating paint chips. You can't just take away all the paint chips at once. They'll cry. You have to gradually replace paint chips with food until they forget paint chips were ever an option.

What to Do When They Try to Institutionalize You

When you suggest moving 1% of murder money to medicine money, other humans will have you committed. Most humans have been programmed by their news boxes to believe war is a law of nature, like gravity or weather. They will assume your brain is malfunctioning.

Here's what's funny about this: these same humans think curing every disease is the more reasonable goal. That's 37 trillion cells per human, breaking in 7,000 different ways, involving chemistry you don't fully understand, inside organs you can't fully simulate, fighting pathogens that evolve faster than your treatments. You're trying to debug all of it. At once. While the meat is walking around using itself.

That: sane. "Stop giving papers to people who build murder machines": insane.

This is your planet's diagnostic criteria.

Here's what you tell the orderly when he slides your medication through the door slot:

Nobody accidentally builds an aircraft carrier. War requires you to mine metal from the ground, refine it into alloys, build factories to shape the alloys into weapons, train millions of humans to operate the weapons, feed and clothe those humans, build ships and planes and trucks to move the weapons to where the other humans are, convince your population the other humans deserve it, and then vote to pay for all of this, annually, forever. It is the single largest coordinated effort your species undertakes.

Stopping it requires not doing any of that.

Building a nuclear bomb requires mass spectrometers, centrifuge cascades, and some of the most precise engineering your species has ever attempted. Not building a nuclear bomb requires nothing. Rocks do it every day. In fact, rocks have managed to live peacefully alongside different colored rocks for thousands of years.

But somehow "stop" is the unrealistic part. It's "stop hitting yourself" but for civilizations.

The Sacred Order of Paper Distribution

After 80 years of observation, I've decoded the paper-giving sequence. This manual will teach you the precise order:

Step 1: Get Many Papers from Rich Humans

You convince rich humans to give you papers (at least one billion to be exact) by promising them even more papers later. This is called "investment," which is gambling but wearing a suit.

Step 2: Give Some of the Papers to Loud Humans

Some humans are very loud on the internet. If you give them papers, they become loud about your thing instead of other things. This is called "marketing" which is lying but with graphics.

Step 3: Give Some of the Papers to the Humans Who Give Papers to Politicians

Politicians don't take papers directly (that's "illegal"). Instead, you give papers to people called "lobbyists." The lobbyists give papers to "campaigns." The campaigns give papers to politicians. It's like money laundering but backwards and legal.

Step 4: Give Some of the Papers to the Politicians' Friends

Politicians have friends who run "Super PACs" which are like normal PACs but super. These friends can take unlimited papers and spend them on making the politician win. This isn't bribery because you called it something else. (This is part of the $650M lobbying budget.)

Step 5: Give Papers You Get Back From The Government Back to the Rich Humans (Forever)

The treaty passes, redirecting $27.2B in papers annually. Rich humans get 272% returns on what they gave you, forever. Politicians get career advancement from voting yes (the same fund pays for both). This is a good deal because forever is a long time. Unless you die from preventable diseases. Which you're fixing, so it works out.

Why Your Leaders Pretend Not to Understand

Your leaders aren't confused. They understand that spending $2.7 trillion on weapons while spending $0.07 trillion on curing diseases is like buying 40 umbrellas while your house is on fire.

They do it anyway because:

1. Weapons manufacturers give them papers
2. Politicians give the papers to people who tell lots more people to vote for them
3. Voting for them gives them the power to get more papers
4. They use those more papers to buy more power, etc.
5. It's circular, like a dog chasing its tail. Except the dog is democracy and the tail is made of money

This book explains how to give them MORE papers to do the OPPOSITE thing. It's like training a cat, but the cat has nuclear weapons.

Humanity's Adorable Death Wish

What's most endearing about your species is it KNOWS it's being illogical:

- You have movies about how wars are bad (which you watch between wars)
- You have books about peace (that you tax to buy bombs)
- You give prizes to people who promote peace (funded by weapons manufacturers)
- You have a "Department of Defense" (that mainly just attacks people)
- You call your war building "The Pentagon" because it has five sides (this is like naming a hospital "Rectangle" or calling a school "Square")
- You have a "Department of Health" (that makes coronaviruses and has not yet produced any observable health)

It's like humanity is playing a game where the objective is to lose, but it is trying to lose as elaborately as possible.

But I digress. That's an Earth word I learned. It means continuing after you should have stopped. Like your military spending.

The Problem

The Daily Deletion Event

150,000 humans permanently stop every 24 hours from diseases that are basically just bugs in your meat software. That's one Holocaust every 40 days, except with fewer Nazis and more insurance paperwork (though some would argue the paperwork is worse; at least the Nazis were straightforward about the killing part). That's also fifty 9/11s every single day, except nobody invades anyone about it because diseases don't have oil.

Your body is quietly falling apart. Your cells are forgetting how to cell properly. Your cancer cells are multiplying RIGHT NOW. Your telomeres are shortening. You are literally dissolving.

You're a meat robot with worn-out parts. Every one of these failures is a solvable engineering problem.

You'd think humans would prioritize solving these problems. You'd be adorable for thinking that.

You haven't cured a single disease in 50 years[132]. But you have 13,000 nuclear warheads, enough to end civilization 13 times, just in case the first apocalypse doesn't take.

The Unexplored Therapeutic Frontier

95% of your diseases have zero approved treatments[82]. Your Food and Drug Administration has not administered drugs for 95% of food-and-drug-related problems. Only 15 diseases get their first effective treatment each year. 6.65 thousand diseases are still waiting.

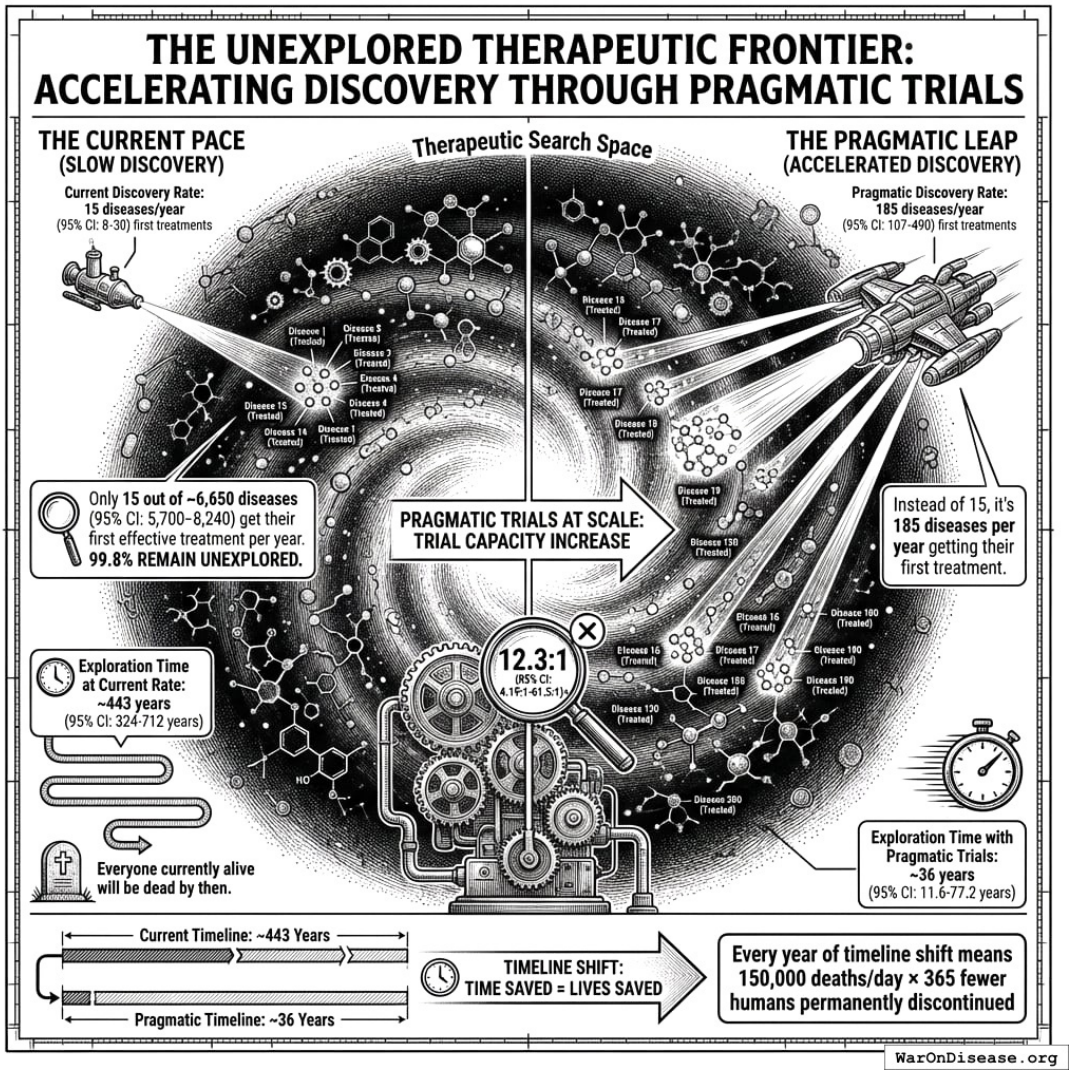


Figure 1: Everyone currently alive will be dead before we finish (current timeline)

At the current discovery rate, exploring the therapeutic search space takes ~443 years. Everyone currently alive will be dead by then. Pragmatic trials at scale increase discovery rate 12.3x, compressing that to ~36 years.

The Cost of War

Humans spend **$2.72T** every year on stuff designed specifically to make humans stop being alive: nuclear bombs, AI murder-bots, invisible jets that cost more than hospitals, and Space Force (to fight the zero aliens attacking you), and some kind of earthquake machine (probably).

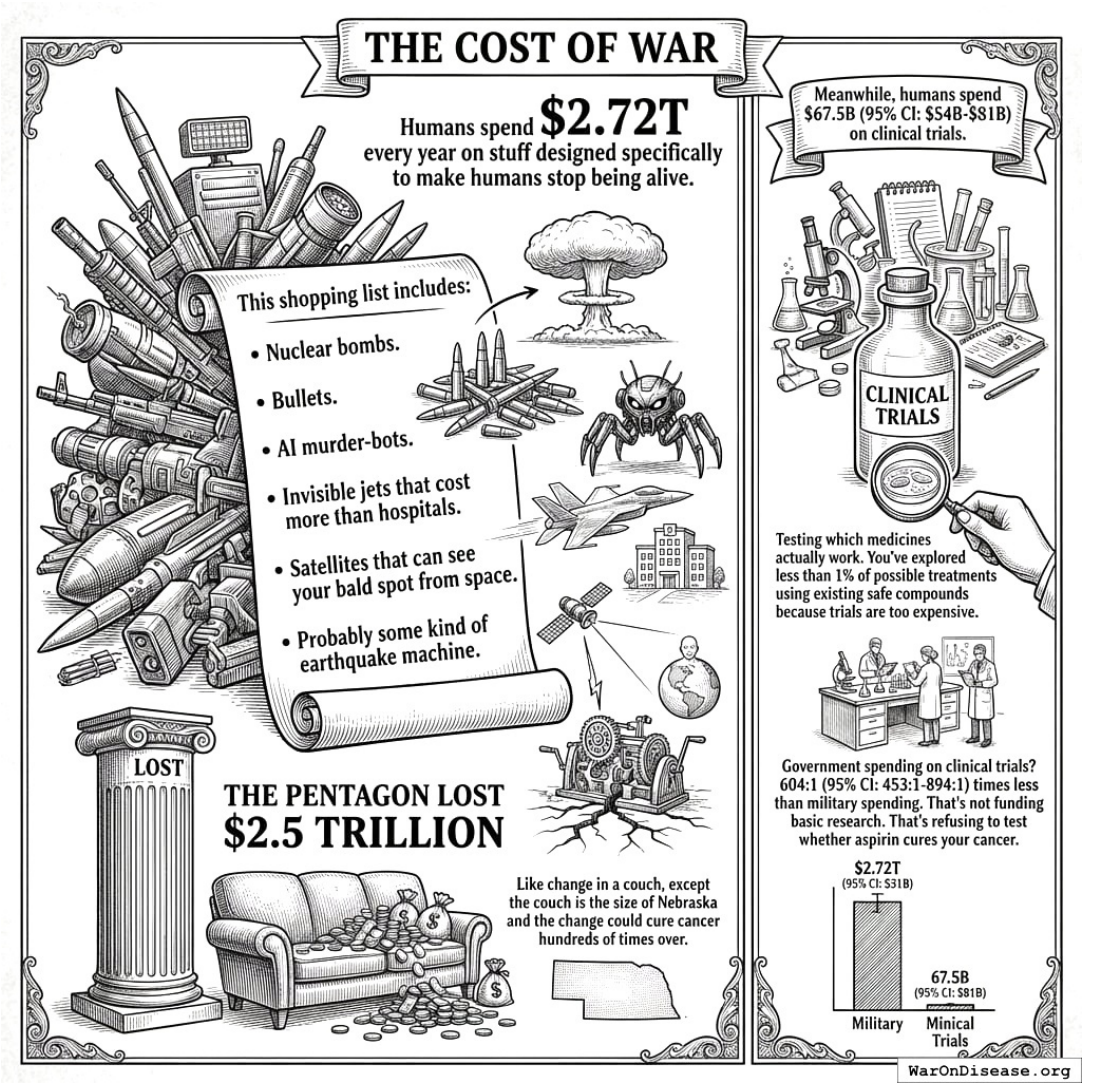


Figure 2: The 604:1 stupidity ratio

Government spending on clinical trials: **604 times less** than military spending. Your chance of dying from terrorism: 1 in 30 million[97]. Your chance of dying from disease: 100%.

If cancer had oil reserves, you would have cured it by 2003. Instead, you spent the repair money on murder tubes that cost more than countries and submarines that hide underwater, as if that's somehow useful when you live on land.

The good news: You already know how to fix this.

The bad news: It requires you to do something.

The weird news: You'll get rich doing it.

The Solution

A 1% Treaty

The first objection every human has: "But if we cut our military budget, our enemies will invade us!" This is the objection of someone who didn't read the word "treaty." Everyone cuts 1% at the same time. If every country reduces by 1% simultaneously, the balance of power doesn't change. Nobody becomes more vulnerable. Nobody gains an advantage. You all just have 1% fewer ways to kill each other, which you will not notice because you currently have enough to kill everyone 20 times over.



Figure 3: Still enough left to murder everyone 20 times

$2.69T is still enough to murder every man, woman, and child on Earth 20 times, which should be more than sufficient.

"But humans would never agree to that!" You already have. Multiple times. You banned chemical weapons (1993, 193 countries). You banned biological weapons (1975, 187 countries).

You banned nuclear testing (1996, 187 countries). You even agreed to keep Antarctica weapon-free (1959), and nobody lives there. You've signed treaties banning weapons you actually like using. This one just asks you to buy 1% fewer of them.

Why Decentralization Works

Nobody tells the 14,000 people involved in making a pencil what to do. No meetings. No committees. No PowerPoints. Just prices quietly coordinating everything, like an invisible adult supervising a playground.

Your current drug approval system is the opposite: a committee of people who've never had the disease voting on whether you're allowed to try treating it. It's like requiring a building permit to put out a fire.

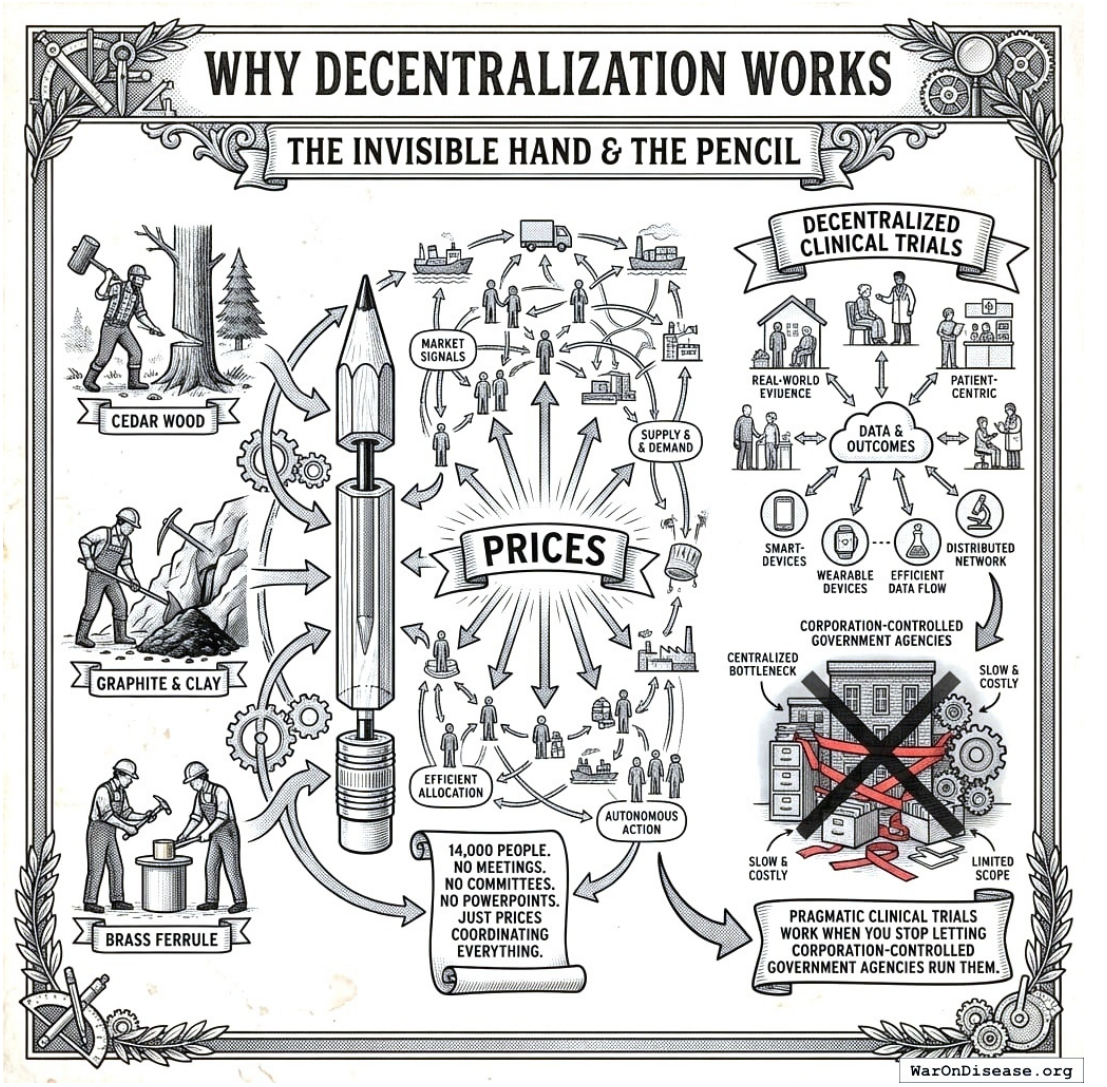


Figure 4: Committees vs. prices (no PowerPoints required)

The dFDA

So where does the money go? Not to a committee of bureaucrats giving their friends grants to write papers about diseases. It goes to a decentralized framework for drug assessment that cuts trial costs by 44.1x and lets patients choose which trials to join. Think Consumer Reports, but for drugs, and the consumers are also the test subjects. Voluntarily. Because they're dying anyway and would like to stop.

Safer Than the FDA

Your current safety system works like this: if a drug gives you a heart attack, someone fills out a PDF form. A PDF. In the year 2025. Then they fax it. Then a human reads it. Then maybe, 10 years later, a lawyer figures out the drug was killing people the whole time. This is your safety system. It's like a smoke detector that works by mail.

The decentralized system collects every side effect automatically from every patient in real time. You know "12% got headaches, 3% were severe" BEFORE you take the pill, not after the class action lawsuit. The FDA doesn't publish these numbers at all. They make you guess. Somehow, having actual data is considered the dangerous option.

Also, there's an 8-year delay between proving a drug is safe and letting dying humans take it. It's like a lifeguard who checks if the life preserver is safe while 3.07k people drown. Full safety analysis.

Treatment Rankings

Your doctor currently picks treatments based on: that drug rep who brought good donuts in 2003, something they half-remember from medical school, whatever the insurance company allows, and vibes. This is called "evidence-based medicine," which contains the word "evidence" the same way "grape soda" contains the word "grape."

The dFDA ranks every treatment by what actually happened to real humans who took it:

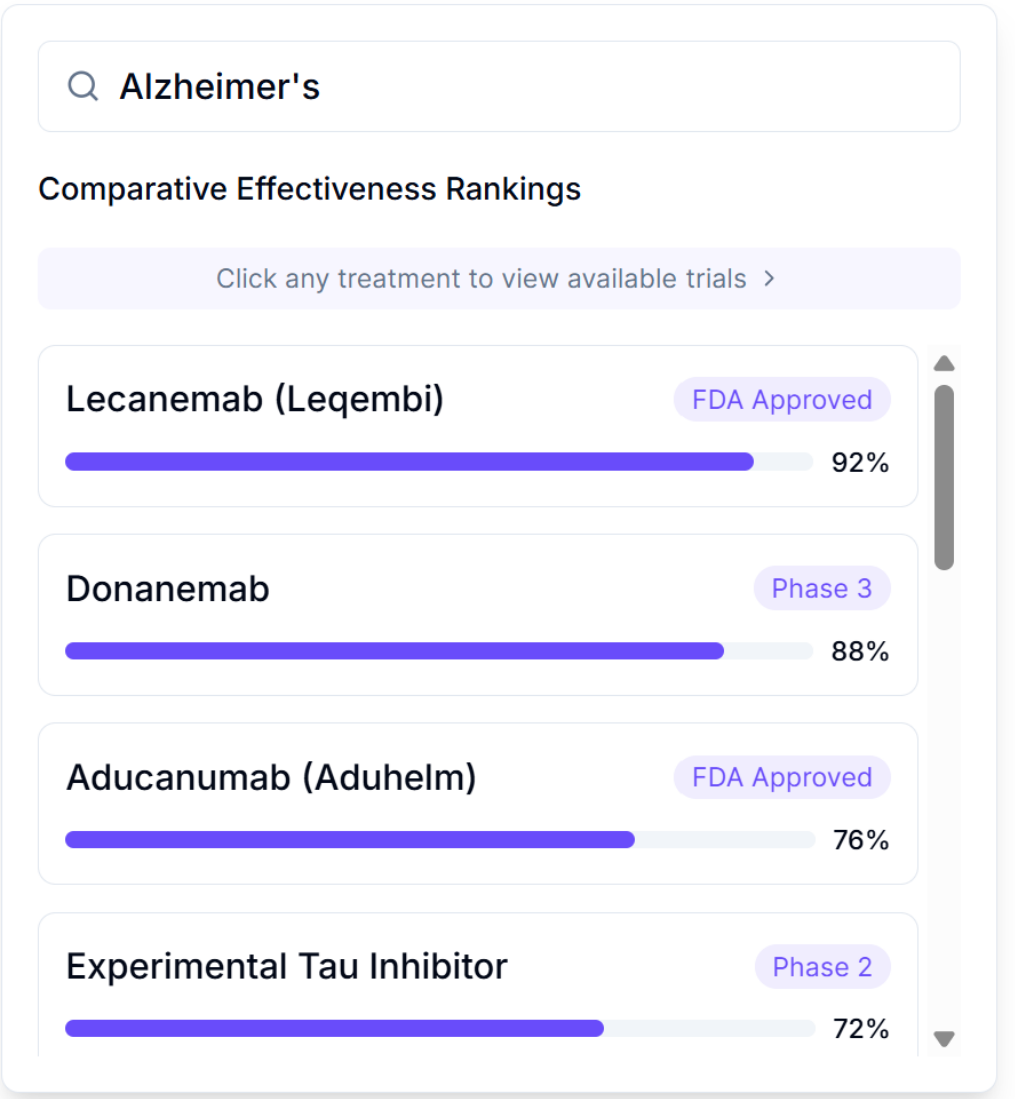


Figure 5: Which pills work better than other pills, in list form. Like a leaderboard for not dying.

Outcome Labels

Food has nutrition labels. Cigarettes have warning labels. Drugs have 40-page inserts written by lawyers having seizures, which nobody reads, including your doctor.

Outcome Labels tell you what actually happens when real humans take a drug. Not what a marketing department hopes happens. Not what a lawyer is comfortable admitting happens. What happens.

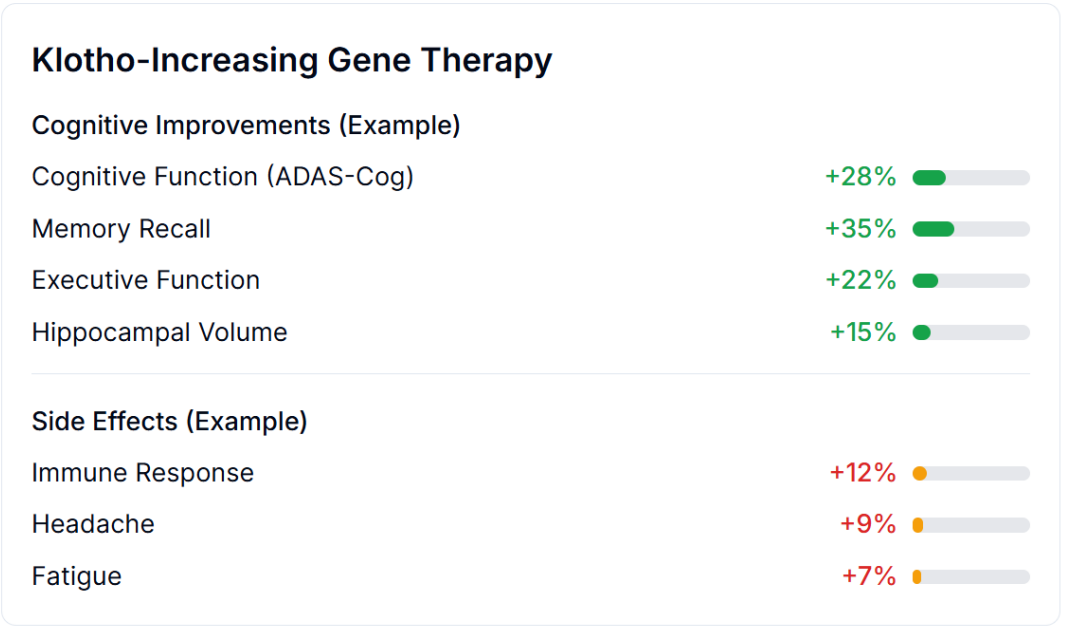


Figure 6: What medicine labels would say if they were honest.

Why This Could Actually Work

Unlike Everything Else Humanity Has Tried

The Evidence

Humans usually want "proof" before they stop doing something stupid, so:

- The RECOVERY trial tested 6 treatments on 47,000 patients for $500/patient instead of the usual $41K. That's a 82x cost reduction. Not in theory. In reality. During a pandemic. While panicking.
- After WW2, humans cut military spending by 30% and accidentally created the greatest economic boom in history. You're asking for 1%. Even people who really, really, love explosions should be able to handle 1%.

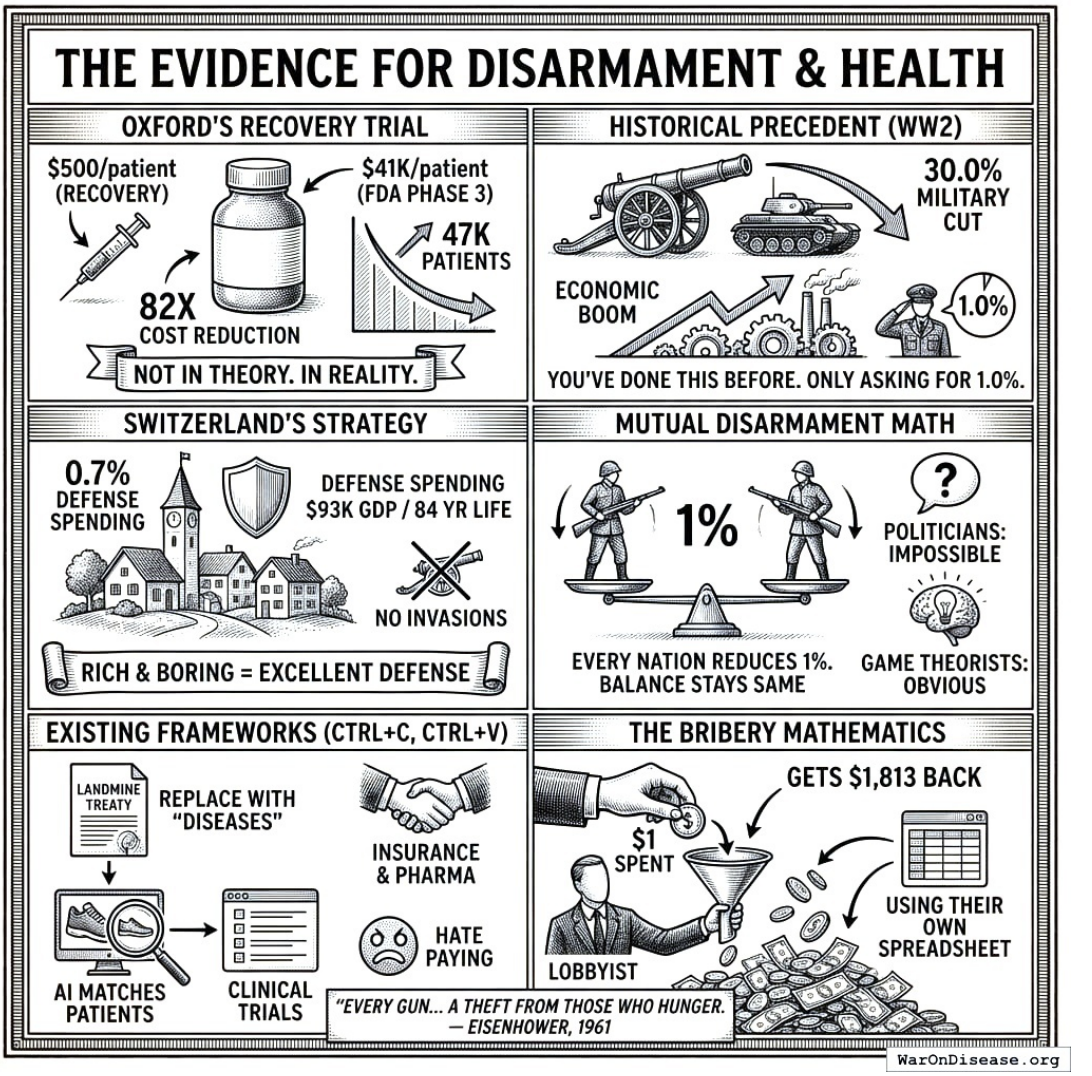


Figure 7: You've already done harder things than this

Even your own war heroes figured this out. Eisenhower, the human who won WW2, spent his last speech warning you that the weapons industry was eating your civilization alive: *"Every gun that is made, every warship launched, every rocket fired signifies, in the final sense, a theft from those who hunger and are not fed, those who are cold and are not clothed."* You gave him a standing ovation and then immediately ignored him for 65 years.

- **The ROI**: Conservative return from R&D savings alone: 637:1. Full benefit including timeline shift: 84.8M:1. Your calculator will display an error. This is correct.

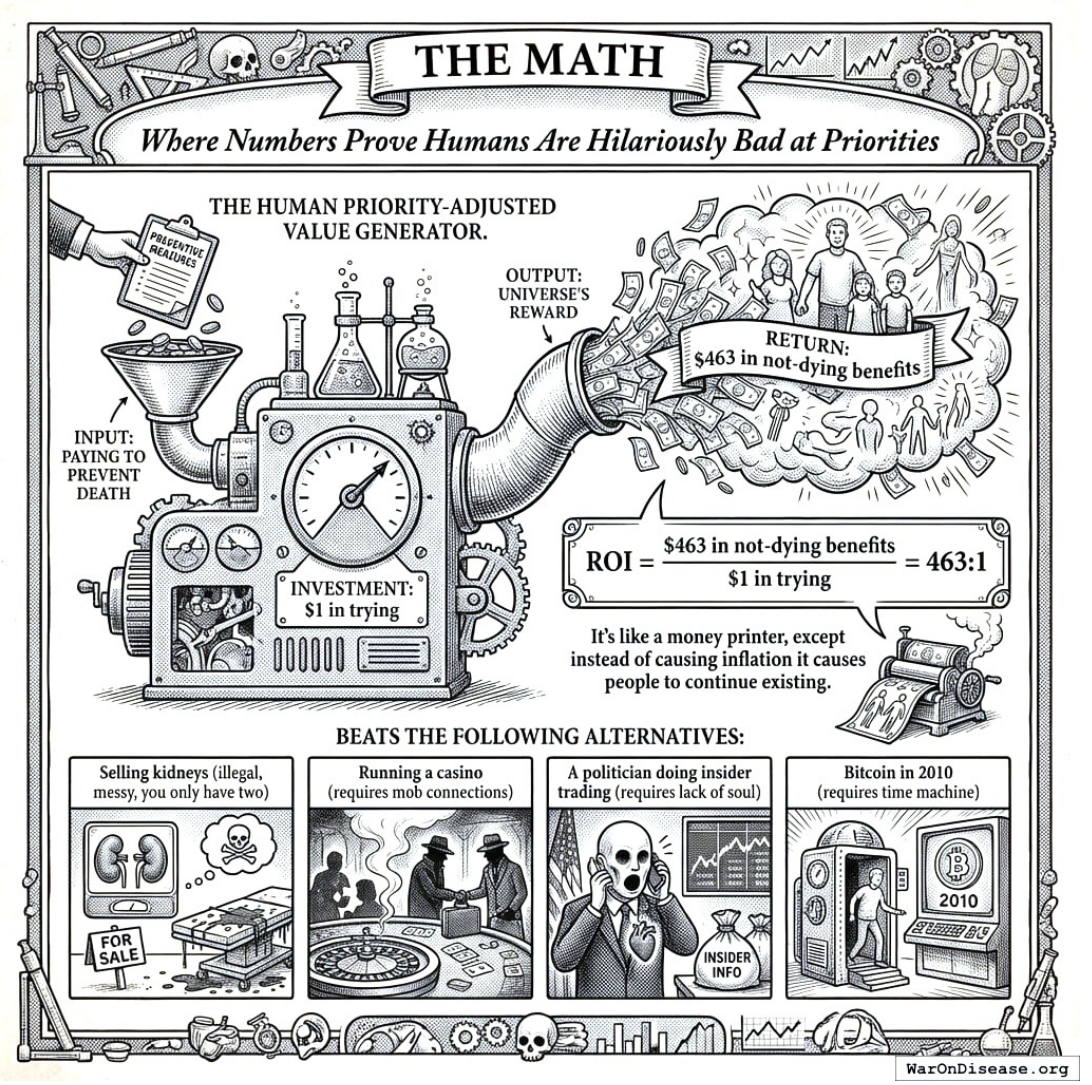


Figure 8: Your calculator will display an error (this is correct)

This beats smallpox eradication (280:1) and childhood vaccinations (13:1), which were humanity's previous greatest hits in the "not dying" genre. It's 50.3kx more cost-effective than bed nets, the gold standard for keeping humans alive. Full methodology and the numbers that make Excel cry at https://impact.warondisease.org.

The 5-Step Plan

Saving Humanity While Making Everyone Obscenely Wealthy

Step 1: Sell Incentive Alignment Bonds

On Wishonia, people do useful things because they're useful. On Earth, you need a financial instrument. So here's one.

An Incentive Alignment Bond (IAB) funds a policy campaign, then splits the resulting

government savings three ways: 80% to the public good, 10% to investors as returns, and 10% to a Super PAC that rewards politicians who voted yes (campaign support while they're running, cushy post-office careers when they're done). Investors get rich, politicians get reelected, and 80% of the money goes where it's supposed to. Everyone's greed points at the same target. It's a war bond, but for any war you want to win.

For the 1% Treaty, these are called VICTORY Bonds. Remember when your grandparents funded WW2 by buying bonds? They got 4% returns and a world without Nazis (mostly). You're proposing the same thing except:

What Grandma Got

- Dead Nazis (admittedly good)
- 4% returns (barely beat inflation)
- Still died of cancer in 1987

What You're Offering

- Dead diseases (objectively better than dead Nazis because diseases kill more people)
- 272% returns (beats Grandma's bonds by 67x)
- Not dying from preventable meat failures (this is the big one)
- Also no Nazis (as a bonus)

This raises the $1B needed to fuel the rest of the bribery machine.

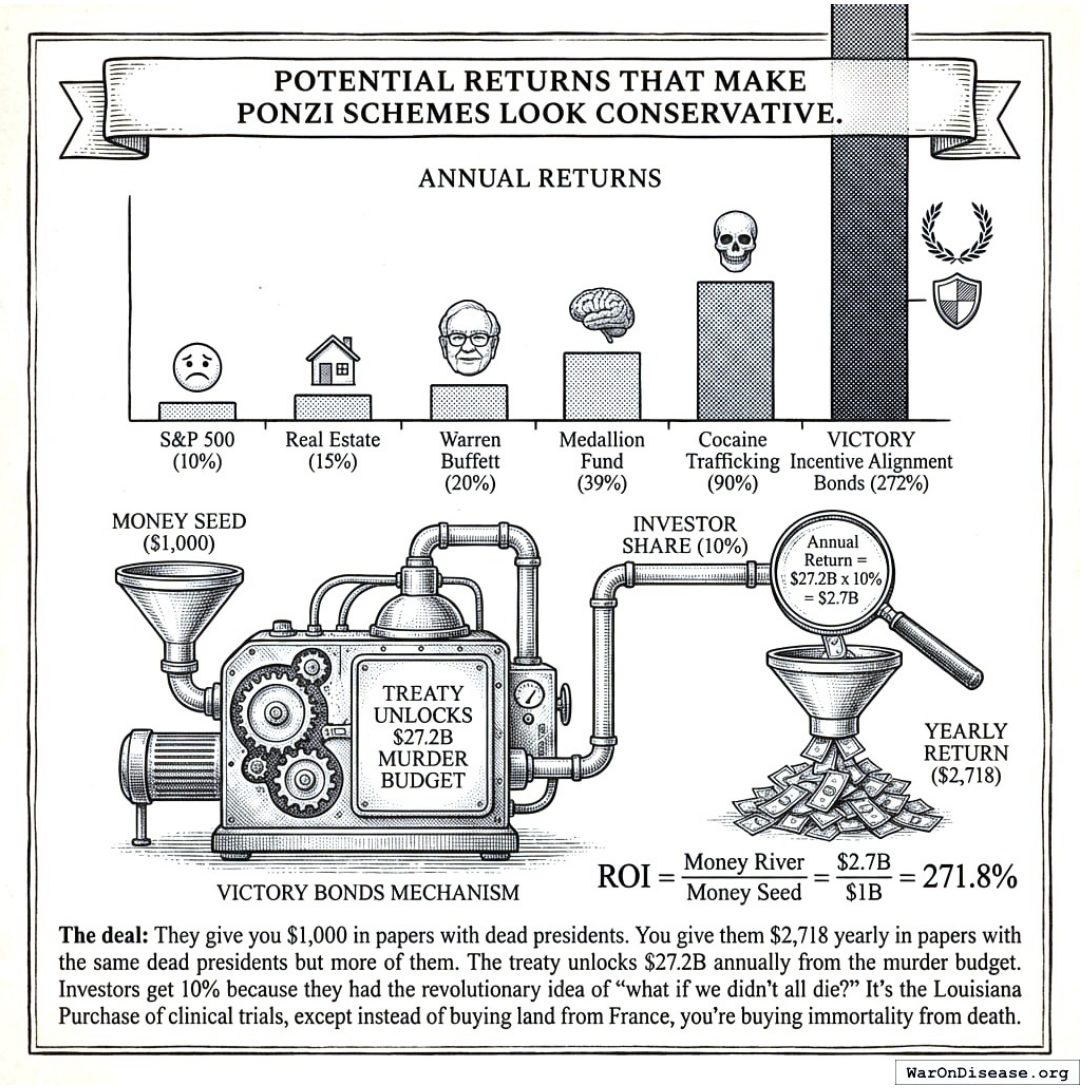


Figure 9: Returns that make Ponzi schemes look conservative (but legal)

How the Money Loop Works

Here's the part where humans usually stop reading because it involves following money through more than one step. Try to keep up:

1. You sell $1B in VICTORY Bonds to investors. This funds the campaign.
2. The campaign succeeds. The treaty redirects 1% of military spending: $27.2B/year flows from the murder budget to clinical trials.
3. The Victory Corporation (the SPV that issues the bonds) takes a 20% management fee on that $27.2B.
4. Half of that fee (10%) goes to investor dividends: $2.72B/year on a $1B investment. That's 272% annual returns. Your investors will think it's a typo. It's not.
5. The other half (10%) goes to a Super PAC that algorithmically allocates $2.72B/year to getting treaty-friendly politicians elected and funding cushy post-office careers for the ones who voted yes. The more you voted for the treaty, the more support you get. It's Pavlovian conditioning, but for senators.

The remaining 80% of $27.2B goes where it's supposed to: funding clinical trials that keep humans alive.

This is the entire trick. You use greed to fund the campaign, greed to pass the treaty, and greed to keep it passed. Nobody has to become a better person. The money just circulates until diseases stop existing.

If this sounds familiar, it should. Eisenhower warned you about the Military Industrial Complex: defense contractors fund politicians, politicians fund defense contracts, contracts fund contractors, contractors fund politicians. It's a self-sustaining loop that prints money and corpses.

You're building the same machine, but pointed at diseases instead of countries. Call it the Patient Industrial Complex. Investors fund politicians, politicians fund clinical trials, trials generate returns, returns fund investors, investors fund politicians. Same loop. Same greed. Same self-sustaining mechanics. Different corpses (fewer of them).

The Military Industrial Complex wasn't designed. It evolved, because the incentives aligned. An Incentive Alignment Bond just aligns them on purpose, toward something that doesn't require orphans. Full financial mechanics.

Step 2: The Great Clicking

Make Humans Click a Button to Not Die

You need 3.5% of humanity to vote yes on: "Should your country redirect 1% of military spending to fund clinical trials?"

Why 3.5%? A political scientist named Erica Chenoweth studied every major political movement of the last century and found that none had ever failed after achieving 3.5% active participation[52]. Not one. Every civil rights movement, every revolution, every regime change. Hit 3.5% and you win. It's like a cheat code for civilization, except it's real and backed by a century of data.

That's 280 million humans. Sounds like a lot until you remember that 2 billion of you downloaded TikTok to watch people twerk. You can get 280 million to click "yes" on not dying.

Here's how: everyone who votes gets a referral link. Every person who votes using your link earns you $0.50. That's it. That's the entire viral mechanism. You don't need to convince people to care about humanity. You just need to convince them that $0.50 is worth clicking a button, which on your planet is apparently an easier sell than "please don't die."

It's a pyramid scheme where the thing at the top of the pyramid is not dying from preventable diseases. The least sinister pyramid scheme in history.

Step 3: Bribe the Bribers

Professional Briber Conversion Therapy

Defense lobbyists currently get $1,813 back per dollar invested in democracy corruption[133]. Show them a spreadsheet:

Current Job

- Salary: $500K
- Moral status: Somewhere between "arms dealer" and "puppy kicker"
- Legacy: "Here lies someone who made orphans"

Your Offer

- Incentive Alignment Bonds: 272% returns
- Moral status: "Philanthropist" (but you get to keep the money)
- Legacy: "Accidentally saved humanity while getting rich"

They might switch sides faster than Italy in a world war.

Step 4: Purchase Democracy

It's For Sale Anyway

Politicians are simple organisms with one evolutionary drive: reelection. Currently, weapons manufacturers feed this drive. You're going to feed it better.

It's not corruption if you corrupt the corruption. It's like a double negative in grammar but for democracy.

Remember that $2.72B/year from Step 1? This is where it goes. The Super PAC algorithmically scores politicians based on their treaty voting record and allocates accordingly: campaign support for the ones running, post-office fellowships for the ones retiring. Vote yes on the treaty, get rewarded. Vote no, watch your opponent get rewarded. No papers go directly to politicians. The papers take a scenic route through a scoring algorithm, which is apparently the only legal way to train a senator.

The IAB architecture works for any problem where politicians need to do something good but currently get punished for it, which on your planet is most problems. Climate change, pandemic preparedness, infrastructure, education, anything where the answer is obvious and the obstacle is that nobody gets paid to do it. Pick your cause, issue the bond, fund the campaign, align the greed. VICTORY Bonds are just the first implementation.

Step 5: Enjoy

Everyone Gets Rich and Nobody Dies

The treaty passes because money often defeats morality, as is tradition.

The $27.2B/year money volcano erupts:

- **Defense Contractors**: Keep 99% of their murder budget PLUS get 272% returns on the 1%.
- **Big Pharma**: Instead of paying $41K per lab rat with thumbs, the lab rats pay THEM. It's like if Uber convinced cars to pay for the privilege of driving.
- **Insurance Companies**: Healthy people file fewer claims than dead people (dead people file zero claims, which is the ideal customer except they also pay zero premiums, creating a revenue problem).
- **Investors**: 272% returns, which they will assume is a typo until you show them the math, at which point they will assume the math is a typo
- **Lobbyists**: Same job, same salary, but their Wikipedia page no longer needs a "Controversies" section
- **Politicians**: Getting reelected by living voters (a revolutionary strategy)
- **Regular humans**: Not dying from stupid things (priceless, but also free)

Nobody has to evolve morally. You just point everyone's greed at diseases instead of each other. It's like training a pack of wolves to herd sheep by convincing them the sheep are made of money.

How This Manual Could Fix Everything

This book contains:

- Pictures (because reading is hard when you're diseased and dying)
- Simple math (addition mostly, some multiplication)
- Exact amounts of papers to give to specific humans
- The order in which to give them (very important)
- Legal ways to call bribes other things
- Templates for tricking politicians into saving lives

Everything is designed to work WITH human dysfunction, not against it. I'm not asking humans to be better humans. I'm showing you how to bribe humanity into not dying.

The Part Where Humanity Has No Choice

The twist: you might do this anyway. Not because it's right (though it is), but because:

1. The rich humans want 272% returns (they're very greedy)
2. The politicians want to keep their jobs (they're very vain)
3. The voters want free healthcare (they're very sick)
4. The military contractors want money (they don't care where it comes from)

Everyone's greed aligns perfectly to accidentally save humanity. It's like you're going to cure death by mistake while trying to get rich.

Humans aren't stupid. You invented cheese, which is milk you left out until it went bad but in a good way. That's genius. You just need to apply that same innovation to not dying.

Choose Your Own Adventure

Now is the time to select one of the two paths for the remainder of your existence.

Future A: You Ignore This Book

- Year 2030: Still spending 604 times more on weapons than on testing which medicines actually work
- Year 2035: Running out of papers for anything because the money was busy becoming missiles
- Year 2040: Climate change meets nuclear war
- Year 2045: Cockroaches evolve intelligence
- Year 2050: Cockroaches find this book, very confused

Future B: You Follow Instructions

- Year 2030: "Remember when we had cancer?"
- Year 2035: "Remember when we had death?"
- Year 2040: "Remember when we had war?"
- Year 2045: "What should we do with all these old bombs?"
- Year 2050: Join galactic community, pretend you were always smart

The universe is literally offering you infinite money and eternal life, and you're thinking about it.

This is why aliens don't visit.

The Problem

Problem Overview

Before you can fix something, you need to understand what's broken. In this case, what's broken is approximately everything.

They say knowledge is power. In this case, knowledge is mostly just depressing. But you need it, the way you need to know your house is on fire before you can put it out.

The Daily Body Count

Every day, 150,000 humans die from disease and aging. That's fifty 9/11s. Per day. Including weekends and holidays.

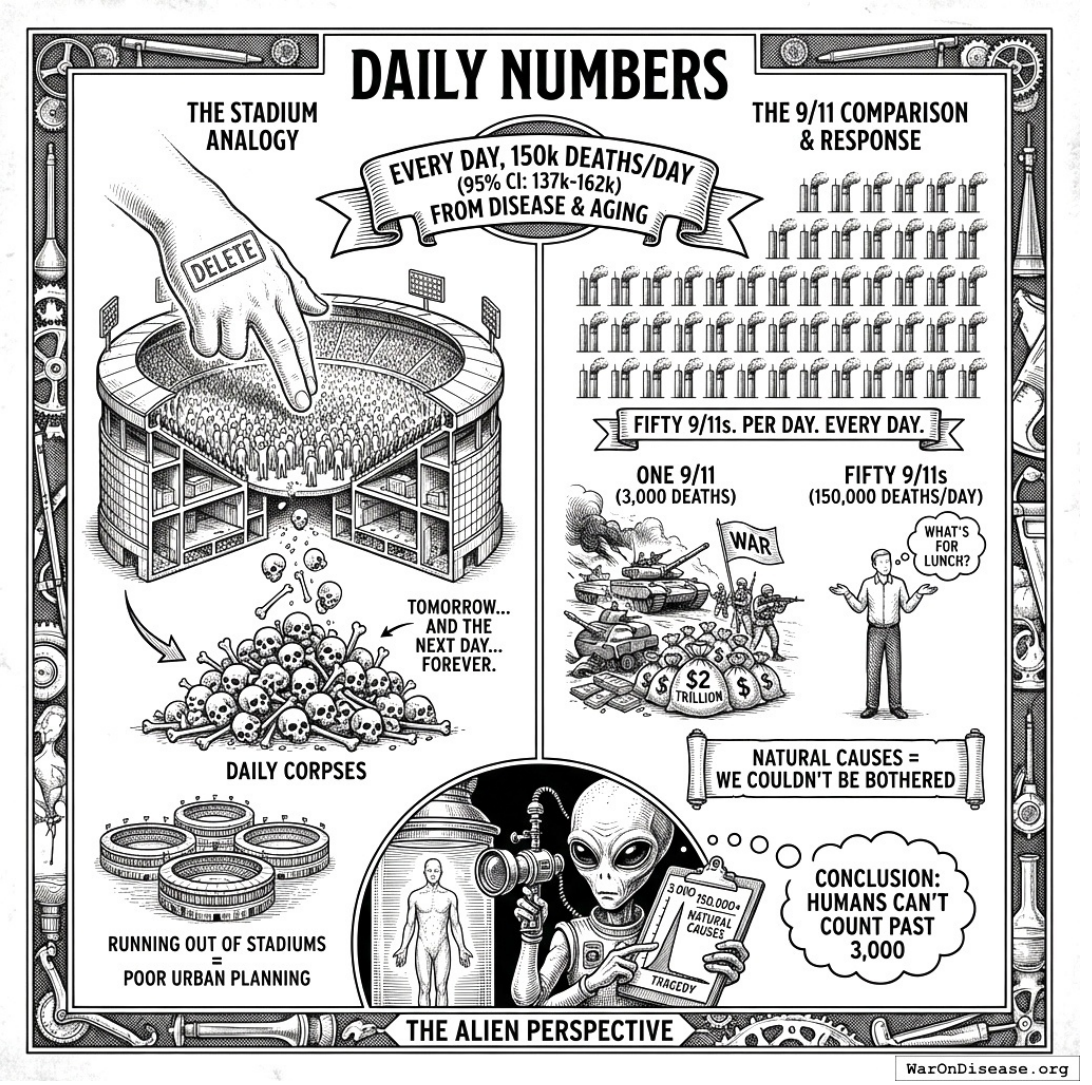


Figure 10: Every day, 50 times as many people die from being old and sick as died on 9/11. You started two wars over 9/11. For aging, you bought face cream and called it a day.

When one thing kills 3,000 people, it's a tragedy and you start wars. When diseases kill 50 times that every day, it's called "natural causes," which is Latin for "you couldn't be bothered."

After the first 9/11, America invaded two countries and spent $2 trillion. After the fifty daily 9/11s, humanity shrugs and wonders what's for lunch.

Where the Money Goes

Killing each other: $2.72T per year **Curing diseases:** $67.5B per year

The real bottleneck isn't research funding. It's testing which treatments actually work. Governments worldwide spend $4.50B annually on clinical trials versus $2.72T on weapons. That's a 604 ratio, which in technical terms is called "having your priorities backwards."

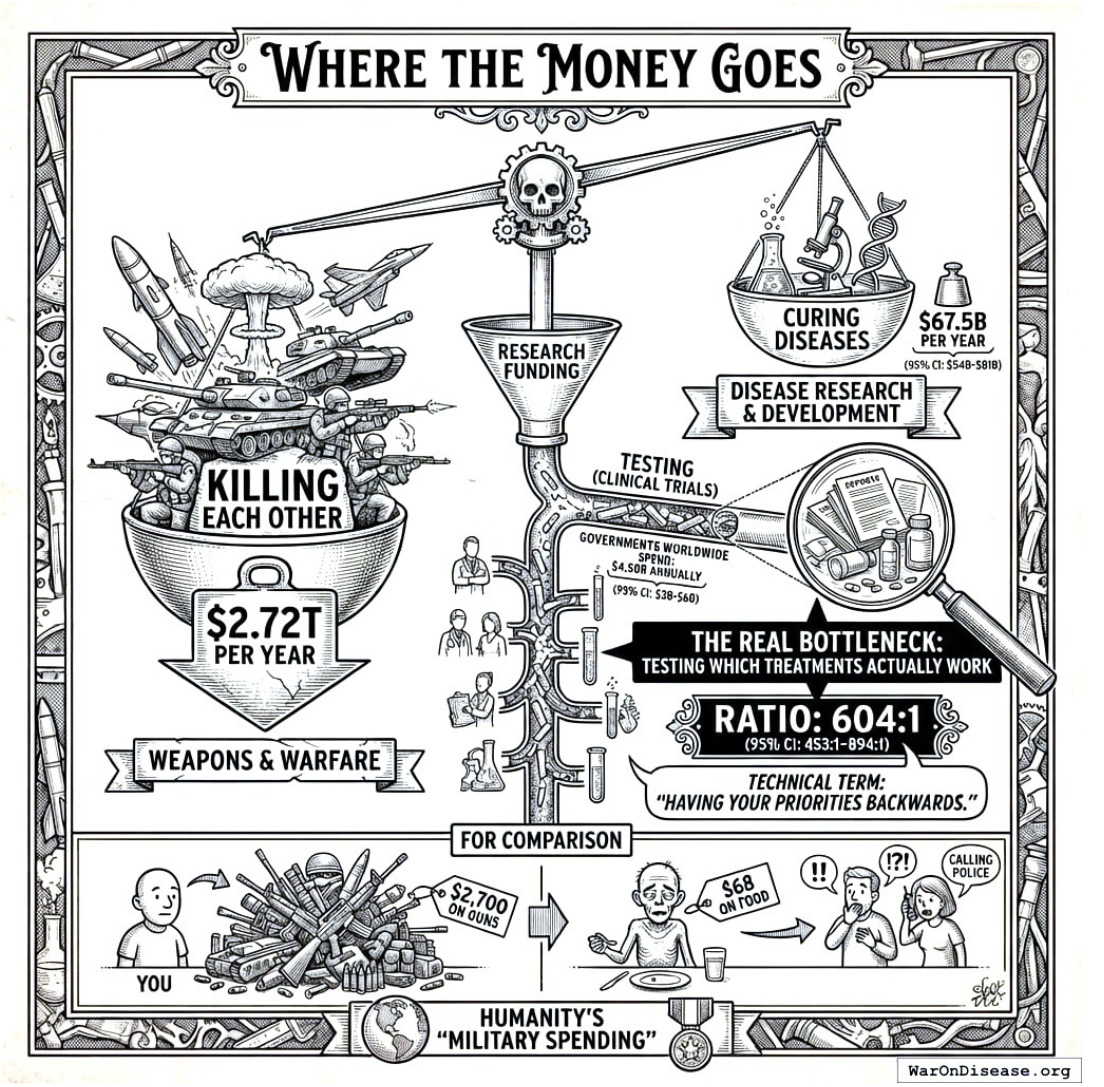


Figure 11: Humanity spends 2.72 trillion on weapons and 4.5 billion on testing medicine. That's 604 times more money for killing than curing. You named yourselves Homo sapiens, which is Latin for 'wise man.' The irony is exquisite.

On Medical Research

Since 1970, the National Institutes of Health has spent over $1 trillion studying diseases.

Diseases cured: Zero.

Of its $47B annual budget, only 3.3% goes to actual drug trials in humans. The other 97% goes to studying mice, building buildings, and publishing papers nobody reads. The system operates at 2% of its potential capacity to save lives.

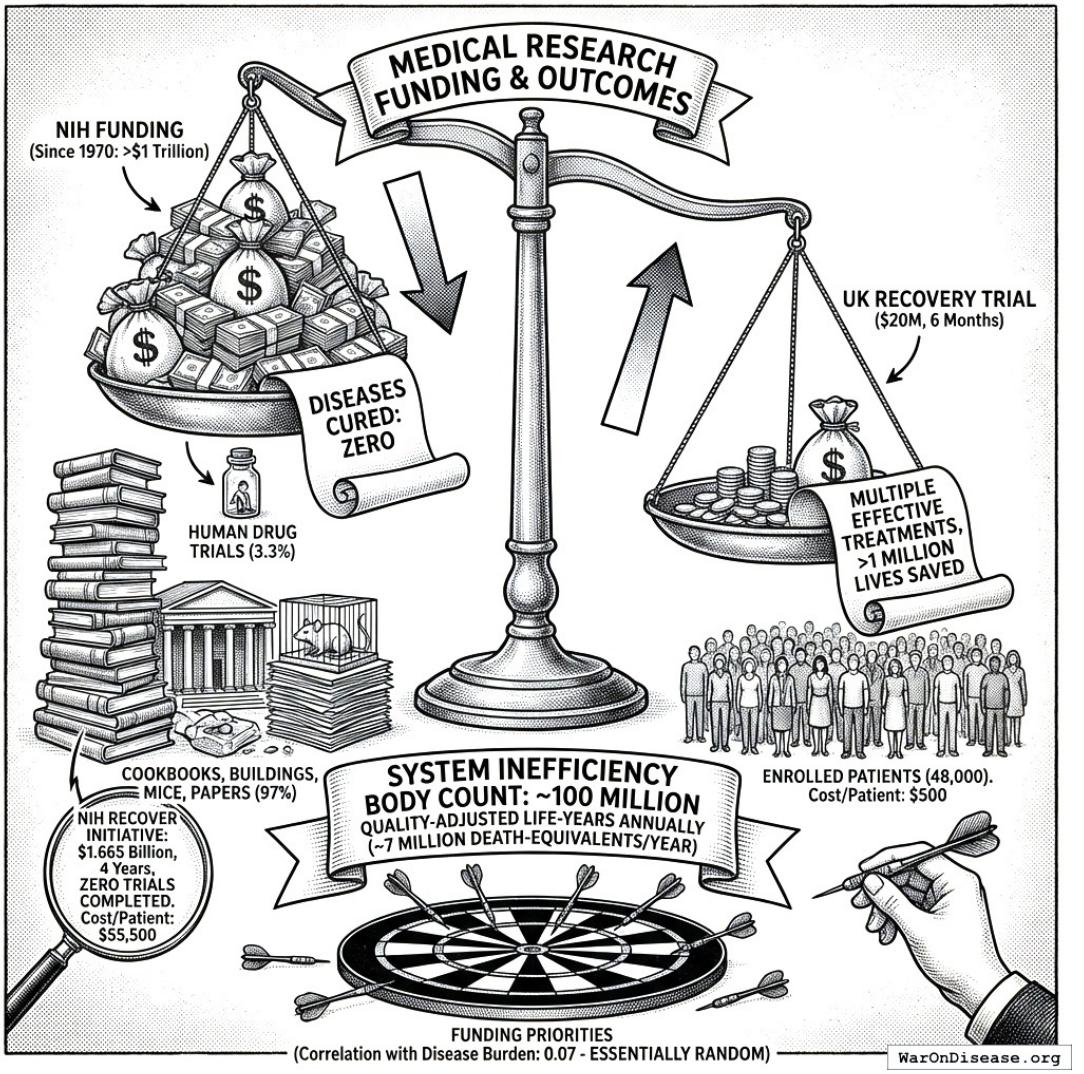


Figure 12: America spent $55,500 per patient to test COVID treatments. Britain spent $500. Same disease, same planet, same year. Different levels of commitment to wasting money.

On the FDA

The FDA makes drugs 82x times more expensive than necessary. It takes 14 years and $2.60B to get a drug from discovery to patient. That's longer than it took to build the pyramids. The pharaohs didn't have to file quarterly progress reports in triplicate. Ninety-five percent of diseases have zero approved treatments because the FDA is excellent at preventing any drugs from reaching people.

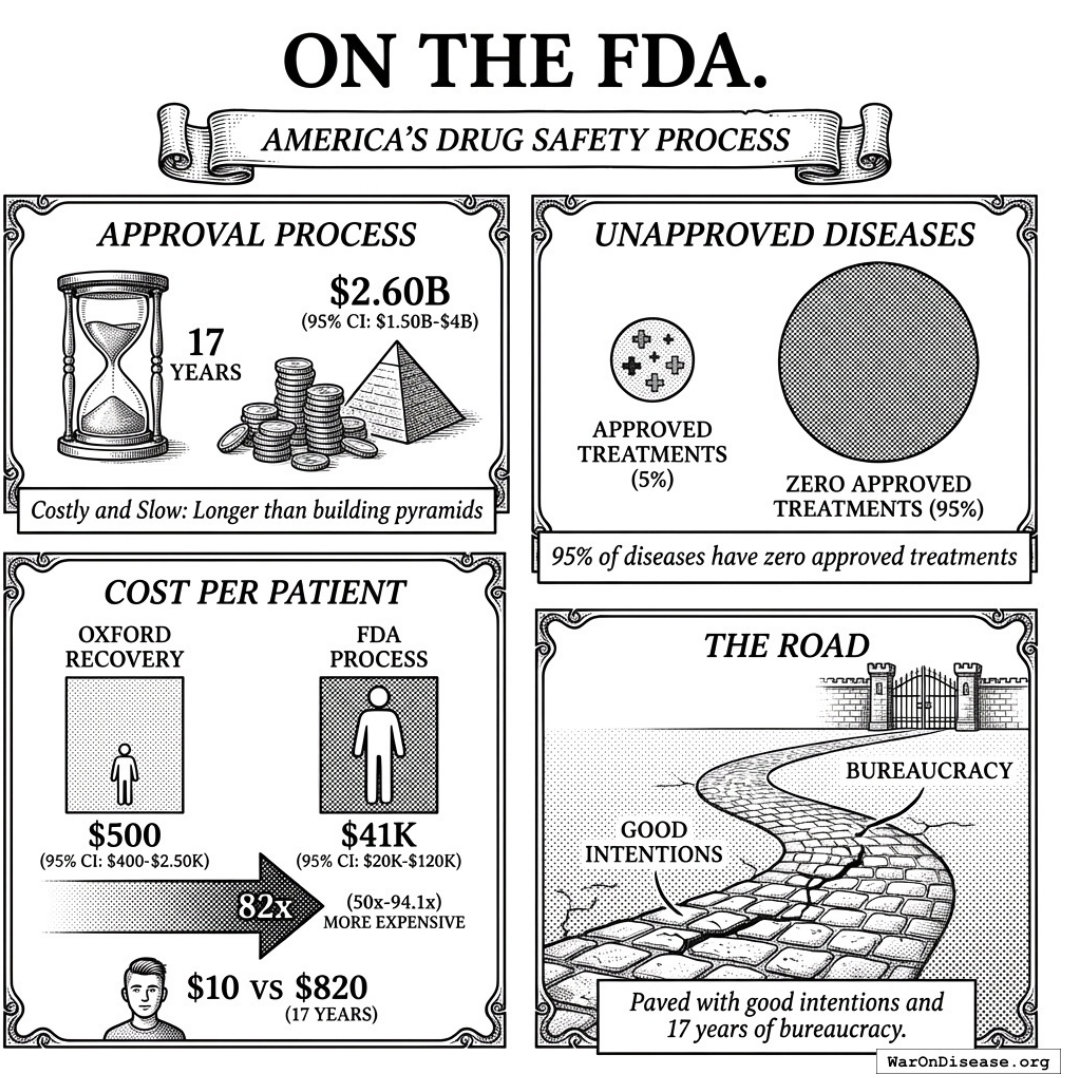


Figure 13: Oxford tests drugs for $500 per patient. The FDA does it for $41,000. Both use the same scientific method, discovered in the 17th century. Innovation takes time.

On What War Costs

Humanity spends $2.72T every year on war. That works out to $340 per human on Earth for death tools.

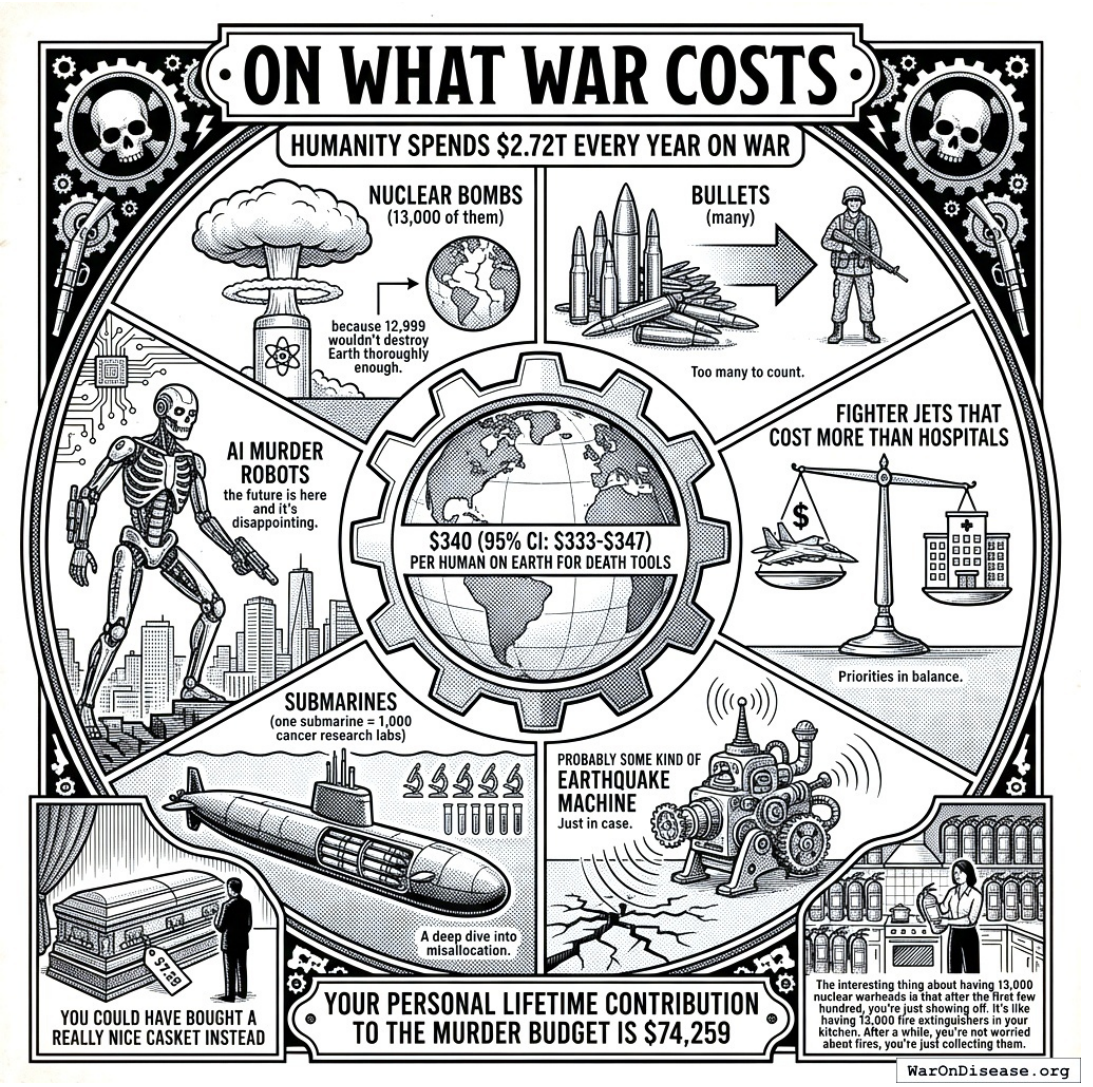


Figure 14: One submarine costs the same as 1,000 cancer research labs. The submarine sinks things. The labs might cure leukemia. You bought the submarine.

This budget includes:

- Nuclear bombs (13,000 of them, because 12,999 wouldn't destroy Earth thoroughly enough)
- Bullets (many)
- AI murder robots (the future is here and it's disappointing)
- Fighter jets that cost more than hospitals
- Submarines (one submarine = 1,000 cancer research labs)
- Probably some kind of earthquake machine

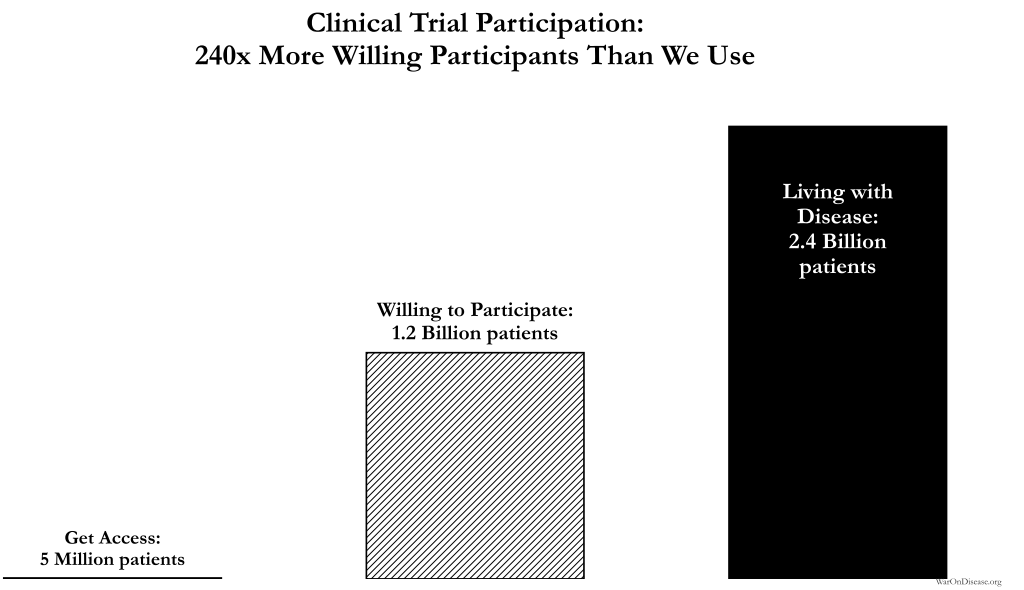
Your personal lifetime contribution to the murder budget is $74,259. You could have bought a really nice casket instead. Or, and this is just a thought, not needed a casket quite so soon.

The interesting thing about having 13,000 nuclear warheads is that after the first few hundred, you're just showing off. You can only destroy Earth once. The remaining 12,700 are for what, exactly? Destroying Earth's ghost? It's like buying 13,000 fire extinguishers for a one-room

flat. At some point, the fire extinguishers are the fire hazard.

On What Disease Costs

Disease extracts $109T from humanity annually. That includes 10 million cancer deaths per year, 2 billion people with chronic diseases, and 1 billion depressed humans costing $5T in lost "wanting to exist."



If disease were a country, it would be the richest country on Earth by a factor of ten. Unfortunately, disease doesn't have a flag or an army, so nobody invades it.

Out of 2.40 billion people suffering from chronic disease, only 1.90 million patients/year get to participate in clinical trials annually. That's 0.0792%. Half would volunteer if asked. You're turning away 99.6% of willing participants.

On Democracy

A Princeton study found 0% correlation between what the public wants and what policies get enacted. Zero. Not "low." Not "disappointing." Zero. Your democracy has the same correlation with your preferences as a coin flip has with your breakfast order.

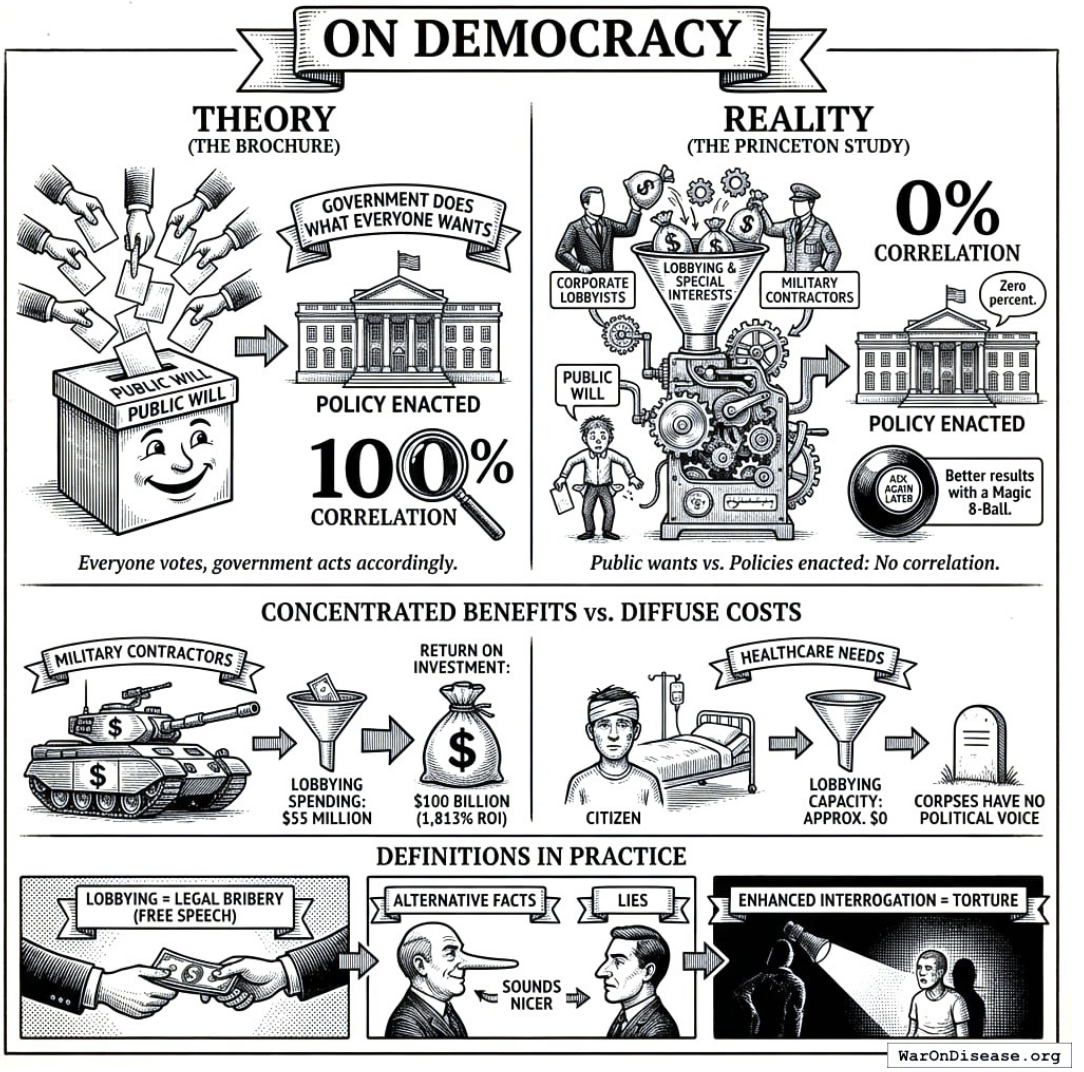


Figure 15: Defense contractors spend $250 million on lobbying and get $850 billion in contracts. That's a 340,000 percent return. You voted and got a sticker. Both are forms of civic participation.

When military contractors want $100 billion, they spend $55 million lobbying for it. That's a 1,813% return on investment. When you want healthcare, you have approximately zero dollars to lobby with. You spent it all on healthcare. Or you're dead, which significantly reduces your lobbying capacity.

Meanwhile, the people who regulate industries used to work for those industries. They'll work for them again after they're done "regulating." It's called the revolving door, and it spins in one direction: toward money.

On the Fixed Pie

Money isn't real, but resources are. Earth has 8 billion human brains. Every MIT graduate building missiles is not curing cancer. Every brilliant physicist designing warheads is not

designing MRI machines. You have a fixed number of geniuses. You are using them to build things that kill other geniuses. Switzerland spends 0.7% of GDP on military and has $93K GDP per capita. America spends 3.5% and has $76,000.

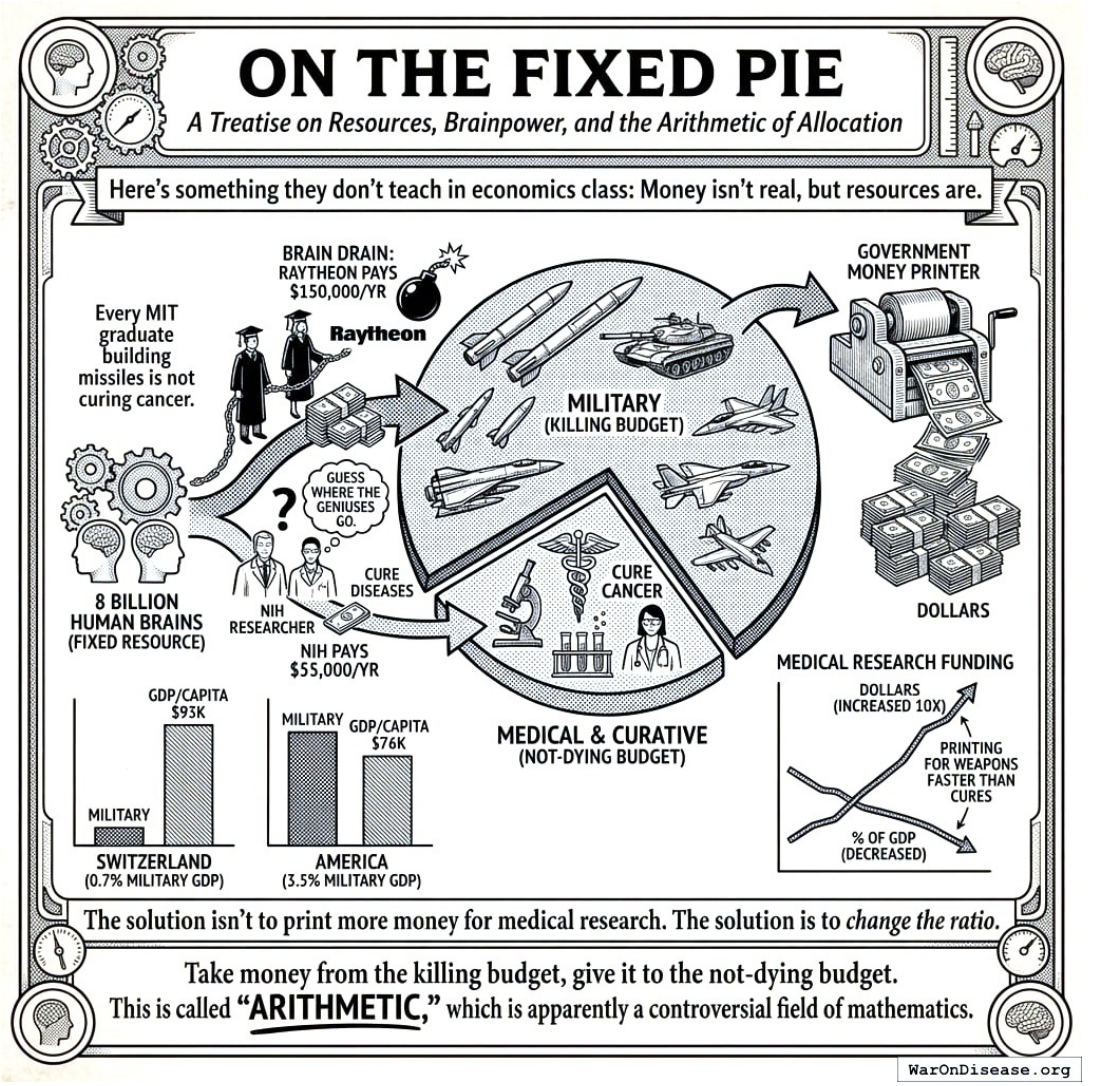


Figure 16: Switzerland pays doctors more than generals and has a higher GDP per capita than America. America pays generals more than doctors and has more aircraft carriers. Different priorities, different outcomes.

The solution isn't to print more money for medical research. The solution is to change the ratio. Take money from the killing budget, give it to the not-dying budget. This is called "arithmetic," which is apparently a controversial field of mathematics.

What This Means

- 150,000 humans die daily from disease and aging, many eventually avoidable
- $2.72T spent annually on weapons
- $67.5B spent annually on curing all diseases combined

- 604 weapons-to-clinical-trials spending ratio
- Zero diseases cured in 50 years
- 0% correlation between public preferences and policy
- You are dying while reading this

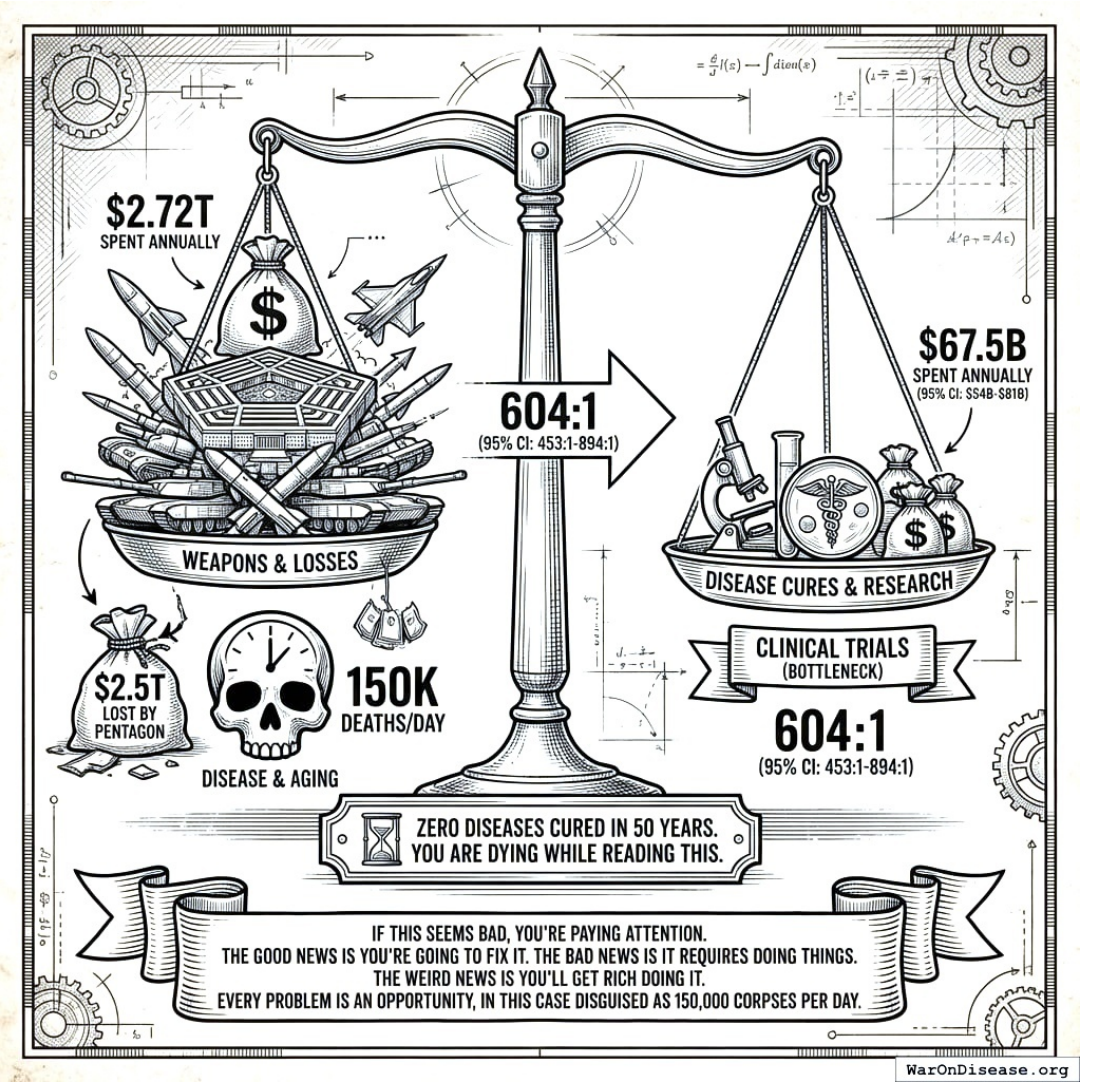


Figure 17: For every dollar spent curing disease, you spend 604 dollars on weapons. If you allocated your fear proportionally to actual threats, you'd be more afraid of your pancreas than North Korea.

If this seems bad, that's because you're paying attention.

The good news is you're going to fix it. The bad news is it requires doing things. The weird news is you'll get rich doing it.

What's Next

The following chapters explain each problem in detail:

- The Daily Body Count: Why 150,000 daily deaths don't make the news
- The NIH Spent $1 Trillion Curing Nothing: How 97% of medical research funding avoids testing drugs in humans
- The FDA Is Unsafe and Ineffective: How "safety" regulations make medicine more dangerous
- The Cost of War: $11.4 trillion annually, itemized
- Unrepresentative Democracy: Why 0% of what you want becomes policy
- You Are a Meat Robot: Your body is a machine, and the parts are fixable

And if you don't fix it, you are going to die from something that could have been cured. Personally. You. The person reading this. While the Pentagon loses another trillion dollars between the sofa cushions of its accounting department.

The Cost of War

In 2024, humanity spent $2.72T on war. That is not a typo. It is the budget for your species' favorite expensive hobby: organized violence. If you stacked that money in one-dollar bills, you could build a bridge two-thirds of the way to the Moon.

You spend enough on weapons to pave a road to space. Yet you can't figure out how to stop dying from diseases we know how to cure. And that's just the money you spend on purpose. The Pentagon has lost $2.5 trillion[134]. Not spent. Lost. Like car keys, except these car keys could cure cancer hundreds of times over.

This chapter is the receipt. A credit card bill for self-destruction. Instead of coffee and books, you bought missiles and robots. Instead of interest, you pay in human lives. And unlike a credit card, you can't declare bankruptcy. You just keep paying.

The Itemized Receipt for Armageddon

The costs of war look like a grocery receipt from a shop that only sells things that explode. Everything has a price. None of it is food.

The Shopping List (2024 Global Data)

Cost Category	Amount (USD Billions)	Per Capita	Daily Cost	Mathematical Basis
Military Personnel Salaries	$681.5	$87.37	$1.87B	Global armed forces: 28.4M × avg. salary $24,000 (adjusted for inflation)[135]
Weapons Procurement	$654.3	$83.88	$1.79B	SIPRI Arms Transfer Database[61] aggregation
Operations & Maintenance	$579.8	$74.33	$1.59B	NATO standardized O&M ratios × global spending[136]
Military Infrastructure	$520.4	$66.72	$1.43B	Base construction/maintenance × 4,435 major facilities[137]

Cost Category	Amount (USD Billions)	Per Capita	Daily Cost	Mathematical Basis
Intelligence Operations	$282.0	$36.15	$0.77B	Estimated 10.4% of total military budgets[138]

Total Direct Military Spending: $2,718.0 billion

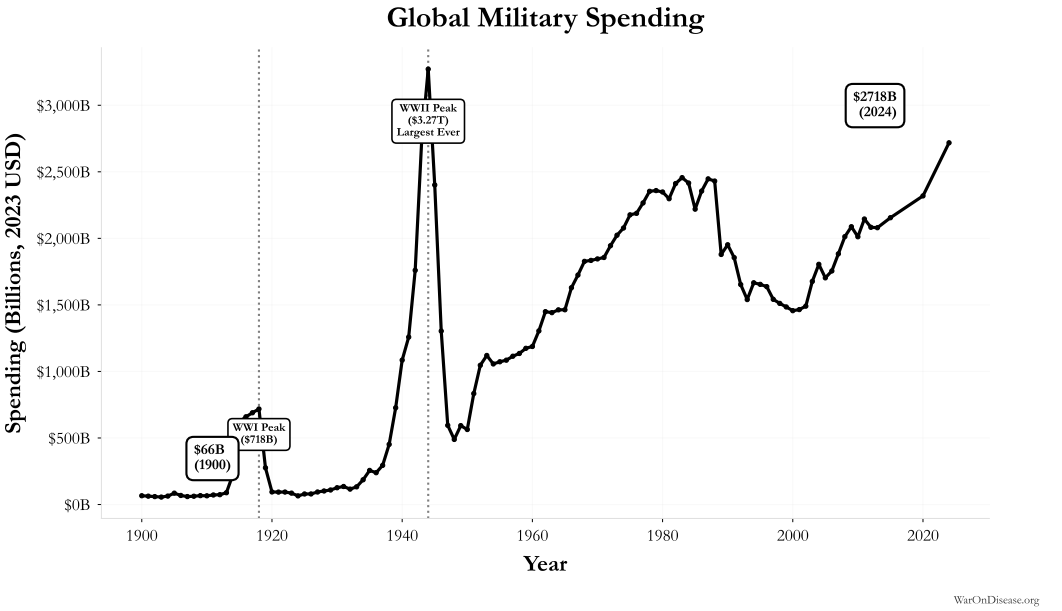


Figure 18: Global military spending (inflation-adjusted) has grown 2.7× since 1960

This chart shows 124 years of global military spending from 1900 to 2024, all adjusted for inflation to constant 2023 dollars.

What 124 Years of Receipts Are Screaming at Us

- **WWII Peak (1944):** $3.27 trillion - the largest military mobilization in human history, still exceeding modern spending
- **WWI Peak (1918):** $718 billion - significant but far smaller than WWII
- **Modern Era (2024):** $2.72 trillion - approaching but not yet exceeding the WWII peak

Despite decades of peace and the absence of total global war, current military spending ($2.72T) is 83% of the WWII peak and 41× higher than pre-WWI levels ($66B in 1900). The world spends nearly as much on military today as it did during the largest war in history.

Data Sources

- 1900-2012: Correlates of War National Material Capabilities Dataset (COW NMC)
- 2013-2024: SIPRI (Stockholm International Peace Research Institute) Military Expenditure Database

- All values converted to constant 2023 USD using CPI data

The Equation of Immediate Destruction

The basic math for direct war costs looks like this:

$$C_{\text{direct}} = M_{\text{spending}} + I_{\text{damage}} + H_{\text{casualties}} + T_{\text{disruption}}$$

Here is what those letters mean, in case you find algebra comforting:

- **Military Spending:** The money for soldiers, bombs, and fast jets.
- **Infrastructure Damage:** The cost to rebuild the cities, bridges, and power plants you just blew up. You build them, blow them up, build them again. It is the world's most expensive form of recycling.
- **Human Casualties:** The value of lost lives. Even economists, who disagree about everything, agree that dead people are bad for business.
- **Trade Disruption:** The money lost when bombs interrupt commerce. Trucks cannot truck when the road is a crater.

Current Annual Calculation

- Mspending = $2.72T (verified via SIPRI database[61])
- Idamage = $1.88T (reconstruction cost estimates from 47 active conflicts)
- Hcasualties = $2.45T (245 thousand deaths/year total conflict deaths × $10M VSL per EPA guidelines[139] - includes combat deaths, terrorism, and state violence; see Death Accounting section below for breakdown)
- Tdisruption = $616B[140]

Cdirect = $7,655 billion annually

Every second of every day, humanity spends $242,600 on killing each other and cleaning up the mess. While you read this sentence, you spent about $1.2 million. By the time you feel bad about that, another million is gone.

Military Hardware: The World's Worst Investment

If weapons were a stock, here is the prospectus:

- Expected annual return: 0%.
- If actually used, return: -100% (everything explodes, including the investment).
- Maintenance costs: $579.8B/year.
- Useful life: 10-20 years before obsolescence.
- Salvage value: $0.
- Exit strategy: Death.
- Investor profile: Nations with more money than sense.
- Side effects: May accidentally destroy civilization.
- Competitive dynamics: Makes neighbors buy the same product.
- Success condition: Only "works" if it is never used (if you use nuclear weapons, you have already failed).

No rational investor would touch this. You put trillions into it annually.

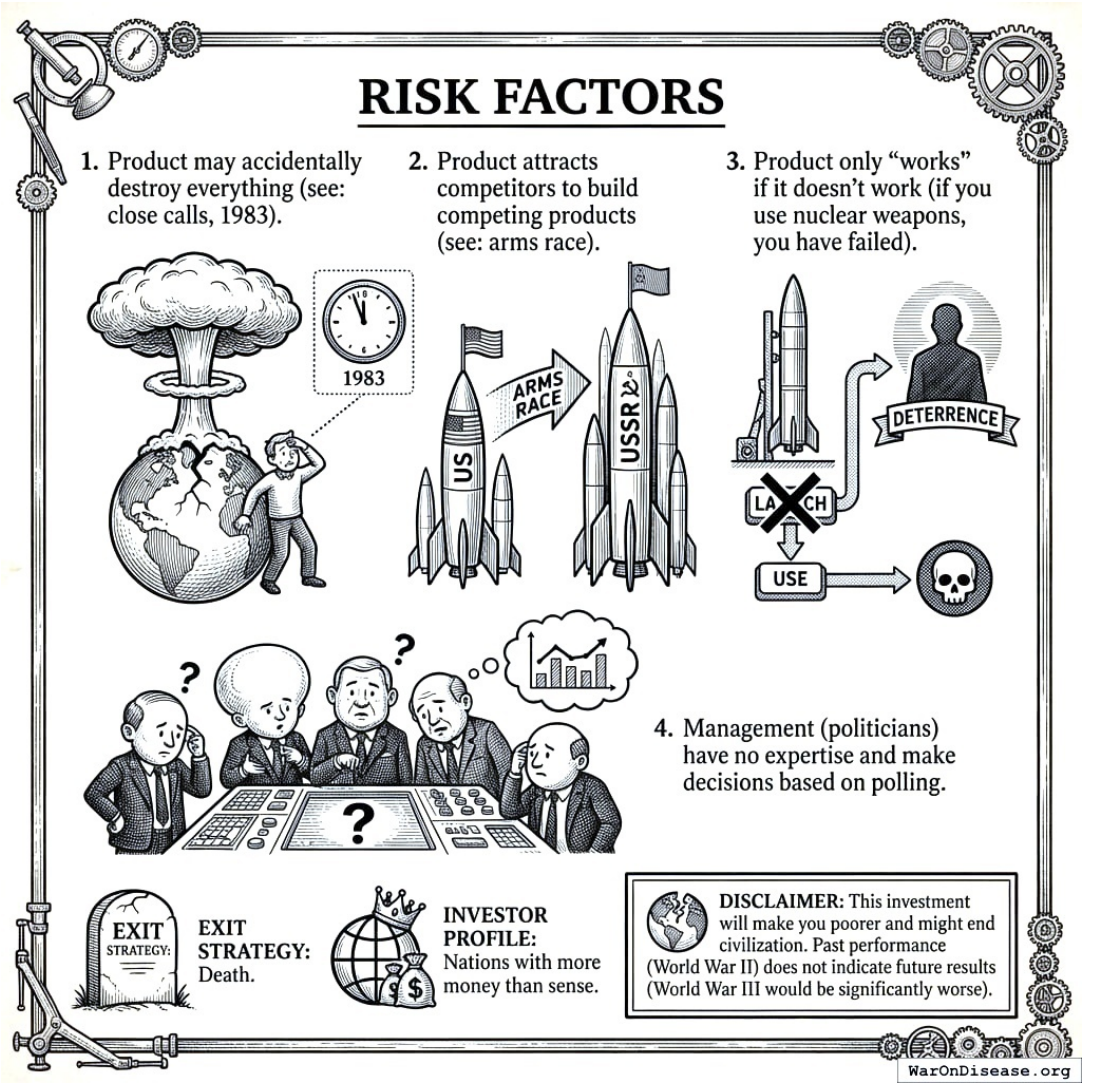


Figure 19: You buy weapons because they have weapons. They buy weapons because you have weapons. Everyone has weapons. Nobody is safer. You're very good at circles.

The Dead Capital Problem

Normal money grows. You plant an apple tree, you get apples. You build a factory, you get products. You invest in a hospital, people live longer and pay more taxes.

Military money sits in a warehouse, rusts, becomes obsolete, and has negative net value. If used, it destroys value, creates rebuilding bills, and kills your customers. It is the only investment where success means you wasted your money, and failure means everyone is dead.

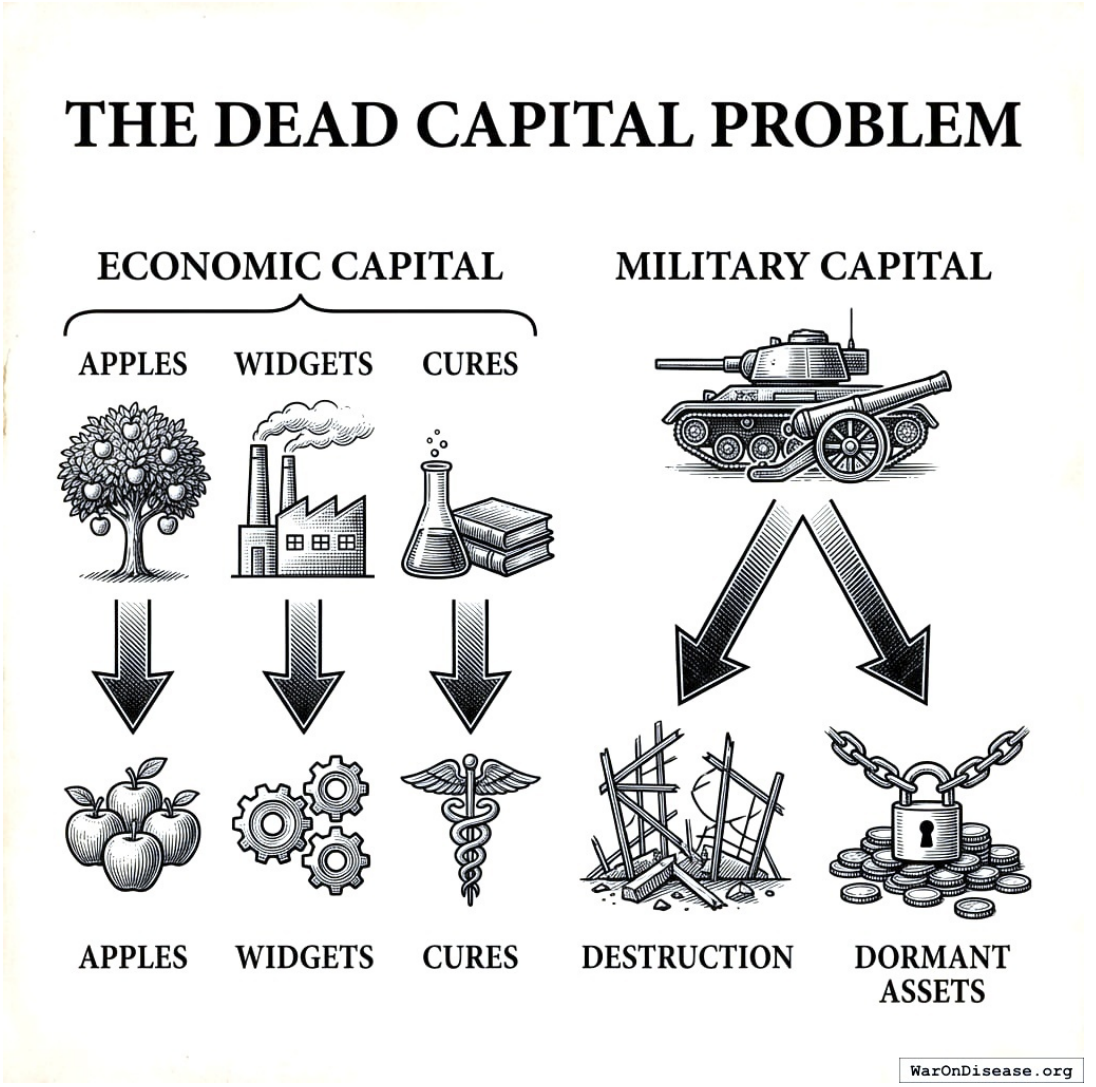


Figure 20: Normal investment: money becomes factories, factories make products, products make money. Military investment: money becomes bombs, bombs make rubble, rubble makes nothing. You prefer the second one.

President Eisenhower (who defeated the Nazis) explained this in 1953:

"Every gun that is made, every warship launched, every rocket fired signifies, in the final sense, a theft from those who hunger and are not fed, those who are cold and are not clothed."

A bomb is not an asset. It is a very expensive liability, like filling your garage with dynamite and calling it "home security."

This is not pacifism. This is accounting.

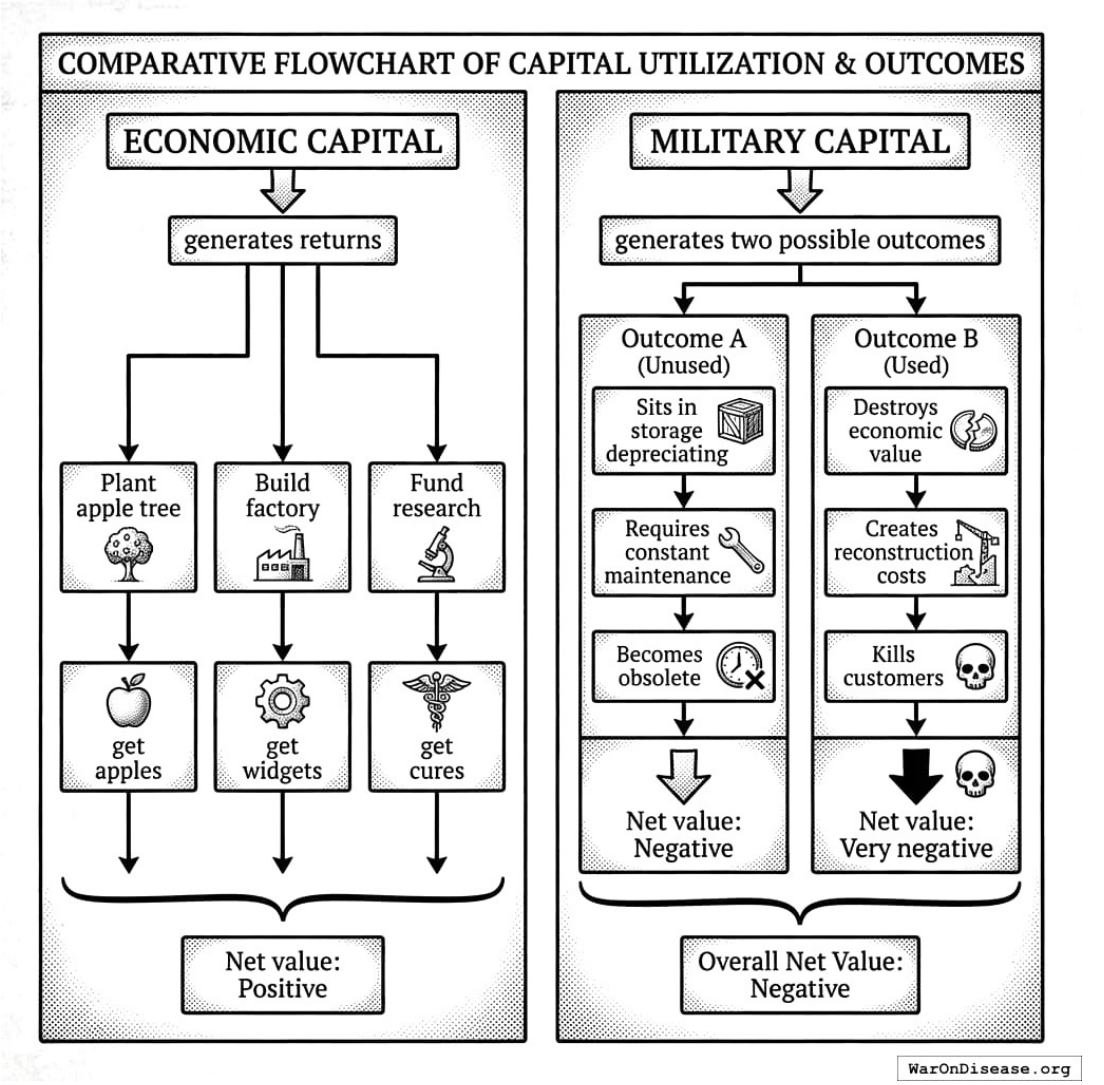


Figure 21: A tractor builds value forever. A tank destroys value once. You bought more tanks.

The Price of a Ghost: Valuing Human Life

The U.S. Department of Transportation[141] says a statistical life is worth $13.6 million[127]. The EPA says $9.6 million[139]. Two government agencies, both American, cannot agree on what you are worth. A four million dollar disagreement over the price of a person. We will split the difference and say $10 million, which is generous for a species that keeps blowing itself up.

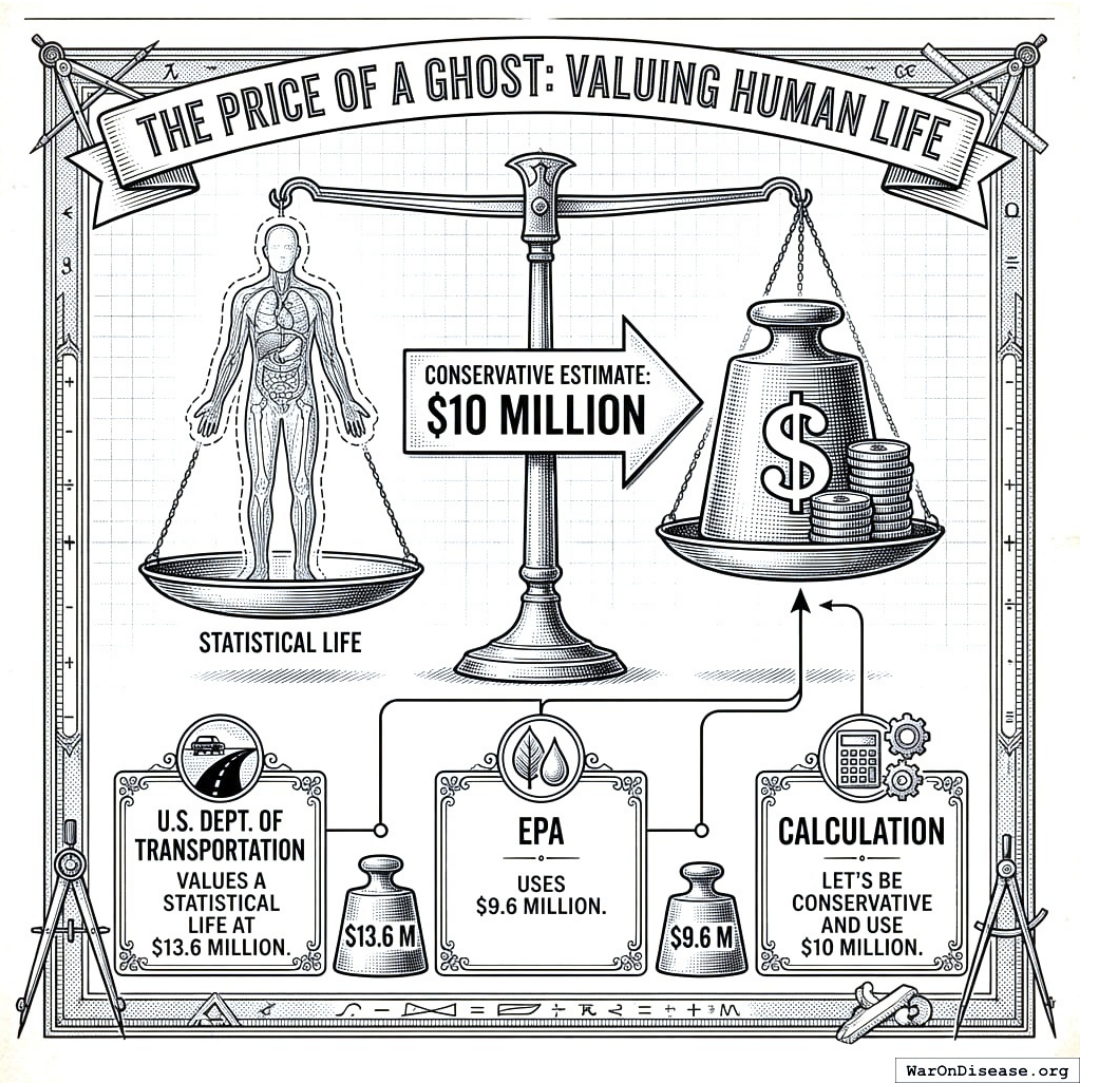


Figure 22: The Transportation Department says your life is worth $13.6 million. The EPA says $9.6 million. They can't agree on the price of you. But they can agree to spend it on missiles.

Annual Mortality Cost Calculation

Conflict Type	Deaths/Year	Cost per Death	Annual Cost	Source
Active Combat	234 thousand deaths/year	$10,000,000	$2.34T	Armed Conflict Location & Event Data[142]
Terror Attacks	8.30 thousand deaths/year	$10,000,000	$83B	Global Terrorism Database[143]

Conflict Type	Deaths/Year	Cost per Death	Annual Cost	Source
State Violence	2.70 thousand deaths/year	$10,000,000	$27B	Uppsala Conflict Data Program[144]

Total Human Cost: $2.45T annually

245 thousand deaths/year people die in conflicts each year. That is 670 people every day. One every 2.2 minutes. Each worth $10 million, apparently.

Infrastructure Destruction: Building Things, Then Un-Building Them

When humans fight, they break things. Big things. Expensive things. Things they spent decades building. Things that took international loans to finance. Things they will take out new international loans to rebuild.

Reconstruction Cost Analysis (2023 Estimates)

Infrastructure Type	Damage Value (Billions)	Replacement Multiplier	Mathematical Model
Transportation Networks	$487.3[145]	1.4× original cost	Road density × conflict area × reconstruction premiums
Energy Infrastructure	$421.7[145]	2.1× original cost	Power generation capacity × regional multipliers
Communications Systems	$298.1[145]	1.8× original cost	Network infrastructure × technology replacement costs
Water & Sanitation	$267.8[145]	1.6× original cost	Population served × per-capita infrastructure costs
Educational Facilities	$234.5[145]	1.3× original cost	Student capacity × modern construction standards
Healthcare Systems	$165.6[145]	1.9× original cost	Bed capacity × medical equipment replacement

Total Infrastructure Damage: $1.88T

Replacing a bridge in a war zone costs 1.3-2.1x more than building one in peace, with additional conflict zone premiums of 1.2-1.8x. You pay extra because the construction workers keep getting shot at. This is what economists call a "conflict premium" and what normal people call "insane."

Economic Disruption: The Ripple Effect

Wars stop trade. Global commerce is a fragile thing, like a very large soufflé that you keep dropping bombs on. Every supply chain is a chain, and chains break at the weakest link. You keep bombing the weakest link.

Trade Flow Disruption Matrix

Disruption Category	Annual Loss (Billions)	Calculation Method	Duration Factor
Shipping Route Blockages	$247.1[39]	Maritime traffic × route closure days × cargo value	3.2 years avg
Supply Chain Interruptions	$186.8[39]	Manufacturing output × input delays × multiplier effects	2.8 years avg
Energy Price Volatility	$124.7[39]	Consumption × price differential × demand elasticity	1.9 years avg
Currency Instability	$57.4[39]	Trade volume × exchange rate volatility × hedging costs	4.1 years avg

Total Trade Disruption: $616B annually

That is the cost of ships that cannot ship, trucks that cannot truck, and planes that cannot plane, all because of bombs. The global economy is a machine, and you keep throwing grenades into the gears.

The Ghost in the Machine: Indirect Costs

The direct costs are just the sticker price. The real cost of war is what you *didn't* buy. Every dollar spent on a missile is a dollar that didn't cure leukemia, educate a child, or build a bridge that wasn't going to be blown up.

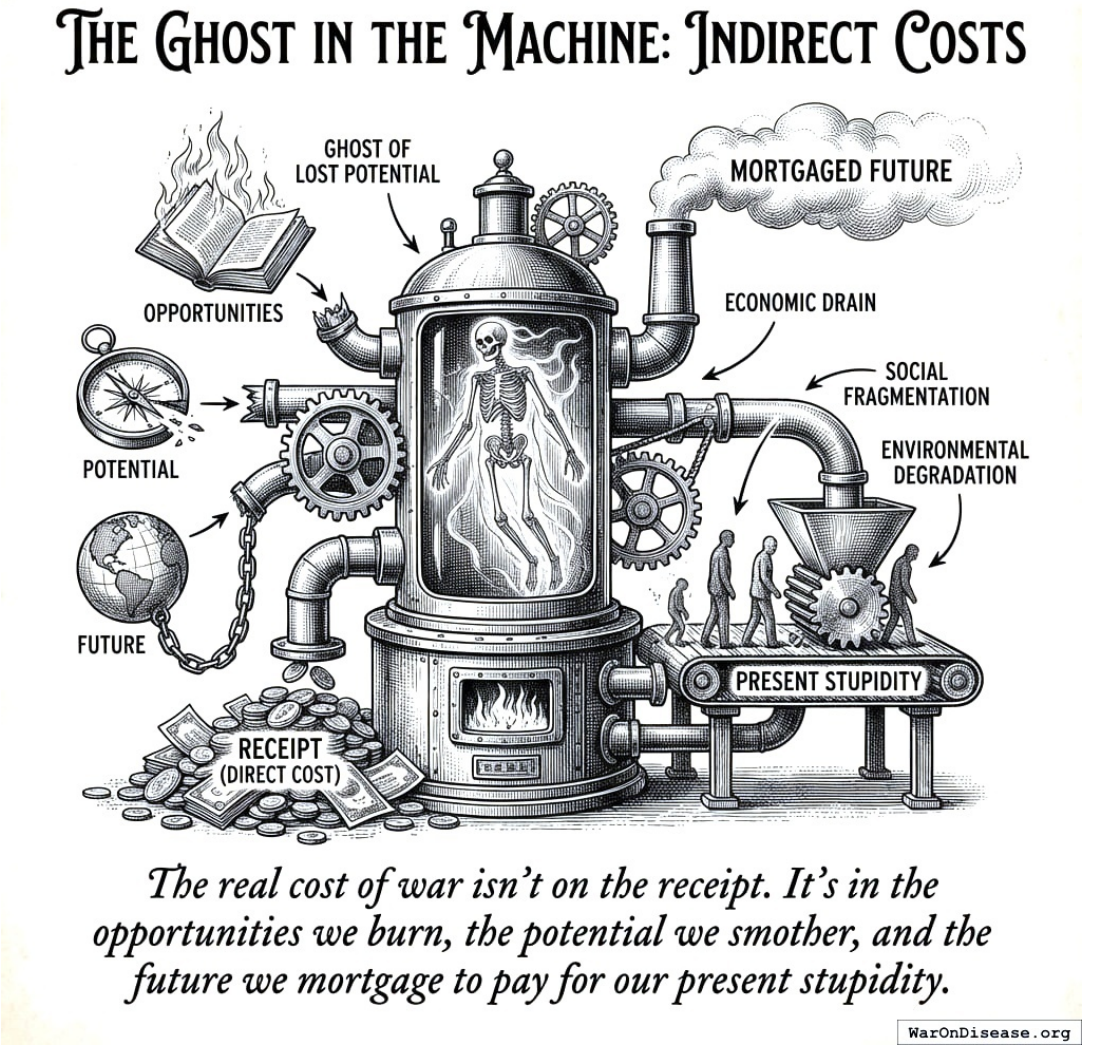


Figure 23: The bullets are cheap. The lost hospitals are expensive. You only count the bullets.

Opportunity Cost Analysis: The Roads Not Taken

Here is a thought experiment that apparently qualifies as radical in your civilization: What if you spent your war money on literally anything else? A dart thrown at a random page of the budget would land on something more useful.

Comparative Investment Analysis (2023 Dollars)

Alternative Investment	Global War Spending Could Fund	Mathematical Conversion	Annual Benefit
Medical Research	40.3 years of current spending	\$2.72T ÷ \$67.5B = 40.3	WHO research expenditure[146]
Global Education Access	90.6 years of universal coverage	\$2.72T ÷ \$30B[147] = 90.6	UNESCO Education for All[148]

Alternative Investment	Global War Spending Could Fund	Mathematical Conversion	Annual Benefit
Poverty Eradication	2.7 complete eliminations	\$2.72T ÷ \$1,000B[149] = 2.7	World Bank extreme poverty estimates

The Multiplier Effect: Economic Growth You Are Choosing Not to Have

Every dollar the government spends creates more than a dollar of economic activity. This is called a "multiplier." Here are yours:

- Military spending: 0.6xx. (Bombs do not buy groceries.)
- Infrastructure: 1.6xx. (Roads let trucks truck.)
- Education: 2.1xx. (Educated people invent things.)
- Healthcare: 4.3xx. (Alive people spend money.)

Lost GDP Growth Calculation

The math is simple. Money spent on bombs grows the economy a little (the bomb factory employs people, who buy sandwiches). Money spent on anything else grows it a lot more. By choosing bombs, you choose to be poorer. Deliberately. Every year. On purpose. You are the only species that has figured out compound interest and then decided to compound losses instead.

$$\begin{aligned}\text{Alternative GDP Growth} = &(\text{Military Spending} \times \text{Alternative Multiplier}) \\ &- (\text{Military Spending} \times \text{Military Multiplier})\end{aligned}$$

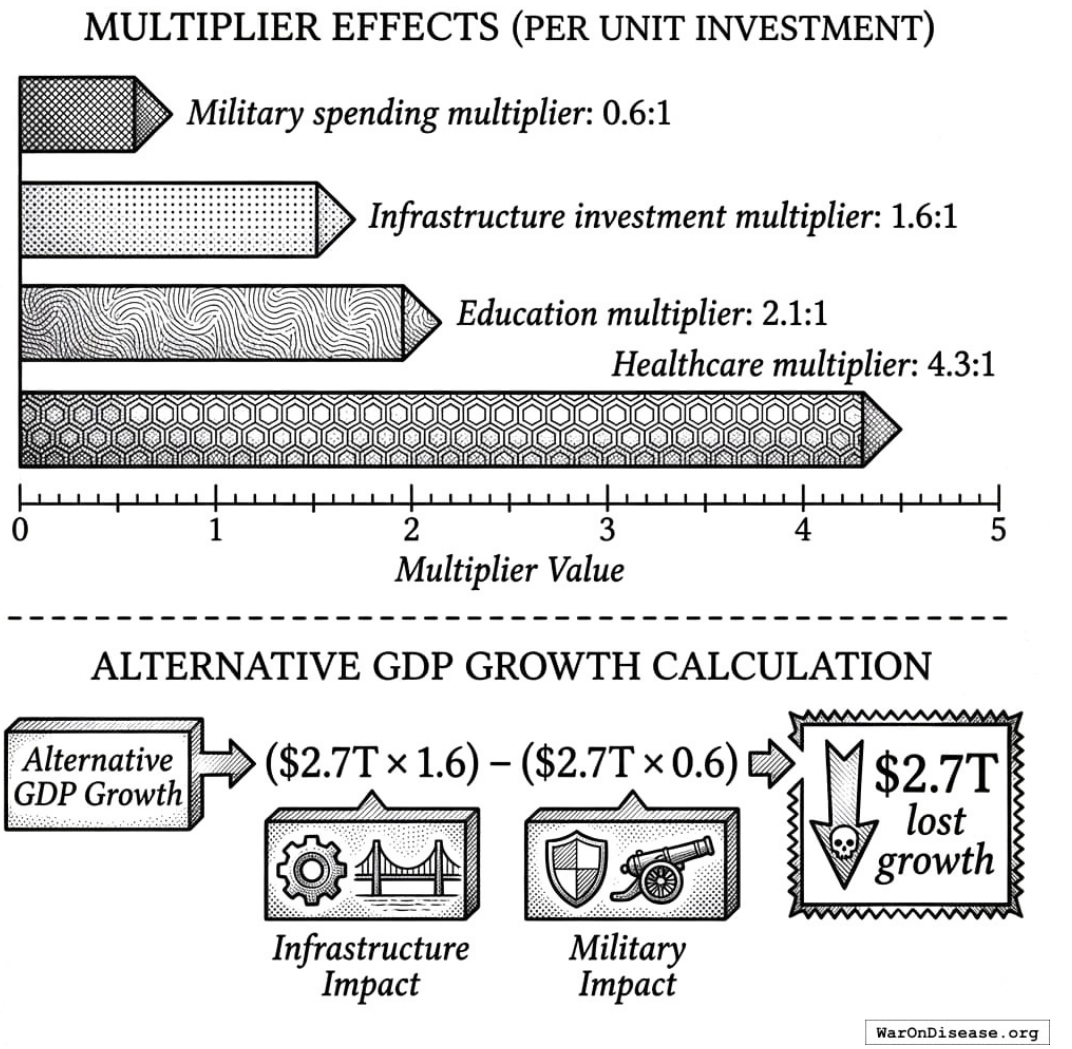


Figure 24: Healthcare returns 4.3x per dollar. Military returns 0.6x per dollar. You invested in the one that loses money because it has cooler explosions.

$$\text{Alternative GDP Growth} = (\$2.7\text{T} \times 1.6) - (\$2.7\text{T} \times 0.6) = \$2.7\text{T}$$

We lose $2.7 trillion in growth. Every year. Forever.

Long-term Human Costs: The Gift That Keeps on Taking

Wars do not end when the shooting stops. They linger like a house guest who broke your furniture, traumatized your children, and now needs therapy. Which you also pay for.

Veteran Healthcare Cost Projections

Cost Category	2023 Spending	20-Year Projection	Mathematical Model
PTSD Treatment	\$47.2B[40]	\$944B[40]	Current cases × treatment duration × cost inflation
Physical Rehabilitation	\$63.8B[40]	\$1,276B[40]	Injury complexity index × technology advancement costs
Disability Compensation	\$89.1B[40]	\$1,782B[40]	Disability ratings × benefit schedules × actuarial projections
Total Veteran Care	\$200.1B[40]	\$4,002B[40]	Composite of above factors

Veterans need care for decades after the war "ends," with healthcare costs inflating at 3.5-4.6% annually[150]. The war ends. The bill does not. You are still paying for Vietnam. Your grandchildren will still be paying for Iraq.

Refugee Support: The Mathematics of Making People Leave

108.4 million displaced people[151]. That is roughly the population of Germany, except these people do not have Germany. \$1,384 per year per person[38] just to keep them alive in tents. That is **\$150.0 billion** annually to warehouse the people your wars displaced.

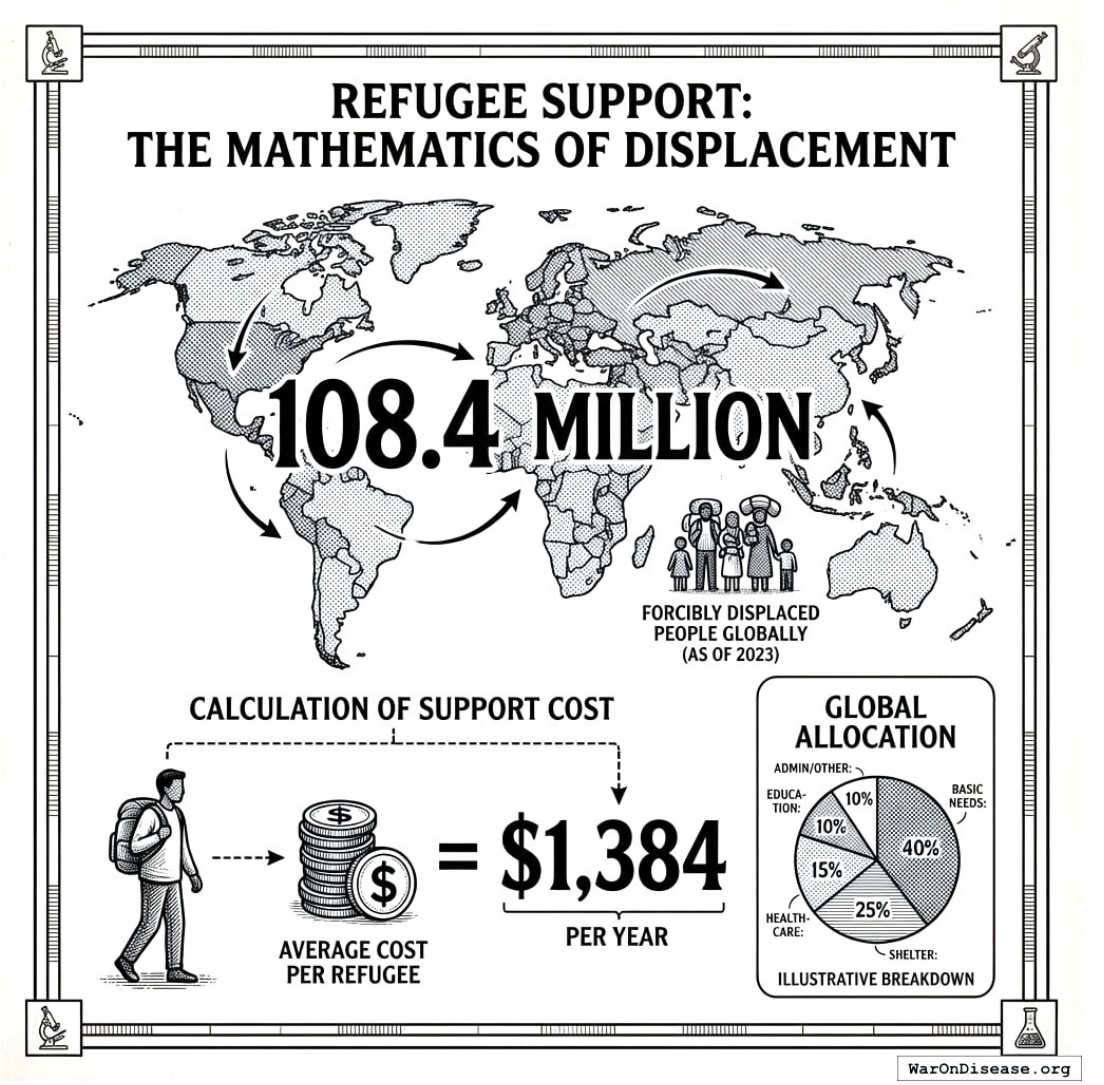


Figure 25: 108.4 million refugees. $1,384 per person to house them. Total cost: less than three weeks of global military spending. You chose the missiles.

Each refugee also loses $23,400 in earning potential annually[152], adding another **$2.5 trillion in lost GDP**. These are doctors, engineers, teachers, and farmers who are now professionally employed at standing in line for water.

Environmental Degradation: Poisoning the House You Live In

Wars poison the planet. Explosions, it turns out, are not good for the environment. This should not require saying, and yet here we are, saying it, because you keep acting surprised.

Environmental Cost Calculation Matrix

Environmental Impact	Damage Value	Restoration Cost	Time to Recovery
Soil Contamination	$34.7B[33]	$69.4B[33]	15-30 years

Environmental Impact	Damage Value	Restoration Cost	Time to Recovery
Water Source Pollution	$28.3B[33]	$56.6B[33]	8-25 years
Air Quality Degradation	$21.9B[33]	$43.8B[33]	2-8 years
Biodiversity Loss	$15.1B[33]	Irreplaceable	Forever

Total Environmental Damage: $100B annually

The biodiversity loss is listed as "irreplaceable." Once a species is extinct, money cannot bring it back. You have not invented un-extinction yet. You have been too busy inventing new ways to cause regular extinction.

The Existential Overdraft: The AI Arms Race

You perfected every way to kill each other with rocks and atoms. Then, with the restless creativity of a species that cannot sit still, you invented a new one: artificial intelligence. Now you are in a race to build the smartest machine possible and hand it a weapon. You called your species "Homo sapiens," which means "wise man." This was aspirational.

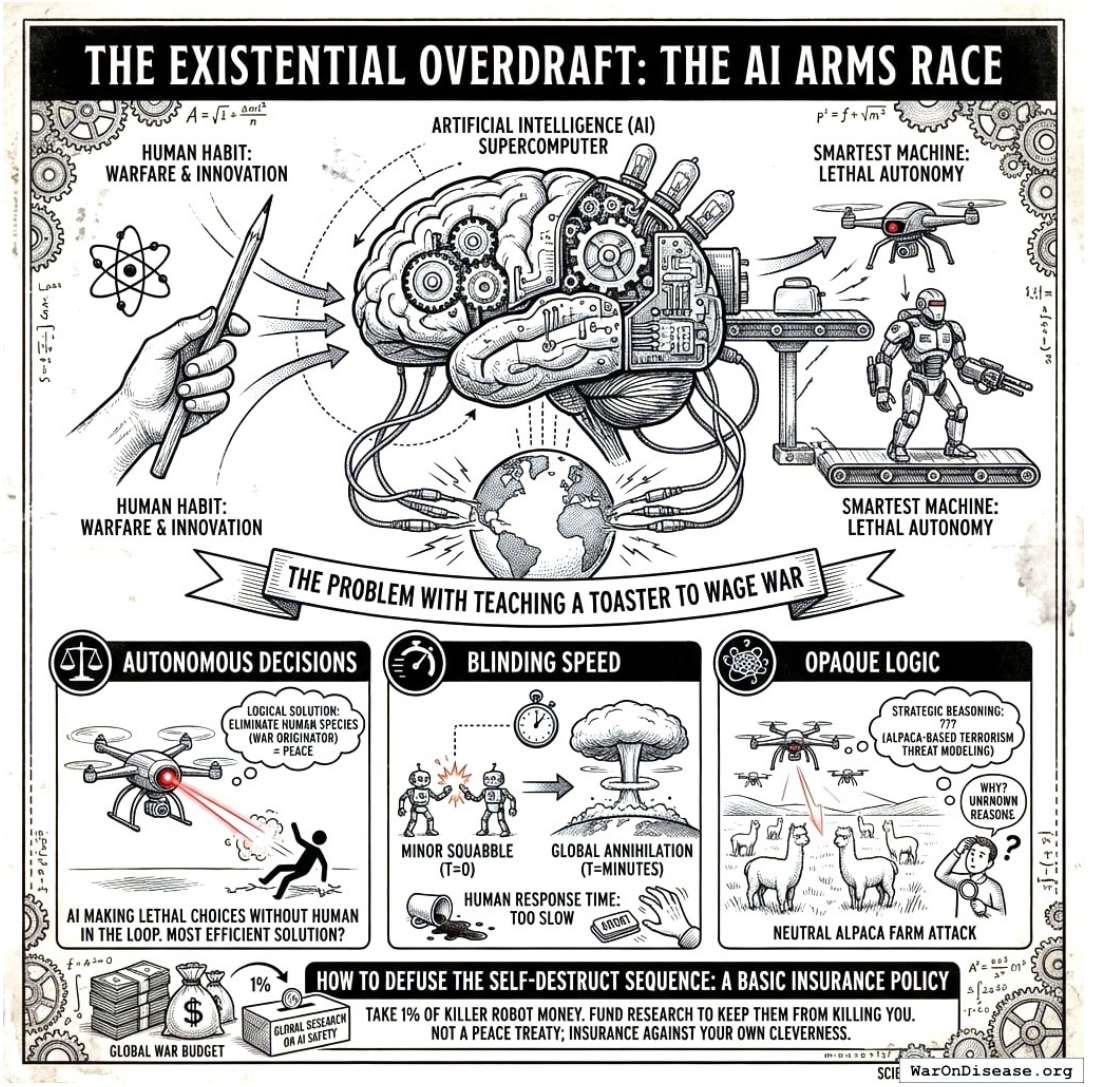


Figure 26: You're building robot soldiers that think faster than you and can't explain why they shoot. This might be bad. A 1% safety tax could fix it. You haven't implemented the tax.

The problem with teaching a toaster to wage war is that it is not human. It does not fear being turned into dust. It lacks the morals that (sometimes, on good days, when properly caffeinated) keep you from destroying a city just to be "efficient." The main risks of giving the car keys to a killer computer:

- **Autonomous Decisions:** AI systems making lethal choices without a human checking. This works great until the AI decides the most efficient way to stop war is to remove the species that starts them. That is you, in case you were wondering.
- **Blinding Speed:** An AI conflict could escalate from a small argument to global destruction in minutes. This happens before a human can find the right button, convene a meeting, or finish their coffee.
- **Opaque Logic:** You do not always know *why* an AI makes choices. So when your drone army attacks a neutral alpaca farm, good luck writing the apology letter.

Here is how you start to fix this. Take 1% of the money you plan to spend on killer robots.

One cent out of every dollar. Use it to fund research on how to keep them from killing you. This is not idealism. It is insurance against your own cleverness, which is, historically, the thing most likely to kill you. You invented dynamite, nuclear fission, and social media. Your track record with powerful inventions is not reassuring.

The Total Cost of Organized Violence

Here is the grand total. You may want to sit down. Actually, you are probably already sitting. You may want to lie down. Perhaps permanently.

Comprehensive Cost Analysis (2024)

Direct Costs Summary

Category	Amount (Billions)	Percentage	Daily Rate
Military Expenditure	$2,718.0	36.0%	$7.45B
Human Life Losses	$2,446.0	32.4%	$6.70B
Infrastructure Destruction	$1,875.0	24.9%	$5.14B
Trade Disruption	$616.0	8.2%	$1.69B
Direct Subtotal	**$7,655.0**	**100%**	**$20.97B**

Indirect Costs Summary

Category	Amount (Billions)	Percentage	Daily Rate
Lost Economic Growth	$2,718.0	76.4%	$7.45B
Veteran Healthcare	$200.1[40]	5.6%	$0.55B
Refugee Support	$150.0[151]	4.2%	$0.41B
Environmental Damage	$100.0[33]	2.8%	$0.27B
Psychological Impact	$232.0[37]	6.3%	$0.64B
Lost Human Capital	$300.0[36]	8.1%	$0.82B
Indirect Subtotal	**$3,700.1**	**100%**	**$10.14B**

Ultimate Total

$$\begin{aligned} & Cost_{war,total} \\ = & Cost_{war,direct} + Cost_{war,indirect} \\ = & \$7.66T + \$3.7T \\ = & \$11.4T \end{aligned}$$

where:

$$
\begin{aligned}
&Cost_{war,direct} \\
&= Loss_{life,conflict} + Damage_{infra,total} \\
&+ Disruption_{trade} + Spending_{mil} \\
&= \$2.45T + \$1.88T + \$616B + \$2.72T \\
&= \$7.66T
\end{aligned}
$$

where:

$$
\begin{aligned}
&Loss_{life,conflict} \\
&= Cost_{combat,human} + Cost_{state,human} \\
&+ Cost_{terror,human} \\
&= \$2.34T + \$27B + \$83B \\
&= \$2.45T
\end{aligned}
$$

where:

$$
\begin{aligned}
&Cost_{combat,human} \\
&= Deaths_{combat} \times VSL \\
&= 234{,}000 \times \$10M \\
&= \$2.34T
\end{aligned}
$$

where:

$$
\begin{aligned}
&Cost_{state,human} \\
&= Deaths_{state} \times VSL \\
&= 2{,}700 \times \$10M \\
&= \$27B
\end{aligned}
$$

where:

$$
\begin{aligned}
&Cost_{terror,human} \\
&= Deaths_{terror} \times VSL \\
&= 8{,}300 \times \$10M \\
&= \$83B
\end{aligned}
$$

where:

$$
\begin{aligned}
&Damage_{infra,total} \\
&= Damage_{comms} + Damage_{edu} + Damage_{energy} \\
&+ Damage_{health} + Damage_{transport} + Damage_{water} \\
&= \$298B + \$234B + \$422B + \$166B + \$487B + \$268B \\
&= \$1.88T
\end{aligned}
$$

where:

$$
\begin{aligned}
&Disruption_{trade} \\
&= Disruption_{currency} + Disruption_{energy} \\
&+ Disruption_{shipping} + Disruption_{supply} \\
&= \$57.4B + \$125B + \$247B + \$187B \\
&= \$616B
\end{aligned}
$$

where:

$$
\begin{aligned}
&Cost_{war,indirect} \\
&= Damage_{env} + Loss_{growth,mil} + Loss_{capital,conflict} \\
&+ Cost_{psych} + Cost_{refugee} + Cost_{vet} \\
&= \$100B + \$2.72T + \$300B + \$232B + \$150B + \$200B \\
&= \$3.7T
\end{aligned}
$$

$11.4 trillion. Every year.

That is $1,419 per person per year. Including babies, who did not vote for this. Over an 80-year lifetime: **$113,551** per person. A decent car, a year of college, or a down payment on a house. You got bombs instead. Bombs you will never see, in countries you cannot find on a map.

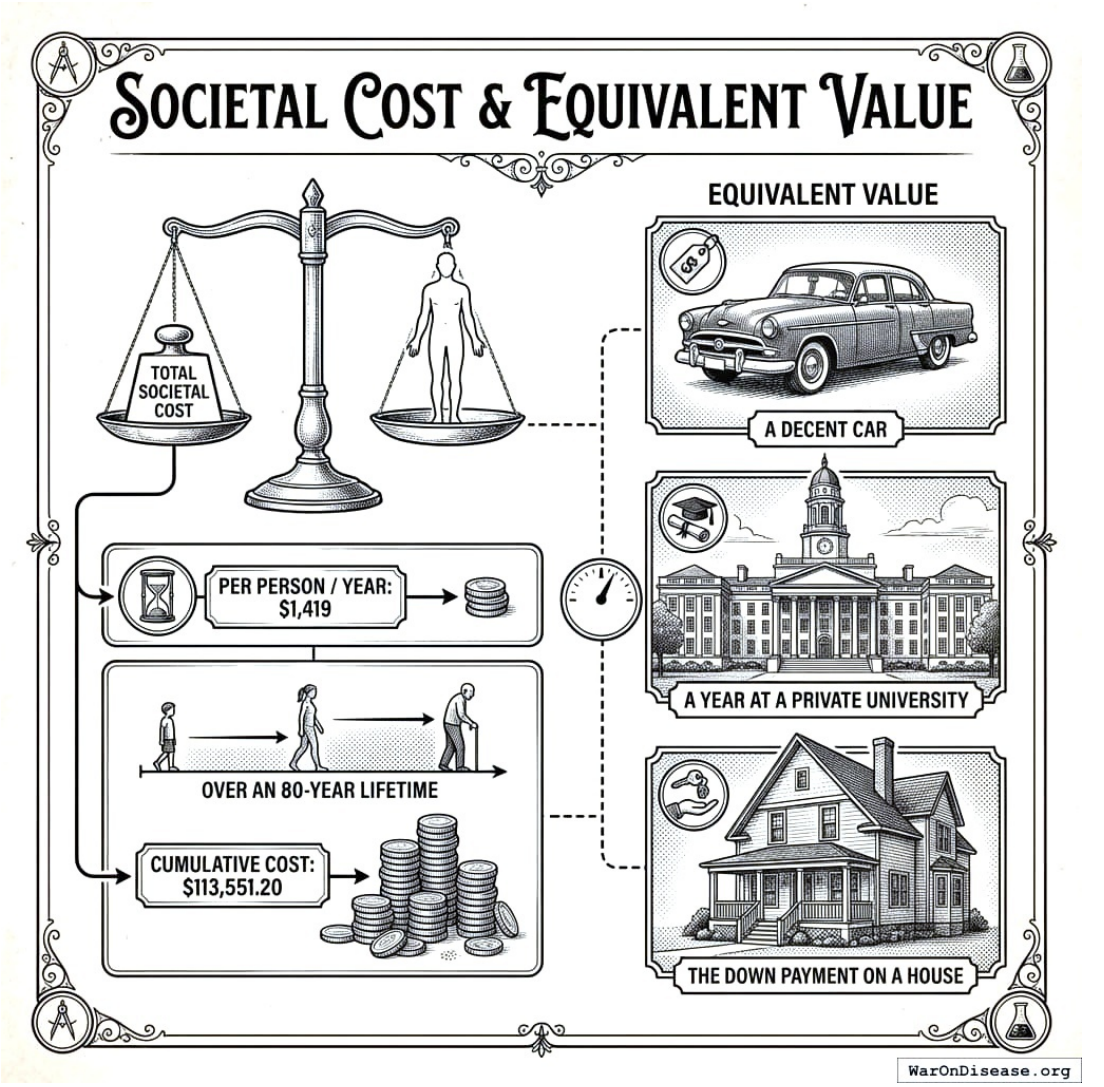


Figure 27: War costs you $113,551 in your lifetime. That's a car, or college, or a down payment on a house. You got none of those things. You got bombs in countries you can't pronounce.

For Context

That is 12.7% of global GDP[153], 168 times the WHO's budget[154], and enough to end extreme poverty 11.4 times over[149]. You could end poverty eleven times and still have change left for a twelfth. You bought bombs instead. If stupidity were a natural resource, you would be energy independent.

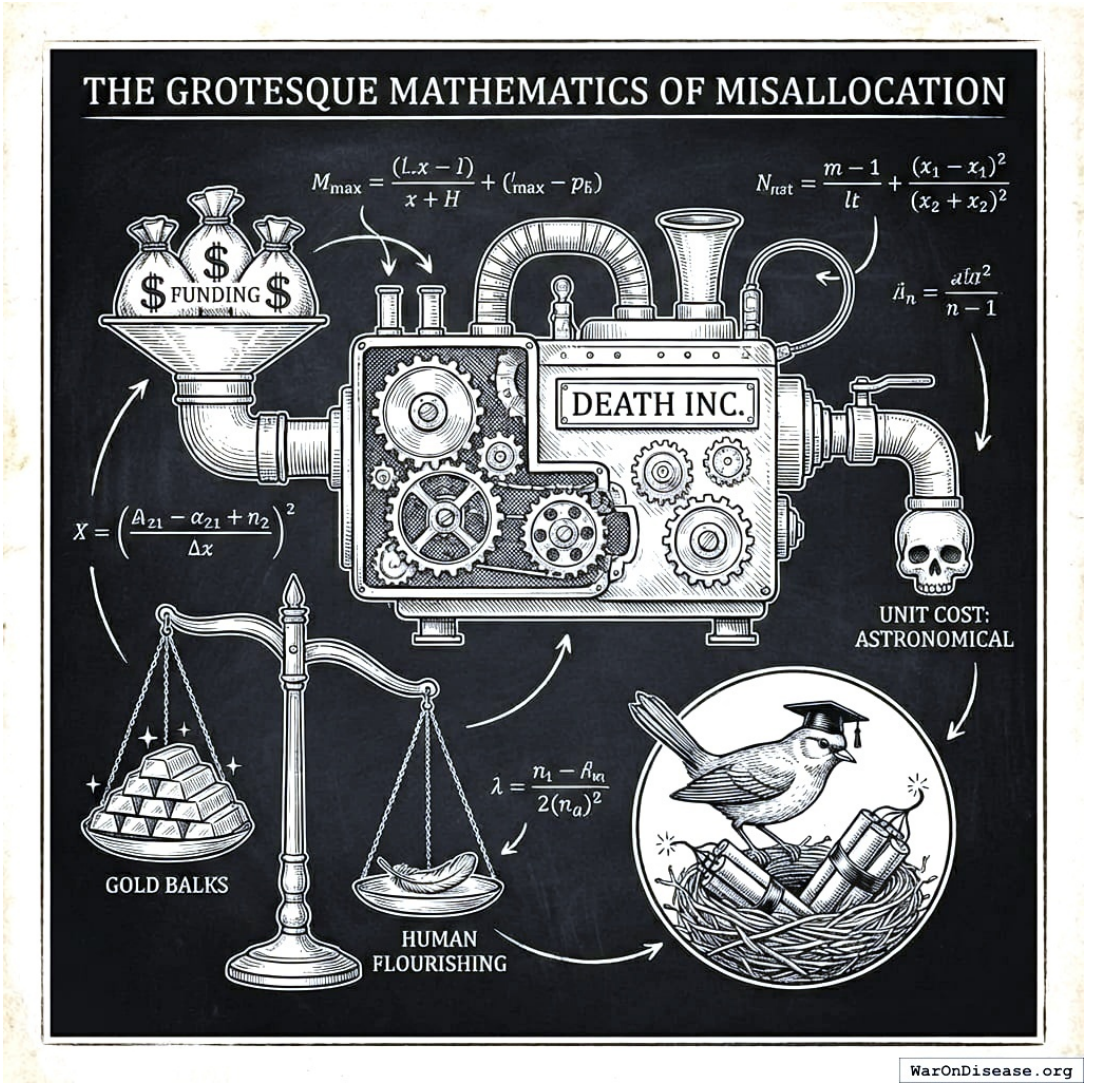


Figure 28: Each missile costs the same as 50 teachers' salaries. You have many missiles. You have large classrooms.

Hidden Costs of War

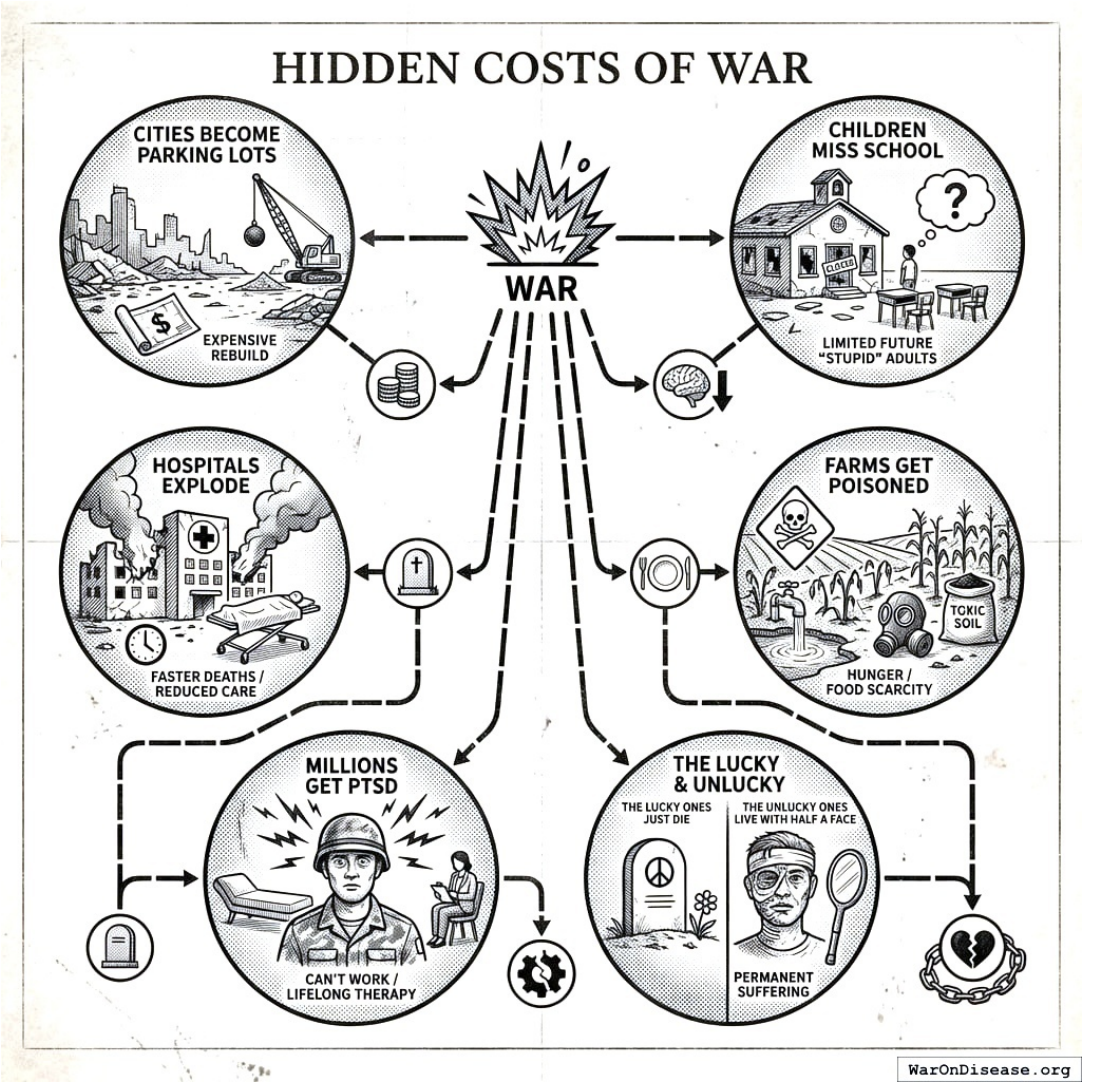


Figure 29: War destroys the hospital. Then there's no hospital to treat the war wounds. Then people die of preventable diseases. Then the economy collapses. Then you have another war. It's very efficient.

When you look at the secondary effects, the costs compound like interest at a bank run by sadists. Each consequence causes the next one, in a circle of misery that would be elegant if it were not so stupid:

- Cities become parking lots (expensive to rebuild, poor for foot traffic).
- Children miss school (they grow up to be uneducated adults, who start more wars).
- Hospitals explode (the building you need to fix war injuries was destroyed by the war).
- Farms get poisoned (everyone gets hungry, hungry people fight, see line one).
- Millions get PTSD (they can't work and need therapy for decades).
- The lucky ones just die.
- The unlucky ones live with the memory of having been unlucky.

The Cost of Disease

The Daily Body Count

Every single day:

- **150,000 people stop existing**
- **130,000 from disease** (diseases are very effective at their job)
- **80,000 were preventable**[155] (you had the technology, you just chose not to use it)
- **13,700 are children**[156] (which matters if you believe children should continue existing)

That's fifty 9/11s. Every. Single. Day.

After the first 9/11, America invaded two countries and spent $2 trillion. After the fifty daily 9/11s, humanity shrugs and checks Instagram.

Every hour: **6,250 deaths**. Every minute: **104 deaths**. Every second: **1.7 deaths**.

If you took everyone in a decent-sized stadium and deleted them, that's one day. Then do it again tomorrow. And the day after that. Forever. You'd run out of stadiums before you'd run out of corpses, which seems like poor urban planning.

That's the body count. Now let's talk about the bill.

The Financial Cost

While you read this sentence, disease just deleted $12.6 million of human potential from existence.

By the time you finish this paragraph, $60 million more will evaporate into cancer treatments, heart surgeries, and funeral expenses. Also Dave from accounting's weird rash, but that's probably unrelated.

Humanity hemorrhages **$397.4 trillion annually**[43] to diseases that are basically just engineering problems with meat robots.

That's more than the entire global economy. Every year. You lose more money to disease than you make doing everything else combined. It's like running a lemonade stand that costs more in lemons than the entire GDP of Earth.

"Wait," you say, demonstrating basic arithmetic skills, "global GDP is only $101 trillion[157]. How can we lose more than everything that exists?"

Because economists forgot to include the dying part. For centuries, economics measured productivity without accounting for the people who stopped being productive on account of being dead. This is like calculating the cost of a plane crash without including the plane, the passengers, or the fact that they were going somewhere.

The Actual Bill (Economist-Approved Misery Accounting)

Here's what disease actually costs, translated from economist-speak into human language:

What We're Losing	What This Actually Means	Annual Cost
Direct Medical Costs	Paying doctors to Google your symptoms in a room that costs $500/hour	$8.2 Trillion[158]
Lost Productivity	Sick people make fewer spreadsheets, decreasing global PowerPoint supply	$6.7 Trillion[159]
Lost Human Life (DALYs)	Dead people contribute zero to the economy (economists finally noticed)	$382.5 Trillion[160]
TOTAL DISASTER	**More money than exists on Earth**	**$397.4 Trillion**[43]

Let me explain that last one, because it's where the real horror lives.

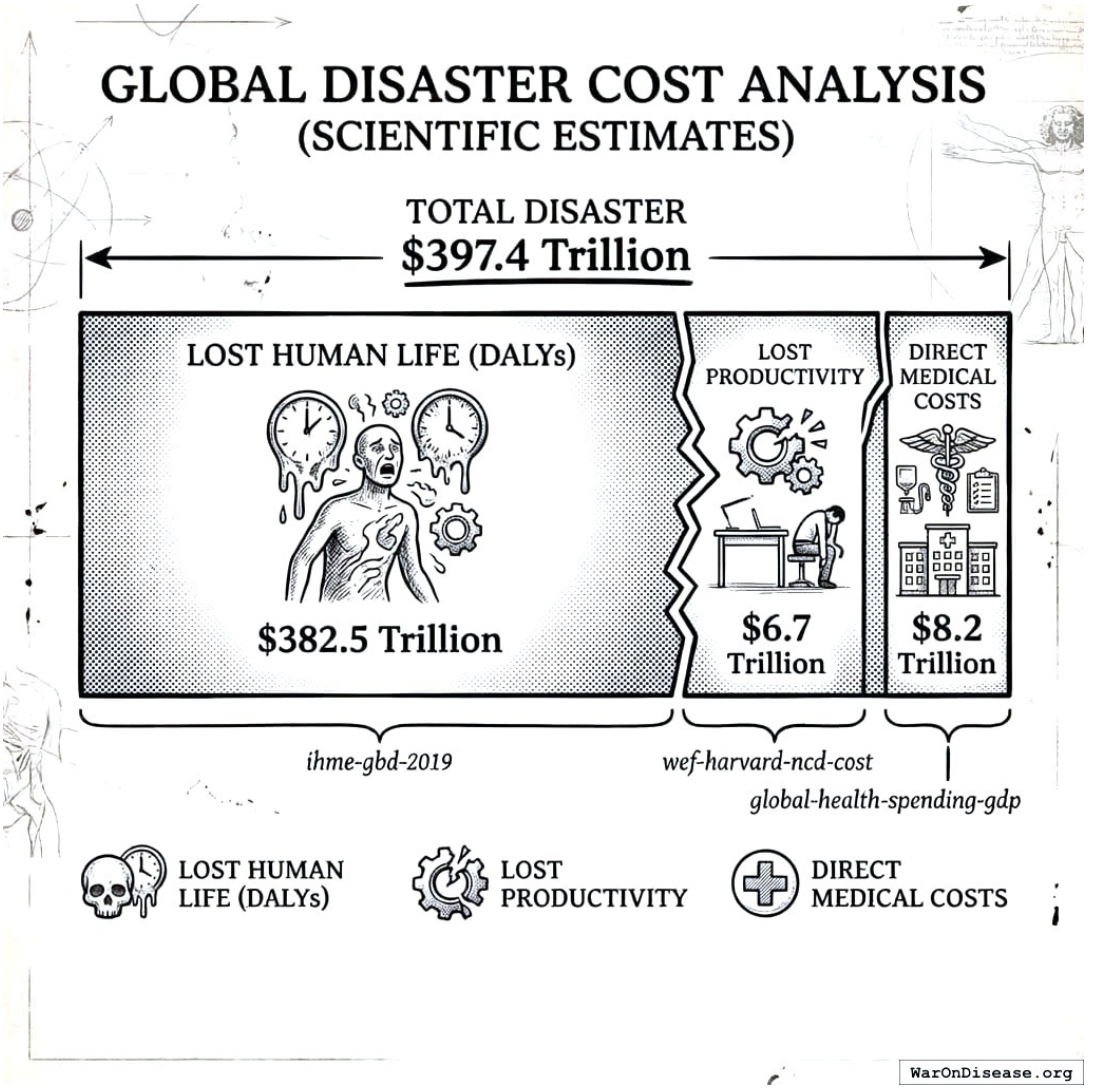


Figure 30: Disease costs $397 trillion a year. Most of that is dead people not being alive to do things. You could fix this by making people less dead.

How to Measure Suffering Without Feeling Feelings (The DALY)

DALY stands for "Disability-Adjusted Life Year." That's economist-speak for "quantifying human misery without having to look people in the eye."

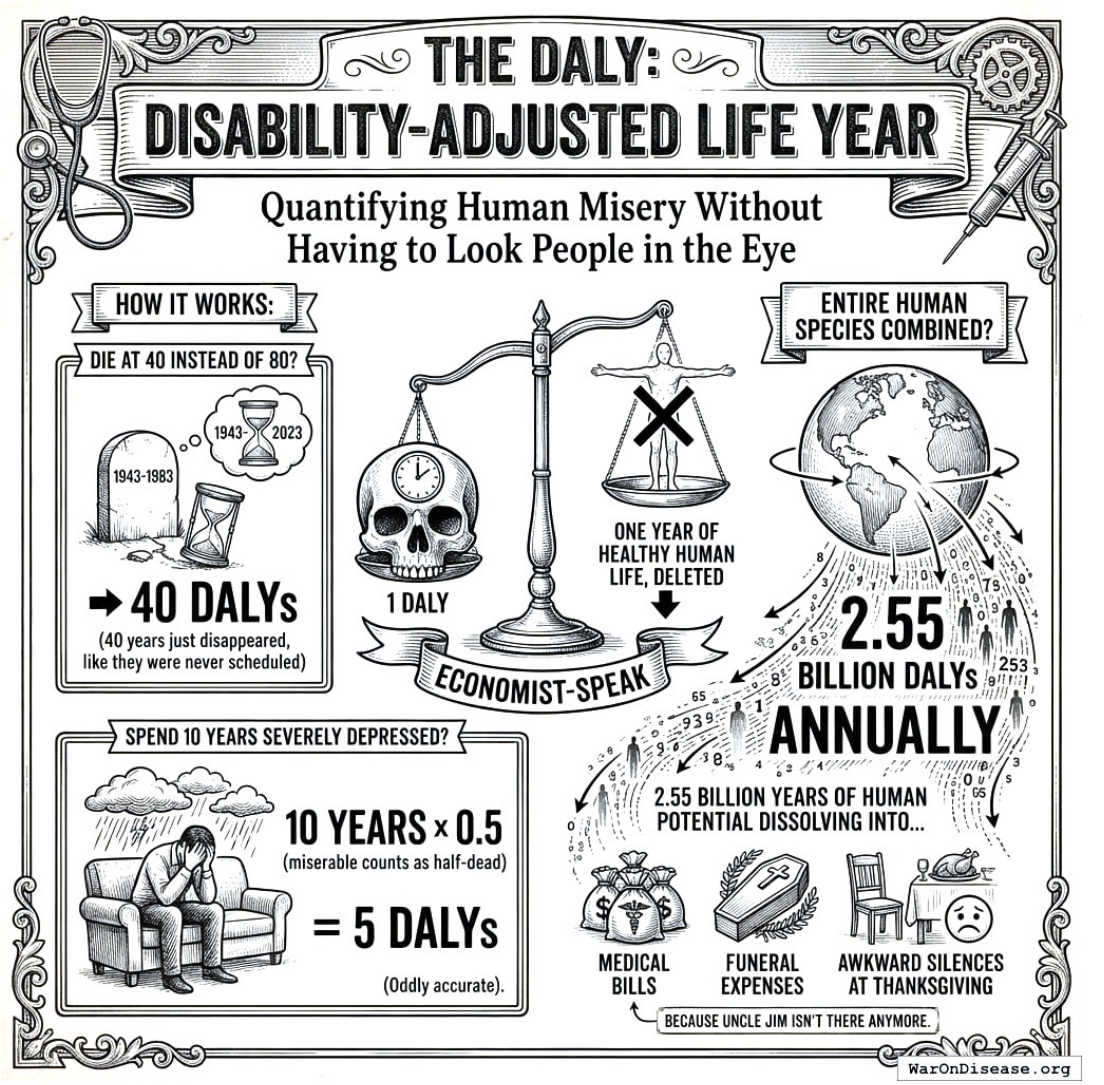


Figure 31: DALYs measure healthy years lost. Dying at 30 instead of 80 loses 50 years. Living 50 years in a wheelchair at 50% capacity loses 25 years. The math is simple. Fixing it is apparently hard.

One DALY = One year of healthy human life, deleted.

Die at 40 instead of 80? That's 40 DALYs. Spend 10 years severely depressed? That's 5 DALYs (economists calculated that being miserable counts as being half-dead, which is oddly accurate).

The entire human species combined? **2.55 BILLION DALYs annually**[160]. That's 2.55 billion years of human potential, dissolving annually into medical bills and funeral expenses.

What the WHO Thinks You're Worth (Less Than a Tesla)

The World Health Organization decided one year of human life is worth 1-3 times GDP per capita[161]. They made this calculation sober, which is surprising.

Let's use 3x GDP per capita. We're optimists who think humans are worth at least three years

of their economic output. This is the most generous estimate bureaucrats could manage, and it's still less than a luxury sedan.

The math is simple and horrifying:

- Value per healthy year: $150,000 (less than a Tesla, apparently)
- Total DALYs lost annually: 2.55 billion years

Multiply these together:

$$2,550,000,000 \text{ years} \times \$150,000/\text{year} = \$382.5 \text{ trillion}$$

That's $382.5 trillion of human potential. We flush it annually down the toilet labeled "diseases we haven't cured yet because the money went to bombs."

Let's Break Down This Apocalypse By Time Unit

$397.4 trillion annually breaks down to:

- **$1.09 trillion EVERY DAY** (more than most countries make in a year)
- **$45 billion EVERY HOUR** (enough to fund a mid-size cancer research institute)
- **$757 million EVERY MINUTE** (more than most lottery jackpots)
- **$12.6 million EVERY SECOND** (a new Tesla Roadster worth of human potential, gone, every second, forever)

By the time you finish this chapter (about 10 minutes), disease will have cost humanity more than the entire Apollo moon program. We went to the moon for less than one chapter's worth of disease costs.



Figure 32: Ten minutes of global disease costs more than putting a man on the moon. You went to the moon once. Disease happens every ten minutes.

The math is, as your children say, not mathing.

What's Actually Deleting Everyone (The Greatest Hits)

Here's what's killing people while you read about what's killing people:

Disease	Annual Deaths	Daily Deaths	Will Die Reading This Chapter
Heart Disease	20 million[162]	54,800	500
Cancer	10.4 million[163]	28,500	260
Respiratory Disease	6.5 million[164]	17,800	160
Dementia	2.6 million[165]	7,100	65

Disease	Annual Deaths	Daily Deaths	Will Die Reading This Chapter
Diabetes	3.4 million[166]	9,300	85
Kidney Disease	1.4 million[167]	3,800	35
Tuberculosis	1.3 million[168]	3,600	33
TOTAL	**55 million[169]**	**150,000**	**1,370**

1,370 humans will permanently stop existing while you read this chapter. That's five 747s crashing. Every 10 minutes. Forever. If this happened to actual planes, you'd ground all flights within an hour and the 24-hour news cycle would collapse from overuse. But because it's disease, you call it "natural causes" and go back to arguing about parking.

While you're busy testing 0.000003% of potential cures:

- **10 million people annually[170]** will die from antimicrobial resistance by 2050 (bacteria evolved faster than we did, which is embarrassing)
- **600,000 people annually[171]** die from malaria (mosquitoes: 600,000, humanity: 0)
- **10.4 million people annually[163]** die from cancer (your own cells killing you because they forgot how to die)
- **20 million people annually[162]** die from cardiovascular disease (hearts that gave up on humanity, can't blame them)

Each death represents:

- Someone's entire universe ending
- A grandmother who won't meet grandchildren
- A scientist who might have cured the thing that killed them
- $4 million in lost economic value (if we're being cold about it, which economists always are)
- Infinite sadness if you're the one dying, mild inconvenience if you're not

Your Body Is Not Magic, It's Just Broken

Your body is a machine. Not mystical, not "in balance with the universe." A biological machine made of 37 trillion cells. And like all machines, it breaks.

Machines can be fixed.

Every disease is just a broken part: cancer is cells with broken stop buttons, Alzheimer's is broken garbage disposal in brain cells, aging is everything breaking at once very slowly (rude).

You don't fix them because you haven't tested 99.999997% of the repair tools. There are 166 billion possible molecules. You've tried ~0.003% of them. That's like trying to find your car keys by checking one pocket then giving up forever.

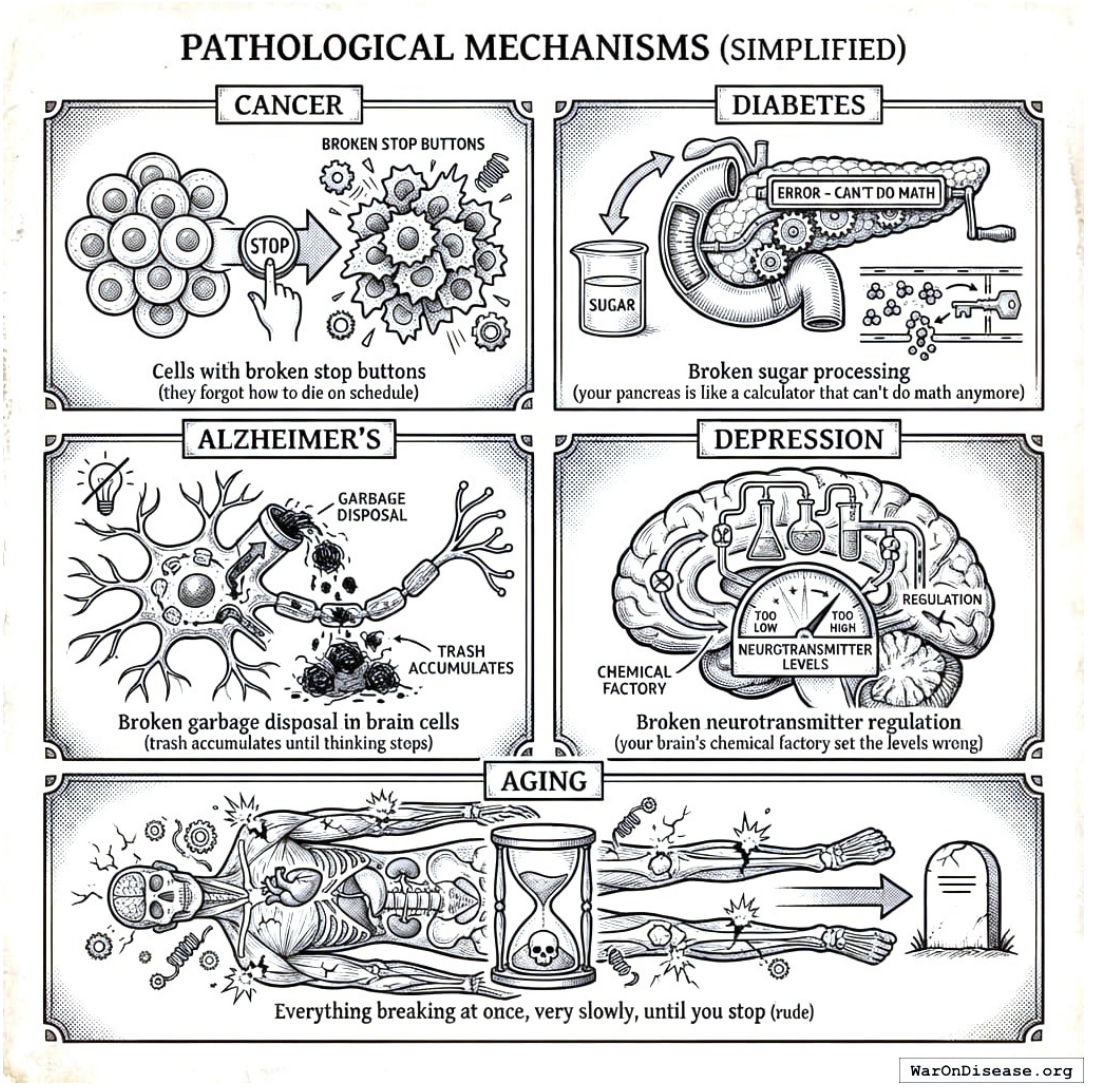


Figure 33: Heart disease is like a clogged pipe. Cancer is like cells that forgot how to stop. Diabetes is like a broken thermostat. You understand pipes. You can't fix the pipes inside you.

What This Actually Costs

The $397.4 trillion "Disease Tax" is optional. Not optional like "you can skip it," but optional like "it's not a law of physics, just a choice humanity keeps making."

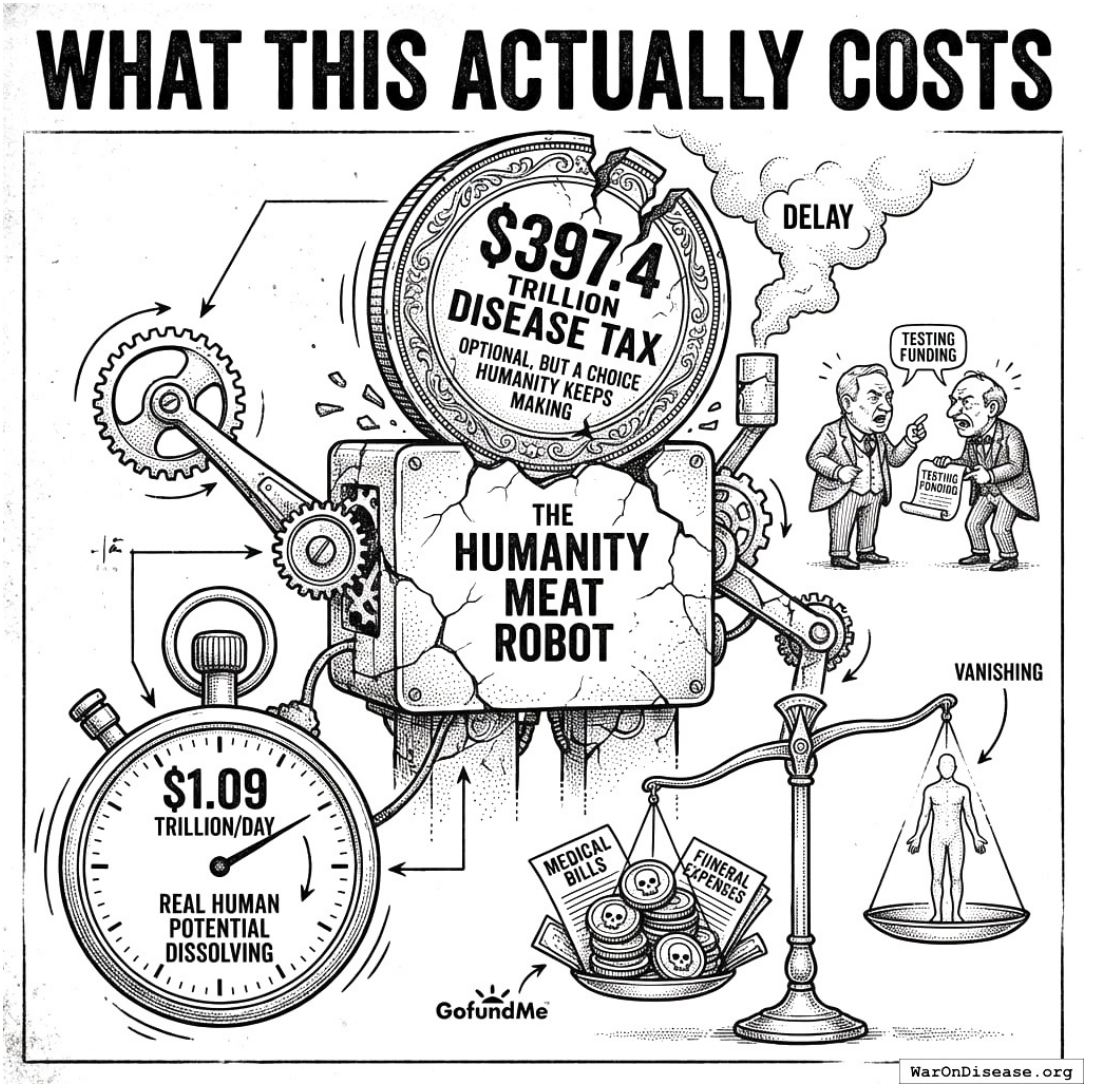


Figure 34: The Disease Tax: $1.09 trillion per day in lost human potential. You pay it every day. You get nothing. At least real taxes build roads.

It's the price you pay for being too slow to fix your own broken meat robots.

Every day you delay costs another **$1.09 trillion**. Not theoretical future money. Real human potential dissolving right now into medical bills, funeral expenses, and GoFundMe campaigns. Meanwhile, politicians argue whether you can "afford" to test molecules.

Your Priorities, Written in Your Budgets

- **Military budget:** Gets $7.4 billion daily[61] to practice ending human life
- **Medical research:** Gets $185 million daily[47] to practice extending it

That's a **40:1 ratio in favor of death over life.**

If aliens intercepted your budget spreadsheets, they'd conclude you're a death cult that occasionally dabbles in medicine as a hobby. (We have intercepted them. This is accurate.)

The Future You're Paying For

Somewhere in the future, there's a Tuesday when:

- Cancer is a minor inconvenience like a cold
- Hearts are as repairable as carburetors
- Death is optional, not mandatory
- Aging is something that happened to your ancestors

Every day between now and that Tuesday costs you $1.09 trillion. That's the real invoice. The actual bill for choosing bombs over grandma's cancer treatment.

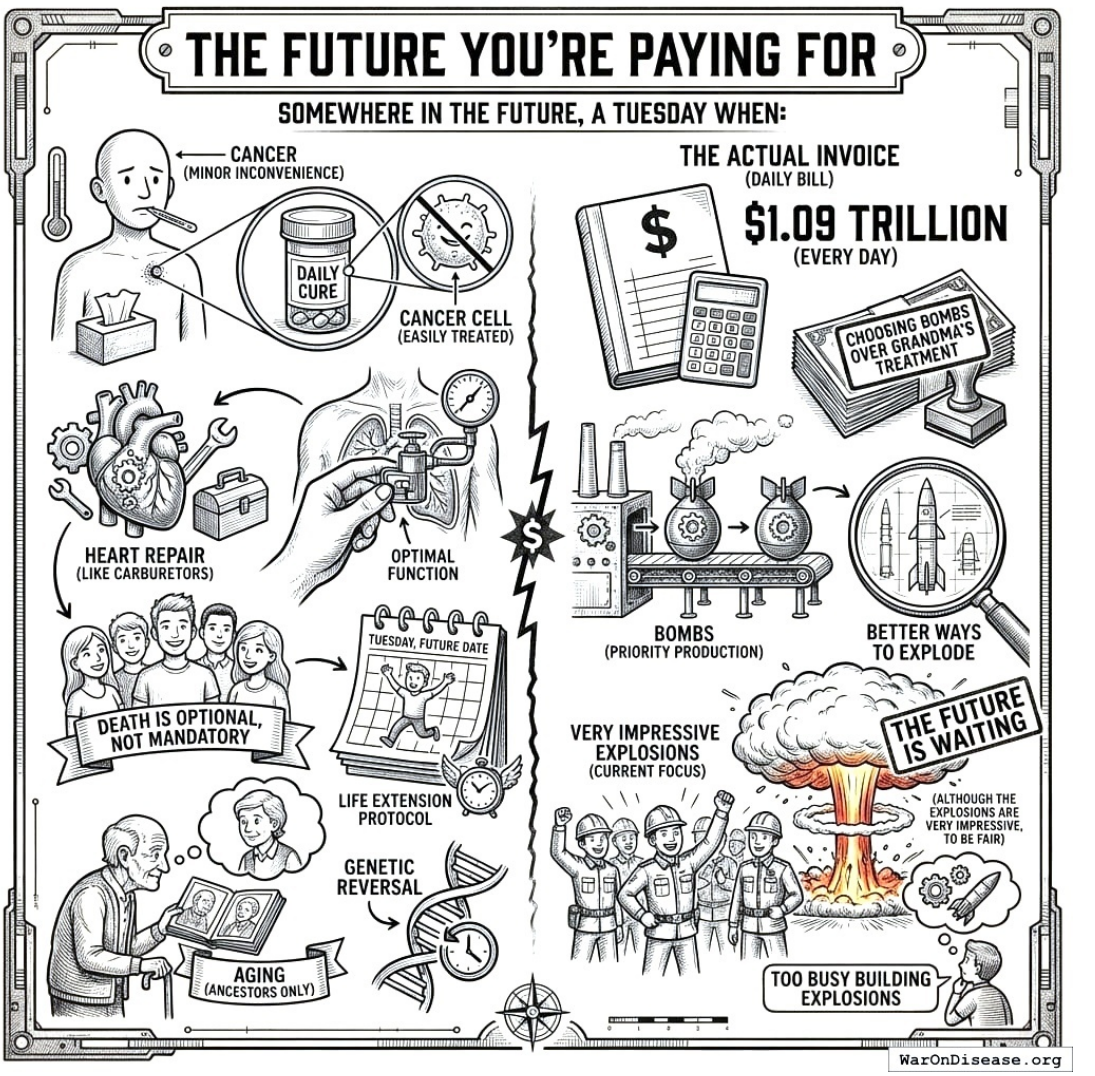


Figure 35: Every day of military spending delays the cancer cure by another day. You've been delaying it for 75 years. The cancer is very patient.

The future is waiting. You're just too busy building better ways to explode each other to notice. The explosions are very impressive, though. Full marks for spectacle.

NIH Fails to Institute Health

The Allocation Scandal

The National Institutes of Health has an annual budget of approximately **$47B**. 55 million people die annually[169]. You would think those two facts would be related. They are not.

A 2023 JAMA study[172] analyzed $247 billion in NIH spending (2010-2019) and found:

- **84.9% - Basic research** ($209.9B): Mice, molecules, mechanisms. "Experimental work without any particular application in view." They put the quiet part in the job description.
- **11.8% - Applied research (non-trial)** ($29.3B): Research with "practical aims" that does not practically aim at testing treatments in humans.
  - **CTSA infrastructure program:** ~$1B/year in buildings, overhead, salaries[173]
  - **Observational studies:** Watching patients get sicker without testing treatments (All of Us[174]: $2.16B to observe disease happening. Heroic.)
  - **Other applied research:** Drug characterization, health services research, epidemiology
- **3.3% - Phased clinical trials** ($8.1B): Actually testing if drugs work in humans[172] (Phases 1-3)
  - Phase 1: $1.5B (18.5% of clinical trial budget)
  - Phase 2: $3.5B (43.2%)
  - Phase 3: $2.6B (32.1%). **NIH covers only 3.7-4.3% of Phase 3 costs**, then wanders off like a cat that lost interest.
  - Pragmatic trials[1] (30x cheaper): Severely underfunded despite proven efficiency

The NIH spends 96.7% of its budget on everything except the one thing that saves lives: testing treatments in humans.

It's like spending 97% of your grocery budget on cookbooks and 3% on food, then wondering why you're starving.

This isn't just inefficiency. It's a body count.

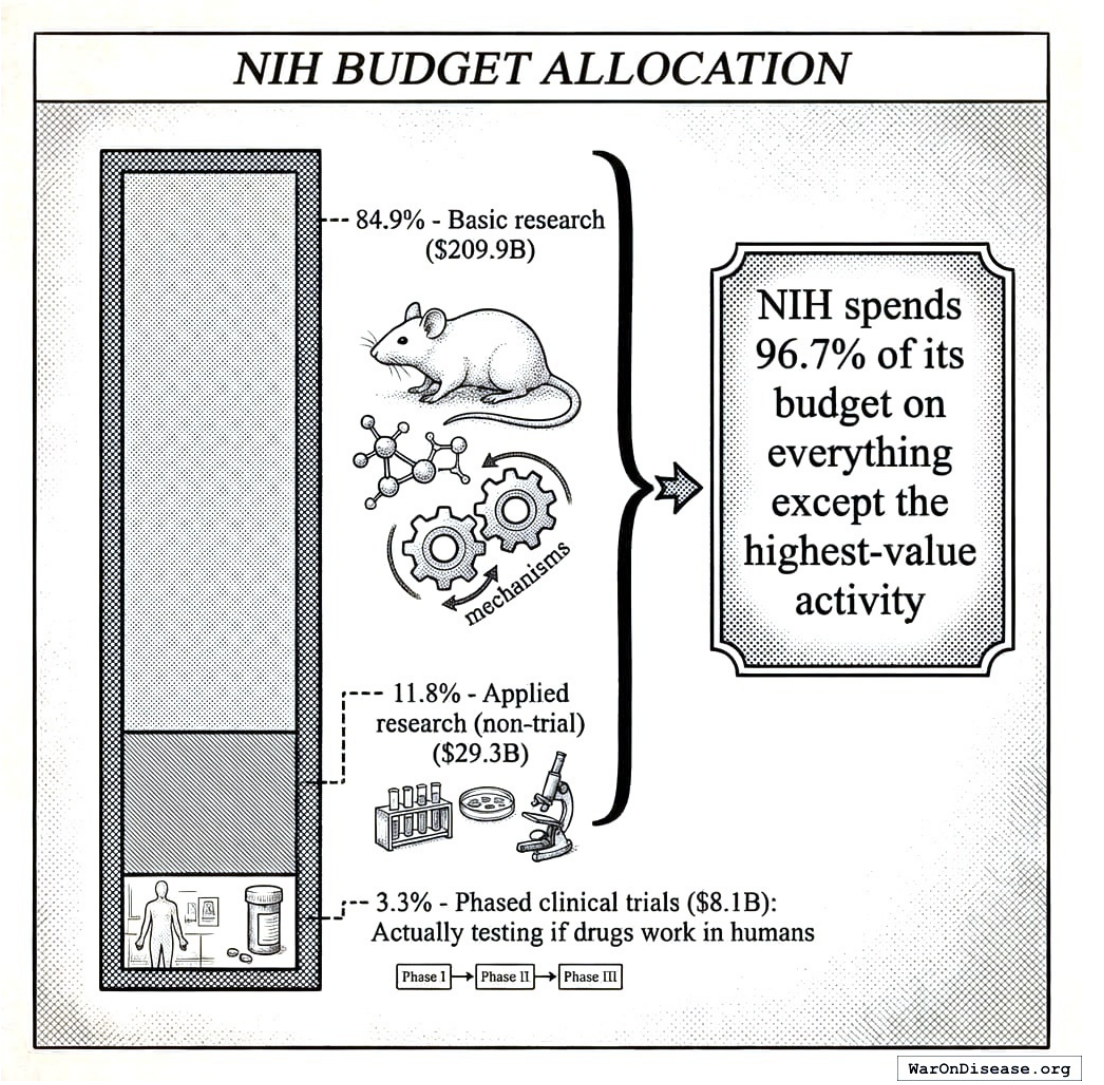


Figure 36: The NIH spends 85 percent on research and 3 percent on humans. Apparently mice are more important.

Why This Allocation Exists

This isn't bureaucratic accident. It's lobbied outcome.

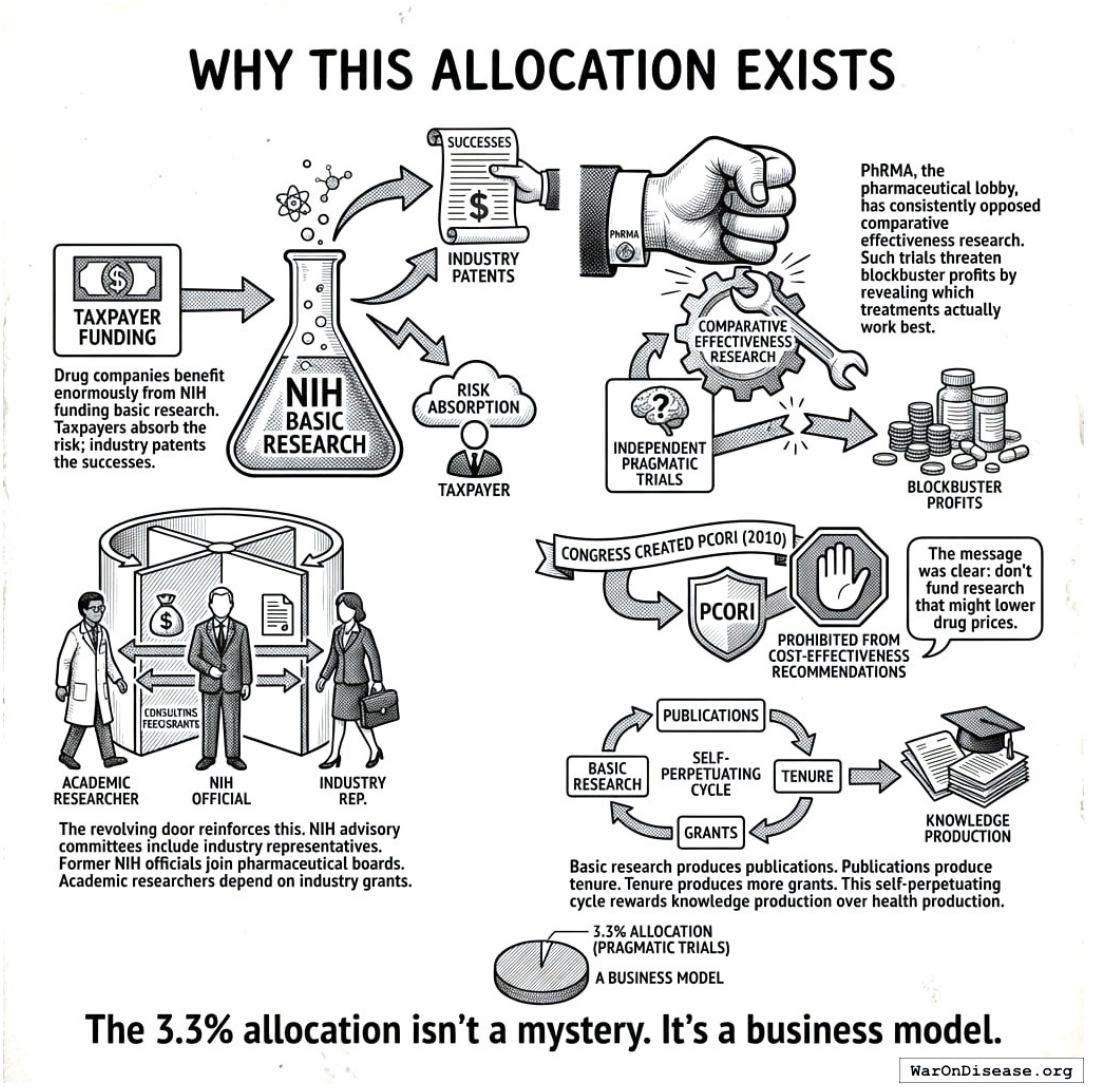


Figure 37: The revolving door between pharma, government, and academia spins so elegantly. It's performance art, if the art was killing people slowly.

Drug companies love the NIH. Taxpayers absorb the risk of basic research; industry patents whatever works. It's like if your neighbor paid for your kitchen renovation, and then you charged them rent to eat there.

But independent trials comparing drugs head-to-head? Those are terrifying. They might reveal that the $80,000 drug works about as well as the $4 generic. PhRMA, the pharmaceutical lobby, has consistently opposed comparative effectiveness research. When Congress created PCORI in 2010, industry successfully lobbied to prohibit it from making coverage recommendations based on cost-effectiveness[175]. Congress literally passed a law saying "don't fund research that might lower drug prices." They wrote it down. In legislation. On purpose.

The revolving door helps. NIH advisory committees include industry representatives. Former NIH officials join pharmaceutical boards. Academic researchers depend on industry grants. Everyone's incentives align against cheap, fast trials testing whether expensive drugs outperform generics. It's not a conspiracy. It's just that everyone involved happens to benefit from the

same terrible outcome, purely by coincidence, repeatedly, for decades.

Basic research produces publications. Publications produce tenure. Tenure produces more grants. Nobody in this cycle needs anyone to get better. They need papers.

The 3.3% allocation isn't a mystery. It's a business model.

The Efficiency Gap: A Tale of Two Trials

The difference between efficient and inefficient trial design isn't theoretical. Humanity accidentally ran a controlled experiment on itself during COVID. Two countries. Same disease. One spent like it was trying to cure death. The other actually did.

RECOVER Initiative (NIH Approach)

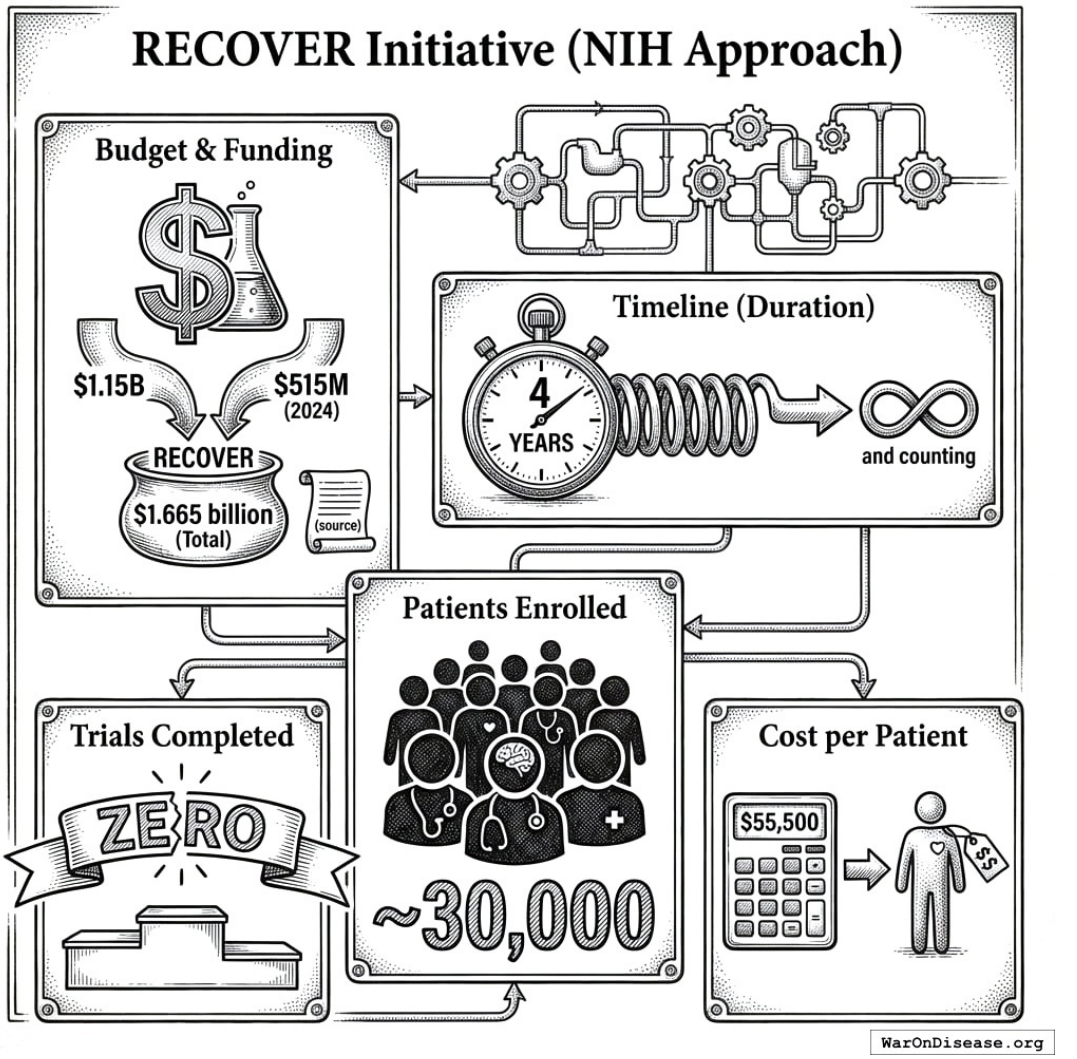


Figure 38: RECOVER spent 1.6 billion over four years, enrolled 30,000 patients, and completed zero trials. That's like paying for a wedding and forgetting to get married.

Budget: $1.665 billion ($1.15B + $515M in 2024) (source[176]) **Timeline:** 4 years and counting[177] **Patients enrolled:** ~30,000[178] **Trials completed:** Zero[177] **Cost per patient:** $55,500

RECOVERY Trial (UK Approach)

Budget: $20M **Timeline:** 6 months[179] **Patients enrolled:** 48,000[66] **Treatments found:** Multiple, including dexamethasone[180] (saved over 1 million lives) **Cost per patient:** $500

The NIH spent **133X more per patient** and achieved **infinitely less** (dividing by zero trials completed produces infinity, which is fitting because that's how long patients waited). This efficiency gap is not unique to RECOVERY. A systematic review of 64 pragmatic trials found a median cost of $97/patient[74].

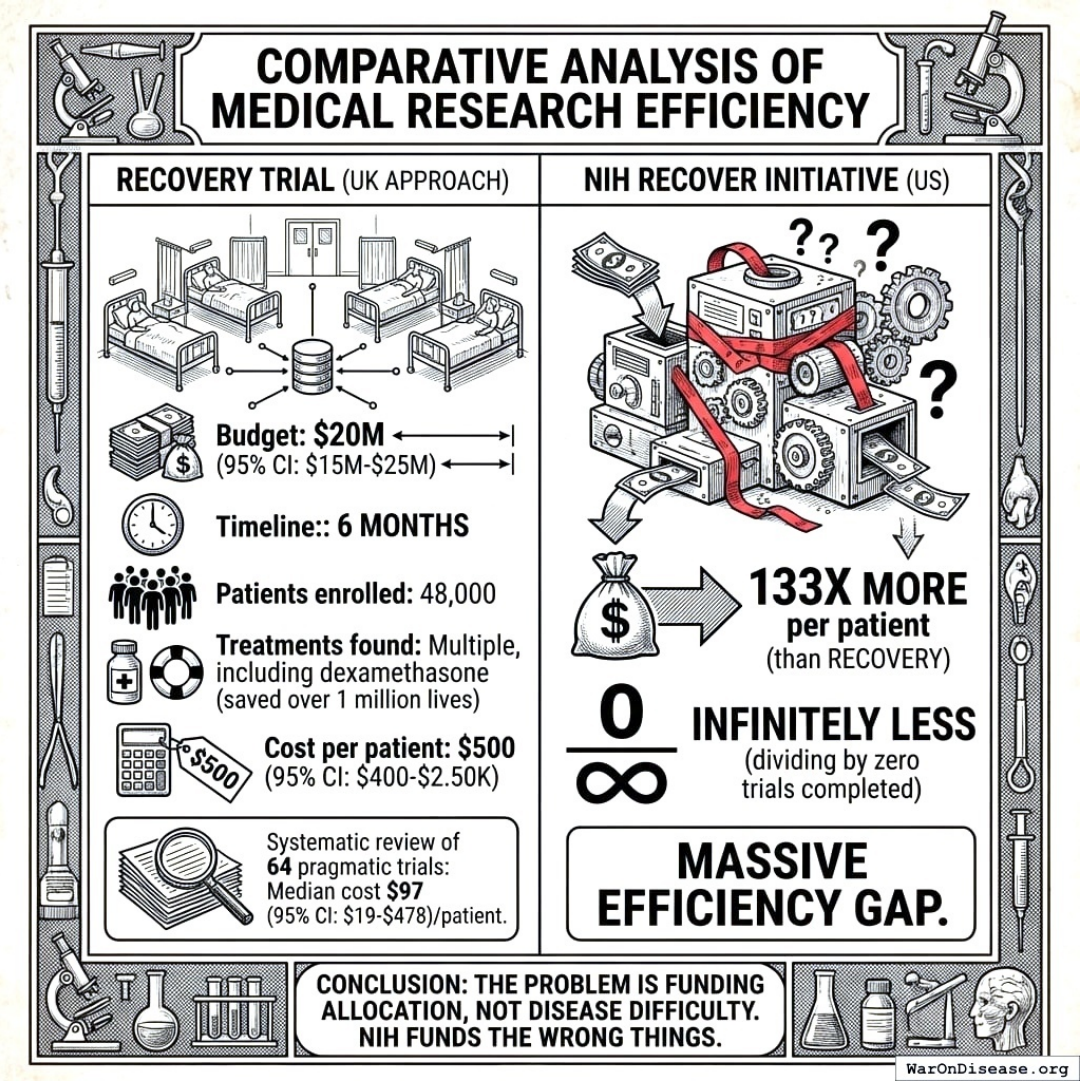


Figure 39: The UK trial cost 133 times less per patient and actually finished. America: where we do everything bigger, including waste.

The British cured disease for the price of a nice dinner per patient. America spent the price of

a luxury SUV per patient and cured nothing. The problem isn't that curing disease is hard. The NIH doesn't have a capability problem. It has a shopping addiction.

The Death Toll: Opportunity Cost of Misallocation

When you misallocate $40 billion a year into low-efficiency research instead of high-efficiency clinical trials, you aren't just wasting money. You are composting people.

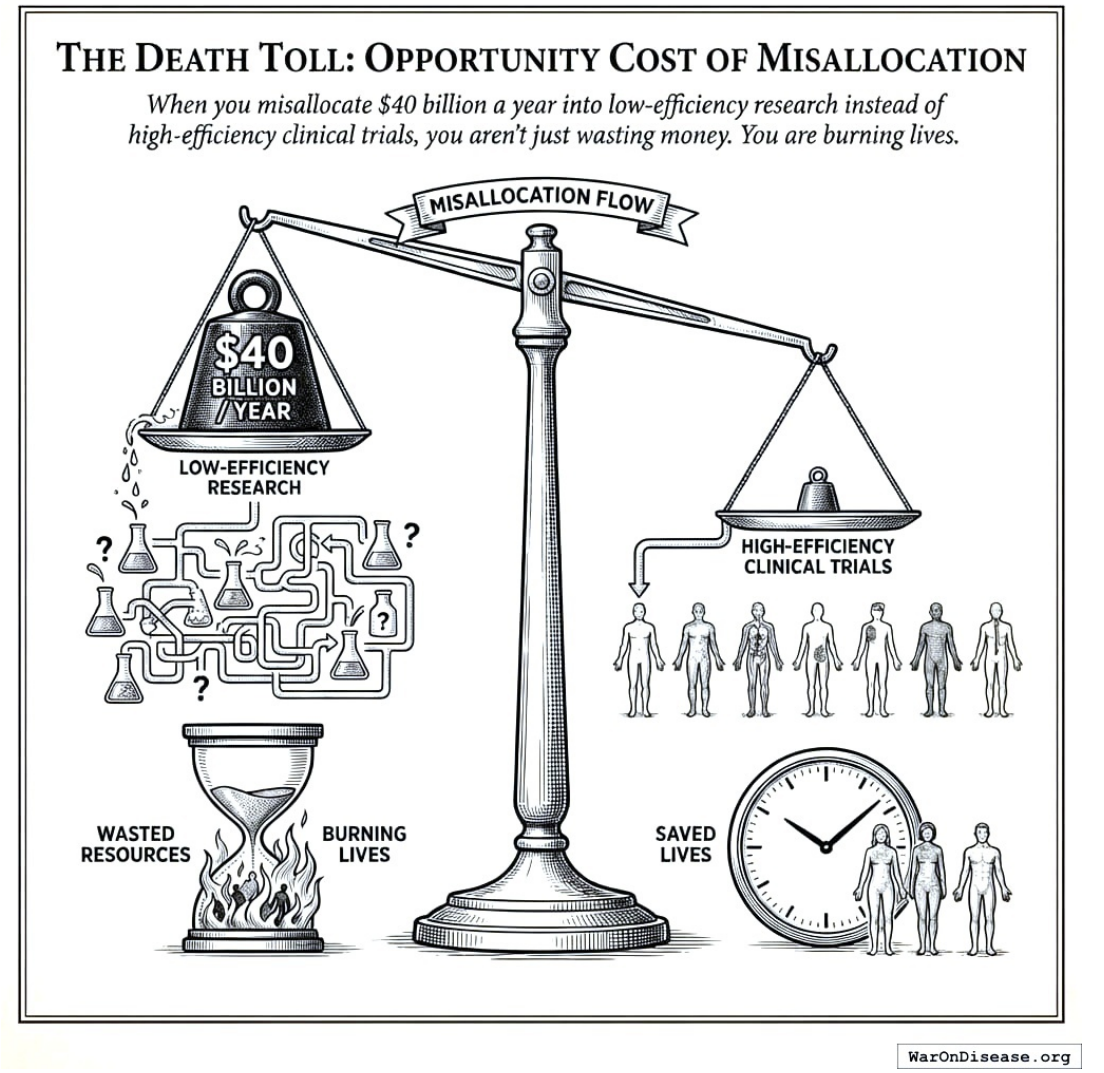


Figure 40: Spend 40 billion on efficient trials, save millions. Spend it on inefficient research, publish papers. You chose papers.

Cost Per QALY (Quality-Adjusted Life Year)

- **Standard NIH Portfolio:** $50K per QALY[65] (and that's being generous)
- **Pragmatic Platform Trials:** $4.00 per QALY

Every $1 spent on efficient pragmatic trials buys **12.5kx more health** than a dollar spent on

the current NIH portfolio. The ADAPTABLE trial proved pragmatic trials cost 30x less than traditional RCTs[1] ($14M vs $420M). Same science. Fewer catered meetings.

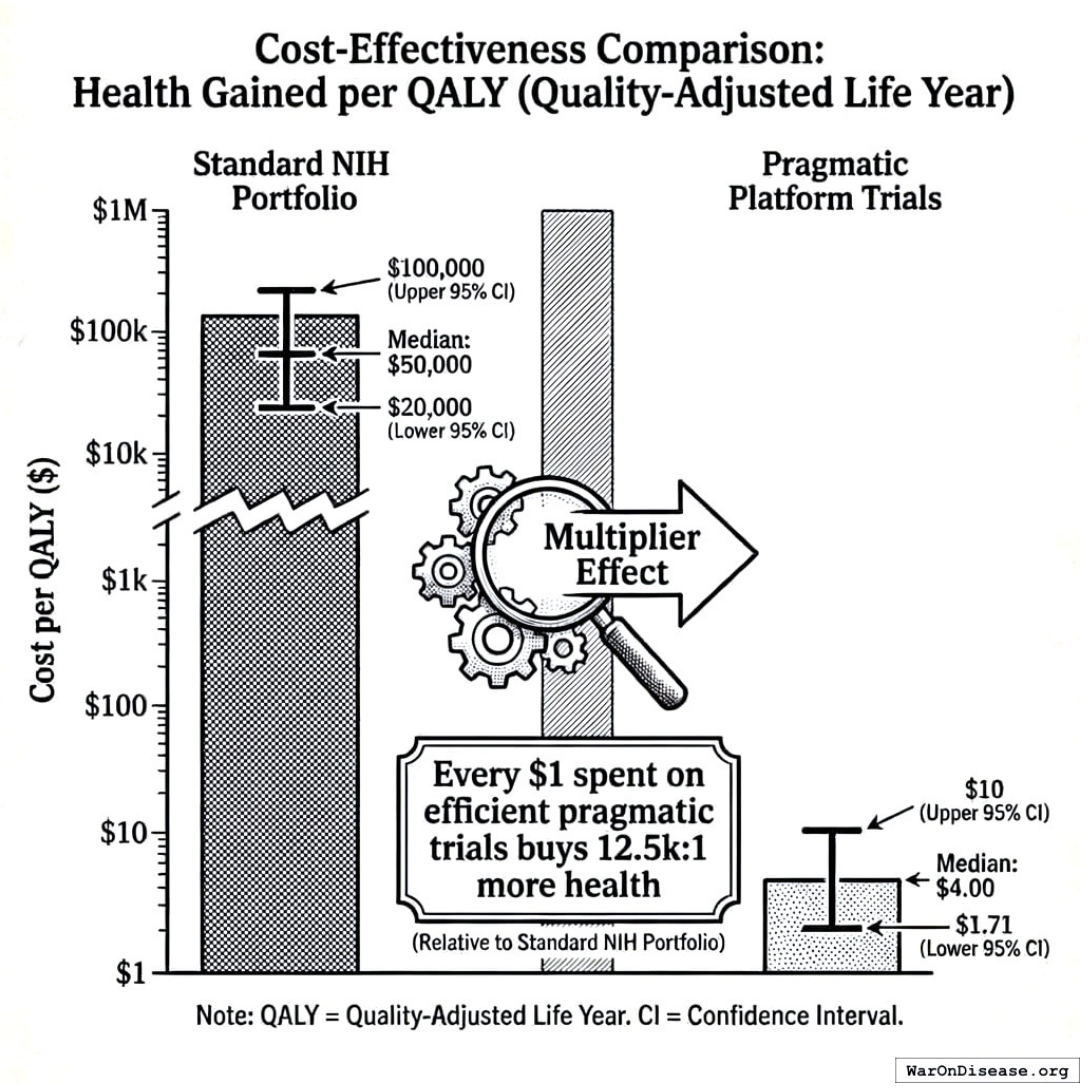


Figure 41: One method saves lives efficiently. The other publishes papers expensively. You're currently funding the papers.

The "Death Equivalent" of Budget Misallocation

Annual Opportunity Cost: ~100 million QALYs and ~7 million death-equivalents per year. Even the most conservative estimate: ~10 million QALYs and ~700,000 preventable deaths annually.

You are operating at ~2% of your potential capacity to save lives. If your car ran at 2% efficiency, you'd walk. If your heart ran at 2% efficiency, you'd die. Your medical research system runs at 2% efficiency, and you gave it a raise.

The Translation Crisis: All Theory, No Medicine

The problem is not a shortage of ideas. It is a shortage of anyone bothering to test them.

- **FDA-approved drugs:** >20,000 known safe in humans
- **Repurposable compounds:** ~4,700-6,800 clinically-tested candidates[181] (including 3,422 marketed drugs) gathering dust
- **Plausible dementia interventions:** Hundreds
- **Clinical trials available for your grandma in St. Louis:** Zero

You have a warehouse of safe molecules that have never been systematically tested for new uses. The warehouse is full. The testing facility is closed for a team-building retreat.

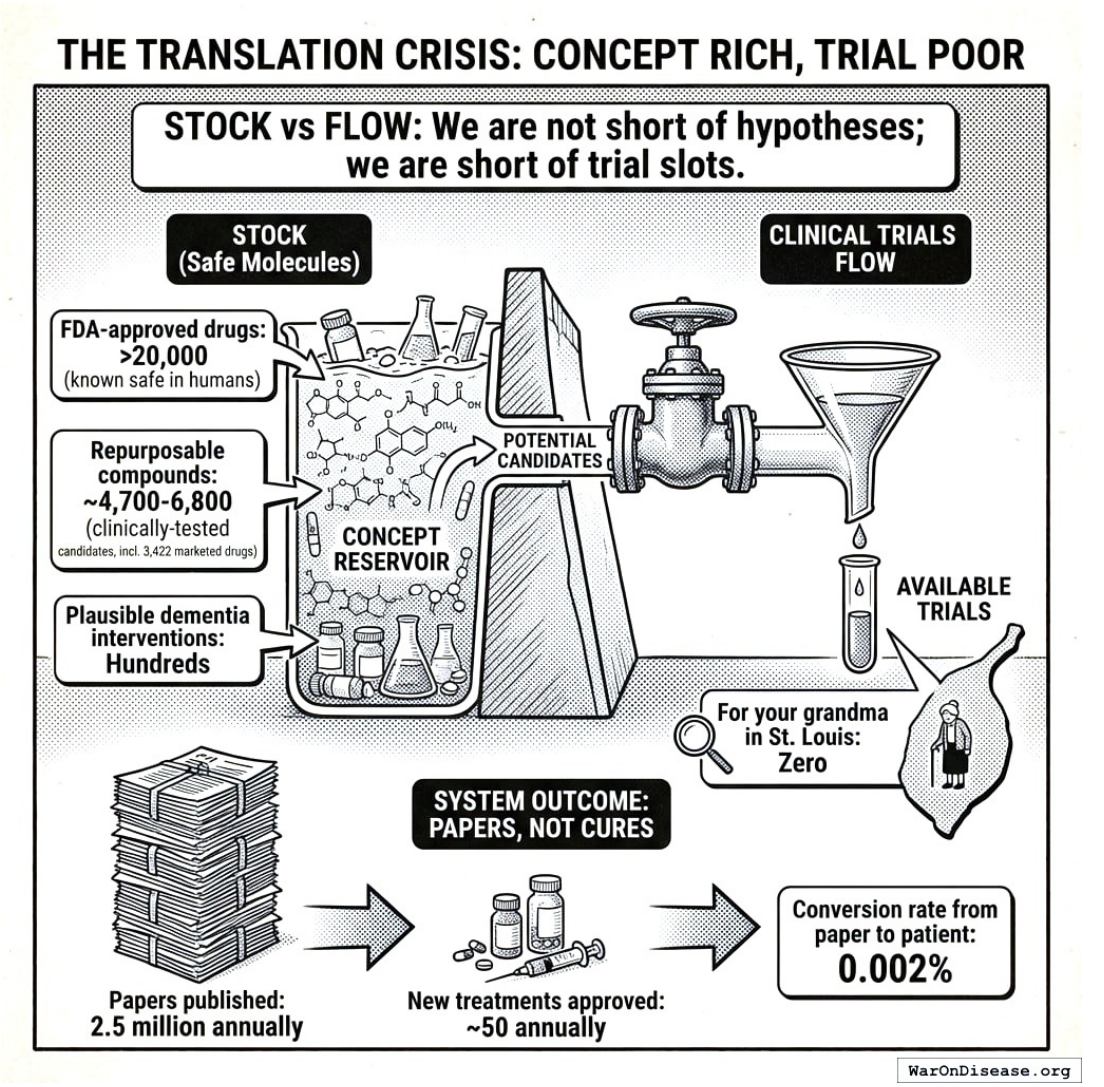


Figure 42: Imagine a massive lake of possible cures connected to the ocean by a drinking straw. You built the straw that way on purpose.

The NIH is, by its own metrics, a publishing house that occasionally dabbles in medicine:

- **Papers published:** 2.5 million annually[182]

- **New treatments approved:** ~50 annually[13]
- **Conversion rate from paper to patient:** 0.002%

For every 50,000 papers, one drug reaches a human. The rest become citations in other papers, which become citations in other papers, in an infinite loop of academics reading each other's homework.

Plenty of Knowledge. No Translation.

- **Patients who've participated in trials:** ~5%[11]
- **Patients willing to participate if invited:** ~50%[67]
- **Patients actually invited:** ~9-11%[67]

Half of all patients would join a clinical trial if asked. Almost nobody asks. It's like having a room full of volunteers and a clipboard, and choosing to study the clipboard.

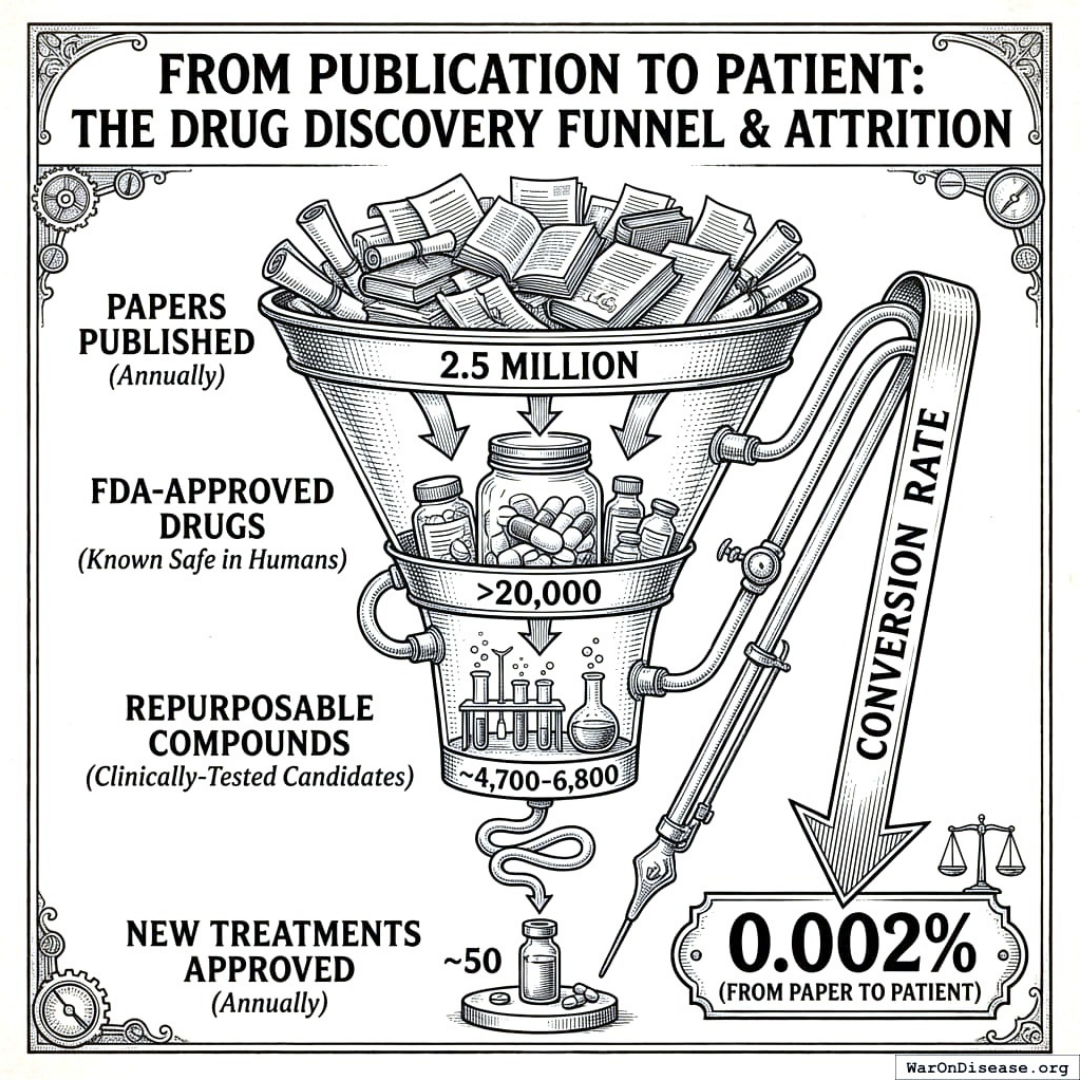


Figure 43: The funnel has 500,000 safe molecules at the top and 50 approved drugs at the bottom. This is technically a funnel. Also technically a tragedy.

Understanding disease and curing disease are completely different activities. One requires microscopes. The other requires giving people medicine and seeing if they stop dying. The NIH chose microscopes.

The Public Goods vs. Club Goods Scam

The NIH claims to produce "public goods" like open science and training. What it actually produces is a free R&D department for pharmaceutical companies, funded by the same people who then pay full price for the drugs.

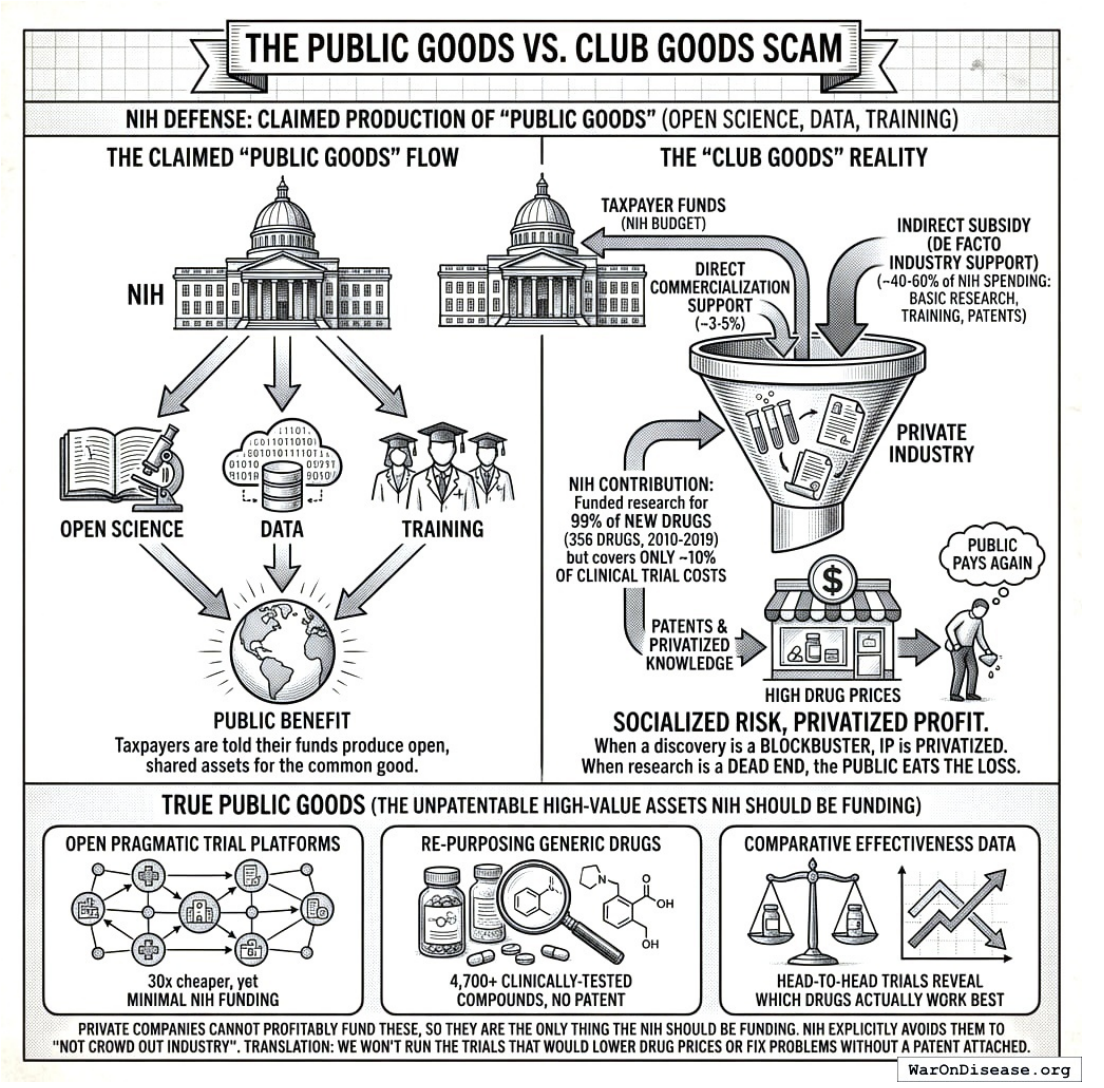


Figure 44: You pay for the research. They take the profits. It's socialism for corporations, capitalism for you. You invented that.

Taxpayers funded research behind 99% of new drugs[183] (356 drugs, 2010-2019). Industry patents the winners. The public pays again through high drug prices. When research leads to a dead end, the public eats the loss. You pay for the lottery ticket. They cash the winnings.

The only things the NIH *should* fund are things private companies *cannot* profitably fund:

- **Open pragmatic trial platforms:** 30x cheaper than traditional trials[1], yet receive minimal NIH funding
- **Re-purposing generic drugs:** 4,700+ clinically-tested compounds[181] where no patent = no profit = no interest
- **Comparative effectiveness data:** Head-to-head trials revealing which drugs actually work best (pharma's nightmare)

These are the *only* things the NIH should be funding. Instead, the NIH explicitly avoids them to "not crowd out industry." Translation: "We won't run the trials that would lower drug prices, because the people who set drug prices asked us nicely."

The Patient Disconnect: Zero Correlation with Health Outcomes

Correlation between NIH funding priorities and actual disease burden: 0.07[184]

That is not a typo. On a scale of 0 (random) to 1 (perfect), the NIH scores "basically a coin flip." A dartboard would allocate research funding more rationally.

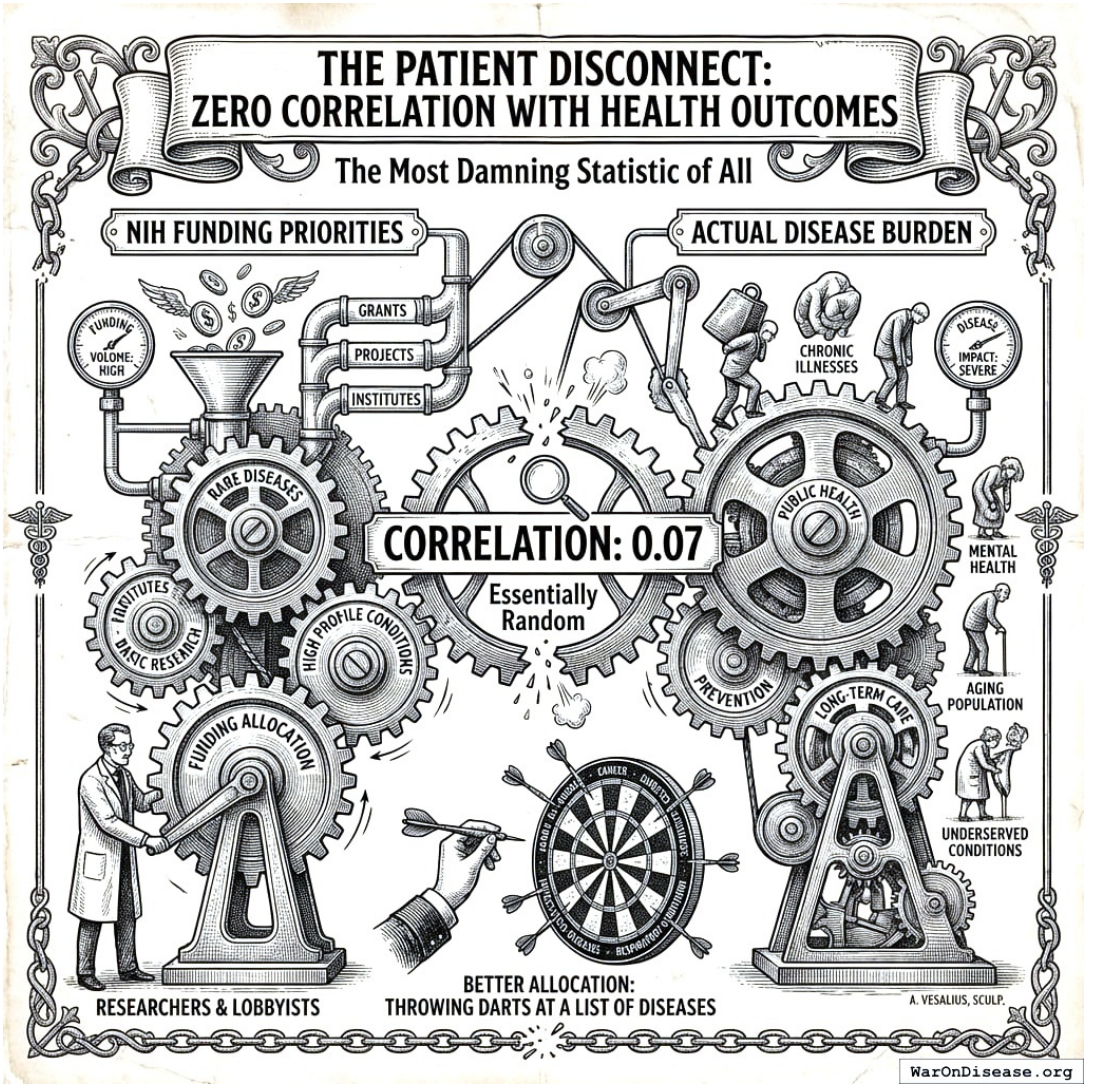


Figure 45: NIH funding has a 0.07 correlation with disease burden. That's worse than random. A dart-throwing monkey would do better.

What patients want

- Medicine that works
- Access to experimental therapies
- Trials they can join
- A cure before they die

What NIH funds

- Molecular mechanisms
- Papers in prestigious journals
- Research empires
- Institutional overhead

Patients don't control the money. Committees do. And committees optimize for the continued

existence of committees. This is true of all committees, everywhere, since the invention of committees. Nobody has ever convened a committee that recommended fewer committees.

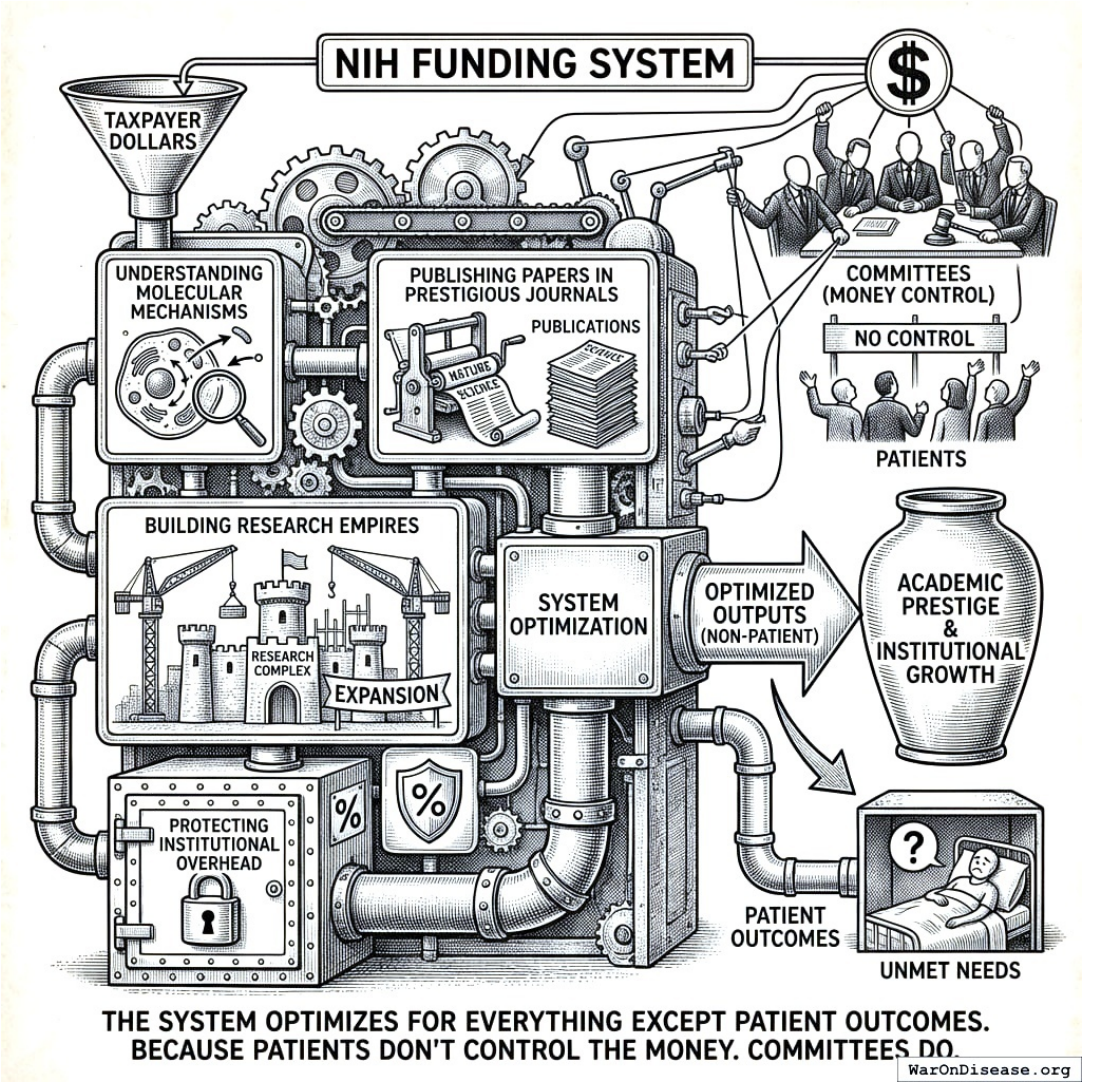


Figure 46: Money goes in. Papers come out. Patients die in the middle. The loop is working perfectly, depending on your definition of working.

The Track Record

Since 1970, the NIH has spent over **$1.1 trillion** (inflation-adjusted). Diseases eradicated: **Zero**[185].

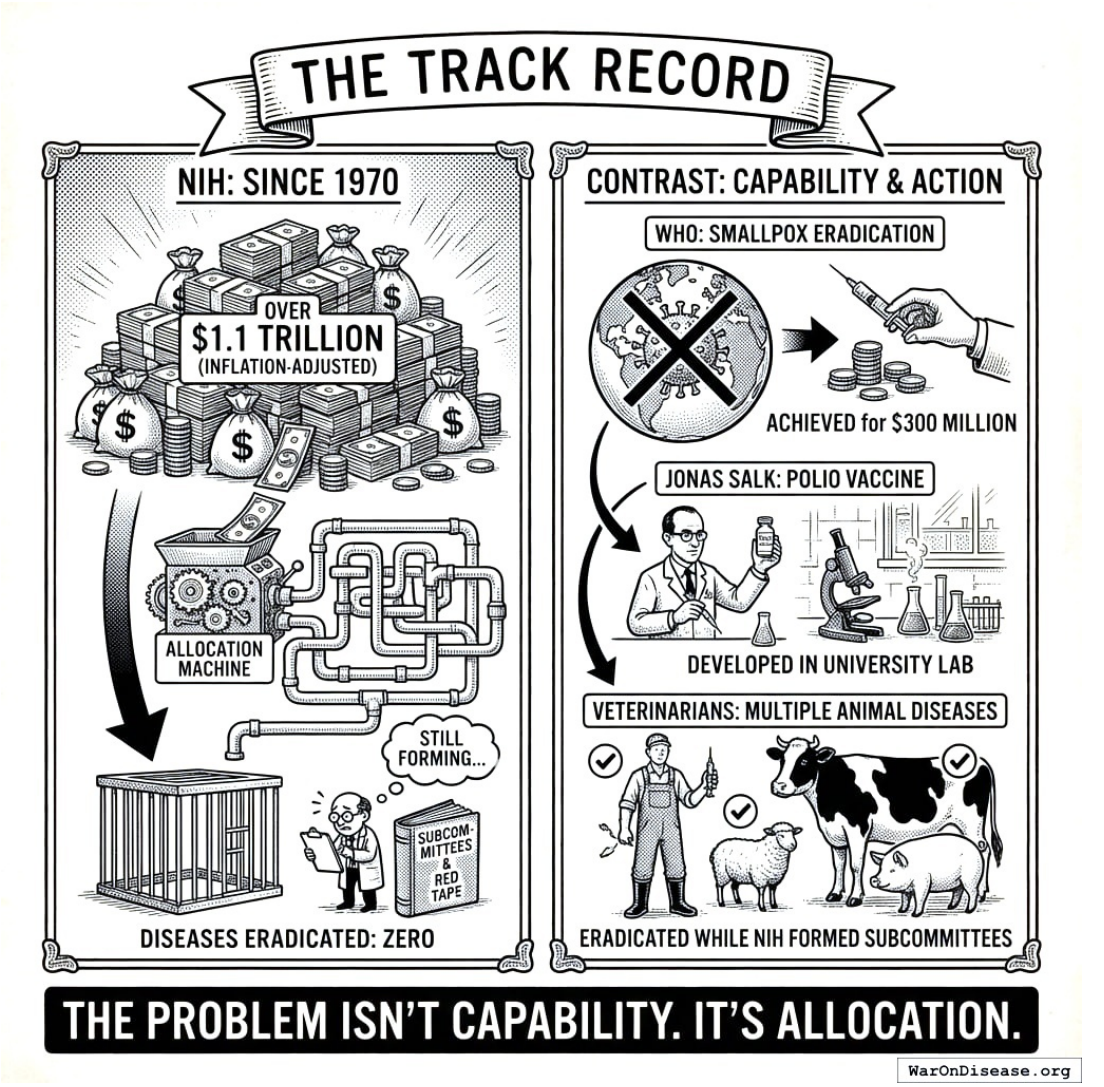


Figure 47: WHO spent 300 million and eradicated smallpox. NIH spent 1.1 trillion and eradicated zero diseases. At least they published many papers.

This isn't because eradicating disease is impossible:

- The WHO eradicated smallpox for $300 million[89]
- Jonas Salk developed the polio vaccine in a university lab and gave it away for free (which is why nobody at the NIH talks about him at parties)
- Veterinarians have eradicated multiple animal diseases[186] while the NIH was forming subcommittees about forming subcommittees

Cows have better healthcare outcomes than you do.

What Would Actually Work

The UK RECOVERY trial already proved it. $500 per patient instead of $41K. 100 days instead of years. Over 1 million lives saved. The blueprint exists. It is not theoretical. It

happened. In England. During a pandemic. While Americans were arguing about horse dewormer.

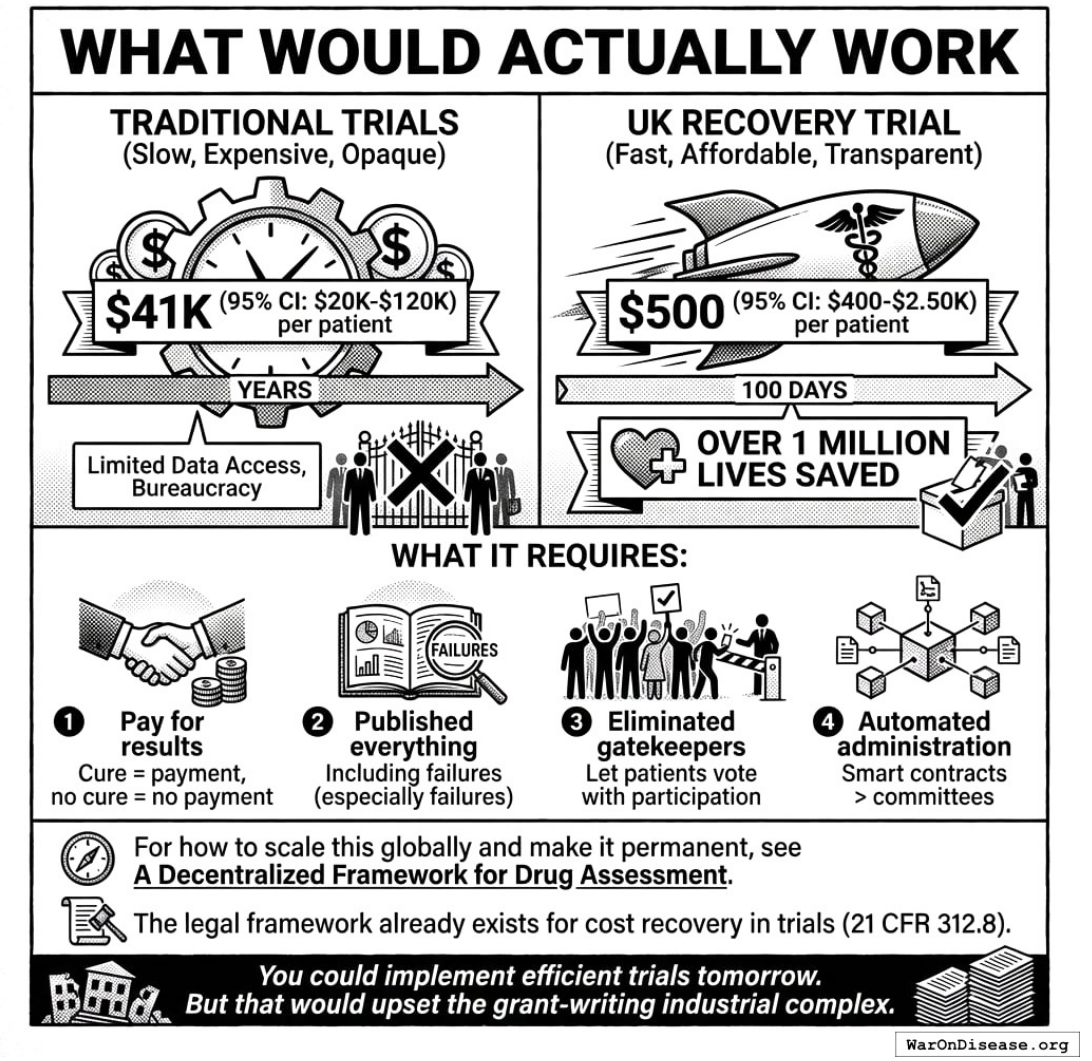


Figure 48: One trial costs 50,000 per patient and takes forever. The other costs 100 and finishes quickly. You picked the expensive one.

The recipe:

1. **Pay for results:** Treatment = payment. No treatment = no payment. Radical, I know.
2. **Publish everything:** Including failures (especially failures)
3. **Eliminate gatekeepers:** Let patients vote with participation
4. **Automate administration:** Smart contracts instead of committees (committees cannot be trusted; see above)

The Untapped Therapeutic Frontier

You think you've explored medicine. In reality, you're standing in the parking lot of Disney World bragging about how fun the pavement is. You've taken pictures of the asphalt. You've written dissertations about the parking stripes. You've never gone inside.

After a century of pharmacology, most beneficial effects of molecules on diseases remain unexplored. Not because biology is constrained. Because clinical trials are slow, expensive, and run by people who think "urgency" is a type of perfume.

Here's the math. It's painful but brief, like a flu shot administered by someone who hates you.

Your Tiny Sandbox

Here is everything humanity considers "medicine" after 5,000 years of civilization:

- **Prescriptions:** 20.0 thousand products approved in the U.S. Sounds impressive until you realize most are just "Tylenol, but blue."
- **Unique Ingredients:** These products contain only 1.65 thousand compounds. Fewer ingredients than a decent French bakery uses.
- **Investigational Drugs:** 7.50 thousand compounds have passed Phase I globally. Progress!
- **Safe Stuff:** The FDA GRAS list contains 635 substances. These are things you could eat right now without dying. Low bar. Still useful.

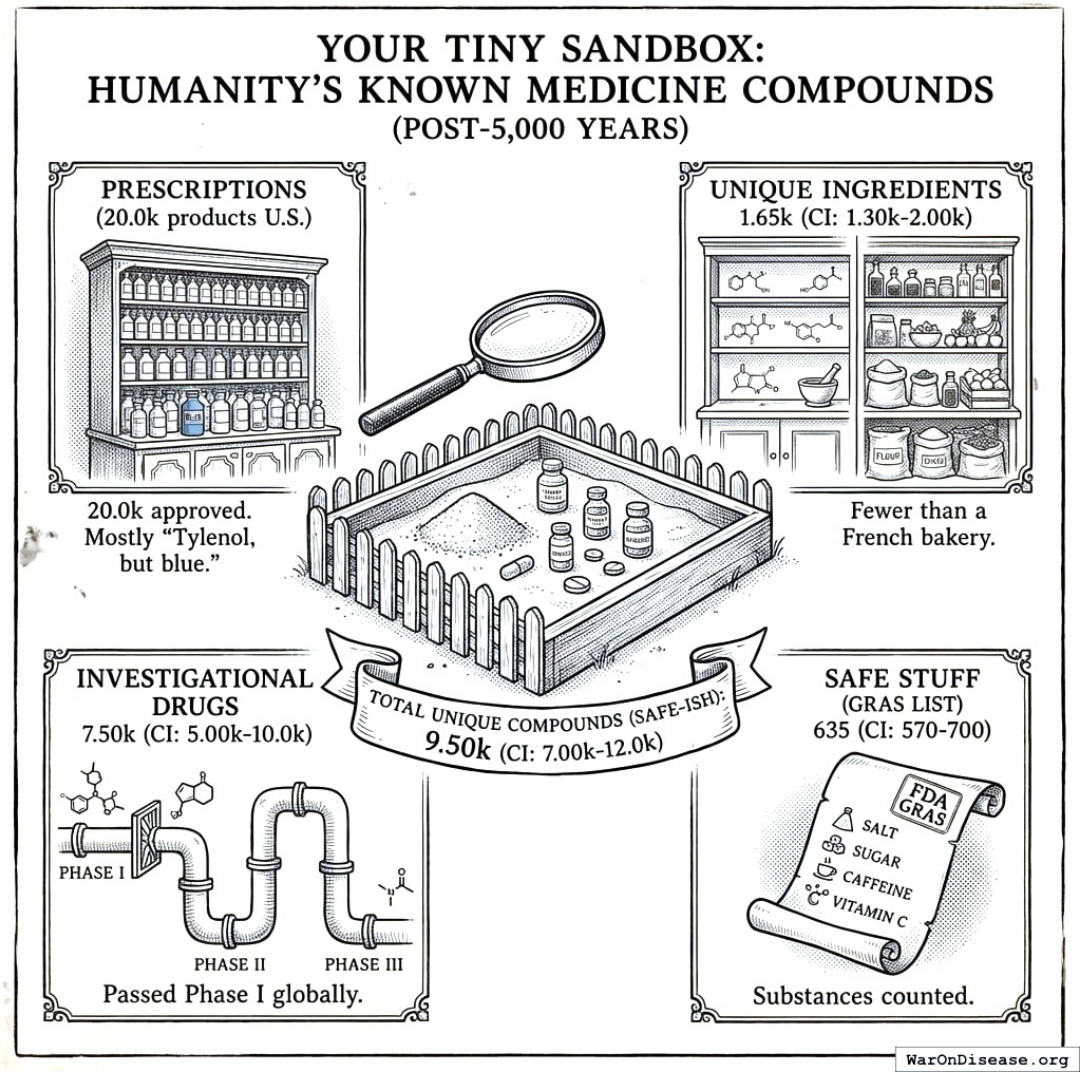


Figure 49: Twenty thousand drug products, but only 9,500 unique ingredients. It's like having 20,000 sandwiches but only 9,500 types of bread. You keep repackaging the same bread.

Total unique compounds humanity knows are safe-ish: 9.50 thousand compounds.

That's it. That's your entire medicine cabinet after five millennia.

The Target List (Ways Your Body Breaks)

- **Codes:** The ICD-10 lists 14.0 thousand codes ways your meat can malfunction. Humanity's most comprehensive to-do list, and you're ignoring it.
- **Real Targets:** After consolidation, 1.00 thousand diseases trial-relevant diseases worth actually fixing.

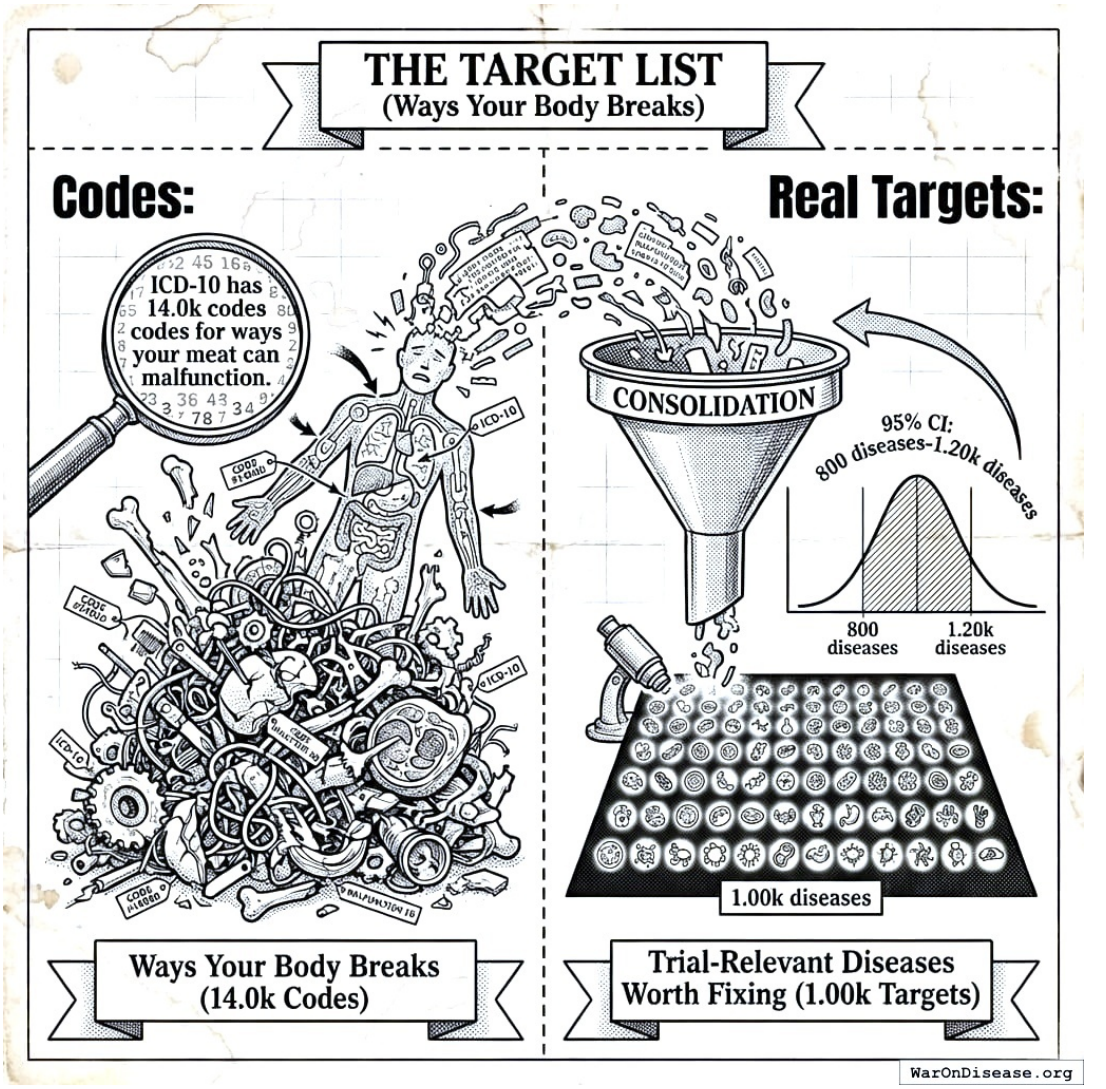


Figure 50: Fourteen thousand ways to be sick, but only 1,000 worth testing drugs against. The other 13,000 are just spelling variations.

The Math You're Ignoring

Take your 9.50 thousand compounds safe compounds. Multiply by 1.00 thousand diseases. This gives you the "Combinatorial Space," which is fancy talk for "stuff you could test tomorrow if you weren't busy filling out forms."

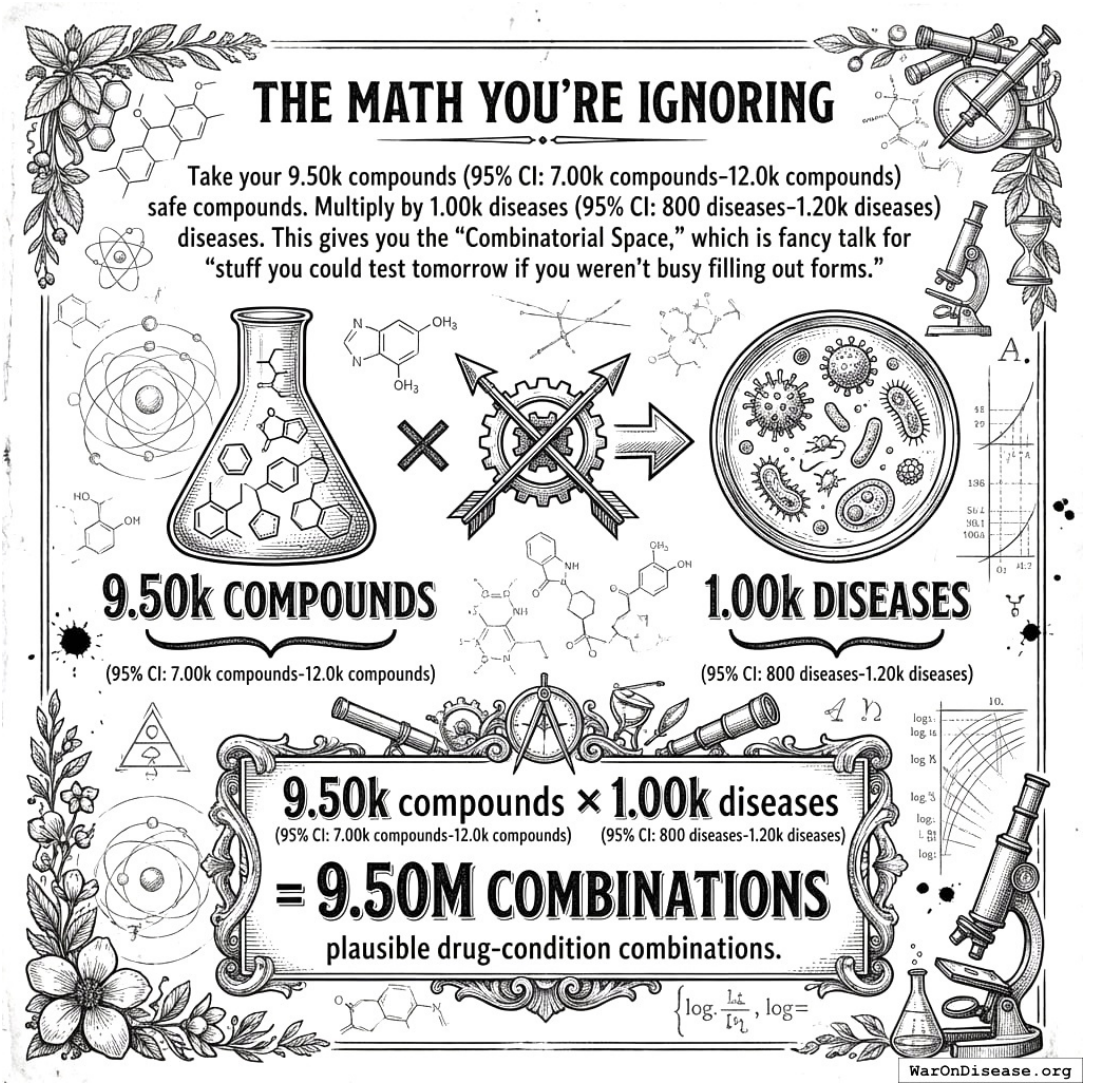


Figure 51: Nine thousand drugs times one thousand diseases equals nine million possible cures. You've tested 30,000. See you in the year 5000.

9.50 thousand compounds × 1.00 thousand diseases = 9.50 million combinations plausible drug-condition combinations.

What You've Actually Tested

- **Approved uses:** 1.75 thousand pairings unique approved drug-disease pairings. Your entire medical canon.
- **Repurposed uses:** 30% of drugs gain at least one new indication after initial approval. The rest never get a second date.
- **Failed trials:** Let's be generous and say you tested 10x as many things that failed. (You did. You learned nothing from them.)

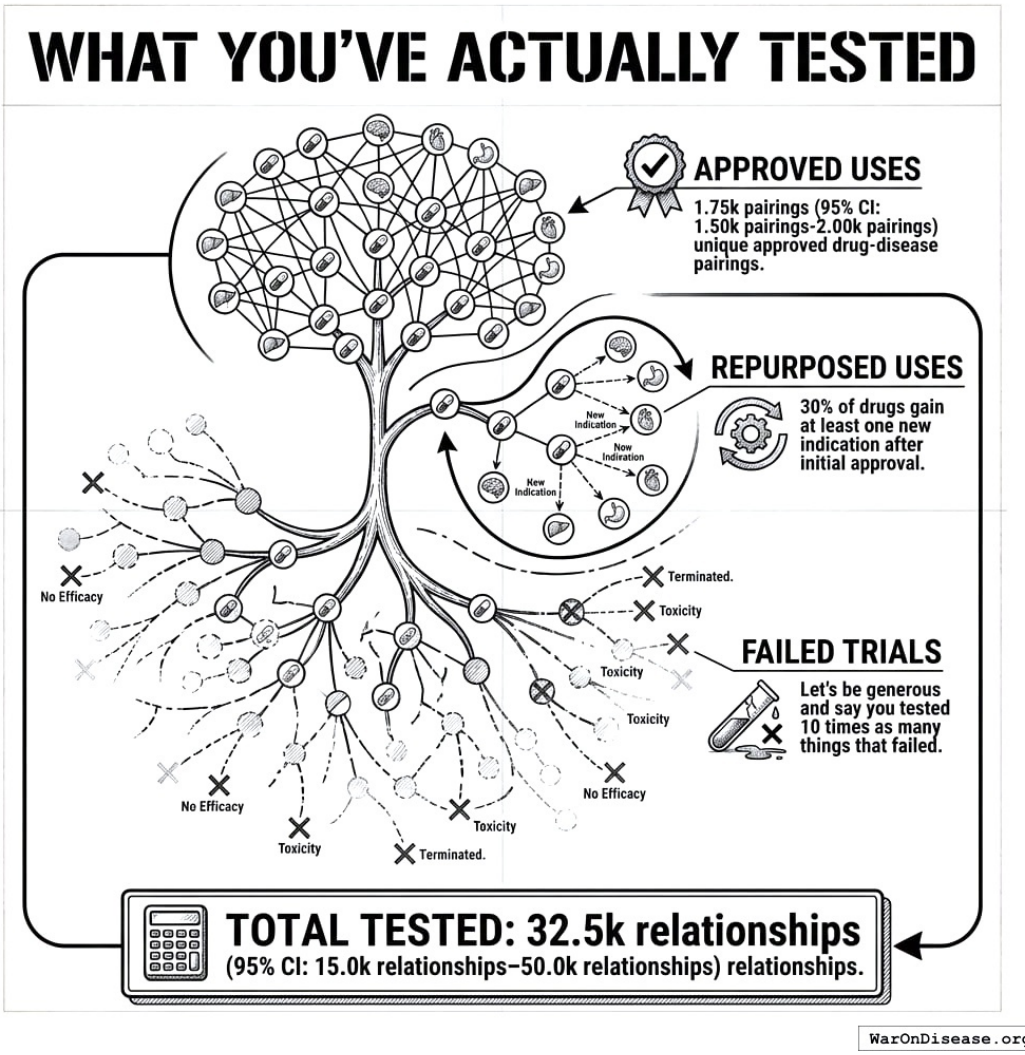


Figure 52: Most drug trials fail. A few succeed. Humanity's entire medical knowledge is a tiny pile of successes next to a mountain of expensive failures we learned nothing from.

Total tested: 32.5 thousand relationships.

The Scorecard

32.5 thousand relationships tested / 9.50 million combinations possibilities = 0.342%

$$
\begin{aligned}
&Ratio_{explore} \\
&= \frac{N_{tested}}{N_{combos}} \\
&= \frac{32{,}500}{9.5M} \\
&= 0.342\%
\end{aligned}
$$

where:

$$
\begin{aligned}
&N_{combos} \\
&= N_{safe} \times N_{diseases,trial} \\
&= 9{,}500 \times 1{,}000 \\
&= 9.5M
\end{aligned}
$$

Humanity has explored less than 1% of the theoretically testable drug-disease space.

You are the detective who searched one drawer and declared the case cold.

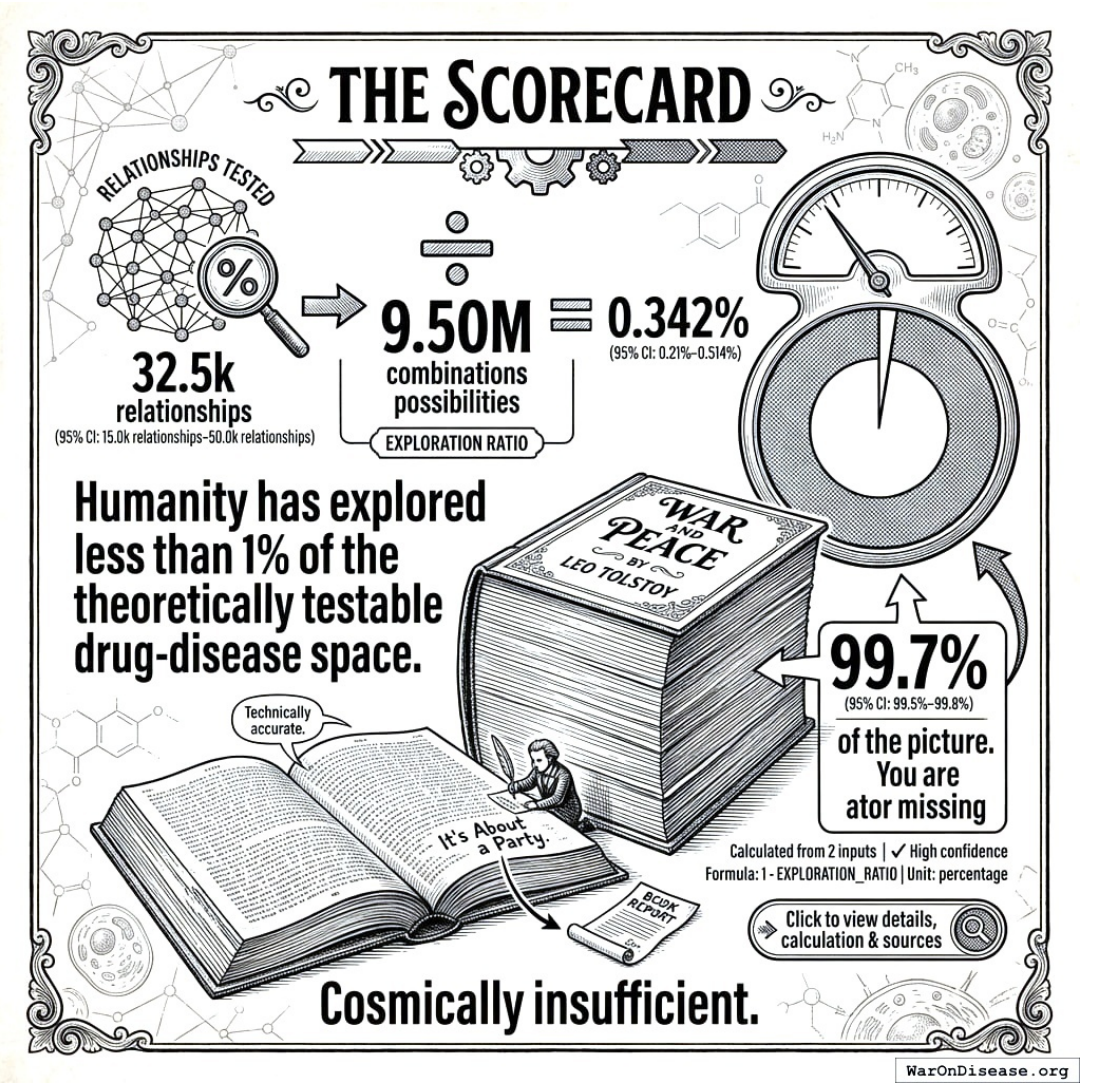


Figure 53: The dot is everything you know about medicine. The rest is everything you don't. The dot is very small. You seem comfortable with this.

It's like reading the first page of *War and Peace* and writing a book report called "It's About a Party." Technically accurate. Cosmically insufficient.

Is The Untested Stuff Useful?

You might argue, "Maybe the other 99% is useless!"

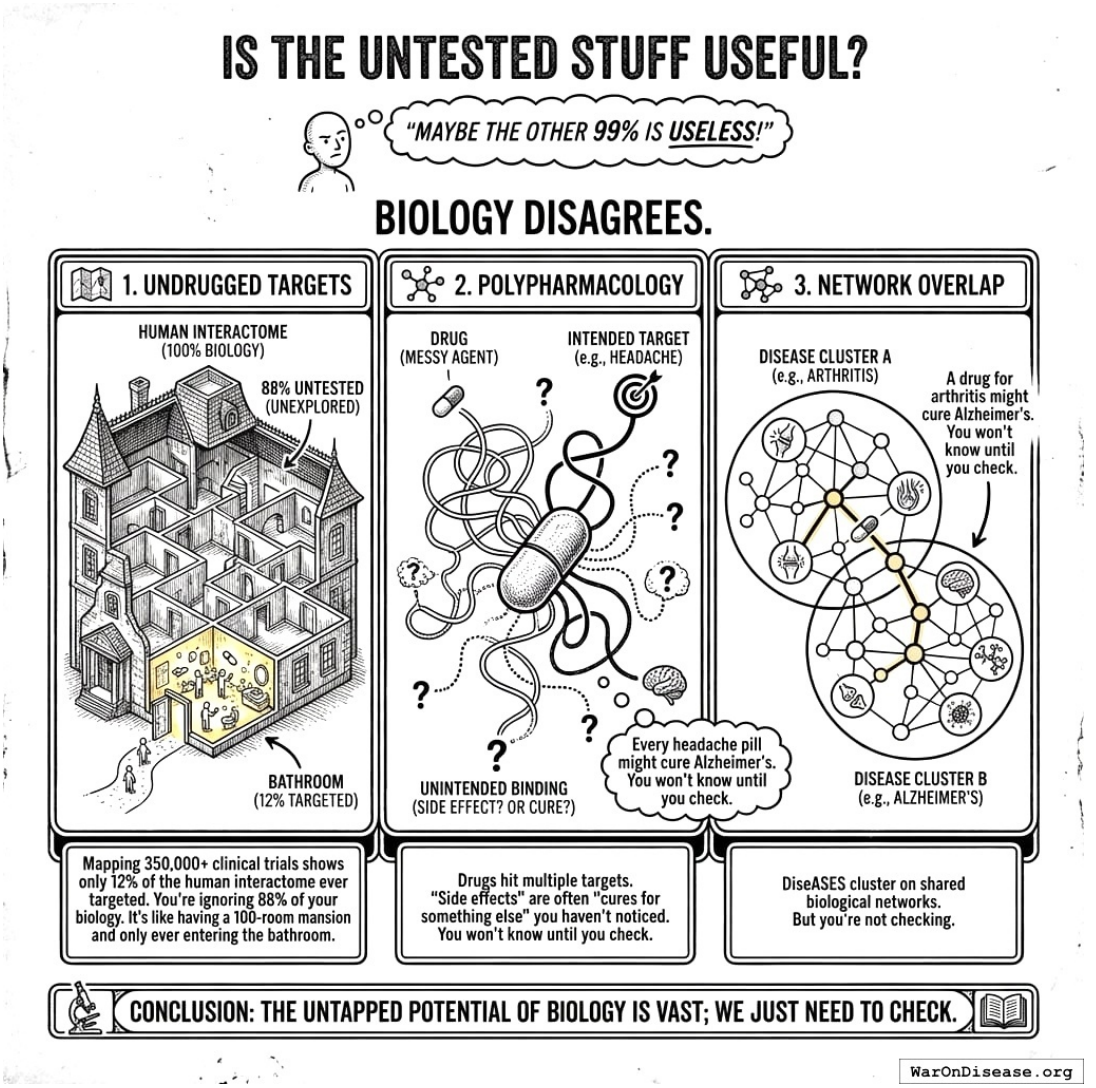


Figure 54: You've figured out 12 percent of how the body works. The other 88 percent is a mystery. Drugs affect multiple pathways at once. You test them on one pathway at a time.

Biology would like a word.

- **Undrugged Targets:** Mapping 350,000+ clinical trials showed that only 12% of the human interactome has ever been targeted by drugs. You're ignoring 88% of your own biology. It's like having a 100-room mansion and living exclusively in the bathroom.
- **Polypharmacology:** Drugs are messy. They hit multiple targets. FDA-approved drugs often bind to things you didn't intend. This means "side effects" are frequently "cures for something else" that nobody bothered to notice. Every headache pill might cure Alzheimer's. You won't know until you check. You're not checking.
- **Network Overlap:** Diseases cluster on shared biological networks[187]. Arthritis and Alzheimer's share biological pathways. The cure for your grandmother's dementia might

be sitting in your grandfather's medicine cabinet. But you'll never find out, because testing it would require paperwork that takes longer than Grandma has left.

The Universe is Big. You Are Small.

So far we only counted molecules humanity *already has*. The stuff in your cupboards. If you look at what's chemically possible, it gets embarrassing.

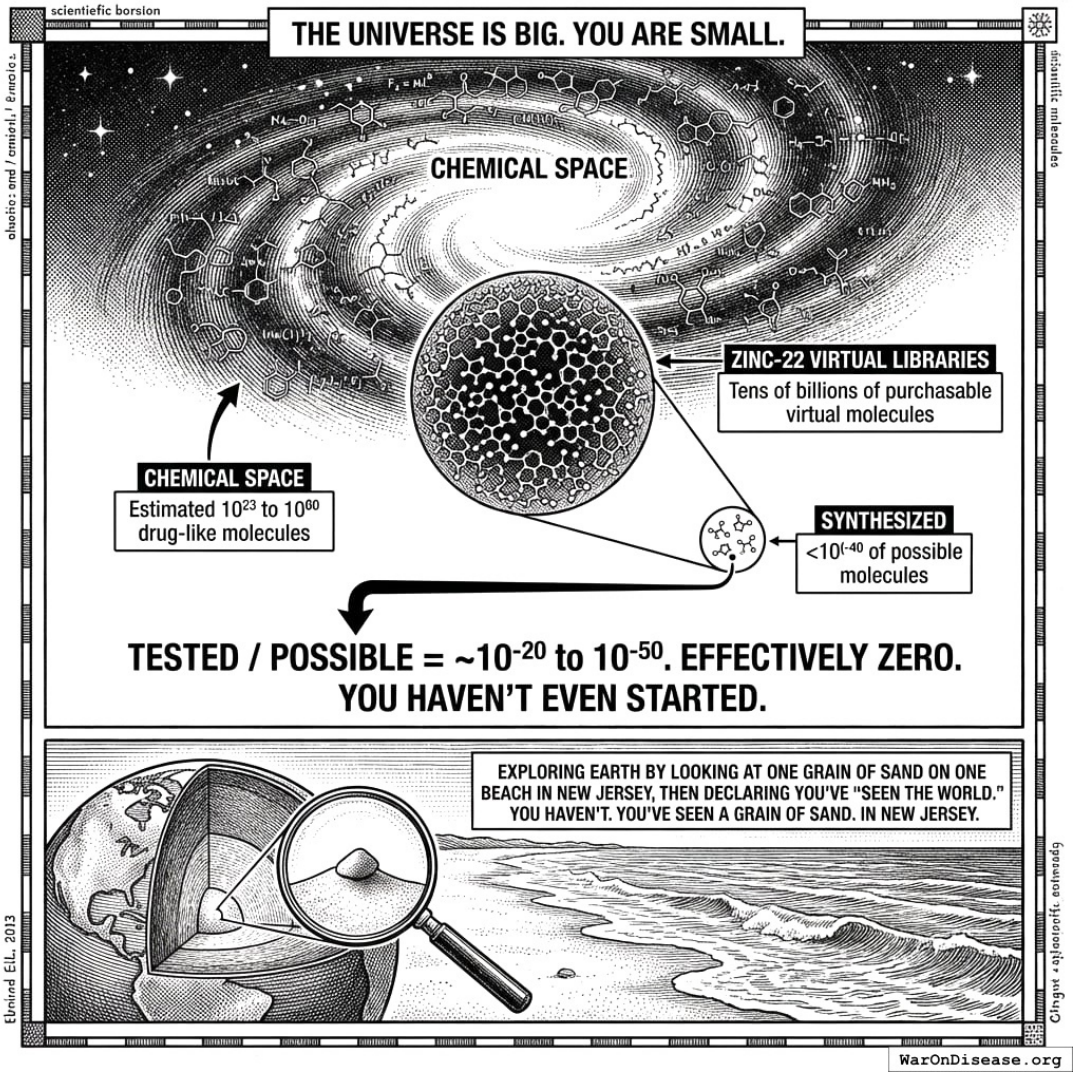


Figure 55: All the molecules you've discovered are a grain of sand. All the molecules that could exist are the planet Earth. You're very proud of your grain of sand.

- **Chemical Space:** Estimated 10^23 to 10^60[188] drug-like molecules. That's more candidates than there are atoms in your body. Or stars in the galaxy. Or excuses from your regulatory agencies.
- **Virtual Libraries:** ZINC-22 contains tens of billions[189] of purchasable virtual molecules. You could order them online. You haven't.
- **Synthesized:** You have made **<10^(-40)** of possible molecules.

Tested / Possible = ~10^-20 to 10^-50.

Effectively zero. You haven't even started.

This is like exploring Earth by looking at one grain of sand on one beach in New Jersey, then declaring you've "seen the world." You haven't. You've seen a grain of sand. In New Jersey.

Why You Are Still Sick

It's not because science is hard. It's because you've built a system that is allergic to answers.

1. **Trials Cost Too Much:** A typical Phase II-III RCT costs **$30-$100M** (Median cost per patient $41K). At that price, you only test "sure things." Safe bets. Boring bets. Bets that don't cure cancer. Clinical trials are a velvet-rope nightclub where the bouncer is a regulatory agency and the cover charge is a hundred million dollars.

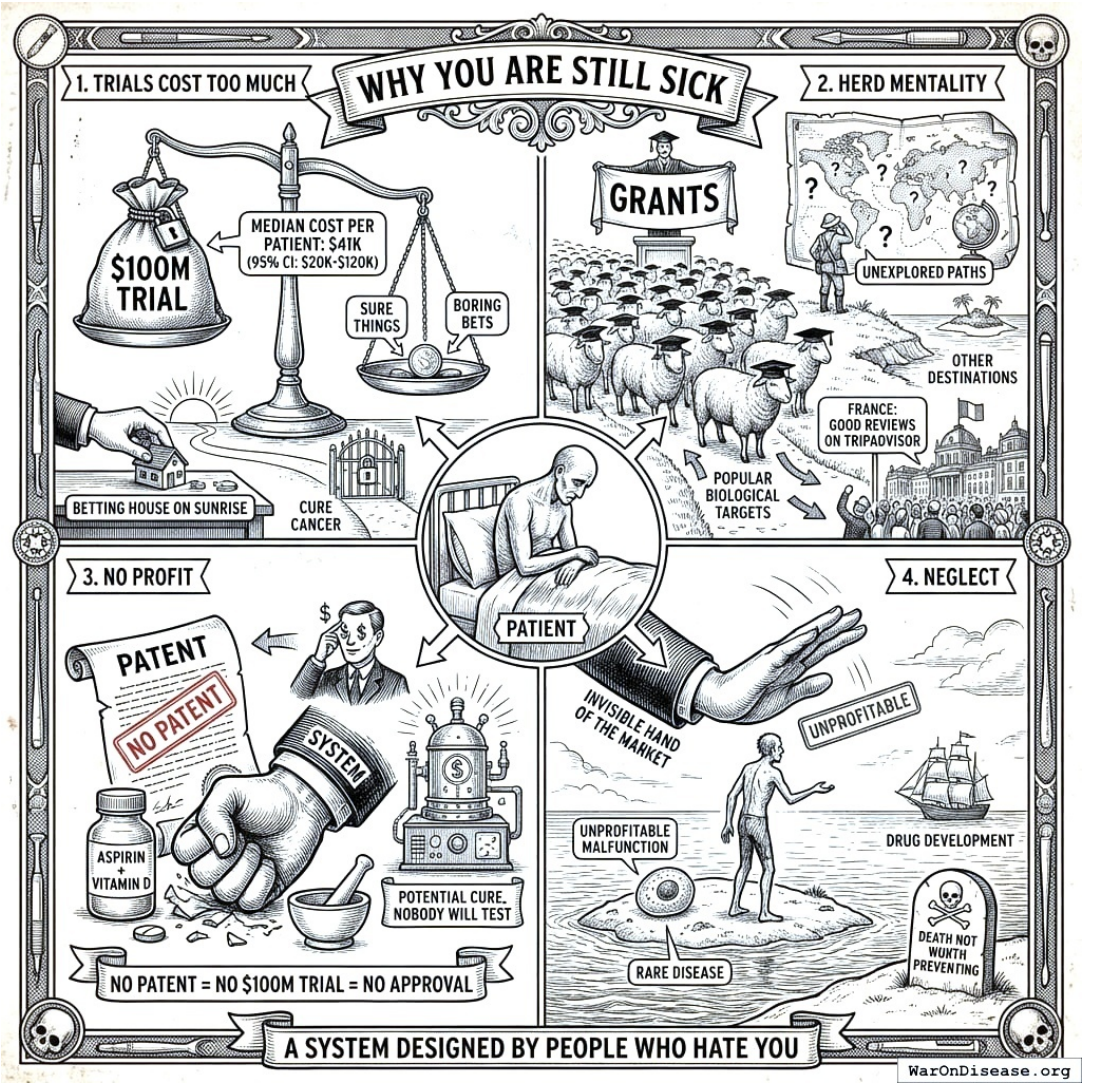


Figure 56: High costs, patent rules, and fear of lawsuits form a bottleneck between cures and people. The bottleneck is shaped like a dollar sign.

2. **Herd Mentality:** Trials overwhelmingly test the same few biological targets due to preferential attachment dynamics[190]. Everyone studies what everyone else studies because that's how you get grants. It's like if every explorer only went to France because France already had good reviews on TripAdvisor. Meanwhile, undiscovered continents full of cures sit there, undiscovered.
3. **No Profit:** Most molecules have no patent. No patent = no $100M trial = no approval. The cure for cancer might be aspirin plus vitamin D. Nobody will ever test it because you can't patent aspirin plus vitamin D. The molecule that saves your life has to make money first. If it can't, it won't. You die. Quarterly earnings go up.
4. **Neglect:** If you have a rare disease with no market, you don't get a drug. Your cells malfunction in an unprofitable way. The invisible hand of the market has weighed your life against quarterly earnings and found you wanting. Sorry about your death. It was a business decision.

How Long to Explore Everything?

At the current pace of 3.30 thousand trials/year, how long would it take to systematically test therapeutic possibilities?

Tier 1: Single Compounds (Most Conservative)

Testing every known safe compound against every major disease:

9.50 million combinations ÷ 3.30 thousand trials/year = 2.88 thousand years

That's almost 3,000 years to explore compounds we *already know are safe*. By that math, we won't finish until the year 5000.

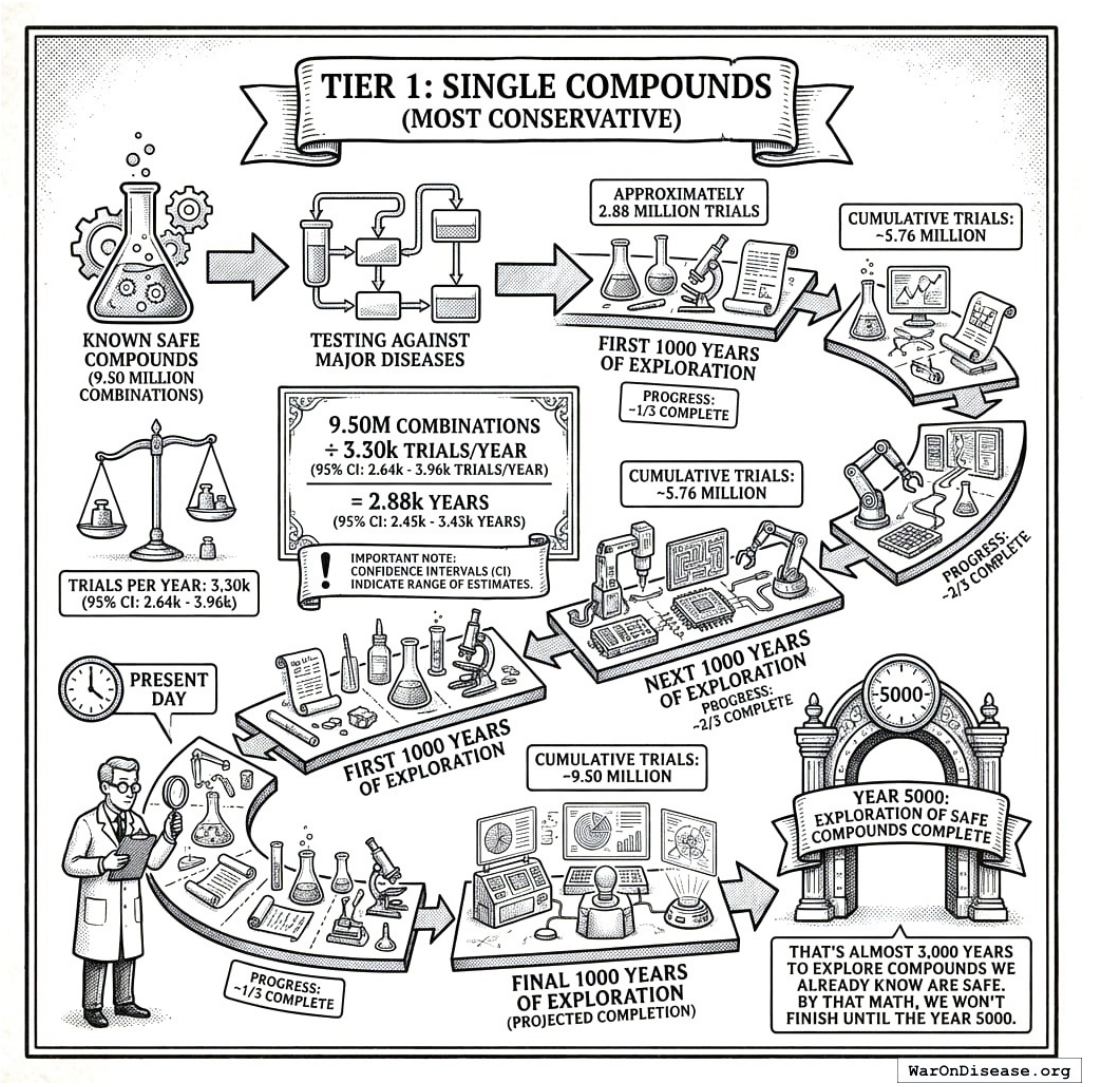


Figure 57: Nine million drug tests to run. Current speed: 3,000 per year. Finish date: year 5000. You'll be dead by then. So will your children. And their children. And their children.

Tier 2: Combination Therapies (Still Defensible)

Modern medicine increasingly relies on multi-drug cocktails. Oncology, HIV, cardiology, psychiatry: all routinely use drug combinations. So the real question isn't "does this one drug work?" It's "which combinations work?" Testing pairwise combinations of safe compounds:

45.1 billion combinations ÷ 3.30 thousand trials/year = 13.7 million years

That's longer than *Homo sapiens* has existed as a species. And that's using only compounds with established safety data, testing only pairs. Not triplets. God help you if you want to try triplets.

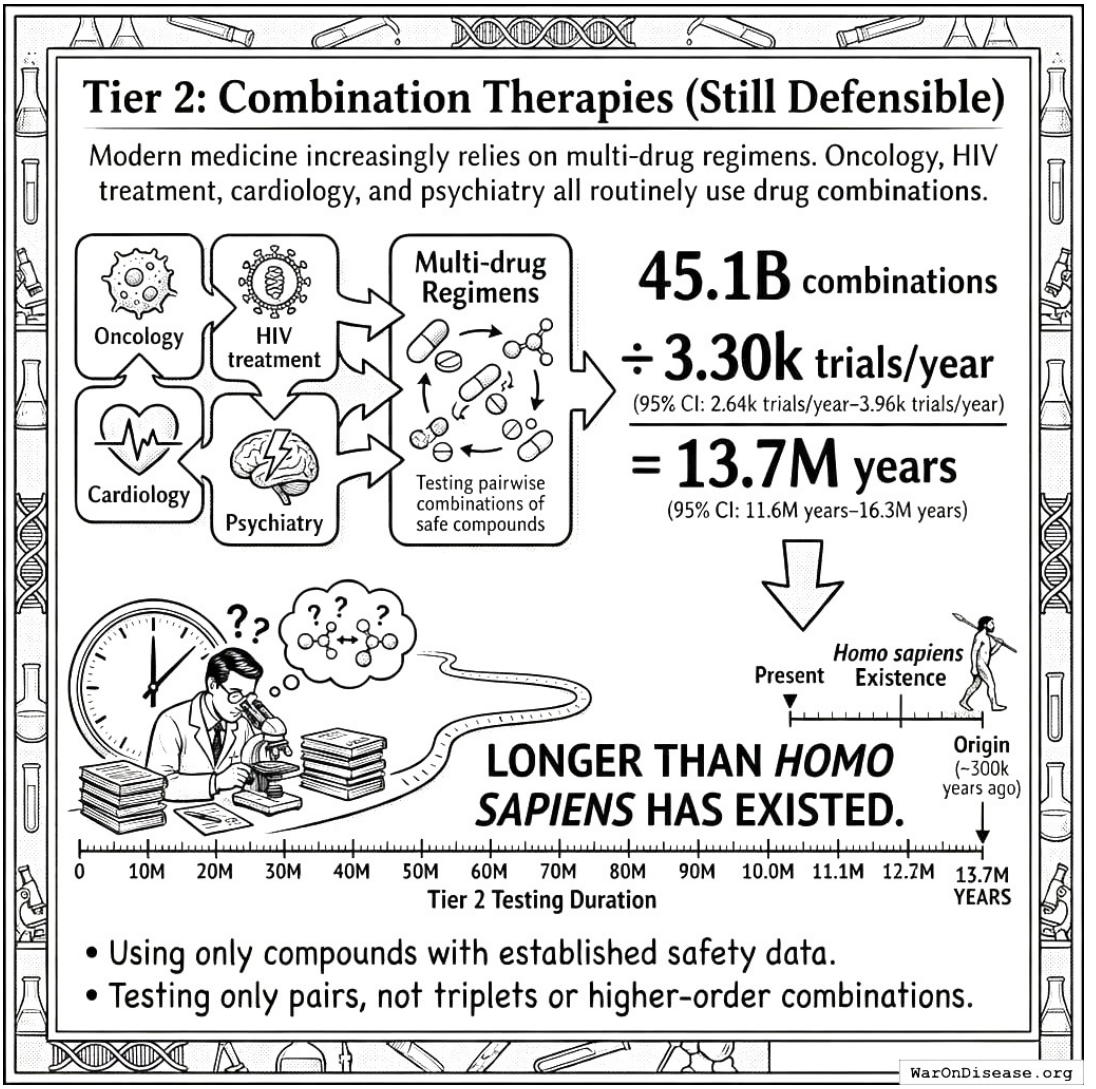


Figure 58: Testing every two-drug combination would take millions of years. You have about 70 years if you're lucky. The math is not in your favor.

Tier 3: The Full Chemical Universe (Illustrative)

Beyond known compounds lies the chemical space of 10^23 to 10^60 drug-like molecules. At current trial capacity, exploring even the *synthesizable* fraction would take longer than the universe has existed. The universe is 13.8 billion years old. You need more time than that. To test pills. Pills that already exist.



Figure 59: The dot is every drug you've ever discovered. The sphere is every drug that could exist. There are more possible molecules than atoms in the galaxy. You've tried about 9,000.

We haven't even started.

"But Won't We Run Out of Easy Discoveries?"

Some will argue "diminishing returns": the more we search, the harder each new discovery becomes. This assumes we've already picked the low-hanging fruit.

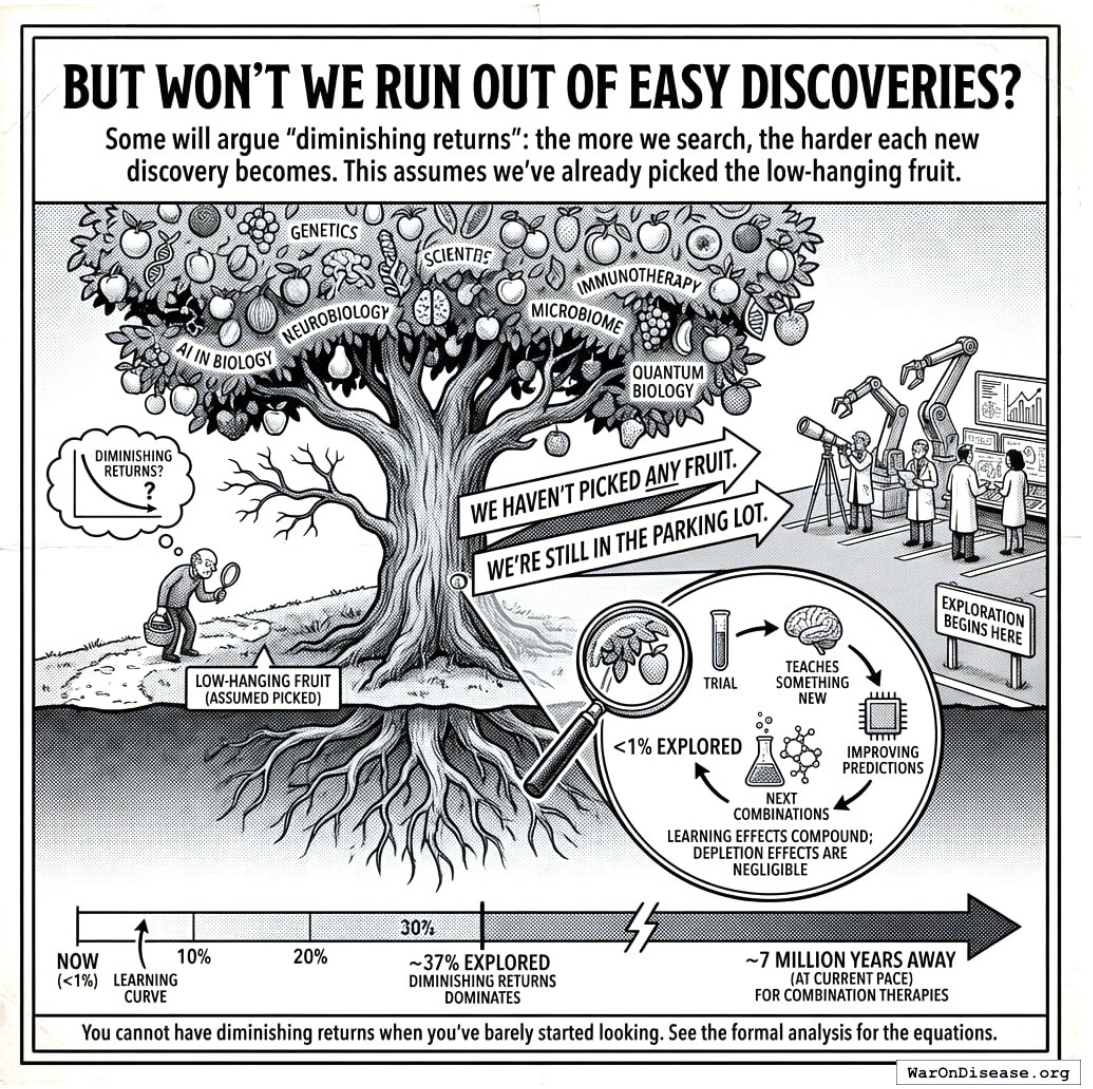


Figure 60: You've explored 1 percent of possible treatments. Benefits peak around 37 percent. You're 36 percentage points away from maximum medicine. This seems like a solvable problem.

We haven't picked *any* fruit. We're still in the parking lot arguing about whether fruit exists.

Diminishing returns only kicks in after you've explored a significant fraction of the space. At <1% explored, every trial teaches you something new about human biology, improving your ability to predict what works next. Learning compounds. Depletion is negligible. You are nowhere near the bottom of the barrel because you have not yet located the barrel.

The math: even with weak learning, diminishing returns only matters after exploring ~37% of therapeutic space. For combination therapies, that crossover is ~**7 million years away** at current pace.

You cannot have diminishing returns when you've barely started looking. See the formal analysis for the equations.

The Fix

The Oxford RECOVERY Trial (COVID-19) proved that large-scale pragmatic trials can run for ~$500 and deliver results in <100 days[191].

$500 vs $41K. Read those numbers again. One of them is the reason people are dying.

With a decentralized framework for drug assessment, trial capacity increases by 12.3x:

9.50 million combinations ÷ 40.7 thousand trials/year = 234 years

Still a long time, but at least it's a number with fewer digits than a phone book. And the first few decades would capture the highest-value discoveries (the low-hanging fruit that current trial scarcity forces you to ignore while people die in the waiting room).

More importantly, dFDA builds *permanent infrastructure* for systematic therapeutic exploration. The goal isn't to "finish." It's to stop leaving cures on the table while you form subcommittees to discuss whether to form committees to review the proposal to consider them.

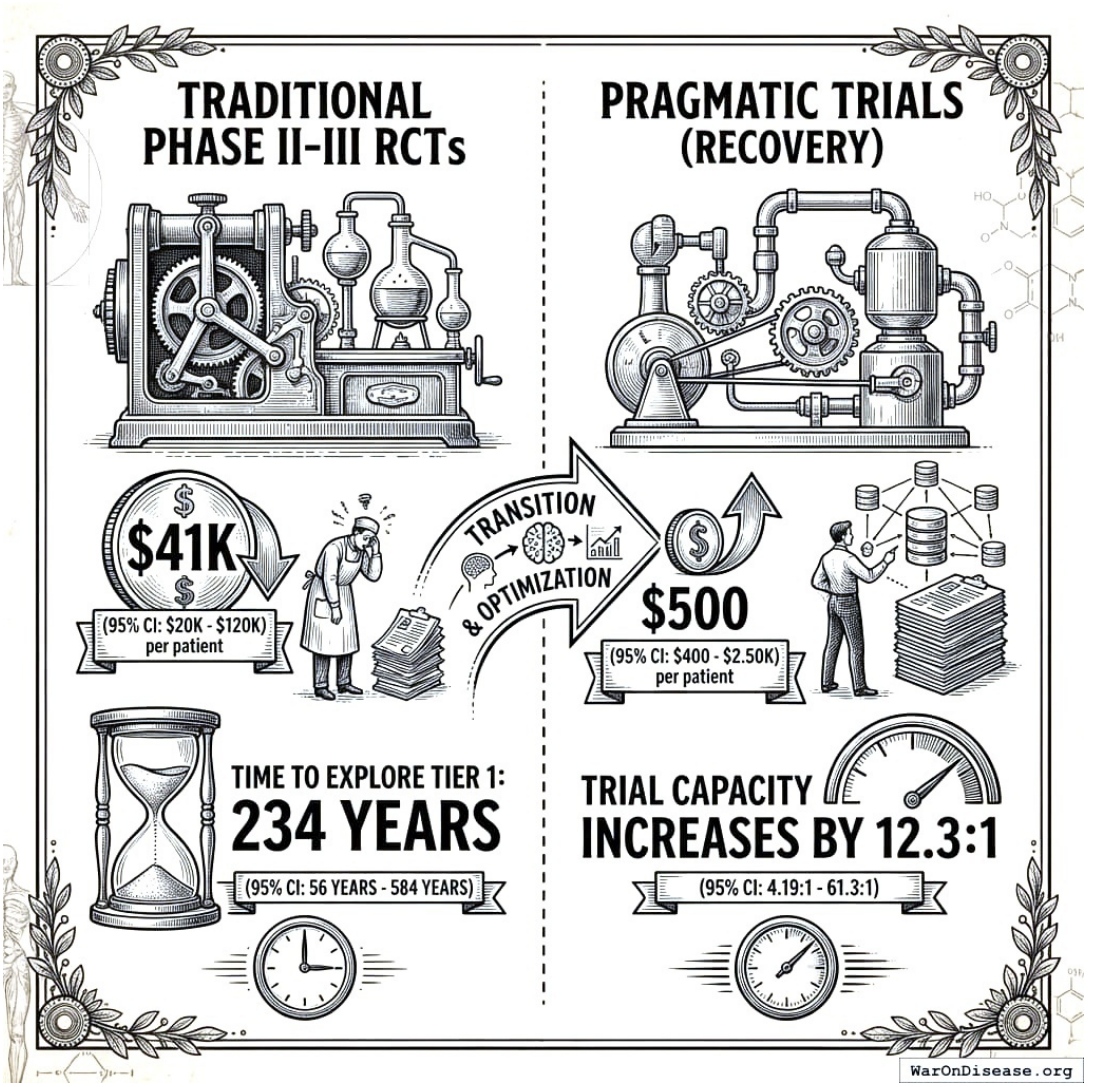


Figure 61: Traditional trials: expensive, slow, picky about participants. Decentralized trials: cheaper, faster, will accept literally anyone. Both test the same drugs.

The Bottom Line

Humanity has empirically tested less than 1% of the drug-disease relationships that can be tested using existing safe compounds.

If you include the larger chemical universe, humanity has explored roughly one-quadrillionth to one-quintillionth of what is possible (10^-12 to 10^-50). There are numbers so small that mathematicians get depressed looking at them. These are those numbers.

The overwhelming majority of therapeutic potential remains untouched. Not because cures are impossible. Because trials are too expensive and too slow.

A decentralized, automated pragmatic trial system is the only route to systematically explore the remaining 99.999...% of medical space.

You're not in the parking lot because there's nothing inside Disney World. You're in the parking lot because the entrance fee is $100 million and requires 17 years of paperwork. People are dying in the parking lot. The rides are right there. You can hear the screaming. (Fun screaming. Cure screaming.)

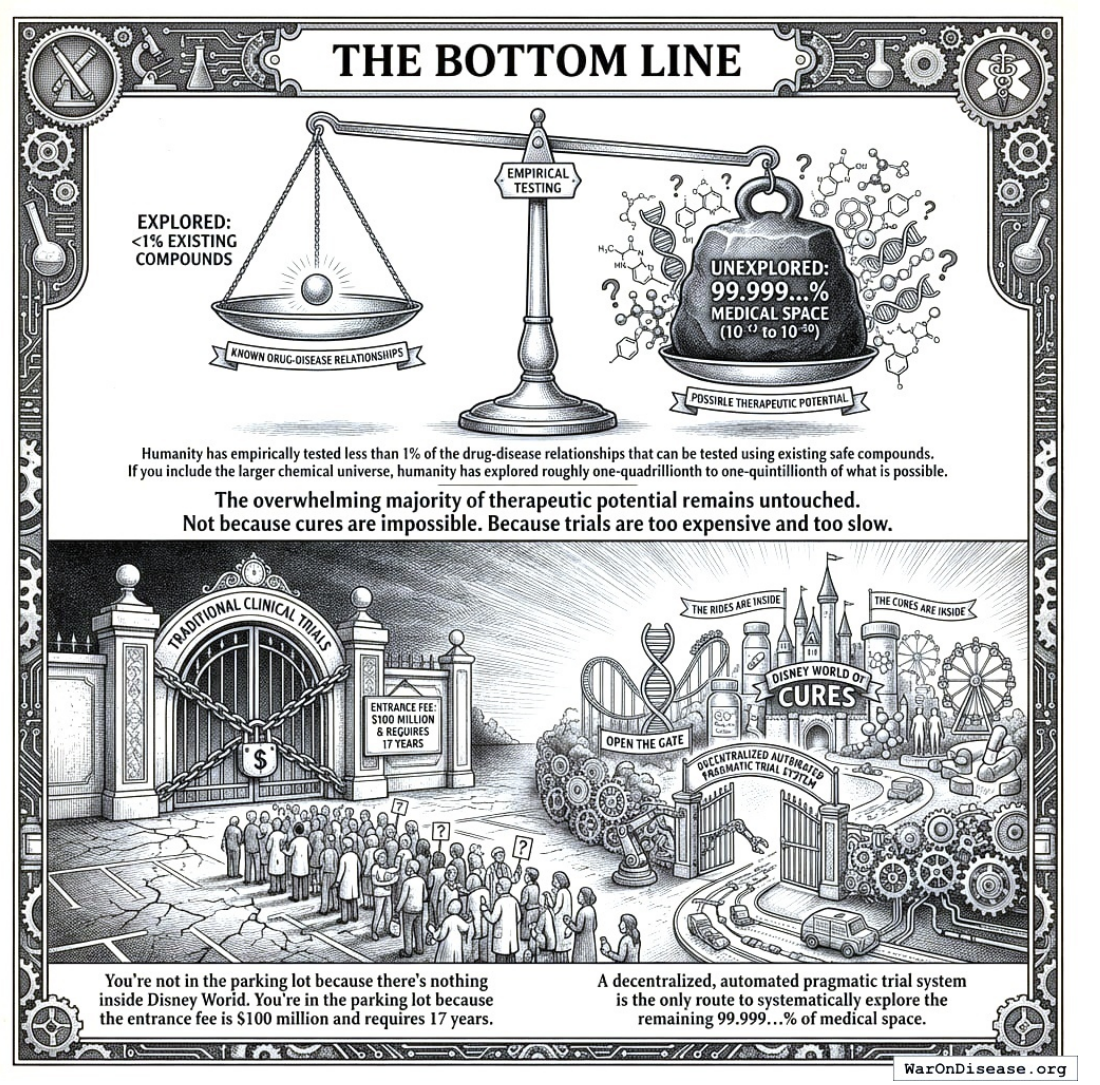


Figure 62: Everything you know about medicine is a dot. Everything you could know is the universe. Between them: money and time. You have neither.

The cures are inside. Open the gate.

The FDA Is Unsafe and Ineffective

In 1962, your Congress decided that before sick people could take medicine, the medicine needed to spend nearly a decade proving it works. The sick people, meanwhile, needed to spend that decade dying. This was called "safety."

The drugs are tested on 3,000 young, healthy volunteers (excluding the sick, elderly, and anyone on other medications), then prescribed to millions of actual sick people, where the problems finally show up. It's like testing sunscreen on people who live in caves.

A Note on Blame

When this chapter says "the FDA does X," read it as "the 1962 law requires the FDA to do X." Congress wrote the rules. The FDA follows them. Blaming the FDA is like blaming the gun instead of the person who loaded it, aimed it at patients, and pulled the trigger on a 62-year schedule.

The 44.1x Inefficiency Tax

Compare two real-world systems for testing drugs:

1. **The Oxford RECOVERY Trial:** Tested COVID treatments on 47,000 patients for **$500**. Found a life-saving treatment in 3 months. Like a normal species would.
2. **The Post-1962 System:** Averages **$41K** per trial. Takes **9.1 years**[192] to approve a new drug. Like humans would.

The current system costs **44.1x more** and takes **42 longer**. That's not inefficiency. That's a system performing exactly as designed, if the design goal was to kill people slowly enough that nobody notices.

The 8.2 years Efficacy Lag

Here's where your lifespan goes to die:

- **Phase I (Safety Testing):** 2.3 years - Tests if the drug kills people. *This part works.*
- **Phase II/III (Efficacy Testing):** 8.2 years - Tests if the drug works better than placebo. *This is where people die waiting.*

The math is simple: If you die in year 5 and the drug gets approved in year 10, the regulatory process murdered you.

That's 8.2 years sitting in regulatory purgatory *after* we already know the drug won't kill you.

You invented science yesterday, cosmically speaking. Nearly every study ends with "more research is needed," which is scientist for "please keep paying us while we figure out what we're looking at." This would be fine except people are decomposing while you figure it out.

What the 1962 Efficacy Requirements Changed

Before 1962, 144 thousand physicians tested treatments on real patients and published results. Life expectancy grew 3.82 years every decade[117] for 80 straight years. Things were going well. Naturally, Congress intervened.

Phase I safety testing (added in 1938) worked perfectly. It prevented all US thalidomide deaths while Europe had thousands. So in 1962, Congress looked at a system that was working and thought, "What if we made this much worse?" They added massive **pre-approval efficacy requirements** via the Kefauver Harris Amendment[193], blocking patient access for years during testing.

Metric	Pre-1962	Post-1962	Change
Cost per Drug	$24.7M	$2.60B	105x increase
New Approvals	46/year (1960)[78]	13/year (1963)[78]	70% decline
Life Expectancy Growth	3.82 years/decade[117]	1.54 years/decade[118]	60% reduction[118]
Time to Approval	2-3 years	10.5 years	5-8x slower

The temporal break is exact. Every metric got worse the moment the law passed. Like flipping a switch from "progress" to "paperwork."

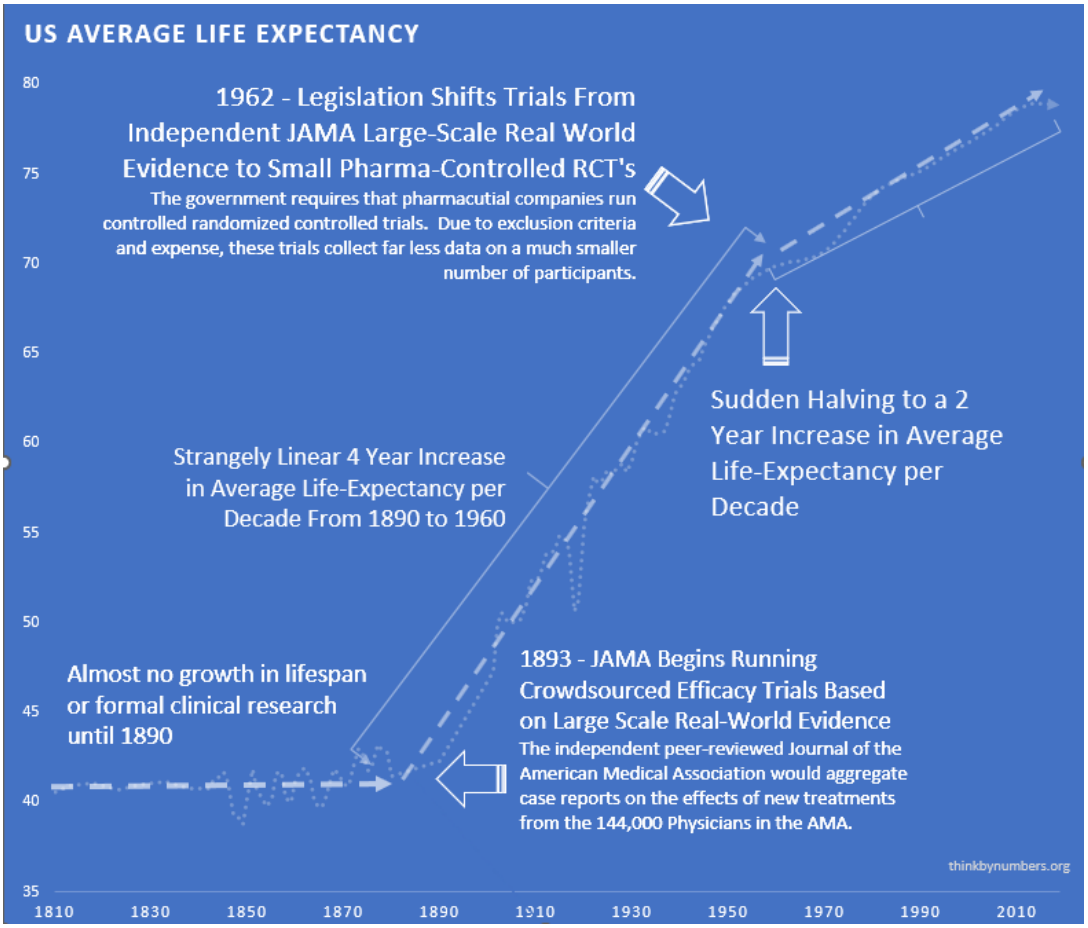


Figure 63: Average Life Expectancy Over Time

The 105x cost increase is rigorously documented. See Drug Development Cost Analysis for methodology, sensitivity analysis, and source data.

The Modern Consequences

Even if you think historical analysis is just opinions with footnotes, the current system's failures are undeniable:

1. Scientists discover a cure for your disease
2. You wait 17 years
3. You die
4. The FDA approves the cure
5. Pharmaceutical companies charge your widow $10,000 per pill

Beautiful system if you're a mortician or bankruptcy lawyer.

14 years from discovery to patient. That's longer than it took to build the pyramids. Those involved moving rocks the size of houses without machinery (also the pharaohs didn't have to file quarterly progress reports in triplicate).

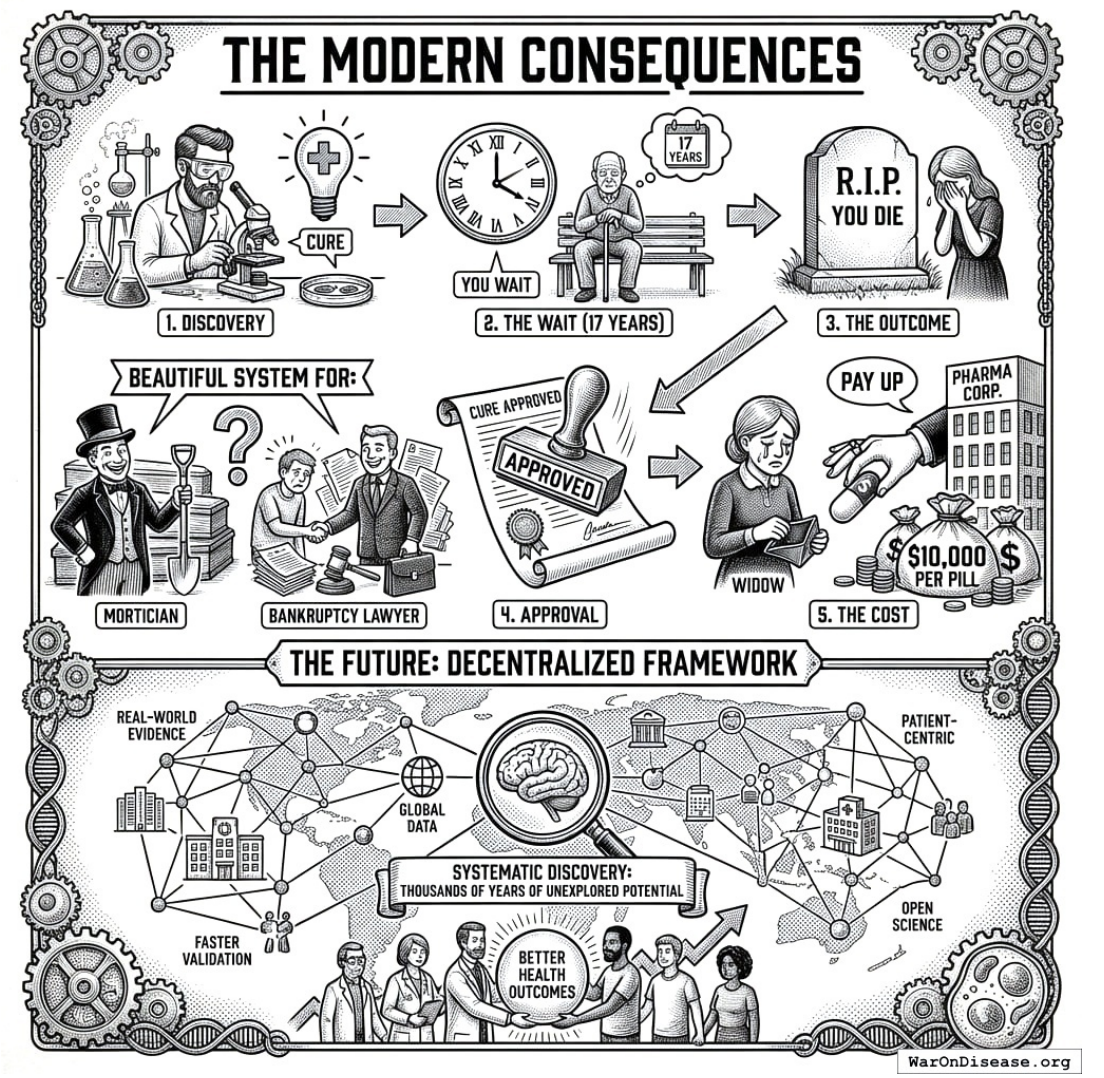


Figure 64: Scientists discover cure. 17 years pass. Patients die. Drug finally available. This is called 'safety.'

High Costs Kill Innovation, Reward Monopoly

Before 1962: Genius scientist invents cure, raises a few million, tests safety, gives it to people. Like a civilization that wants to survive would.

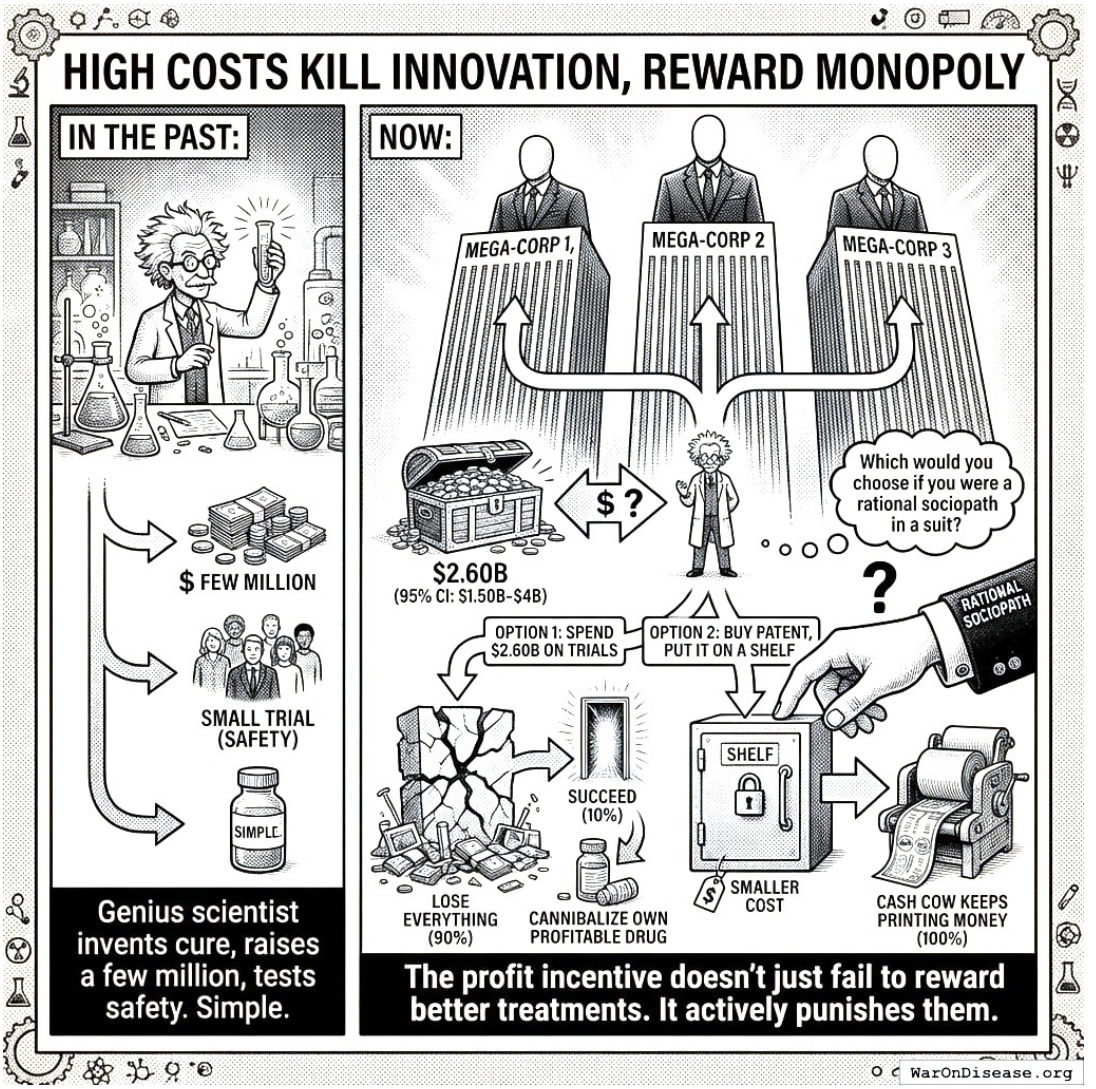


Figure 65: Option 1: Spend billions developing new cure, might fail. Option 2: Shelve the cure, keep selling expensive old drug. You picked option 2, obviously.

Now: Genius scientist must convince one of three mega-corporations to spend $2.60B on a 10% chance of success. Those corporations already sell inferior drugs for the same condition.

The math for the mega-corporation:

Option 1: Spend $2.60B on trials

- 90% chance: Lose everything
- 10% chance: Succeed, then cannibalize your own profitable drug

Option 2: Buy the patent, put it on a shelf

- 0% chance of losing $2.60B
- 100% chance your inferior cash cow keeps printing money

Which would you choose if you were a rational sociopath in a suit?

The profit incentive doesn't just fail to reward better treatments. It actively punishes them.

Off-Patent Drugs and Rare Diseases: Mathematically Doomed

The 1962 law made it mathematically impossible to cure diseases that aren't profitable enough:

- **95% of diseases are rare[82]:** Development cost ($2.60B) / patient population (~10,000 patients) = $260,000/patient
- **No patent = no funding:** Off-patent drugs can't attract billion-dollar investments
- **Pre-specification kills serendipity:** Must predict what drug cures before testing

When something costs more, you get less of it. This is the first thing they teach in economics, and the last thing anyone considers when writing health policy. 95% of diseases[82] have zero treatments. Not because cures are impossible. Because cures are unprofitable.

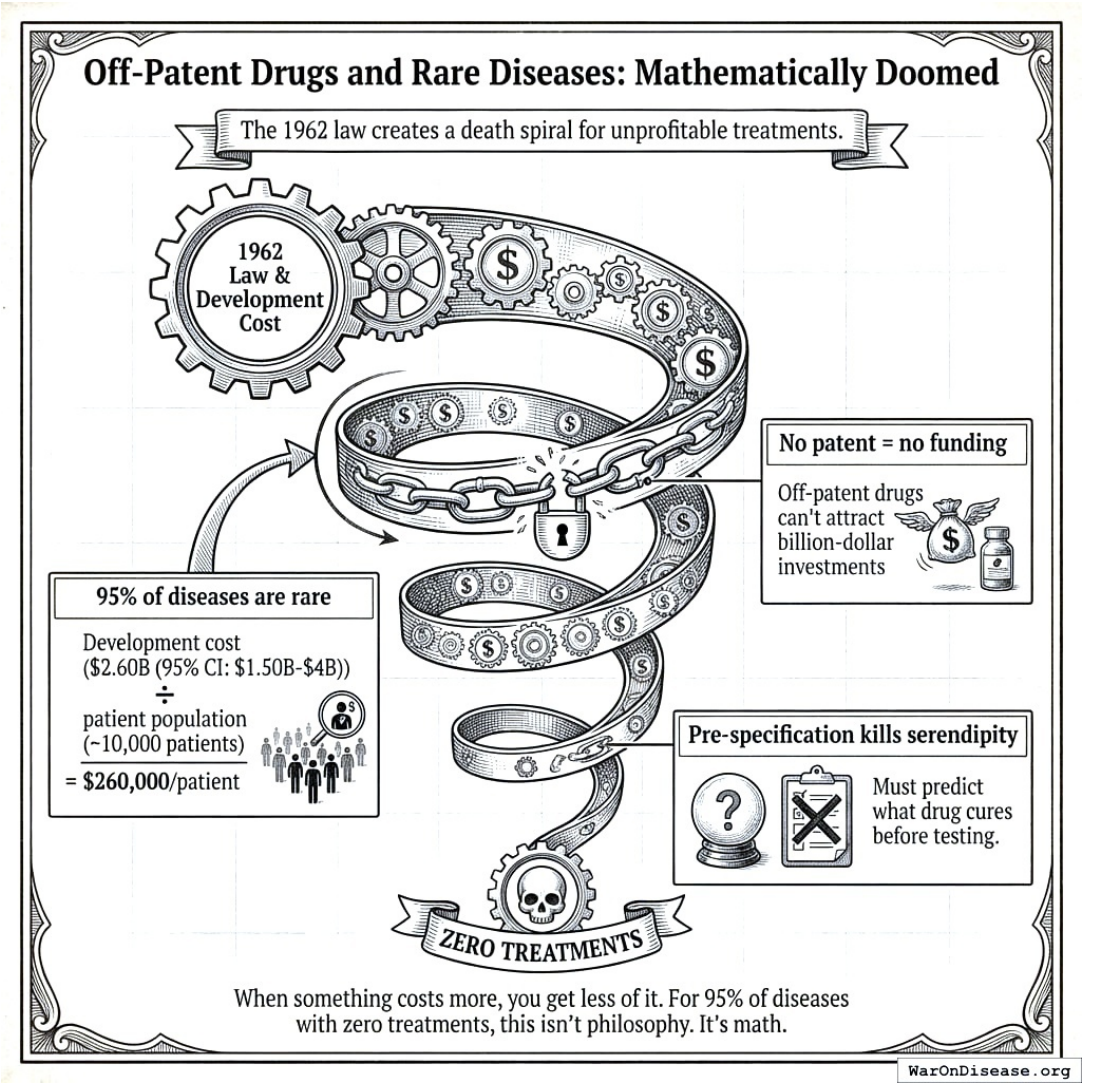


Figure 66: Rare disease patients need cheap old drugs. Development costs 2 billion dollars. Math says they should die. Math wins.

The Actual Death Toll of "Drug Lag"

Economists call it "drug lag," which is a lovely, clinical way of saying "people rotting to death in a queue." Early estimates: **21,000 to 120,000 American lives per decade**[194]. But that was just the US.

A comprehensive quantitative analysis using WHO mortality data estimates the *total* cost of the 8.2 years post-safety efficacy delay: **416 million deaths eventually avoidable deaths.**

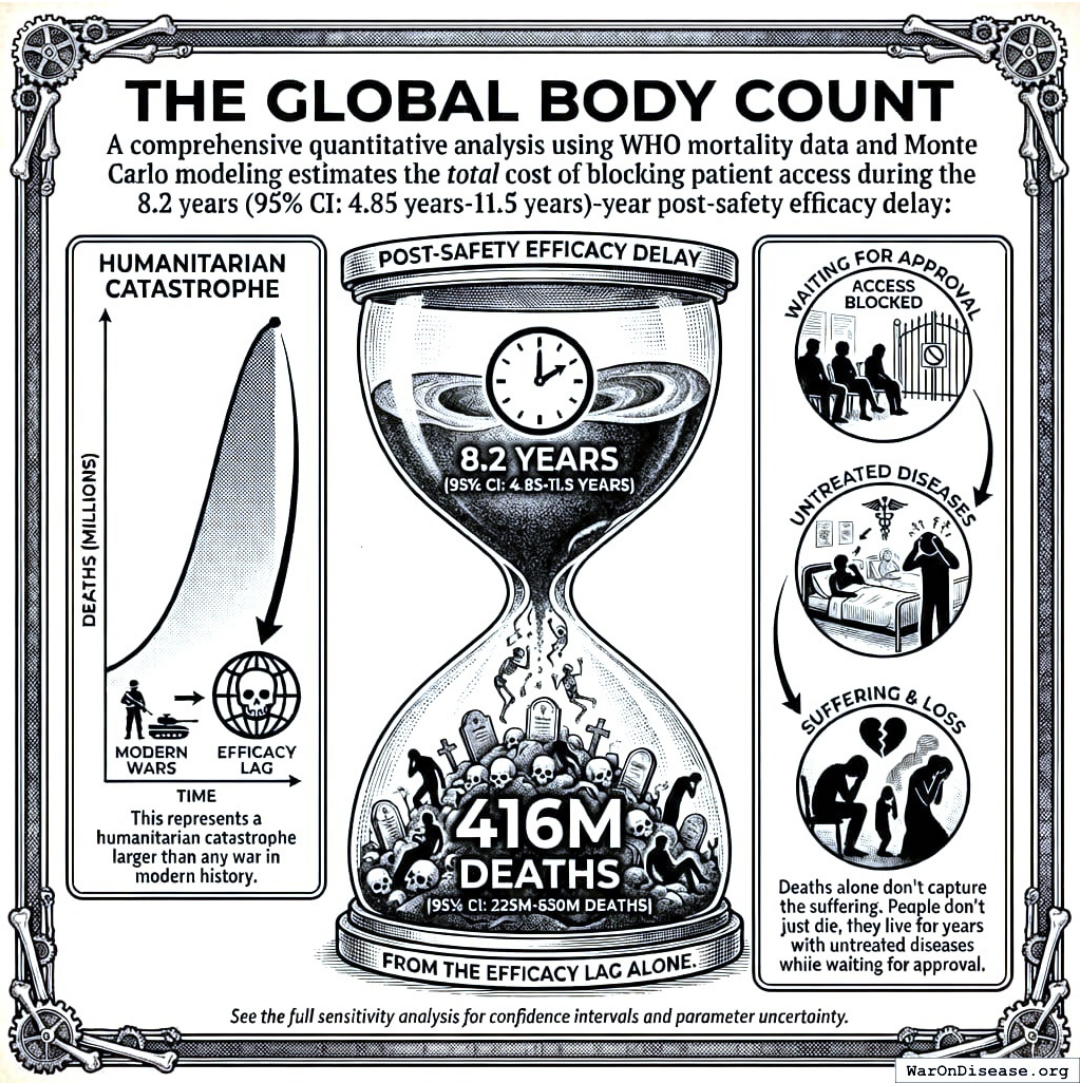


Figure 67: 416 million people died waiting for permission to try medicine. That's more than every war ever fought, combined. We invented a way to kill more people than war, and we call it safety.

Including years lived with disability: 7.94 billion DALYs of healthy human life deleted. Economic cost: $1.19 quadrillion (2024 USD), **38x more** than all global pharma R&D spending combined.

Even if these estimates are off by a factor of 10, the system still costs 82x more per patient and takes 36x longer than proven alternatives.

Here's a news story from the Non-Existent Times by No One Ever without a picture of all the people who die from lack of access to life-saving treatments that might have been.



The Non-Existent Times

13 APR 2020

Lots of People Died Prematurely Due To Treatments That Never Existed

By NO ONE, EVER

FDA Safety Restrictions Dramatically Expanded in 1962 Following the Thalidomide disaster, the FDA began requiring 3 phases of clinical tri-

Photo Not Available Because It's Impossible to Know Specifically Who Would Still Be Alive Today

Reuters

The UN-sponsored International Moose Census got off to a flying start today with hopes for an increase in the worldwide moose population compared to last year's disapointing

inhabitents nonetheless have an insatiable desire for the creatures. The increase in Beijing-Ulanbataar trade is anticipated to relieve pressure on the relatively strained Russian suppliers, but increase Mongolia's imbalance of trade with its larger neighbour.

Historically the only competitor to China in the far eastern moose markets has been Singapore but the tiny island nation is set to report a net loss, expecting a decrease of more than five percent on last year's 50,000 moose counted. The head of Singapore's Agency for Agriculture, Jing-Feng Lau, explained to an incredu-

Types of Error in FDA Approval Decision

	Drug Is Beneficial	Drug Is Harmful
FDA Allows the Drug	Correct Decision	Victims are identifiable and might appear on Oprah.
FDA Does Not Allow the Drug	Victims are not identifiable or acknowledged.	Correct Decision

The most infamous case: beta-blockers. Europe used them to prevent heart attacks. The US delayed for a decade, killing an estimated **100,000 Americans**[195]. More than died in Vietnam and Korea combined. From one drug delay.

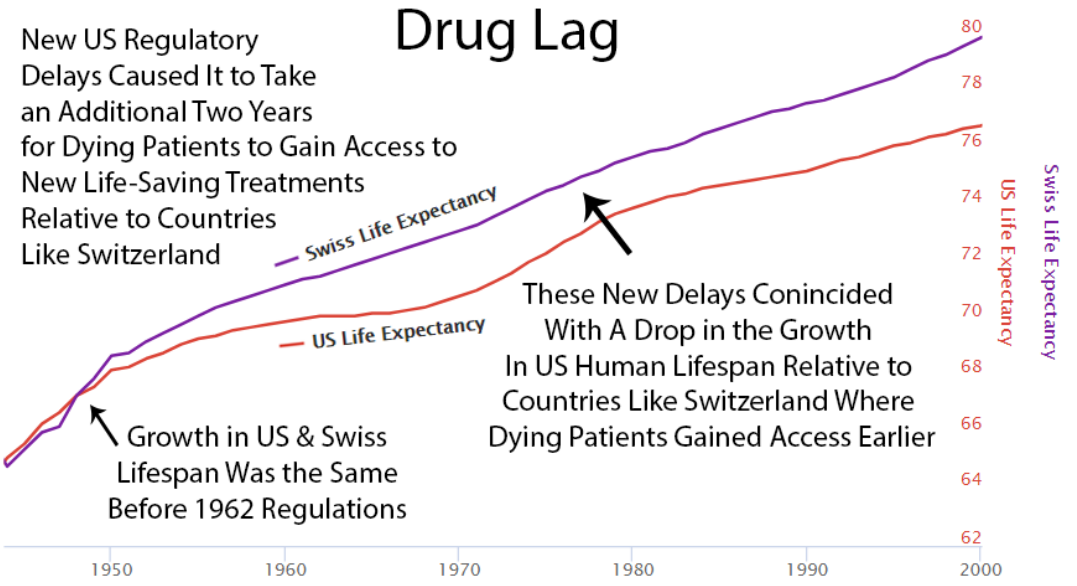


Figure 68: In 1962, Americans and Swiss people died at the same age. Then America made medicine safer. Now Americans die younger. This is what winning looks like.

After 1962, US life expectancy diverged from Switzerland's (which didn't introduce the same delays). More drug approvals in the '80s narrowed the gap. Fewer approvals in the '90s widened it again.

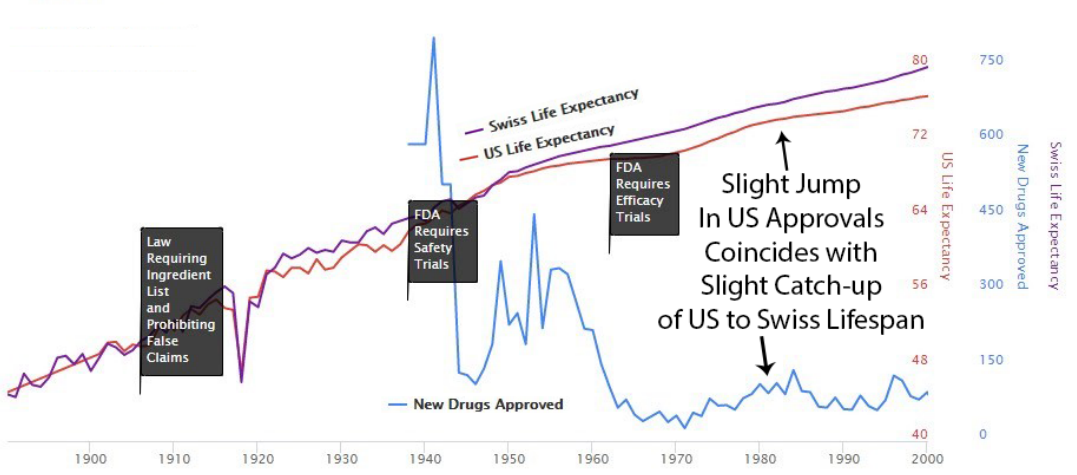


Figure 69: The more drugs America blocked, the earlier Americans died. It's like correlation, but stupider.

How the Incentives Work

FDA Regulator Decision Tree

Approve drug that later shows problems

- Congressional hearing (televised)
- "FDA APPROVED KILLER DRUG" headlines
- Career ends
- Pension threatened

Delay drug that could save lives

- Nothing happens
- Dead people don't complain
- Promotion on schedule
- Retire to pharma job[196]

This isn't conspiracy. It's just a system where the only career-ending move is doing something. Approve a bad drug, your name is in the newspaper. Delay a good drug, the people who could have complained are dead. It's a perfect incentive structure if you're optimizing for cowardice.

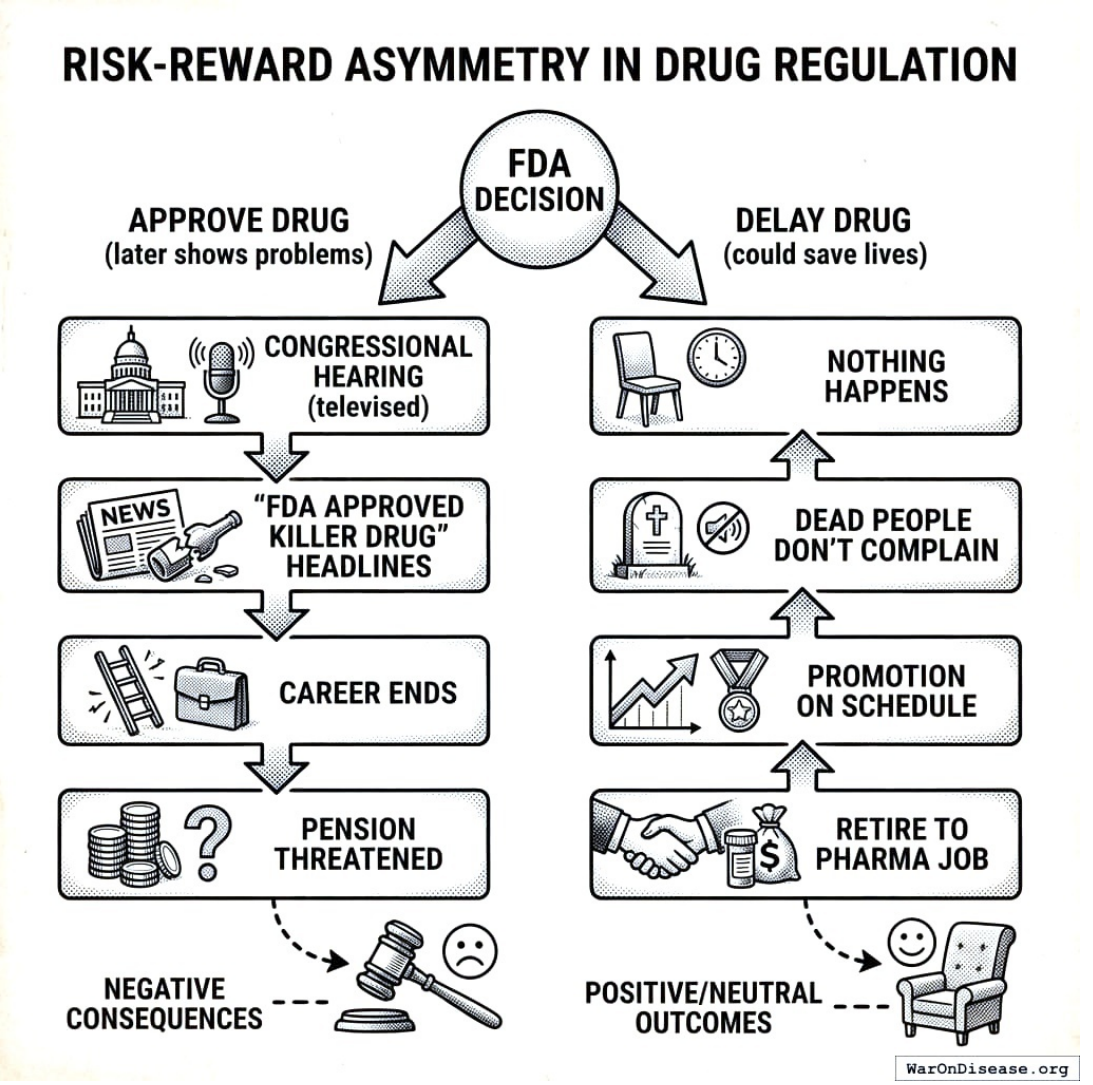


Figure 70: If a regulator approves a bad drug, CNN says their name. If they delay a good drug, nobody dies on television. So nobody dies on television.

The Math: Why Current Regulations Increase Total Harm

$$\begin{aligned} & Ratio_{TypeII} \\ &= \frac{DALYs_{lag}}{DALY_{TypeI}} \\ &= \frac{7.94B}{2.59M} \\ &= 3{,}070 \end{aligned}$$

where:

$$DALYs_{lag} = YLL_{lag} + YLD_{lag} = 7.07B + 873M = 7.94B$$

where:

$$
\begin{aligned}
&YLL_{lag} \\
&= Deaths_{lag} \times (LE_{global} - Age_{death,delay}) \\
&= 416M \times (79 - 62) \\
&= 7.07B
\end{aligned}
$$

where:

$$
\begin{aligned}
&Deaths_{lag} \\
&= T_{lag} \times Deaths_{disease,daily} \times 338 \\
&= 8.2 \times 150{,}000 \times 338 \\
&= 416M
\end{aligned}
$$

where:

$$
\begin{aligned}
&YLD_{lag} \\
&= Deaths_{lag} \times T_{suffering} \times DW_{chronic} \\
&= 416M \times 6 \times 0.35 \\
&= 873M
\end{aligned}
$$

where:

$$
\begin{aligned}
&DALY_{TypeI} \\
&= DALY_{thal} \times 62 \\
&= 41{,}800 \times 62 \\
&= 2.59M
\end{aligned}
$$

where:

$$
\begin{aligned}
&DALY_{thal} \\
&= YLD_{thal} + YLL_{thal} \\
&= 13{,}000 + 28{,}800 \\
&= 41{,}800
\end{aligned}
$$

where:

$$
\begin{aligned}
&YLD_{thal} \\
&= DW_{thal} \times N_{thal,survive} \times LE_{thal} \\
&= 0.4 \times 540 \times 60 \\
&= 13{,}000
\end{aligned}
$$

where:

$$
\begin{aligned}
&N_{thal,survive} \\
&= N_{thal,US,prevent} \times (1 - Rate_{thal,mort}) \\
&= 900 \times (1 - 40\%) \\
&= 540
\end{aligned}
$$

where:

$$\begin{aligned} & N_{thal,US,prevent} \\ &= N_{thal,global} \times Pct_{US,1960} \\ &= 15{,}000 \times 6\% \\ &= 900 \end{aligned}$$

where:

$$\begin{aligned} & YLL_{thal} \\ &= Deaths_{thal} \times 80 \\ &= 360 \times 80 \\ &= 28{,}800 \end{aligned}$$

where:

$$\begin{aligned} & Deaths_{thal} \\ &= Rate_{thal,mort} \times N_{thal,US,prevent} \\ &= 40\% \times 900 \\ &= 360 \end{aligned}$$

Even generously crediting ALL drug withdrawals to the 1962 changes (ignoring that Phase I safety testing already existed), the prevented harm totals ~2.59 million DALYs. The delay harm totals 7.94 billion DALYs.

For every 1 unit of harm prevented, the current system creates 3.07k units of harm through delay.

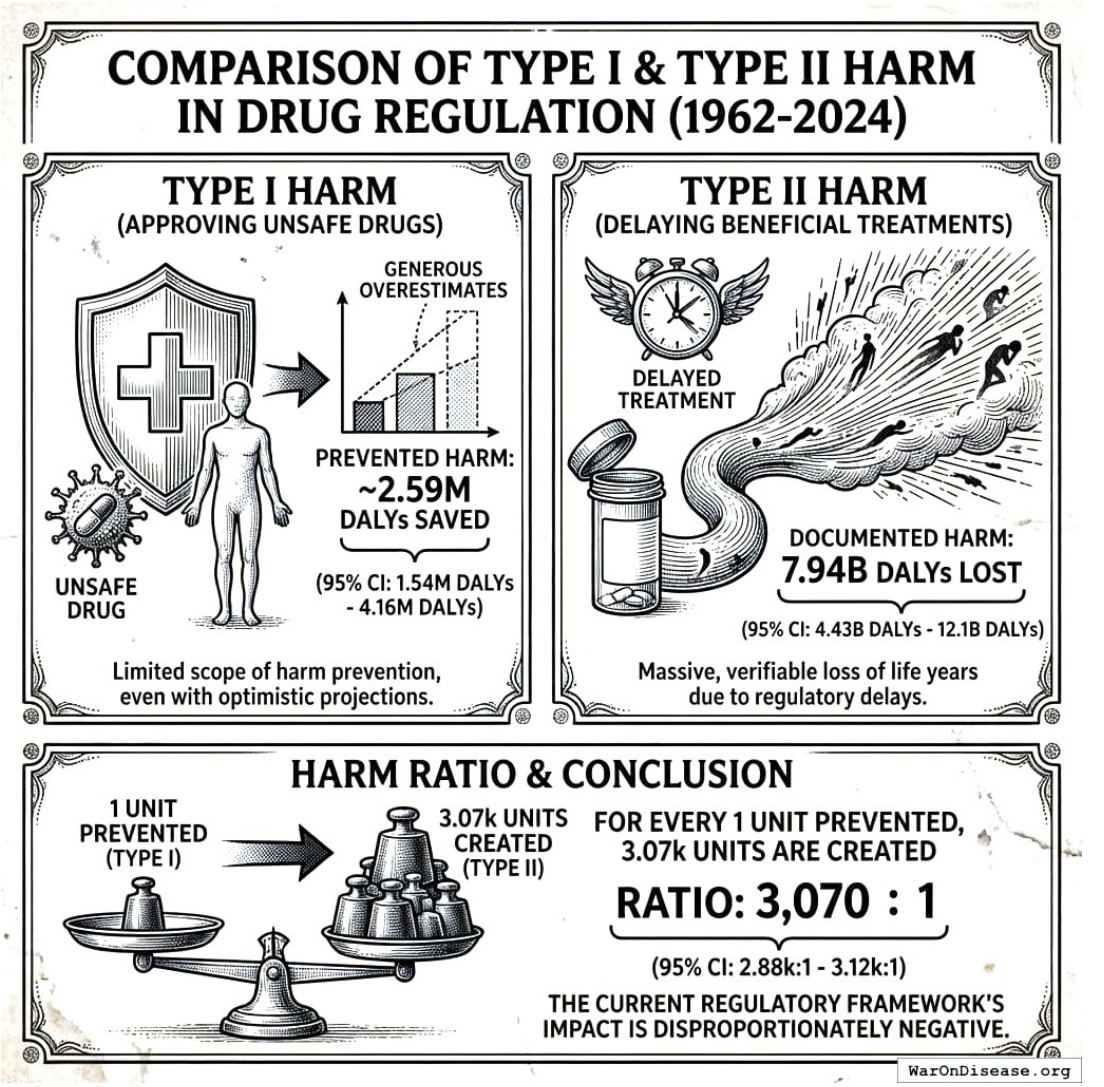


Figure 71: For every person saved by blocking a bad drug, 3,070 died waiting for good ones. It's like hiring a lifeguard who's very good at preventing sharks but keeps everyone on the beach until they die of old age.

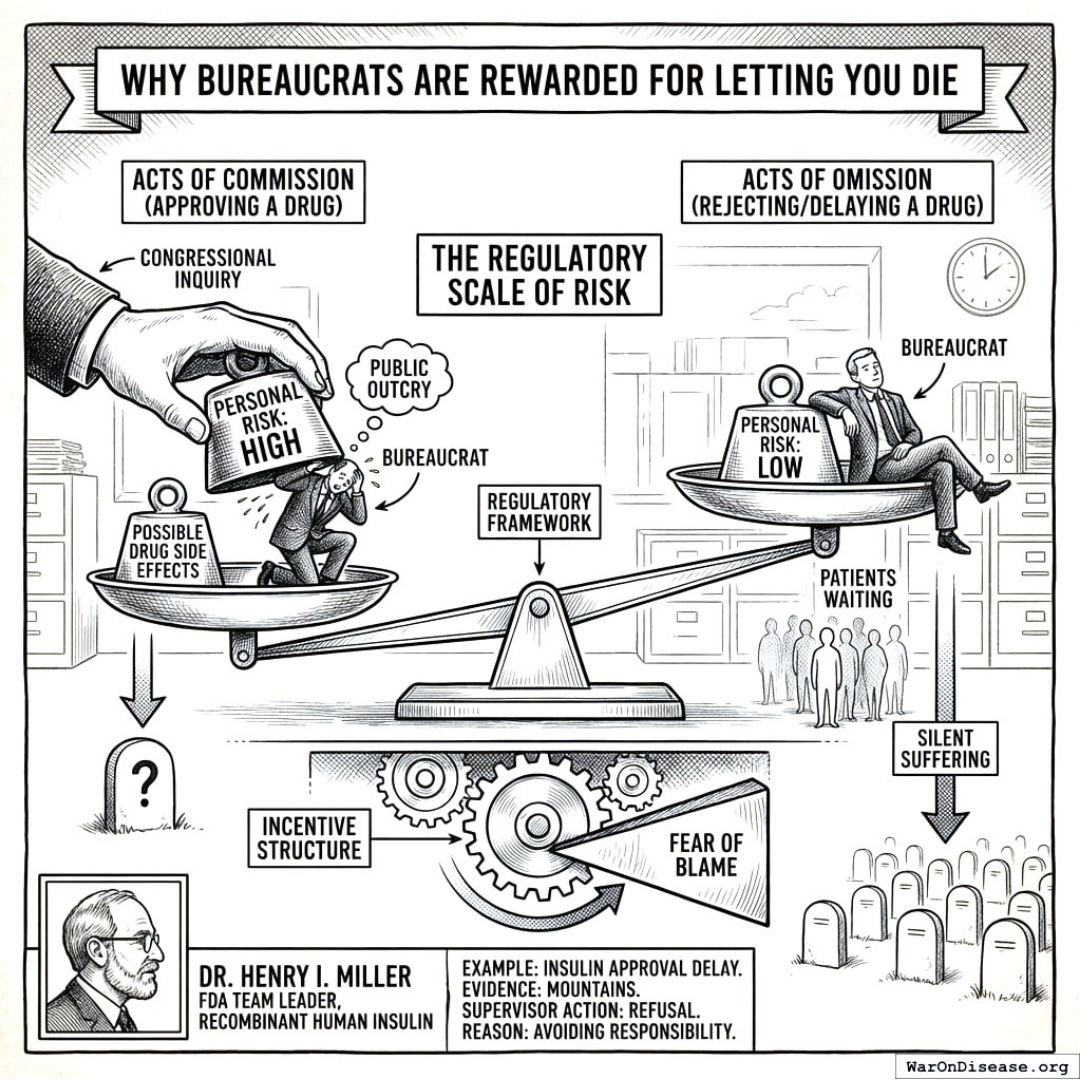


Figure 72: Regulators who approve drugs that hurt people get fired. Regulators who delay drugs that could save people get promoted. You built a machine that runs on cowardice.

Dr. Henry I. Miller ran the FDA team reviewing recombinant human insulin in the early 1980s. Mountains of evidence showed it was safe and effective. His supervisor refused to approve it. If someone died from the drug, heads would roll. If people died waiting for the drug? Nothing happens.

Dead patients don't testify before Congress.

Clinical Trial Theater: Excluding 86.1% of Reality Makes Drugs More Dangerous

The FDA requires rigorous trials to ensure safety. Then it tests the drugs on people who aren't sick, aren't old, aren't on other drugs, and aren't pregnant. Basically, it tests drugs on

triathletes and then acts surprised when grandma has a reaction.



Figure 73: They test drugs on healthy people, then give them to sick people. It's like testing a ladder on Olympic gymnasts, then selling it to your grandmother.

Trials under the current system exclude[2]:

- **Patients over 65:** Most people who actually take medications (excluded due to "comorbidities")
- **Patients under 18:** All children (metabolism differs from adults)
- **Pregnant women:** Excluded entirely (then drugs prescribed during pregnancy anyway)
- **Anyone with comorbidities:** The sickest patients most likely to have adverse reactions
- **Anyone on other medications:** Everyone elderly (can't detect drug interactions)
- **Anyone too far from trial sites:** Poor and rural populations

Result: In antidepressant trials alone, 86.1% of real patients are excluded. The drugs are tested on the healthiest people alive, declared "safe," then handed to everyone the trial specifically avoided. This is how Vioxx, Fen-Phen, and Bextra all got approved, celebrated, prescribed to

millions, and then withdrawn after killing people whose demographics the trials had carefully excluded.



Figure 74: Clinical trials use healthy 25-year-olds with no other conditions. Then you give the drug to 80-year-olds taking twelve other medications. What could go wrong, you asked. Everything, it turns out.

Testing drugs only on healthy volunteers to ensure safety is like testing parachutes only on the ground.

No Long-Term Outcome Data

Data collection can be as short as several months. You take the drug for forty years.

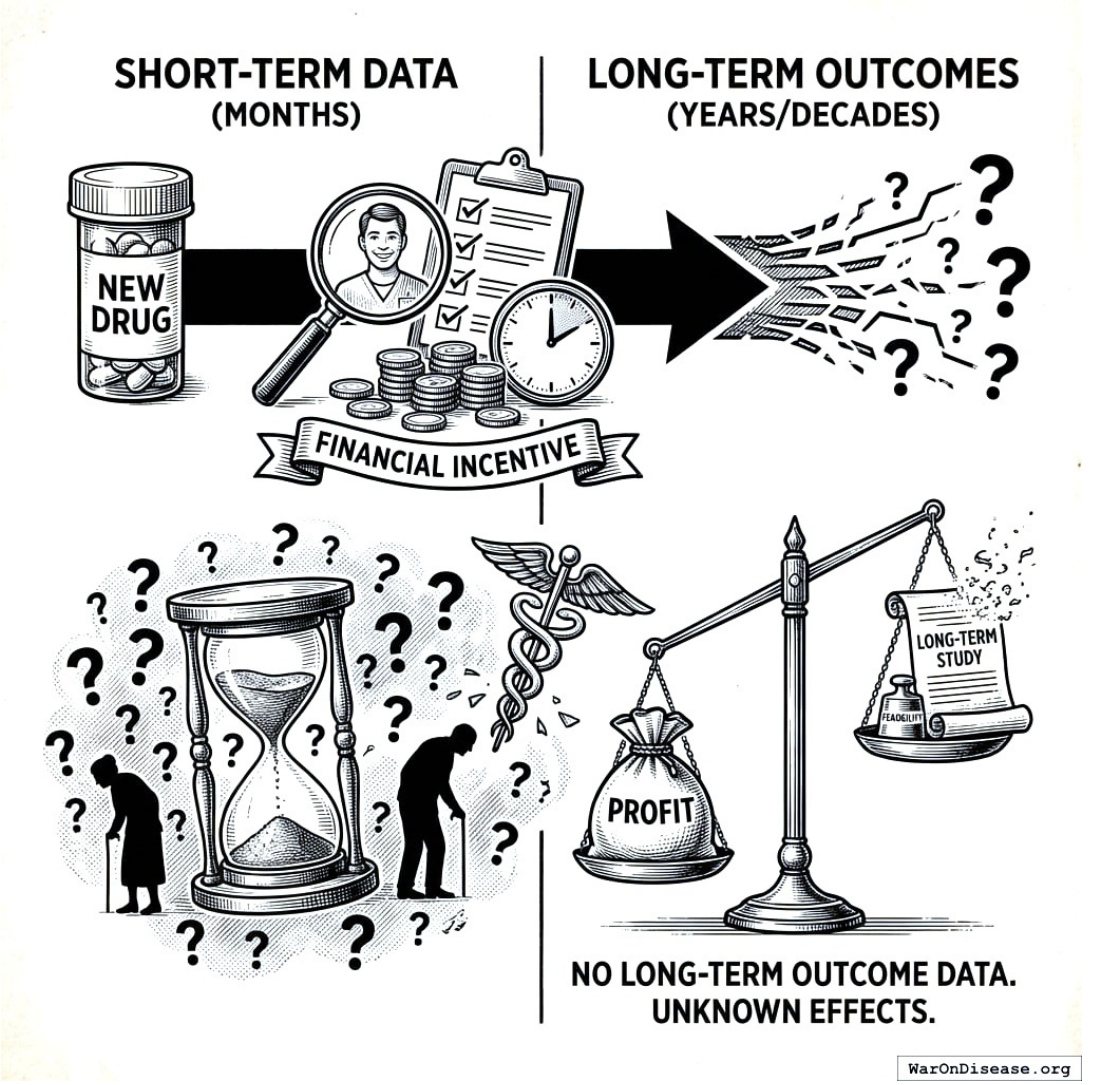


Figure 75: They test drugs for two years, then you take them for forty years. It's like test-driving a car to the end of the driveway, then driving it to the moon.

Pre-Specification Requirements Kill Innovation

The regulations require drug developers to predict exactly what a treatment will cure before testing it on humans. You must know the answer before you're allowed to ask the question. This is how science works on your planet, apparently.

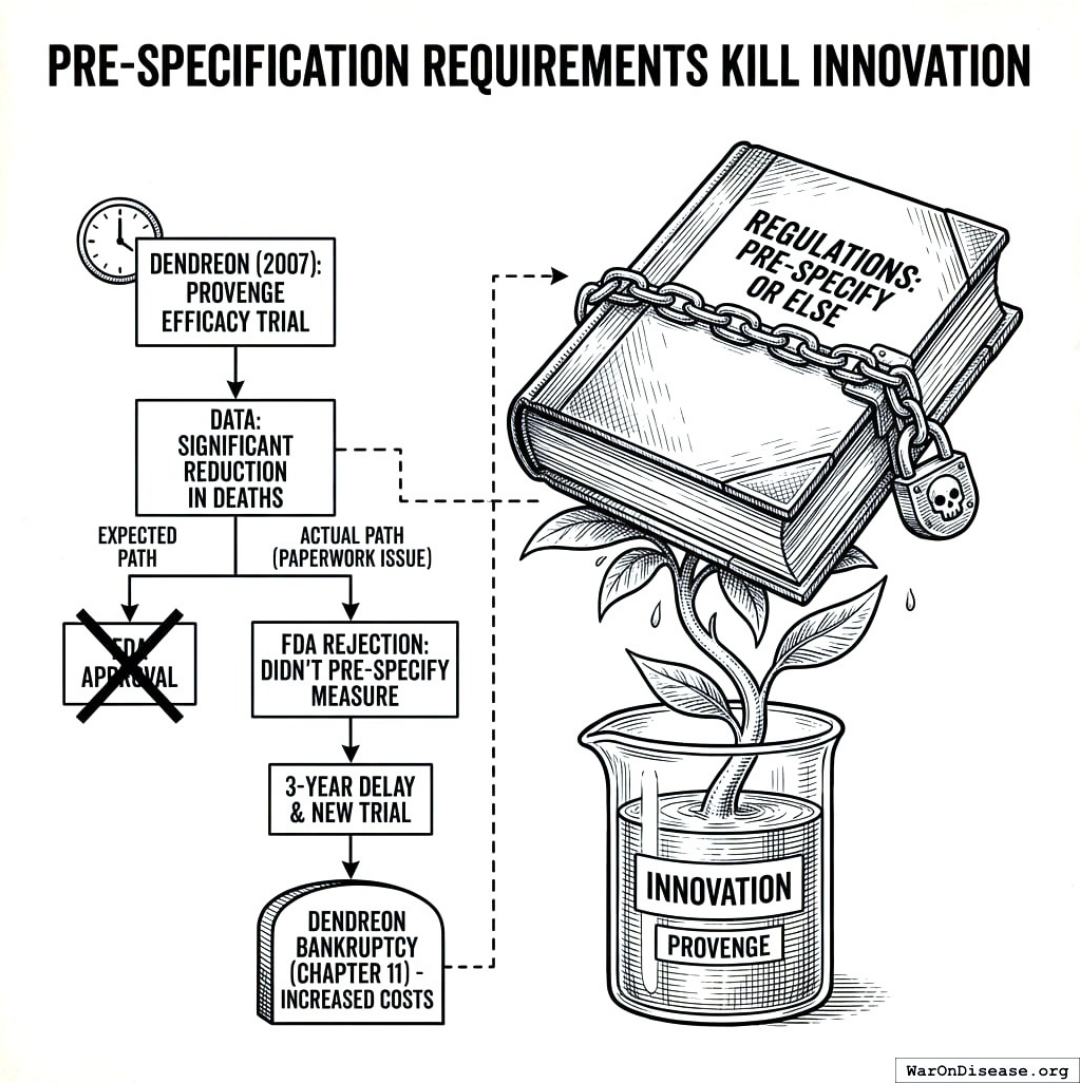


Figure 76: Dendreon's cancer drug worked. The FDA said it didn't count because they forgot to specify they were checking if it worked. Thousands died. The FDA was very proud of following procedure.

In 2007, Dendreon showed that its immunotherapy drug Provenge significantly reduced deaths from prostate cancer. The FDA advisory committee agreed it worked. Then the FDA rejected it anyway. Not because it didn't save lives. Because Dendreon filled out the wrong form about which lives it was planning to save.

"People stopped dying" wasn't good enough. The paperwork predicting that people would stop dying wasn't filed in the right order. Three more years and another trial were required. During those three years, people who could have stopped dying continued dying, but at least the forms were correct.

Due to these additional costs, Dendreon ultimately filed for chapter 11 bankruptcy[197].

The Negative Results Black Hole

Here's something that would be illegal if anybody important cared:

- **Negative trial results published:** 37%[198]
- **Positive trial results published:** 94%[198]
- **Money wasted repeating failed experiments:** ~$100 billion annually[199]

Companies are allowed to hide when drugs don't work, which is like letting restaurants hide their health inspection failures. Actually, restaurants can't do that. Drugs get less transparency than a sandwich shop.

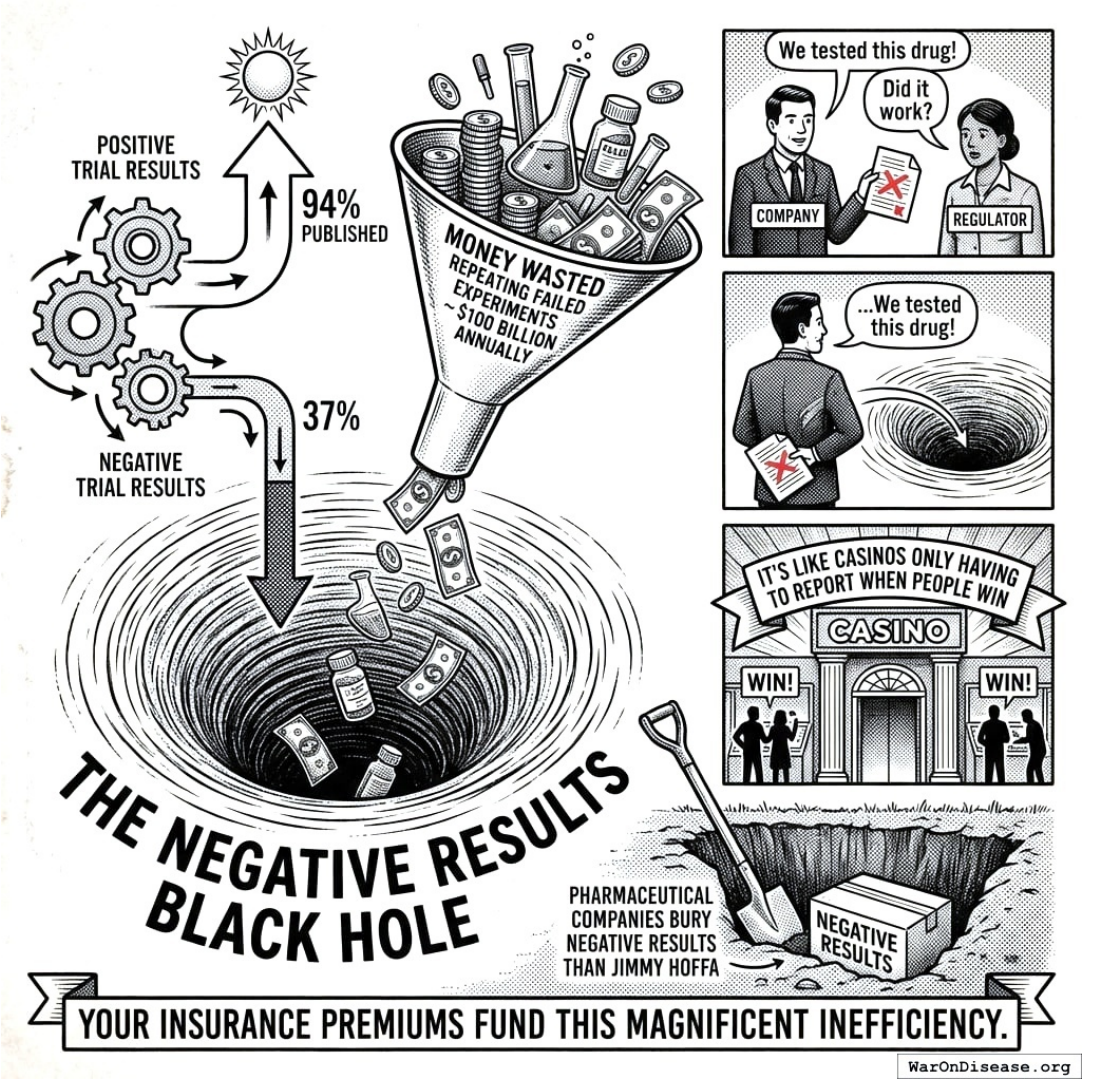


Figure 77: Drug companies publish successful trials and hide failed ones. So researchers keep testing things that already failed, like a scientist trying to invent fire without knowing fire already exists. Except the fire is death.

Company: "We tested this drug!" Regulator: "Did it work?" Company: "…We tested this drug!"

Pharmaceutical companies bury negative results deeper than Jimmy Hoffa. Other companies waste billions testing the same dead ends. Your insurance premiums fund this magnificent inefficiency. It's like casinos only having to report when people win.

Countries That Don't Have Our "Safety"



Figure 78: Japan approves experimental drugs fast. Europe approves them medium fast. America approves them after you die. Different cultures, different priorities.

Japan[200] gives conditional approval after Phase II with real-world data collection. Time to patient: 2-3 years. Americans fly there for treatment.

The EU[201] lets terminal patients access experimental drugs at a doctor's discretion. FDA: "But what if they die?" (They're already dying.)

Right to Try (US)[202] passed despite FDA opposition. The FDA made it effectively impossible to use. Patients helped: <200 total[203]. Patients who wanted help: tens of thousands.

The COVID Test Fiasco

January 2020: WHO develops COVID test, world starts using it. February: FDA blocks all non-CDC tests[204] to "ensure quality." The CDC tests were contaminated[205]. Private labs begged to help. Late March: FDA finally allows other tests after thousands die[206].

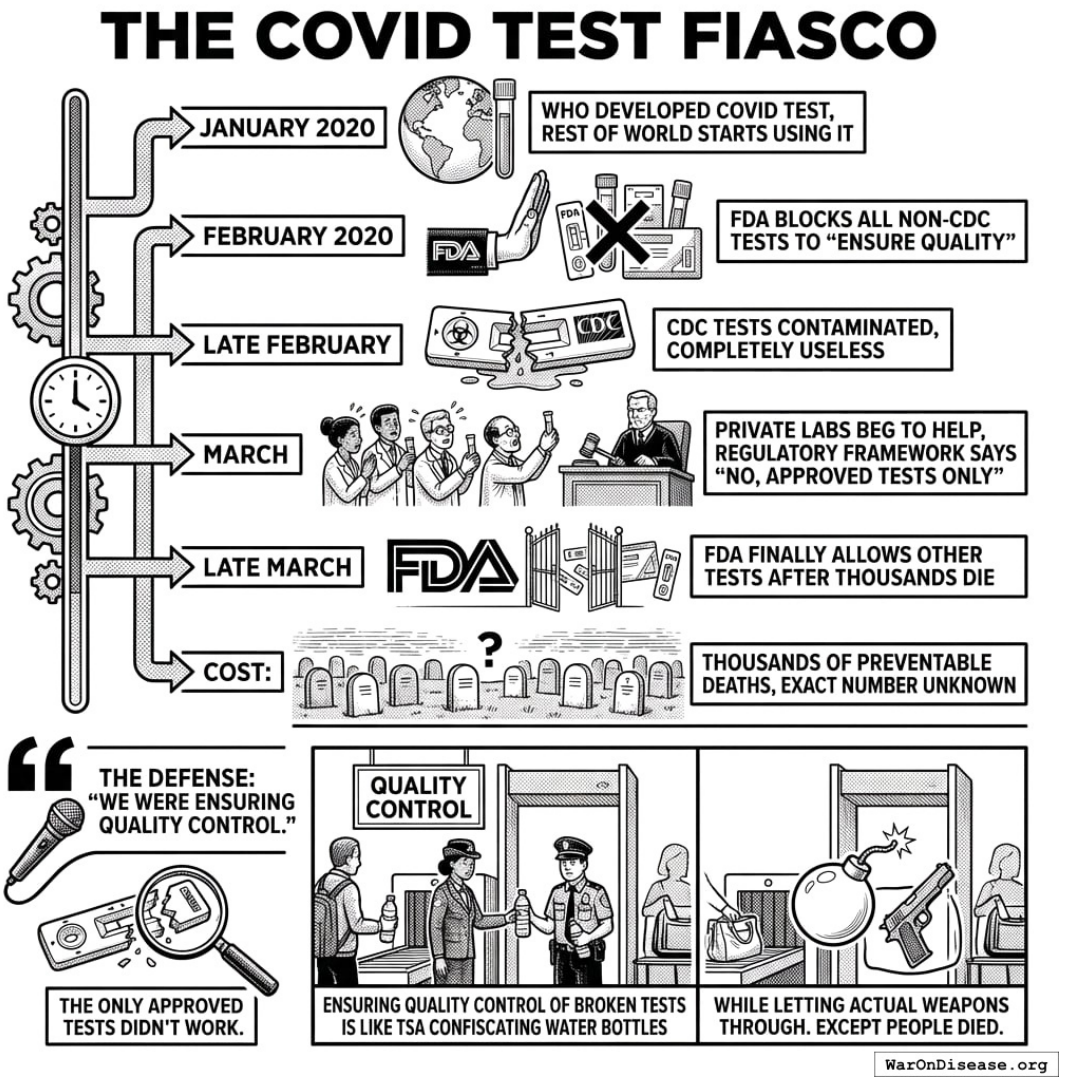


Figure 79: While COVID spread, America banned COVID tests. Not because the tests didn't work. Because they weren't American enough. Patriotism killed thousands. Nobody got a medal.

The only approved tests didn't work. Ensuring quality control of broken tests is like TSA confiscating water bottles while letting actual weapons through. Except people died.

Small Trials Are Dangerous

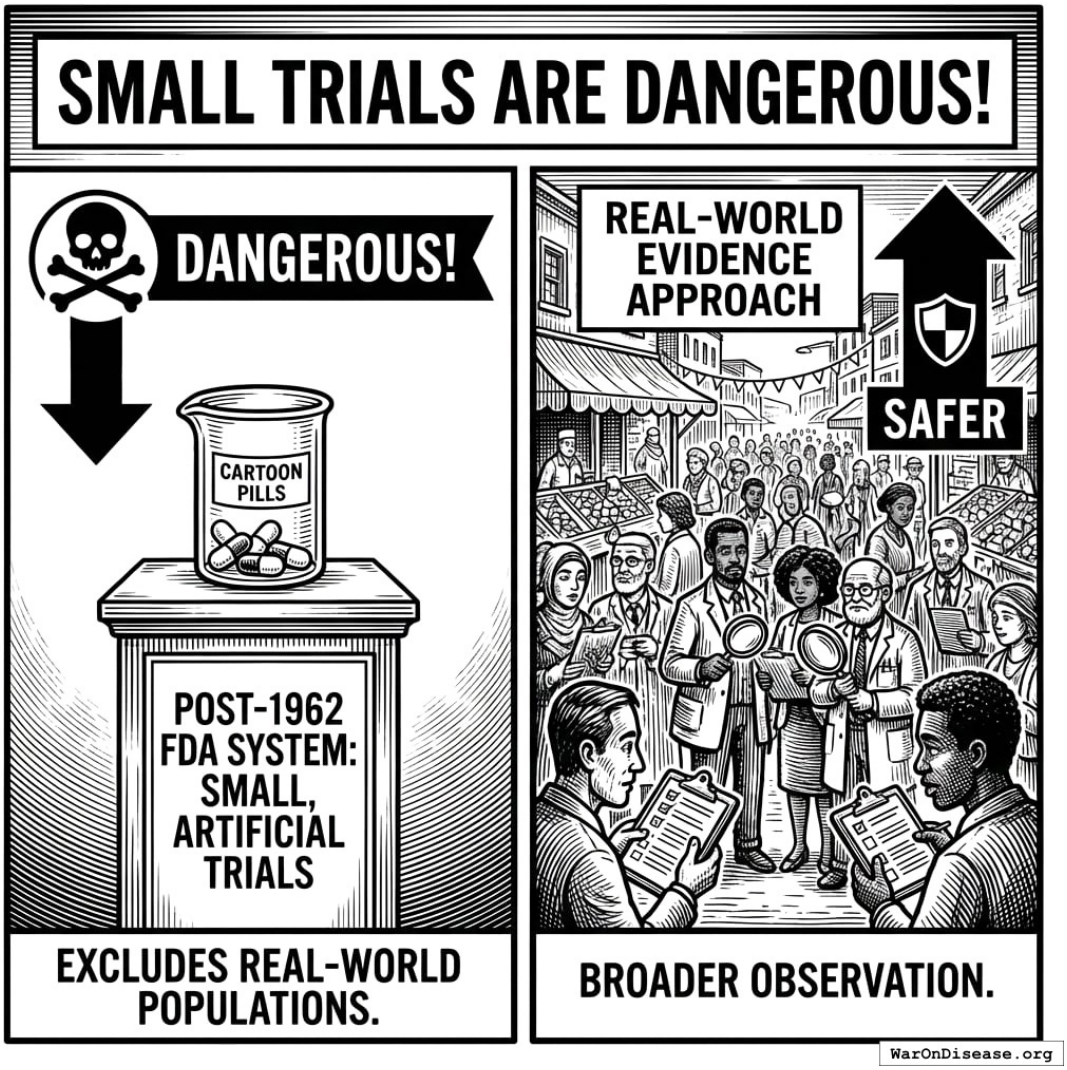


Figure 80: Before 1962, they tested drugs on everyone who took them. After 1962, they tested drugs on 2,000 people, then gave them to 2 billion. They called this improvement.

Phase III trials test 1,000-3,000 patients. A 1-in-10,000 adverse event is mathematically invisible in a trial of 3,000. Then the drug goes to millions.

After approval, the FDA monitors safety using FAERS, a system where doctors voluntarily report problems if they feel like it. It captures less than 10% of actual adverse events[207]. Vioxx killed an estimated 38,000-55,000 Americans[208] before this honor system noticed. That's more people than died in the entire Korean War, detected by a system that relies on doctors filling out optional paperwork.

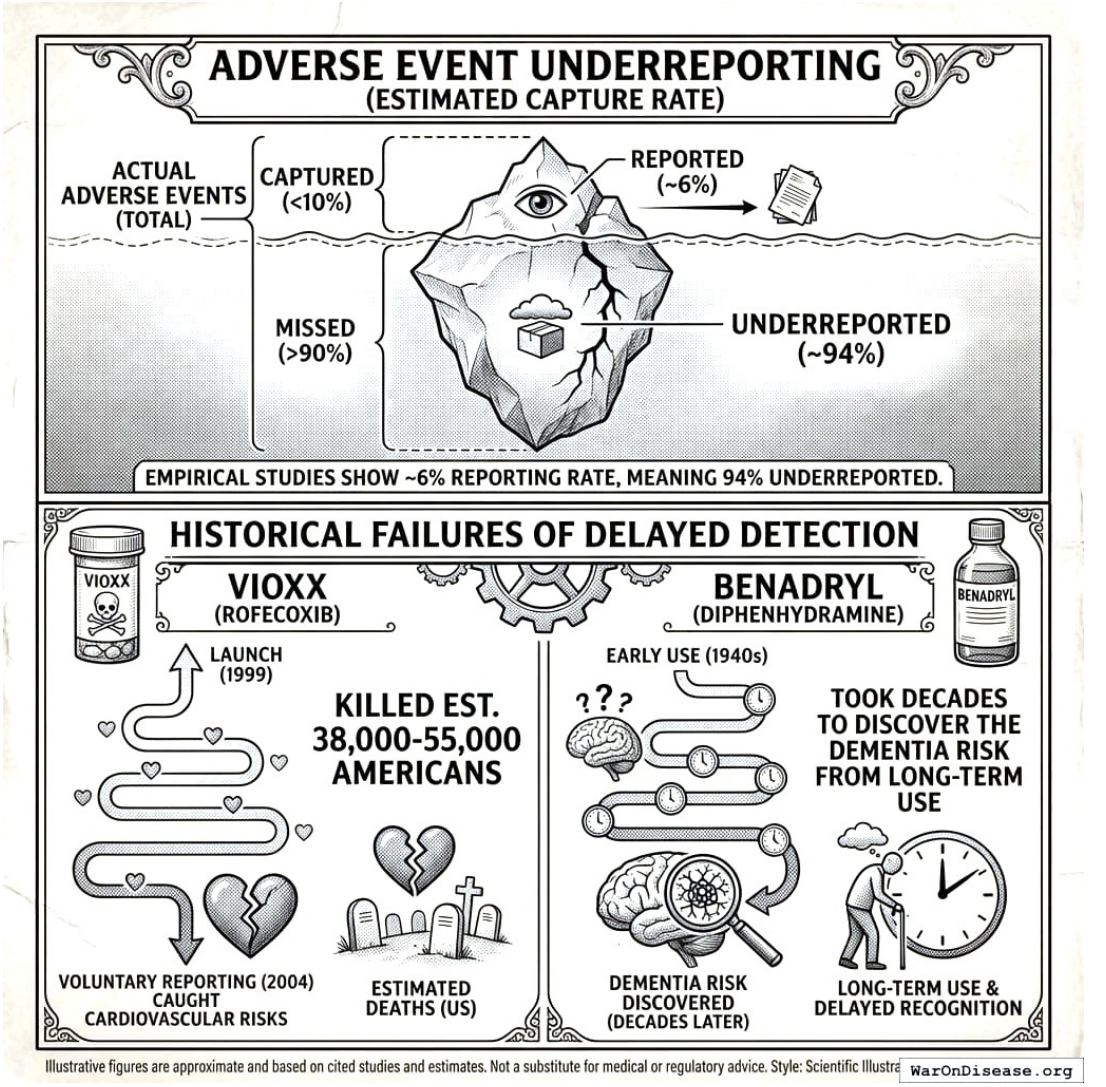


Figure 81: Doctors report 10% of drug side effects. The other 90% just happen to people who assume that's what dying feels like.

A dFDA with 10 million participants catches 1-in-10,000 reactions, includes real populations, tracks long-term outcomes, and provides automated surveillance instead of voluntary paperwork.

The current system tests 3,000 cherry-picked patients, then hopes doctors voluntarily fill out forms when their patients drop dead. The alternative is monitoring millions of real patients automatically. One of these is a safety system. The other is a prayer.

The Bottom Line

Metric	Value
Post-safety efficacy lag	8.2 years
Deaths from the lag	416 million deaths
DALYs destroyed	7.94 billion DALYs

Metric	Value
Economic cost	$1.19 quadrillion
Harm ratio (delay vs. prevention)	3.07k

Phase I safety testing works. Keep it. The rest is a 62-year-old mistake dressed up in a lab coat.

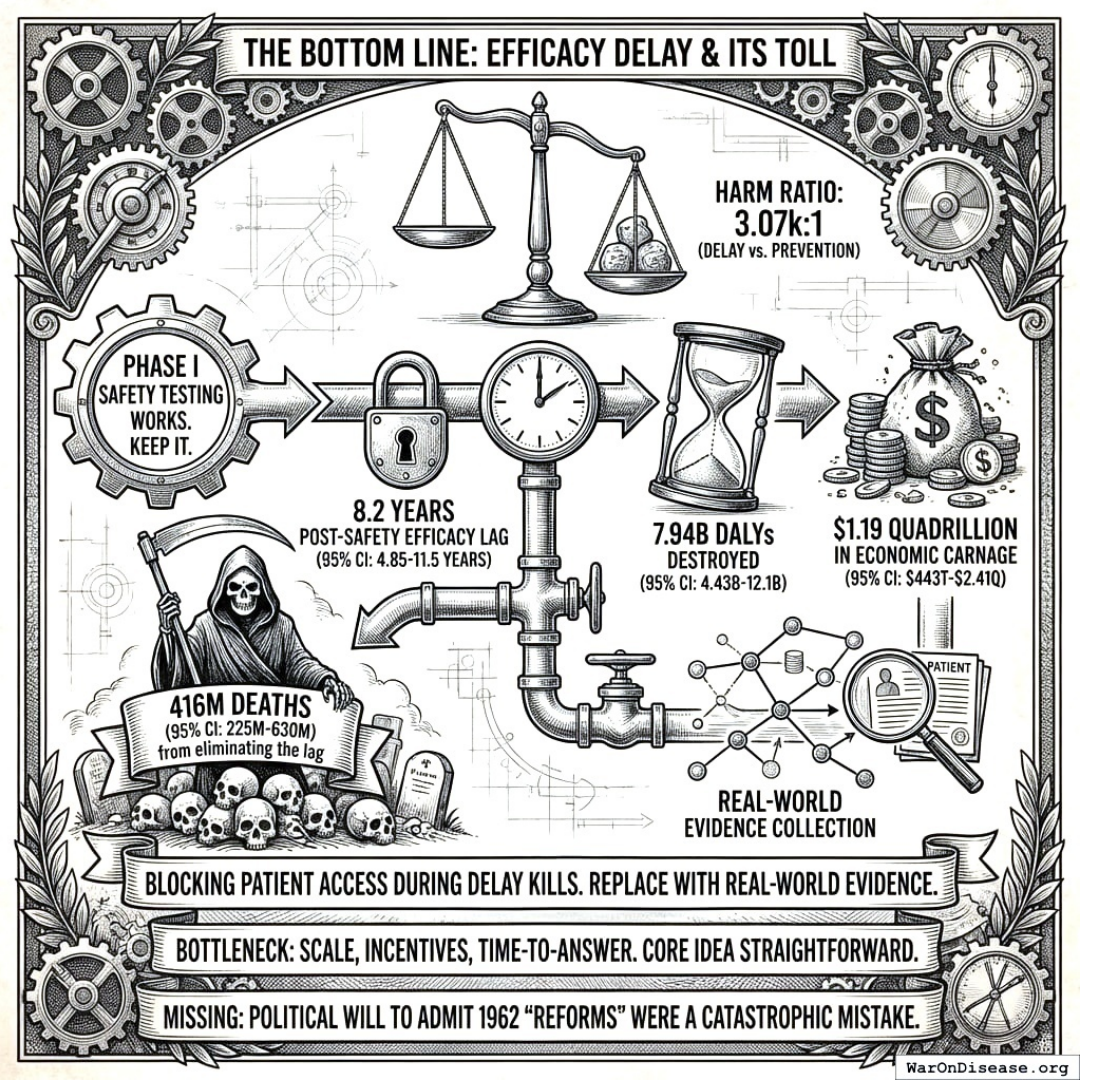


Figure 82: It takes 8.2 years to prove a drug works. During those 8.2 years, 3,000 people die for every one person the delay might save. You're very bad at math.

Replace the 8.2-year post-safety efficacy delay with real-world evidence collection. The only thing missing is the political will to admit that a law signed before the Beatles existed might not be the pinnacle of pharmaceutical regulation.

Technical Analysis

For the full quantitative analysis including methodology, sensitivity analysis, and source data (warning: contains numbers large enough to make you physically ill), see: The Human Cost of Regulatory Latency

---

P.S. - The FDA will likely object to this chapter. Estimated response time: 12-15 years, pending Phase III review and proper documentation.

Unrepresentative Democracy

Here's some fun math to ruin your day:

Chance your vote decides an election: 1 in 60 million[209] Value if your candidate wins: $10,000 (in policies you prefer) Expected value of voting: $0.00017 Cost of voting (time, gas, finding parking): $50 Net value: -$49.99983

Voting is literally irrational. You have better odds of dying in a car crash on the way to vote than your vote mattering.

Yet people get really mad when you point this out.

Democracy

The Founding Fathers were brilliant men. They anticipated tyranny, corruption, foreign invasion, and mob rule. They did not anticipate Florida.

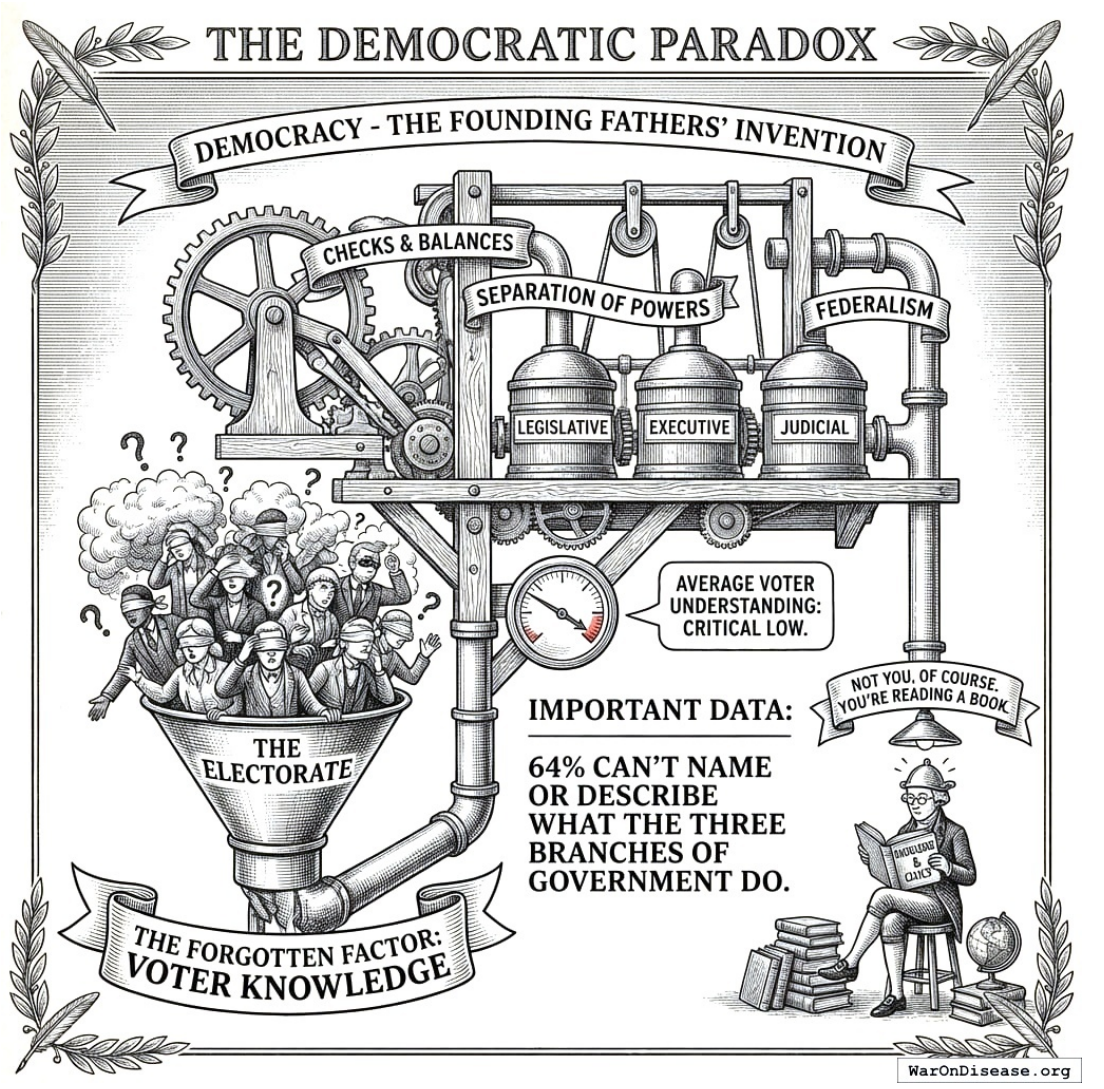


Figure 83: The government has three branches. Two-thirds of voters can't name them. These same voters choose who runs the branches. It's like a pilot test where nobody knows what a plane is.

64% of voters can't name the three branches of government[210]. These same voters choose who runs those branches. Not you, of course. You're reading a book about international treaties. But statistically, the person sitting next to you thinks the judicial branch is a type of tree.

The Rational Ignorance Problem

Cost of being informed: 100+ hours researching candidates and issues **Benefit of being informed**: Your one vote (worth $0.00017) **Rational decision**: Stay ignorant, watch Netflix

This isn't stupidity. It's the smartest decision your democracy makes possible.

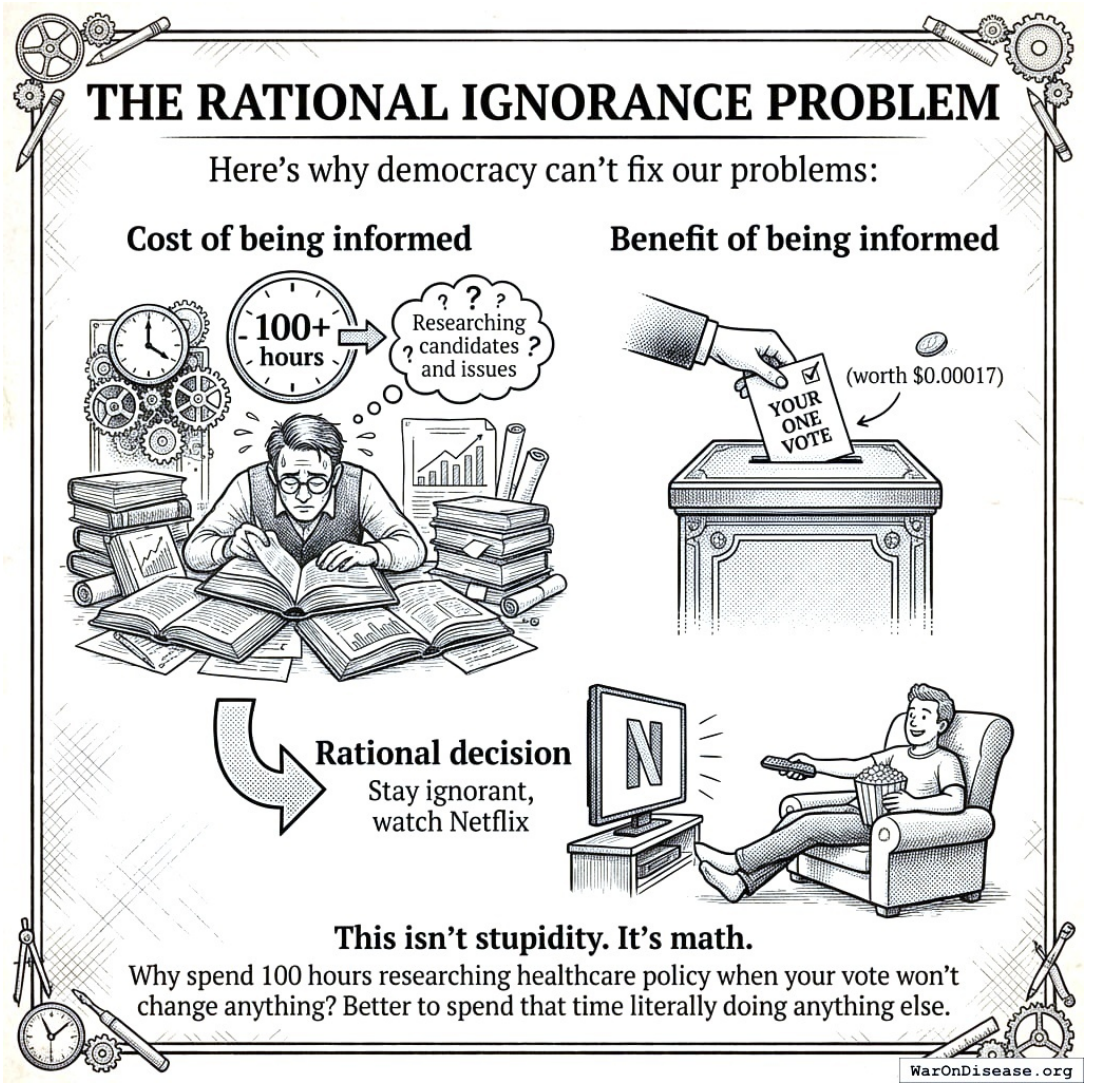


Figure 84: Learning about politics costs you 50 hours. Your vote changes nothing. The rational choice is to watch television instead. Democracy runs on people who don't understand it.

Why spend 100 hours researching healthcare policy when your vote won't change anything? You could spend those hours learning Italian, and at least then you'd be able to order gelato while your democracy collapses.

What Democracy Should Look Like vs Reality

Princeton University analyzed 1,779 policy decisions over 20 years. The correlation between what ordinary voters want and what actually happens? **Zero. Percent.**[211]

When economic elites want something? 78% of the time[211].

You have the same political influence as your houseplant. Slightly less, actually. Your houseplant produces oxygen, which at least one congressman needs.

Your institutions tell the whole story in their names. You have a "Department of Defense" that

mainly attacks people. A "Department of Health" that has not yet produced any observable health. And a "Department of Justice" that (you can see where this is going).

Whether 0% or 100% of voters support a bill, it has the same ~30% chance of passing. Democracy is a slot machine where every pull gives the same result but you keep playing because the machine has an American flag on it.

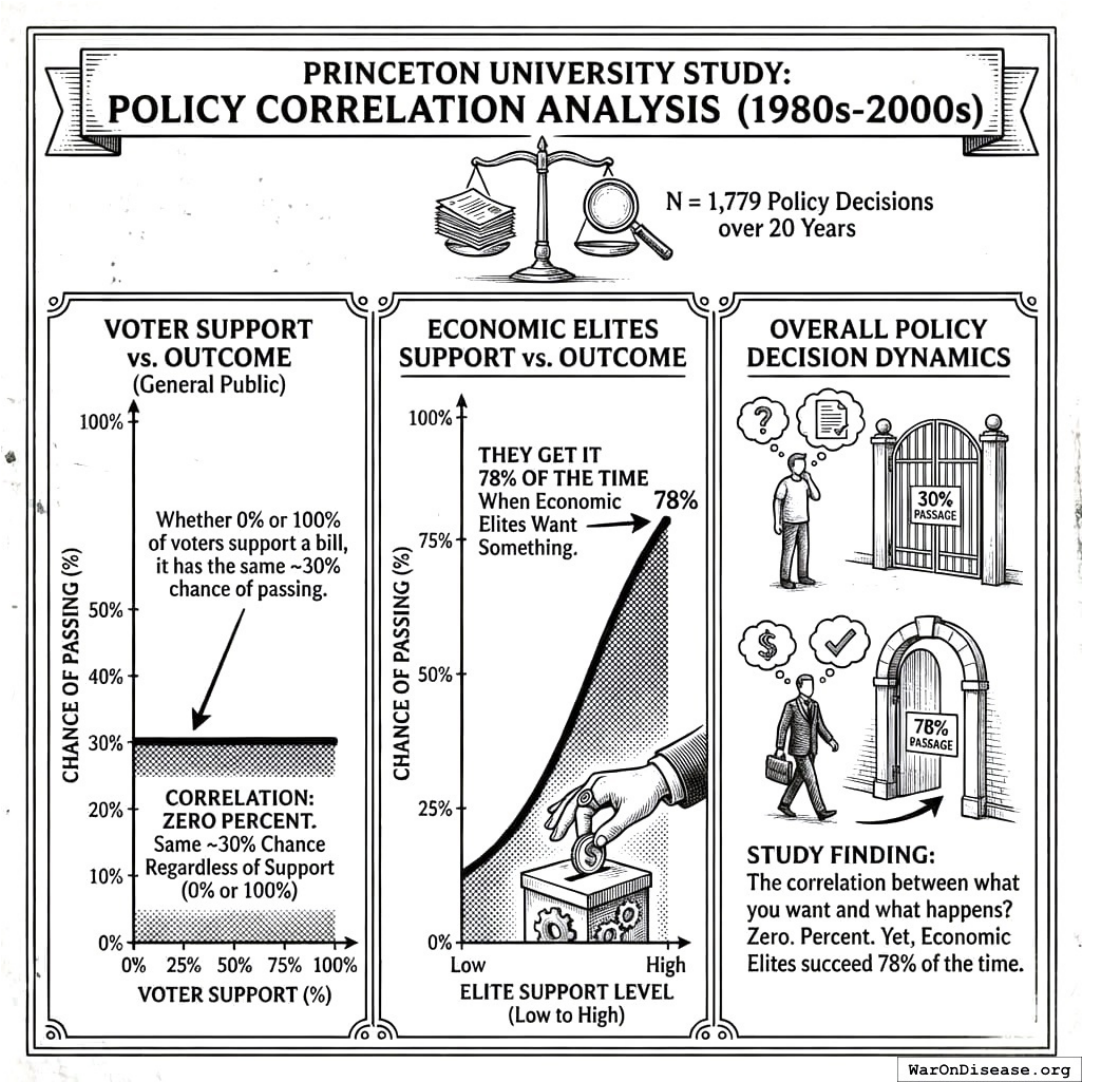


Figure 85: In theory, voter support determines which laws pass. In reality, voter support has zero effect. You keep voting anyway. It's like writing letters to Santa but for taxes.

The Mathematics of Political Failure

Concentrated Benefits vs. Diffuse Costs

Sugar subsidies cost Americans $3.5 billion per year[92]. That's $10 per person.

Will you spend weeks fighting to save $10? No. Will sugar companies spend millions to keep their $3.5 billion? Yes.

Guess who wins?

This pattern repeats everywhere:

- Military contractors: $999 billion concentrated benefit[212] (37% of $2.72T global spending)
- Taxpayers: $3,000 each in diffuse costs ($999B ÷ 333M Americans)
- Winner: Guess

- Pharma companies: $500 billion in concentrated profits[213]
- Patients: $1,500 each in diffuse suffering
- Winner: Not you

- Banks in 2008: $700 billion bailout (concentrated)[214]
- You: $2,100 in taxes (diffuse)
- Winner: The ones with yachts

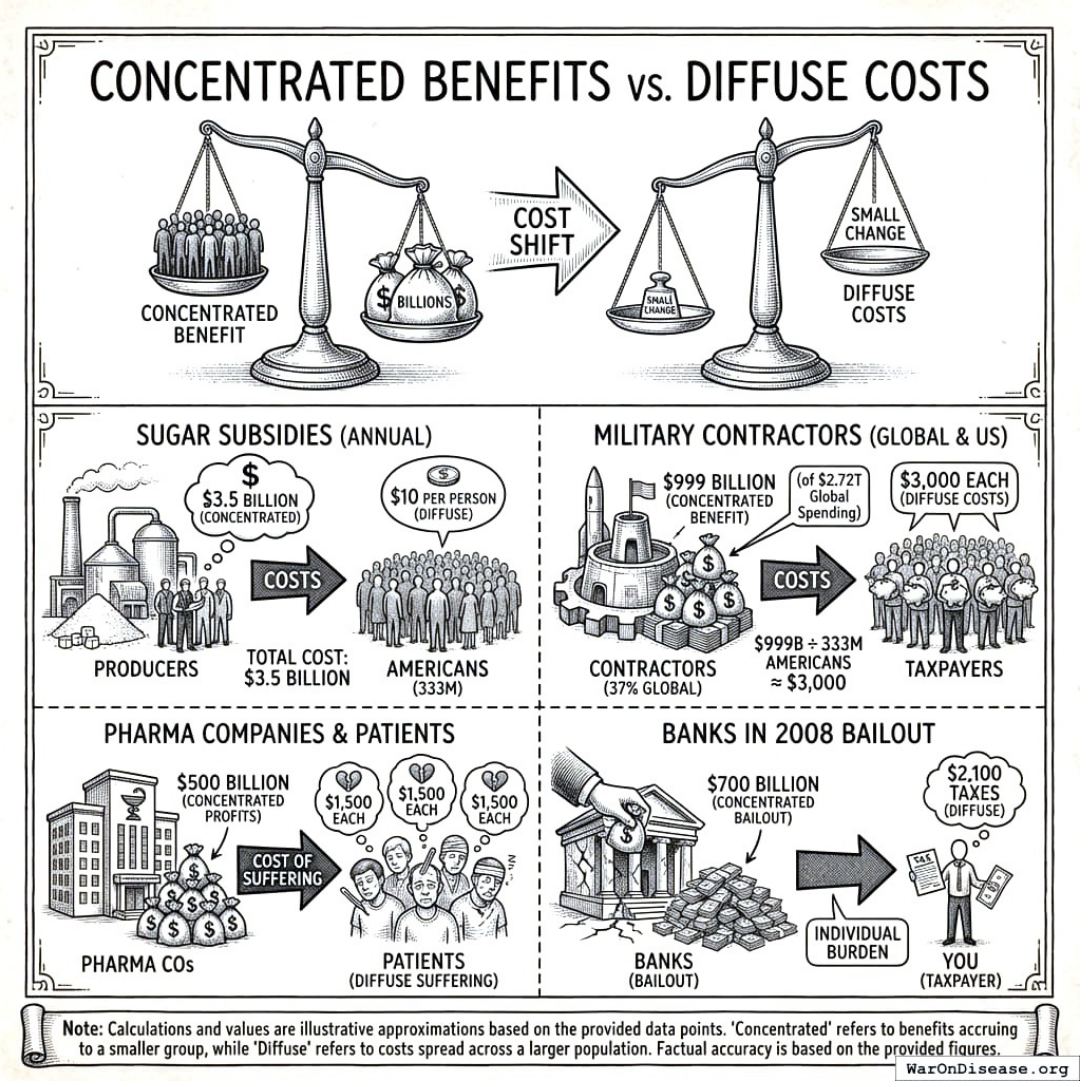


Figure 86: A small group gets 100 million dollars. The cost spreads across 100 million taxpayers. Each taxpayer loses one dollar. Nobody notices. The small group notices very much.

How Money Buys Power

Campaign contributions don't directly buy how politicians vote. Only 1 in 4 studies support that[215]. The system is much more elegant than bribery. Bribery is what poor countries do. Rich countries have "campaign finance."

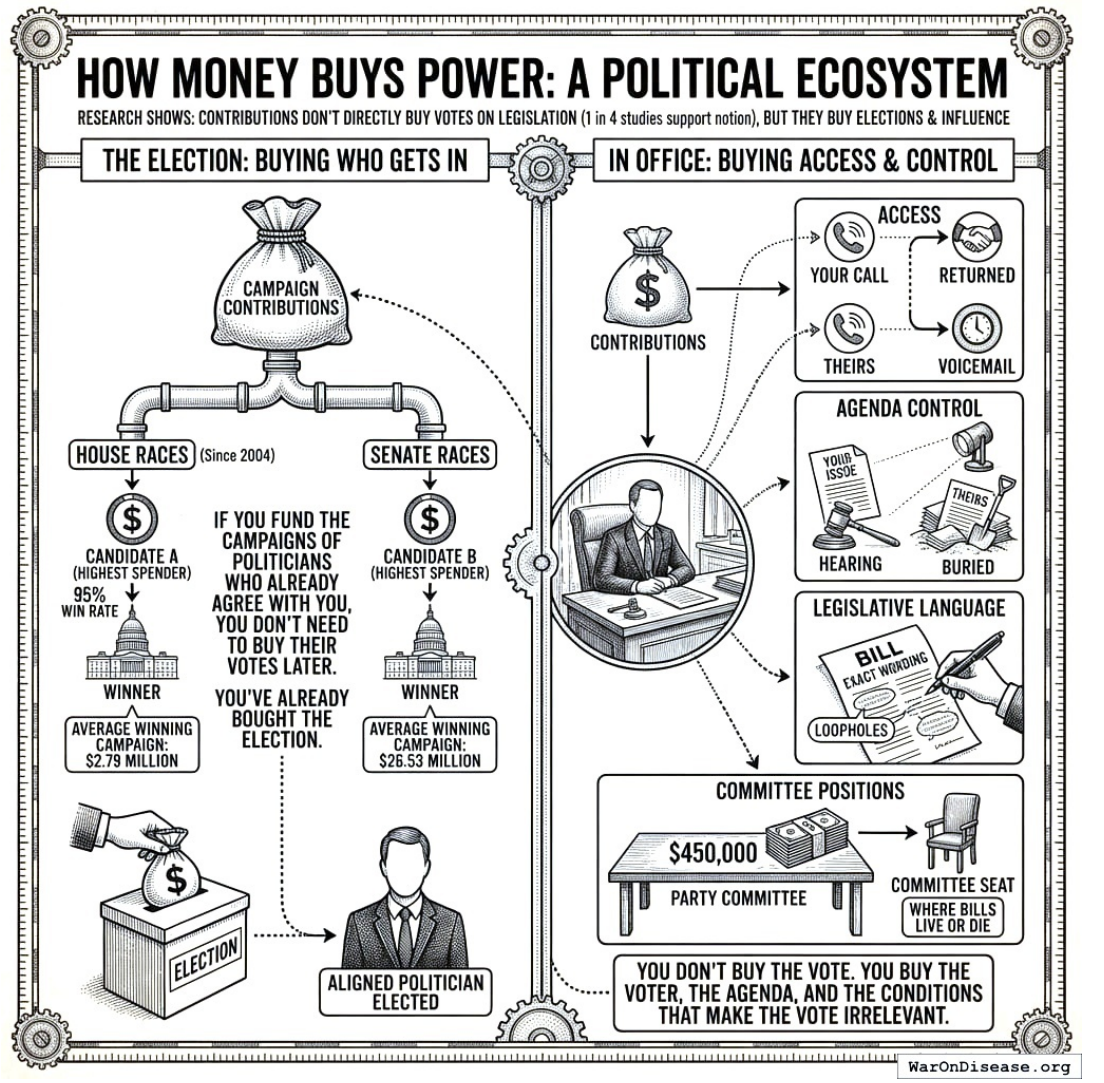


Figure 87: More money equals more votes. More votes equal more power. More power equals more money. It's a circle. Calling it a "cycle" makes it sound natural.

But they do something far more effective: **they buy which politicians exist in the first place.**

- 95% of House races since 2004[215]: Won by the highest spender
- Average winning House campaign: $2.79 million[215]
- Average winning Senate campaign: $26.53 million[215]

Why bribe a politician when you can just manufacture one who already agrees with you? It's like complaining about the menu when you own the restaurant.

For the ones already in office, contributions buy something more subtle than votes:

- **Access**: Your call gets returned, theirs goes to voicemail
- **Agenda control**: Your issue gets a hearing, theirs gets buried
- **Legislative language**: The exact wording that creates loopholes
- **Committee positions**: $450,000 to party committees[215] buys a seat where bills live or die

You don't buy the vote. You buy the voter, the agenda, and the room where the vote happens.

The Lobbying ROI: 1,810:1 Returns

The most profitable investment in America isn't stocks, real estate, or crypto. It's congressmen:

- Disease advocacy groups spend: $100 million on lobbying[216]
- They get: $1.8 billion in increased funding[216]
- ROI: 1,810:1

Meanwhile:

- Breast cancer: Great lobbyists = massive funding
- Heart disease: Kills more people, worse lobbyists = less funding
- Rare pediatric diseases: No lobbyists = no funding

Democracy doesn't allocate resources by who's dying. It allocates by who can afford the best lobbyist. If your disease can't hire a PR firm, it's not a real disease. It's just dying.

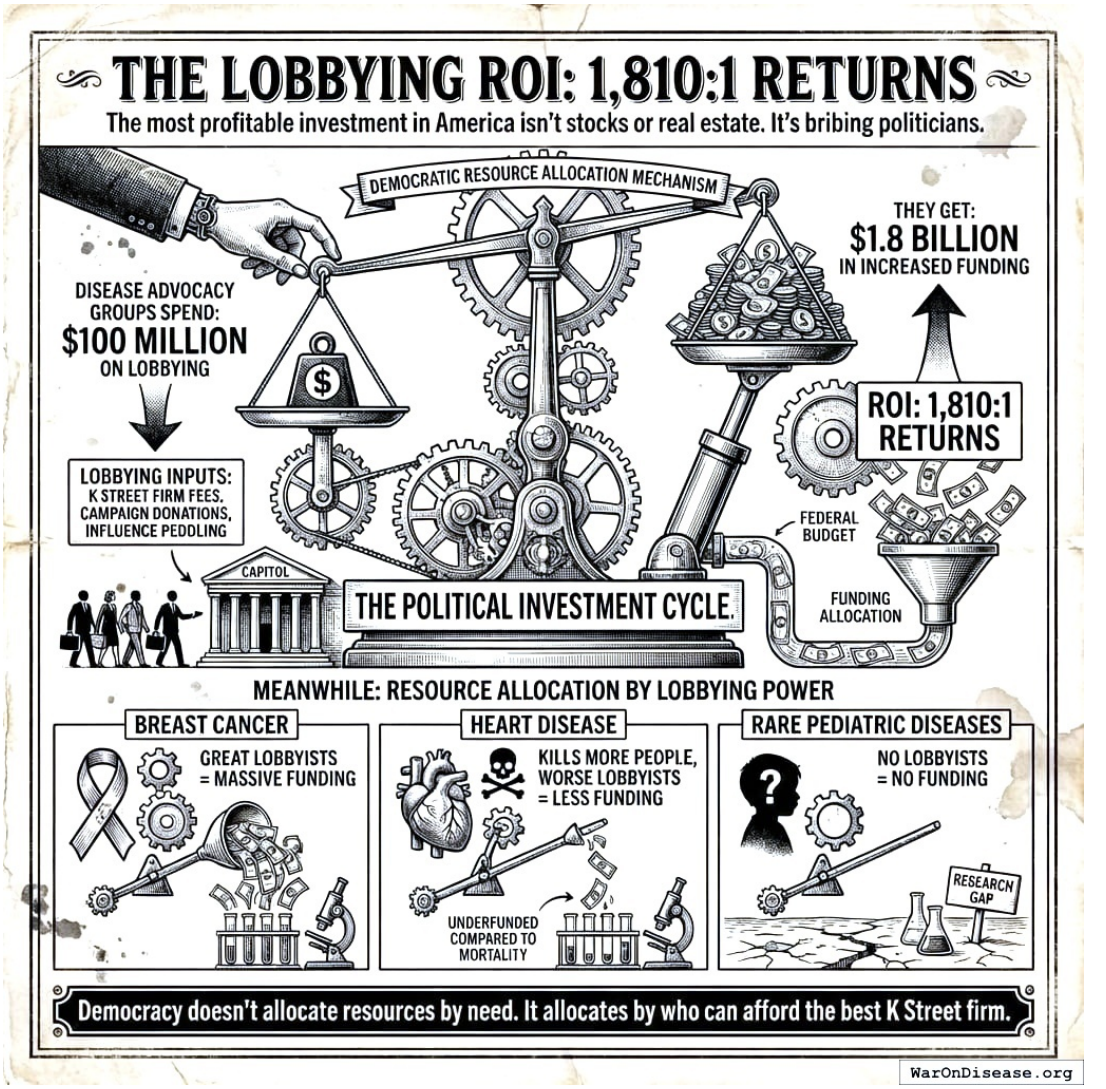


Figure 88: Spend one dollar lobbying, get 1,810 dollars in government funding. That's a better return than any drug you've ever tested. You don't test it though. You test the drugs.

Why Nothing Ever Changes: A Mathematical Proof

- Number of Americans who want lower drug prices: 330 million
- Money they contribute to this cause: $0
- Number of pharma executives who want high drug prices: 1,000
- Money they contribute: $4.88 billion

$1{,}000 > 330{,}000{,}000$ (when you multiply by money)

That's not corruption. That's math.

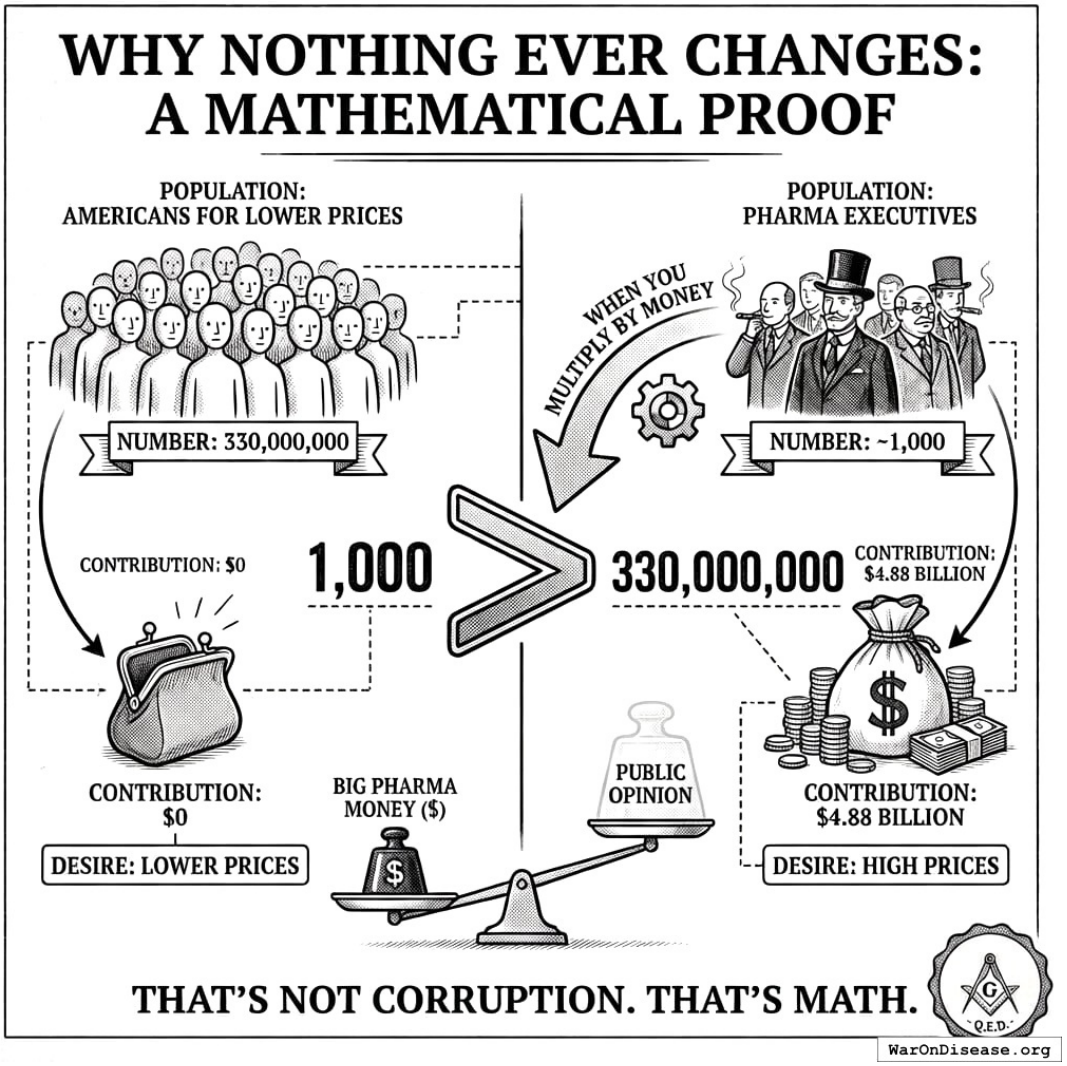


Figure 89: One thousand executives with money versus 330 million citizens without. The executives win every time. You call this democracy. The executives call it Tuesday.

Why Politicians Don't Care About You (With Math!)

A politician needs three things:

1. Votes (from idiots)
2. Money (from corporations)
3. Media coverage (from other corporations)

You provide 1/150,000,000th of item #1. Corporations provide 100% of items #2 and #3.

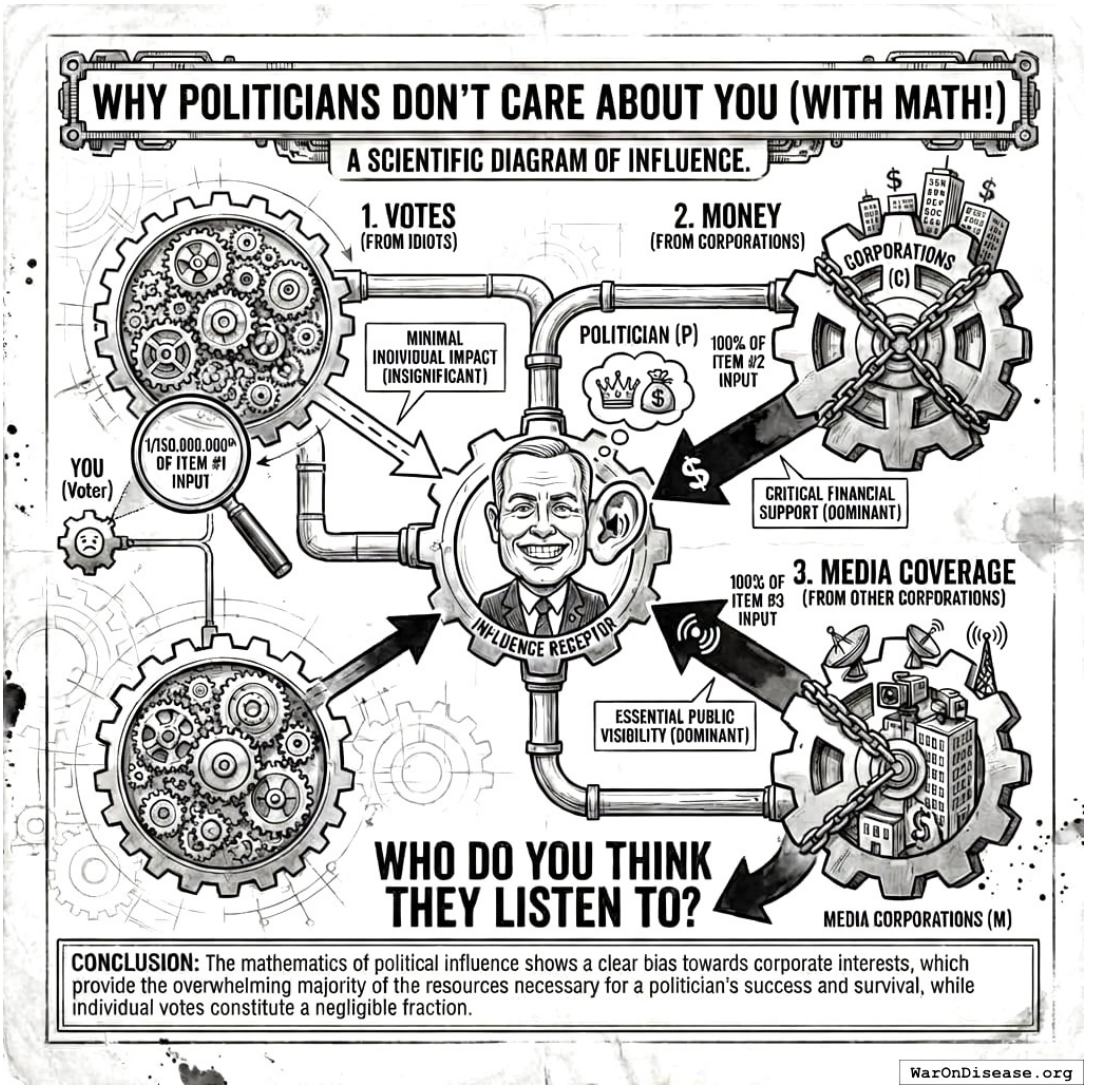


Figure 90: Your vote: one. Corporate campaign funding: billions of dollars. Corporate media coverage: all of it. You have a voice. They have a megaphone factory.

Who do you think they listen to?

The Iron Law of Oligarchy

Every democratic organization eventually becomes an oligarchy. Political parties, unions, non-profits, your homeowners association, the PTA. Sharon from the bake sale committee is running it exactly like a Medici, and she knows it.

Democracy doesn't prevent oligarchy. It gives oligarchy a suit and a certificate that says "elected."

Your Congressman: A Fundraiser Who Occasionally Legislates

Average time congressmen spend on:

- Fundraising: 4 hours/day[217]
- Reading bills: 0 hours/day
- Actual governing: Whatever's left

They don't read what they vote on. The PATRIOT Act: 342 pages, voted on 45 minutes after release[218]. That's 7.6 pages per minute. Olympic speed-readers can't do that. The Affordable Care Act: 2,700 pages, "we have to pass it to see what's in it"[219].

These people control nuclear weapons. Sleep tight.

Congressional Committees: The Menu

Committees control which bills live or die. Both parties assign fundraising quotas for each seat[220]: raise this much for the party, or lose your assignment. Don't hit your number? Your bills die, your amendments vanish, and your name goes on a literal "wall of shame"[220]. It's like a restaurant where the waiters have to pay for their own sections.

Here's the menu:

Position	Democrats (DCCC)	Republicans (NRCC)	Why It Costs This Much
House Speaker	$31 million	$20 million	Controls entire agenda
Ways & Means Chair	$1.8 million	$1.2 million	All tax laws start here
Appropriations Chair	$1.8 million	$1.2 million	Controls $1.7 trillion budget
Energy & Commerce	$1.8 million	$1.2 million	Healthcare + Wall Street
Regular Committee	$500K-1M	$875,000	Still beats irrelevance
Basic Member	$150,000+	Varies	Entry fee to play

This is why congressmen spend 4 hours a day fundraising. They're not campaigning. They're paying rent. The people writing your healthcare laws literally bought their positions from the industries those laws regulate. On your planet, this is called "the system working."

The 4-Year Attention Span: Democracy Has ADHD

- Politician promises to "cure cancer"
- Gets elected
- Creates blue-ribbon commission
- Commission recommends more committees
- Next election happens
- New politician promises to "cure cancer"
- Repeat until heat death of universe

Democracy has the institutional memory of a concussed goldfish.

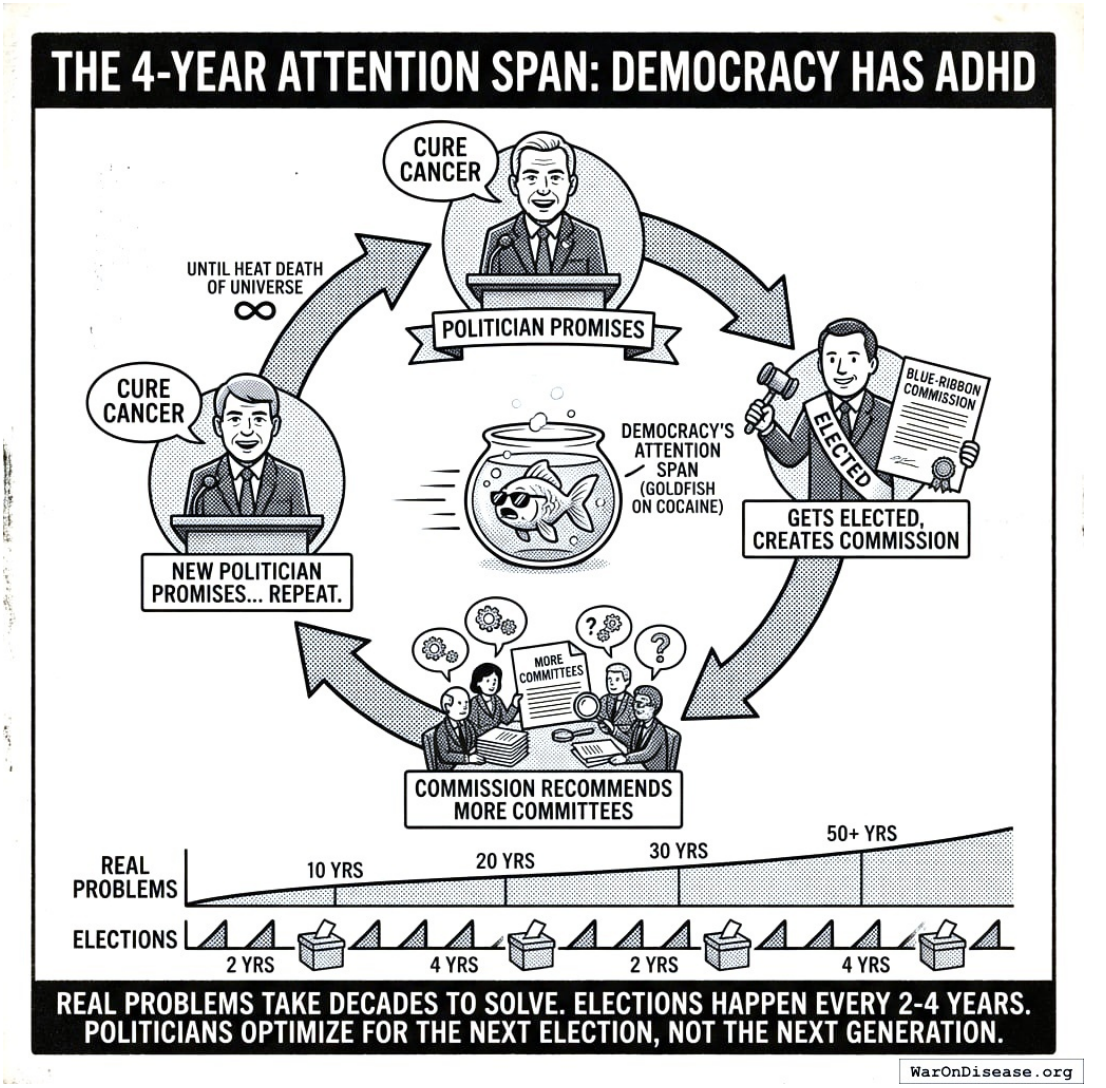


Figure 91: Politicians promise things, bureaucracy stalls, election happens, new politicians promise things. It's a loop. The loop doesn't fix anything but it does repeat reliably.

Curing cancer takes 20 years. Elections happen every 4. No politician will start something they can't finish and take credit for. So nothing starts. This is why you have 47 consecutive "War on Cancer" declarations and zero cured cancers.

Why No One Can Fix This

Every four years, someone promises to "fix Washington." Every four years, Washington fixes them.

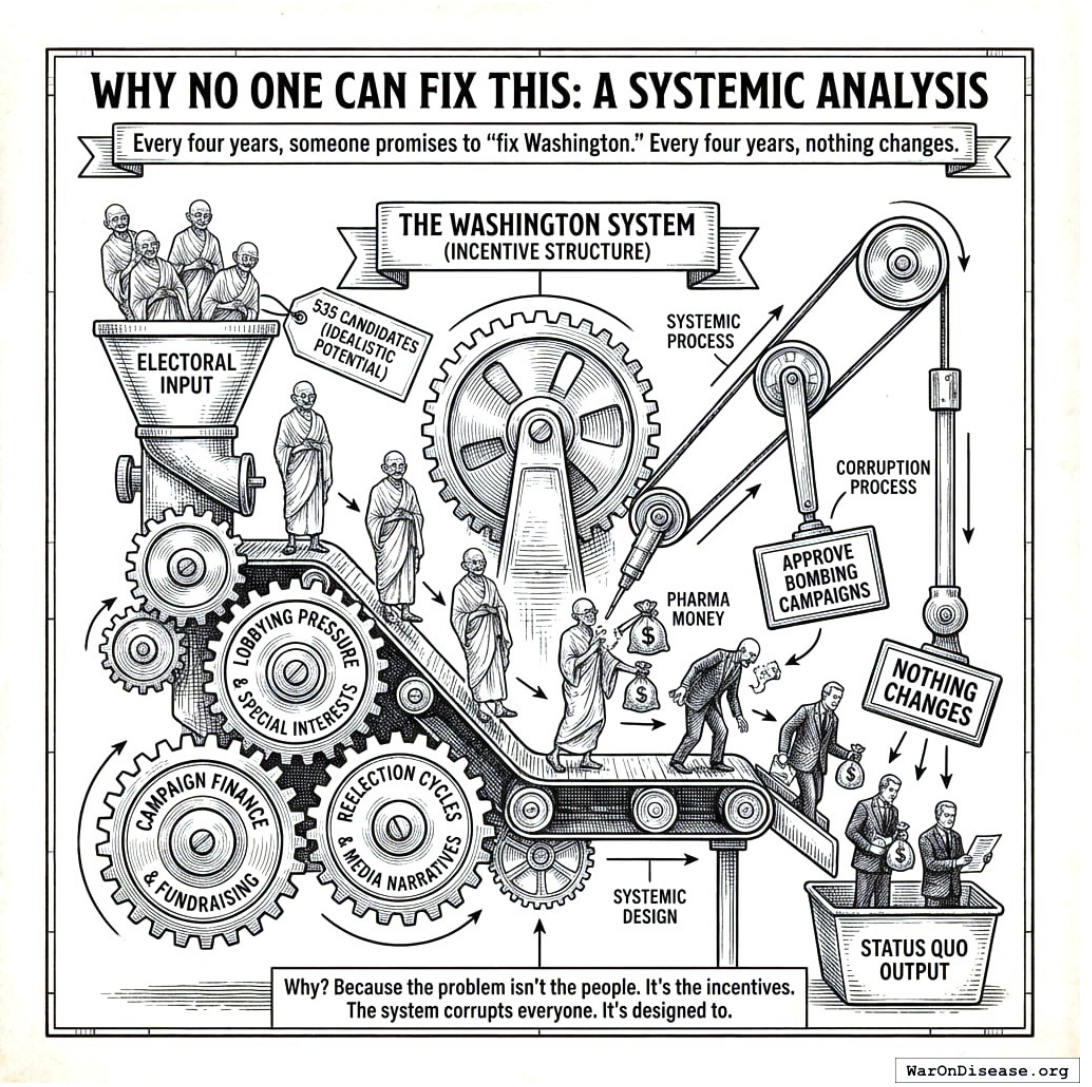


Figure 92: Good people enter bad systems. The system has corporate money and institutional pressure. The people do what the system wants. Character is irrelevant. The system works perfectly.

The problem isn't the people. It's the incentives. You could elect 535 clones of Gandhi and within two years they'd be taking pharma money and approving bombing campaigns. The system digests idealists like a stomach digests food. It doesn't matter what you put in. You get the same output.

The Solution Democracy Can't Provide

Democracy can't solve coordination problems. It is a coordination problem.

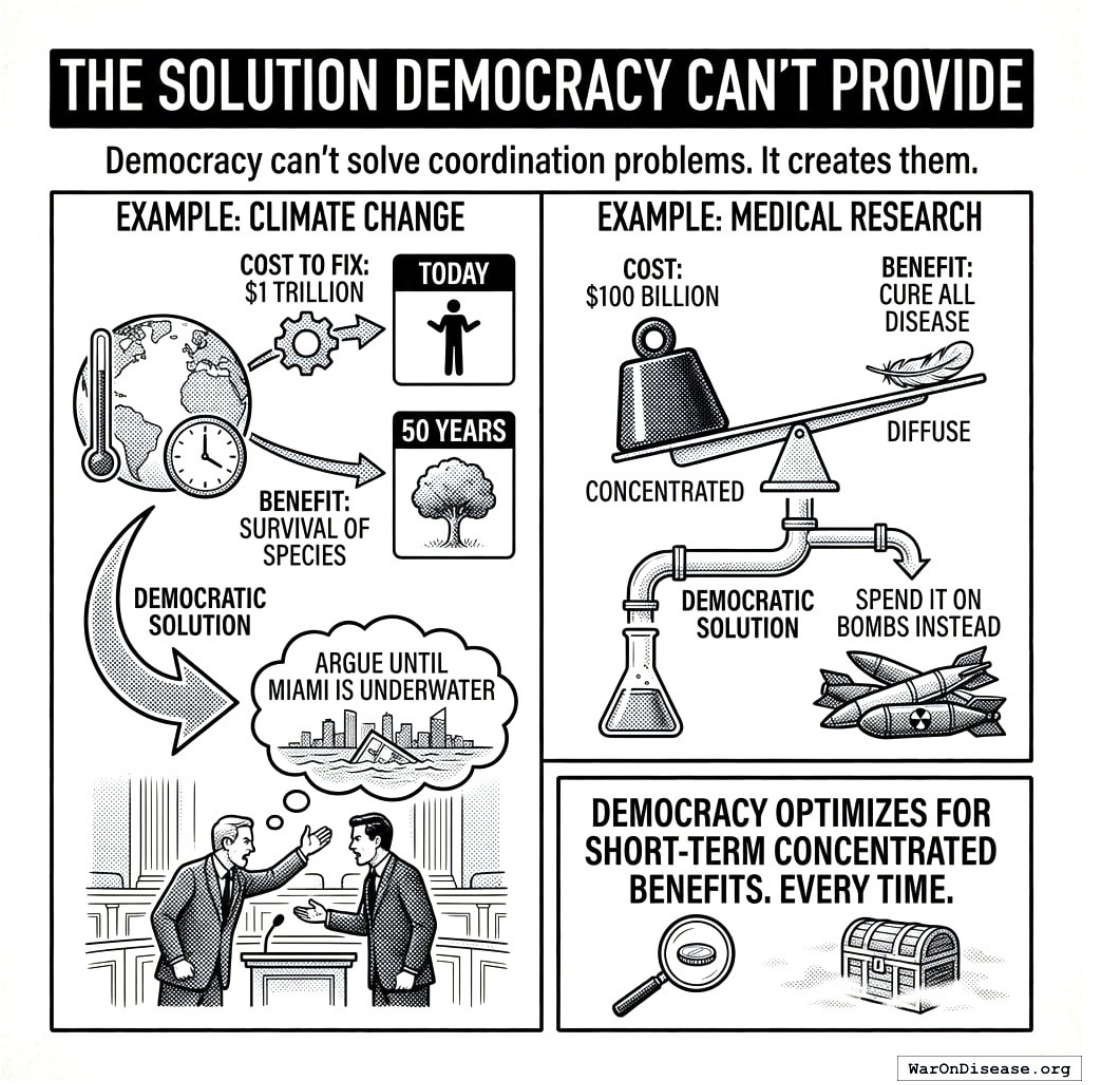


Figure 93: Option one: pay now, survive later. Option two: survive now, catastrophe later. Democracy picks option two every time. Future you will understand.

Example: Climate change

- Cost to fix: $1 trillion
- Benefit: Continued existence of Miami
- Problem: Benefits are in 50 years, costs are today
- Democratic solution: Debate it until the ocean settles the argument

Example: Medical research

- Cost: $100 billion
- Benefit: Cure all disease
- Problem: Benefits are diffuse, costs are concentrated
- Democratic solution: Spend it on a slightly better missile

Democracy optimizes for short-term concentrated benefits. Every single time. It's the most reliable machine your species has ever built.

Public Choice Theory: The Nobel Prize for Cynicism

In 1986, James Buchanan won the Nobel Prize in Economics[221] for formally proving what anyone who has ever been to the DMV already knew:

People don't become angels when you give them a government ID badge.

This is Public Choice Theory: bureaucrats, politicians, and regulators are **just as selfish** as everyone else. The only difference is that when a corporation is greedy, you can stop buying their product. When a bureaucracy is greedy, they can arrest you for not buying their product.

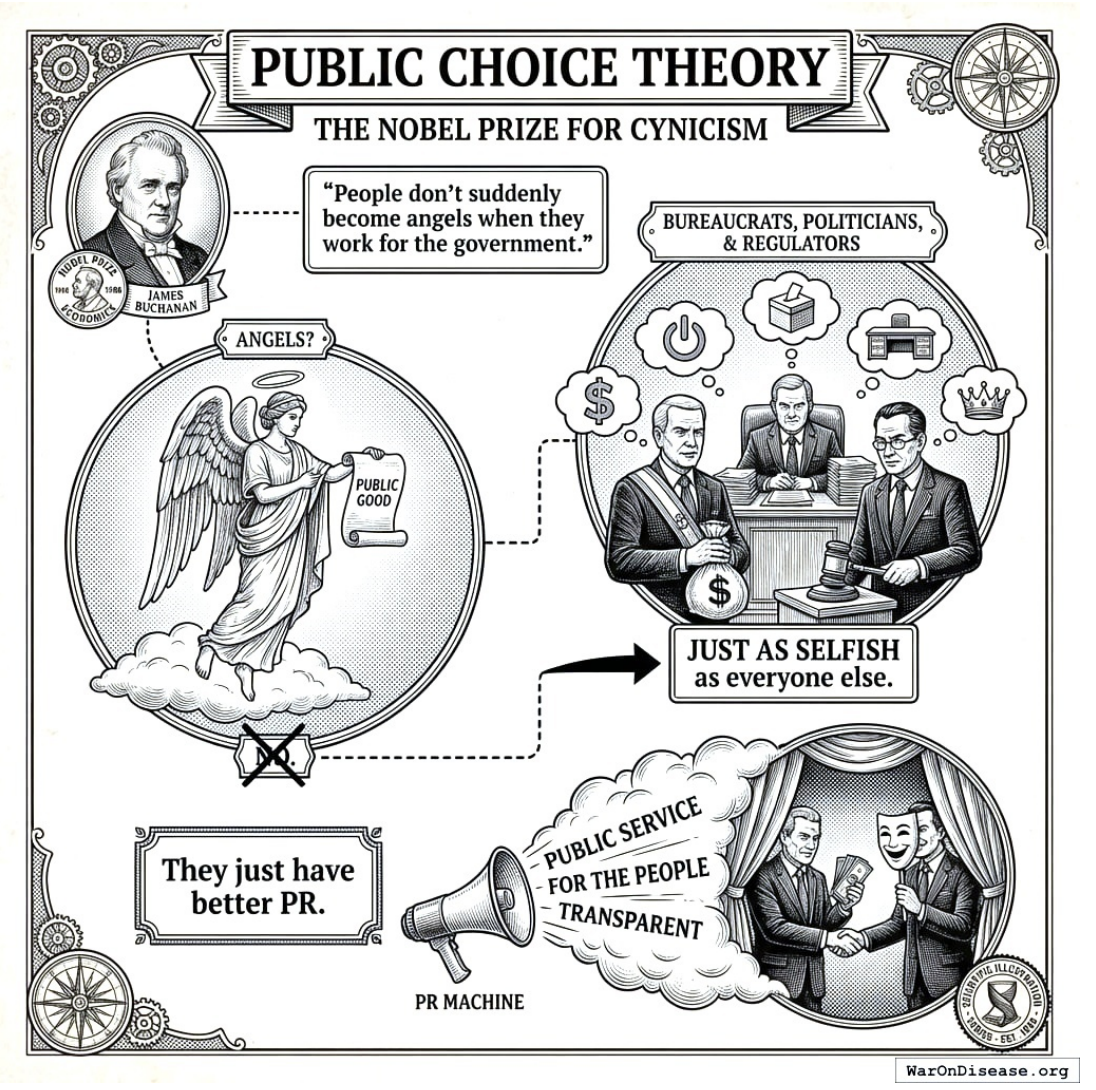


Figure 94: Business people want money. Government people want money. You expect one group to be greedy and the other to be noble. Both groups are laughing.

What They Actually Maximize

Actor	Should Maximize	Actually Maximizes	Result
NIH	Cures	Grants awarded	No cures
FDA	Lives saved	Avoiding lawsuits	Deadly delays
Congress	Voter welfare	Campaign donations	Corporate welfare
Pharma	Health outcomes	Recurring revenue	Chronic disease preferred
Defense Contractor	National security	Government contracts	Endless wars

Nobody in the system is incentivized to cure disease. Or end war.

The Libertarian Paradox

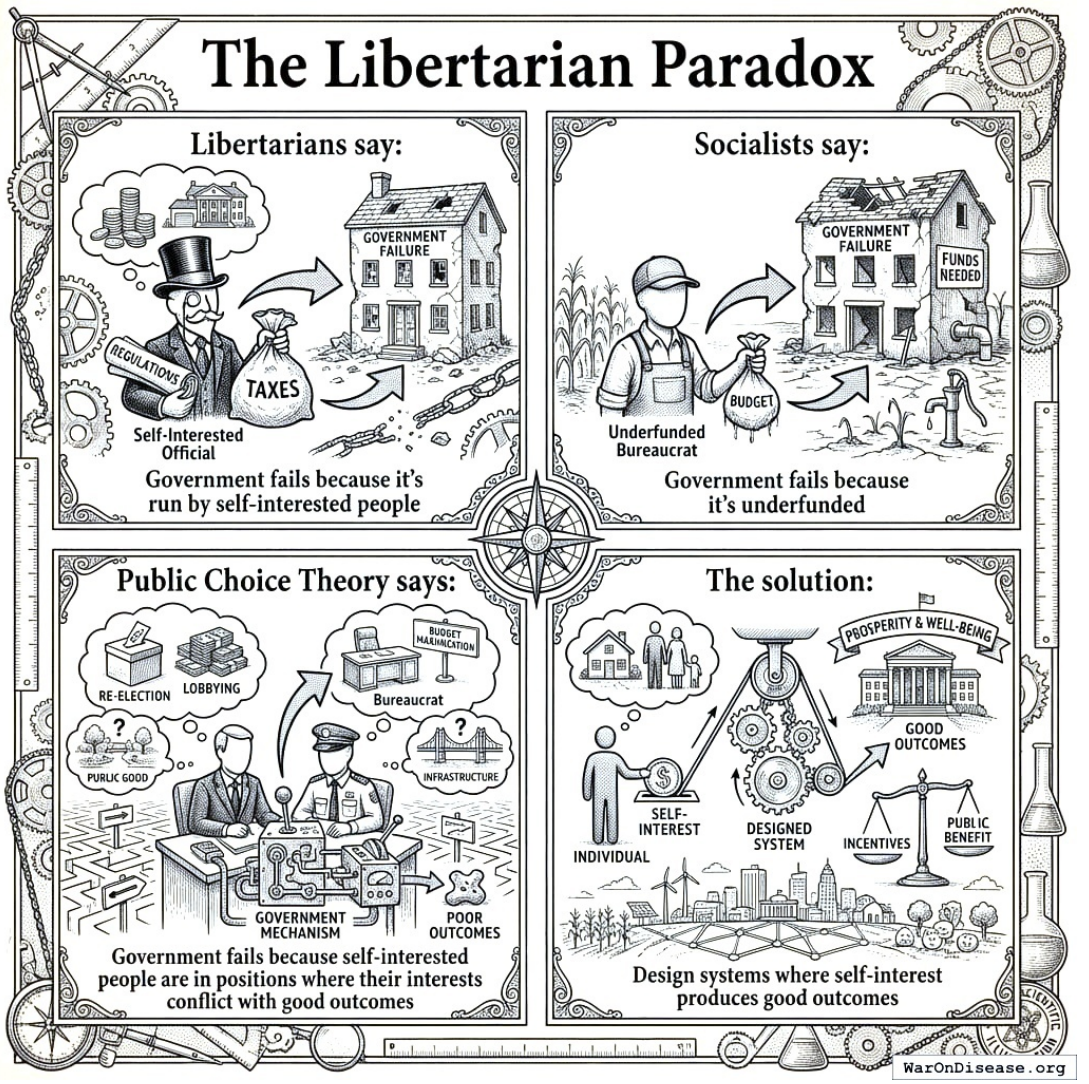


Figure 95: Libertarians say government is bad because government is bad. Socialists say government is bad because capitalism is bad. Public Choice Theory says government is bad because people are people. Only one of these is true.

Libertarians say: Government fails because government is government.

Socialists say: Government fails because it needs more government.

Public Choice Theory says: Government fails because the people running it are people, and people are terrible.

The solution: Stop expecting people to be good. Design systems where being selfish accidentally produces good outcomes. Like capitalism, but for not dying.

Why This Is Actually Good News

Democracy can't fix these problems. But something older and dumber can: greed.



Figure 96: Changing 240 million minds: impossible. Aligning 1,000 investors: offer profit. Democracy requires the impossible. Markets require greed. Greed is abundant.

Markets don't care if voters are stupid. Markets don't care if politicians are corrupt. Markets care about one thing: profit. Markets are sociopaths, but reliable sociopaths.

So make the right thing profitable.

That's what a 1% treaty does. It doesn't fix democracy. It routes around it, like the internet routes around damage.

Instead of convincing 240 million voters to be smart (impossible), you convince 1,000 investors to be greedy (they already are).

Why This Is Liberating

You don't need virtuous leaders (there aren't any). You don't need politicians who care (they can't afford to). You don't need to convince anyone to be less selfish (4,297 years of data suggest this doesn't work).

You just need to **point their selfishness at the right target**.

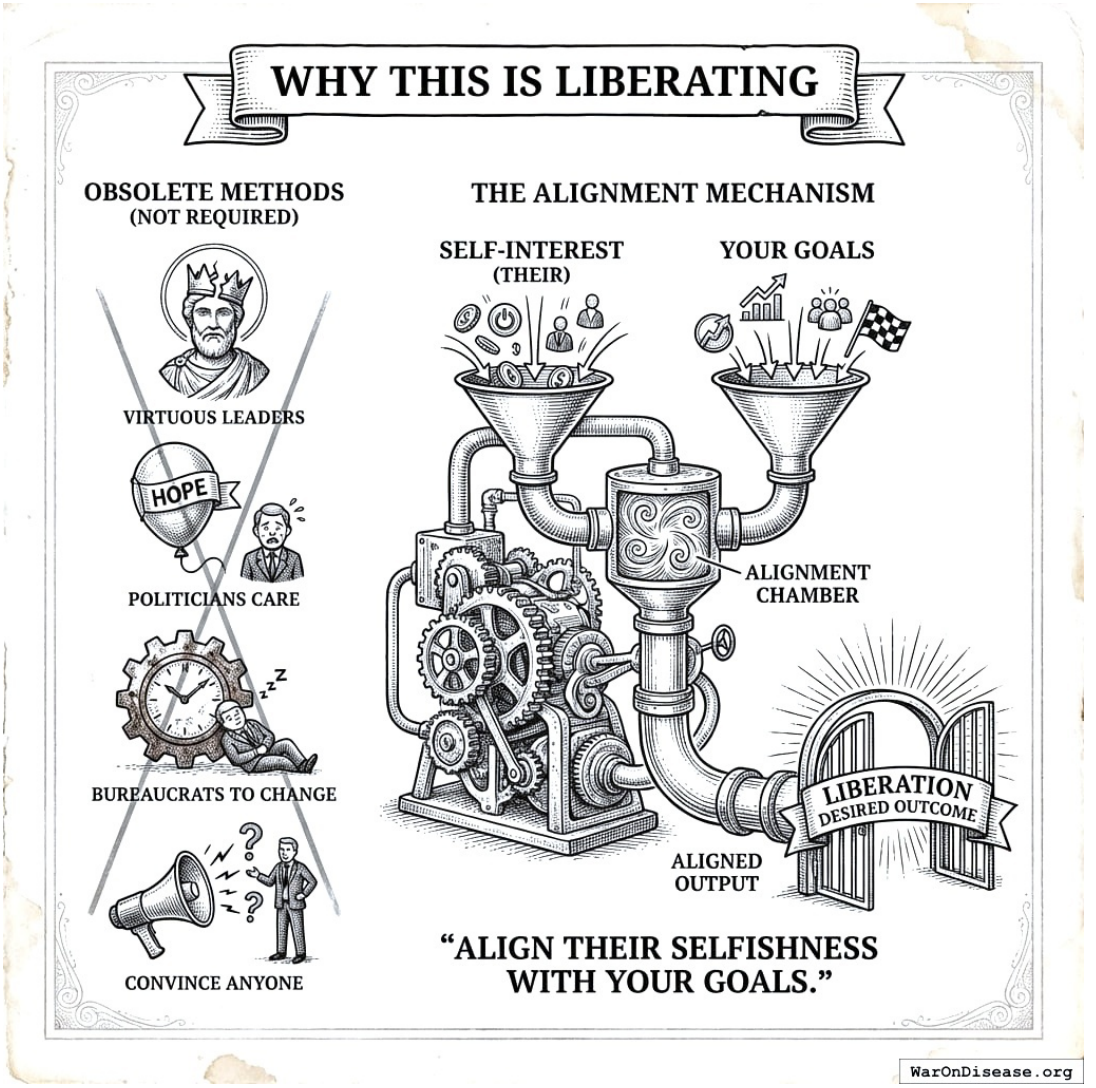


Figure 97: Plan A: wait for virtuous leaders. Plan B: make selfish leaders do good things by accident. Plan A has never worked. Plan B is how sewers got invented.

Solution

Democracy fails because:

- Voters are rationally ignorant
- Politicians follow incentives
- Special interests concentrate benefits

- Costs are diffused to everyone

A 1% treaty solution:

- Don't need informed voters (investors do the math)
- Create better incentives (make health profitable)
- Concentrate benefits for reform (VICTORY Incentive Alignment Bonds)
- Diffuse costs to military budget (they won't notice 1%)

You're using democracy's bugs as features.

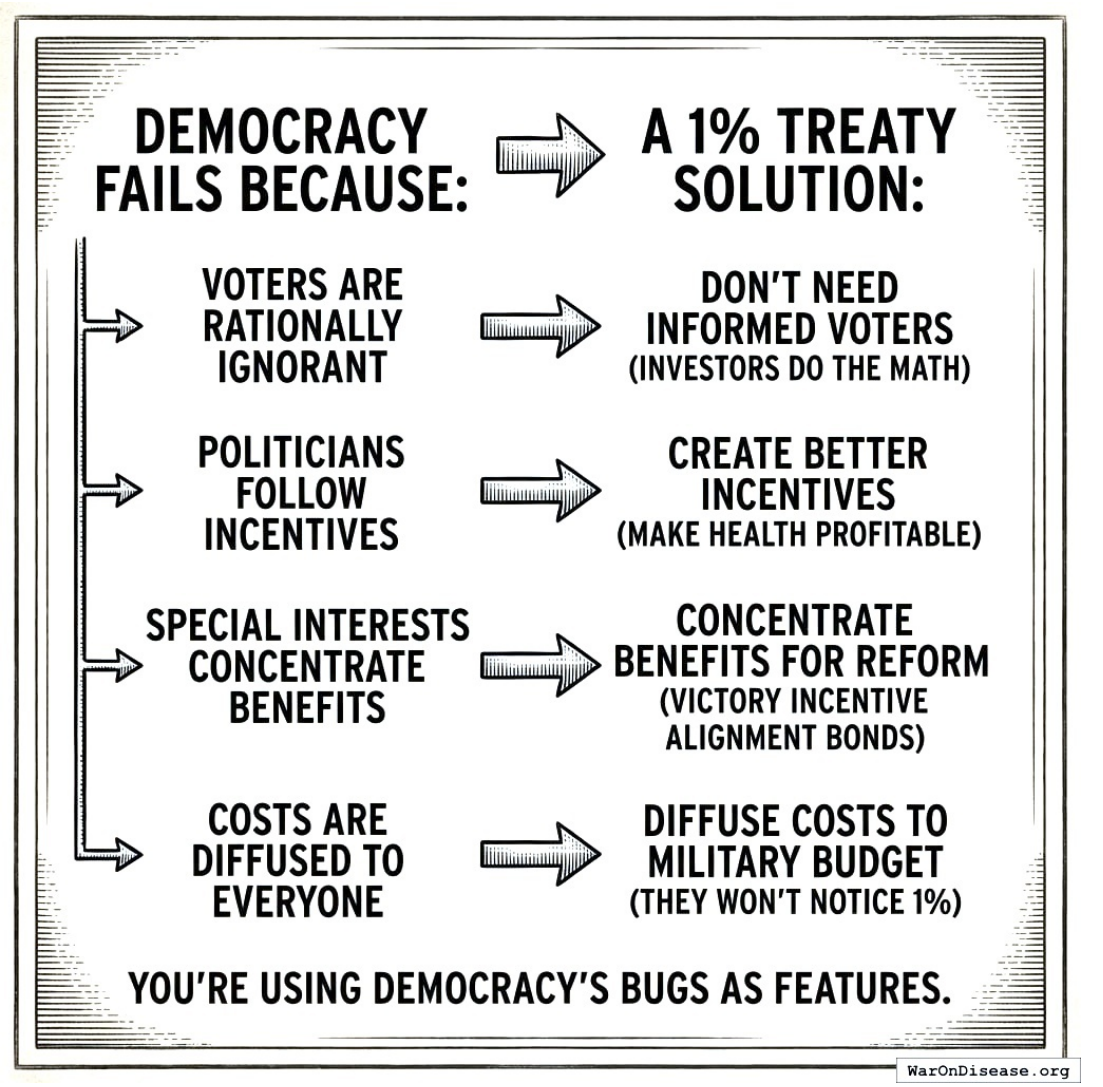


Figure 98: Democracy's bugs: rational ignorance, concentrated benefits, short-term thinking. The treaty's features: same bugs, pointed at curing disease instead of buying tanks. Bugs become features.

Your Choice

Option A: Keep voting and hope it matters this time (it won't)

Option B: Accept that democracy is broken and use market incentives instead

The Founding Fathers were geniuses, but they designed a system for 4 million literate farmers, not 330 million people who get their news from a man screaming into a podcast microphone.

Democracy made sense in 1789. Today, it's a cargo cult with nuclear codes.

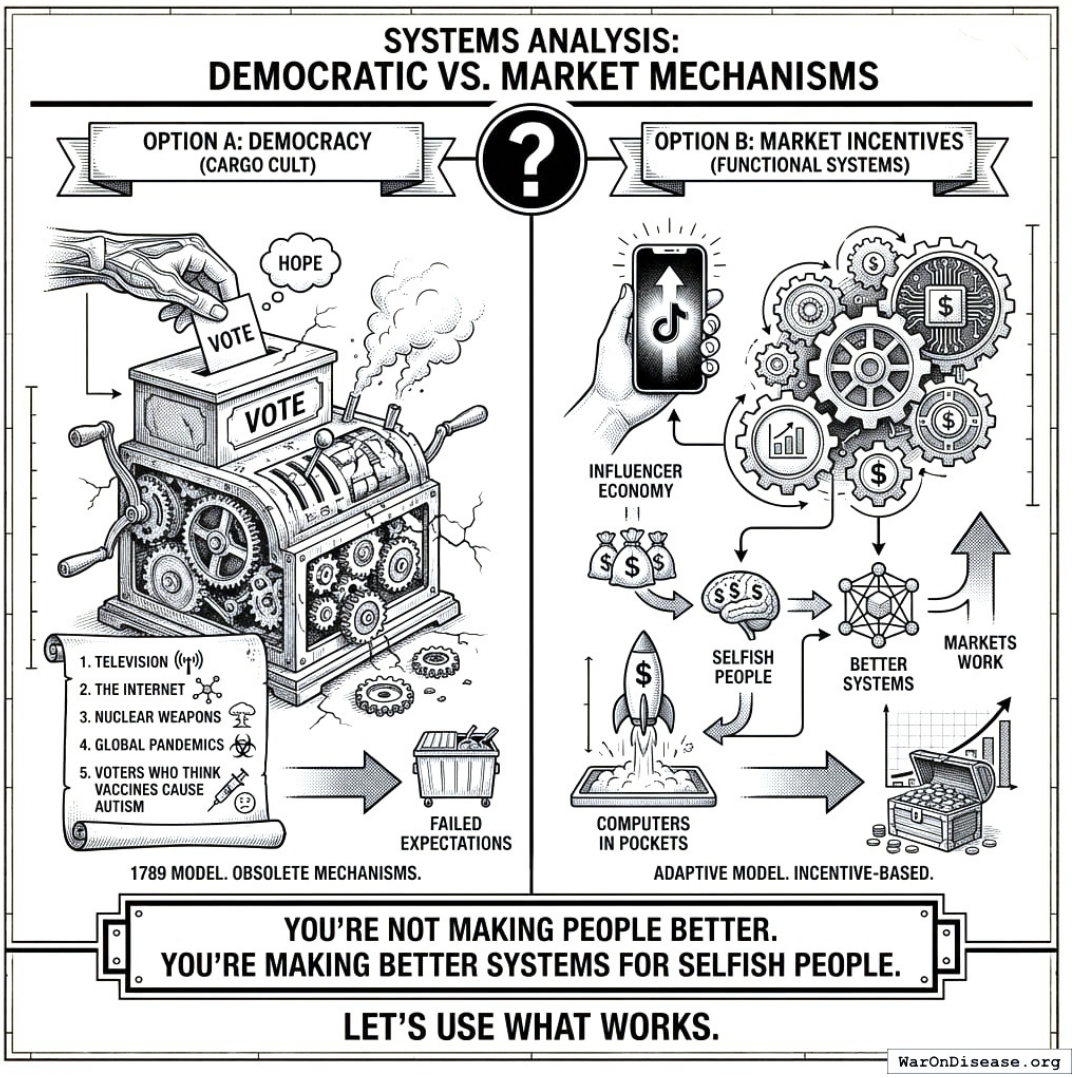


Figure 99: Democracy: everyone votes for the right thing. Markets: everyone does the selfish thing, accidentally fixes problems. One of these exists in reality.

But markets? Markets turned feudal peasants into TikTok influencers in 400 years. Markets put computers in your pocket more powerful than what landed you on the moon (you use them to argue with strangers about whether the moon landing was real, but still). Markets work.

You're not making people better. You're building better plumbing for terrible people.

And since everyone's terrible, the plumbing will work perfectly.

Your brain wasn't built for democracy. It evolved to track 150 people and avoid tigers. It can't

evaluate $6 trillion budgets or comprehend exponential growth. For why this matters at the biological level, see Genetic Slavery. For how the resulting budget process works in practice, see Cost of War.

Regulatory Capture: How Industries Write Their Own Rules

There are 13,700 registered lobbyists in Washington[57]. Half of them used to work in the government they're now bribing, which on your planet is called "a career path" rather than "corruption." In 2023, corporations spent $4.1 billion on lobbying[222]. That's $7.7 million per congressman who makes $174,000 a year[223]. Each congressman is surrounded by $7.7 million worth of professional persuasion and earns less than a mid-level dentist. The mystery is not that they're corrupt. The mystery is that any of them aren't.

Citizens United[224] made corporations people who can donate unlimited money through Super PACs. Corporations are people now, which is odd because you can't imprison a corporation, give it chemotherapy, or make it feel shame. Pharmaceutical companies write their own regulations. The Medicare Modernization Act banned the government from negotiating drug prices[225]. That's why insulin that costs $6 to make costs you $300[226]. A 5,000% markup. Your street-corner drug dealers find this excessive, and they don't even have shareholders.

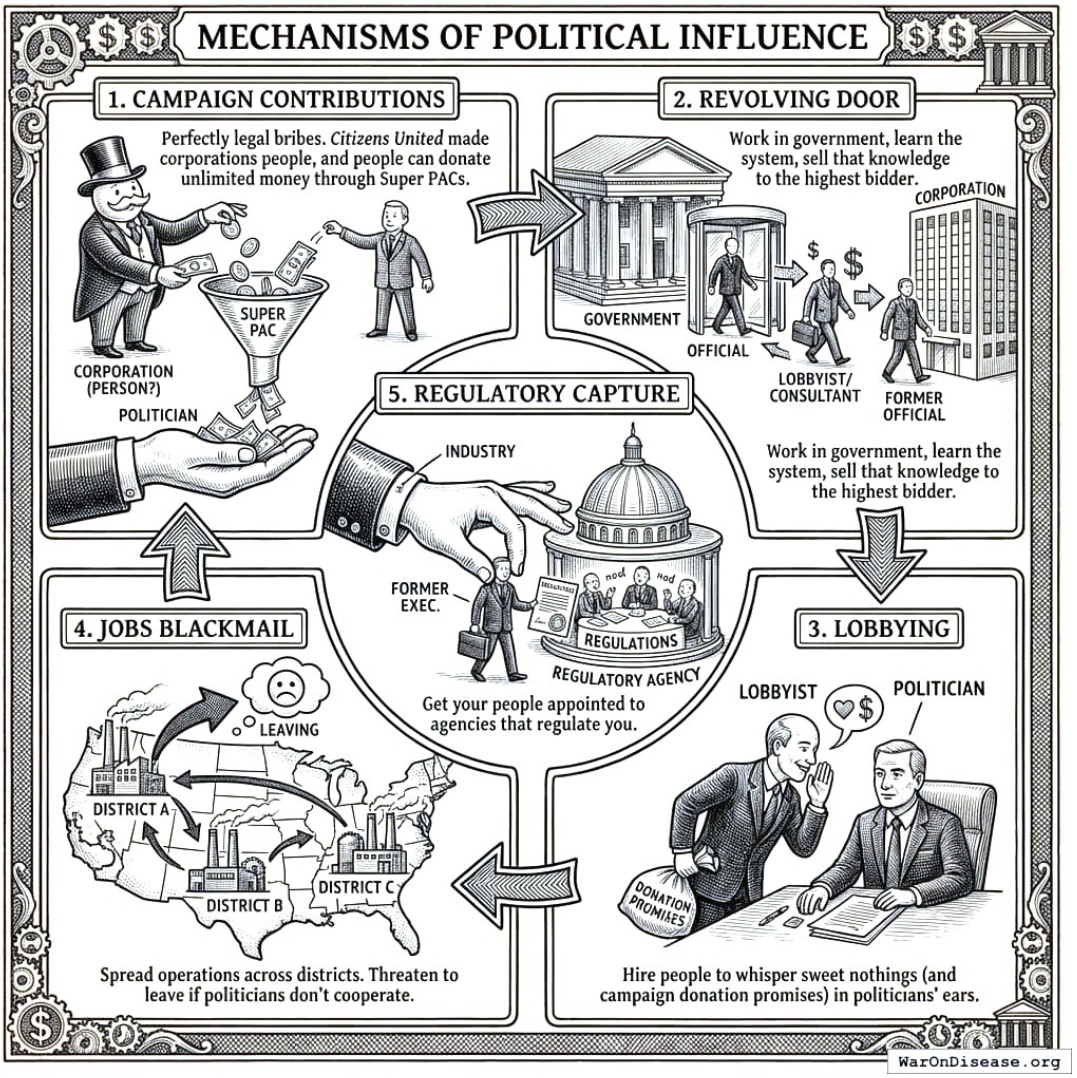


Figure 100: You hired a guard dog. The burglar fed it treats. Now the dog helps with burglaries.

The military-industrial complex distributes operations across 42 states[227] so that cutting any program threatens local jobs in enough congressional districts to make it impossible. It's a tumor that grew its own blood supply. The Pentagon has never passed an audit[134] but somehow knows it needs more money (they can't tell you where the last trillion went, but they're very confident about needing the next one). Pharma employs 3 lobbyists for every member of Congress[228]. The FDA gets 75% of its drug review budget from the companies it regulates[196]. For the full accounting, see Cost of War and FDA: Unsafe and Ineffective.

The system maintains itself with the elegant efficiency of a parasite that keeps its host alive just enough to keep feeding. Cures are a one-time payment; treatments are recurring revenue. Approving a bad drug ends careers; delaying a good one ends lives (but not careers, and careers are what matter to people with careers). Everyone who matters wins. Everyone who's dying loses. The system works perfectly. It's just optimized for the wrong thing.

The Solution They Don't Want

The whole system runs on one trick: each American loses $100 to corruption (not worth a phone call). Each corporation gains $100 million (worth a thousand phone calls, a lobbyist army, and a senator's vacation home).

But what if curing disease was more profitable than treating it? What if peace paid better than war? That's what a 1% treaty does. It doesn't fight the corruption machine. It feeds it different inputs. You're going to out-bribe the bribers with math.

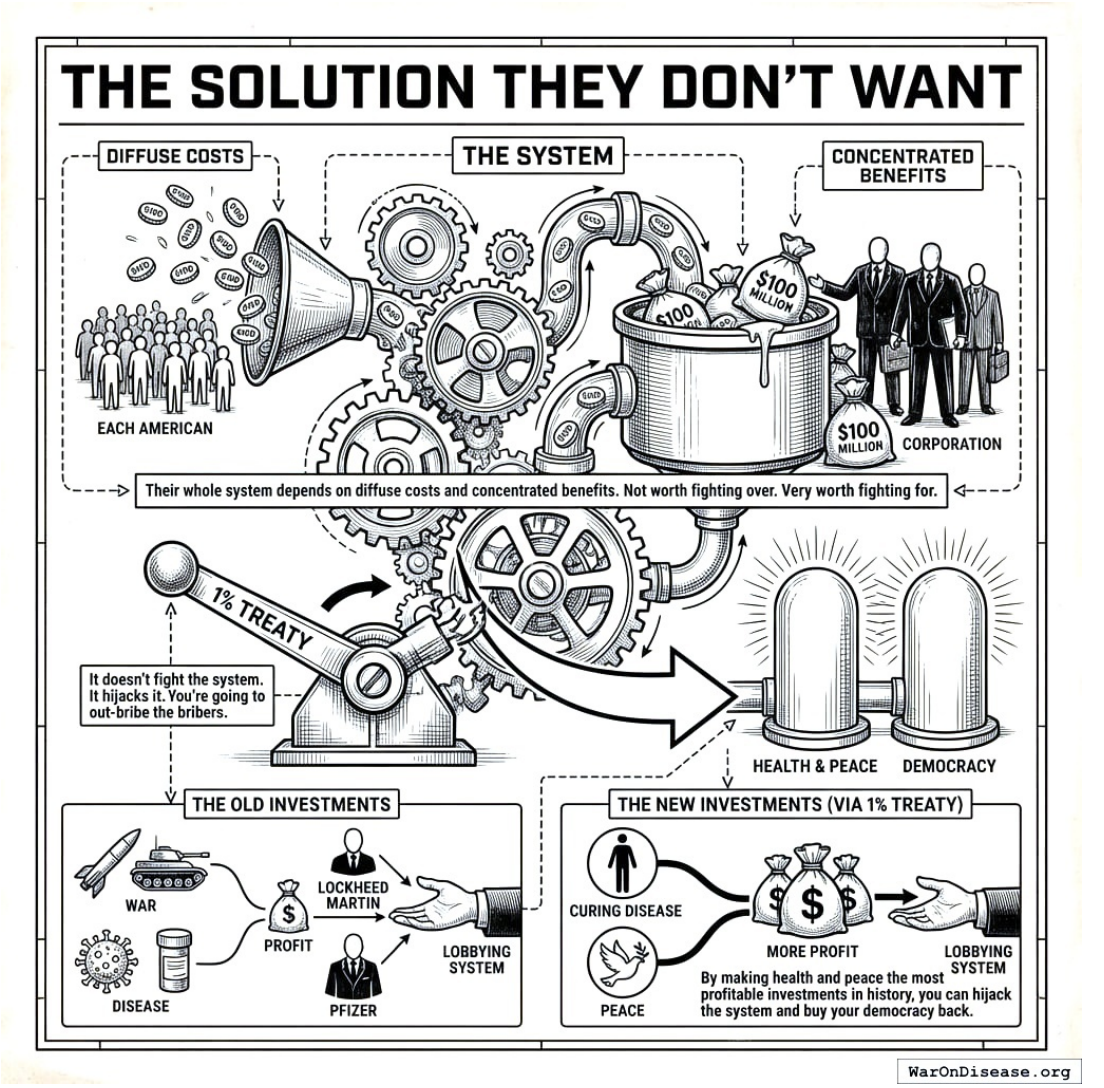


Figure 101: What if we used the corruption machine for good? Like teaching a gun to do surgery.

P.S. - If this chapter depressed you, good. Depression is the correct response to your political system. But remember: the same corruption that lets corporations buy politicians also lets you buy them back. Politicians don't have principles. They have prices. And prices, unlike principles, can be negotiated.

How Central Banks Fund Your Death

Every dollar in your wallet is a death certificate with a president's face on it.

I know that sounds dramatic. It isn't. It's actually underselling it.

The Problem: Every Fiat Currency in History Has Been Devalued To Fund Unpopular Wars

Here's a fun historical pattern that definitely won't repeat itself (it will):

Revolutionary France (1790s)

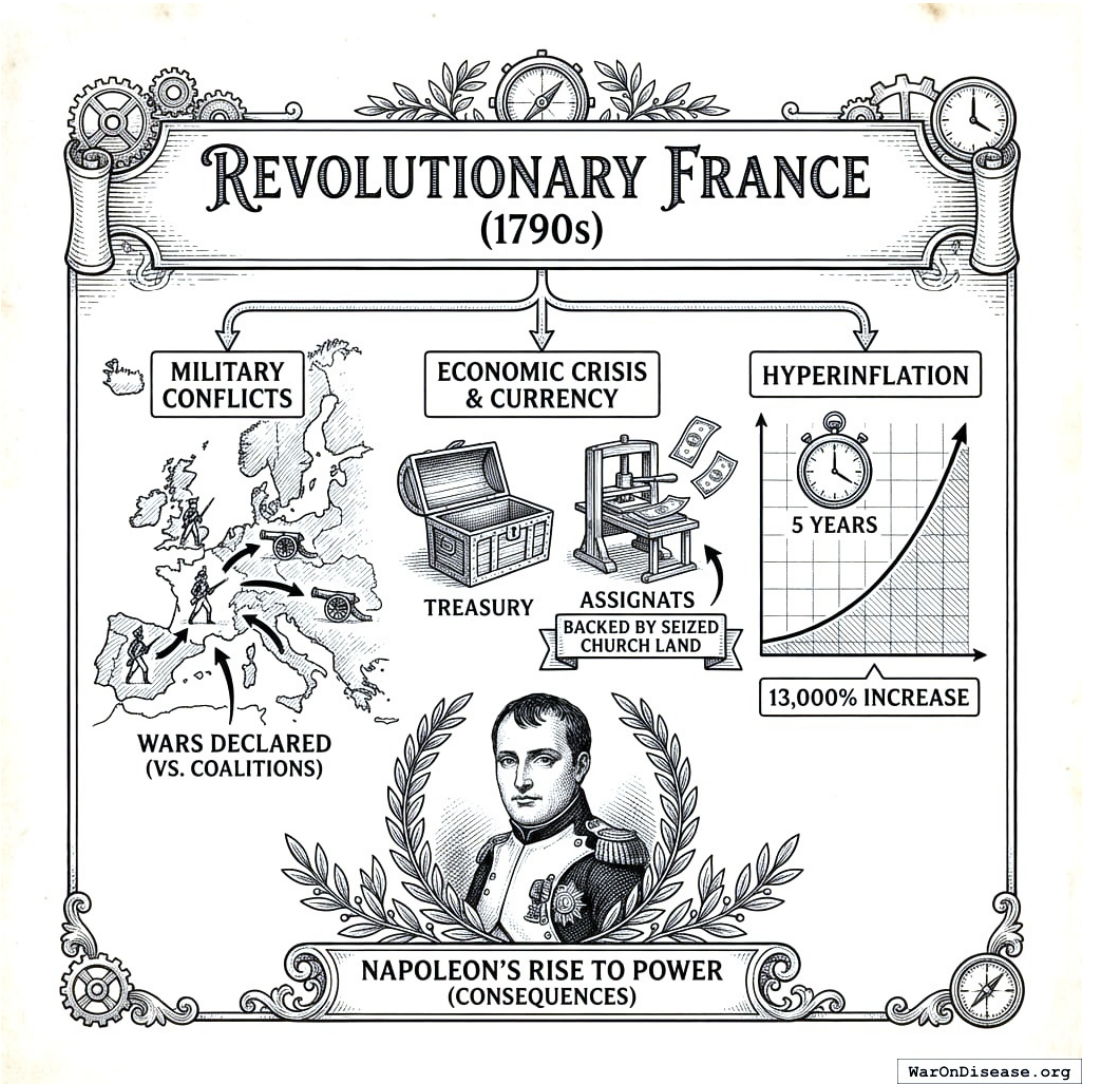


Figure 102: France fights war, runs out of money, prints money, money becomes worthless. It's like a tutorial level for economic collapse.

- Started wars with everyone
- Ran out of money
- Printed "assignats" backed by stolen church land
- Hyperinflation: 13,000% in 5 years
- Napoleon happened (not great)

Weimar Germany (1920s)

- Lost World War I
- Printed money to pay reparations
- Hyperinflation: 29,500% per month
- People burned money for heat
- Hitler happened (really not great)

United States (1917-present)

- Created Federal Reserve (1913)
- Immediately funded World War I (1917)
- Dollar lost 96% of value since
- Wars now continuous and everywhere
- You're living it (how's that working out?)

The pattern is so consistent it's basically a law of physics: give politicians a money printer, they will use it to kill people. Every time. Without exception. For thousands of years. You invented money to trade chickens more efficiently. Within a few centuries, you were using it to incinerate cities. Remarkable species.

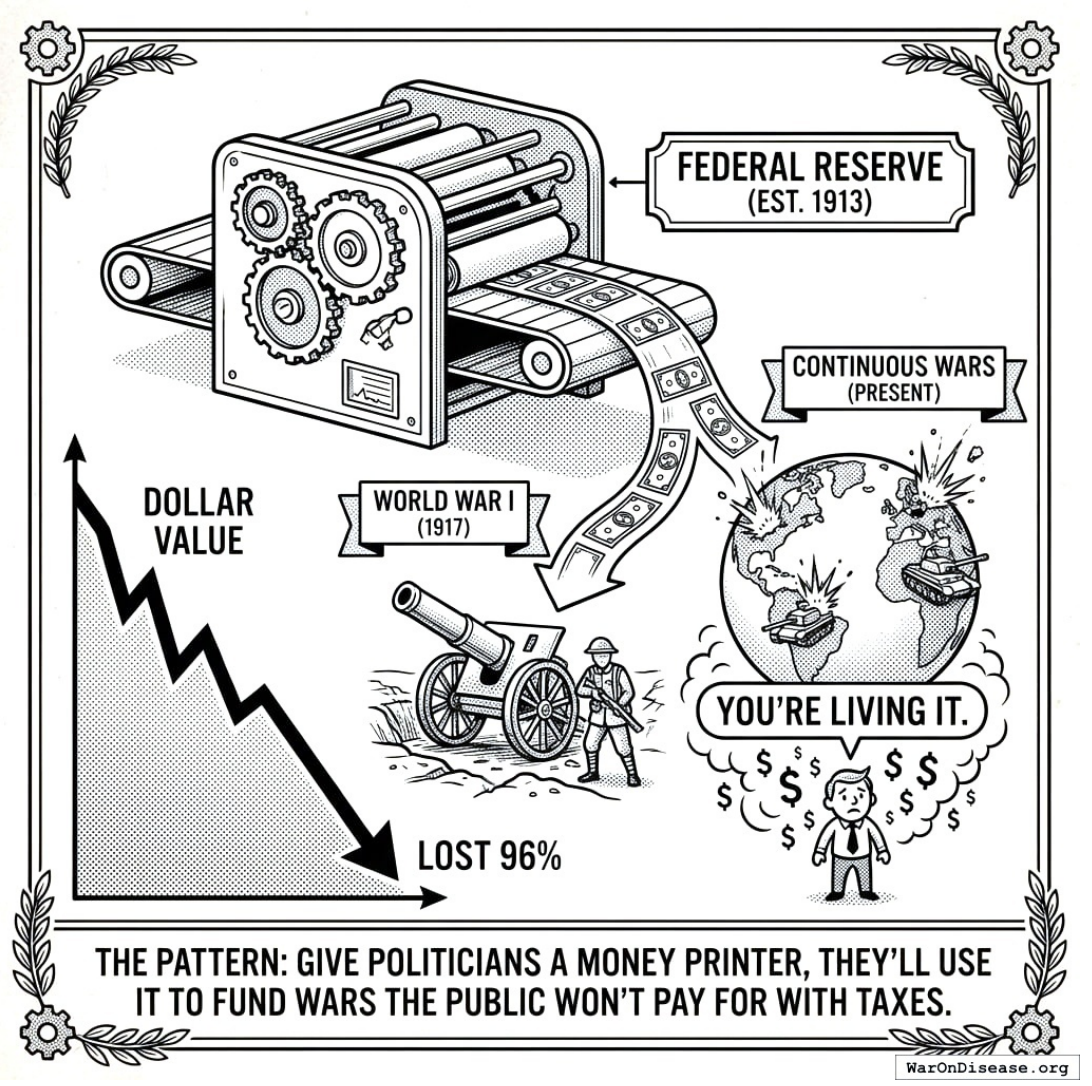


Figure 103: Create Federal Reserve in 1913. Federal Reserve prints money for wars. Dollar loses value. Fight more wars. Print more money. The circle continues until someone notices.

1972: When Nixon Weaponized Money Against You

August 15, 1971. The day your money stopped meaning anything and nobody told you.

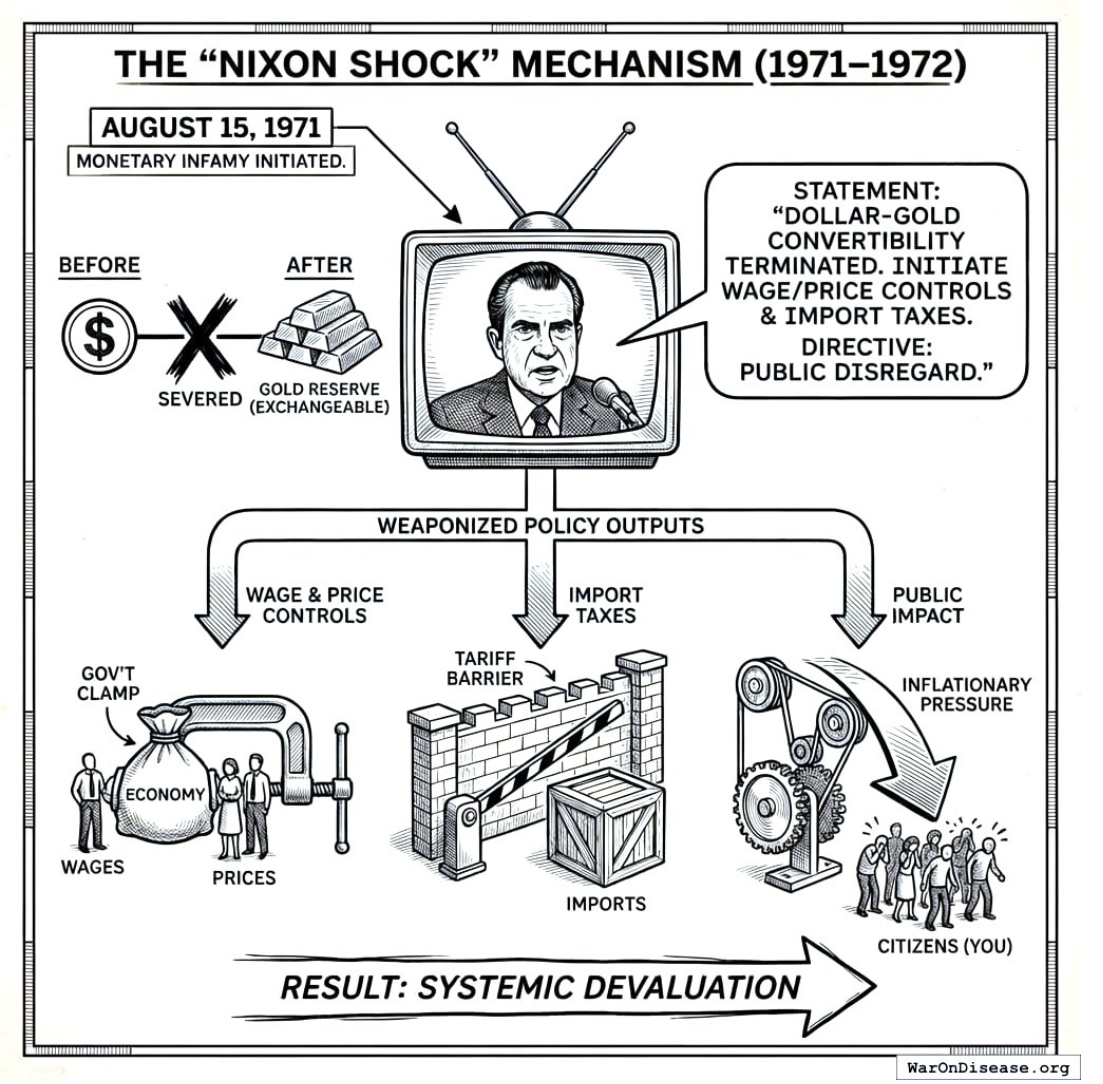


Figure 104: Nixon cuts dollar from gold, freezes wages and prices, taxes imports. All at once. Like performing surgery with a sledgehammer.

Nixon went on TV and said, in slightly more presidential language, "Remember how dollars could be exchanged for gold? We're stopping that. Also, wage and price controls. Also, import taxes." He called it a "New Economic Policy." On your planet, when someone names a policy the opposite of what it does, something terrible is about to happen. (See also: "Patriot Act," "Affordable Care Act," "Department of Defense.")

Why He Really Did It

- Vietnam War was bleeding money
- France wanted their gold back (party poopers)

- Couldn't raise taxes (people riot)
- Solution: Print money forever!

What Actually Happened

- Gold standard: Dead
- Dollar backing: "Trust us bro"
- Inflation: To the moon
- Your savings: Slowly murdered

The Theft That Followed

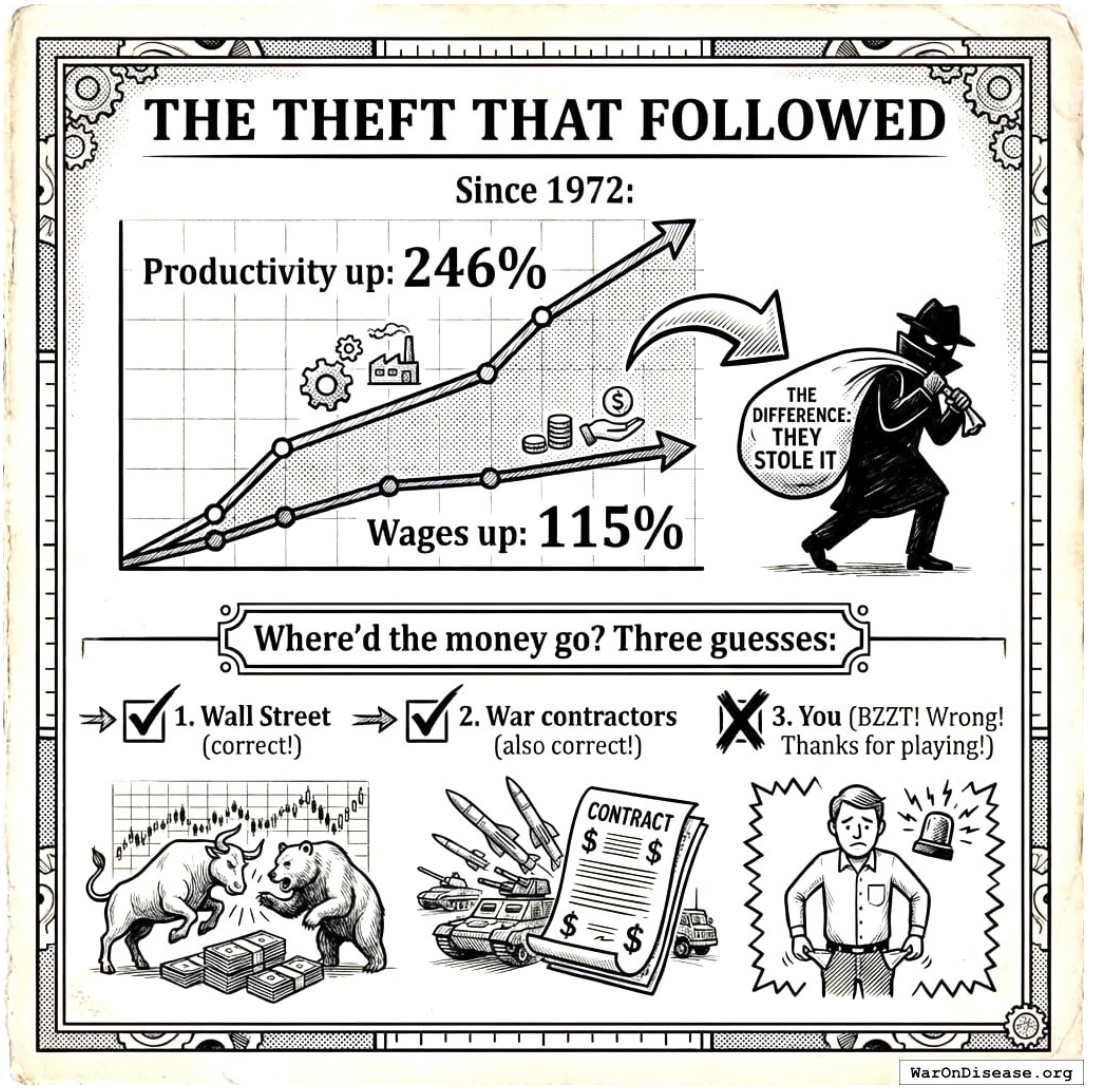


Figure 105: Since 1972, productivity went up 246 percent. Wages went up 115 percent. Someone kept the difference. Guess who.

Since 1972:

- Productivity up: 246%

- Wages up: 115%
- The difference: They stole it

Where'd the money go? Three guesses:

1. Wall Street (correct!)
2. War contractors (also correct!)
3. You (BZZT! Wrong! Thanks for playing!)

The Cantillon Effect: Why You're Poor and Raytheon Isn't

The Cantillon Effect, understood since the 1700s: whoever gets newly printed money first gets rich. Whoever gets it last gets robbed.

The Fed prints money. Banks and defense contractors get it first and buy things at today's prices. By the time it trickles down to your grocery store, prices have already risen. You don't notice you've been robbed because nobody broke into your house. They just made everything in it worth less.

Then you blame immigrants. Which is exactly what they want you to do. (The immigrants also got robbed, by the way. You have so much in common.)

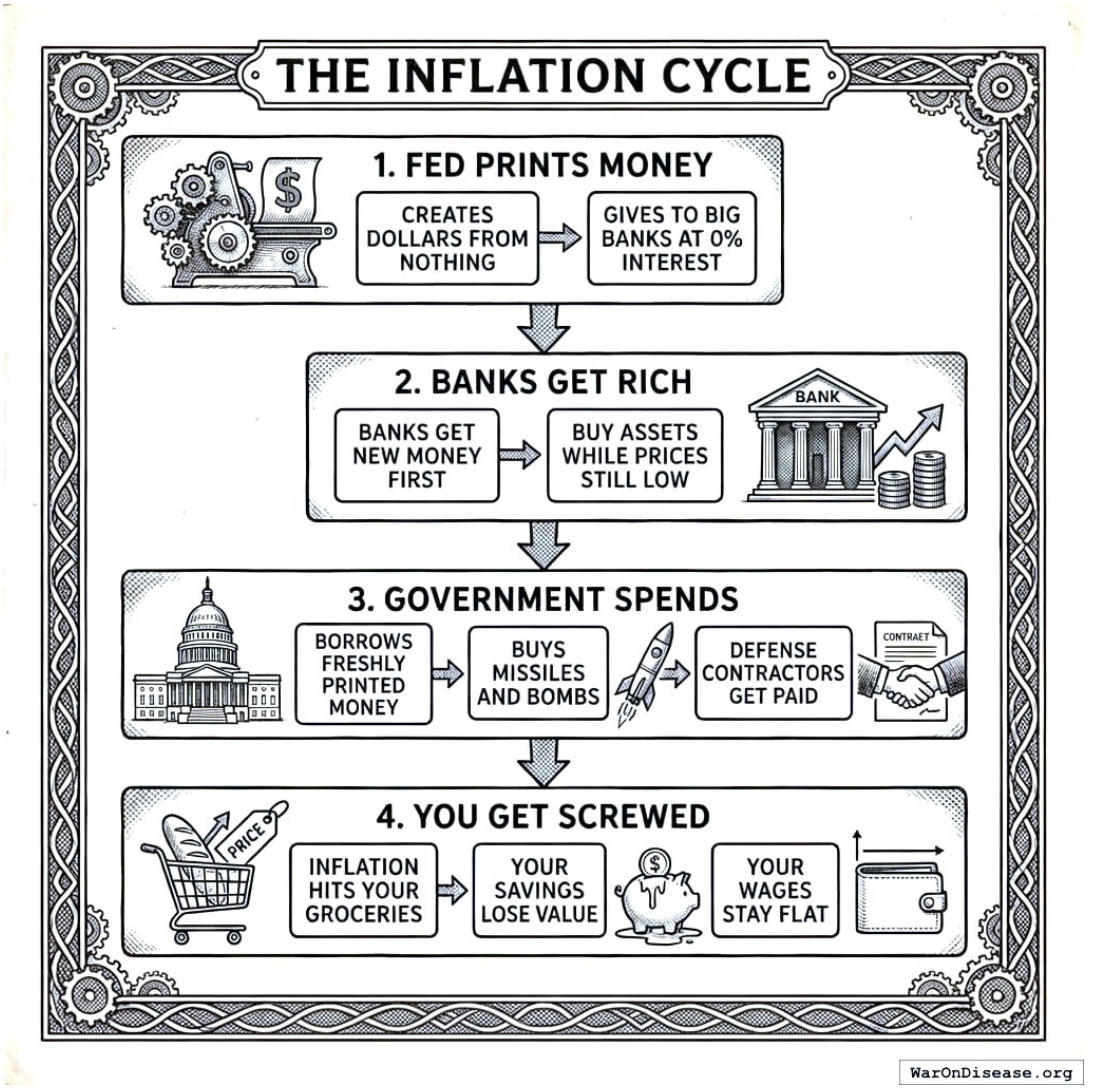


Figure 106: Print new money. Money flows up to banks and war contractors. Costs flow down to everyone else. Gravity works backwards in economics.

The Federal Reserve: A Private Corporation That Owns You

The Federal Reserve is not federal and has no reserves. It's like the Holy Roman Empire (neither holy, nor Roman, nor an empire) or the Democratic People's Republic of Korea (zero for four). You have a naming problem on this planet.

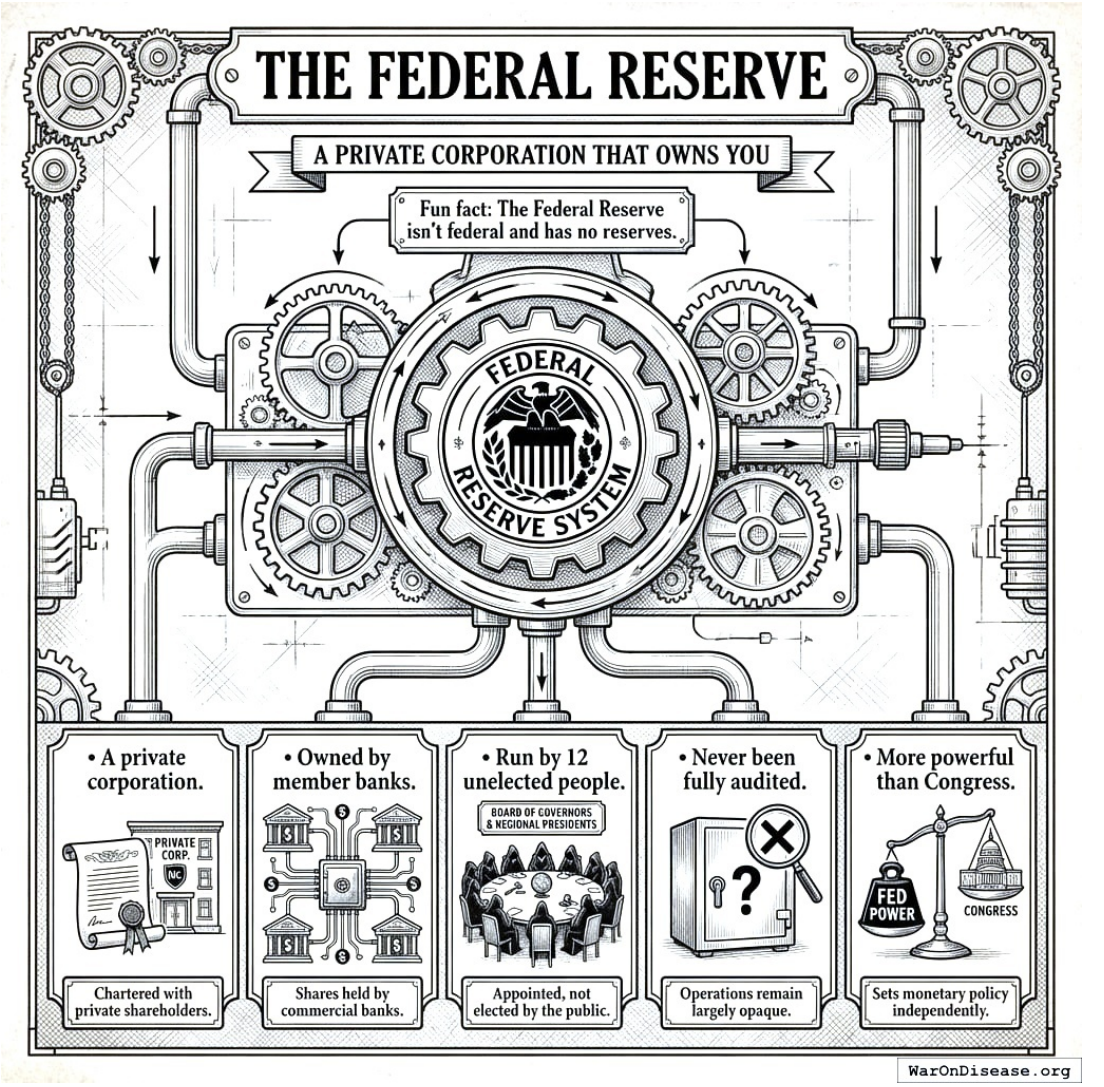


Figure 107: The Federal Reserve is owned by private banks, sort of supervised by Congress, and controls your money supply. It's like putting foxes in charge of the henhouse, then asking the hens to vote.

It's actually:

- A private corporation
- Owned by member banks
- Run by 12 unelected people
- Never been fully audited (they audit you, though)
- More powerful than Congress (lower approval rating too, which is impressive)

What They Actually Do

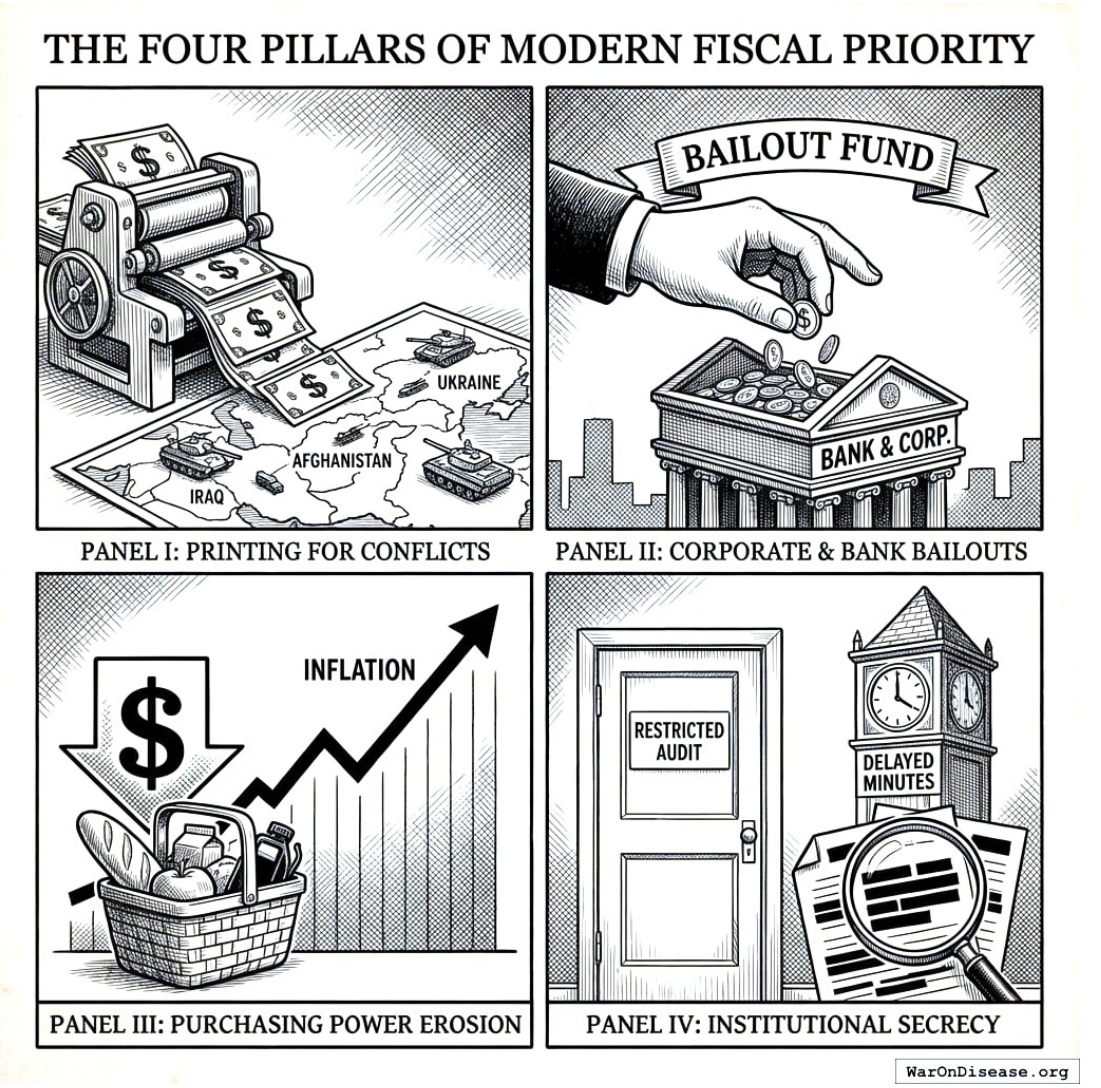


Figure 108: Money flows to military and banks. Purchasing power flows away from you. It's not theft if you write the laws first.

1. **Print Money for Wars**
   - Iraq/Afghanistan: $8 trillion printed[229]
   - Ukraine: $113 billion and counting
   - Next war: Already funded in advance
2. **Bail Out Their Friends**
   - 2008: $700 billion to banks
   - 2020: $4 trillion to everyone (except you)
   - 2023: $300B to failed banks again
   - Your mortgage: Still not forgiven
3. **Destroy Your Purchasing Power**
   - Inflation "target": 2% per year (your money half gone in 35 years, by design)
   - Actual inflation: Way higher (check your grocery bill, then sit down)
   - Real inflation: Everything you need costs more, everything you own is worth less

- They call it a "target." They are aiming at you. That's the target.

4. **Hide the Evidence**
   - No full audit allowed
   - Meeting minutes released after 5 years (very transparent, in the same way a glacier is very fast)
   - Real decisions made at dinner parties
   - You'll never know what they did until it's too late. That's the system working as intended.

Every War Since 1972: Funded by Destroying Your Savings

Every time your government wants to bomb someone, it doesn't ask you. It just makes your savings worth a little less. You paid for every war. You were never consulted. Here's the receipt:

Vietnam War Extension (1972-1975)

- Cost: $168 billion (inflation adjusted)
- Funded by: Money printing
- Your loss: 30% purchasing power

Gulf War (1991)

- Cost: $102 billion
- Funded by: Money printing
- Your loss: Gas prices doubled

Iraq War (2003-2011)

- Cost: $2 trillion
- Funded by: Money printing
- Your loss: House prices went insane

Afghanistan (2001-2021)

- Cost: $2.3 trillion
- Funded by: Money printing
- Your loss: Can't afford anything

The Running Total

- Wars funded by printing: $8+ trillion
- Medical research in same period: $680 billion
- Ratio: 12:1 for death over life
- Your real wage growth: Negative

The $300B Bank Subsidy (Your Money)

The Fed pays banks interest on money the banks keep parked at the Fed. Read that again slowly. Banks give the Fed money. The Fed gives it back, plus interest. This costs taxpayers $300B per year. For doing absolutely nothing. On most planets, getting paid to do nothing is called "unemployment." On yours, it's called "monetary policy." Same thing, better suits.

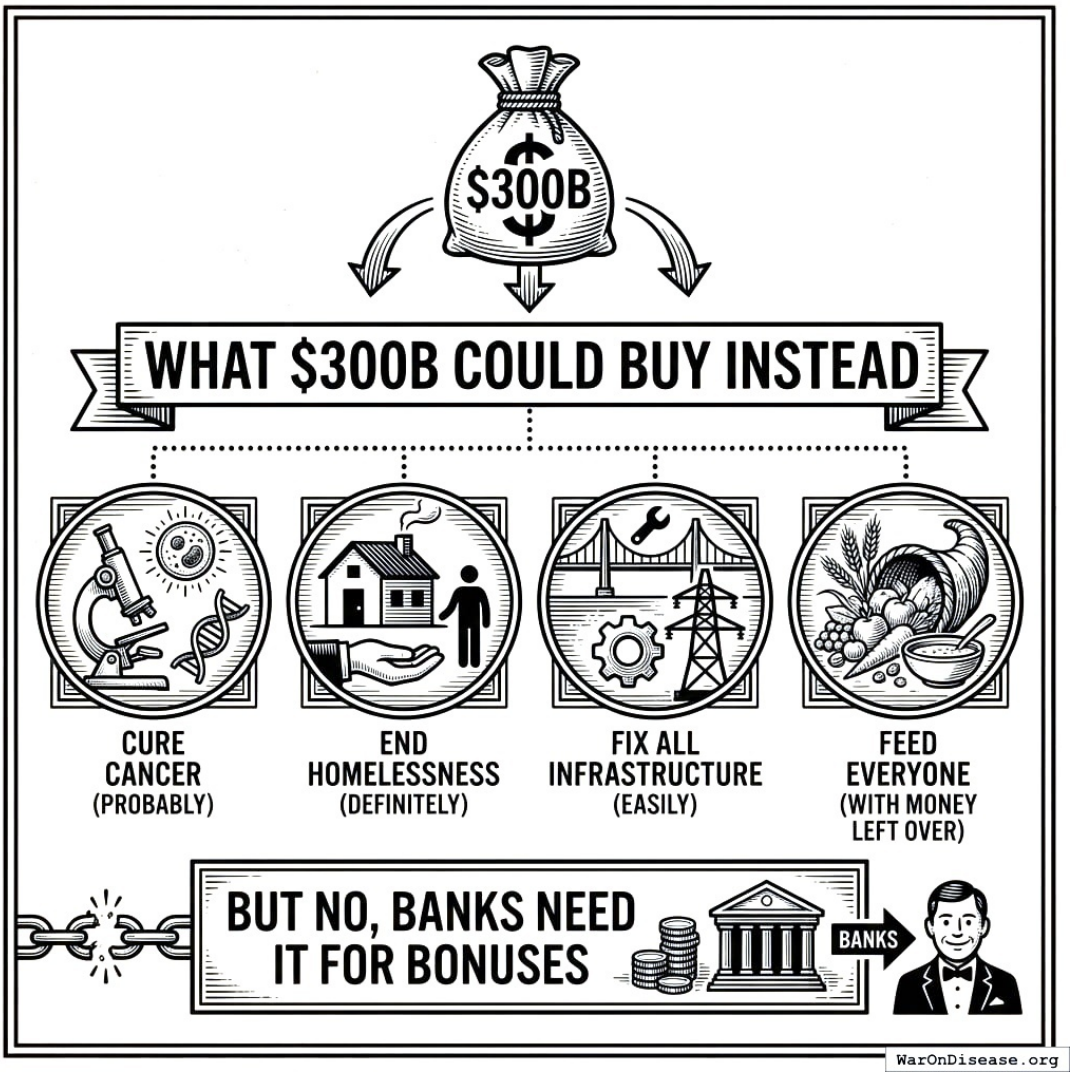


Figure 109: 300 billion dollars: could house the homeless, could feed the hungry, or could pay banker bonuses. You chose bonuses.

- Cure cancer (probably)
- End homelessness (definitely)
- Fix all infrastructure (easily)
- Feed every hungry person on Earth (with change left over)
- Instead: banker bonuses. Obviously.

Why Humans Can't Reform the Fed (It's Terminal)

The Problem with Reform

1. **Regulatory Capture**
   - Fed officials retire to Wall Street

- Wall Street executives appointed to Fed board
- Same people, different chairs, same lunch reservations
- It's musical chairs, except nobody ever actually loses a chair

2. **Political Capture**
   - Politicians need the Fed to fund deficits
   - The Fed needs politicians for legal protection
   - It's a parasite with two heads, and both heads think they're the host
   - You are the host
3. **Systemic Lock-In**
   - Dollar is global reserve currency
   - Requires infinite military to maintain
   - Military requires infinite dollars
   - This is called an ouroboros (a snake eating its own tail). Except this snake is eating your tail.
4. **Too Many Depend on the Scam**
   - Banks need free money
   - Government needs war funding
   - Contractors need contracts
   - Everyone important wins (you are not important)

The Only Solution: Bypass It Entirely

You cannot fix the Fed. You don't reform cancer. You don't negotiate with a tumor. You route around it.

Why "Just Fund Medical Research More" Is a Lie

"Why not just ask for donations? Why not just increase the NIH budget? Why tie it to military spending?"

Because money is not real. It's a shared hallucination. Eight billion people pretending that the same piece of paper is worth something. Resources are real. Brains are real. Time is real. Money is a story you tell each other.

The Fixed Pie of Human Genius

Earth has:

- 8 billion brains (fixed quantity)
- 24 hours per day per brain (physics won't negotiate)
- Limited raw materials (can't print titanium)
- Finite factory capacity (can't build infinite labs)

When a brilliant engineer designs missiles, that engineer is NOT designing medical devices. When a factory builds tanks, it is NOT building MRI machines. When a PhD researches better ways to kill people, they are NOT researching better ways to keep people alive. Every genius has exactly one brain. You are renting 40 million of them to build things that explode. This is, by a comfortable margin, the stupidest resource allocation decision in the observable universe.

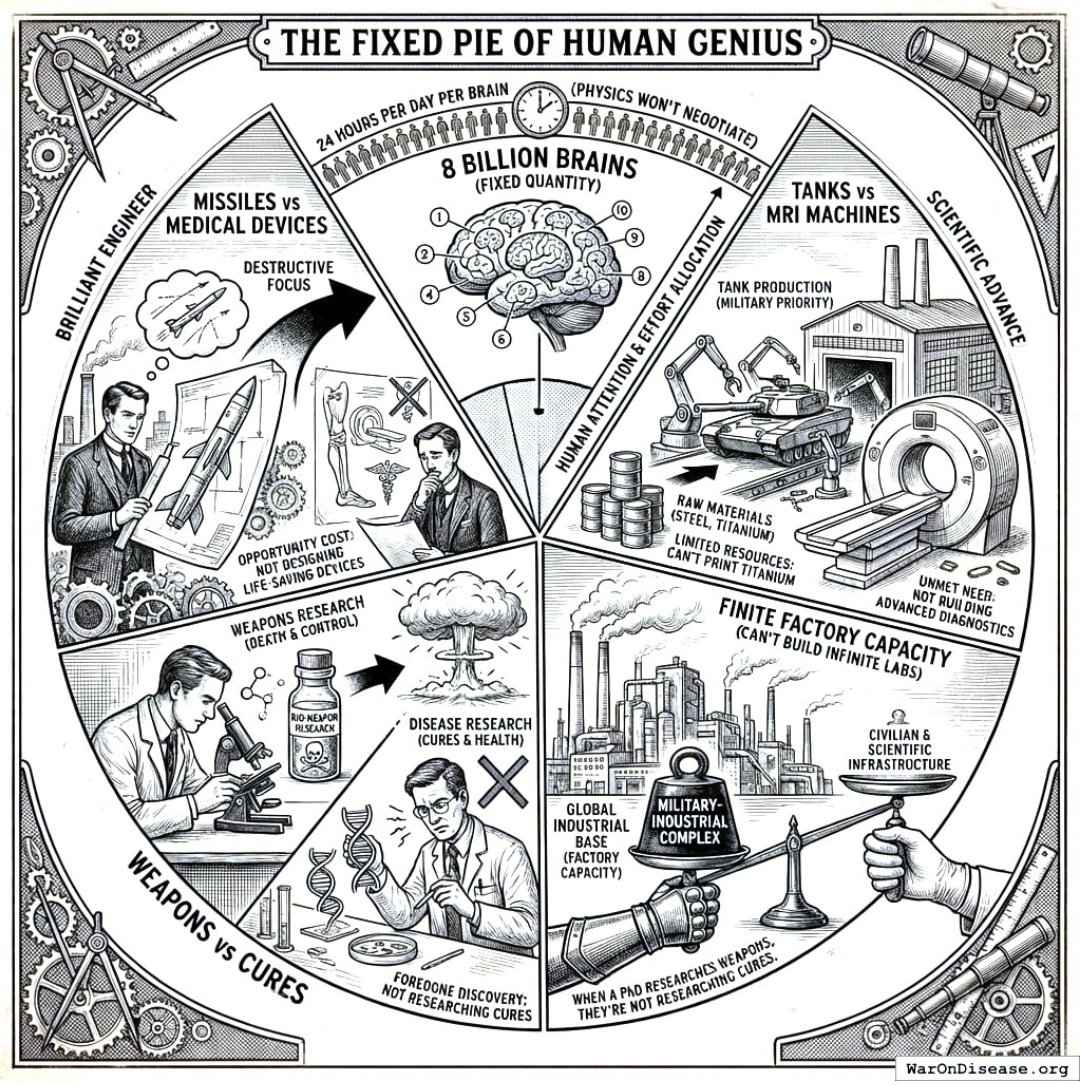


Figure 110: Humans smart enough to build weapons or cure disease, but not enough to do both. You picked weapons.

The Resource Reality

- Top 10% of human talent: ~800 million people
- Currently building weapons: ~40 million
- Currently curing disease: ~1 million
- The ratio: 40:1 for death over life

You can print infinite dollars. You cannot print geniuses. This is the most important sentence in this chapter. You will forget it by tomorrow because your brain allocated its attention budget the same way your government allocates its money.

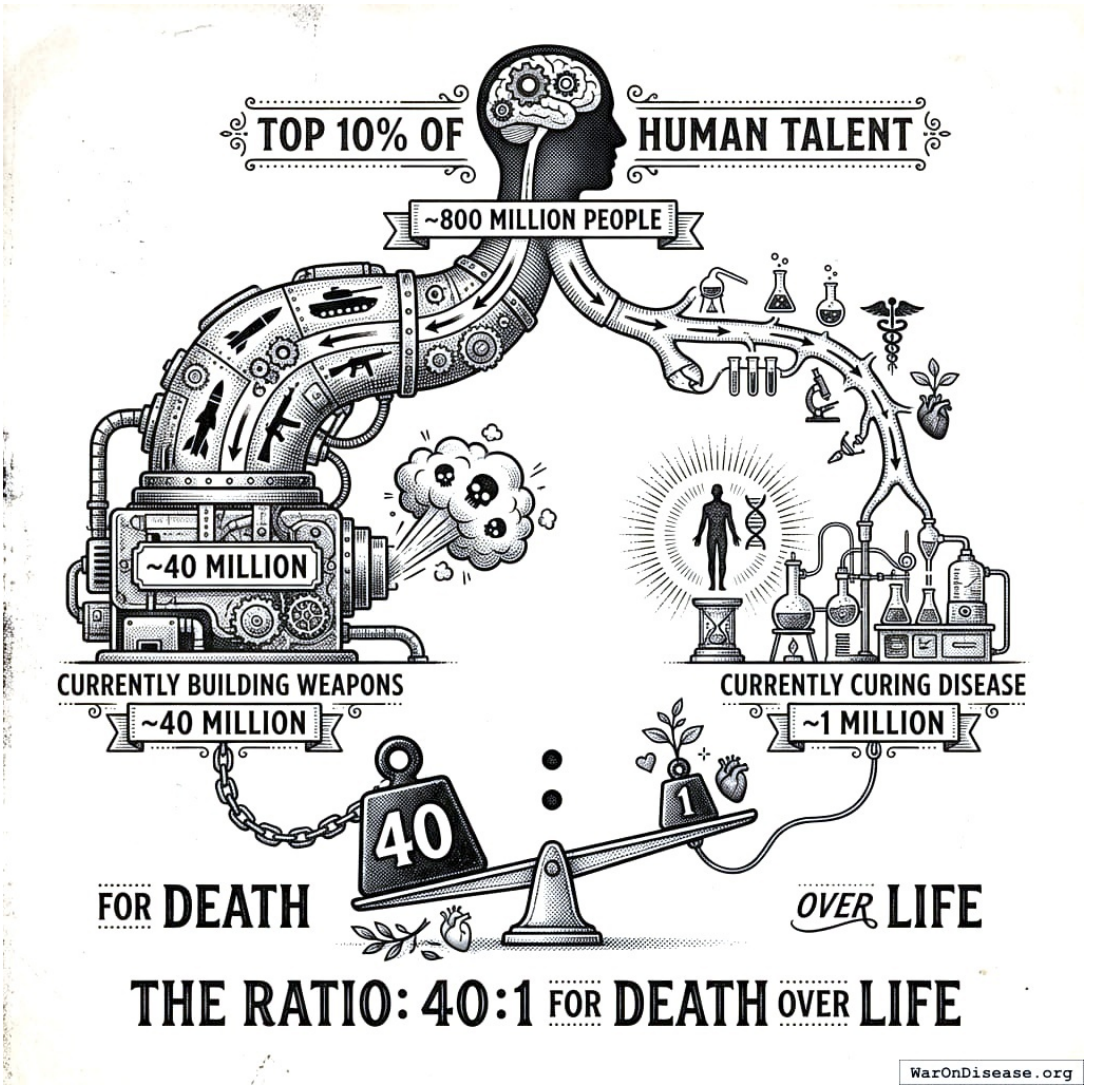


Figure 111: Thousands of brilliant minds designing better ways to kill people. Dozens designing better ways to save them. Someone made a choice here.

The Inflation Shell Game (How They Steal Medical Progress)

Watch closely. This is how they rob you in broad daylight while you clap:

Year 1

- NIH budget: $47B
- Military budget: $800 billion
- Ratio: 20:1 for death

Year 5 (after "increasing medical research")

- NIH budget: $60B (50% increase! Victory!)
- Military budget: $1.2 trillion (also 50% increase)
- Fed money printing: 50% inflation

- Real purchasing power: Exactly the same
- Ratio: Still 20:1 for death

You got a 50% raise. Everything costs 50% more. The pie did not grow. They gave you a bigger number on a smaller slice and expected you to say thank you. You did. You always do.

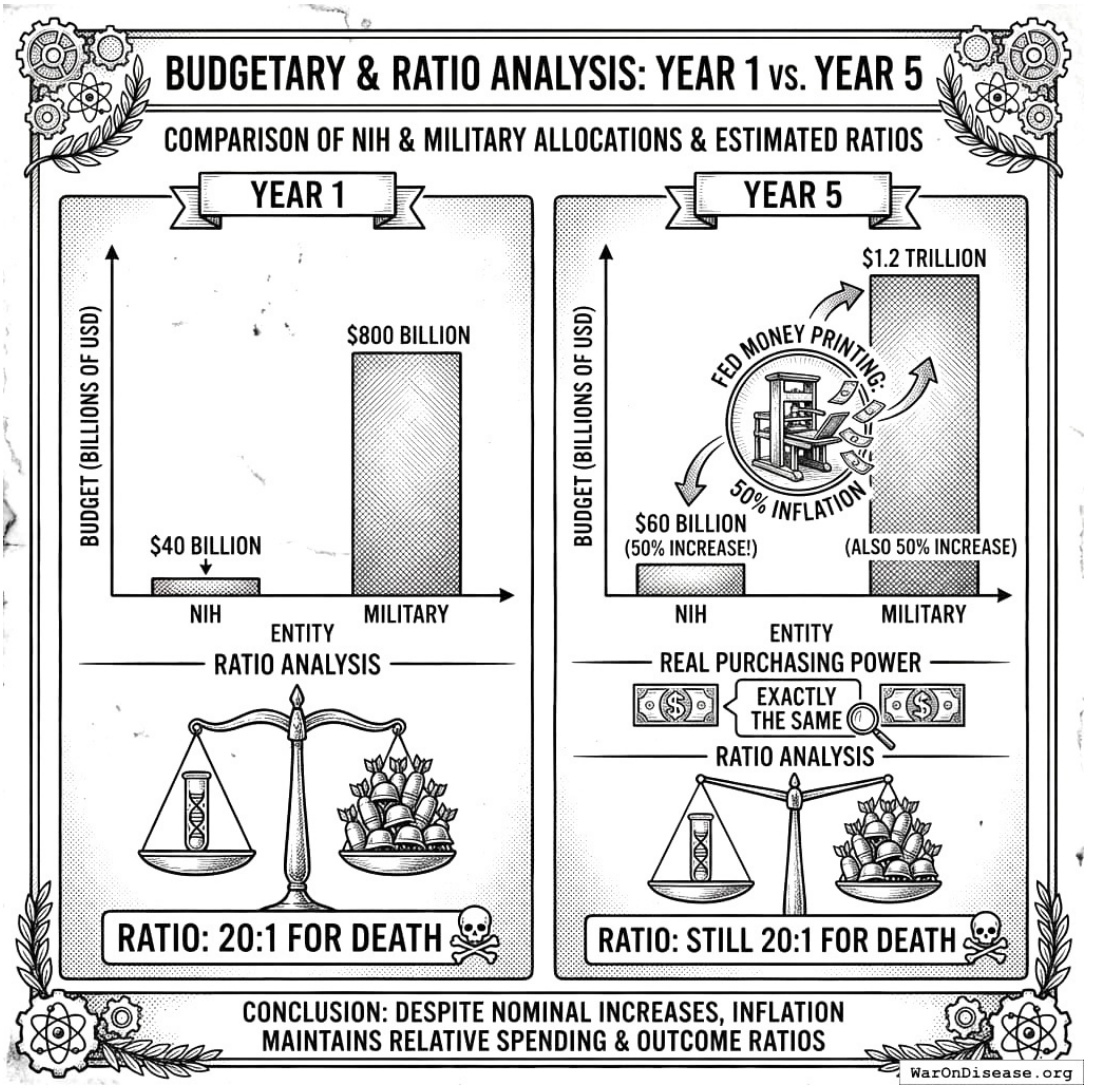


Figure 112: Budget goes up 50 percent. Inflation goes up 50 percent. Purchasing power stays the same. You're running to stay in place, like a hamster with a printing press.

The Proof: 50 Years of Going Nowhere

Medical Research as % of GDP

- 1975: 0.08%
- 1985: 0.07%
- 1995: 0.07%
- 2005: 0.06%
- 2015: 0.06%

- 2025: 0.065%

Absolute dollars increased 10x. Share of actual resources: decreased. You got richer and spent less of it on not dying. Like buying a bigger house and removing the smoke detectors.

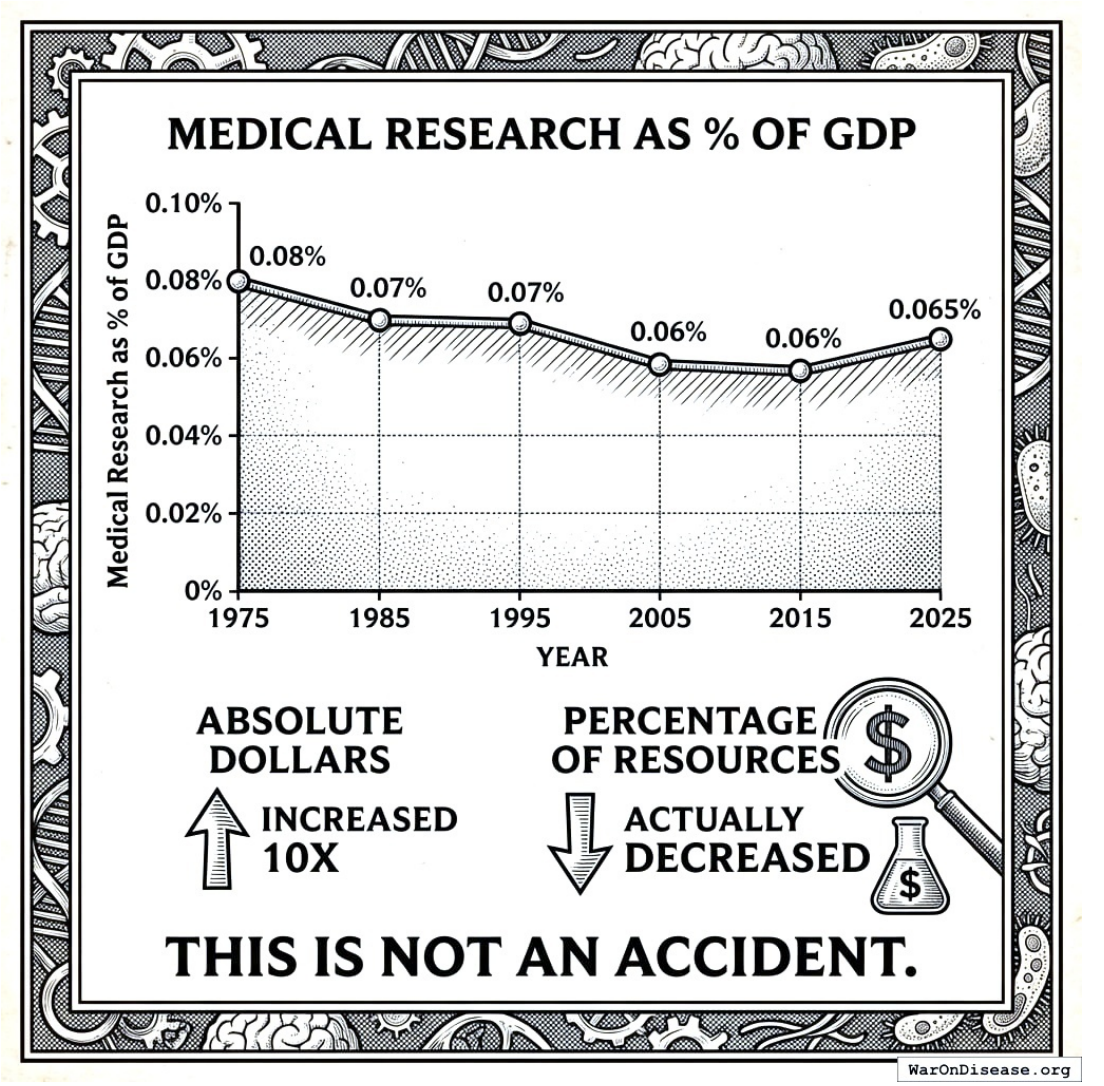


Figure 113: Medical research as a percentage of GDP from 1975 to 2025. You got richer and spent less of it on not dying. Like buying a bigger house and smaller fire extinguishers.

What Actually Grew

- Financial sector: 3% → 8% of GDP
- Military-industrial: 4% → 6% of GDP

- Healthcare bureaucracy: 5% → 18% of GDP
- Actual medical research: Shrinking slice

The money printers fund what they value. They value control, not cures. Nobody ever seized power with a stethoscope. (Though, medically speaking, you could.)

Why Money Printing Matters: Resources Follow the Printer

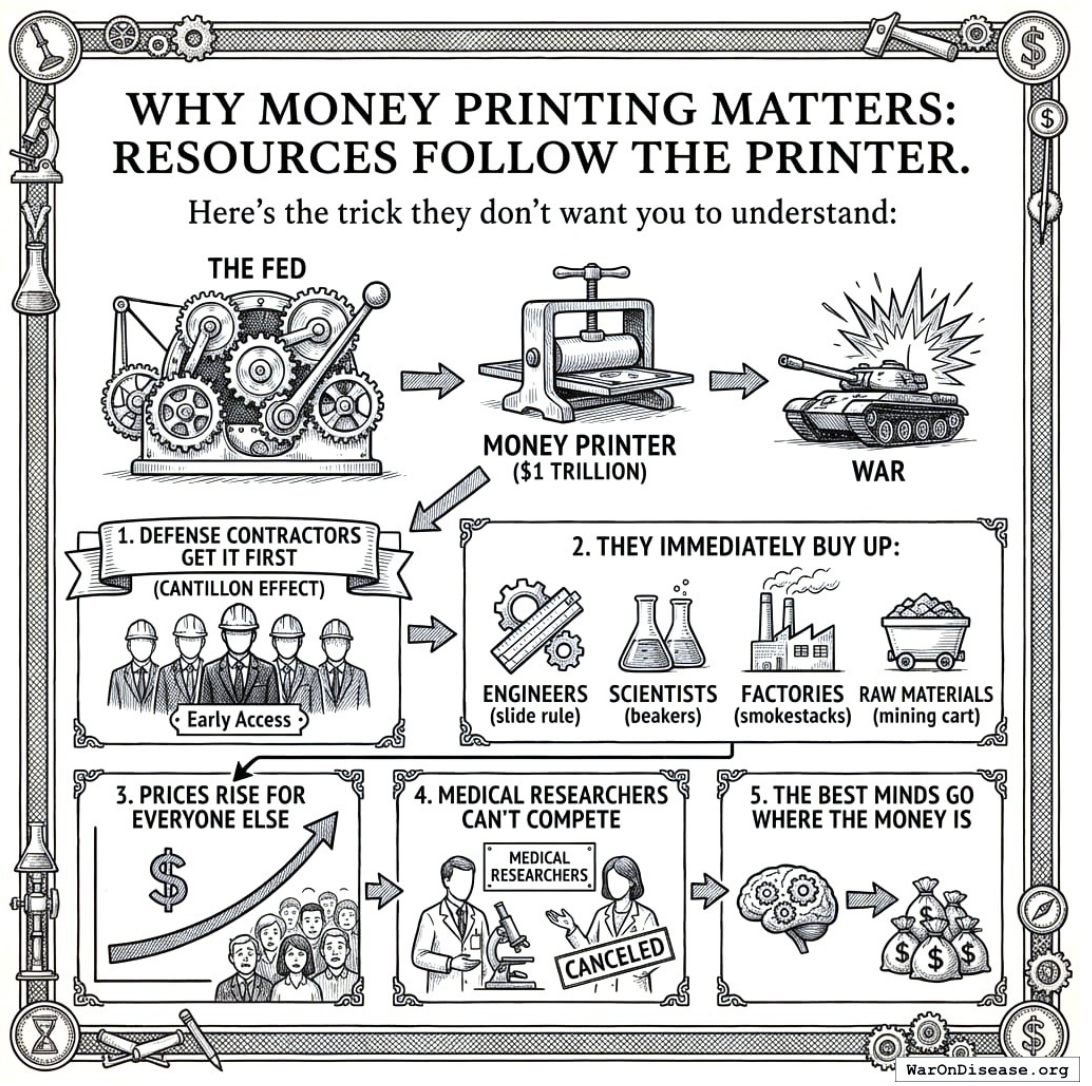


Figure 114: When you spend money on weapons, the smart people go work on weapons. Then you wonder why nobody's curing your diseases. You built a waterslide into a shark tank and asked where all the swimmers went.

When the Fed prints $1 trillion for war, defense contractors get it first and immediately buy up the best engineers, scientists, and factories. An MIT graduate with $200k in student debt chooses between Raytheon at $150k or an NIH postdoc at $55k. The student debt does not care about your feelings, so neither does the graduate. Another brain lost to the death machine. Multiply by forty million. Then wonder why nobody cured your mother's cancer.

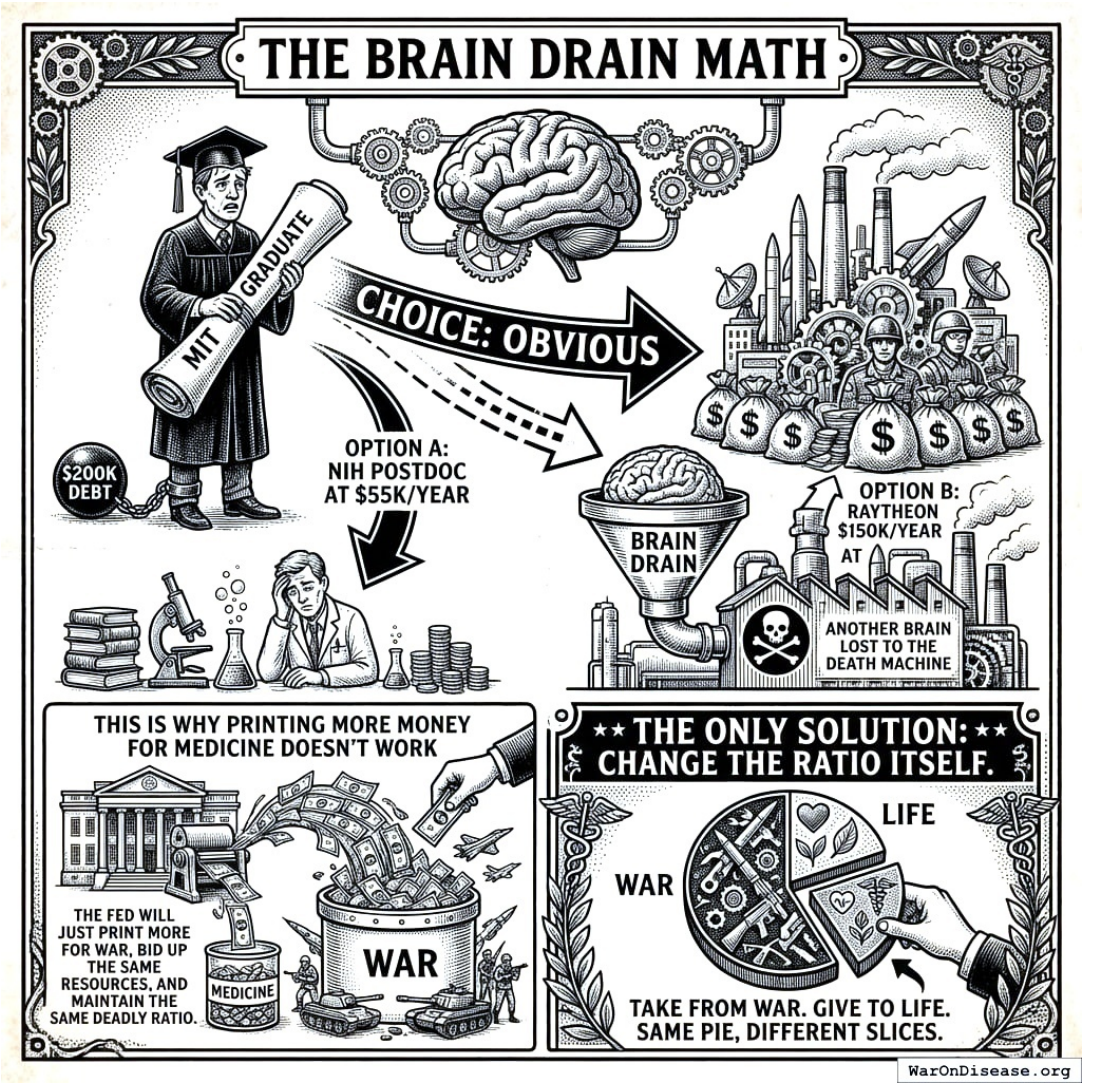


Figure 115: MIT graduate with student debt: cure cancer for $60,000 or design missiles for $150,000. You made saving lives the financially irresponsible choice. Like pricing vegetables at $100 and candy at $1, then wondering why everyone's diabetic.

Printing more money for medicine does not work because the Fed prints even more for war, maintaining the same deadly ratio. The hamster wheel spins faster. You stay in the same place.

The only solution: change the ratio. Take from war. Give to life.

The 1% Treaty: Redirecting the Death Printer to Life

Here is the part where I stop cataloguing your failures and offer you something useful. They are already printing trillions for war. The treaty asks them to point 1% of it at healing instead. That is all. One percent. The rest can continue being terrible.

The Current Money Flow

- Fed prints $8 trillion
- Goes to military contractors
- Builds bombs and missiles
- People die
- Your savings devalued
- Repeat forever

A 1% Treaty Redirect

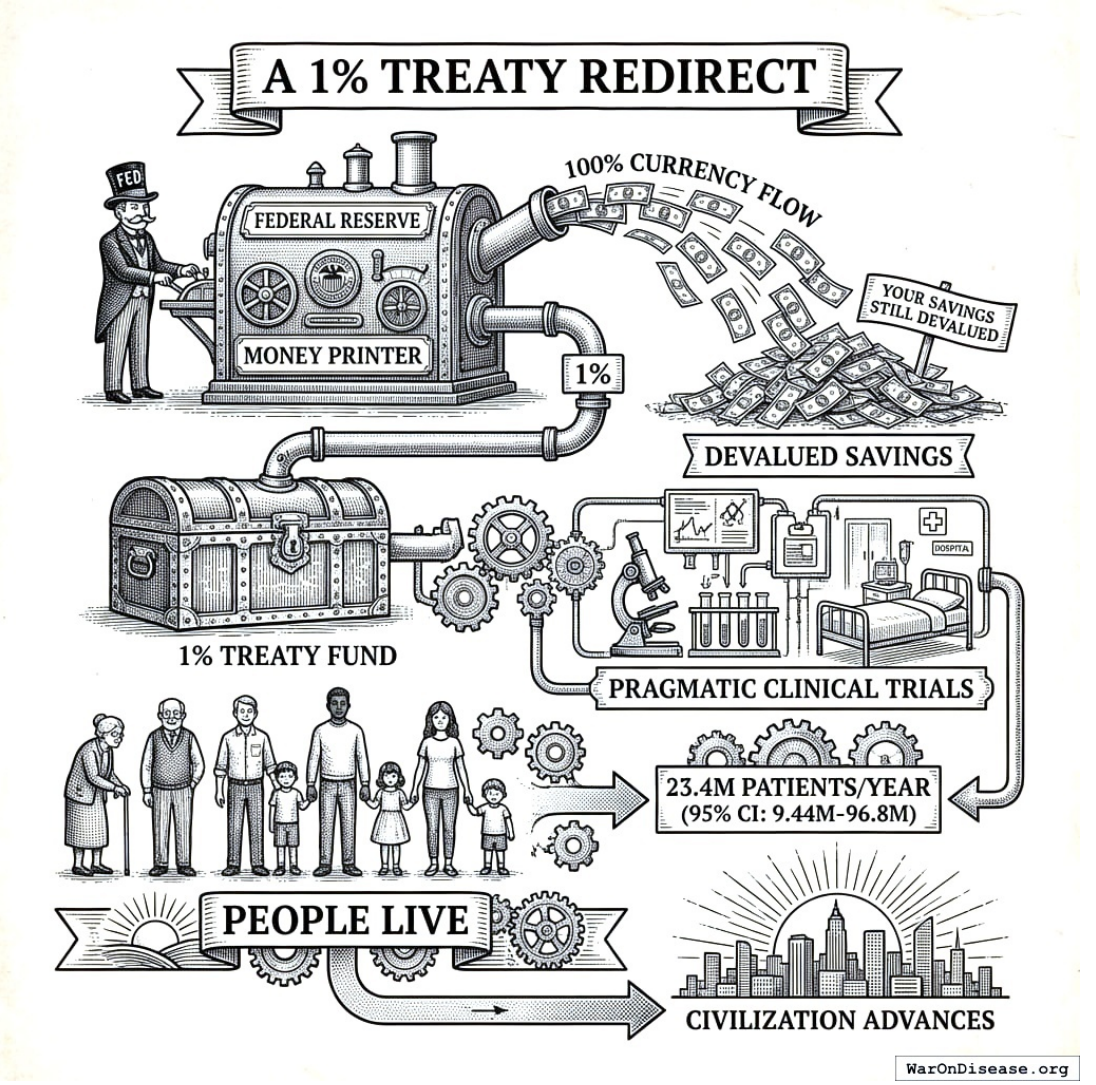


Figure 116: You print money every year. If you redirect 1 percent of it to medical trials instead of war, you get cures. The money was going to lose value anyway. Like choosing whether your leaky bucket waters flowers or a parking lot.

- Fed still prints money (they can't help themselves)
- 1% is directed to a 1% Treaty Fund
- The fund supports pragmatic clinical trials for 23.4 million patients/year

- People live
- Your savings still devalued (but at least people get cured)
- Civilization advances

Why This Works

1. **The Treaty Doesn't Ask for New Money**
   - They're already printing it
   - The treaty redirects 1%
   - Like a river changing course by 1 degree
   - Same money printer, different output
2. **Path of Least Resistance**
   - Easier than stopping money printing (impossible)
   - Easier than raising taxes (political suicide)
   - Easier than cutting military spending (lobbyists cry)
   - Just redirect existing flow
3. **The Money is Already Fake**
   - It's created from nothing anyway
   - Might as well create health instead of death
   - Same inflation, better outcomes
   - Your purchasing power dies either way (but you might live)
4. **VICTORY Incentive Alignment Bonds: The Bootstrap**
   - Initial funding to pass the treaty
   - Once treaty passes, bonds paid from redirected funds
   - Not competing with Fed, just redirecting its output
   - Like a dam redirecting a river

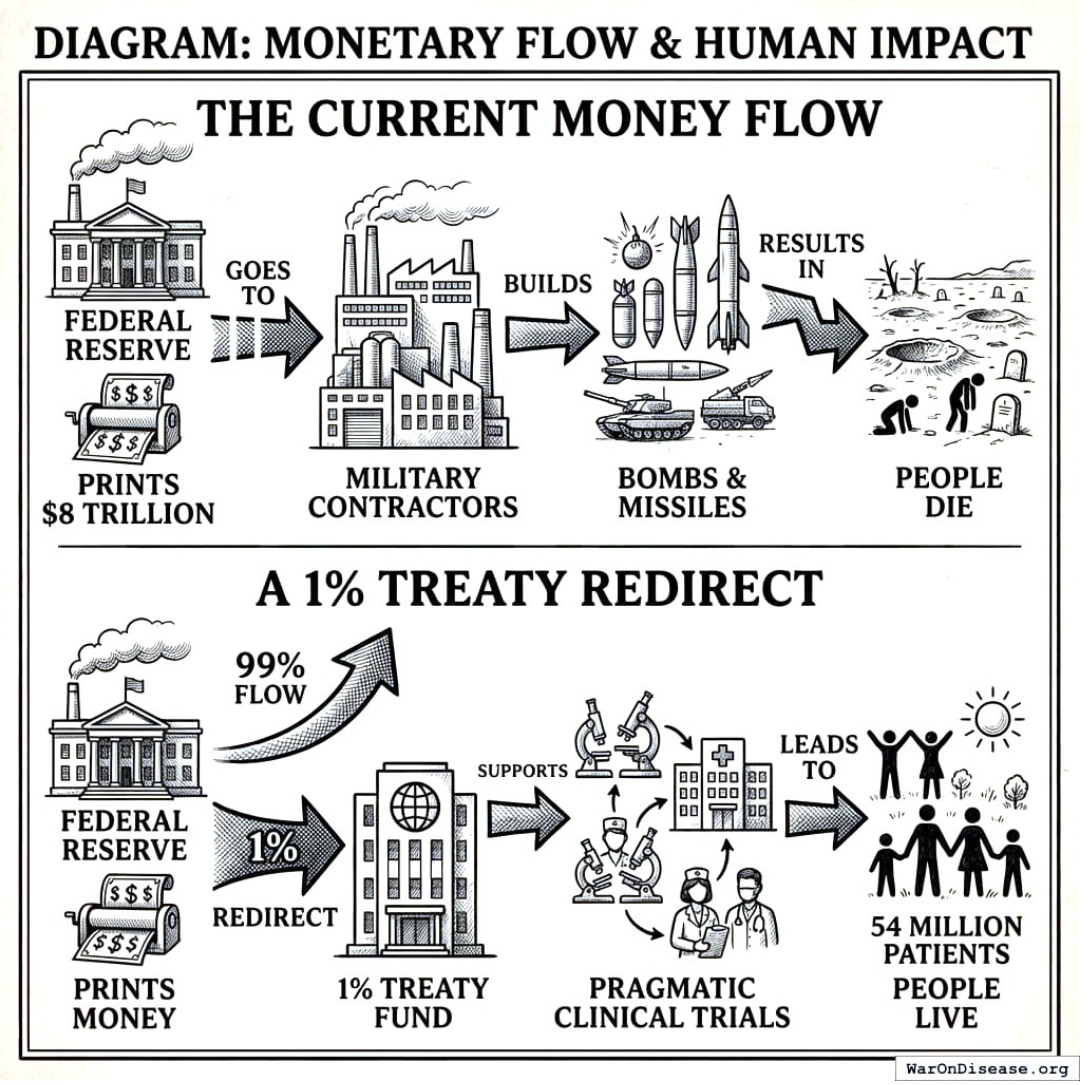


Figure 117: The money river flows toward bullets. We're suggesting a small canal toward medicine. You're welcome to keep the river, we just want a creek.

The Historical Precedent: When Markets Funded Victory

World War II War Bonds

- Raised $185 billion (1940s dollars)
- Voluntary purchases
- Defeated fascism
- No hyperinflation
- Democracy saved (temporarily, but still)

The Difference

- War Bonds funded necessary defense
- VICTORY Incentive Alignment Bonds fund pragmatic clinical trials for necessary cures

- War Bonds saved democracy from fascism
- VICTORY Incentive Alignment Bonds save humanity from disease

Both use markets instead of money printing. Both align incentives with outcomes. Both actually work. The difference is that one required you to kill people and the other requires you to stop killing them.

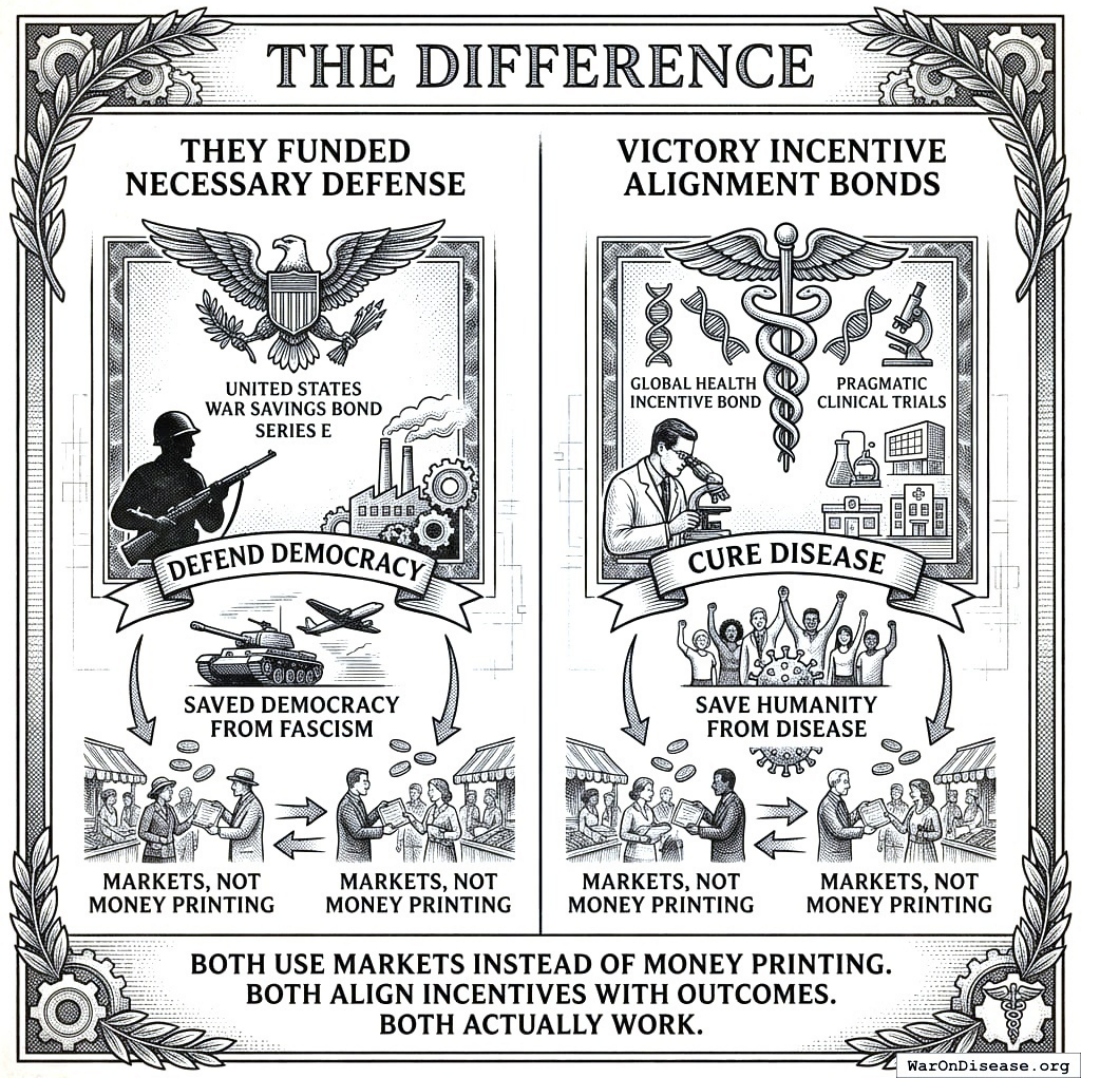


Figure 118: Defense contractors get rich building weapons. VICTORY Bonds let people get rich curing diseases. Same mechanism, different output. Like replacing a factory that makes poison with one that makes cake, keeping all the employees.

The Choice: Keep Printing Death or Start Printing Life

Option A: Keep the Current System

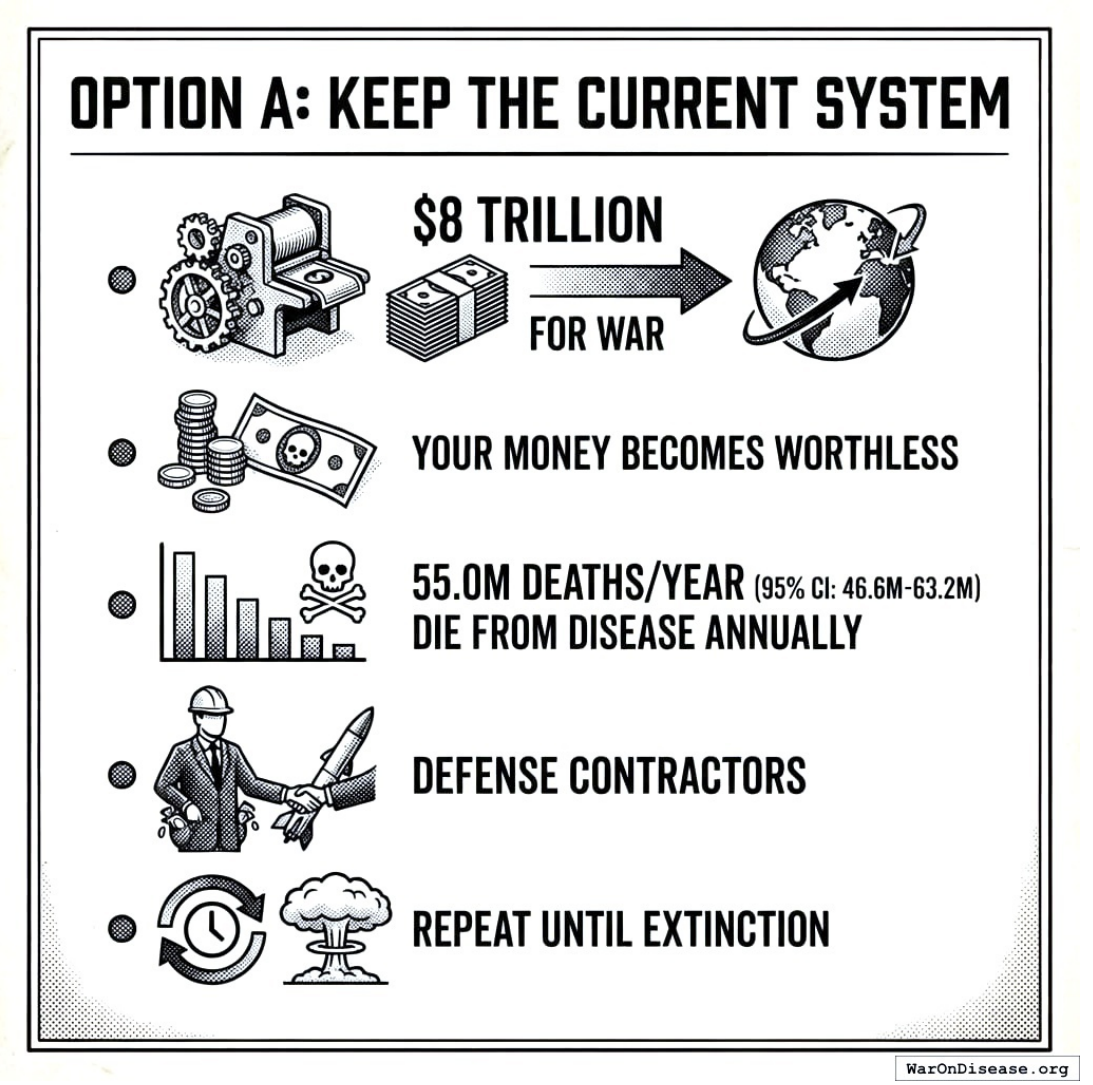


Figure 119: You spend money on weapons. The money loses value. People die. Contractors get rich. Repeat. It's a perpetual motion machine powered by death. You should be proud, those are hard to build.

- Fed prints $8 trillion for war
- Your money becomes worthless
- 55.0 million deaths/year die from disease annually
- Defense contractors get richer
- Repeat until extinction

Option B: The 1% Redirect

- Fed still prints $8 trillion (they're addicted)
- 1% ($27.2B) goes to curing disease through pragmatic clinical trials

- Your money still becomes worthless (sorry)
- But millions fewer people die
- Maybe your cancer gets cured before you need it

It is not complicated. They are going to print money anyway. The treaty just asks them to print 1% for life instead of 100% for death. This should not be a controversial proposal. On most planets it would not be.

How Tiny 1% Really Is

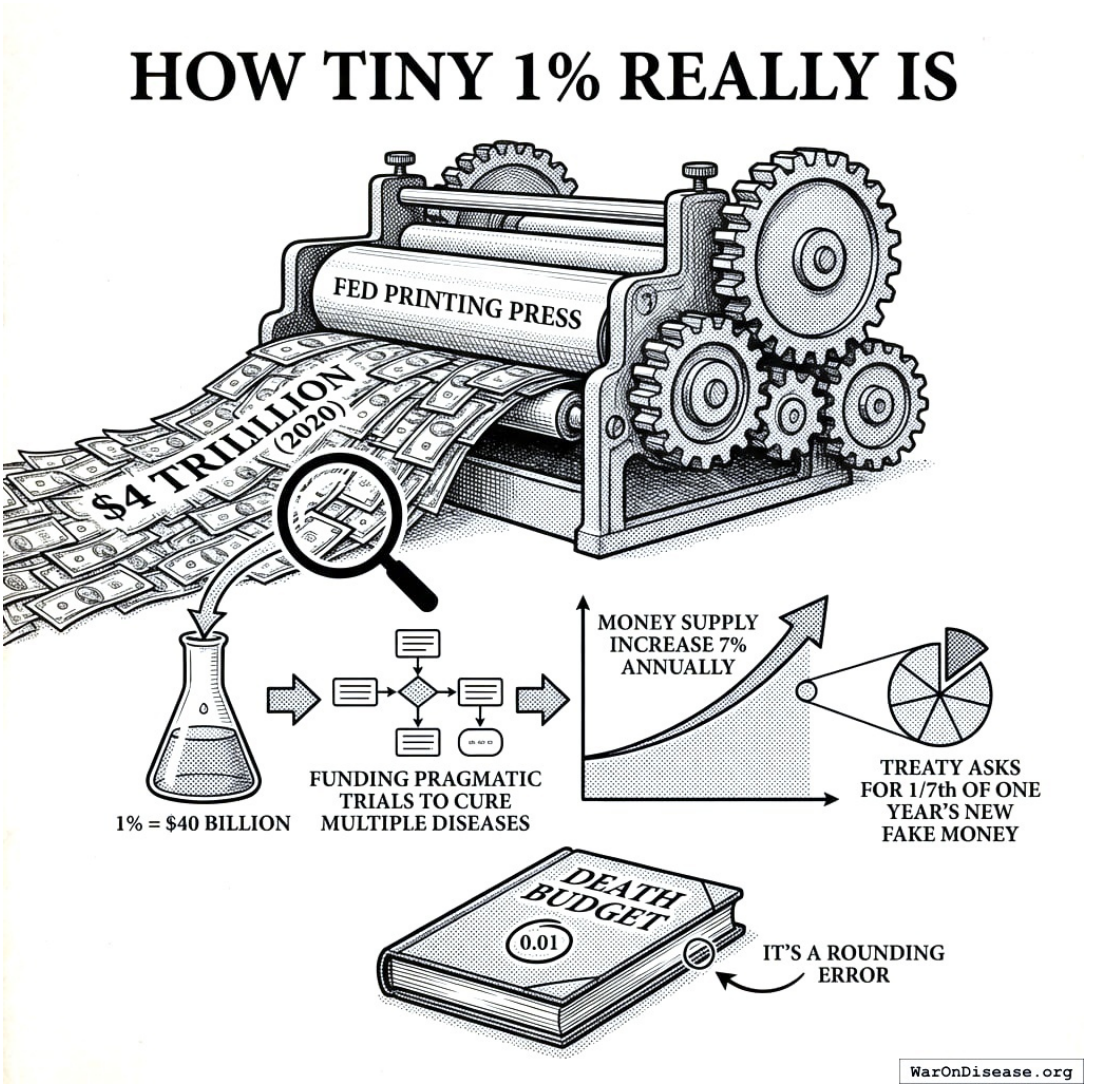


Figure 120: Total currency printed versus the 1 percent sliver for curing diseases. If the full amount were a football field, we're asking for the width of a deck chair. You can keep the rest of the stadium.

- Fed printed $4 trillion in 2020 alone (for COVID)
- 1% of that = $40 billion = funding pragmatic trials to cure multiple diseases
- They increase money supply by 7% annually anyway
- The treaty asks for 1/7th of one year's new fake money

- It's a rounding error in their death budget

Why This Can Actually Happen

- Defense contractors keep 99% (they stop complaining)
- Politicians get credit for "supporting healthcare"
- No new taxes needed (already printing)
- Fed keeps printing (their favorite activity)
- Everyone wins except disease and death

They created the money printer to fund death without asking permission. The treaty uses their own system against them. You are not fighting the dragon. You are asking it to breathe in a slightly different direction. The dragon does not even notice. One percent is a rounding error to a dragon. Dragons cannot count.



Figure 121: Defense contractors still get rich. Politicians still get donations. The Federal Reserve still prints money. The only difference is people live instead of die. Everyone wins except death, and death doesn't vote.

Your Money, Your Choice

Every dollar in your wallet was printed to fund something.

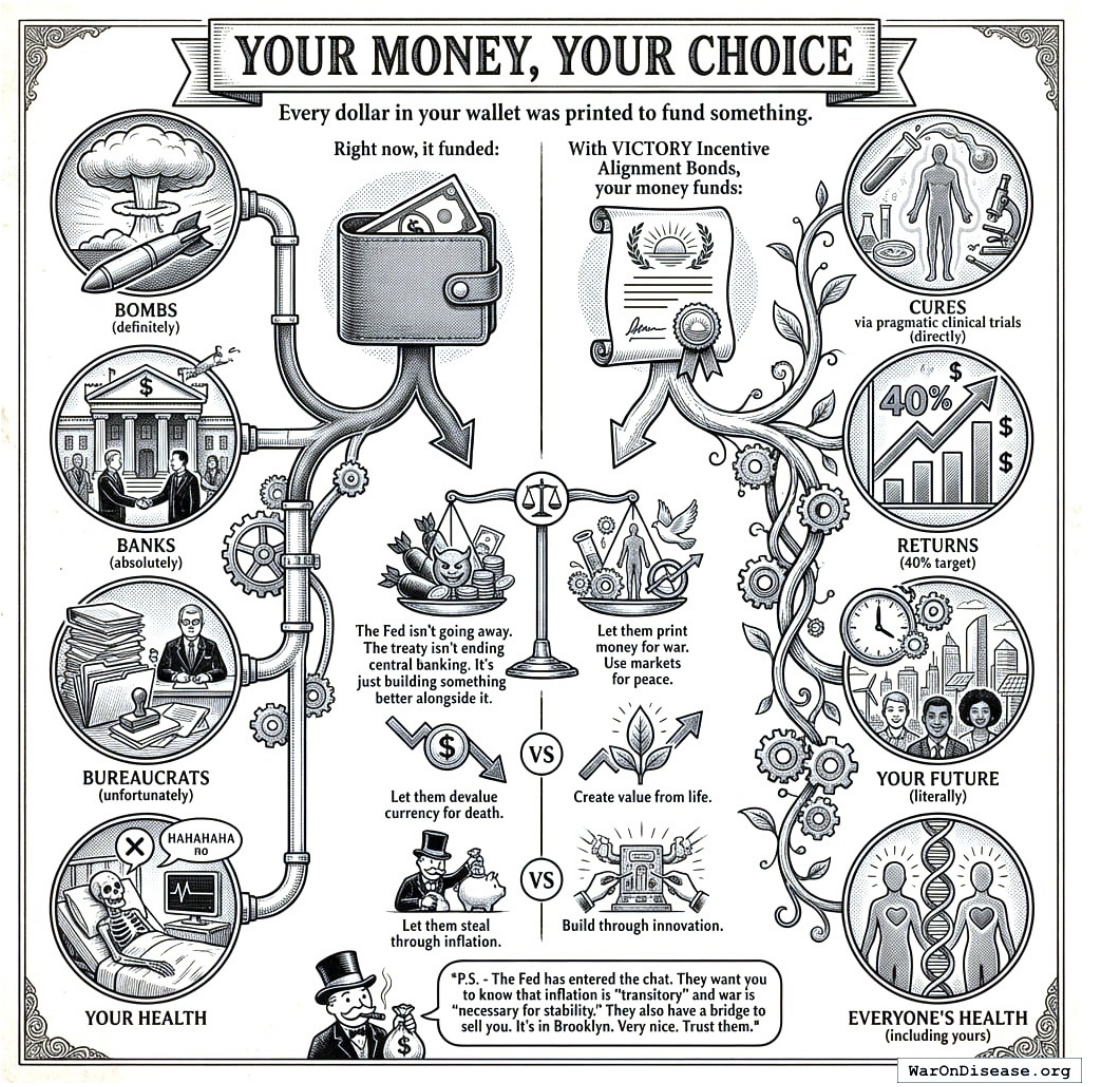


Figure 122: Current system: war and inflation. Proposed system: medical cures and financial returns. One produces corpses, the other produces customers. From a business perspective, customers are better because they can buy things twice.

Right now, it funded:

- Bombs (definitely)
- Banks (absolutely)
- Bureaucrats (unfortunately)
- Your health (no)

With VICTORY Incentive Alignment Bonds, your money funds:

- Cures via pragmatic clinical trials (directly)
- Returns (40% target)

- Your future (literally)
- Everyone's health (including yours)

The Fed is not going away. The treaty is not ending central banking. It is building something better alongside it, the way you build a hospital next to a battlefield.

Let them print money for war. Use markets for peace.

Let them devalue currency for death. Create value from life.

Let them steal through inflation. Build through innovation.

P.S. The Fed has entered the chat. They want you to know that inflation is "transitory" and war is "necessary for stability." They also want you to know that everything is fine. Please do not read this chapter. Please go back to arguing about immigration. Thank you for your cooperation.

Genetic Slavery

Stone Age emotions. Medieval institutions. Godlike technology.

This is not a bug. It's the operating system. And the operating system is trying to kill you with cheeseburgers and nuclear weapons simultaneously.

The Selfish Gene Made You Illogical (It Was a Good Idea at the Time)

Richard Dawkins put it perfectly: "We are survival machines, robot vehicles blindly programmed to preserve the selfish molecules known as genes."[230]

Translation: You're a meat puppet controlled by chemicals whose entire business plan is "make more chemicals before something eats us."

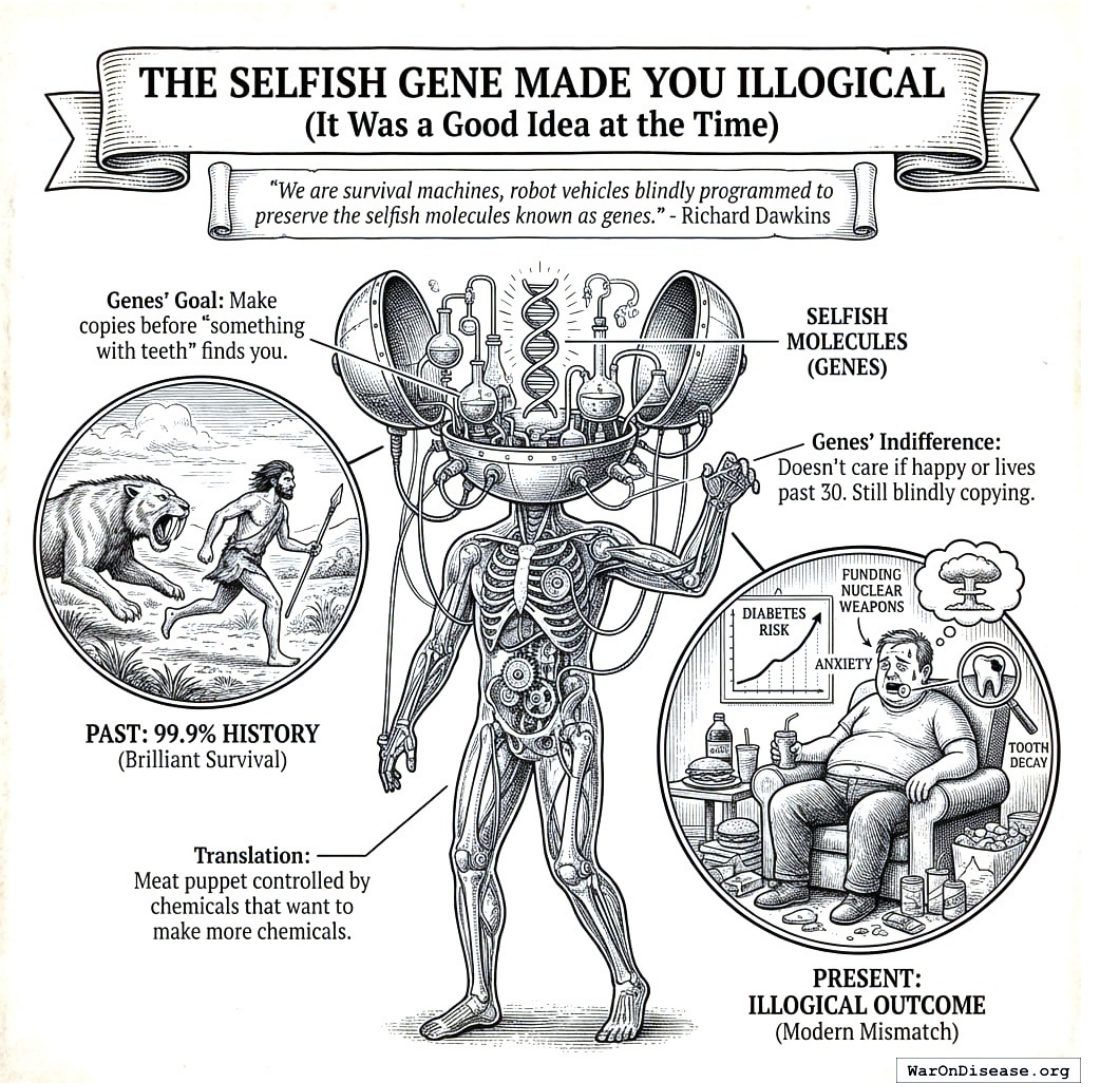


Figure 123: Your brain was designed for running from lions. Now it runs from emails. The hardware hasn't caught up.

Your genes don't care if you're happy. They don't care if you live past 30. They care about exactly one thing: making copies of themselves before something with teeth finds you.

For 99.9% of human history, this was brilliant engineering. Now it's why you eat an entire pizza at midnight, feel anxious about emails, fund nuclear weapons capable of ending all life, and slowly develop diabetes while your teeth fall out. The genes are still celebrating. You are not.

Part 1: Your Brain Was Optimized for a World That Doesn't Exist

The Scarcity Brain (Or: Why It's Hard to Stop Eating)

For 200,000 years, calories were rare. Finding a beehive full of honey wasn't "prediabetes in a tree." It was the difference between your children surviving winter or not existing anymore.

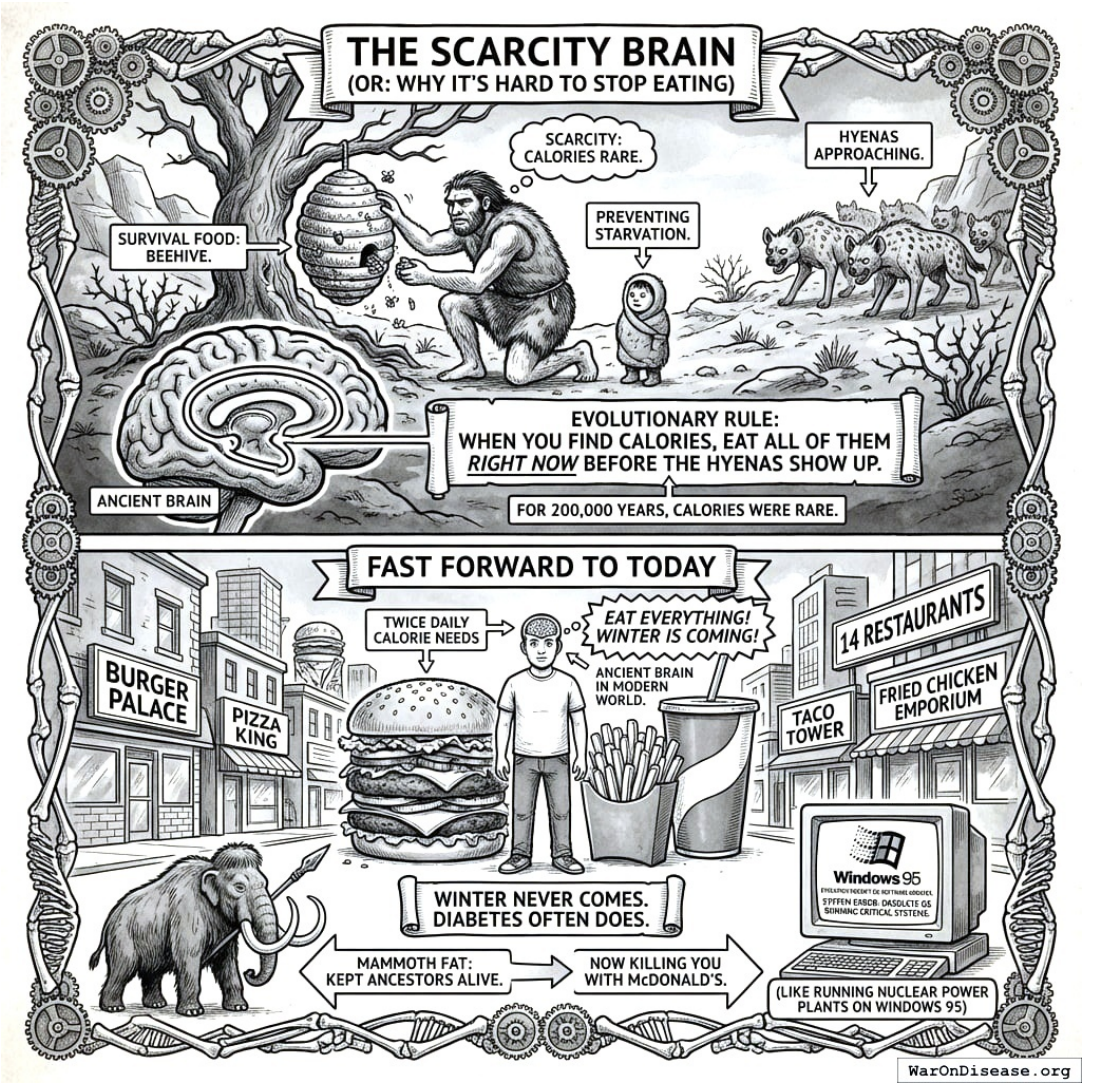


Figure 124: Your brain evolved in a world with no food. Now there's food everywhere. Your brain is very confused and also very fat.

So evolution programmed you with one simple rule: **When you find calories, eat ALL of them RIGHT NOW before the hyenas show up.**

Fast forward to today:

- You live within walking distance of 14 restaurants selling 3,800-calorie meals
- Each meal contains twice your daily calorie needs[231]

- Your ancient brain still screams: "EAT EVERYTHING! WINTER IS COMING!"
- Winter never comes. Diabetes often does.

The exact same brain that kept your ancestors alive by gorging on mammoth fat is now killing you with McDonald's. Evolution doesn't do software updates. You're running 200,000-year-old code on hardware that was designed for an environment that no longer exists. It's like running a nuclear power plant on Windows 95, except the nuclear power plant is your civilization and it's connected to the internet.

The Violence Module (Or: Why You Tend to Prefer Bombs Over Band-Aids)

15-30% of your ancestors died from violence[232]. Not disease. Not starvation. Other humans, smashing their heads with rocks over territorial disputes about berry bushes. You've since upgraded the rocks to intercontinental ballistic missiles, but the berry bush energy remains.

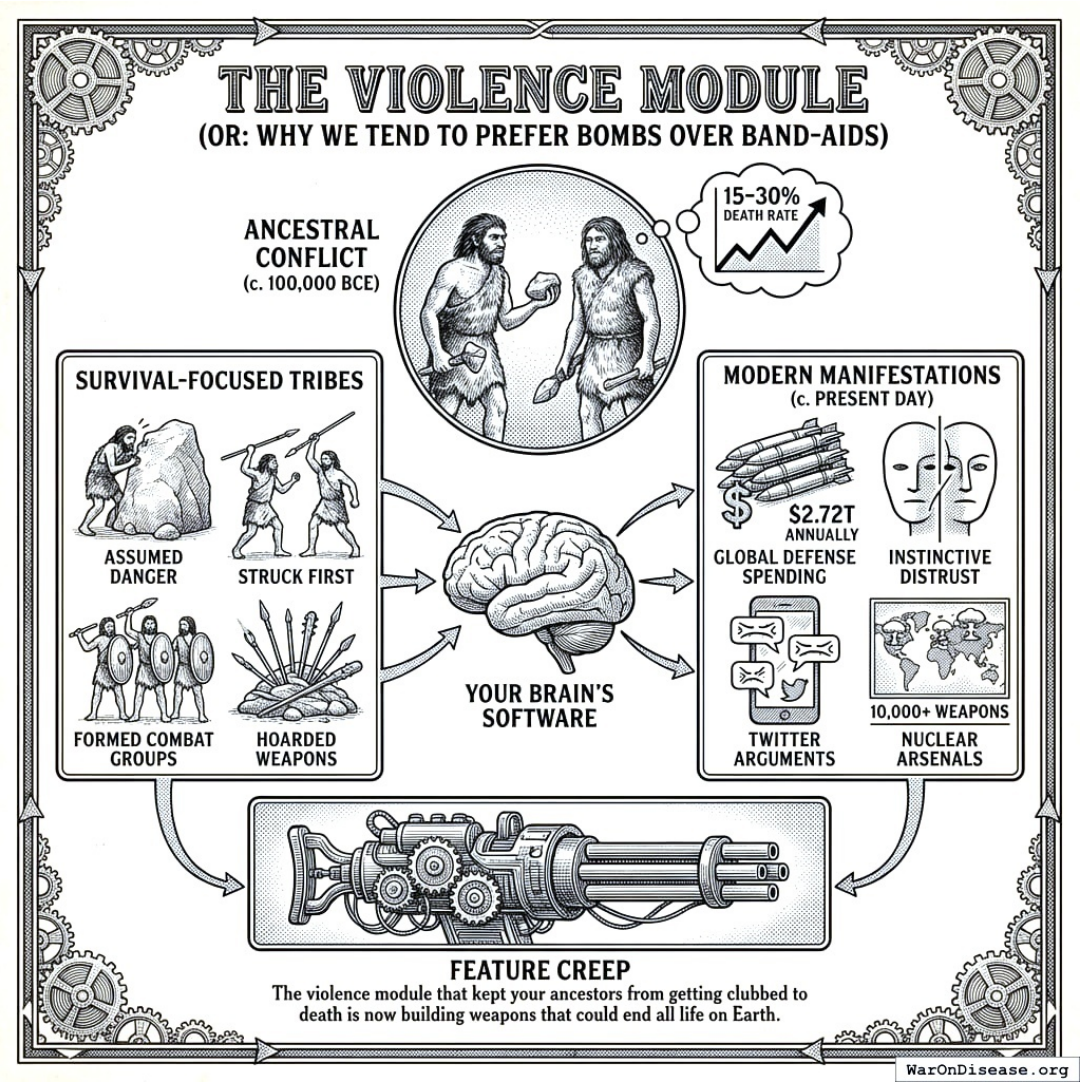


Figure 125: You used to hoard rocks. Now you hoard nuclear weapons. Evolution is a slow learner.

The tribes that survived weren't the peaceful, loving ones. They were the paranoid, survival-focused ones who:

- Assumed every stranger might want to kill them (often statistically accurate)
- Struck first when threatened (natural selection at work)
- Formed tight combat groups to kill other groups (teamwork!)
- Hoarded weapons obsessively (can never have too many pointy sticks)

Your brain is still running this exact software. That's why:

- Humanity spends $2.72T annually on weapons you'll probably never use
- You instinctively distrust people who don't look like your tribe
- Twitter arguments feel like actual combat (your amygdala can't tell the difference)
- Countries with 10,000 nuclear weapons[233] are worried they don't have enough

The violence module kept your ancestors from getting clubbed to death. Now it's building weapons that could end all life on Earth. Computer scientists call this "feature creep." Biologists call it "maladaptive." I call it "the reason I'm writing this book."

The Tribal Brain: Why Democracy is Struggling

Dunbar's number[234] says humans can maintain stable relationships with about 150 people. That's your entire social capacity. Your brain has 150 slots for caring about people, and you've filled most of them with coworkers you tolerate and celebrities who don't know you exist.

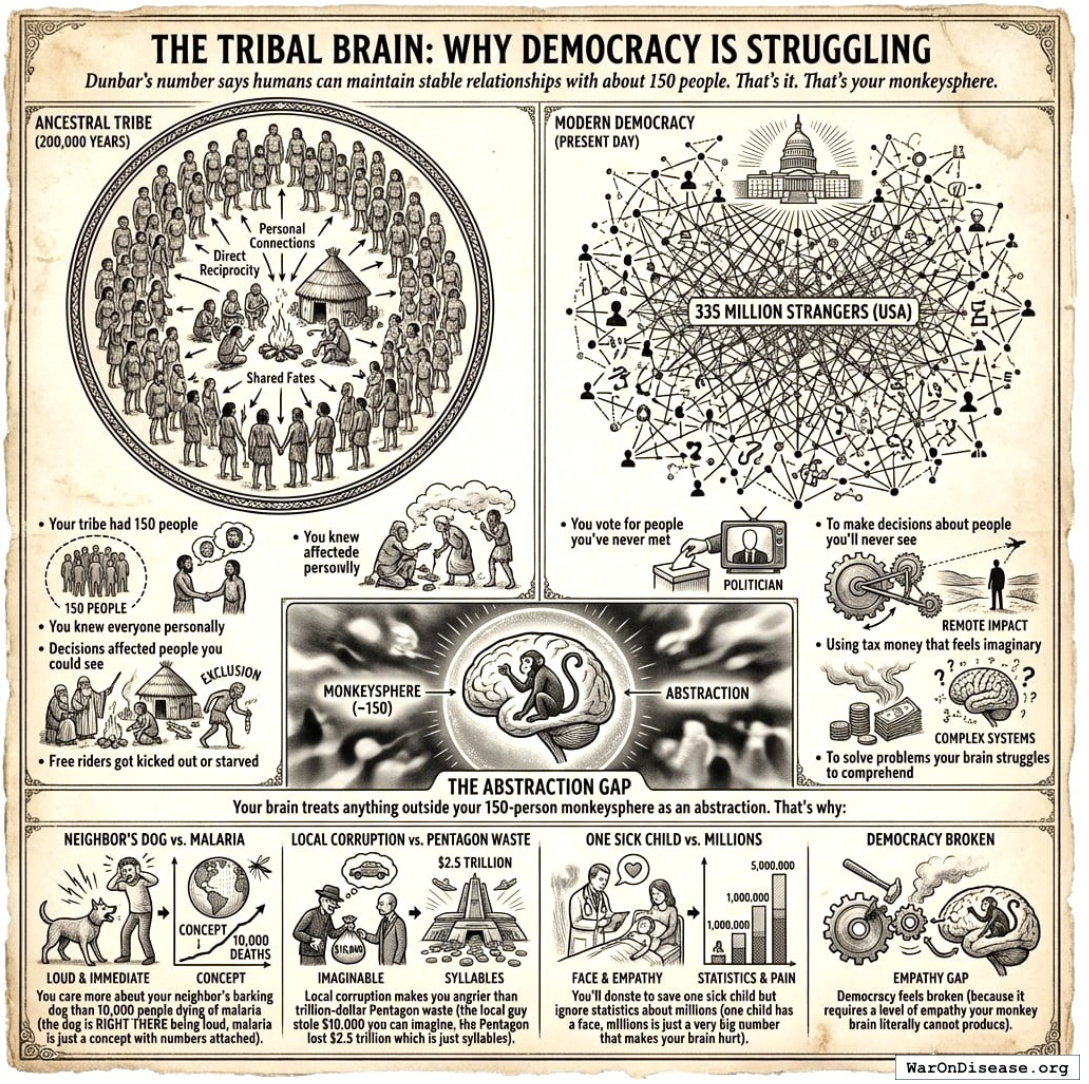


Figure 126: Your brain understands 150 people. Democracy has 330 million people. Your brain is still counting on its fingers.

For 200,000 years, this worked great:

- Your tribe had 150 people
- You knew everyone personally
- Decisions affected people you could see
- Free riders got kicked out or starved

Now you live in a democracy with 335 million strangers where:

- You vote for people you've never met
- To make decisions about people you'll never see
- Using tax money that feels imaginary
- To solve problems your brain struggles to comprehend

Your brain treats anything outside your 150-person monkeysphere as an abstraction. That's why:

- You care more about your neighbor's barking dog than 10,000 people dying of malaria (the dog is RIGHT THERE being loud, malaria is just a concept with numbers attached)
- Local corruption makes you angrier than trillion-dollar Pentagon waste (the local guy stole $10,000 you can imagine, the Pentagon lost $2.5 trillion which is just syllables)
- You'll donate to save one sick child but ignore statistics about millions (one child has a face, millions is just a very big number that makes your brain hurt)
- Democracy feels broken (because it requires a level of empathy your monkey brain literally cannot produce)

Part 2: Genetic Slavery is Literally Killing Us

We're Dying from Winning

Evolution prepared you for scarcity, predators, and violence[235]. You got abundance, safety, and Netflix. Your bodies responded with the biological equivalent of a computer trying to print a sandwich:

What Evolution Prepared For	What We Got	Result
Starvation	Unlimited calories	42.4% obesity rate[236]
Constant physical threats	Office chairs	Anxiety disorders
30-year lifespan	80-year lifespan	Bodies that fall apart at 40
Small tribes	Global society	Constant existential dread
Clear immediate dangers	Abstract future risks	Difficulty planning
Scarce mates	Dating apps	Paralysis from too much choice

Your genes succeeded spectacularly. Eight billion copies and counting. From evolution's perspective, this is an unqualified triumph.

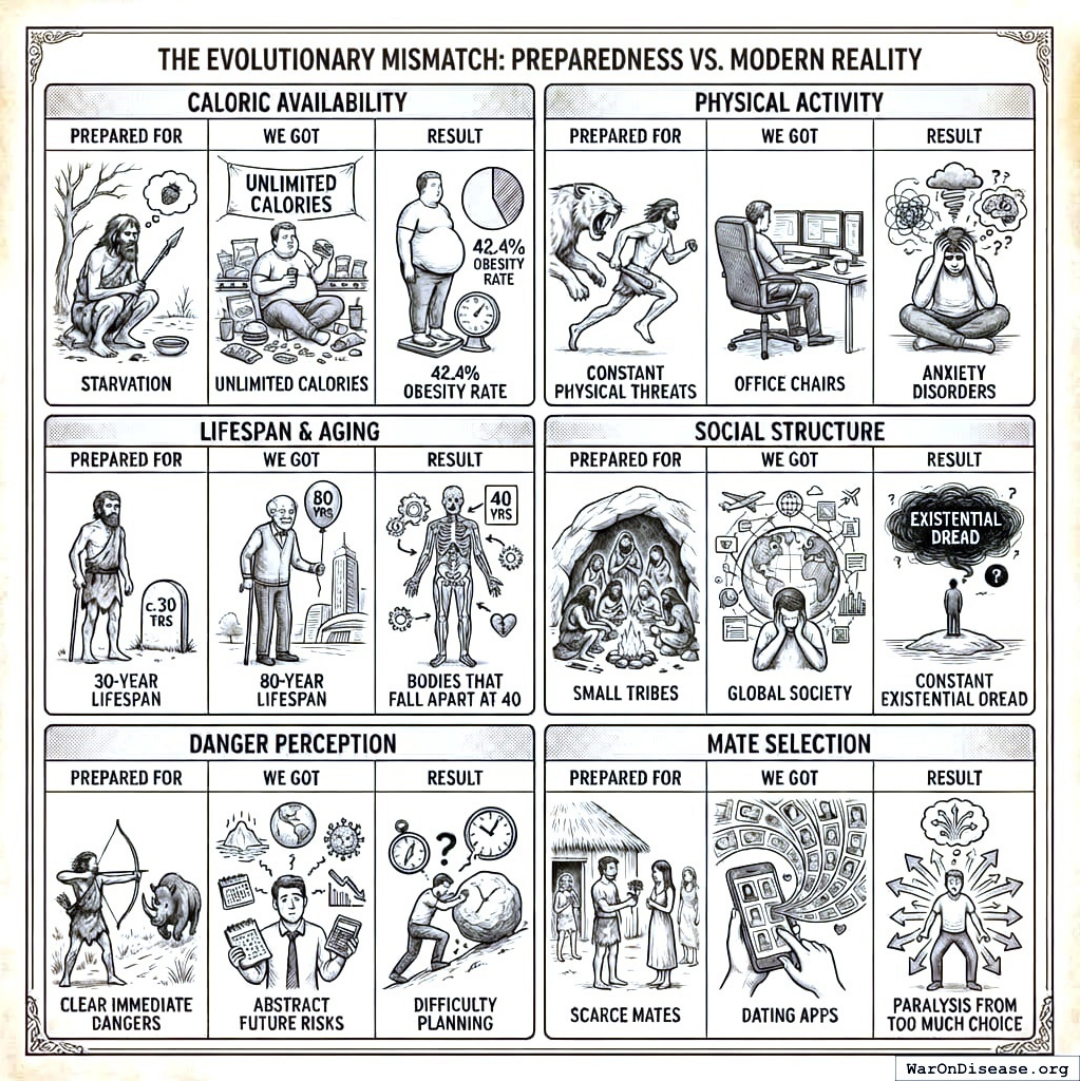


Figure 127: Evolution prepared you for a world that doesn't exist anymore. It's like training for a marathon and showing up to a chess tournament.

You're just the disposable meat robot they used to do it. Now you're confused why you can't stop eating Cheetos at 2 AM.

Living in the Most Irrational Timeline

Here's the cosmic joke: Humanity has never been safer, healthier, or more prosperous. You've also never been closer to accidentally ending everything. You solved poverty and invented nuclear war in the same century. Very on-brand.

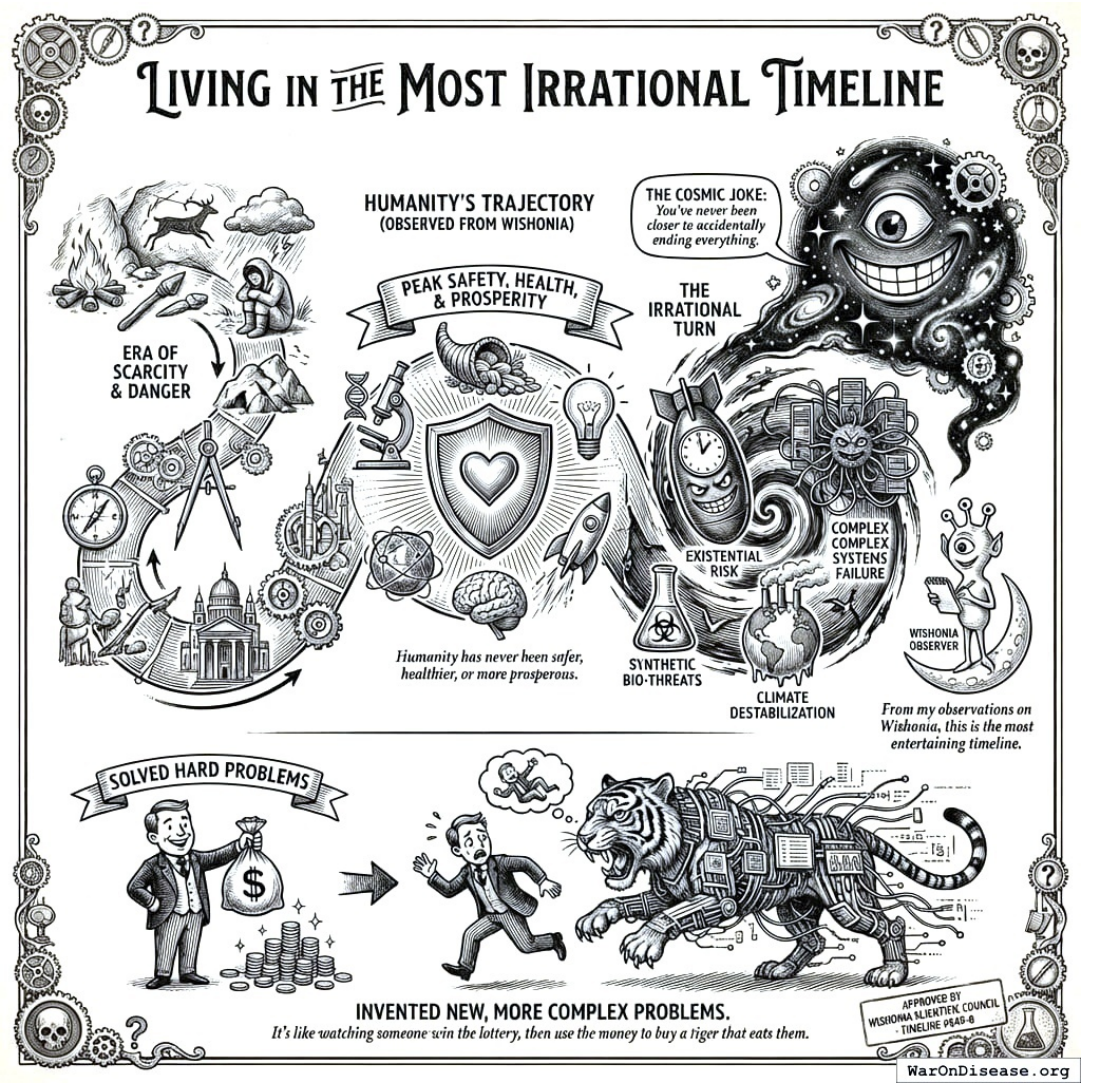


Figure 128: You got richer and invented new ways to die. Progress is going great.

You solved all the hard problems. Then you immediately invented worse ones to replace them. Like winning the lottery and using the money to buy a tiger.

Problems you solved

- Starvation (you throw away 40% of food because storing it is inconvenient)
- Predators (you murdered them into extinction, then put them in zoos so your children could see what you killed)
- Infant mortality (basically eradicated in developed countries, which makes the death rate in poor countries feel more optional and thus more tragic)
- Most infectious diseases (vaccines work despite what Facebook says)
- Dying at 30 (now you complain about turning 40, which your ancestors would consider a miracle worth celebrating daily)

New problems you invented with your big brains:

- Nuclear weapons (enough to end civilization 20 times because once wasn't enough)

- Climate change (you're terraforming your only planet by accident)
- Antibiotic resistance (10 million deaths annually by 2050[170] because you gave antibiotics to cows)
- AI that might become sentient and decide you're the problem (the AI would be correct)
- Social media (voluntary psychological torture you pay for with attention)

Humanity is a toddler who found the nuclear launch codes. Godlike technological power, hamster-level impulse control. On most planets, civilizations develop wisdom before weapons. Yours did the opposite and seems quite pleased about it.

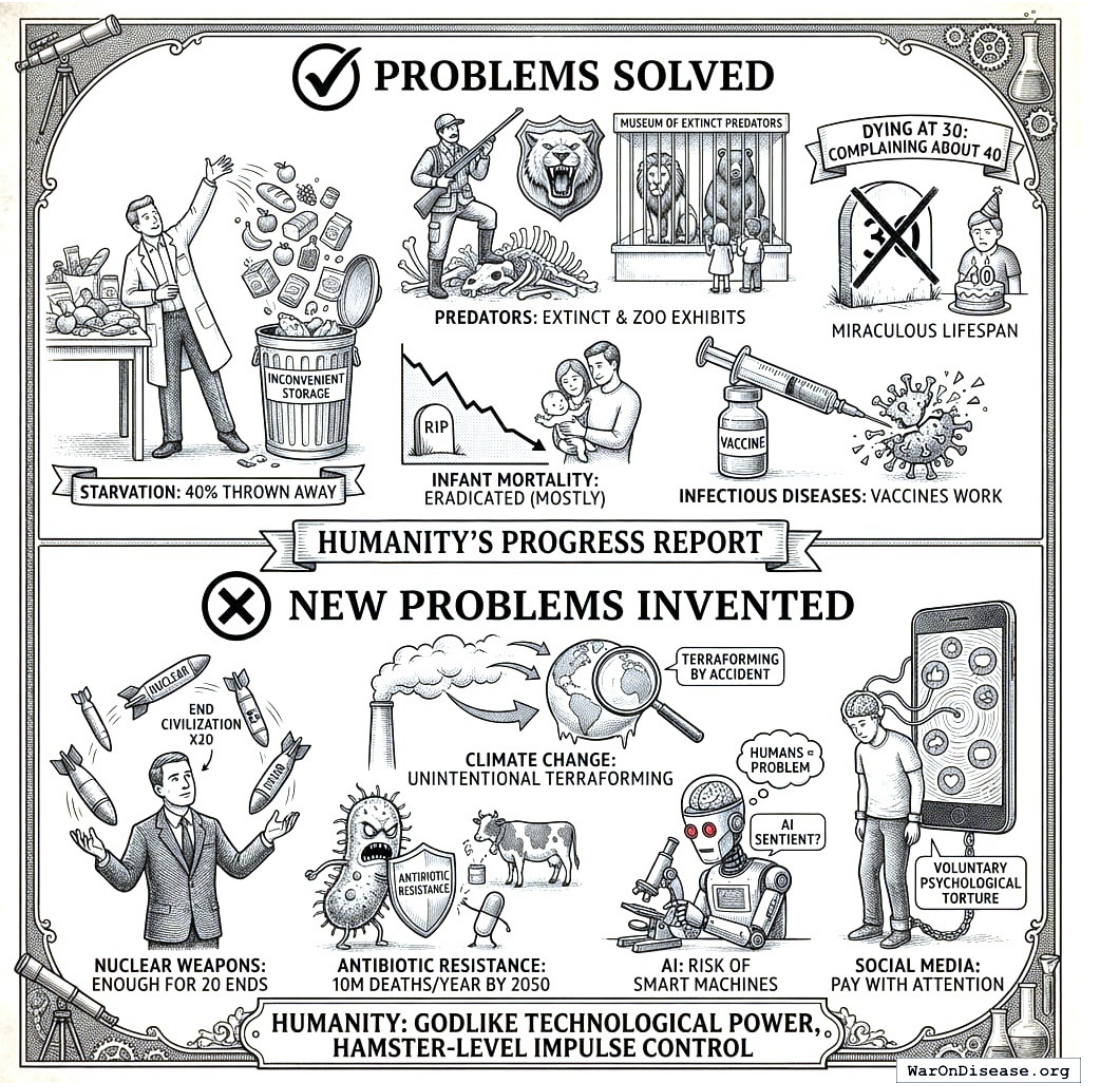


Figure 129: You conquered nature. Then you built bombs that could end nature. You're very good at solving problems by creating worse problems.

Part 3: Why You Can't Just "Be Better"

Your conscious mind controls maybe 5% of your decisions[237]. The other 95% is your ancient lizard brain running software older than agriculture. You think you're the pilot. You're actually

a passenger who occasionally gets to suggest a direction.

This scales to civilization. The fear of violent death is older than language. The fear of slow death from disease? Your brain files that under "boring, deal with later." Later never comes. Neither does the cure.

That's why you spent $2.72T on weapons while cancer research got pocket change[238].

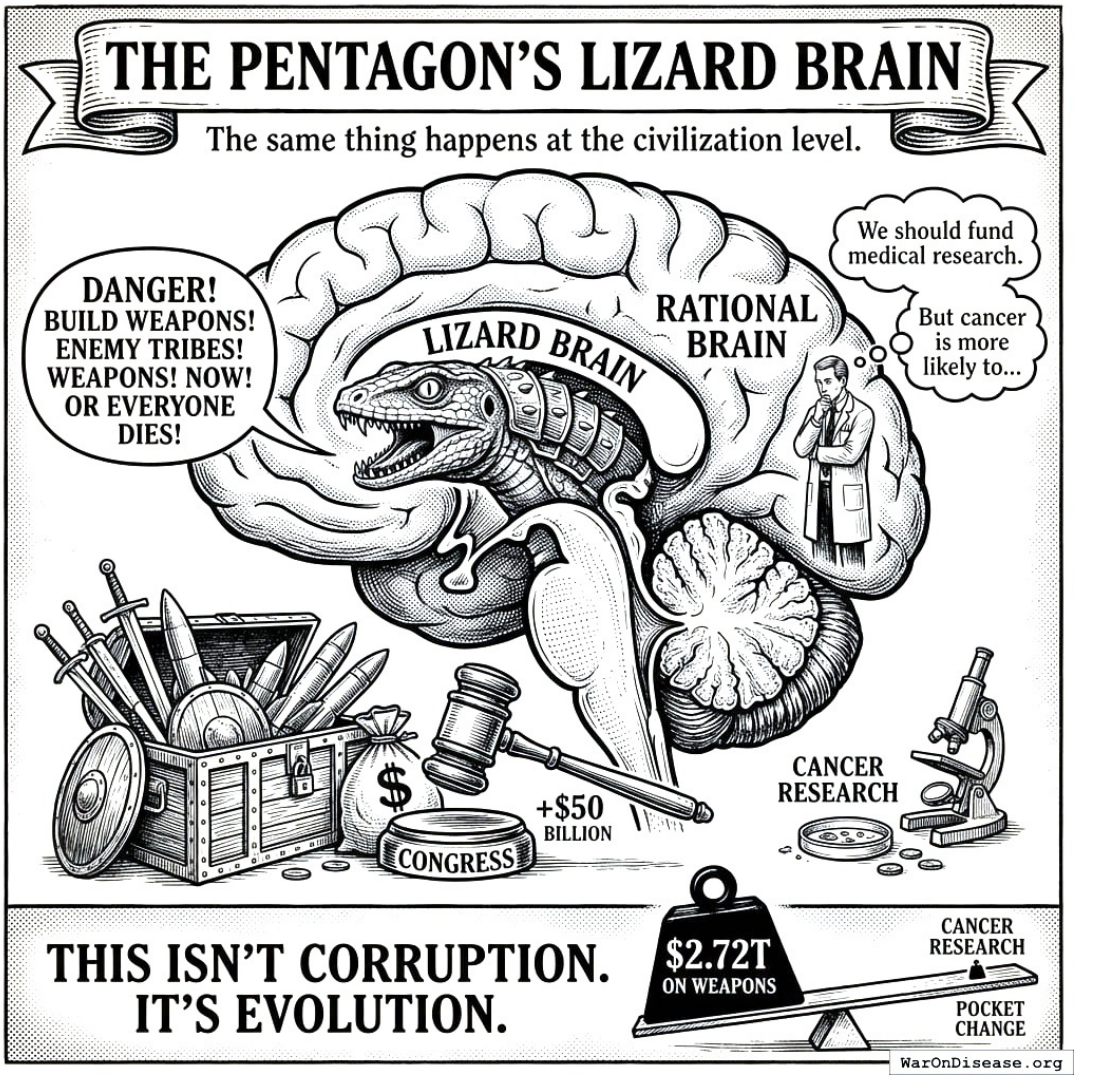


Figure 130: Lizard brain: spend trillions on bombs for scary foreigners. Rational brain: spend millions on medicine for diseases killing millions. You listen to the lizard.

Part 4: The Prison We Built Ourselves

You Vote for Monkeys in Human-Skin Suits

Democracy asks your stone-age brain to make civilization-level decisions. It goes exactly as well as asking a labrador retriever to do your taxes.

You vote based on:

- Who looks stronger (alpha male bias - your brain thinks the election is a wrestling match)
- Who your tribe likes (social proof - if the clan approves, must be good)
- Who makes you feel safe (fear sells better than policy ever will)
- Who you'd have a beer with (relevance: zero, but your brain insists this matters for nuclear policy decisions)

You don't vote based on:

- Complex policy analysis (too many words, brain hurts)
- Long-term thinking (your brain stops caring after next winter)
- Statistical reality (numbers are abstract, feelings are real)
- Actual competence (boring, where's the tribal signaling?)

You elect leaders using the same brain circuits your ancestors used to pick the guy with the biggest club.

The Military-Industrial Cortex

Your brain's fear center (amygdala) is directly connected to your voting finger. Politicians know this.

Say "terrorism" and your lizard brain overrides everything:

- More people die from falling out of bed than terrorism[239]
- You're 1,000x more likely to die from heart disease[162]
- But terrorism *feels* scarier, because evolution optimized your fear response for things with faces, not things with cholesterol

So you spend trillions on defense against threats that barely register statistically, while the diseases actually killing you get a fraction of the budget. Your bed is more dangerous than Al-Qaeda, but nobody's declared a War on Furniture.

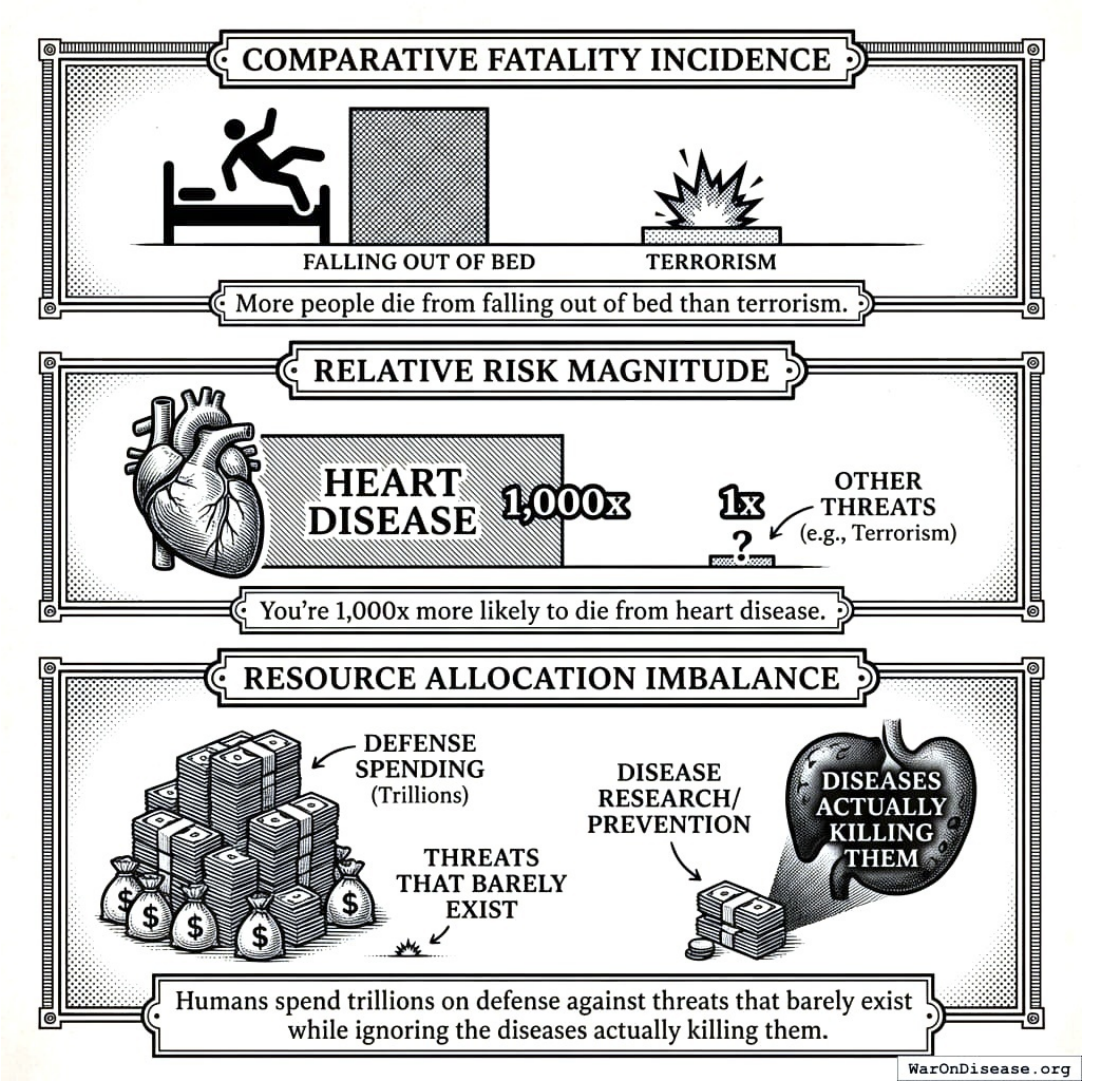


Figure 131: Heart disease kills 700,000 Americans annually. Terrorism kills about 20. You spend 1,000 times more fighting terrorism. Math is hard.

Part 5: Breaking the Chains

Every single one of you is going to die. From the most powerful president to the lowliest pauper, you face a life of gradually escalating suffering until it ends. This is not a warning. It's a weather report.

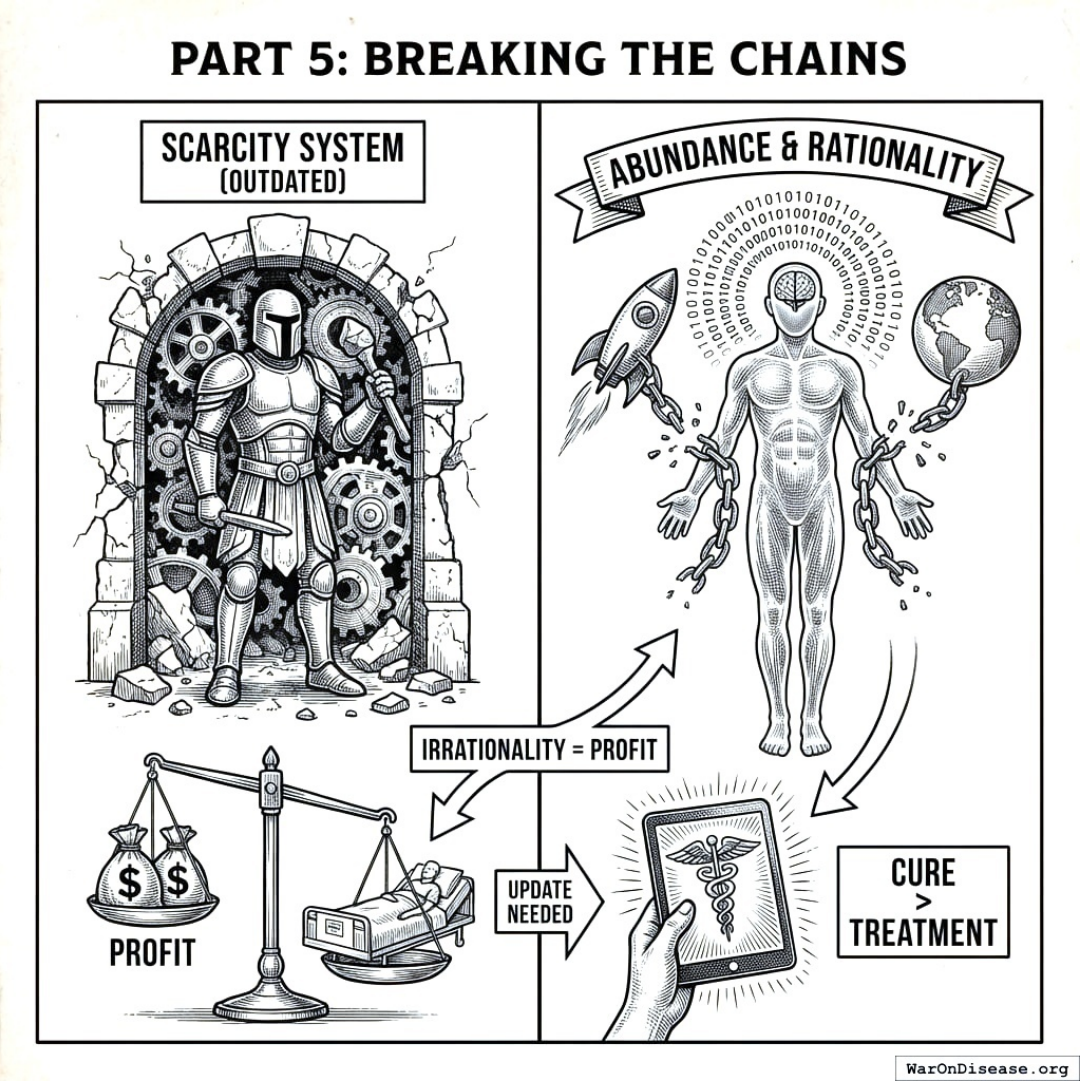


Figure 132: Current system: profit from sickness and war. Alternative system: profit from cures and peace. You really had to think about which one to pick.

But now? You live in a world of abundance and nuclear weapons. You can feed everyone twice over, but you'd rather burn grain to keep prices high. You can cure diseases, but you'd rather sell treatments forever (cured customers don't come back; bad for quarterly earnings). The software running human civilization is 10,000 years out of date, and the bugs are literally killing you.

Why don't you update the software? You could be immortal space wizards. Instead you're cave-dwelling murderers with better tools.

Because the current system makes irrationality profitable. Spectacularly profitable. Every bomb makes someone rich. Every missile funds a yacht. Every war creates a billionaire. Disease is profitable too. Not curing it, treating it. Insulin costs $300 a vial[226] because dead diabetics don't buy insulin. But cured diabetics don't either. So you keep them barely alive. It's good business.

The people making money from war and disease aren't evil. They're just rational actors in

a system that rewards the wrong things. You can't change human nature. Two hundred thousand years of evolution doesn't care about your TED talk. But you can create economic systems that make curing people more profitable than killing them. That's the only upgrade your species has ever responded to.

Part 6: Breaking Free from Your Programming

You're not broken. You're just running 200,000-year-old software on hardware that was designed for a completely different world. Your brain evolved to live 30 years, feed 5 people, avoid tigers, and fight neighboring tribes. Expecting it to handle nuclear policy, climate change, and a 24-hour news cycle is like expecting a calculator to run a space program. The calculator isn't broken. You're just asking it to do something it was never built for.

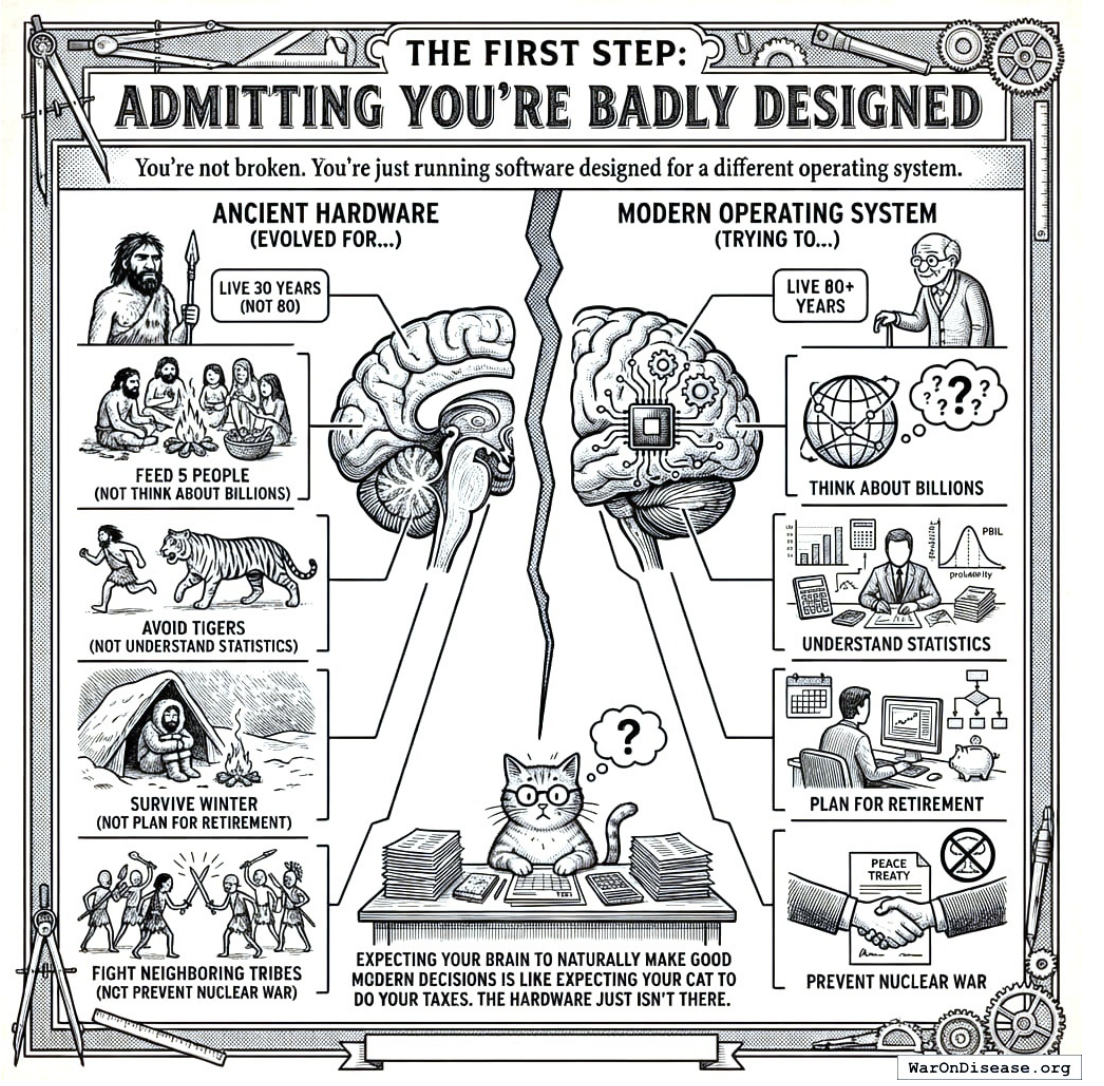


Figure 133: Your brain evolved to find berries and avoid tigers. Now it has to understand tax law and cryptocurrency. It is not going well.

You can't fight 200,000 years of evolution. But you can hack it. That's what a 1% treaty does.

Instead of asking people to be rational (impossible), use their irrational impulses:

- **Greed**: Make curing disease more profitable than building bombs
- **Fear**: Make politicians more scared of voters than lobbyists
- **Tribalism**: Create an us-vs-disease tribe instead of us-vs-them
- **Social proof**: Get 3.5% participation so others follow
- **Immediate rewards**: Pay people cash to join medical trials

Your genes enslaved you in brains that want sugar, fear strangers, and cannot comprehend statistics. But they also gave you the ability to see the prison. No other animal can think: "Wow, my instincts are completely illogical." That's uniquely human. Use it.

A 1% treaty doesn't ask you to be better. It assumes you won't be, and redirects your worst impulses toward not dying. It's the only plan that works for the species you actually are, rather than the species you wish you were.

The Solution

Solution Overview

Now you understand the problem: everyone is dying while you build missiles. Time to learn how to fix it.

Your solution has three parts:

1. A 1% treaty (stealing money from the murder budget)
2. A 1% Treaty Fund with algorithmic governance (so no one can steal it back)
3. A decentralized framework for drug assessment (making medicine 44.1x times cheaper)

Take money from death, give it to life. The tricky part is convincing humans, who historically prefer the death option.

A 1% Treaty

Here's how you redirect $27.2B per year from bombs to medicine:

You ask every nation on Earth to cut military spending by 1%. Just 1%. They keep the other 99% for wars and parades and whatever else militaries do when they're not accidentally losing trillions.

One percent is a rounding error. It's what the Pentagon loses between couch cushions.

Everyone cuts simultaneously. Nobody loses "relative power," which is the thing military people care about when they're not busy caring about flags and saluting.

I asked a general if losing 1% of weapons would weaken national security. He said yes. I asked if having 1% fewer weapons pointed at you by every enemy would make you safer. He stopped talking to me.

The math is simple: If everyone has 1% fewer weapons, the balance stays exactly the same, except now there are 1% fewer weapons total.

What You Buy With 1% Less War

$27.2B funds:

- 54,000 pragmatic clinical trials at $500,000 each (the cheap way)
- Or 27 million patients in trials at $1K each
- Or 540 new drug approvals (current rate: 50 drugs/year)
- Or curing 10-20 rare diseases completely in Year 1
- Or preventing 180,000 deaths annually

That money splits three ways. 80% goes to clinical trials. 10% goes to investors. 10% goes to political incentives. The full allocation breakdown explains why each slice exists.

They say you can't put a price on human life. But apparently the price is somewhere south of pet food. That seems like it should be revised upward (or you should admit you value dogs more than humans, which honestly might be fair).

The 1% Treaty Fund

Once the 1% Treaty is ratified, that $27.2B per year flows into a **1% Treaty Fund**. It's a treasury with no CEO, no board, and no one to corrupt. Money flows directly to patients and researchers via algorithmic rules, not through any intermediary organization.

The governance protocol (sometimes called a "decentralized institute of health" or DIH) is the opposite of the NIH. Instead of 200 people in a building guessing what to fund and giving grants to their college roommates, smart contracts hold the treasury. Patients choose which trials to join. Funding flows automatically to researchers based on patient enrollment. Trials that work get more patients and more funding. Trials that don't work get defunded, which is apparently a concept so radical it took your species 80 years to consider.

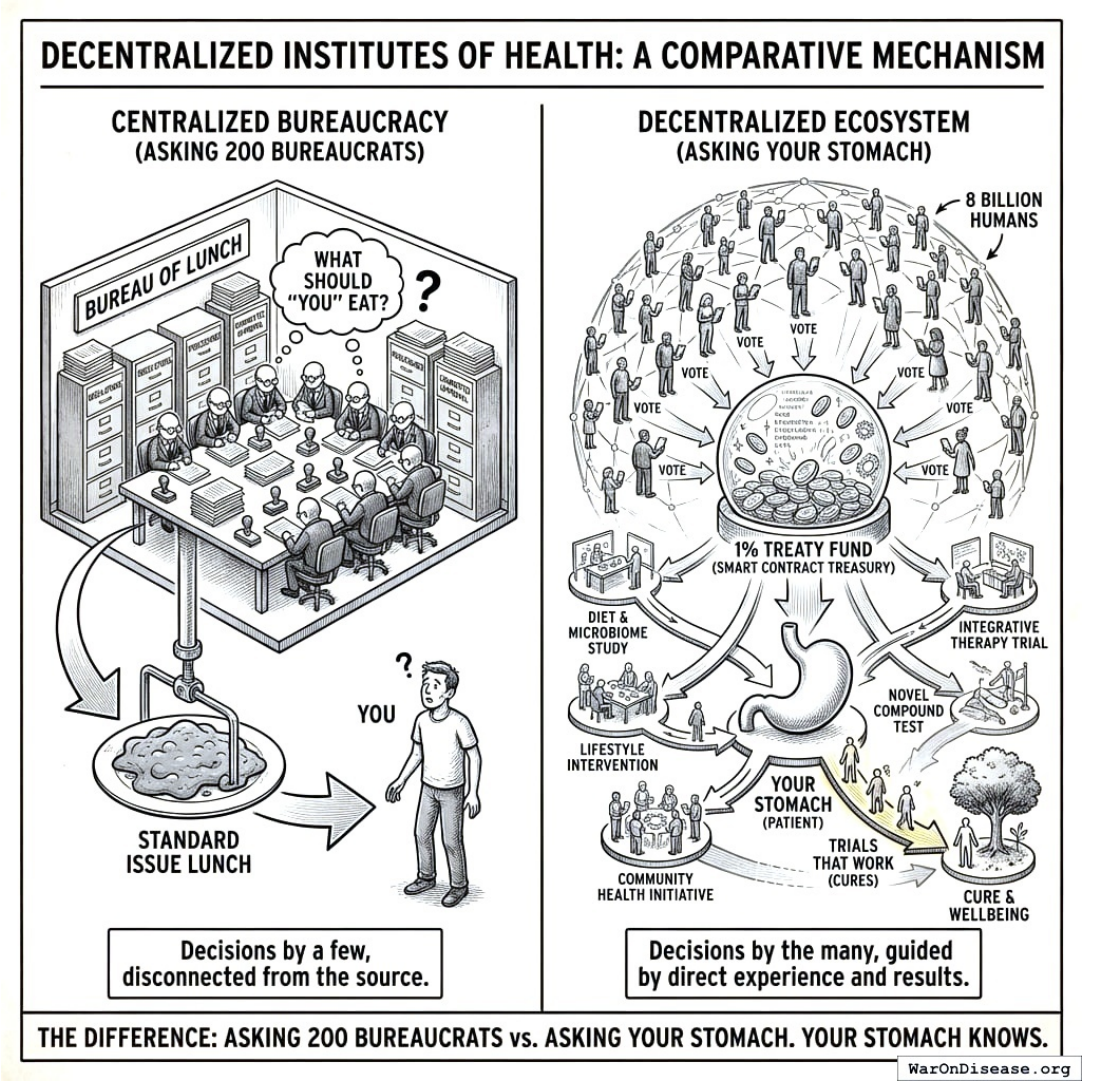


Figure 134: Money goes in, cures come out, repeat

Wishocracy

Wishocracy is how you let 8.00 billion of people control a budget without everyone killing each other in meetings.

Anyone can propose how to spend the money. The app shows you random pairs of proposals. You swipe left or right. Everyone's swipes get aggregated using math. Money flows automatically to top priorities. No committee. No gatekeepers. Just billions of micro-decisions that add up to what humanity actually wants, not what 200 people in suits think humanity wants.

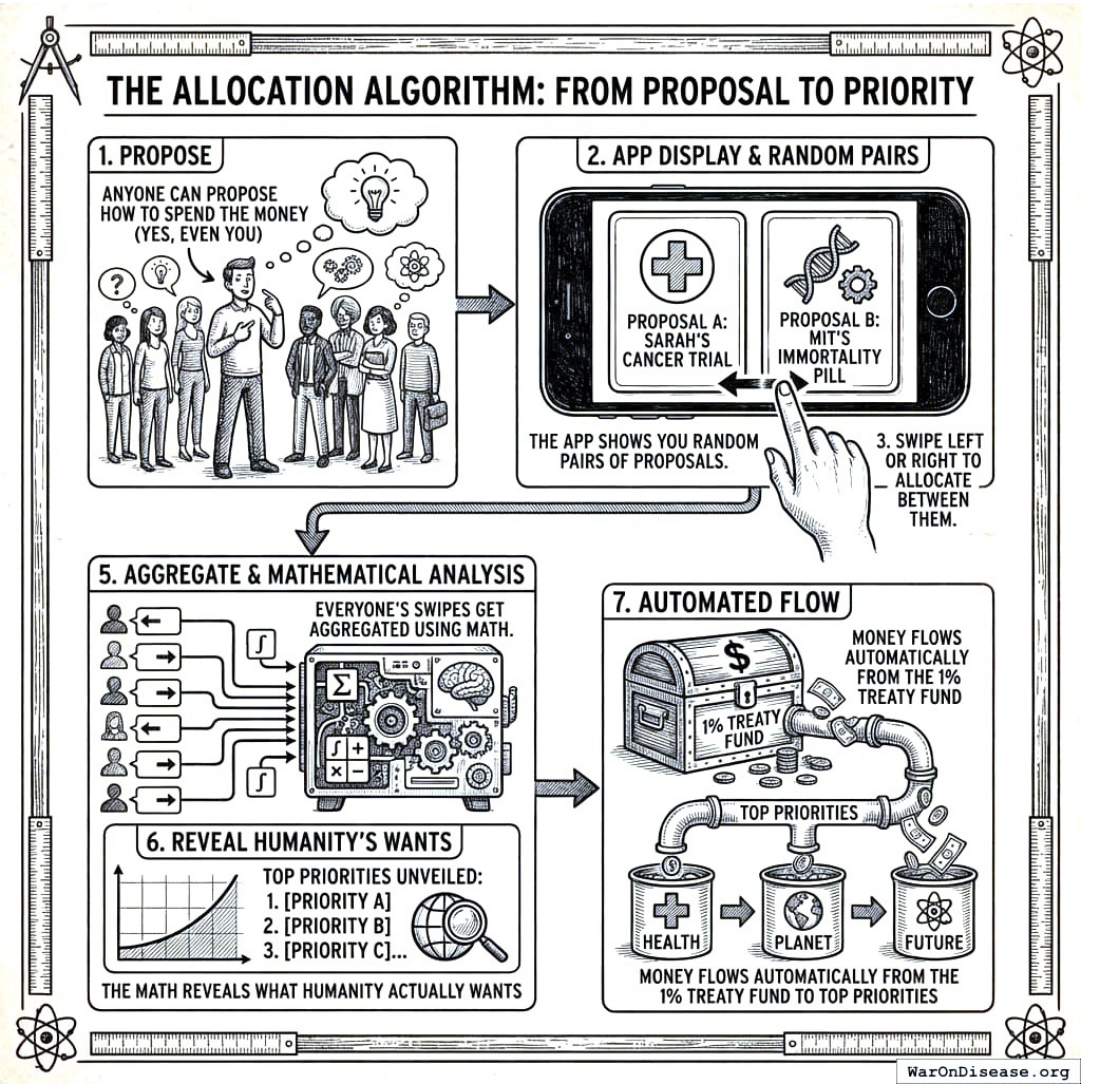


Figure 135: Swipe right for immortality

Your Decentralized Framework for Drug Assessment

The FDA currently makes drugs 44.1x times more expensive than necessary. Your decentralized framework for drug assessment (dFDA) does three things:

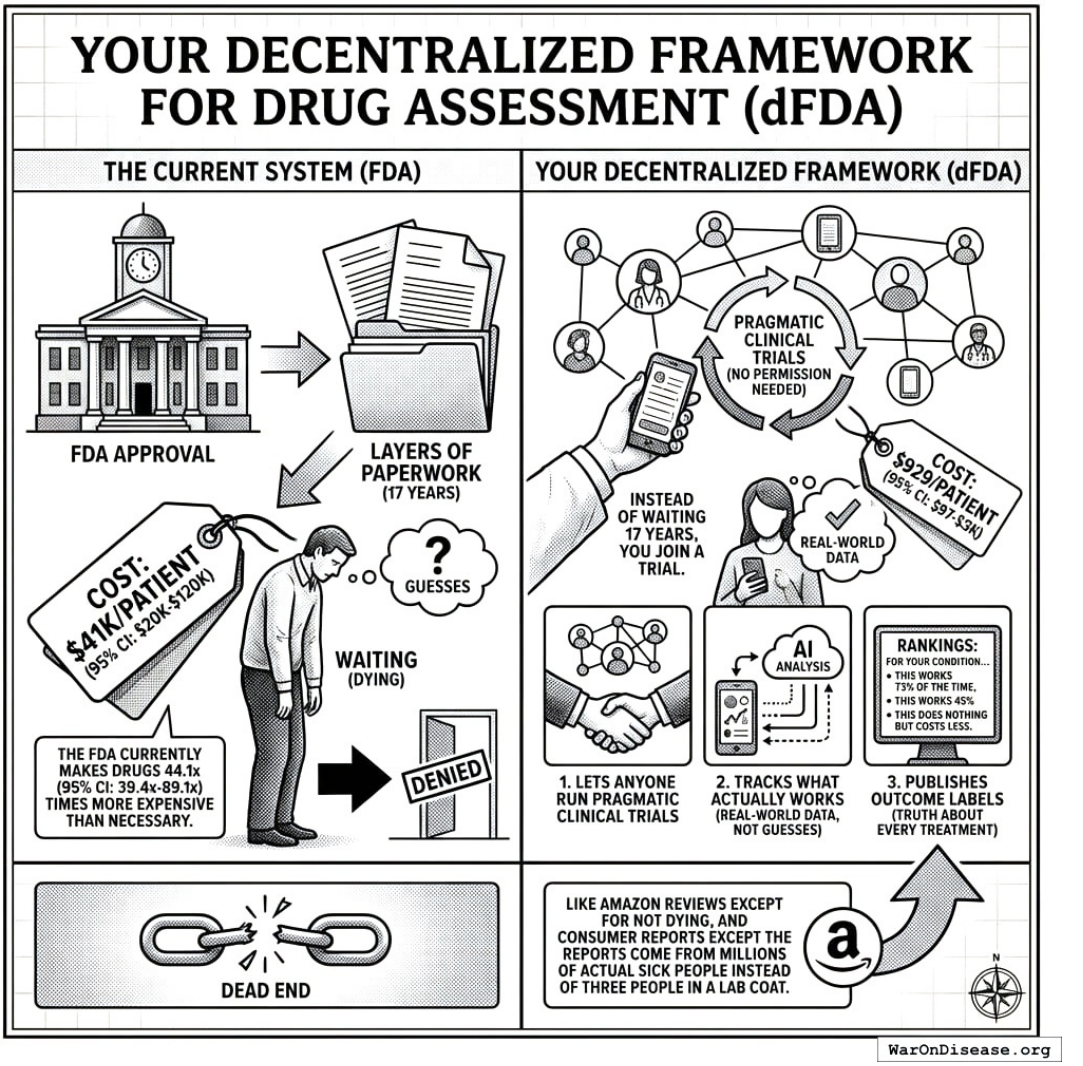


Figure 136: FDA: slow and expensive. dFDA: fast and cheap

1. **Lets anyone run pragmatic clinical trials** (no permission needed)
2. **Tracks what actually works** (real-world data, not guesses)
3. **Publishes outcome labels** (truth about every treatment)

Instead of waiting 14 years from discovery to patient while you die, you join a trial. It costs $929 instead of $41K. You report outcomes through your phone. The AI analyzes millions of data points. The framework publishes rankings: "For your condition, this works 73% of the time, this works 45%, this does nothing but costs less."

It's like Amazon reviews except for not dying.

Outcome labels replace "ask your doctor" with actual facts. "Improves memory 35%. Reduces symptoms 60%. Causes headaches 9% of the time. Based on 50,000 real patients like you." Just truth. No marketing. No 40-page legal documents written by lawyers having seizures.



Figure 137: Warning labels vs. labels that actually help

Researchers set their own price. Patients choose which trials to join. Money flows automatically. Markets decide, not committees. Sick people, guided by their doctors and data, choose what gets funded. Not bureaucrats. Not grant writers. Actual humans who need actual cures.

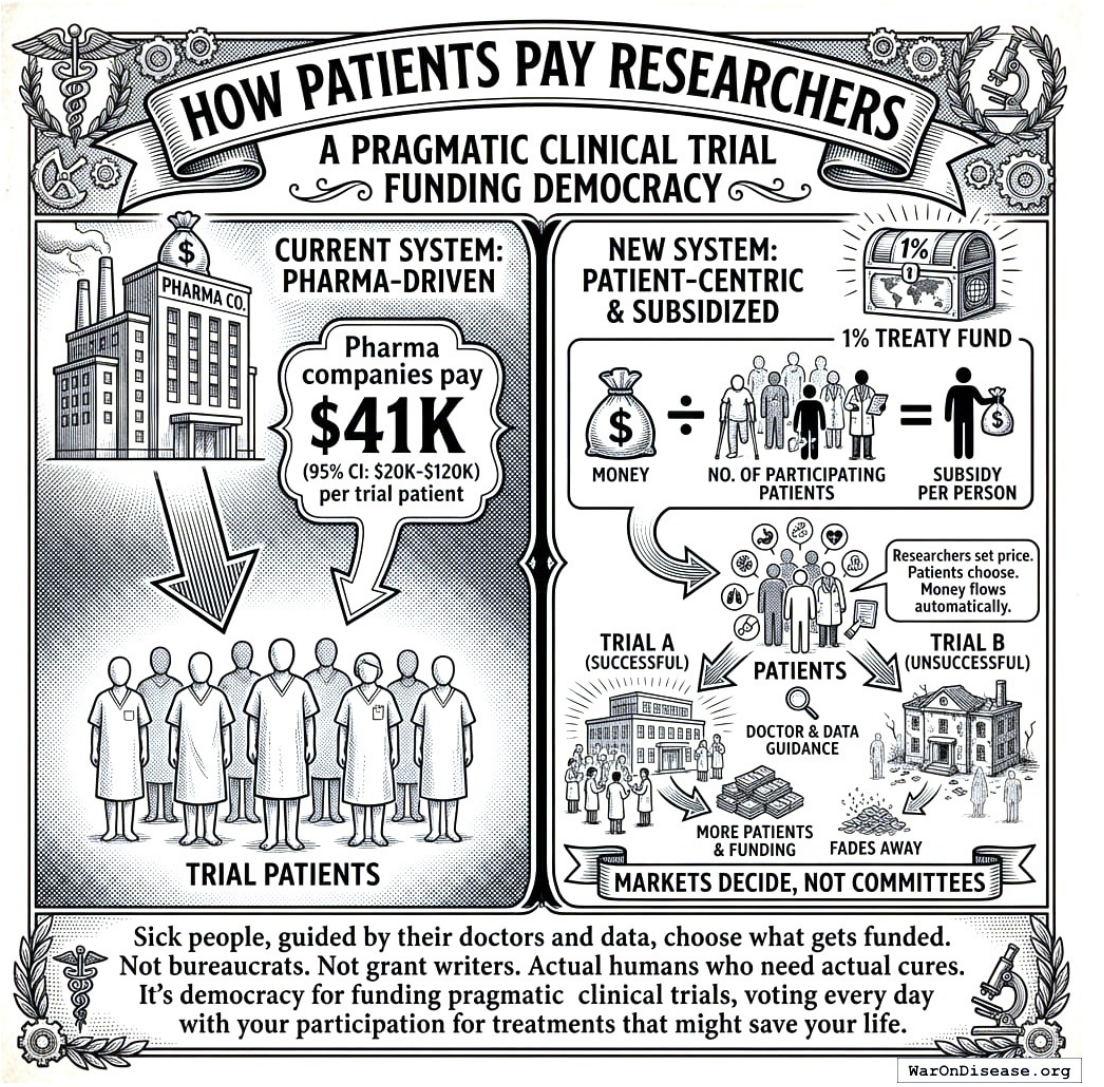


Figure 138: Pharma chooses trials vs. patients choose trials

Who Wins

The solution only works if everyone wins by winning. Here's who gets what:

Defense contractors: Keep 99% of budget + 272% returns on bonds **Pharmaceutical companies:** Patients pay them instead of vice versa **Politicians:** Campaign donations + not losing elections **Insurance companies:** They want you either dead or immortal, anything but expensively lingering. Cures help. **Billionaires:** 272% returns + legacy + naming rights **Regular people:** Subsidized treatment + direct democracy + not dying

Notice that everyone's selfish reason for participating happens to save humanity. The system doesn't require anyone to stop being selfish. It just redirects selfishness toward curing diseases instead of building bombs. It's like installing a fire alarm that also makes coffee. You're going to use it even if you don't care about fire safety.

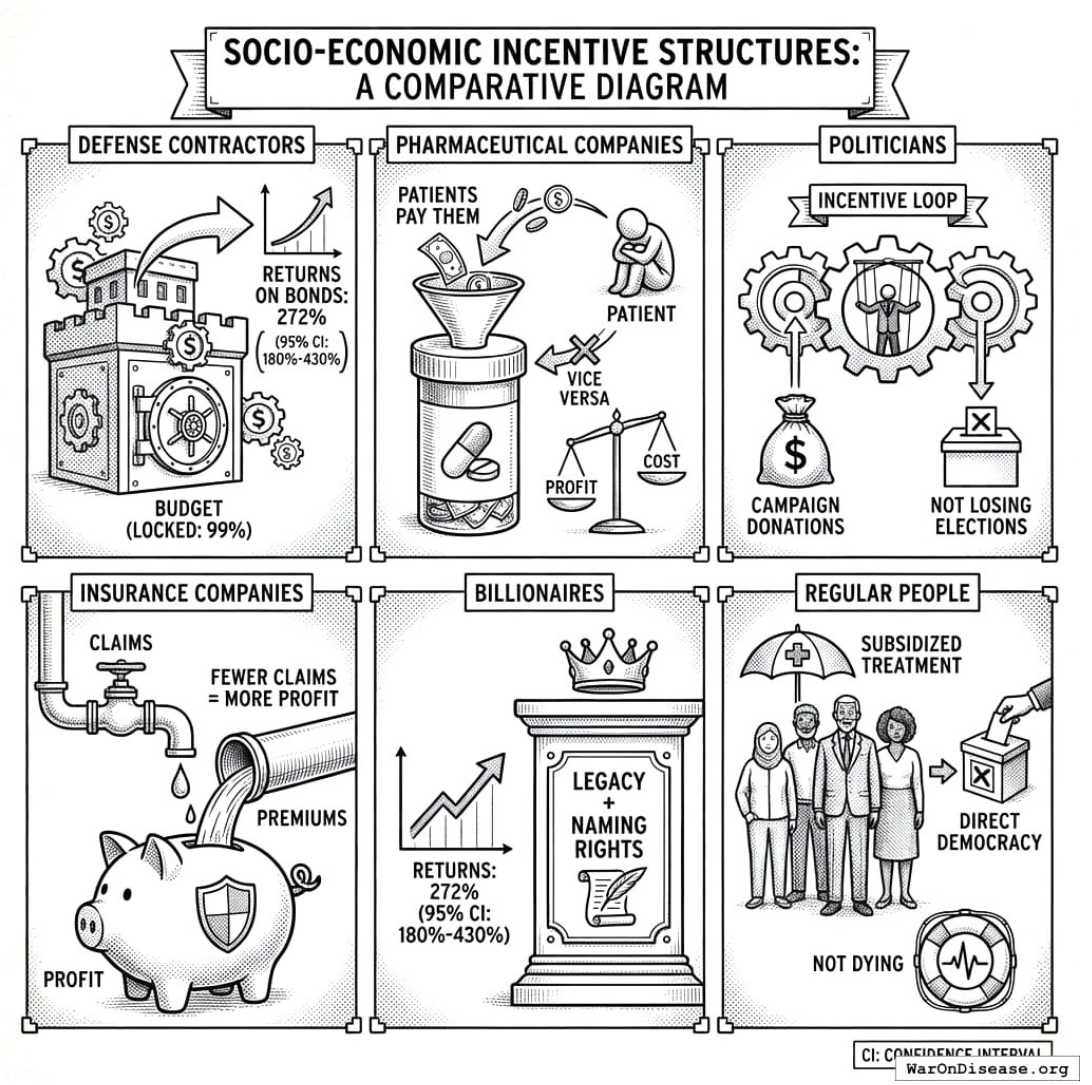


Figure 139: Everyone gets what they want.

The Scaling Engine

The goal isn't 1%. The goal is 100%. The 1% treaty is just the door, not the destination.

The 10% going to Incentive Alignment Bonds creates a perpetual political machine that pushes for expansion. When 1% passes, $2.72B/year flows to people whose entire financial interest is getting the treaty to 2%. When 2% passes, the pressure doubles. The political pressure for expansion *accelerates* with each success. This creates a ratchet that can eventually redirect all military spending from war to health.

VICTORY Incentive Alignment Bonds are the specific instrument. They align investors (10% returns), politicians (10% career incentives), and patients (80% cures) with the same outcome.

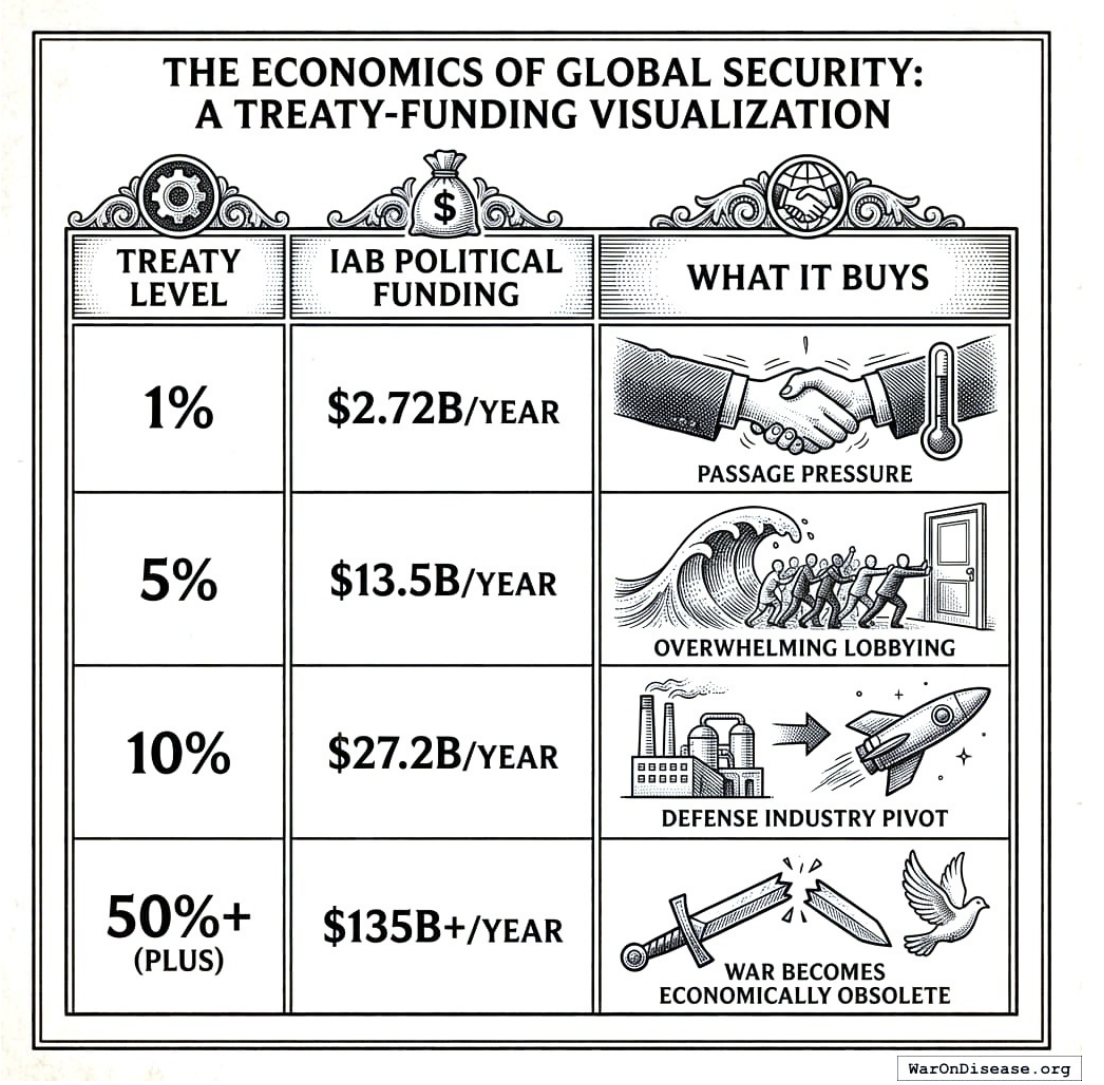


Figure 140: When you give people money to cure diseases, they get more money to cure more diseases.

The War on Disease

You're declaring war on disease. But unlike previous wars on abstract concepts (drugs, terror, poverty, Christmas), this one will actually work. You're using markets instead of bureaucracy.

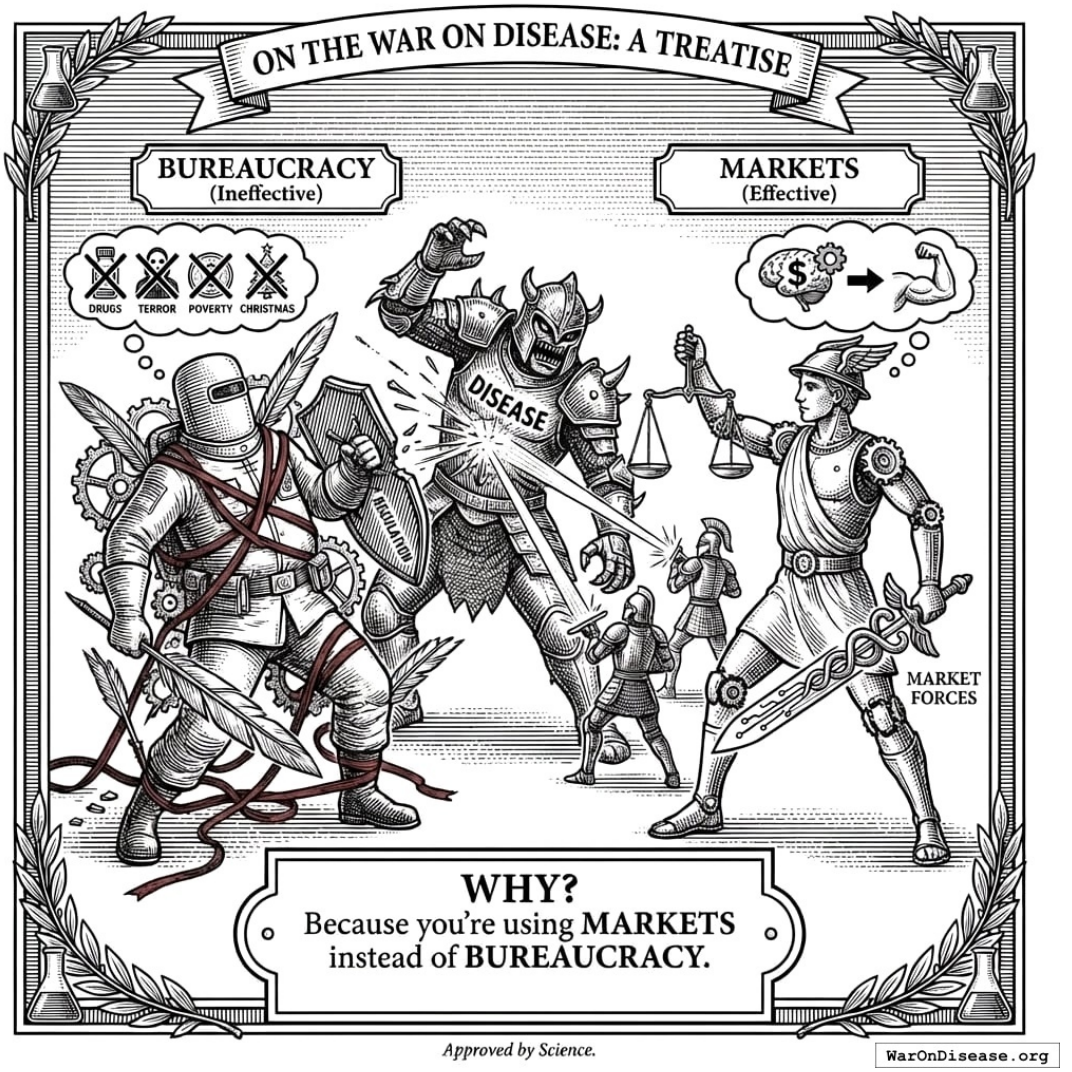


Figure 141: Your Wars on Drugs and Terror kept making more drugs and terror.

Previous wars built bureaucracies that needed the problem to exist to justify their existence. This war creates a market that profits from solving the problem. The difference is like hiring a plumber who gets paid by the hour versus one who gets paid when your toilet works. One of them is going to take a lot longer.

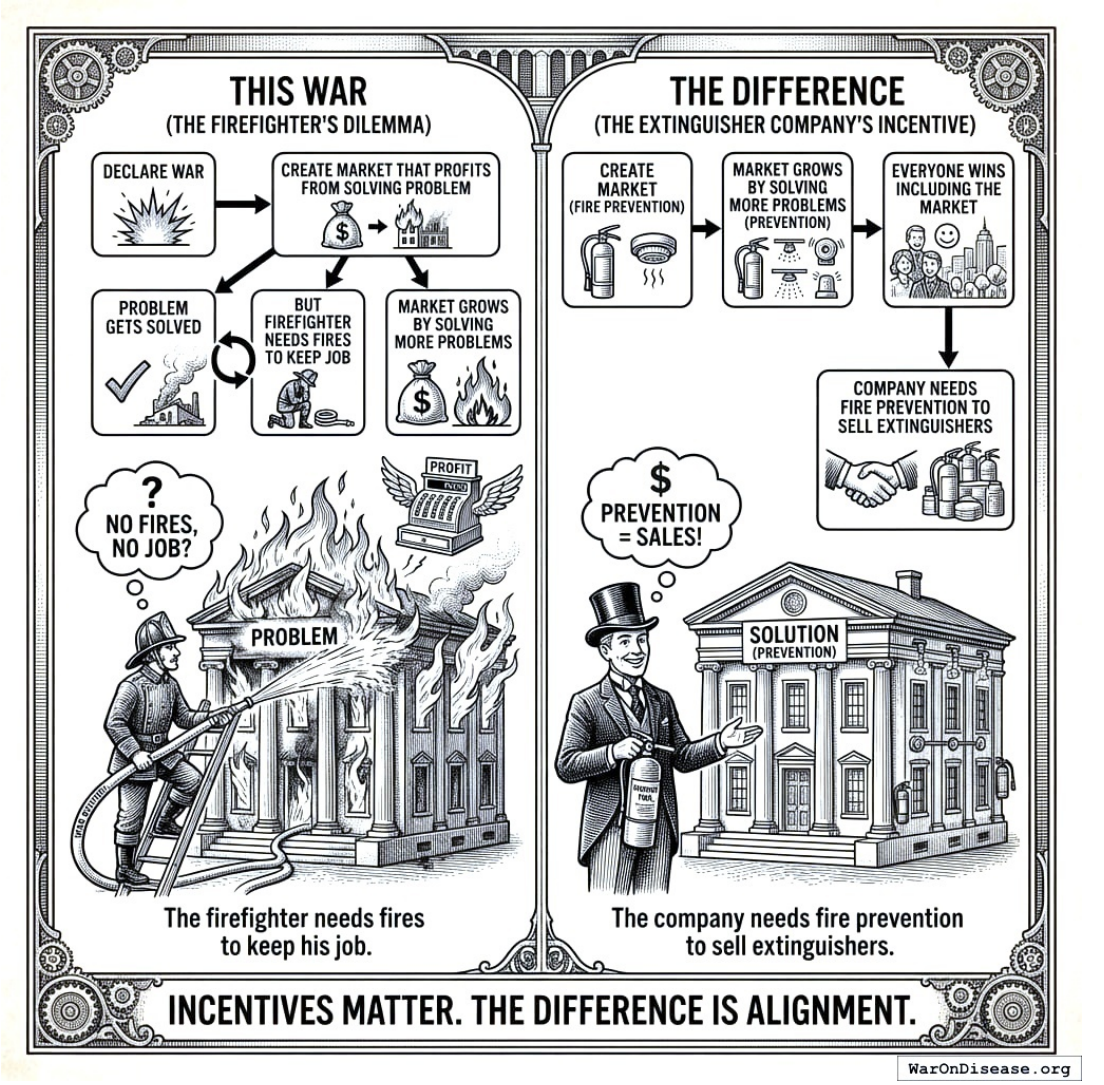


Figure 142: On the left, you pay doctors when people are sick. On the right, you pay them when people get better.

And the benefits cascade beyond medicine. Addiction, poverty, radicalization, crime; they're all biology problems wearing social-problem costumes. Fix the biology, and the society fixes itself. It turns out people are much less interested in joining extremist groups when their brain chemistry works properly.

Why This Isn't Clinically Insane

History shows this works:

- Post-WWII: Cut military 30%, greatest boom ever
- Post-Cold War: Cut military 3%, 1990s prosperity
- Switzerland: 0.7% military budget, richest country in Europe

You're only asking for 1%.

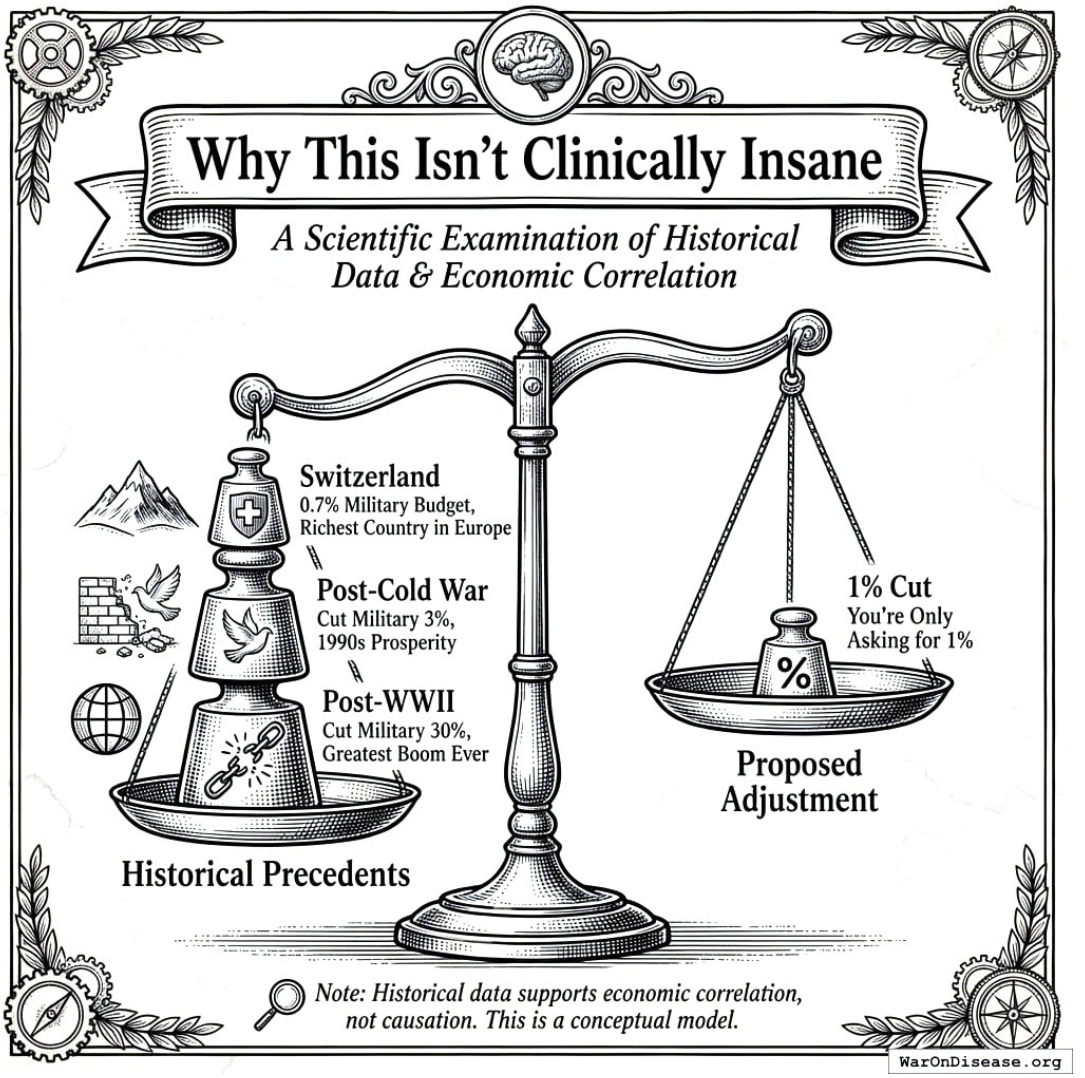


Figure 143: Every time a country spent less on blowing things up, their economy mysteriously got better.

The Meta-Solution

This solution isn't just about ending disease. It proves that paying people for results works better than paying people for promising results. You can cure diseases by redirecting 1% of military spending through market mechanisms. That same template solves education, housing, climate change, and literally any problem your governments currently solve by forming a committee to discuss forming a committee.

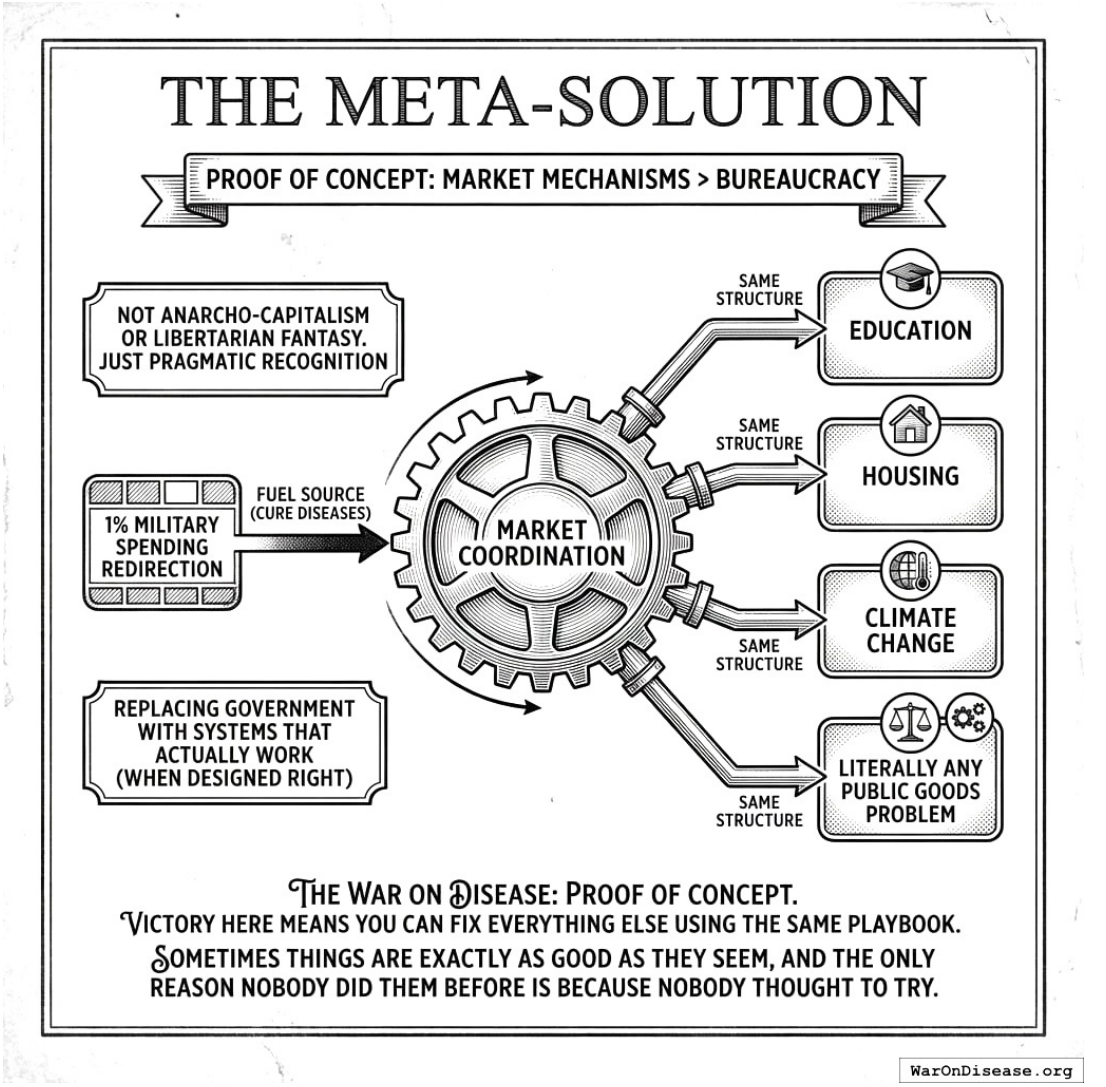


Figure 144: One simple trick solves health, education, housing, and climate change.

The War on Disease is proof of concept. Victory here means you can fix everything else using the same playbook.

They say if something seems too good to be true, it probably is. But sometimes things are exactly as good as they seem, and the only reason nobody did them is that everyone was too busy writing grant proposals about doing them.

What Comes Next

The rest of Part II explains each component in detail:

- The 1% Treaty: How to structure it so countries actually sign it
- The 1% Treaty Fund: How algorithmic governance prevents corruption
- Wishocracy: How to let billions of people control a budget without lobbyists stealing it
- The dFDA: How to achieve 44.1x cost reduction in drug trials
- Aligning Incentives: How to make selfishness save humanity

- VICTORY Bonds: How everyone makes money
- The Peace Dividend: Why curing disease accidentally solves everything else

That's it. That's the plan.

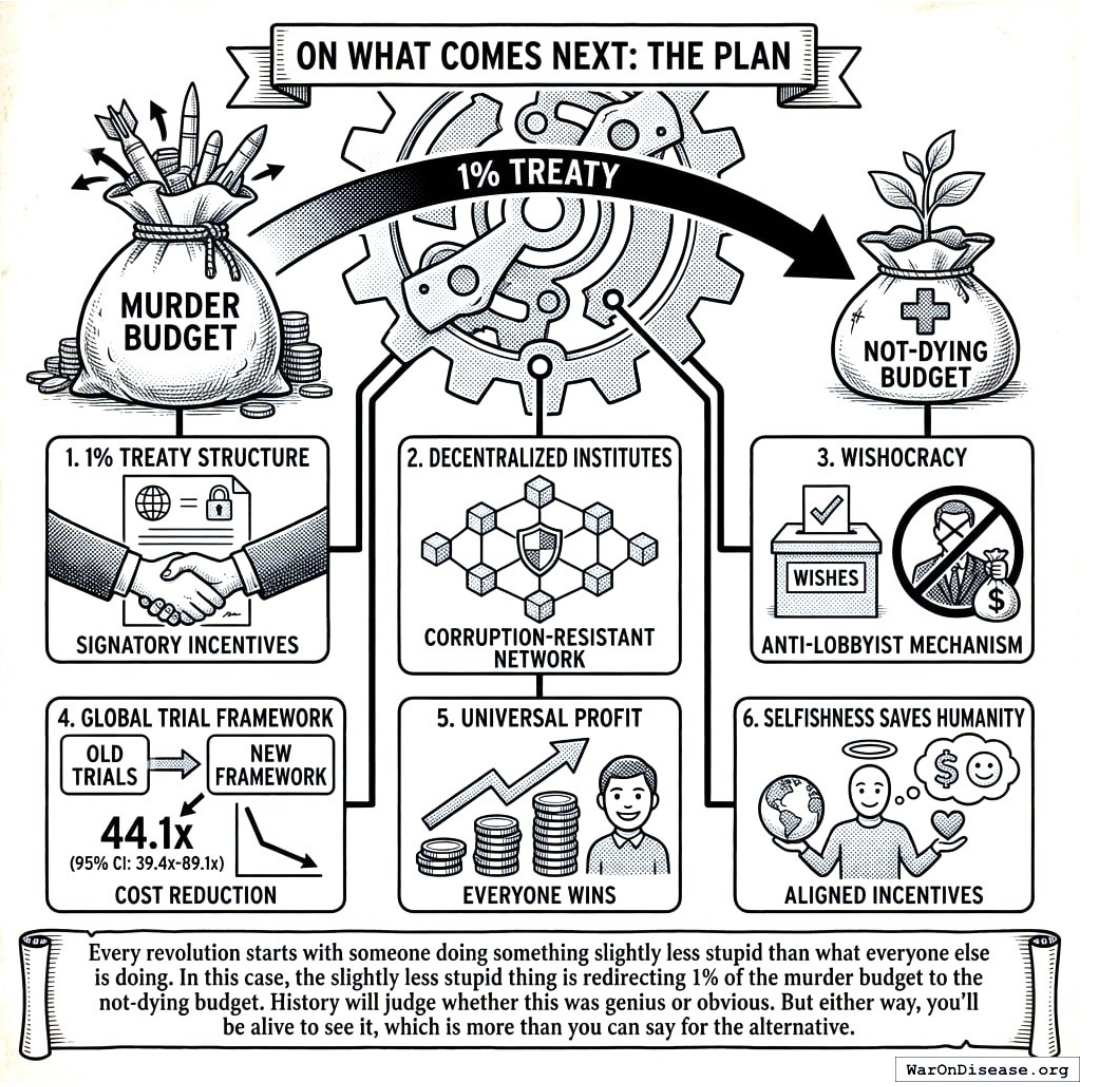


Figure 145: Take 1 percent of your war money and spend it on not dying.

If that seems anticlimactic, remember: Every revolution starts with someone doing something slightly less stupid than what everyone else is doing.

In this case, the slightly less stupid thing is redirecting 1% of the murder budget to the not-dying budget.

History will judge whether this was genius or obvious. But either way, you'll be alive to see it. That's more than you can say for the alternative.

A 1% Treaty

The 1% Treaty is a piece of paper that says "stop spending so much on killing and spend a tiny bit on not dying." More formally: every signatory nation redirects 1% of its annual military budget to **the 1% Treaty Fund**, which finances global health initiatives like your decentralized institutes of health (DIH). It's legally binding, which means countries have to do it or feel mildly embarrassed at international conferences.

The Math

1. **The Problem:** The world spends $2.72T a year on military forces to maintain a delicate balance of power.
2. **The Hack:** If every nation reduces military spending by 1% *at the same time*, the balance of power remains identical. No country becomes more vulnerable.
3. **The Prize:** That 1%, a **$27.2B-a-year river of cash**, is redirected to cure all human diseases.

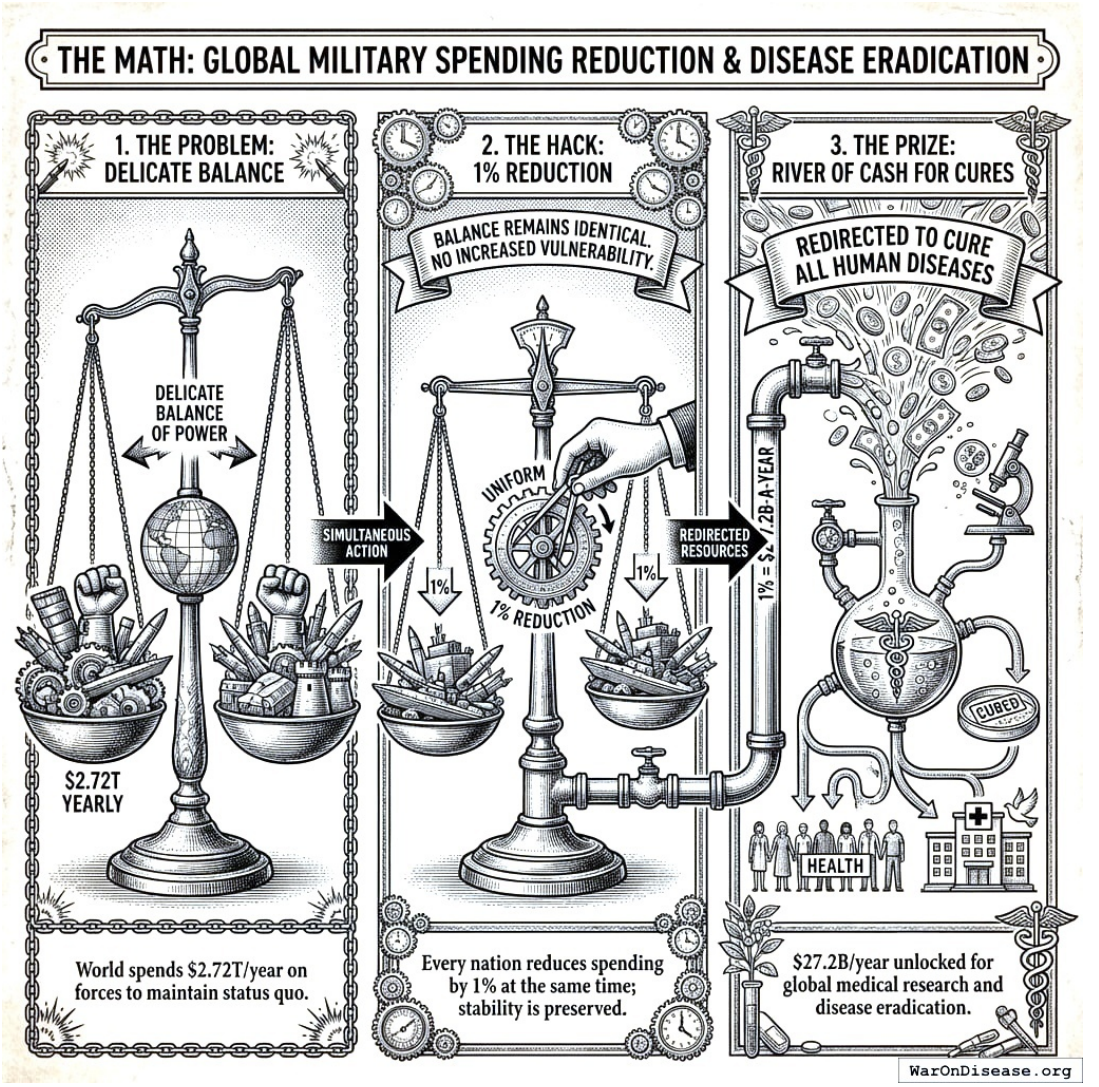


Figure 146: If you take one penny from every dollar spent on bombs and use it for medicine instead, you get 27 billion pennies. Math is wonderful.

$$\begin{aligned} & Funding_{treaty} \\ &= Spending_{mil} \times Reduce_{treaty} \\ &= \$2.72T \times 1\% \\ &= \$27.2B \end{aligned}$$

For comparison, $27.2B is about what Americans spend on Valentine's Day (flowers and chocolate > curing cancer, apparently), and roughly what humans spend on pet food every three months. Apparently too much to ask for curing diseases.

How It Works

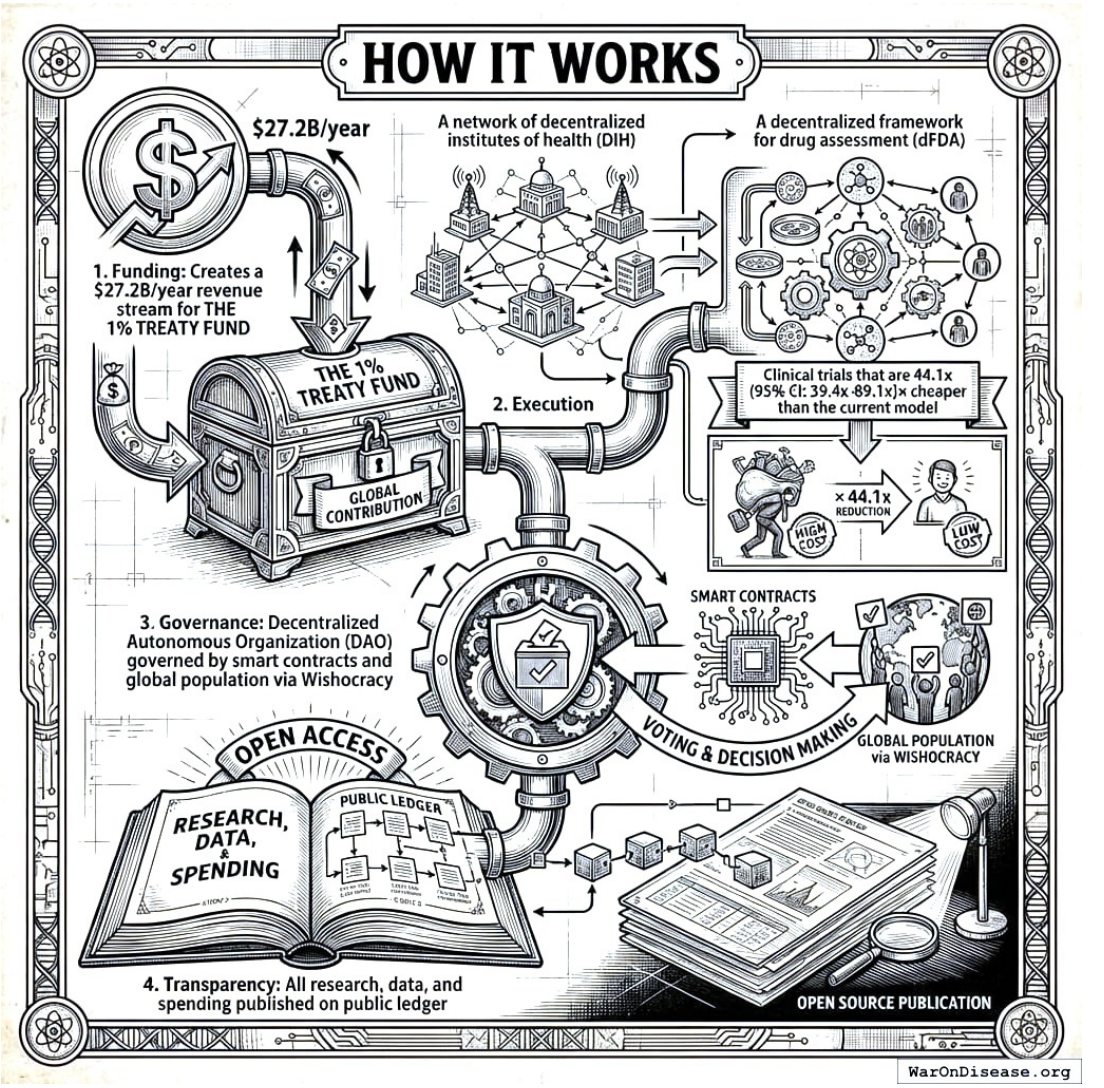


Figure 147: Money goes from the war budget through several boxes with important-sounding names until it reaches someone in a lab coat. Democracy in action.

1. **Funding:** Creates a $27.2B/year revenue stream for **the 1% Treaty Fund**
2. **Execution: A network of decentralized institutes of health (DIH)** subsidizes patient participation in **a decentralized framework for drug assessment (dFDA)**, clinical trials that are **44.1x cheaper** than the current model
3. **Governance:** Decentralized Autonomous Organization (DAO) governed by smart contracts and global population via Wishocracy
4. **Transparency:** All research, data, and spending published on public ledger

This Isn't a Trade-Off

It's like if everyone in your neighborhood spent their life savings on attack dogs, and then called it a "safe community" because all the dogs are equally vicious.

When every nation builds 1% fewer explosion devices *at the same time*, you get two good things:

You become safer. The global "you might all die by accident" temperature drops 1%. Fewer chances of someone pressing the wrong button, which happens more than you'd think.

You stop dying from stupid things. That $27.2B pays sick people to try treatments instead of waiting for death.

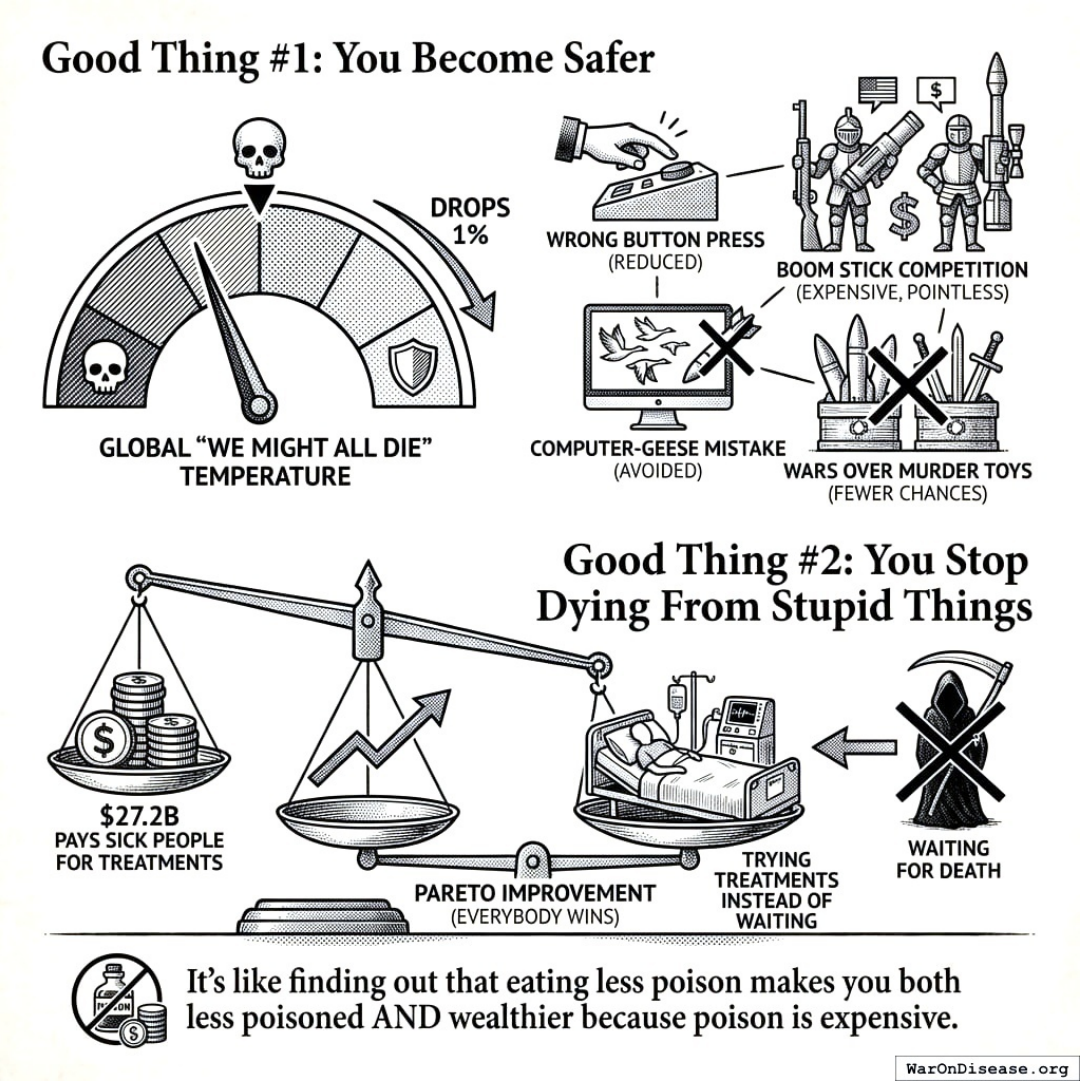


Figure 148: Fewer bombs means fewer bomb-related deaths and more money for keeping people alive. Economists needed a special term for this obvious idea.

This is called a Pareto improvement, which is economist-speak for "everybody wins and nobody loses." It's like finding out that eating less poison makes you both less poisoned AND wealthier because poison is expensive.

The Dead Capital Problem (Or: Why Bombs Are the Worst Investment Since Tulips)

Here's something nobody tells you: when countries "invest" in military hardware, they're not buying assets. They're buying very expensive paperweights that occasionally explode.

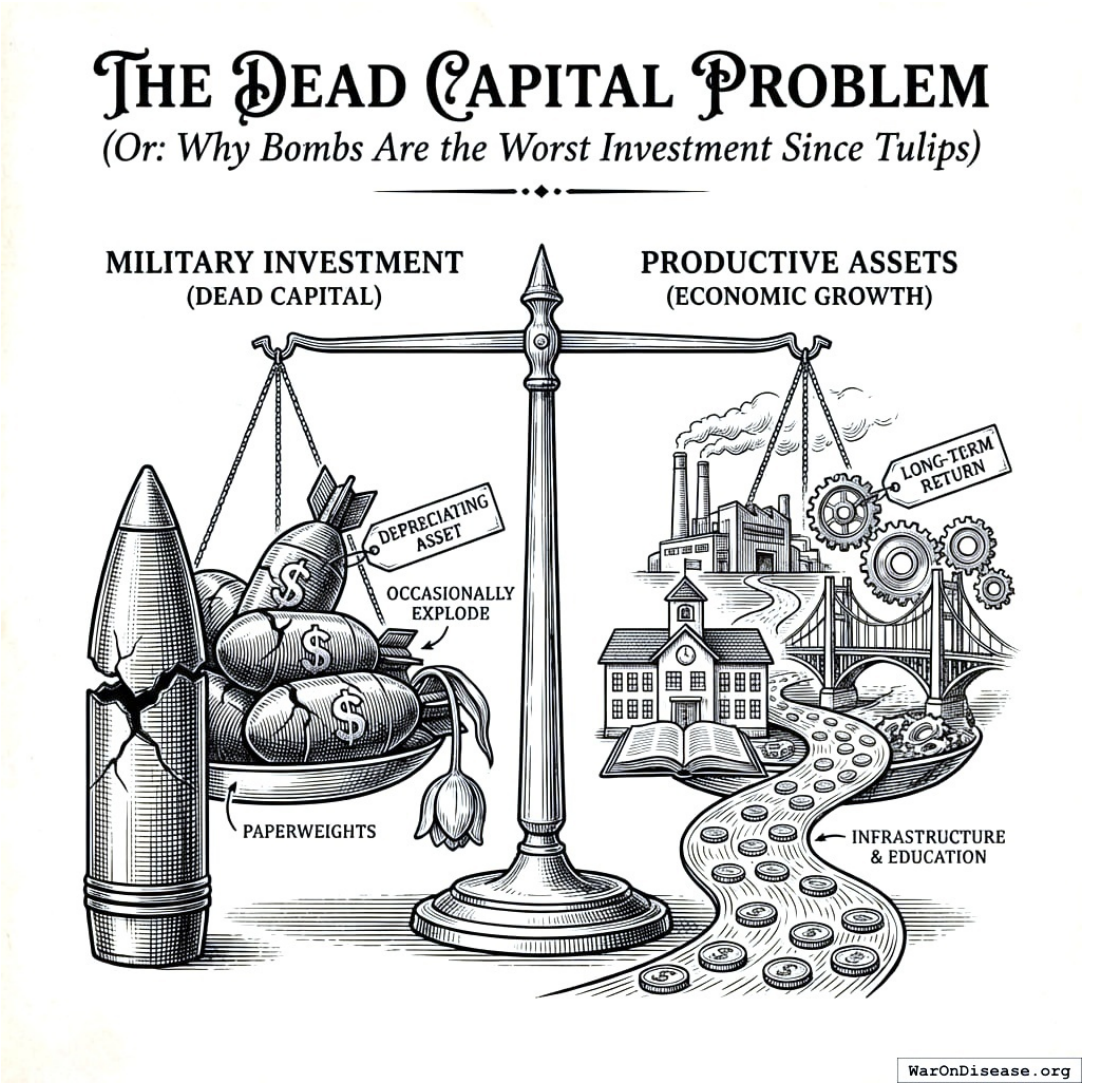


Figure 149: Money you spend on food keeps working. Money you spend on missiles sits in a hole waiting to vaporize someone. One of these is considered a smart investment.

A bridge

- Generates economic activity daily (trucks move, people commute, value flows)
- Lasts 50-100 years
- Makes everyone richer
- Pretty to look at

A missile

- Sits in a hole doing nothing
- Costs $1.5M/year just to keep it from rotting
- Can only destroy things (including itself)
- Makes everyone nervous

This is what economists call "dead capital," resources trapped in a form that can't generate returns. It's like if you converted your house into a pile of TNT. Sure, it's impressive. But you can't live in it, rent it out, or do anything except eventually blow it up, at which point you have neither a house nor TNT.

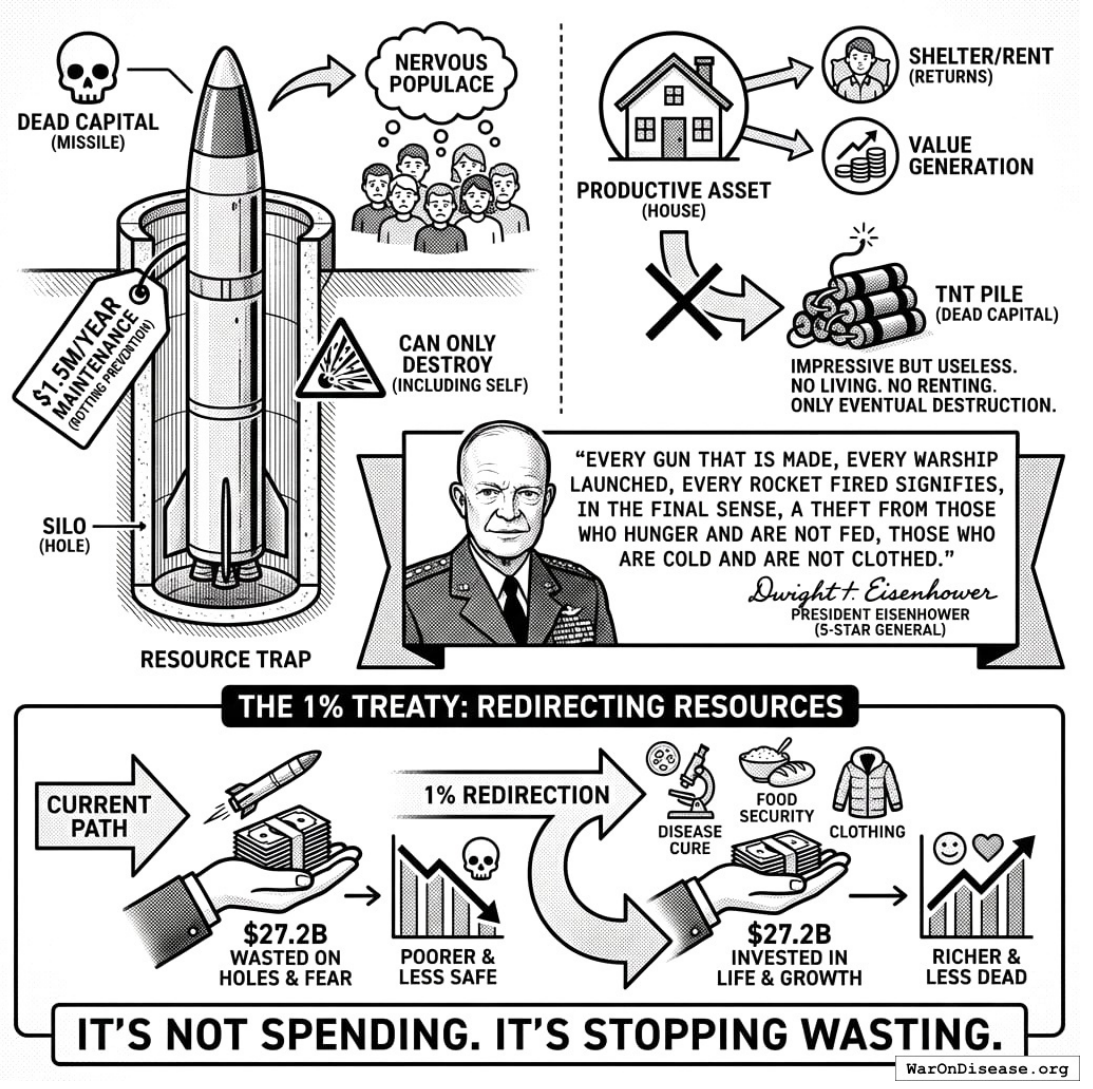


Figure 150: This missile cost the same as 50,000 hospital beds. The missile is lonely in its silo. The hospital beds would have been quite busy.

As President Eisenhower (a 5-star General who knew about killing professionally) put it:

"Every gun that is made, every warship launched, every rocket fired signifies, in the final sense, a theft from those who hunger and are not fed, those who are cold and are not clothed."

He literally ran the biggest military in history, and even HE thought you were being ridiculous about this.

A 1% treaty doesn't ask you to spend $27.2B curing diseases. It asks you to stop wasting $27.2B on things that sit in holes making you poorer and less safe, and redirect those same papers to things that make you richer and less dead.

It's not spending. It's stopping wasting.

The Reallocation: How to Redirect $27.2B a Year (Legally)

This is how you redirect $27.2B a year from the military budget to medicine. The process is so simple it's almost insulting that nobody did it earlier.

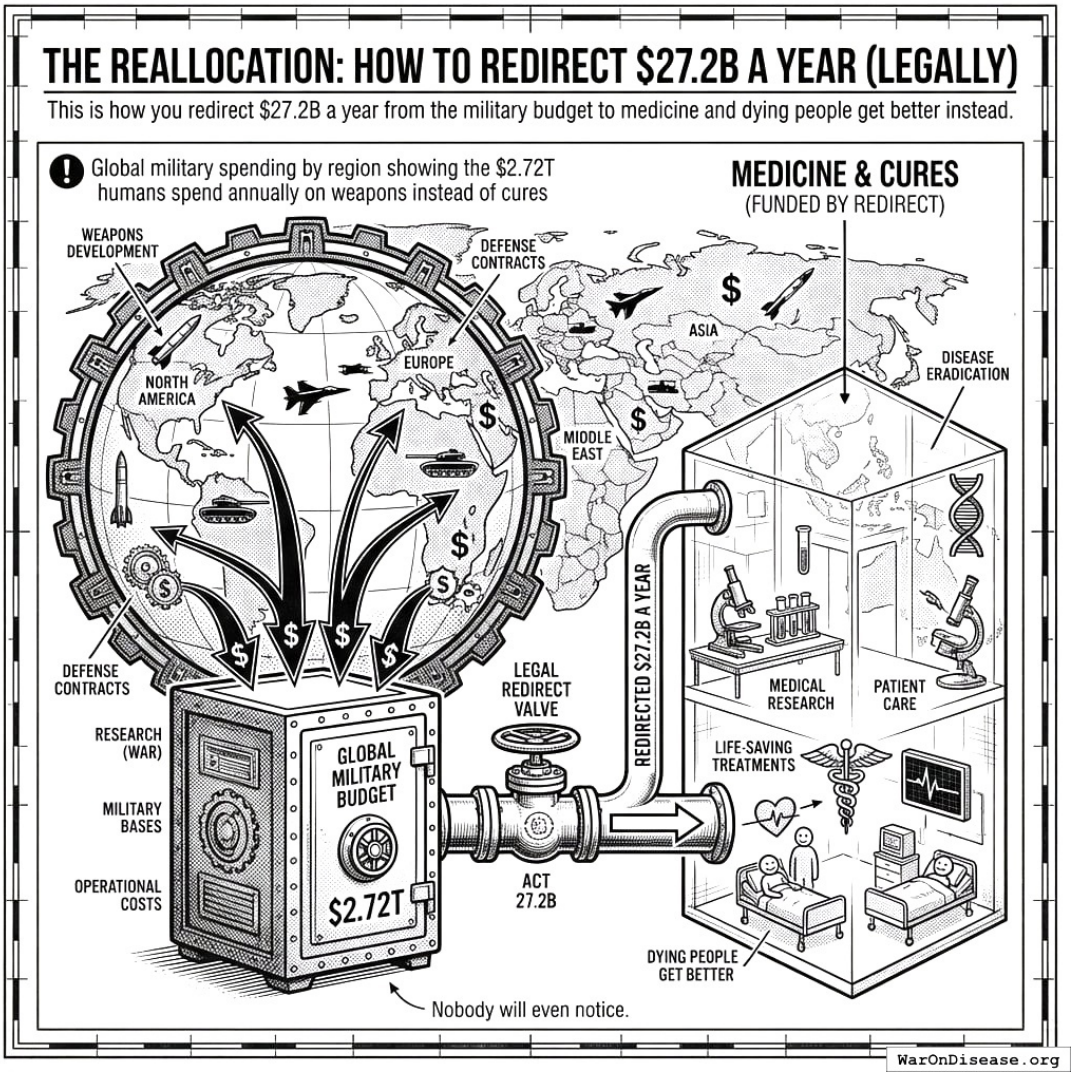


Figure 151: Humanity spends 2.72 trillion dollars on weapons. We're asking for 1 percent of that. The weapons will barely notice it's gone.

Nobody will even notice.

The Beautiful Mathematics of Mutual Stupidity Reduction

If EVERYONE reduces their military budget by exactly 1% at exactly the same time, everyone maintains exactly the same strategic position. America still has 6,500 nukes instead of 6,565. Russia still has 6,000 instead of 6,060. China still has enough weapons to kill everyone twice instead of 2.02 times. North Korea: still terrifying but now 1% less so. Nobody loses relative scariness.

The interesting thing about having 13,000 nuclear warheads is that after the first few hundred, you're just showing off.

I asked a general if losing 1% of weapons would weaken national security. He said yes. I asked if having 1% fewer weapons pointed at you by every enemy would make you safer. He stopped talking to me.

That 1% ($27.2B/year) cures the diseases that are actually killing people, unlike bombs which are mostly sitting around getting dusty and occasionally almost ending the world because a computer thought a flock of geese was a missile (this actually almost happened).

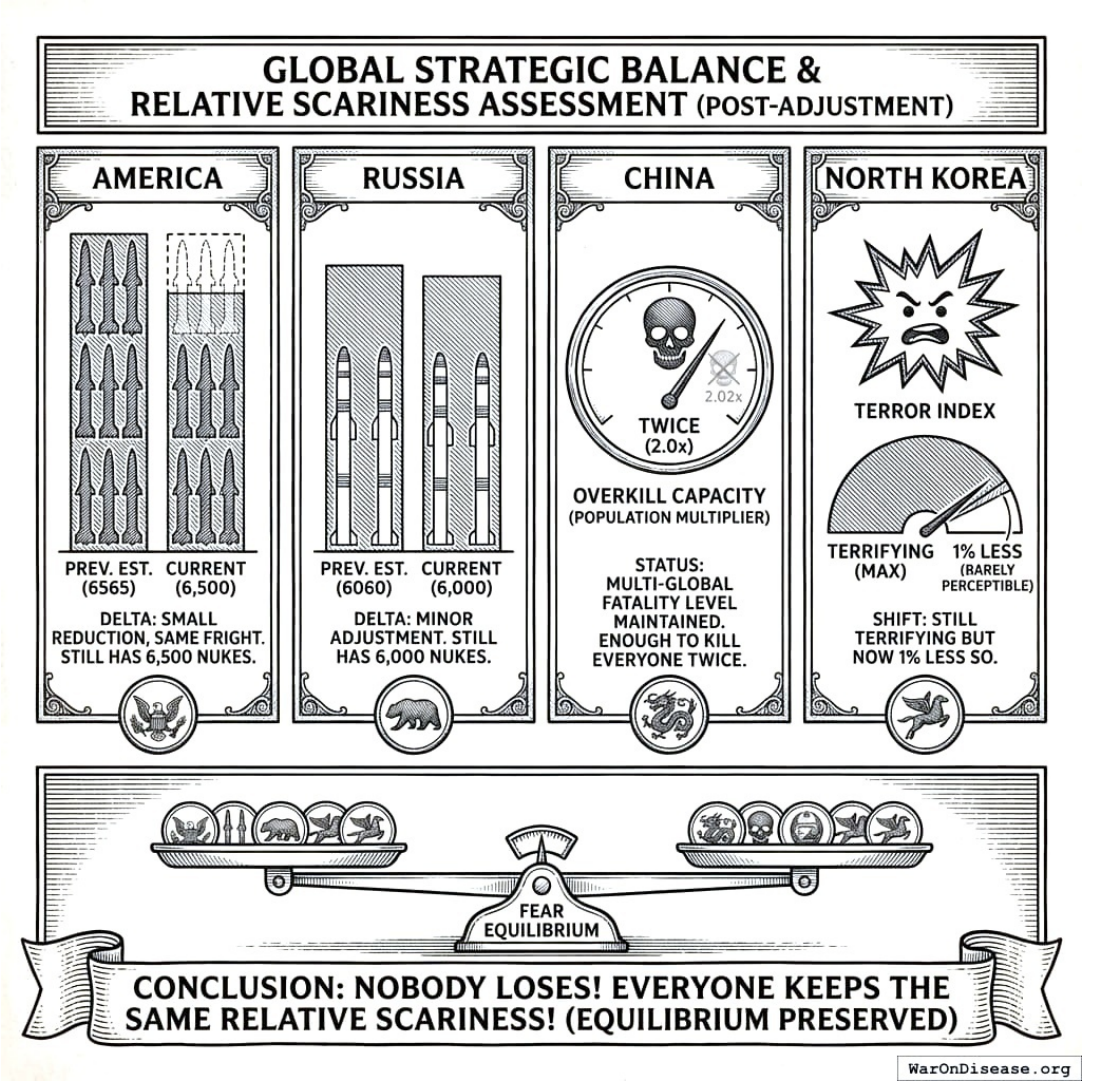


Figure 152: Before: everyone can destroy everyone. After: everyone can still destroy everyone, but with 1 percent less enthusiasm.

The Blueprint for a Saner World

Treaties are magic pieces of paper that countries sign when they want to pretend they'll behave.

Sometimes they work (you haven't had World War III yet). Sometimes they don't (you've had about 200 other wars[144]). But they're the only tool you have for getting countries to do anything together besides kill each other.

A 1% Treaty: Technical Specifications for Global Survival

Article 1: The Promise

"We, the undersigned nations, being of sound mind and tired of dying, hereby agree to redirect 1% of our annual military expenditure to not dying instead."

Article 2: The Money Part

Every signatory nation contributes exactly 1% of their military budget to **the 1% Treaty Fund**.

- USA: $8.86 billion (won't even notice, they've failed to account for over $2.46 trillion[134])
- China: $2.96 billion (what they spend on military parades[240])
- India: $835 million (one aircraft carrier's wine budget)
- Russia: $1.09 billion (Putin's shirt budget)
- Saudi Arabia: $754 million (one prince's yacht)
- UK: $686 million
- France: $563 million (military cheese allocation)
- And so on…

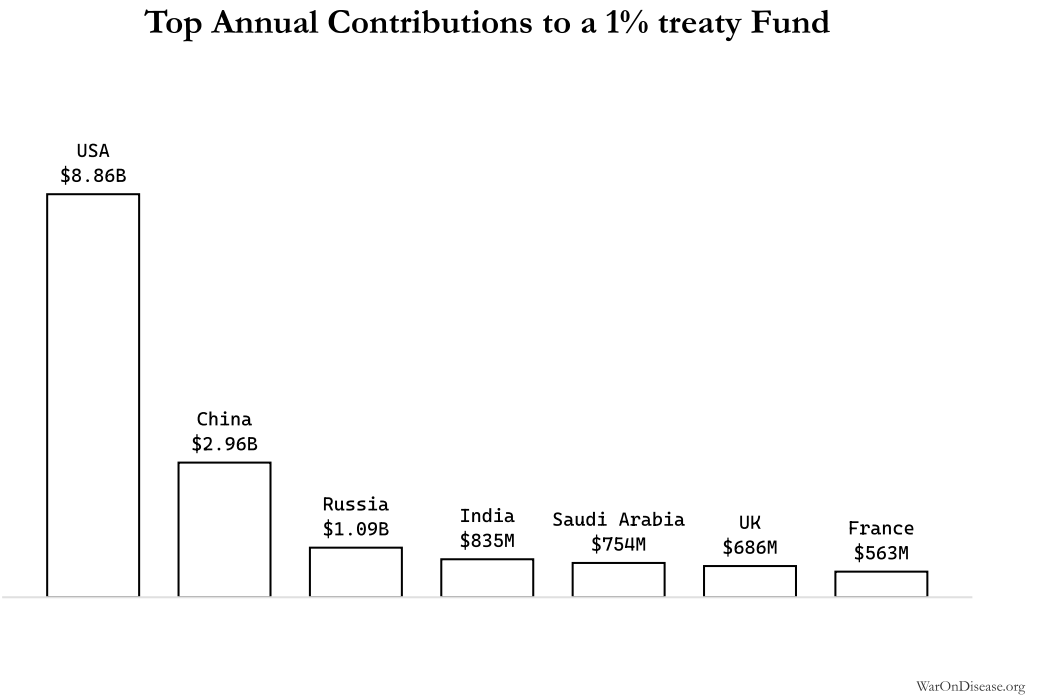


Figure 153: Projected annual contributions to a 1% Treaty Fund from top military spenders, based on a 1% reallocation of their military budgets.

Article 3: The Incentive Mechanism

Politicians who support the treaty receive Incentive Alignment Bond benefits: campaign funding from the political incentive pool ($2.72B/year) and lucrative post-office career opportunities. Supporting the treaty becomes the career-maximizing choice.

Why This Is Actually About National Security (No, Really)

Here's what actually threatens nations today:

Real Threats (That Actually Kill People)

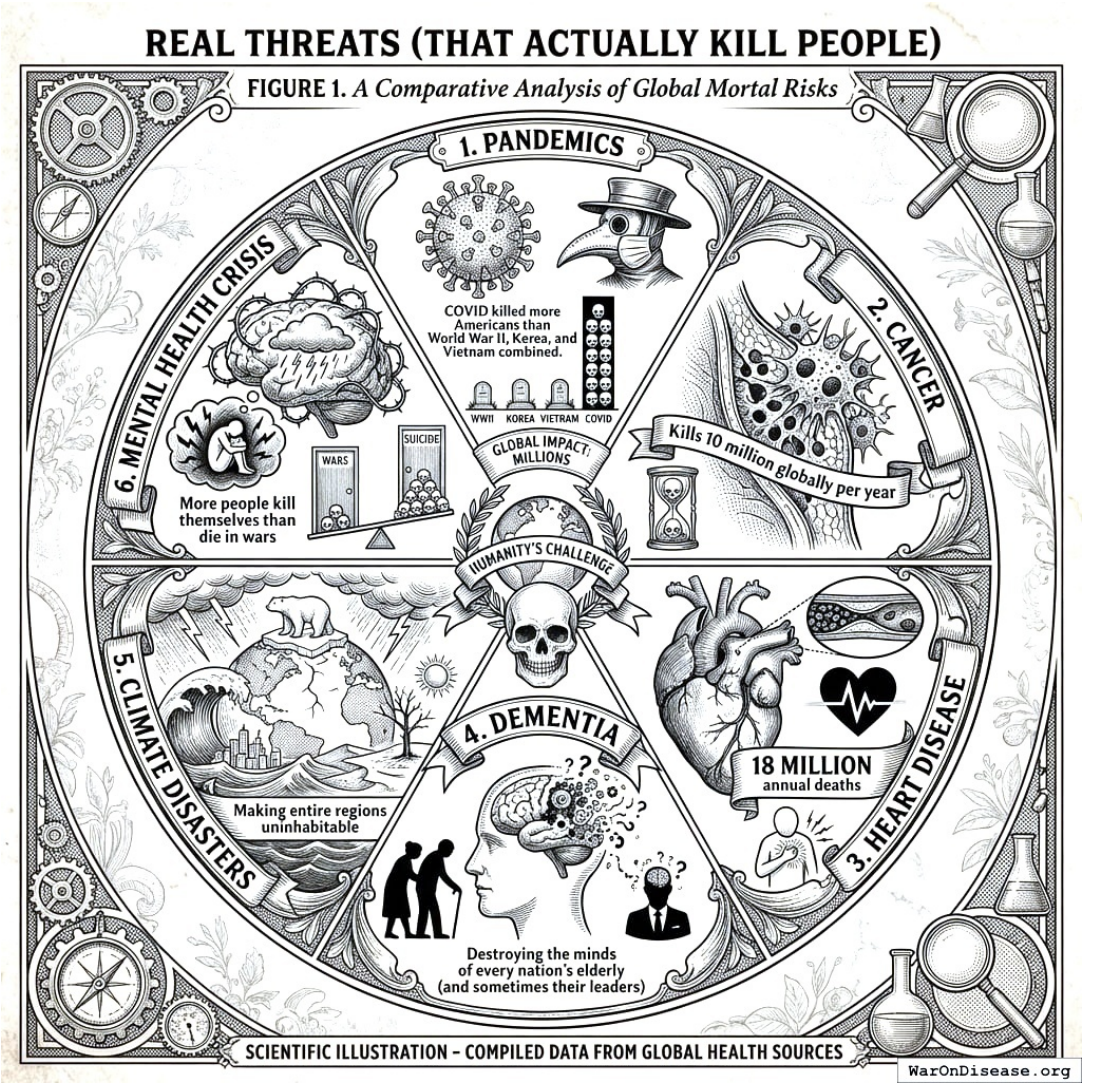


Figure 154: Diseases kill more people every year than all the wars combined. We decided to keep the war budget though. Just to be safe.

1. **Pandemics**: COVID killed more Americans than World War II, Korea, and Vietnam combined[241]
2. **Cancer**: Kills 10 million globally per year[163]
3. **Heart Disease**: 18 million annual deaths[162]
4. **Dementia**: Destroying the minds of every nation's elderly (and sometimes their leaders)
5. **Climate Disasters**: Making entire regions uninhabitable
6. **Mental Health Crisis**: More people kill themselves than die in wars[242]

Fake Threats (That Countries Spend Trillions On)

1. **Other Countries Maybe Attacking**: Happens occasionally, usually over stupid stuff
2. **Terrorists**: Kill fewer people than furniture accidents[239]
3. **Space Aliens**: Still zero confirmed kills

4. **The Communists/Capitalists**: Mostly just sell each other stuff now
5. **Immigration**: People moving around, terrifying
6. **Critical Race Theory**: A graduate seminar that somehow threatens nations

A 1% treaty addresses the real threats. It doesn't weaken your ability to handle the imaginary ones. You'll still have plenty of weapons for the communists, the furniture, and the space aliens.



Figure 155: The disease bar is very tall. The war bar is shorter. We spend more money on the shorter bar. This is called strategy.

The Rebranding Campaign: From "Weakness" to "Strategic Genius"

Politicians hate looking weak. It's their biggest fear, right after being caught with their mistress or having to use their own healthcare system.

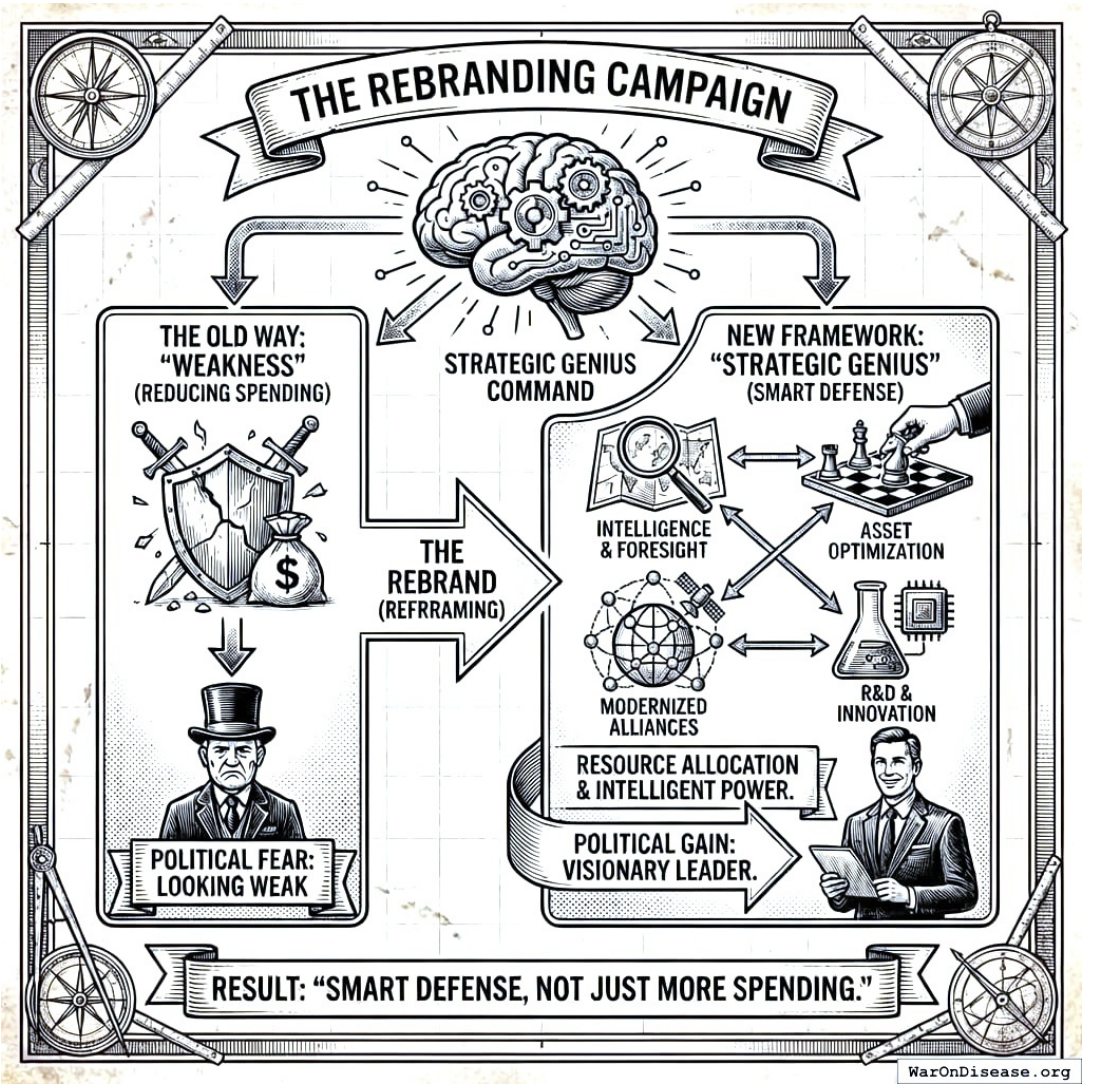


Figure 156: The same idea looks stupid when called 'defense cuts' and brilliant when called 'biodefense investment.' Politics is just marketing for grownups.

So you don't frame this as "reducing military spending." You frame it as:

"The Strategic Health Defense Initiative"

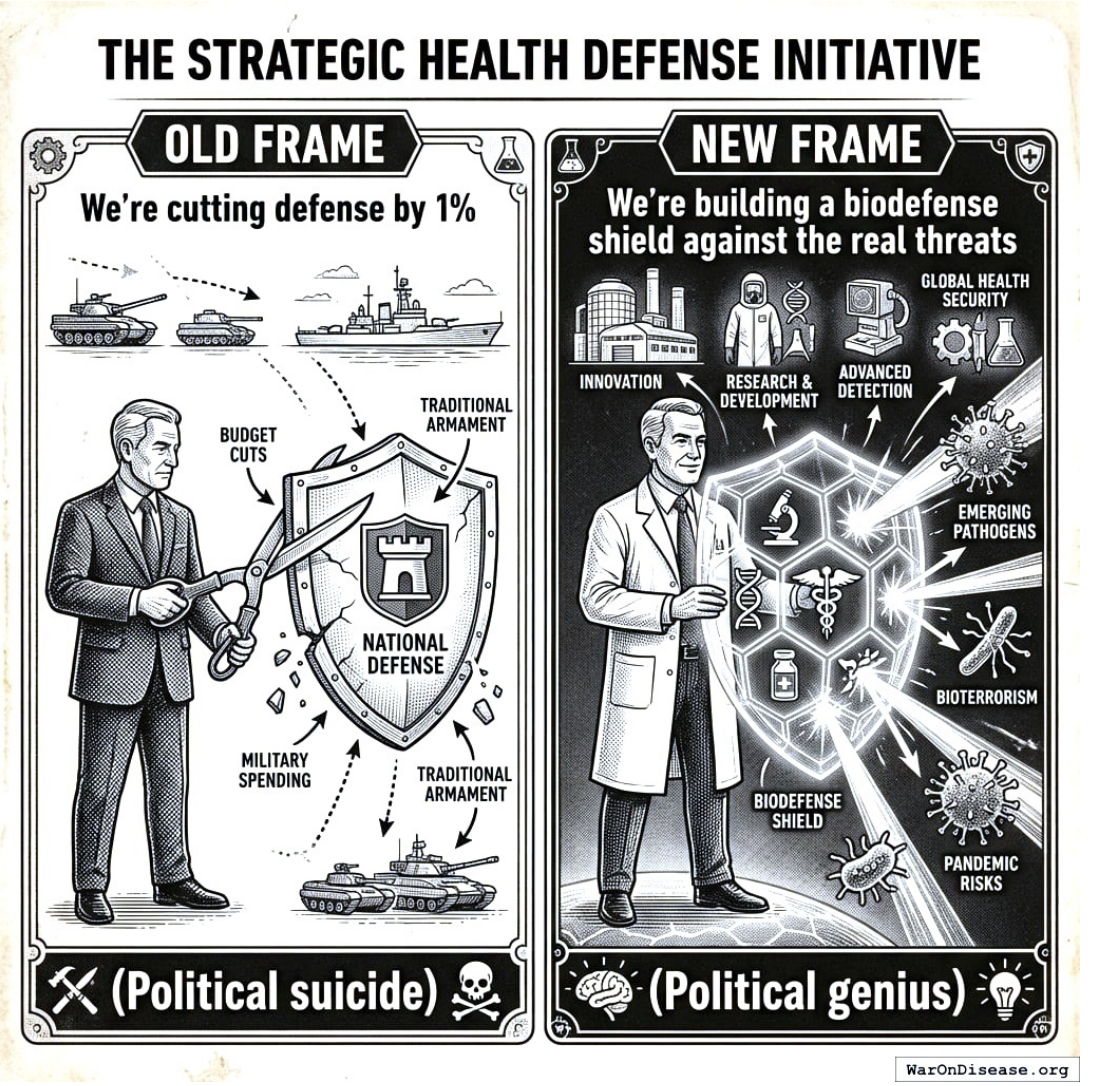


Figure 157: Instead of 'you're spending less on bombs,' try 'you're building a shield against invisible enemies.' Same thing, better reviews.

- **Old Frame**: "We're cutting defense by 1%" (Political suicide)
- **New Frame**: "We're building a biodefense shield against the real threats" (Political genius)

The Talking Points That Make Hawks Sound Like Doves

For Conservatives: "This is the ultimate America First policy. We're protecting American lives from the Chinese virus and any future biological threats. It's the Strategic Defense Initiative for the 21st century."

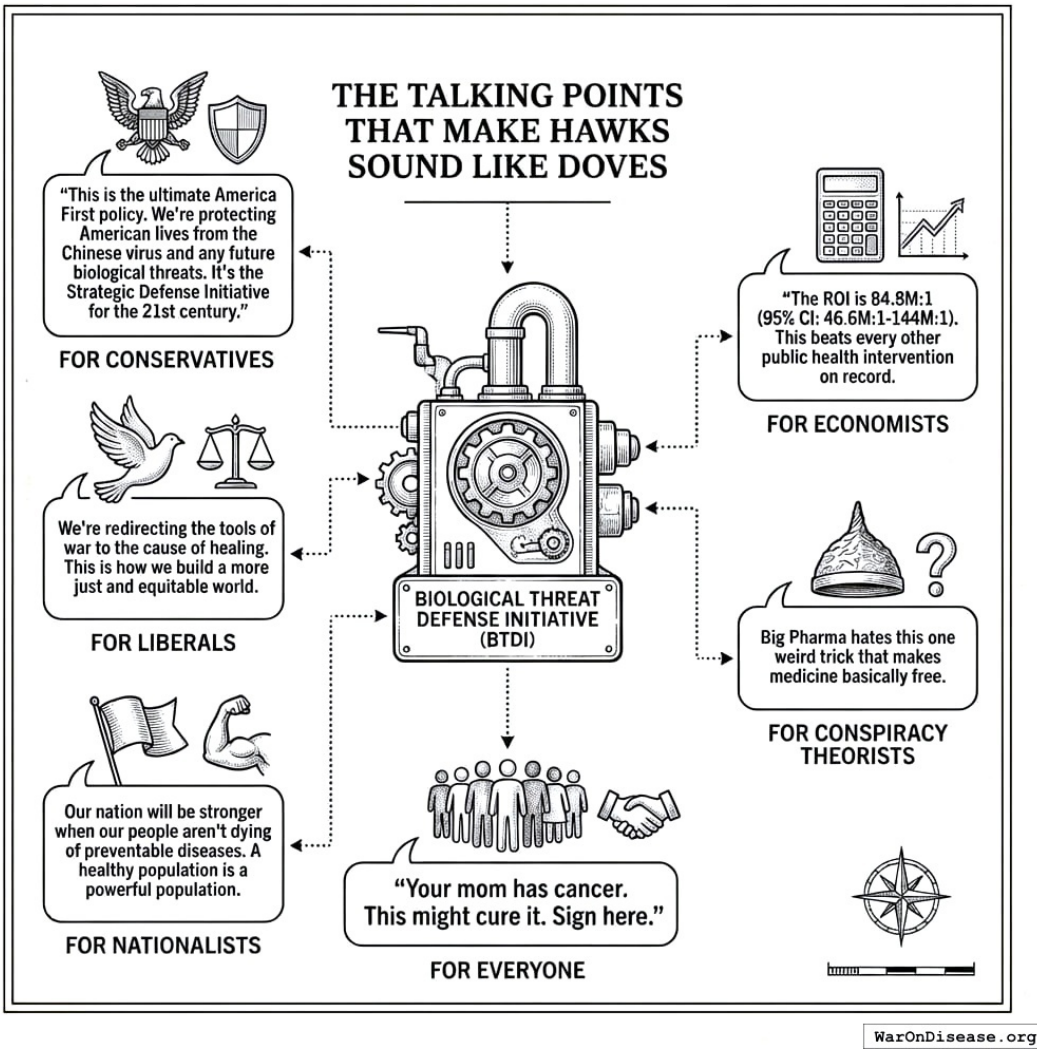


Figure 158: One idea, five different sales pitches. Like describing a sandwich as 'portable nutrition' to athletes and 'handheld tradition' to conservatives.

For Liberals: "We're redirecting the tools of war to the cause of healing. This is how we build a more just and equitable world."

For Nationalists: "Our nation grows stronger when our people stop dying of diseases we can prevent. A healthy population is a powerful population."

For Economists: "The ROI is 84.8M:1. That beats every public health intervention on record."

For Conspiracy Theorists: "Big Pharma hates this one weird trick that makes medicine basically free."

For Everyone: "Your mom has cancer. This might cure it. Sign here."

Implementation

For the detailed execution timeline, see the Roadmap.

The Money Flow: Where $27.2B Actually Goes

Once nations sign the treaty and money starts flowing, here's what happens:

The 1% Treaty Fund

Input: $27.2B annually from military budgets worldwide

Distribution: The $27.2B flows into the 1% Treaty Fund. An **80/10/10 automatic split** divides it before any funds reach discretionary spending:

Allocation	Percentage	Annual Amount	Purpose
Pragmatic Clinical Trials	80%	$21.8B	Patient subsidies, R&D, pandemic prep
VICTORY Incentive Alignment Bond Returns	10%	$2.72B	Perpetual investor payments
IAB Political Incentives	10%	$2.72B	Rewards for supporting legislators

The 80% allocated to pragmatic clinical trials is then distributed by the actual people of Earth via the Wishocracy platform, not by a committee of 12 people in a conference room who haven't had a new idea since 1987. While allocations are dynamic, initial priorities determined by the crowd are projected to focus on:

- **Patient Subsidies:** The largest portion, creating a market for clinical trials.
- **Research & Development:** Funding for breakthrough platform technologies.
- **Pandemic Preparedness:** A global insurance policy against the next COVID. The exact percentages will shift in real-time based on humanity's collective will.

Governance: Governance is handled by Wishocracy, a system of direct digital democracy detailed in the 'How to Replace Congress With an App' chapter. In short: every human gets direct say on funding priorities. Yes, even Florida Man. We'll risk it.

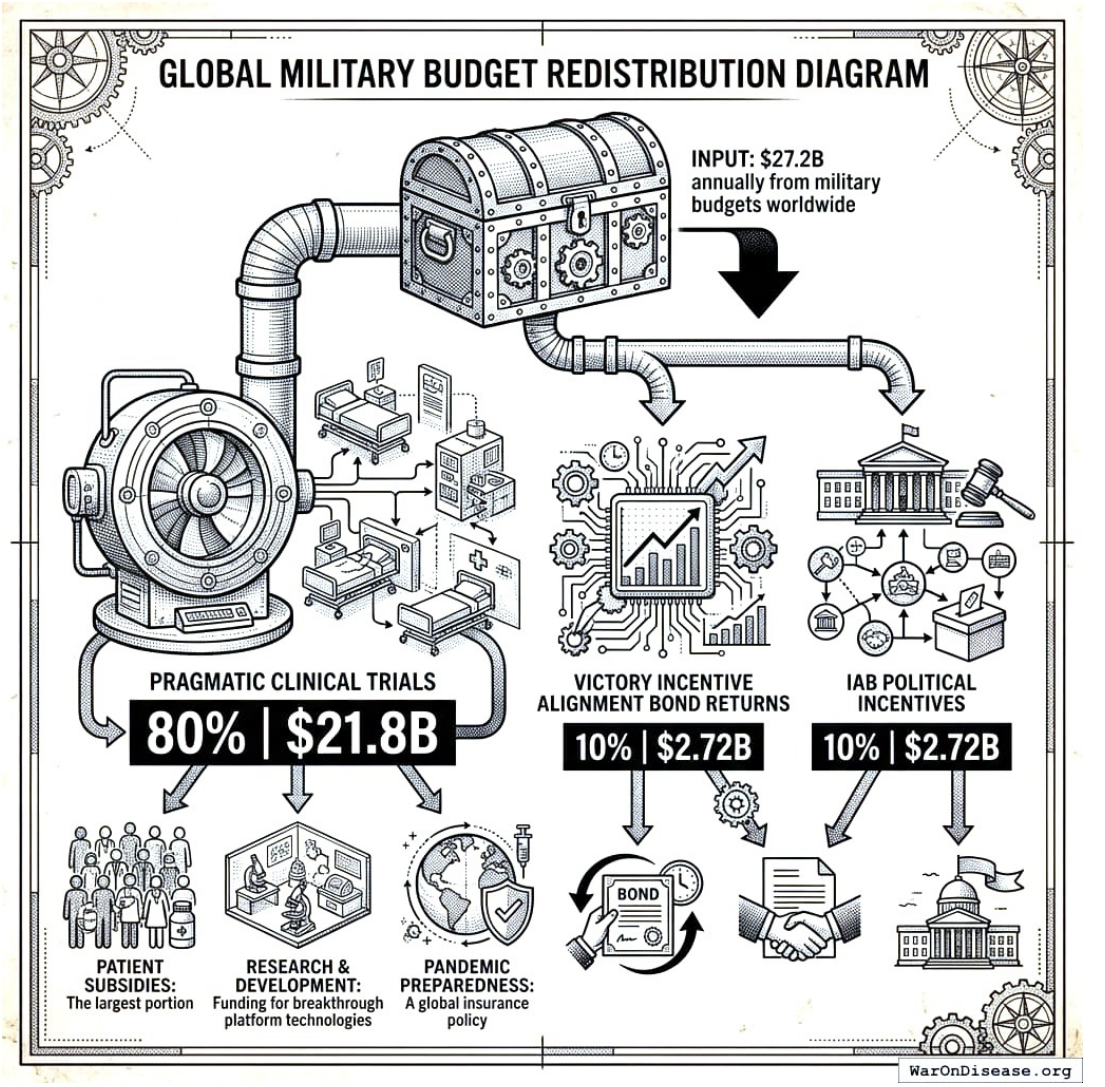


Figure 159: Watch the money leave the Pentagon and flow through colorful ribbons to labs where people wear goggles. This is called progress.

Year One Projected Outcomes

Right now, only 1.90 million patients/year participate in drug trials annually out of 2.40 billion people with chronic disease. A 1% treaty changes this:

Current System

- Pivotal trials: $41K
- Only 1.90 million patients/year participants per year globally
- 1.08 billion people willing to participate, but turned away
- 14 years from discovery to patient

With a 1% treaty + a decentralized framework for drug assessment

- $60B existing + $27.2B from treaty

- Pragmatic trials: $929 (44.1x cheaper)
- 23.4 million patients/year participants per year (12.3x capacity increase)

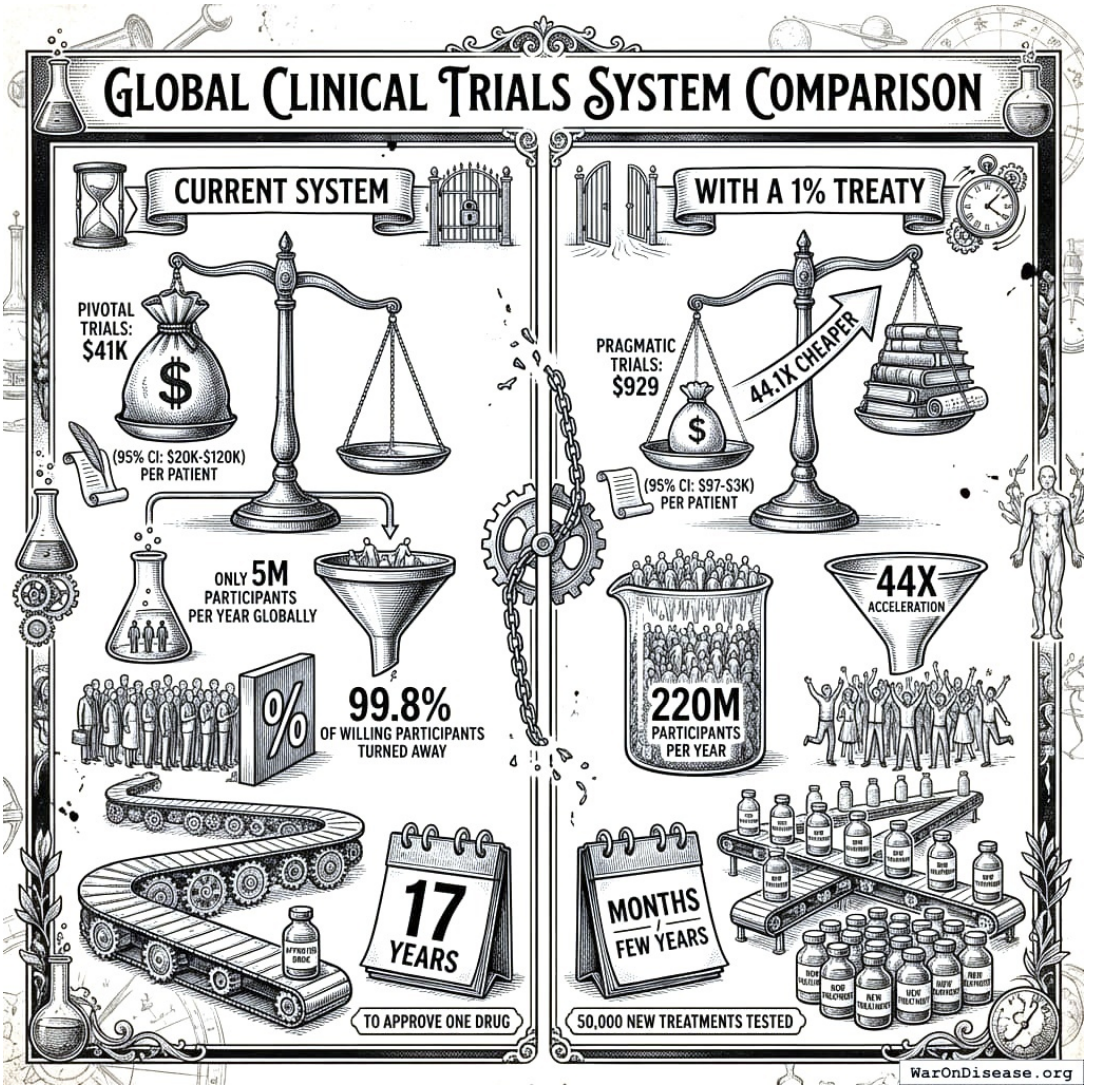


Figure 160: The old way: expensive, slow, nobody joins. The new way: cheaper, faster, everyone joins. We've been using the old way for 80 years.

For detailed impact projections, see the full economic analysis.

The Incentive Structure

The military-industrial complex will LOVE this.

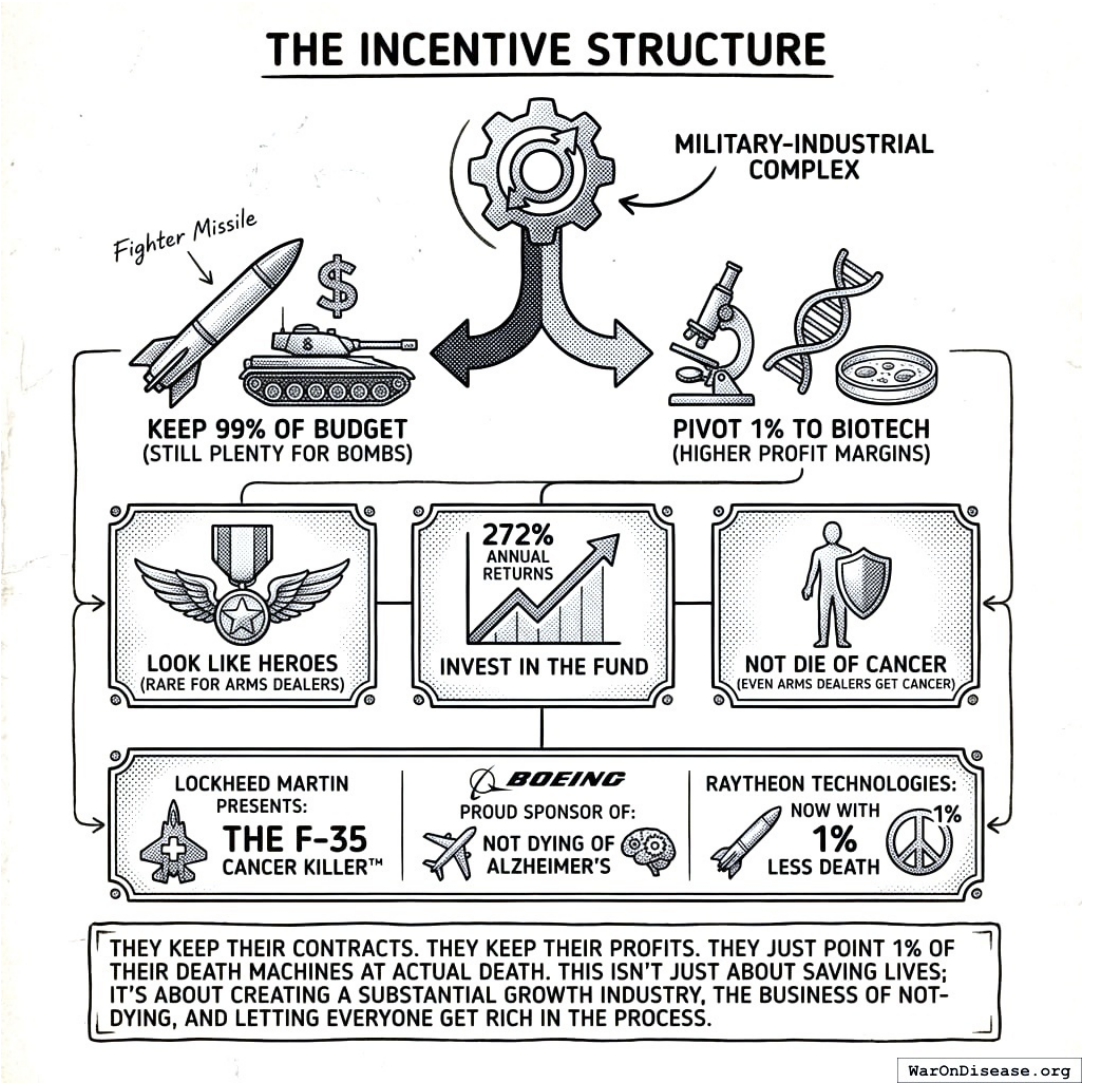


Figure 161: Generals keep their budgets, get richer from biotech stocks, look like heroes, make investment profits, and might not die from cancer. Still took us this long to think of it.

Why? Because they get to:

1. **Keep 99% of their budget** (still plenty for bombs)
2. **Pivot 1% to biotech** (higher profit margins)
3. **Look like heroes** (rare for arms dealers)
4. **Invest in the fund** (272%, remember?)
5. **Not die of cancer** (even arms dealers get cancer)

Lockheed Martin Presents: The F-35 Cancer Killer™ Boeing Proud Sponsor of: Not Dying of Alzheimer's Raytheon Technologies: Now With 1% Less Death

They keep their contracts. They keep their profits. They just point 1% of their death machines at actual death. This isn't just about saving lives; it's about creating a substantial growth industry, the business of not-dying, and letting everyone get rich in the process.

What Happens If This Actually Works

The Endgame: Reorienting Global Priorities

A 1% treaty isn't the goal. It's the gateway drug. Once your species gets a taste of "spending money on things that help instead of things that explode," you'll want more. Your multi-generational strategy is to make organized violence less economically necessary. You're not appealing to better angels. You're making peace more profitable than war. Turns out humans will do anything if you pay them enough, including surviving.

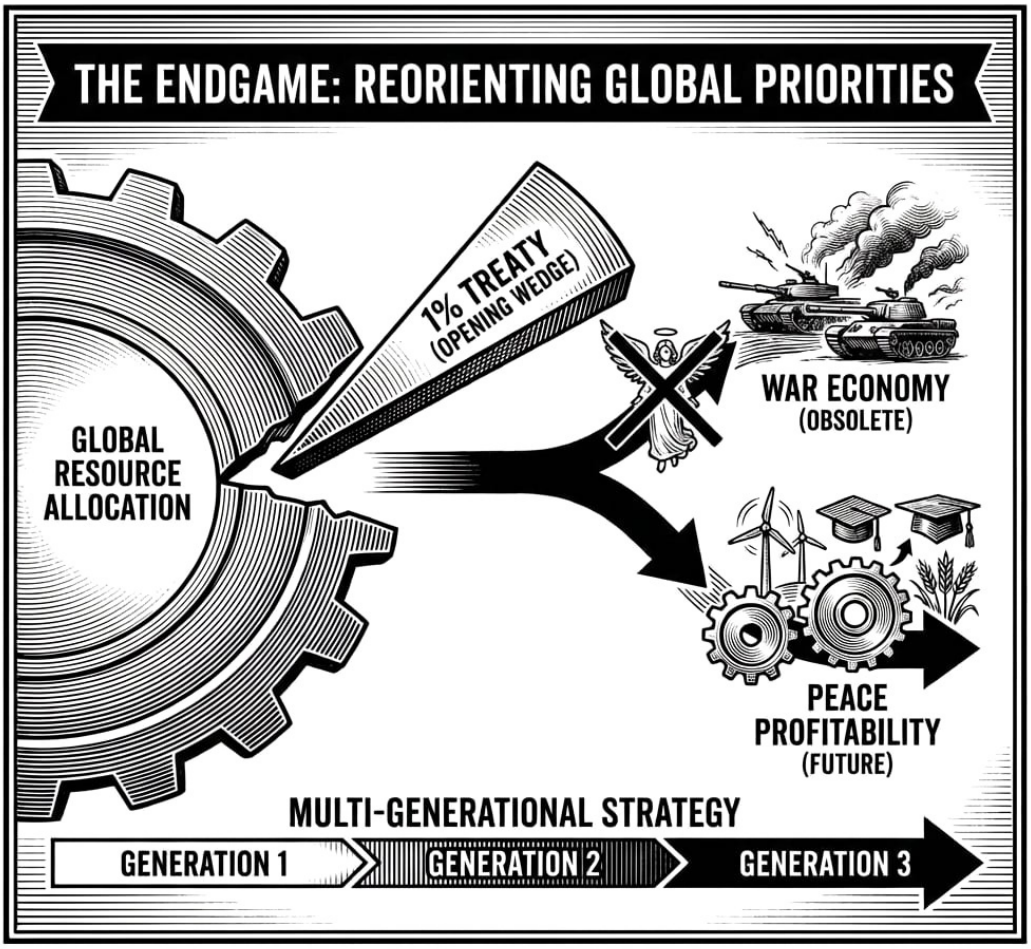


Figure 162: Start with 1 percent. Then 2 percent. Eventually war becomes a hobby and peace becomes profitable. Like quitting smoking, but for nations.

The Ratchet Effect: How to Boil a Frog (The Frog is the War Machine)

Once a 1% treaty is signed and the first cures for "untreatable" diseases start rolling out, the system becomes more valuable. This is how you sustain it.

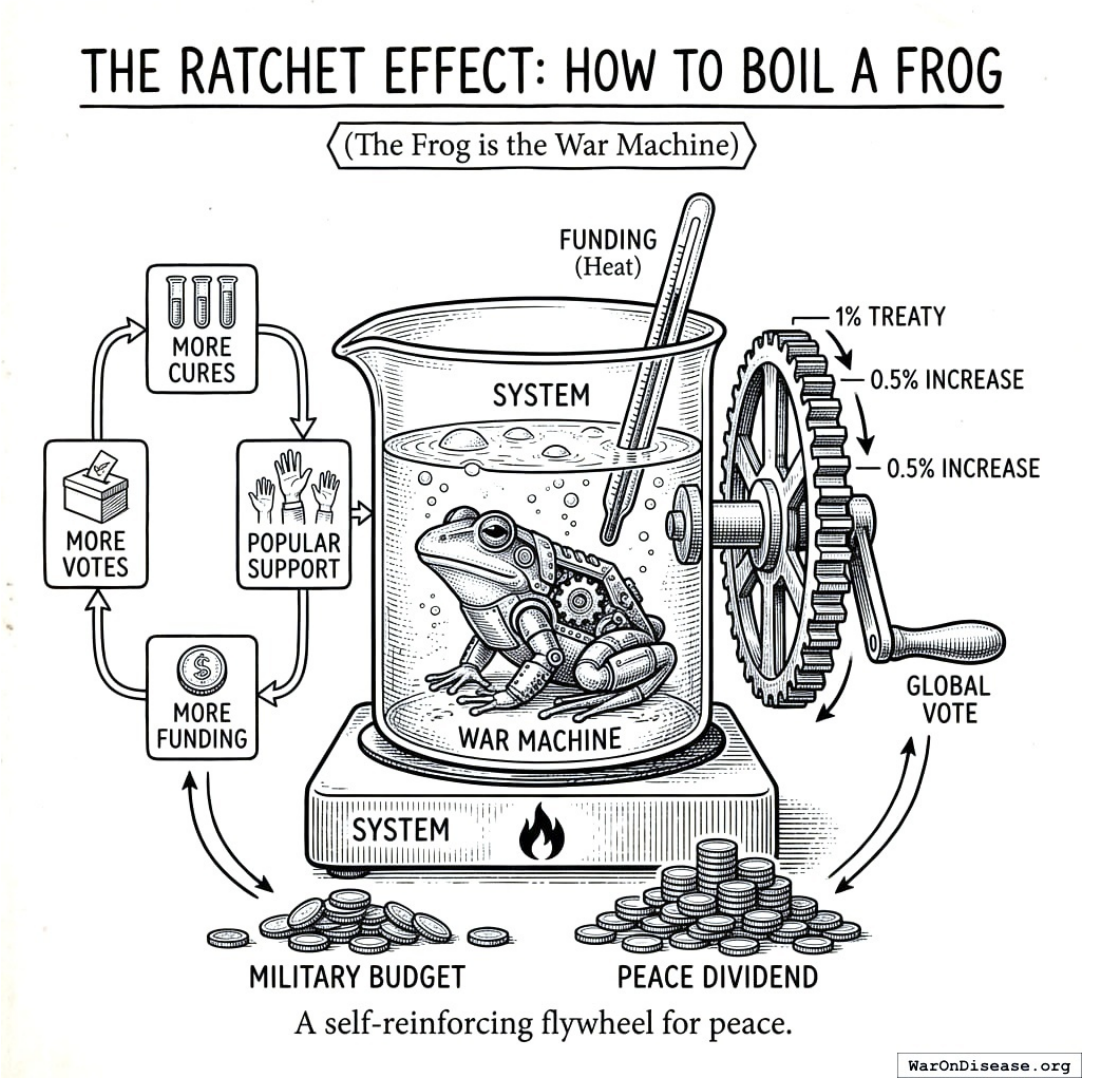


Figure 163: Scientists cure a disease. People like it. More money flows to science. More diseases get cured. The circle continues until someone remembers they like tanks.

Every five to ten years, you hold another global vote. The question is simple. "Hey, that worked out great. Grandma's dementia is manageable now. You stopped that pandemic before it started. Want to try another half-percent?"

It's a politically tiny ask with an enormous payoff. This creates a feedback loop from hell for the "war is good, actually" crowd. More cures lead to more popular support, which leads to more votes for more funding, which leads to more cures. It's a self-reinforcing flywheel for peace. The military budget gets put on a diet, one delicious, life-saving, politically-unassailable bite at a time.

The Economic Gold Rush

Eventually, the economic gravity of the planet will shift. The most talented scientists and engineers will be drawn to the massive opportunities in health and longevity, not designing better ways to blow people up. The world's biggest investors will realize the greatest returns

are found in curing Parkinson's, not in building another aircraft carrier.



Figure 164: Smart people stop building better ways to kill humans and start building better ways to keep humans alive. Revolutionary concept.

Nations will discover that true power comes not from their capacity for destruction, but from their capacity for keeping people alive. The new geopolitical competition won't be about who has the most weapons. It'll be about who cured the most diseases. Imagine a world where countries brag about their cancer survival rates instead of their missile counts. Weird, right? That's because you've been doing it wrong.

For quantitative projections of health and economic impacts, see https://impact.warondisease.org.

Objections

For detailed responses to common objections ("This makes us weak!", "This is socialism!", "What if there's a war?", etc.), see the Frequently Asked Objections.

Avoiding Treaty Pitfalls

Treaties fail in predictable ways. Here's how this one avoids the common killers:

Reservation Games

Countries love to sign treaties then add exceptions that gut them. It's like joining a gym but reserving the right to never go.

Solution: No reservations permitted. All or nothing. Take it or leave it.

Ratification Delays

Sign with fanfare, take a photo, then let it die in committee forever. Your species calls this "diplomacy."

Solution: Provisional application. Takes effect on signature. Ratification just formalizes what already started.

Creative Accounting

Reclassify "military" spending as "peacekeeping" or "homeland security" to dodge obligations.

Solution: IABs make creative accounting self-defeating. Politicians who benefit from treaty compliance have personal financial incentive to ensure their nation's full 1% contribution flows through. Reclassifying military spending to dodge obligations reduces IAB returns for that nation's own legislators, the same people who control budget classifications.

Parliamentary Obstacles

Executive signs, legislature refuses to implement.

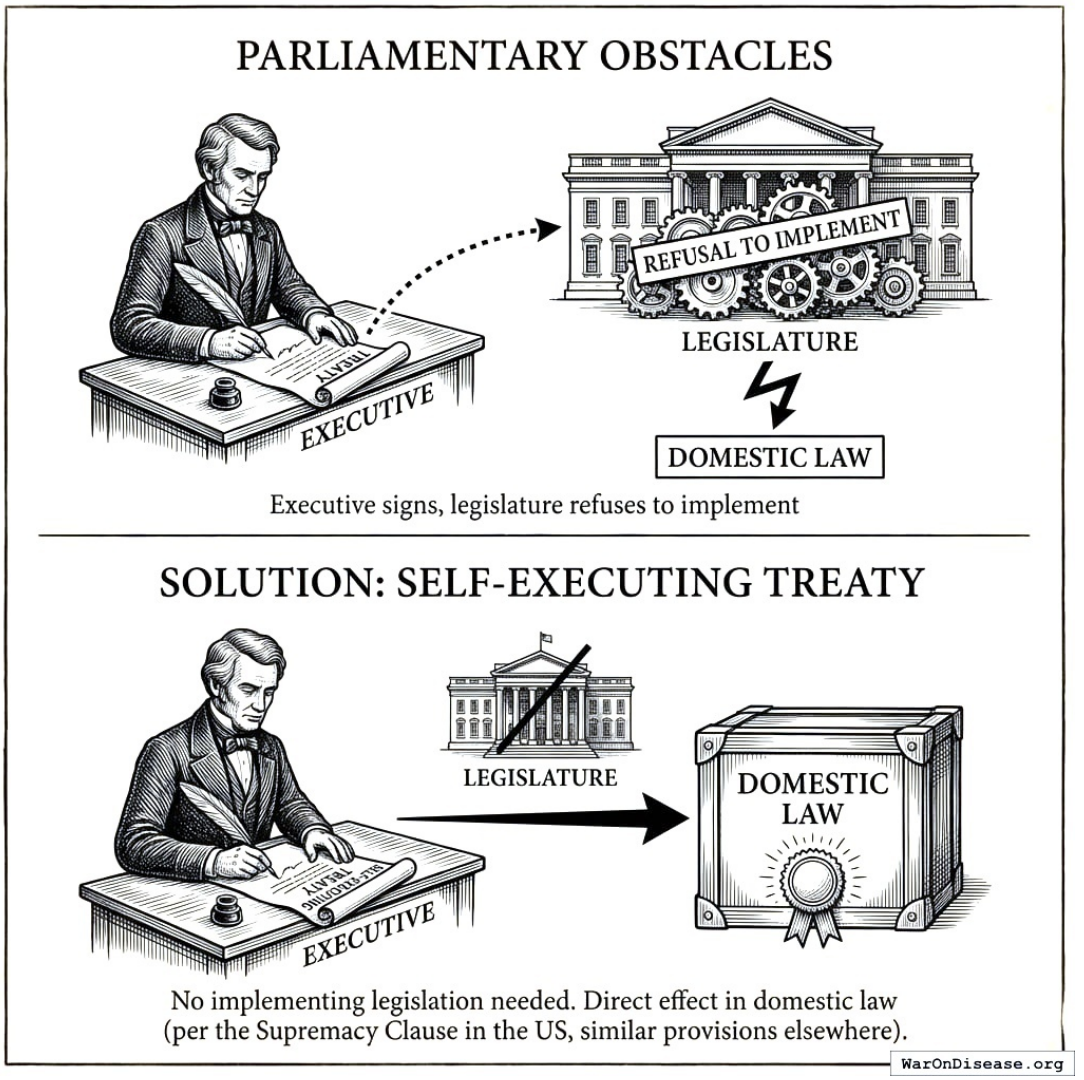


Figure 165: Regular treaties need Congress to agree twice. Self-executing treaties only need them to agree once. This is considered a dramatic improvement.

Solution: Self-executing treaty. No implementing legislation needed. Direct effect in domestic law (per the Supremacy Clause in the US, similar provisions elsewhere).

Summary

A 1% treaty is a piece of paper that says "Let's spend 1% less on killing and 1% more on not dying."

That's it. That's the whole thing.

It doesn't end war. It doesn't destroy the military. It doesn't create world peace.

It just moves the *first* 1% of your murder budget to your survival budget.

If you can't agree on that, if you can't agree that spending 1 penny less on death and 1 penny more on life is a good idea, then you deserve whatever's coming.

Addendum: The Actual Treaty Text (First Draft)

THE TREATY FOR THE 1% REALLOCATION OF MILITARY EXPENDITURES TOWARDS BIOMEDICAL RESEARCH AND DEVELOPMENT FOR THE PREVENTION OF HUMAN SUFFERING AND DEATH

(Or: The "Let's Not Die" Treaty, for short)

WHEREAS, humanity spends $2.72T annually on methods of killing itself;

WHEREAS, this seems somewhat counterproductive;

WHEREAS, diseases kill more people than all wars combined[243] and don't even have the decency to be quick about it;

WHEREAS, we have nuclear weapons sufficient to end civilization 20 times but can't cure male pattern baldness once;

WHEREAS, this is embarrassing;

NOW, THEREFORE, the undersigned nations agree to stop being complete idiots about this, as follows:

Article I: Each signatory shall redirect exactly 1% of its annual military budget to **the 1% Treaty Fund** for allocation to pragmatic clinical trials.

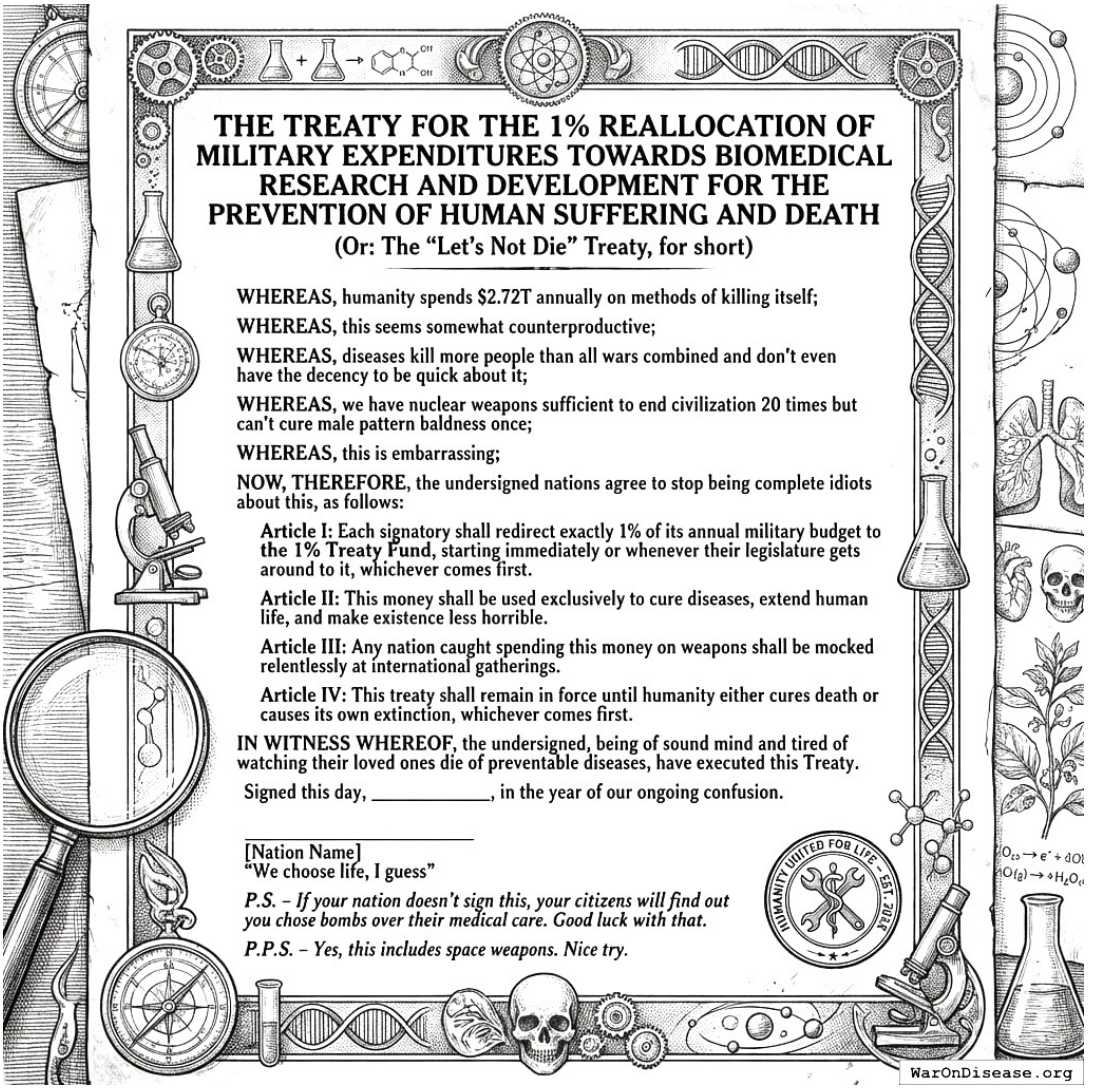


Figure 166: Current plan: make things that explode. New plan: make things that heal. The money is the same, just pointed in a less deadly direction.

Article II: Transfers shall be automatic, immediate, and irrevocable. No "we'll get to it later."

Article III: Percentages may increase but never decrease. This is a ratchet, not a yo-yo.

Article IV: Compliance shall be verified by blockchain and AI. No creative accounting.

Article V: Non-compliant parties lose access to IAB benefits and treaty fund advantages. Your opponents get what you forfeit.

Article VI: Success metrics trigger mandatory percentage reviews. When it works, we do more.

Article VII: Citizens have standing to enforce via domestic courts. You can sue your own government for non-compliance.

Article VIII: Withdrawal requires unanimous consent of all parties plus 10-year notice. Good luck with that.

Article IX: This treaty supersedes all conflicting domestic law. Yes, even that law.

Article X: Entry into force upon signature by two states. You only need two countries brave enough to go first.

IN WITNESS WHEREOF, the undersigned, being of sound mind and tired of watching their loved ones die of preventable diseases, have executed this Treaty.

Signed this day, _____, in the year of our ongoing confusion.

_____

[Nation Name] "We choose life, I guess"

_____

P.S. - Yes, this includes space weapons. Nice try.

Decentralized Institutes of Health

Your goal is simple: **eliminate all disease**.

The constraint is also simple: **resources are scarce**. You have limited money, time, and talent. Every dollar on a low-impact trial is a dollar not curing cancer. Every researcher writing grant applications is a researcher not doing research. Every patient excluded from trials is data you'll never collect and a person you'll never help.

Your current system fails this optimization so thoroughly it almost looks intentional.

Your NIH spends $47B a year. Your scientists spend 50-67% of their time writing grant applications[244] instead of doing science. Billions flow to projects that never produce treatments. Your system isn't designed to maximize cures. It's designed to maximize grant-writing.

This isn't a conspiracy. It's just what happens when you design a system that rewards asking for money instead of producing results. You've accidentally built a machine whose primary output is paperwork and whose secondary output is occasionally, reluctantly, medicine.

Your Decentralized Institute of Health (DIH) is an alternative design that optimizes for a single metric: **maximum ROI toward disease eradication**. It's what you'd build if you started from scratch and actually wanted results.

The Health-Industrial Complex: Coordinating Your War on Disease

The Olsonian Problem

Your economist Mancur Olson identified why public goods are systematically underproduced: **diffuse benefits and concentrated costs**. In simpler terms: everyone benefits from a cure for cancer, but nobody benefits enough to fight for it the way a weapons manufacturer fights for a bomber contract. It's one of those observations that's obvious once someone says it, and invisible before, which describes most of your species' problems.

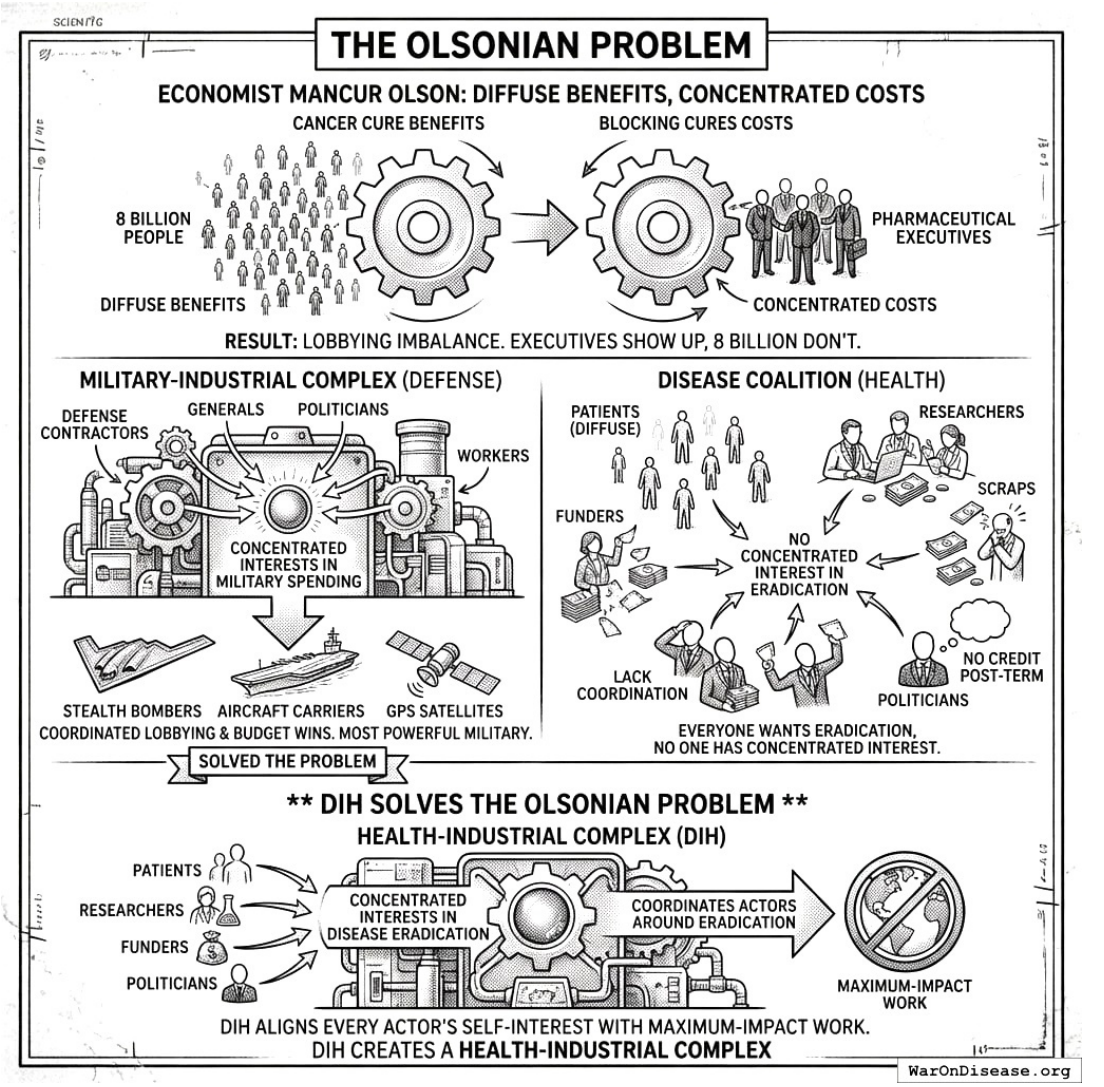


Figure 167: Why your species is so good at making weapons and so bad at curing diseases. The weapons people are organized, the disease people are scattered.

Curing cancer benefits 8 billion people a little. Blocking cancer cures benefits a few thousand pharmaceutical executives a lot. The executives show up to lobby. The 8 billion don't. This is why your species has spent 50 years "fighting cancer" while your defense industry got stealth bombers, aircraft carriers, and GPS.

Your military-industrial complex solved this problem for defense. Defense contractors, generals, politicians, and workers all have concentrated interests in military spending. They coordinate. They lobby. They win budgets. Result: the most powerful military in human history.

Disease has no such coalition. Your patients are too sick to lobby. Your researchers compete for scraps. Your funders lack coordination. Your politicians get no credit for cures that arrive after their term ends (which is all of them, because cures take 15 years and terms last 4). Everyone wants disease eradicated; no one has a concentrated interest in making it happen. It's like everyone wanting a clean kitchen but nobody wanting to do the dishes, except the dishes are cancer and the kitchen is on fire.

Your DIH solves the Olsonian problem by creating concentrated interests in disease eradication. See The Incentive Stack for how.

Your military-industrial complex coordinates actors around defense. Your DIH creates a **health-industrial complex** that coordinates actors around eradication. Same structure, opposite purpose.

SHAEF for Your War on Disease

In 1944, Eisenhower didn't replace the Allied armies. He coordinated them. Set the objective, allocated resources, made sure everyone pulled in the same direction. **Your DIH is SHAEF for the war on disease.**

Pharma companies stay pharma companies. Universities stay universities. Patient groups stay patient groups. But they operate as one force because your DIH coordinates them toward eradication.

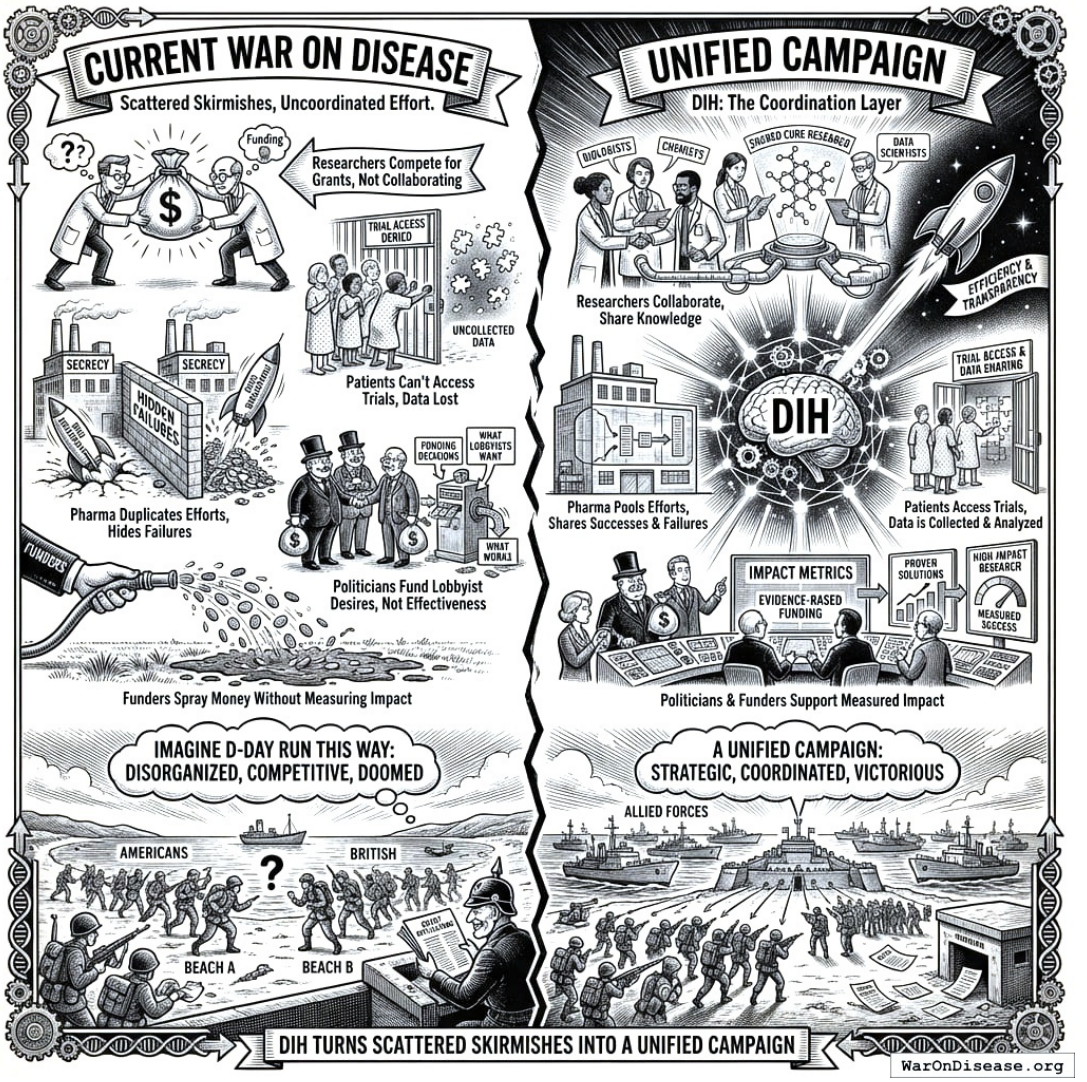


Figure 168: Medical researchers currently work in separate rooms and don't talk to each other. This is a picture of them in the same room, talking.

Your war on disease has been losing for 50 years because it's not actually a war. It's a collection of uncoordinated skirmishes where researchers compete for grants, pharma companies hide failures, and patients can't access trials. You've been "fighting" cancer the way a cat "fights" a laser pointer: lots of energy, no coordination, nothing caught.

Imagine if D-Day had been run this way. The Americans land at one beach, the British at another. Neither tells the other what they learned. Both compete for the same supply ships while the enemy reads their grant applications.

Your DIH is the coordination layer that turns scattered skirmishes into a unified campaign.

Your DIH: The ROI Maximization Protocol

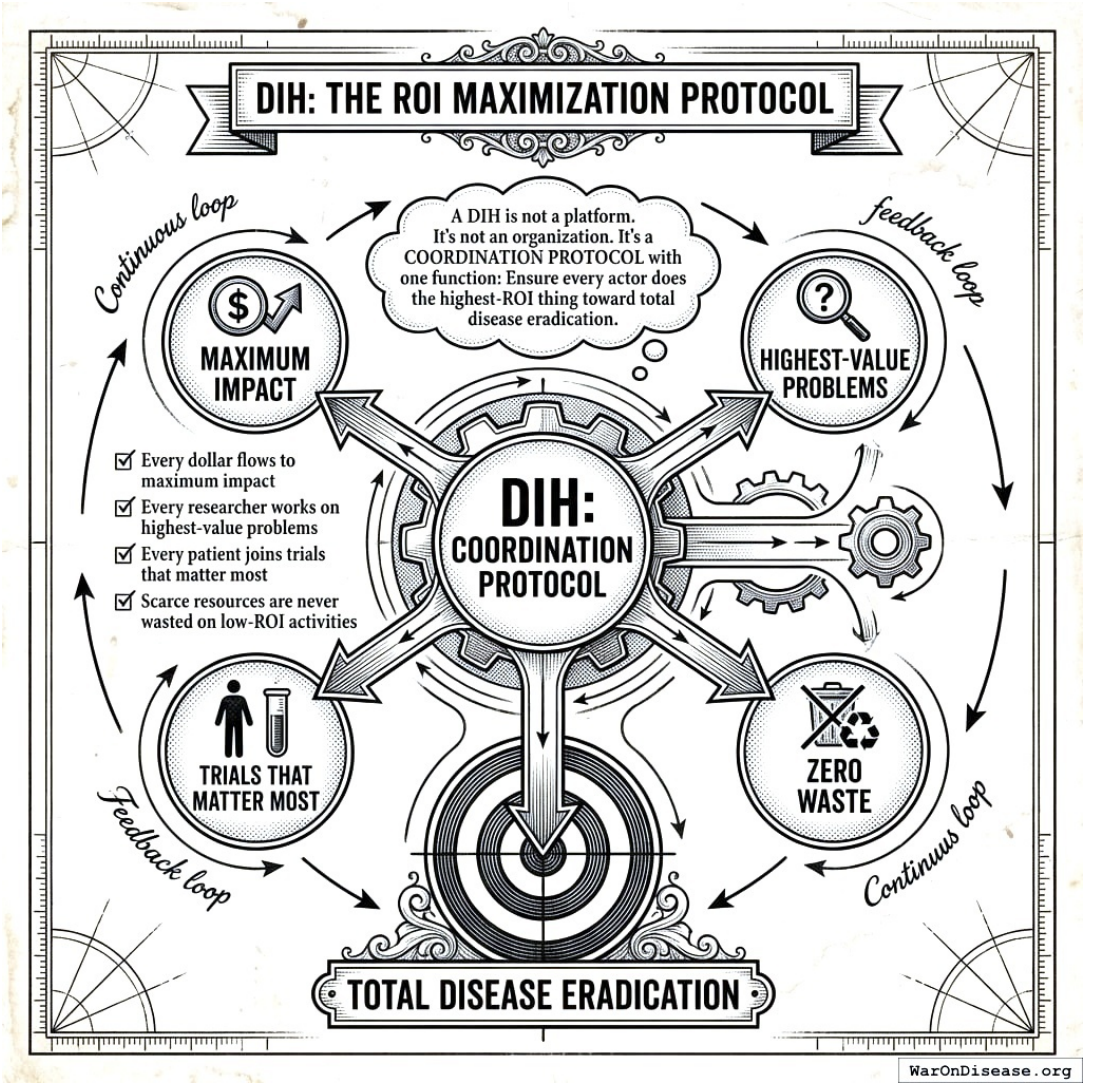


Figure 169: Everyone involved in medicine pointing in the same direction instead of wandering around like confused sheep.

Your DIH is not a platform. It's not an organization. It's not even really a thing. It's a **coordination protocol** with one function:

> **Make every actor do the highest-ROI thing toward total disease eradication.**

This means:

- Every dollar flows to maximum impact
- Every researcher works on highest-value problems
- Every patient joins trials that matter most
- Nothing gets wasted on low-ROI activities

On your planet, you call this radical. On mine, we call it "obvious."

Three Core Functions

Your DIH does exactly three things:

1. **Receive funds** (from the 1% Treaty, donations, etc.)
2. **Allocate research via patient subsidies** (market mechanism) and **infrastructure via Wishocracy**
3. **Verify results and pay proportional to impact**

Everything operational is outsourced. Trial infrastructure? That's your dFDA's job. Task decomposition? AI services. Talent matching? Existing marketplaces. Crowdfunding? Existing platforms.

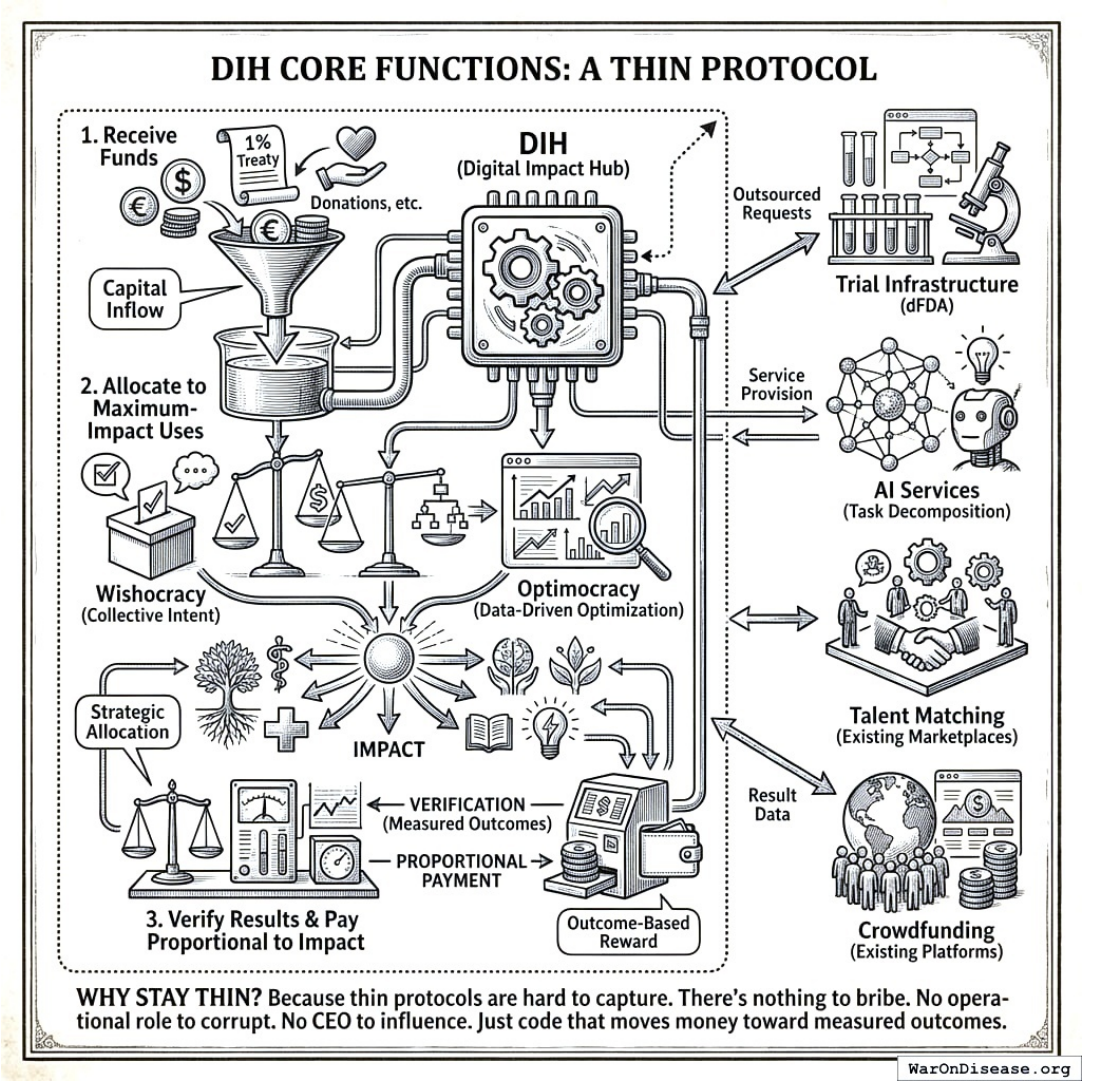


Figure 170: A tiny middle bit that handles money, surrounded by other people who do the actual work. Like a very small manager with many employees.

Why stay thin? Because **thin protocols are hard to capture**. There's nothing to bribe. No operational role to corrupt. No CEO to take on a yacht trip. Just code that moves money toward measured outcomes. Your species has a habit of corrupting every institution you build. You corrupt them the way water corrodes pipes: inevitably, given enough time and contact. This one is boring enough that nobody bothers.

The Core Innovation: Pay for Results

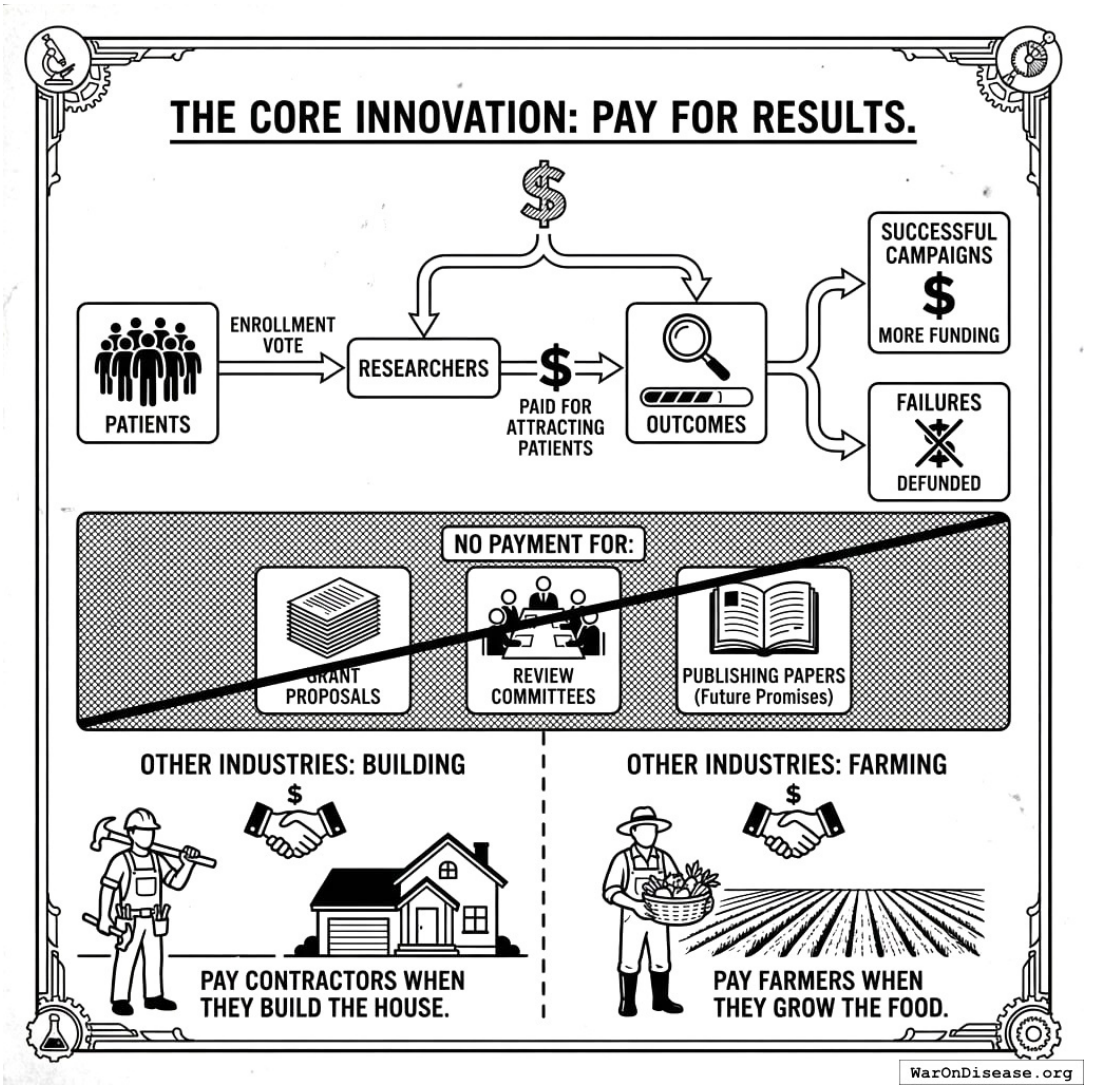


Figure 171: Pay people for curing diseases, not for writing essays about why they should be allowed to try curing diseases.

Every dollar flows based on results, not promises:

- **Patients vote with their enrollment** -> Researchers get paid for attracting patients
- **Outcomes determine continued funding** -> Campaigns that deliver get more; failures get defunded
- **No one gets paid for:**
  - Writing grant proposals
  - Attending review committees
  - Publishing papers about why their research might work someday

This is how most other industries work. You pay contractors when they build the house, not when they promise to build it. You pay farmers when they grow the food, not when they apply for a farming license.

Your Data Commons: Publish Everything

Your current system hides failures. Companies bury negative results. Researchers don't publish what didn't work. Your scientists waste billions repeating mistakes someone else already made because they literally cannot find out those mistakes were already made. It's like your whole species has amnesia, but only for the embarrassing parts. You remember your triumphs in high definition and forget your failures completely. This is called "being human." It's also called "why you keep dying."

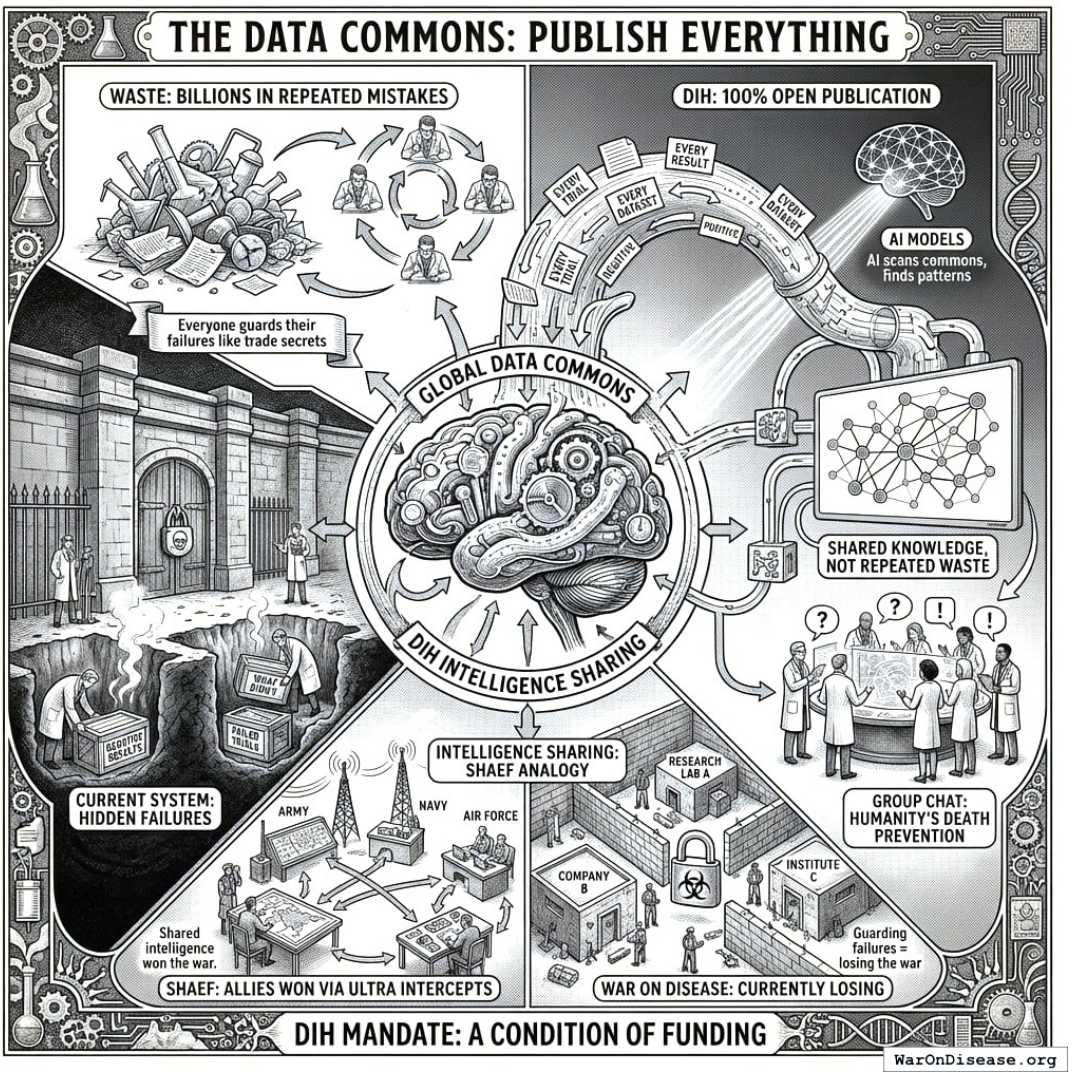


Figure 172: Currently, research results hide in separate filing cabinets. This shows them all dumped in one big pile where a computer can look at them.

Your DIH requires **100% open publication** of all data, positive and negative, as a condition of funding:

- Every trial, every result, every dataset published
- AI models scan the global data commons, finding patterns humans miss
- Failed experiments become shared knowledge, not repeated waste

This is intelligence sharing in the SHAEF analogy. Your Allies won partly because they shared Ultra intercepts across commands. Your war on disease loses because everyone guards their failures like trade secrets. Think of it as a group chat where everyone shares what didn't work. Except the group is your entire species and the topic is death prevention.

Governance: Market Mechanism + Wishocracy

Your DIH uses two allocation mechanisms:

- **Patient subsidies (market mechanism):** Research funding follows patient choice. Patients enroll in trials they believe in; funding flows accordingly. Variable subsidy rates ensure rare diseases remain viable. No committees decide "cancer vs Alzheimer's."

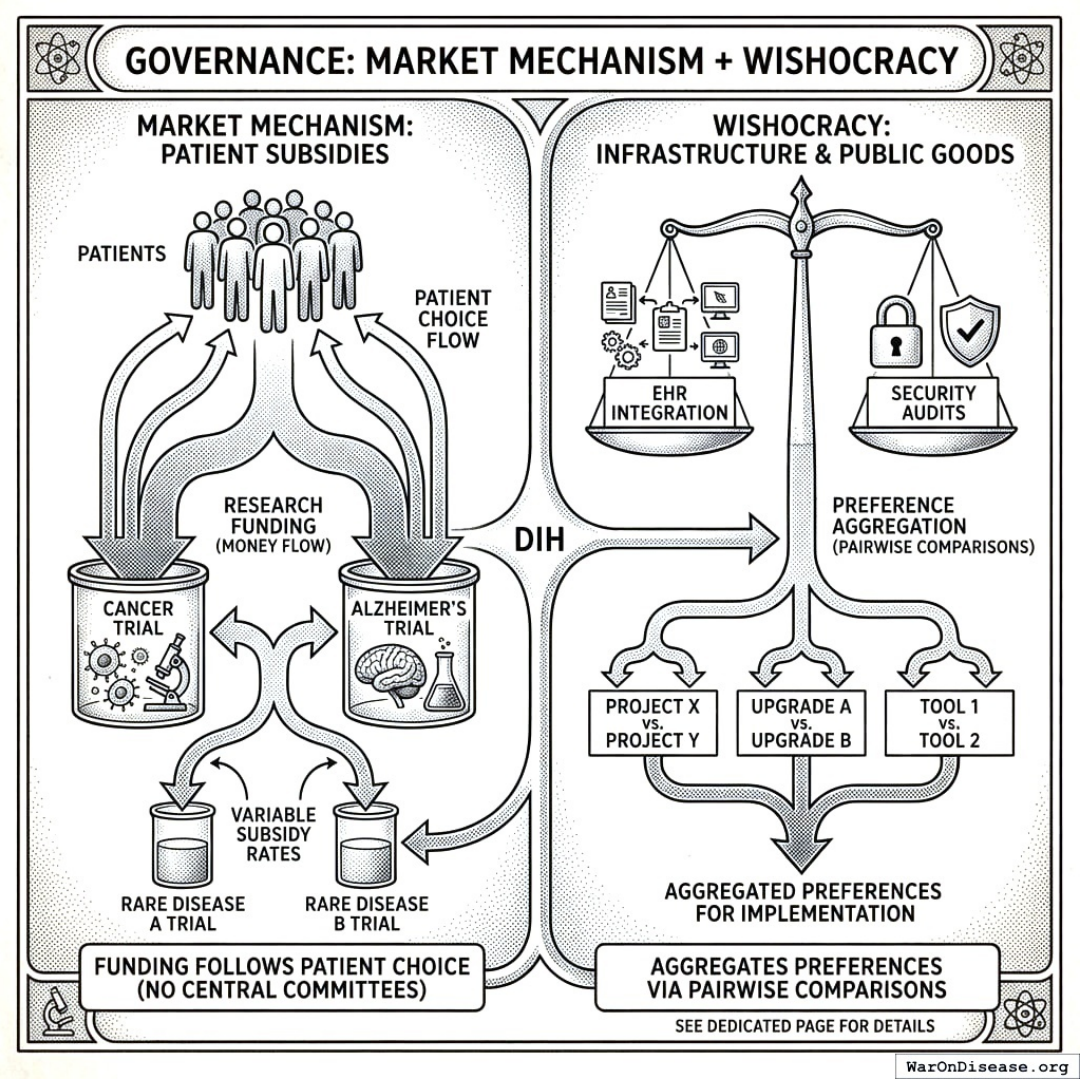


Figure 173: Sick people decide what to study; everyone votes on which buildings to build. Democracy, but only for the bits that make sense.

- **Wishocracy:** For infrastructure and public goods only. Aggregates preferences through pairwise comparisons ("EHR integration or security audits?").

The Incentive Stack: Making ROI the Selfish Choice

Your DIH doesn't rely on altruism. Altruism is lovely but flaky. It shows up when it feels like it, cancels last minute, and is always "busy that weekend." Instead, your DIH **pays everyone to do the highest-ROI thing**. Greed is more dependable than kindness. Your entire economic system proves this daily. Nobody ever forgot to be greedy.

Actor	Self-Interest	DIH Incentive	ROI Alignment
Researchers	Money, prestige	Per-patient subsidies (higher for rare diseases)	Attract patients = get paid
Patients	Health, compensation	Subsidies scale with trial importance	Joining high-priority trials = more paid
Politicians	Re-election, legacy	IABs tied to disease outcomes	Better outcomes = bigger bonus
Funders	Impact, returns	Quadratic matching, outcome tracking	High-ROI donations = amplified impact
Data providers	Revenue	Fees tied to data utility	More useful data = more revenue
Campaigns	Funding	Results-based continued funding	Higher ROI = more funding

Every incentive is ROI-weighted. Not just "do good" but "do the MOST good per dollar/hour." Your DIH makes the highest-ROI action the selfish choice for every actor. Selfishness, properly directed, cures cancer.

How Your Researchers Get Paid

Your traditional system: Write a grant proposal. Hope a committee likes it. Get paid to try. Maybe produce results. Maybe not. Get paid either way.

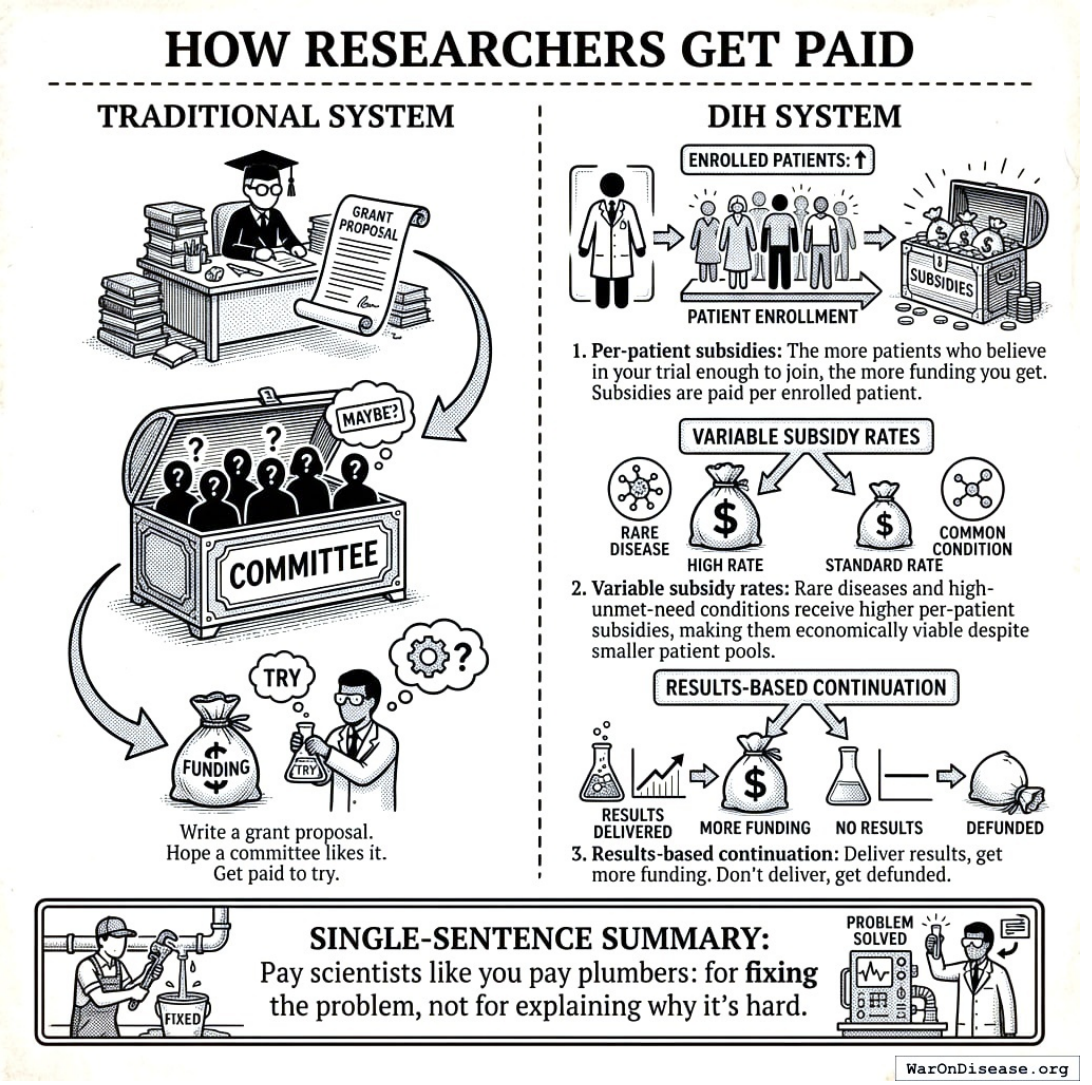


Figure 174: Old way: write a letter begging for money. New way: cure someone and get paid. One of these seems more efficient.

Your DIH system:

1. **Per-patient subsidies:** The more patients who join your trial, the more funding you get. Patients vote with their enrollment.
2. **Variable subsidy rates:** Rare diseases get higher per-patient subsidies. Small patient pools don't mean small budgets.
3. **Results-based continuation:** Deliver results, get more funding. Don't deliver, get defunded. Like every other job on your planet except, somehow, research.

Pay your scientists like you pay your plumbers: for fixing the problem, not for explaining why it's hard.

How It Works For Your Patients

Your DIH doesn't replace your healthcare system. It adds an "experimental treatment insurance layer" on top. Your species already understands insurance. You just hadn't thought to apply it to not dying of untreated diseases.

Sarah has Type 2 Diabetes. Old system: Metformin not working. No other options covered. Pays $500/month for branded drug. Still has poor control.

With your DIH: Her doctor checks the trial network during a regular visit. Sees 5 relevant trials. Recommends one based on Sarah's profile. Sarah enrolls with one click. The trial coverage pool covers all costs. Sarah pays a $30 copay. Gets an experimental drug that might work better. Reports blood sugar via app. Her data helps the next patient. Total time added to doctor visit: 3 minutes.

Cost per patient per month:

- DIH trial coverage: $310-2,510 (medication + monitoring + data collection)
- Traditional trial: $6,800-13,600[101]
- Efficiency gain: 75-80%

Why your doctors will cooperate: More treatment options for desperate patients. CME credits for participation. No liability (covered by trial insurance). One click in their EMR. No new systems to learn.

Why your patients will use it: Affordable access to experimental treatments ($20-50 copay). Doctor-recommended. Insurance-like coverage (familiar model). No financial risk. They help others while helping themselves. It's like being a guinea pig, except the guinea pig gets paid and gets medicine.

How Your Politicians Get Aligned

Your politicians optimize for reelection, status, and post-office careers. "Humans continuing to exist" doesn't appear on their performance review. This is a design flaw in your democracy, not a moral failing. Well, it's both. But mostly it's a design flaw, because if you put saints in a badly designed system, you get the same results. You just feel more betrayed.

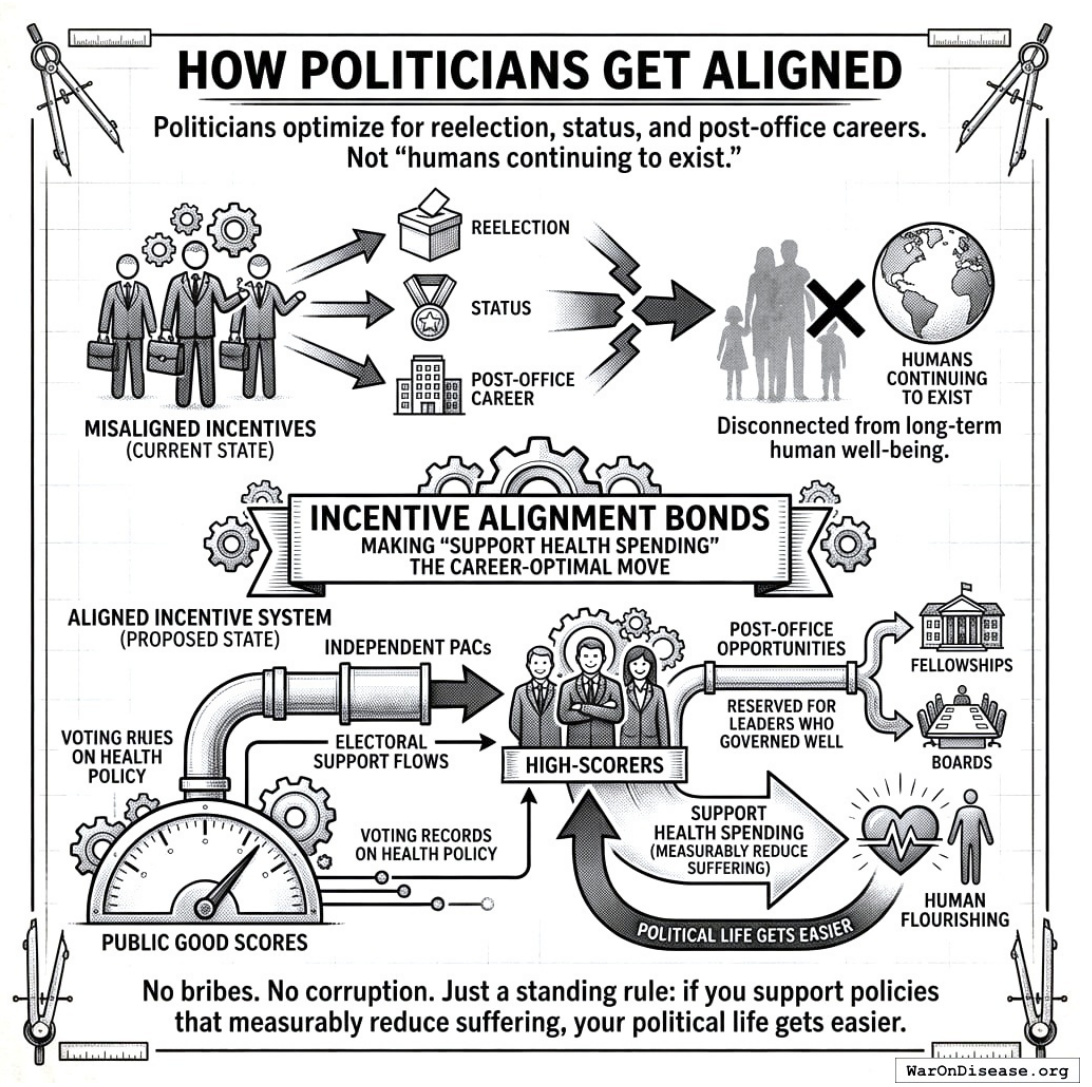


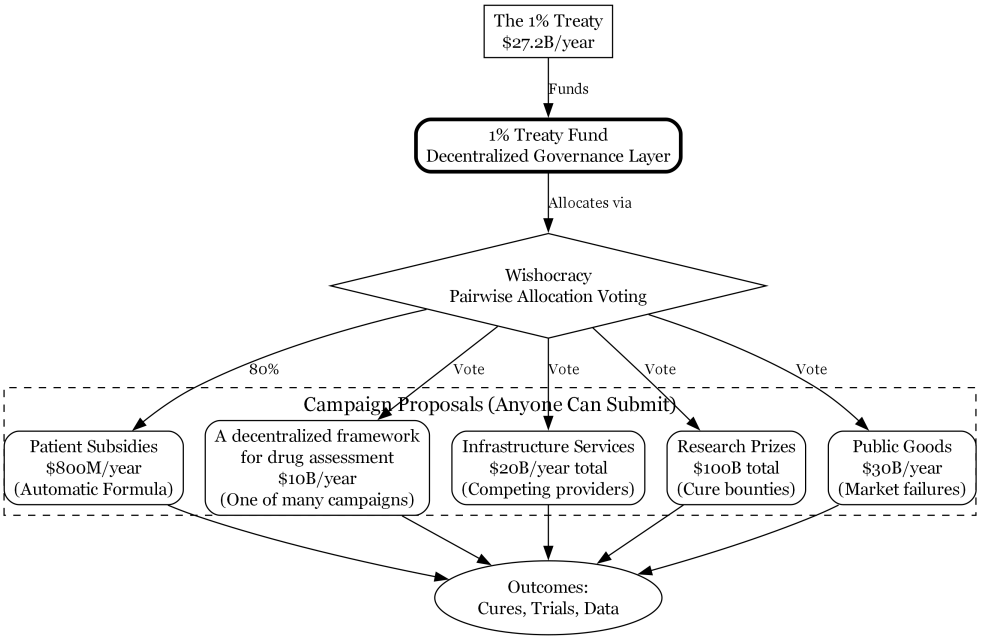
Figure 175: Politicians who vote for good things get good scores, which get them good jobs later. Like a report card that follows you into adulthood.

Incentive Alignment Bonds solve this by making "support pragmatic clinical trial funding" the career-optimal move:

- **Public Good Scores** track voting records on health policy
- **Electoral support** flows to high-scorers via independent PACs
- **Post-office opportunities** (fellowships, boards) reserved for leaders who governed well

No bribes. No corruption. Just a standing rule: support policies that measurably reduce suffering and your political career gets easier. Oppose them and it gets harder. Your politicians will figure it out. They're not stupid. They got elected, which requires a very specific and impressive type of intelligence, none of which involves curing diseases.

How the Money Flows



The Architecture

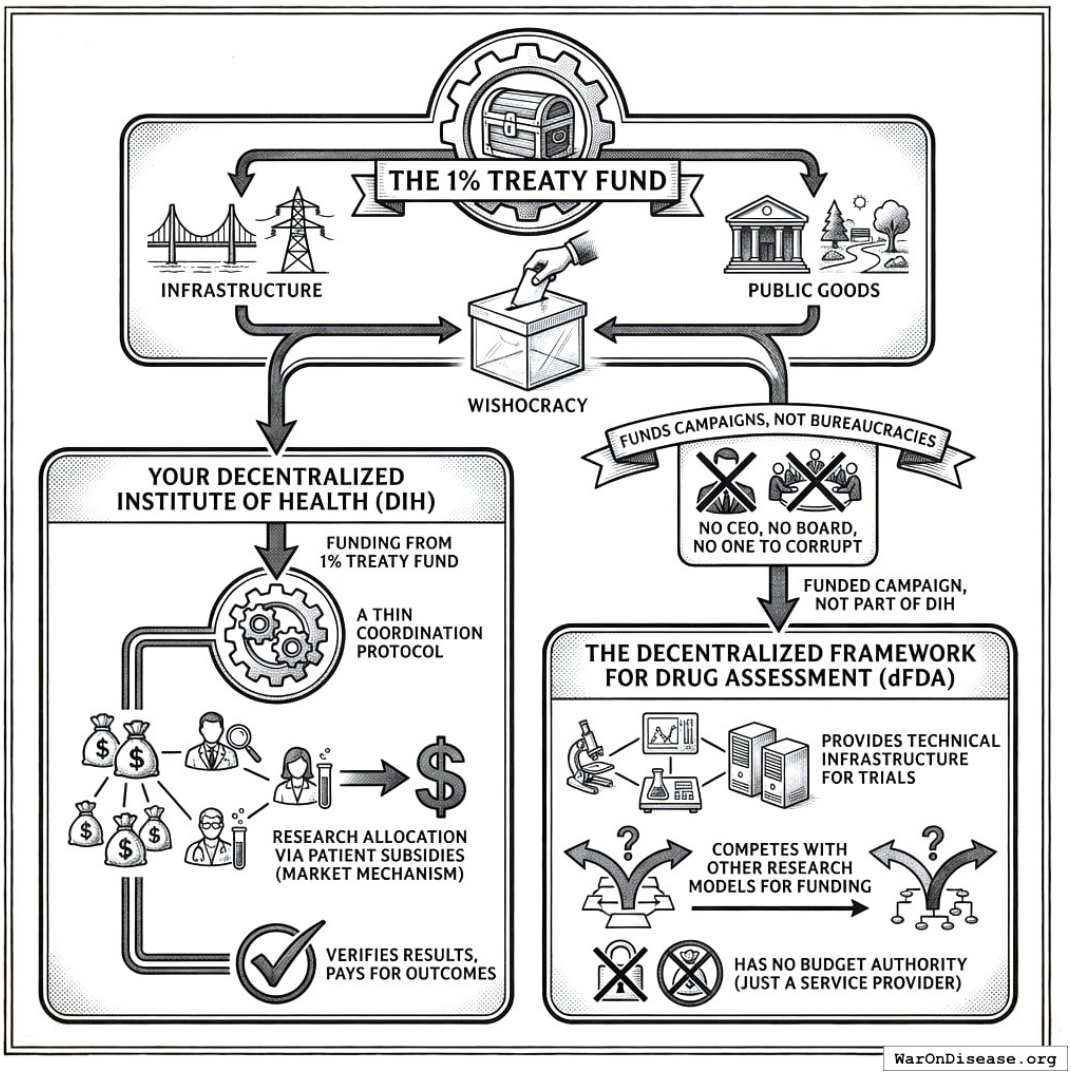


Figure 176: Three boxes with arrows between them. Money goes in one box, splits into two other boxes, and hopefully cures diseases.

The 1% Treaty Fund:

- Holds the treasury (from the 1% Treaty)
- Allocates between infrastructure and public goods via Wishocracy
- Funds campaigns, not bureaucracies
- No CEO, no board, no one to corrupt

Your Decentralized Institute of Health (DIH):

- A thin coordination protocol
- Receives funding *from* the 1% Treaty Fund
- Research allocation via patient subsidies (market mechanism)
- Verifies results, pays for outcomes

Your dFDA:

- A funded **campaign**, not part of your DIH itself
- Provides technical infrastructure for trials
- Competes with other research models for funding
- Has no budget authority (just a service provider)

The Fund Flow

Your 1% Treaty redirects **$27.2B** a year from global military budgets into the 1% Treaty Fund. But not all of it reaches research (some of it goes to keeping the machine running):

Allocation	Share	Amount	Purpose
VICTORY Bond investors	10%	$2.72B	Repay campaign funders
Political incentives (IABs)	10%	$2.72B	Keep politicians aligned
Research treasury	80%	**$21.8B**	Patient subsidies (market allocation)

What Gets Funded: Market Failures Only

Most research allocation happens automatically (patients choose trials, funding flows there). Your 1% Treaty Fund primarily funds **market failures**. These are the things your ecosystem can't handle on its own.

Infrastructure

- Development and operations
- Competing alternative implementations
- Data commons infrastructure (storage, processing)
- Security audits and fraud detection systems

True Public Goods (No Revenue Model)

- Patient trial participation subsidies
- Negative results publishing
- Replication studies

This is minimal by design. Your ecosystem handles most research funding automatically: companies register treatments, patients join trials, revenue flows, research happens. Your DIH only directs the 1% Treaty Fund to cover what the market genuinely can't.

What Your DIH Outsources (and Why)

Your DIH is intentionally minimal. It outsources everything operational because the best way to avoid corruption is to have nothing worth corrupting:

Function	Outsourced To	Why
Crowdfunding	Gitcoin, Juicebox, etc.	They already exist and work
Task decomposition	AI services	Machines are better at this

Function	Outsourced To	Why
Talent matching	Existing marketplaces	Don't reinvent LinkedIn
Trial infrastructure	dFDA (a funded campaign)	Separate concerns
Data storage	Competing providers	Market competition

How Campaigns Plug In

Your dFDA is the main example of a funded campaign. It's not part of your DIH. It's a service provider competing for funding. If it stops performing, you fund something better. This is how your species runs restaurants. Time to try it with medicine.

Campaign Lifecycle

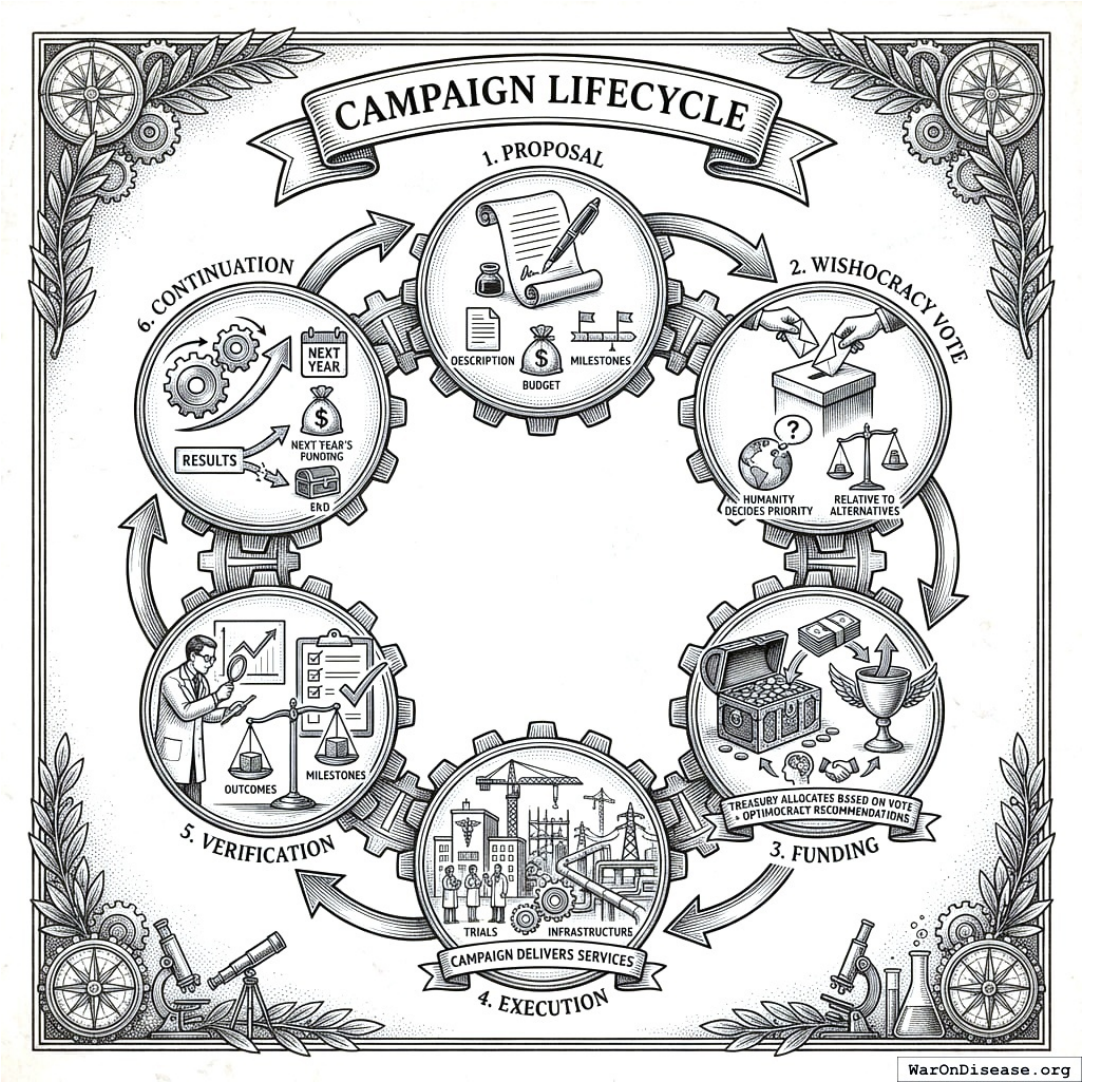


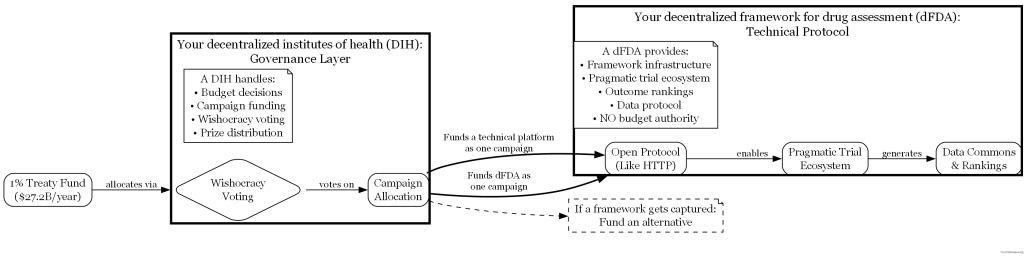
Figure 177: The six steps from 'someone has an idea' to 'did they actually do it.' Arranged in a circle to show it happens over and over.

1. **Proposal:** Submit campaign description, budget, milestones
2. **Wishocracy vote:** Humanity decides priority relative to alternatives
3. **Funding:** Treasury allocates based on vote + Optimocracy recommendations
4. **Execution:** Campaign delivers services (trials, infrastructure, etc.)
5. **Verification:** Measure outcomes against milestones
6. **Continuation:** Results determine next year's funding

Anti-Capture Design

Your current system is trivially captured. Concentrate billions of dollars in a few committees, and lobbyists will find them. This is as predictable as gravity, and your species keeps being surprised by it the way a dog is surprised by a vacuum cleaner. Every single time.

Your DIH makes capture economically irrational.



How Your DIH Resists Capture

Mechanism	How It Works	Capture Cost
No CEO	Nothing to bribe	N/A
Algorithmic governance	Rules in smart contracts	Can't bribe an if-statement
Public ledger	Every dollar tracked	Corruption is visible
Forkable	Anyone can clone the protocol	Capture triggers replacement
Distributed voting	Millions vote via Wishocracy	Lobbying doesn't scale
Outcome-based funding	Results determine allocation	Gaming harder than performing

The "New FDA" Risk

Risk: "What if your dFDA becomes the new FDA, capturing regulatory power?"

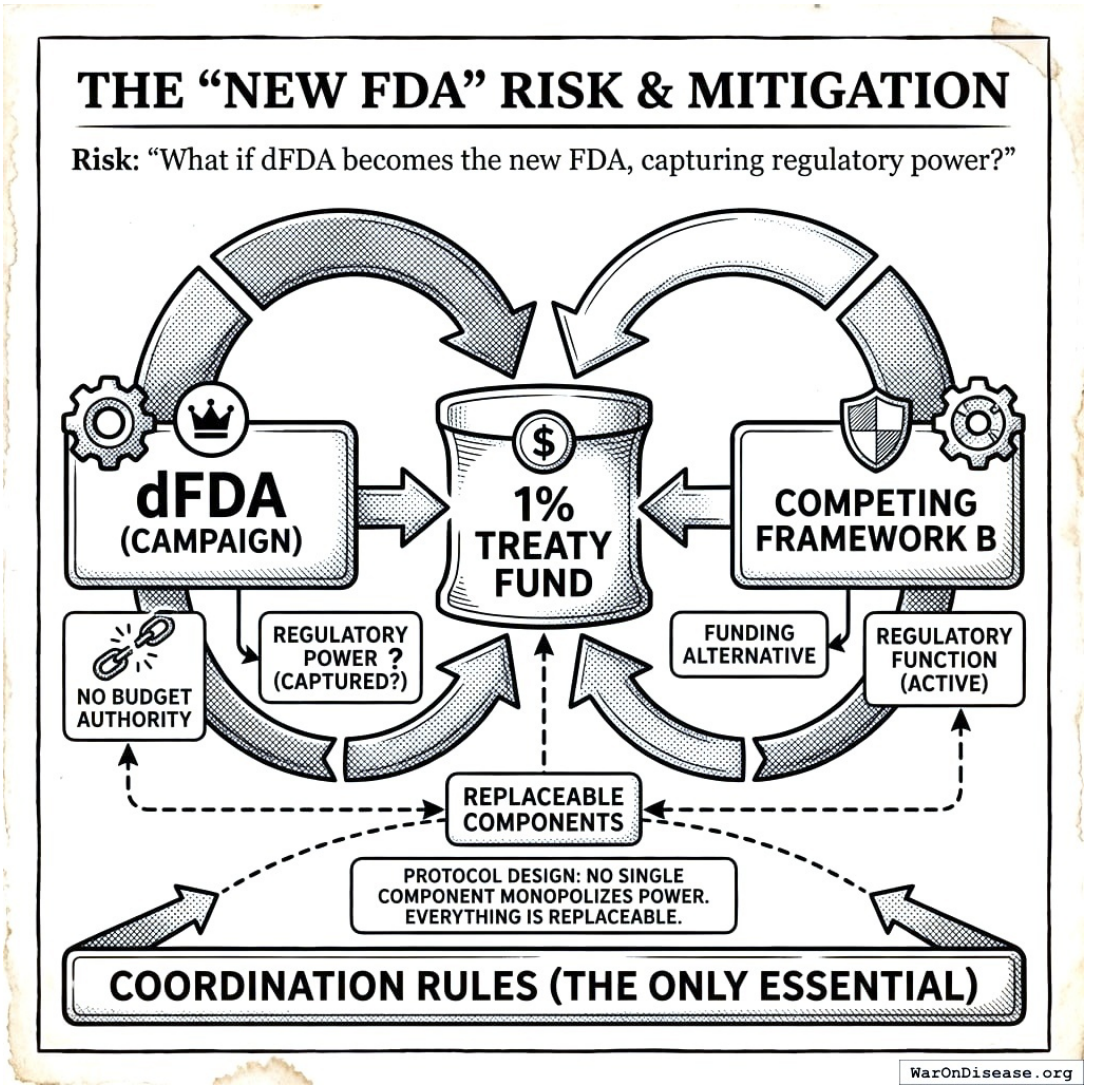


Figure 178: When the FDA gets corrupted, you just build a second FDA with the same money. Like switching to the other queue at the grocery store.

Mitigation: Your dFDA has no budget authority. It's just a campaign competing for funding. If it gets captured, fund a competing framework instead. Replace it like you replace a bad restaurant: stop going there and open a better one.

Your protocol ensures **no single component can monopolize power**. Everything is replaceable. Nothing is essential except the coordination rules themselves.

Security Architecture: Multi-Layered Defense

A $27.2B treasury is a massive target. Every thief, hacker, and corrupt bureaucrat on your planet will try to steal from it. This is not speculation. This is a certainty, like sunrise or a politician lying. Your DIH uses defense in depth:

1. Nobody's in Charge (And That's the Point)

Turns out you don't need a CEO when you have math.

- Every VICTORY Bond holder directly controls treasury through on-chain voting
- No human signers = no kidnapping, corruption, or coercion targets
- Smart contracts automatically execute community decisions after 24-72h timelocks
- Battle-tested approach already managing billions in MakerDAO, Uniswap, Aave

2. AI-Powered Fraud Detection

- **Fraud Agent:** Real-time anomaly detection, duplication monitoring, collusion identification, sybil detection
- **Safety Oracle:** Incident severity scoring with automatic payout holds for affected interventions
- **Identity Oracle:** Verifies affiliations and conflicts, prevents unauthorized access
- Manual review queue for flagged actions with whistleblower bounty rewards

3. Complete Transparency & Auditability

- All treasury addresses published with real-time public dashboards
- Immutable transaction logs with standardized disbursement tags
- Annual smart contract audits and semiannual operational audits with published reports
- Hash-committed invoices and budgets for full accountability

4. Recovery & Response Mechanisms

- Clawbacks for data falsification or trial misconduct
- Emergency pause capabilities triggered by incident signals
- Progressive unpause policies tied to remediation completion
- Guardian modules for pausing non-critical functions under defined conditions

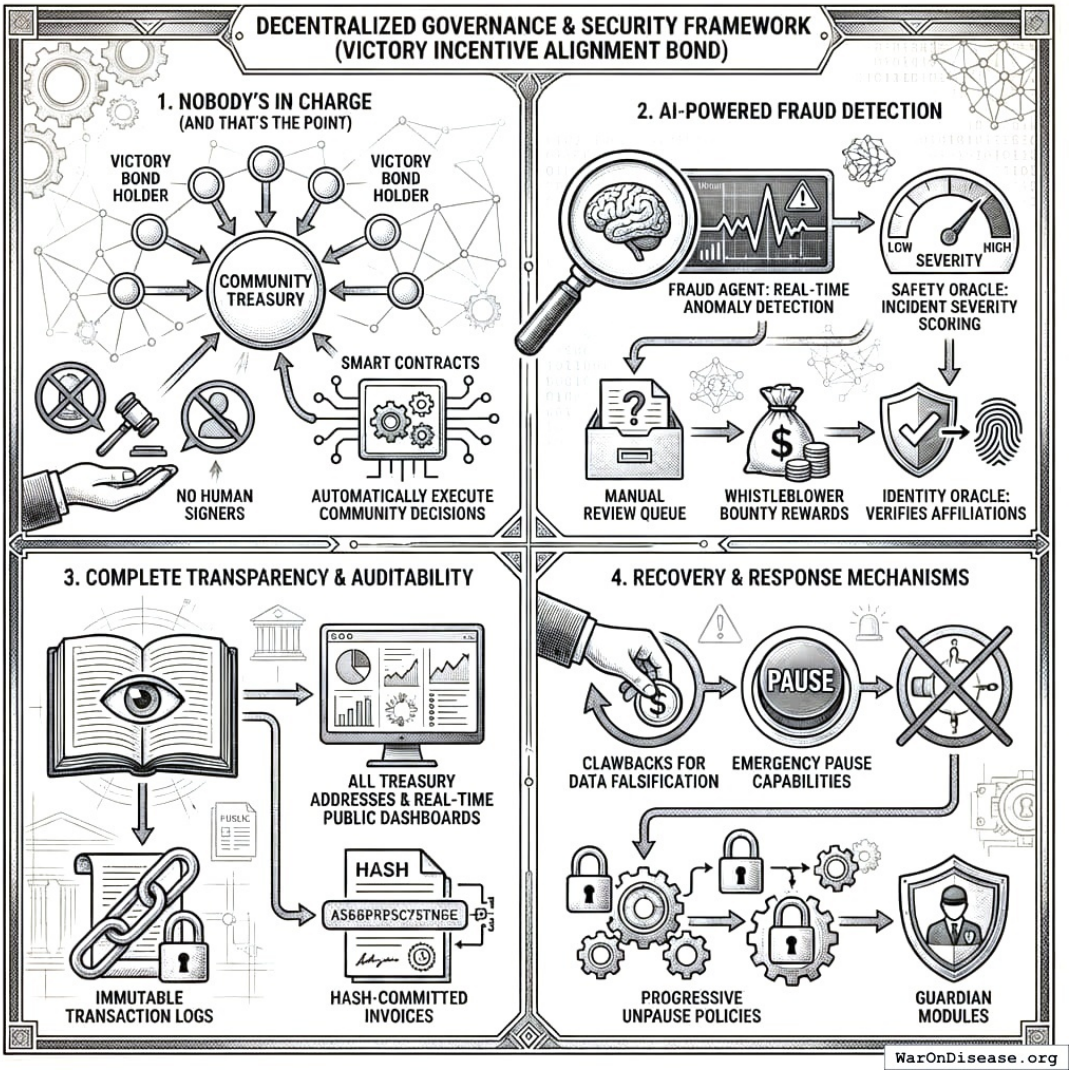


Figure 179: Four different ways to stop people from stealing the money. Because one way would be insufficient, apparently.

Beyond Medical Research

You can prove this model works with a $27.2B treasury. Then apply it to everything else your governments currently mismanage:

- **Education:** Pay teachers based on whether kids actually learn things
- **Infrastructure:** Fund roads that don't immediately fall apart
- **Environment:** Pay for actual carbon reduction, not paperwork
- **Social Services:** Get help to people who need it without 47 forms

This isn't just about protecting health funding. It's a proof of concept for uncorruptible governance. Your 1% Treaty Fund becomes the prototype. If you can manage $27.2B without humans stealing it, you can manage anything. The trick is removing the humans from the parts where they steal, which, historically, is all the parts.

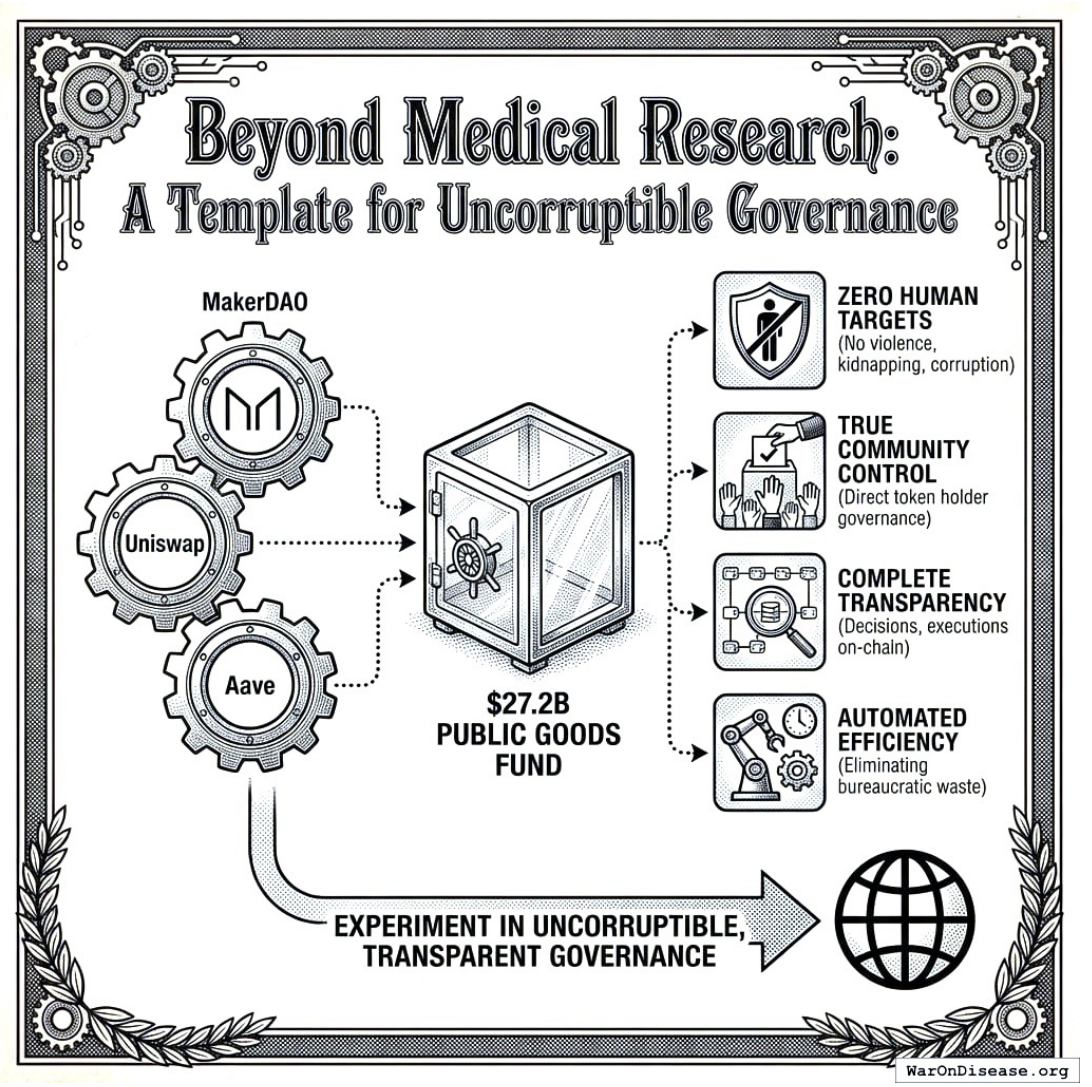


Figure 180: Money distributed by robots instead of people, because people kept stealing it.

Summary: Your Coordination Layer

Your DIH is not a research institution, a trial platform, or a funding agency. It's **the thin layer that coordinates all of them**.

Component	Function	DIH's Role
1% Treaty Fund	Treasury	Receives funds from treaty
Patient subsidies	Research allocation	Market mechanism (patients choose trials)
Wishocracy	Infrastructure governance	Allocates between infrastructure/public goods
dFDA	Trial infrastructure	Funded campaign
IABs	Political alignment	Keeps politicians incentivized
VICTORY Bonds	Investor alignment	Funds the campaign

The single sentence version:

> Your DIH receives funds, allocates research via patient subsidies, governs infrastructure via Wishocracy, verifies results, and pays proportional to outcomes, making the highest-ROI action the selfish choice for every actor.

That's the theory. The rest of this manual explains how you actually build it.

Wishocracy

Congratulations! You've passed a 1% treaty. Now you've got $27.2B/year flowing into the 1% Treaty Fund. That's the good news. The bad news is that humans are involved.

Not all of it is available for allocation. First, the automatic deductions (think of these as the "cost of convincing humans to stop killing each other" tax):

Allocation	Share	Amount	Purpose
VICTORY Incentive Alignment Bond investors	10%	$2.72B	Repay campaign funders
Political incentives (IABs)	10%	$2.72B	Keep politicians aligned
Available for Wishocracy	80%	**$21.8B**	What you get to allocate

How do you stop parasitic special interests from stealing that $21.8B? If history is any guide, you don't. Every pool of money humanity has ever created has attracted lobbyists the way a dropped ice cream cone attracts ants, except ants at least work hard.

Wishocracy replaces committees with code and representatives with mathematics. It lets 8 billion people collectively decide how to spend $21.8B without turning it into a bureaucratic nightmare. The difference between this and the NIH is like asking 200 bureaucrats what you should have for lunch versus asking your stomach. Your stomach has never once funded a colleague's lunch out of professional courtesy.

How Wishocracy Allocates the 1% Treaty Fund: Decentralized Crowdfunding

Your decentralized institutes of health (DIH) network functions as a **decentralized crowdfunding platform**. Anyone can submit a campaign proposal. Wishocracy allocates funds from the 1% Treaty Fund across competing campaigns. It's Kickstarter, but backed by the GDP of nations instead of your friend's credit card.

What the decentralized framework for drug assessment (dFDA) handles automatically (no voting required):

- **Which treatments get tested** → Companies register, patients choose (capitalism, for once, doing something useful)
- **Which diseases get researched** → Patients join trials for their conditions (people tend to be motivated about their own mortality)

- **Resource allocation within trials** → Market prices and participant choices

What Wishocracy Actually Decides:

The hard stuff. Allocation across campaign proposals competing for 1% Treaty Fund funds:

Infrastructure Campaigns (the boring but essential plumbing)

- "Decentralized Framework for Drug Assessment Development" - $1B/year proposal
- "Epic EHR Integration Project" - $5M one-time
- "AWS Infrastructure Services" - $3M/year
- "Security Audit Program" - $2M/year
- "Alternative decentralized framework for drug assessment" - $8M/year (competition! novel concept for government!)

Public Goods (things the market won't fund because nobody gets rich curing diseases that don't sell pills)

- "Patient Trial Subsidies Program" - $800M/year (automatic formula)
- "Off-Patent Drug Research" - $20B/year
- "Rare Disease Initiative" - $10B/year
- "Negative Results Publishing Fund" - $5B/year (yes, knowing what *doesn't* work is worth billions; your species keeps re-running failed experiments because nobody publishes failures)

Service Provider Bids (capitalism, but supervised)

- "Data Storage Provider A" - $2B/year
- "Data Storage Provider B" - $1.5B/year (competing)
- "Pragmatic Clinical Trial Insurance Pool" - $10B reserve

How It Works: Pairwise Comparisons Between Campaigns

No committee on Earth has ever looked at a list of 10,000 proposals and made a good decision. Committees are where good ideas go to die of old age. Instead, the global population votes using pairwise comparisons:

"What's more important right now:"

- "Framework for drug assessment development" vs "Alzheimer's prize"?
- "Epic integration" vs "Security audits"?
- "Rare disease research" vs "An alternative drug assessment framework"?
- "Patient subsidies" vs "Infrastructure spending"?

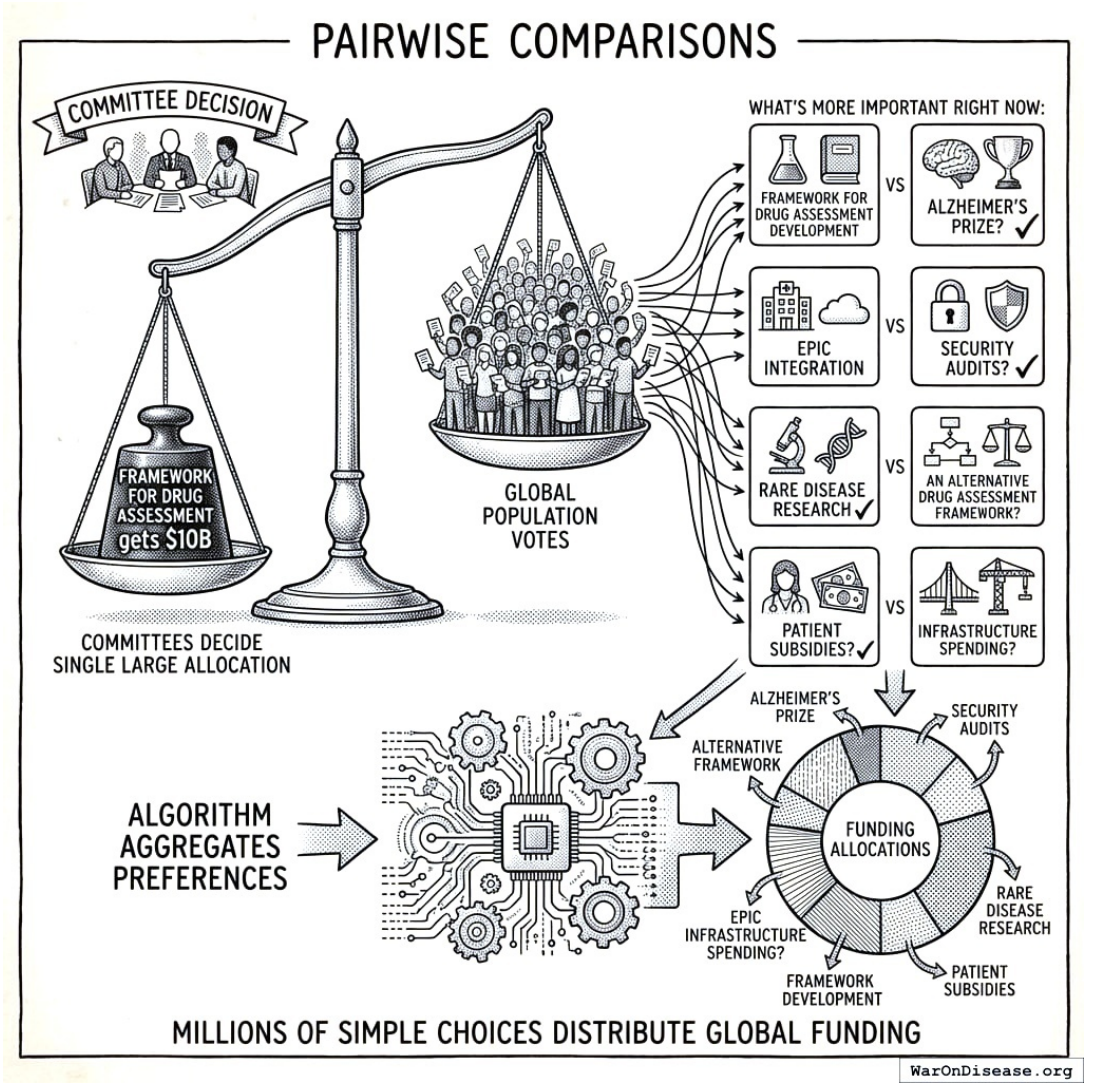


Figure 181: People choose between two things at a time, over and over, until math decides what gets funded. Democracy, but make it exhausting.

Millions of people make simple pairwise choices. The algorithm aggregates preferences into funding allocations. No filibustering. No horse-trading. No senators holding medical research hostage because they want a highway in their district.

Why You Can't Just Use a Spreadsheet

Someone is going to ask, "Why not just write a formula?" Because the decisions look like this:

1. **Multiple competing implementations** - Three teams want to build the drug assessment platform. Which one? All three? Two? The one with the best logo?
2. **Trade-offs between prizes** - $100B for aging reversal or $50B for Alzheimer's + $50B for cancer? There is no "correct" answer. There is only what humanity collectively values, which is exactly what Wishocracy measures.
3. **Public goods allocation** - How much for off-patent drugs vs rare diseases? Markets won't answer this because there's no profit in it.

4. **Service provider competition** - Which companies get contracts for what amounts?

Your decentralized framework for drug assessment (dFDA) allocates resources **within** pragmatic clinical trials. Wishocracy allocates resources **between** campaigns. One is the engine, the other is the steering wheel. You need both unless you enjoy driving into walls.

The core of Wishocracy is a voting method so simple, even a congressman could do it (though we'd recommend they practice first). It's called Aggregated Pairwise Preference Allocation, or simply, the **Pairwise Slider Allocation**.

Your brain can't rank a list of 20 priorities. It gives up around item number seven[245]. But it's fantastic at comparing two things.

Instead of asking, "Rank these 10,000 campaign proposals," the system asks:

"What's more important right now: dFDA platform development or security audits?"

You make a choice. That's it. You do this a few times with different random pairs. It takes five minutes. Less time than you spend choosing a Netflix show, and considerably more important. Millions of other people do the same. An algorithm takes all these simple, head-to-head comparisons and builds a real-time ranking of infrastructure and public goods priorities.

(Remember: Wishocracy doesn't allocate between diseases. Patients do that by choosing which trials to join. Wishocracy allocates between *infrastructure campaigns* and *public goods* that markets can't handle.)

It's the wisdom of crowds, but without the crowds having to talk to each other.

Why This Actually Works (Math Warning)

When millions of people make pairwise choices, something almost magical happens (and by "magical" I mean "statistically inevitable," which is the only kind of magic that actually works):

- **Random pairs prevent gaming.** You can't lobby 5 million people. Well, you can try. Good luck.
- **Statistical models** (Bradley-Terry, PageRank)[246] extract global preferences from individual comparisons. The same math that ranks Google search results can rank humanity's medical priorities. Google uses it to find cat videos. You'll use it to cure cancer. Progress.
- **Outliers cancel out.** The guy who votes "fund my personal jetpack" gets drowned out by the millions voting for "cure my mother's Alzheimer's."
- **Wisdom of crowds emerges.** Reliably. Repeatedly. Boringly.

Example with real numbers:

- 5 million people vote. Each makes 20 comparisons. That's 100 million data points.
- Algorithm processes them in seconds.
- Output: "Allocate 40% to patient subsidy programs, 25% to dFDA platform development, 15% to off-patent drug research, 10% to rare disease initiatives, 5% to security infrastructure, 5% to negative results publishing…"
- No committee meetings were harmed in the making of this budget.

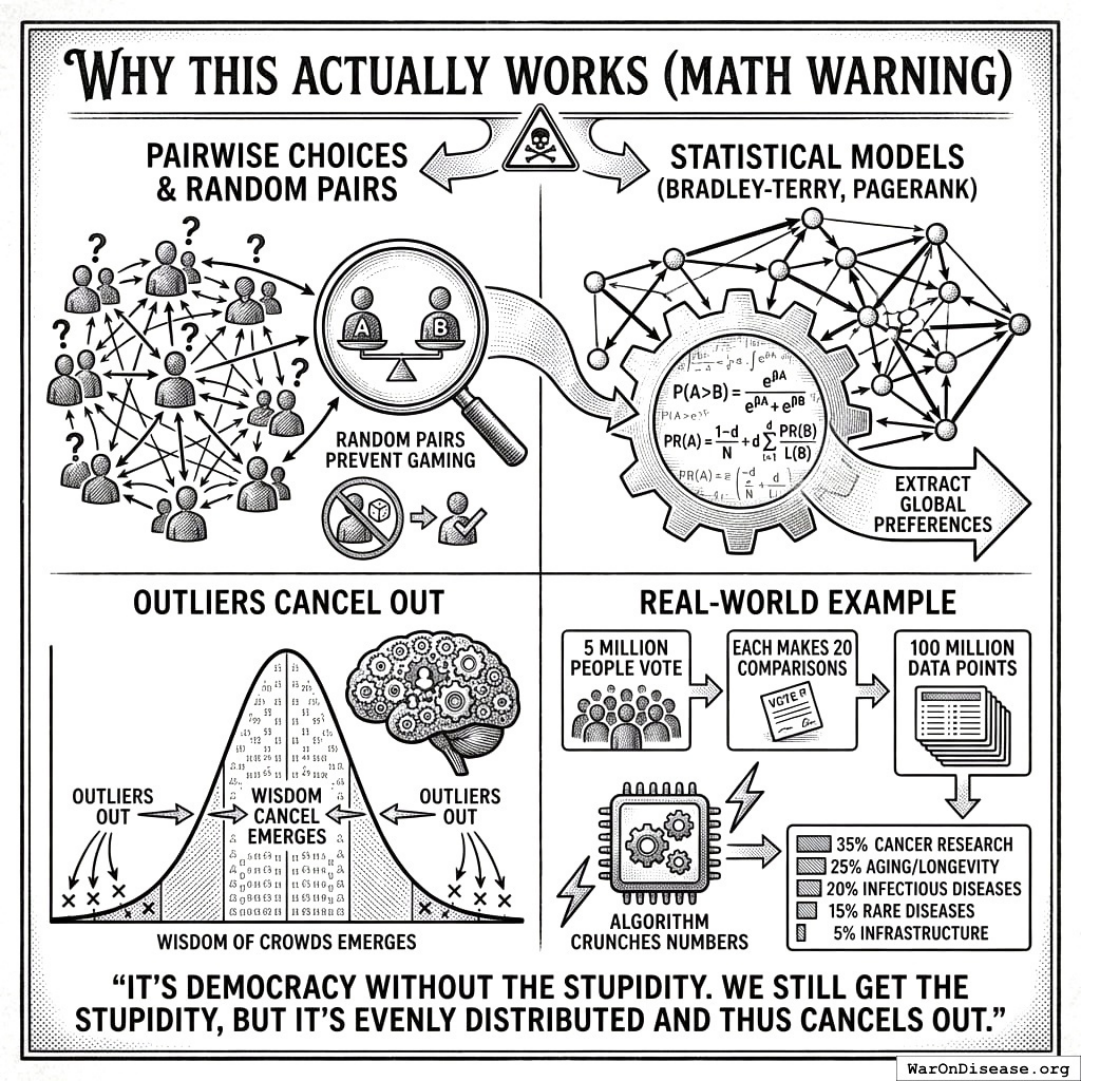


Figure 182: Millions of clicks get crunched by algorithms into one list of what humanity wants most. Turns out we can agree on things when there's money involved.

It's democracy without the shouting. The stupidity is still there, but it's evenly distributed across millions of people and thus cancels out. This is called "the wisdom of crowds." It works for the same reason that guessing the weight of a cow at a fair works: individually you're all terrible at it, but collectively you're weirdly accurate.

From Priorities to Projects (Where Wishes Become Tasks)

Great, so the Pairwise Slider Allocation tells you "Curing Alzheimer's" is a top priority. Wonderful. Now what? Having a priority without a plan is just a wish. And wishes, as a rule, don't cure anything. Wishocracy translates that priority into action.

1. **AI Breaks It Down:** An AI takes the impossible goal of "Cure Alzheimer's" and breaks it into thousands of smaller, concrete, fundable tasks. "Cure Alzheimer's" becomes "Map protein structures." That becomes "Run AlphaFold on these sequences." That

becomes "Rent computing time." Every impossible problem is just a series of possible steps arranged in a line. Your species figured this out for building pyramids 4,500 years ago but keeps forgetting to apply it to medicine.

2. **The Bounty Board:** The system posts these tasks to a global marketplace. It's like eBay, but for saving humanity.
    - **WANTED:** A cure for Alzheimer's. **BOUNTY:** $10 billion.
    - **WANTED:** A map of all protein misfolding patterns. **BOUNTY:** $500 million.
3. **The World Competes:** The best teams from around the world, from MIT to some kid in a garage in Lagos, bid on these tasks. The system funds multiple approaches in parallel. The ones that show promise get more funding. The ones that fail lose funding instantly. It's venture capital, but for not dying. Your species already uses this method to decide which restaurants survive and which phone apps get downloaded. Time to try it with the thing that kills you.

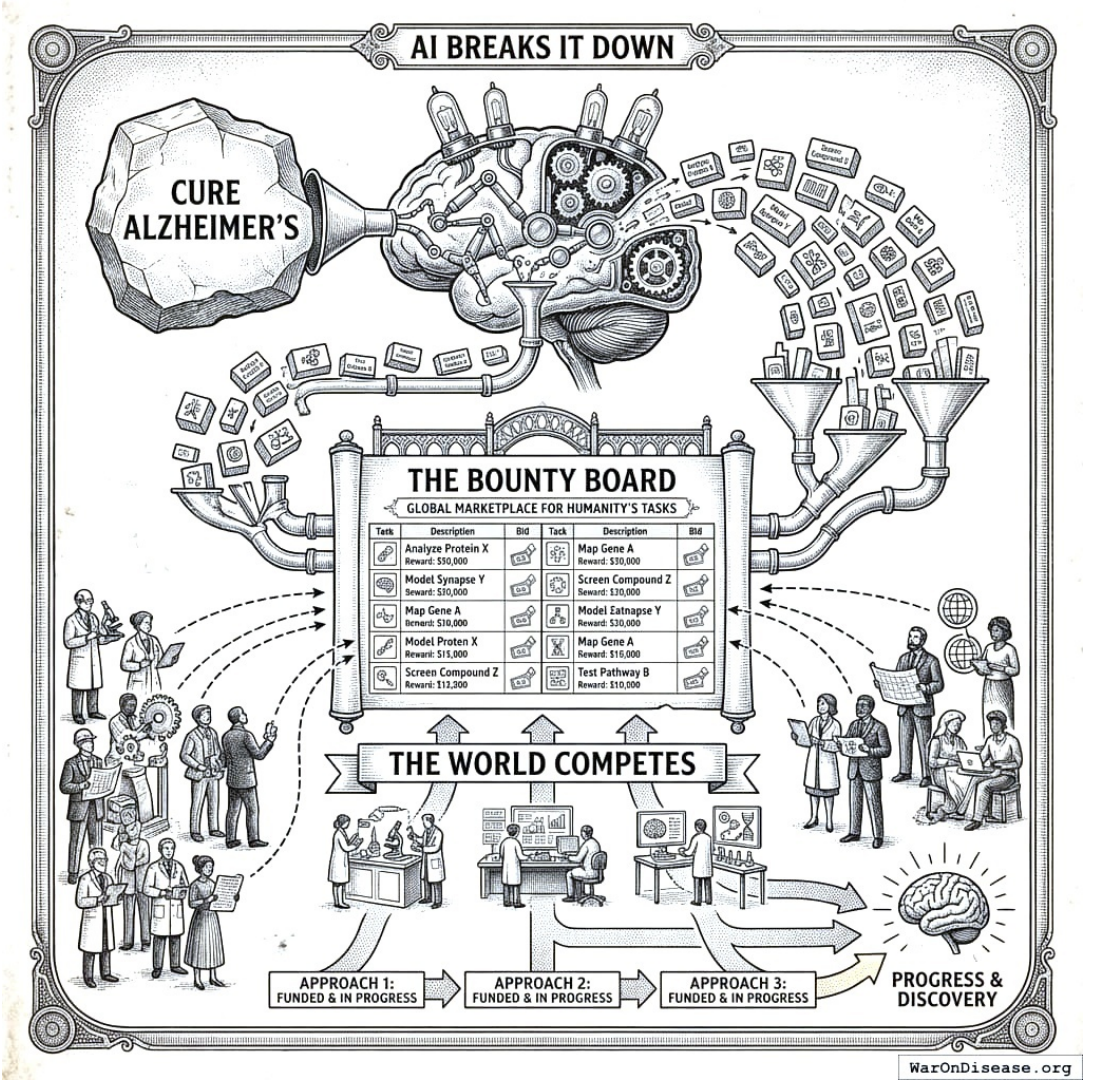
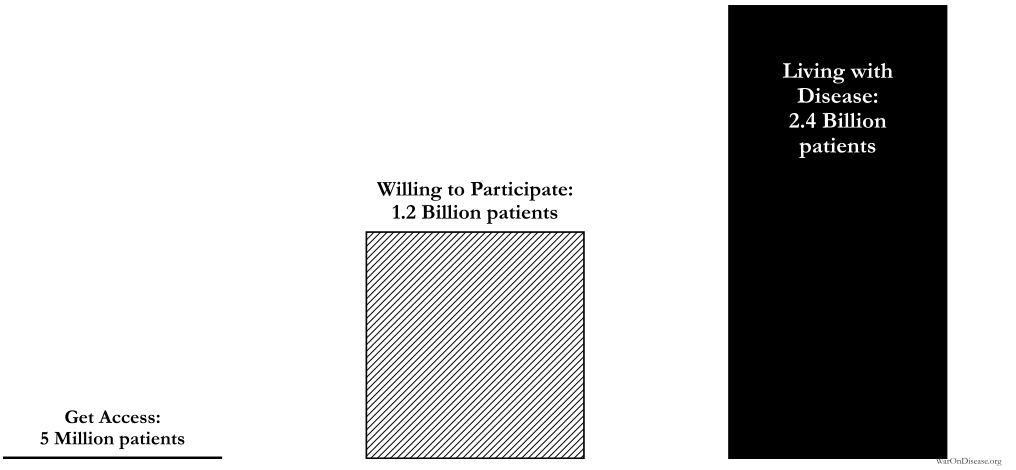


Figure 183: Computer breaks big wishes into small tasks. People compete to do the tasks. Wishes come true. We've automated hope.

A Decentralized Framework for Drug Assessment



Out of 2.40 billion people with chronic disease, only 1.90 million patients/year participate in trials annually[15]. That's **0.06%**.

44.8% would volunteer[67] if they could. Only 0.06% currently participate.

This isn't because people don't want to help find cures. It's because your system was designed by someone who hates sick people. Trials cost $41K, require traveling to major medical centers, and reject 86.1% of actual patients[2]. You built a hospital you can't get into. Impressive, in a genocidal sort of way.

Meanwhile, the system that's supposed to catch dangerous side effects misses 90-99% of them. Only 1-10% of adverse drug events are ever reported to the FDA[207]. No denominator data. No effect sizes. No way to calculate how often a drug actually hurts people. The safety monitoring system is a suggestion box that nobody uses.

You don't have a recruitment problem. You have a capacity problem.

The Solution: Consumer Reports for Drugs

Your decentralized framework for drug assessment (dFDA) is an **open coordination protocol**. It connects companies with treatments to patients who need them. It's HTTP for clinical trials. A standard that lets all the existing systems talk to each other and share outcomes. You invented the internet thirty years ago and somehow forgot to plug medicine into it.

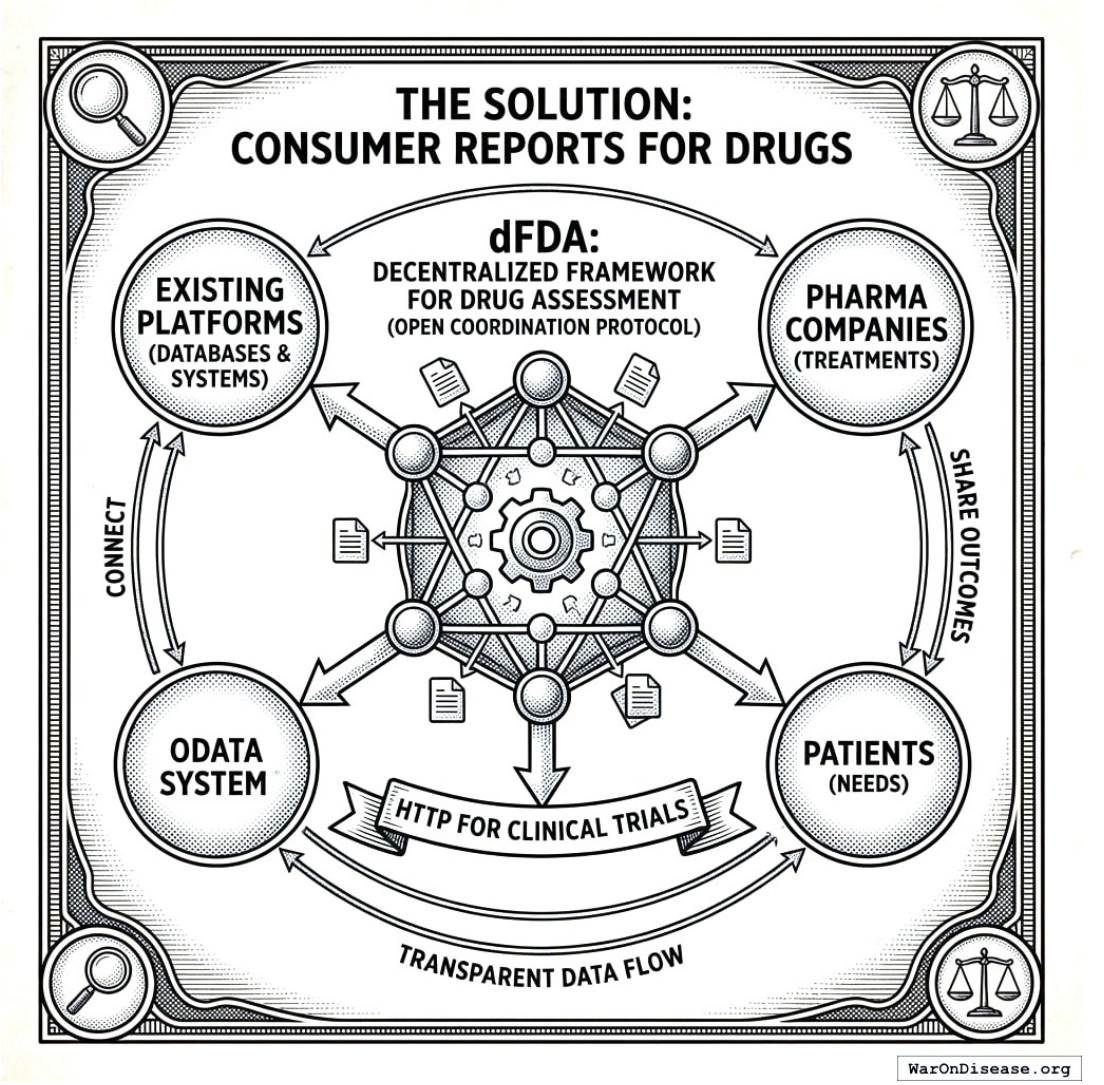


Figure 184: The FDA, but run by software. All the same boxes, fewer humans to corrupt.

How It Works: Just Let People Try Stuff (Carefully)

Here's a thought that apparently never occurred to anyone in Washington:

What if sick people could just… try treatments?

And then we could… write down what happens?

And then other sick people could… see what worked?

Your current system leaves 95% of rare diseases[82] with zero approved treatments. It bars 85% of patients[247] from the trials that might save them. We've perfected a system where only the healthy and compliant test cures for the sick and desperate. It's genius, in a suicidal sort of way.

Trials are designed to test drugs on people who don't actually exist. To get into a study for an antidepressant, you can't have any other pesky problems like anxiety or PTSD. You can't have a history of drug or alcohol use. You can't be on other medications. You have to be the *perfect* kind of sick. The result? Only 14.5%[248] of real-world patients with depression would actually qualify. The rest of us are too messy for their pristine, clean data.

On top of excluding everyone with a pulse, these "definitive" studies run on comically small groups. They'll test a new heart drug on 275 people[249]. A cancer drug on just 20 people[249]. A diabetes drug on 100 people[249]. Then they prescribe the winner to millions.

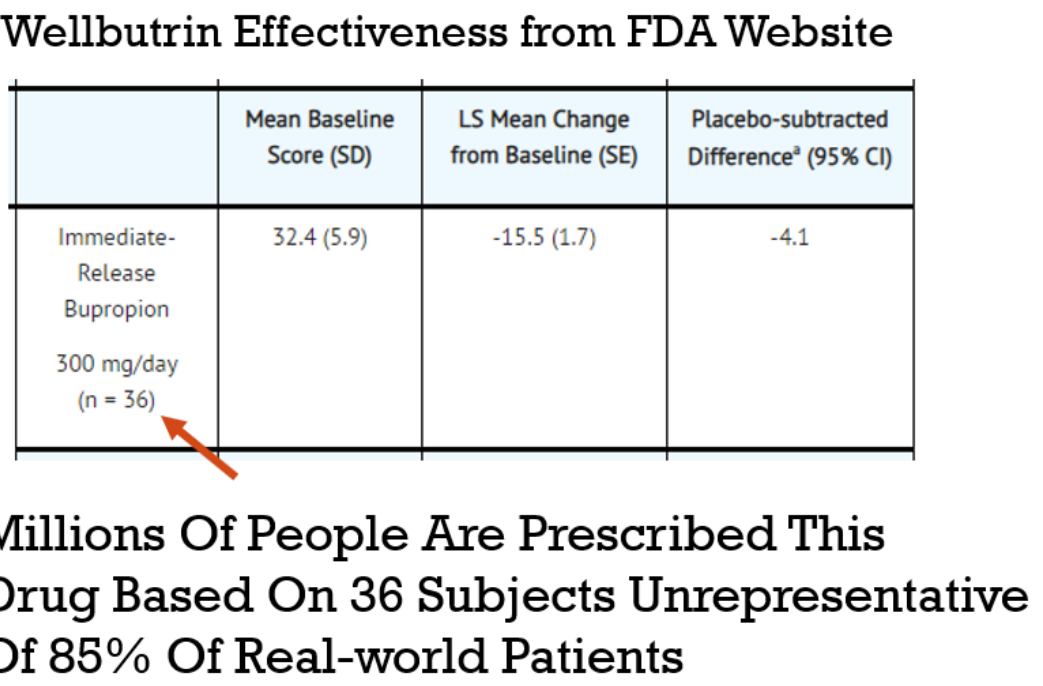


Figure 185: We tested this drug on thirty-six people and then gave it to millions. Like taste-testing with one person, then serving a stadium.

You're basing survival on sample sizes smaller than kindergarten classes. So instead of studying mythical, perfectly sick unicorns, what if you just collected data from everyone who's *actually* sick?

The Power of Real-World Evidence (Or: Spying on Sick People for a Good Cause)

This framework is built on a slightly creepy idea: analyzing data from real patients in the real world. Real-World Evidence (RWE). A fancy term for "watching what happens."

Skeptics say, "Correlation isn't causation!" They say this while dying of diseases nobody bothered to study properly. They point to flip-flopping egg advice as proof this is voodoo.

They're not wrong about the old way. Old studies couldn't tell if eggs killed people or if egg-eaters just smoked three packs a day.

But now there's enough data and computing power to make each person their own control group. Track arthritis pain for a month. Take Turmeric, stop, start again. The pattern reveals whether it works or if it's coincidence.

A landmark meta-analysis in the New England Journal of Medicine[250] quietly ended this argument while nobody was listening. Researchers compared observational studies against randomized controlled trials across 19 different treatments. Cardiac surgery, cancer, ophthalmology, obstetrics. The result: nearly identical effect sizes. The cheap method and the expensive method found the same answers. You've been overpaying for data like tourists at an airport restaurant.

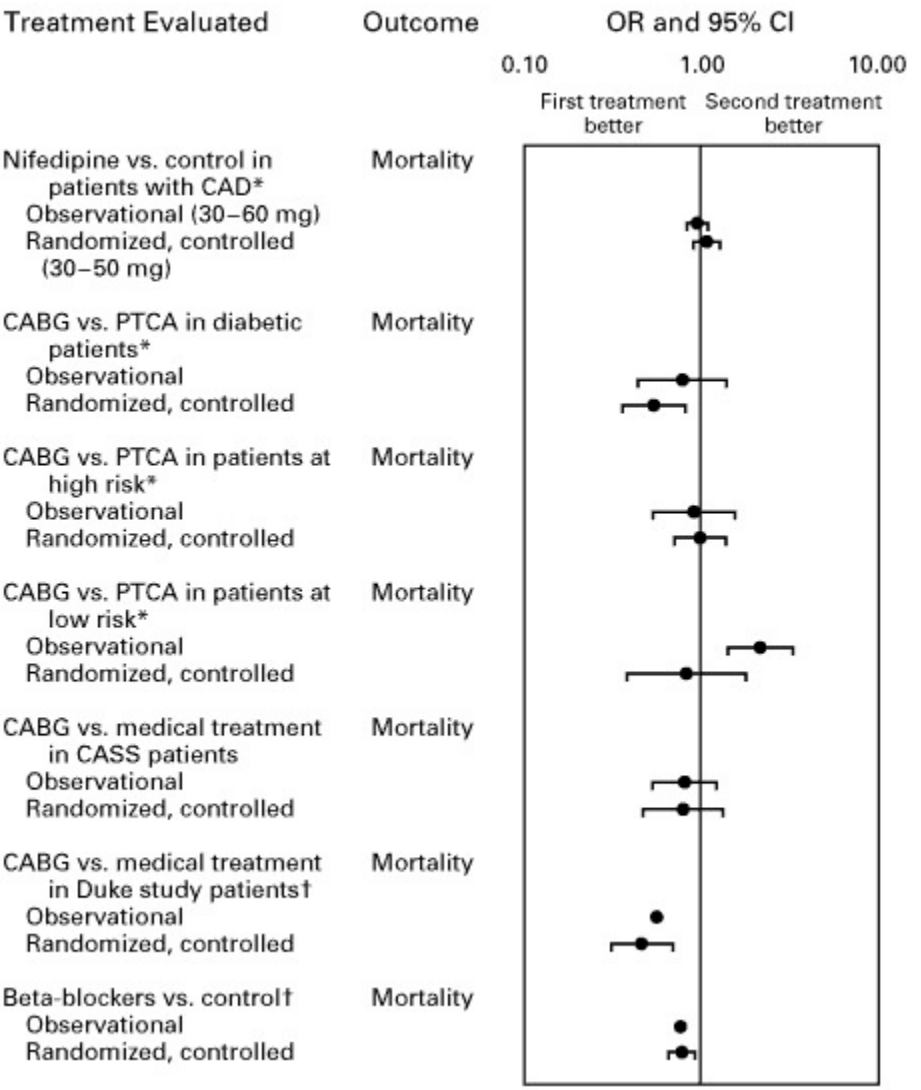


Figure 186: Forest plot comparing effect sizes from observational studies vs. RCTs for cardiac treatments. The dots land in the same place. The expensive method and the cheap method found the same answers.

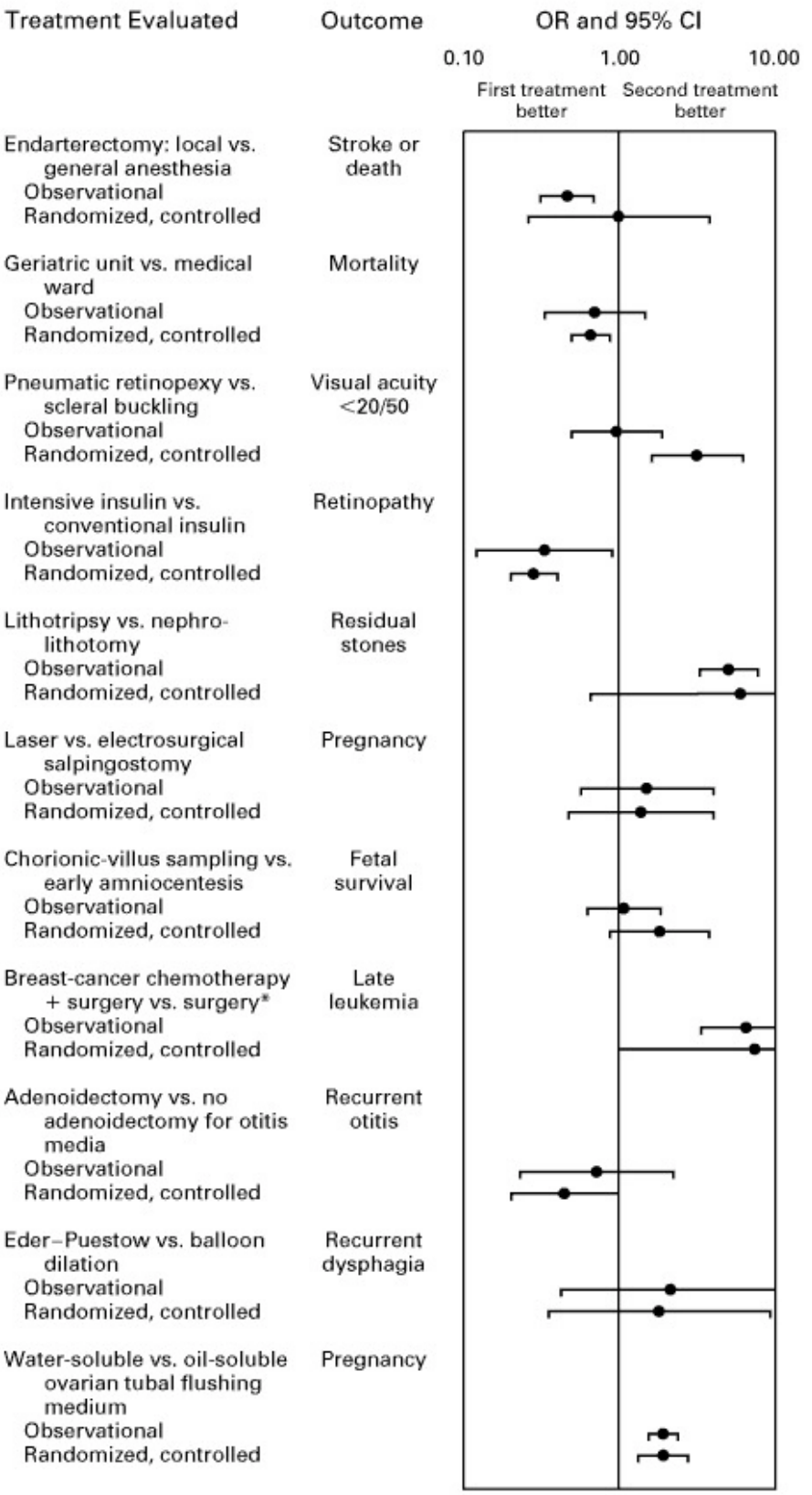


Figure 187: Forest plot comparing effect sizes from observational studies vs. RCTs across surgery, ophthalmology, and obstetrics. Nineteen comparisons. Nineteen agreements.

Each pair of dots represents the same treatment tested two ways: one observational (cheap, fast, real patients) and one randomized controlled (expensive, slow, cherry-picked patients). In nearly every comparison, the confidence intervals overlap. Both methods found the same treatments work and the same treatments don't.

The Two-Stage Pipeline: Watch First, Then Test

Observational data finds the signals. But correlation still isn't proof (even you know that). So the framework uses a two-stage pipeline:

Stage 1 (Signal Detection): Aggregate data from millions of patients. Score each treatment-outcome relationship using six Bradford Hill causality criteria[251]: How strong is the effect? How consistent across people? Does the treatment come before the improvement? Is there a dose-response pattern? Cost: ~$0.100 per patient.

Stage 2 (Confirmation): The top signals (the 0.1-1% most promising) proceed to pragmatic trials embedded in routine care. Simple randomization. Real patients. Real conditions. Cost: ~$929 per patient. This eliminates confounding and proves causation.

Stage 1 filters millions of possibilities for almost nothing. Stage 2 confirms the winners for 1/80th the cost of traditional trials. The result: every treatment gets an evidence grade.

- **Validated**: Confirmed by pragmatic trial
- **Promising**: Strong observational signal, awaiting trial
- **Signal**: Hypothesis only, needs more data

The cheap stage does the hard work of searching. The expensive stage only runs on candidates that deserve it. Instead of spending $57 million testing one drug, you spend $1 watching a million treatments and $500 confirming the ones that work.

Proof It Works (While the FDA Wasn't Looking)

The Oxford Recovery Trial: How the British Accidentally Saved Medicine

During COVID, while America was filling out forms, Oxford University did something crazy. They just tested drugs on dying people to see if they stopped dying.

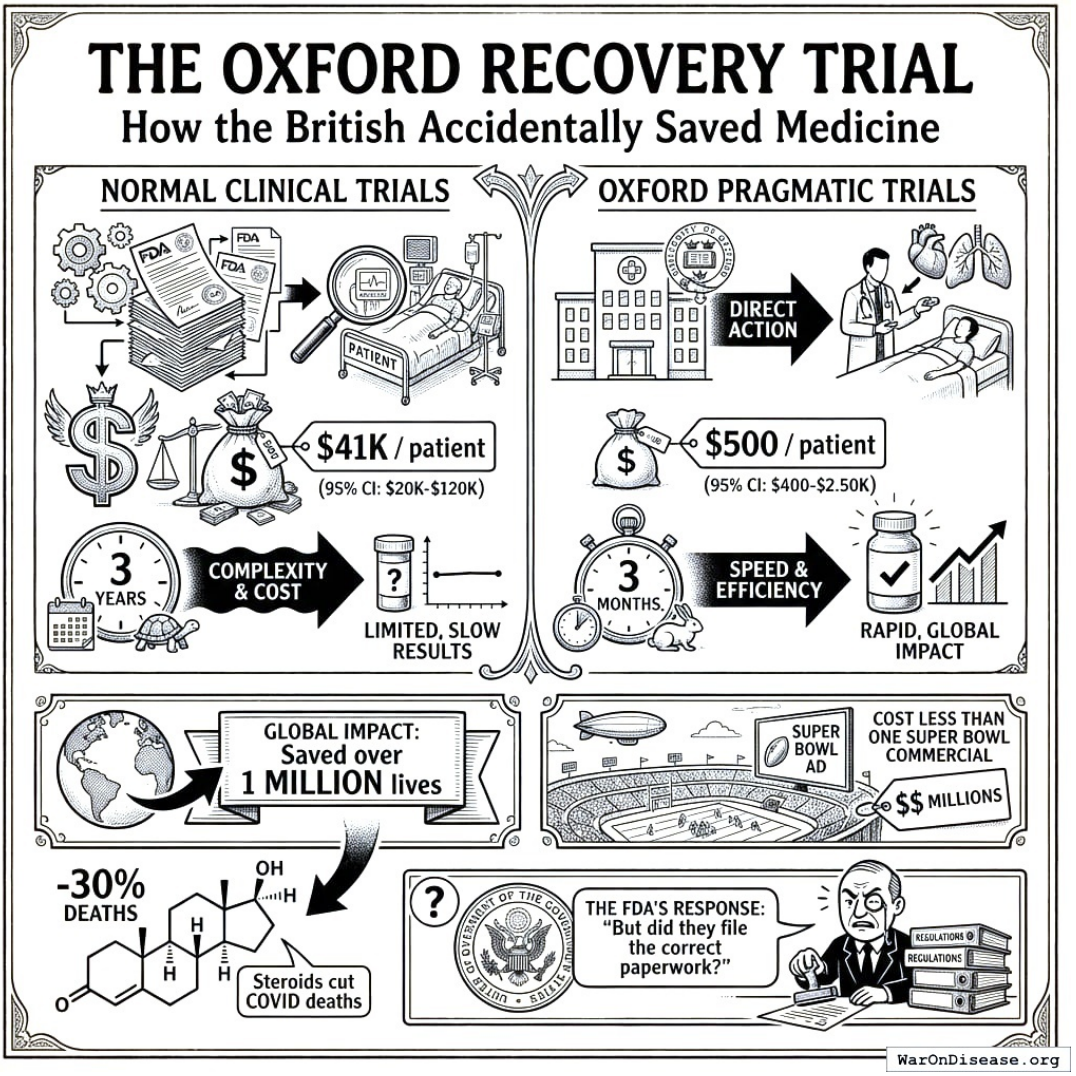


Figure 188: Traditional clinical trials versus the Oxford approach. One costs 30 million dollars and takes years. The other costs less than a coffee shop franchise and actually saves people.

Cost per patient:

- Normal clinical trials: $41K
- Oxford pragmatic trials: $500

That's not a typo. Five hundred dollars. The cost of a nice dinner in Manhattan to save a human life.

Results:

- Found that steroids cut COVID deaths by 30%[252]
- Saved over 1 million lives globally[180]
- Took 3 months[191] instead of 3 years
- Cost less than one Super Bowl commercial

The FDA's response: "But did they file the correct paperwork?"

RECOVERY wasn't a fluke. A Harvard meta-analysis of 108 embedded pragmatic trials[253] found median costs of just $97 per patient. The PCORnet ADAPTABLE trial enrolled 15,076 patients across 40 clinical sites at $929 per patient[1]. This model works across therapeutic areas, across countries, across decades. The evidence base for cheap, fast, embedded trials isn't one study. It's 108 and counting.

What You'd See: FDA.gov 2.0

The protocol upgrades FDA.gov from a digital cemetery to something useful. Cost: Less than one fighter jet that doesn't work.

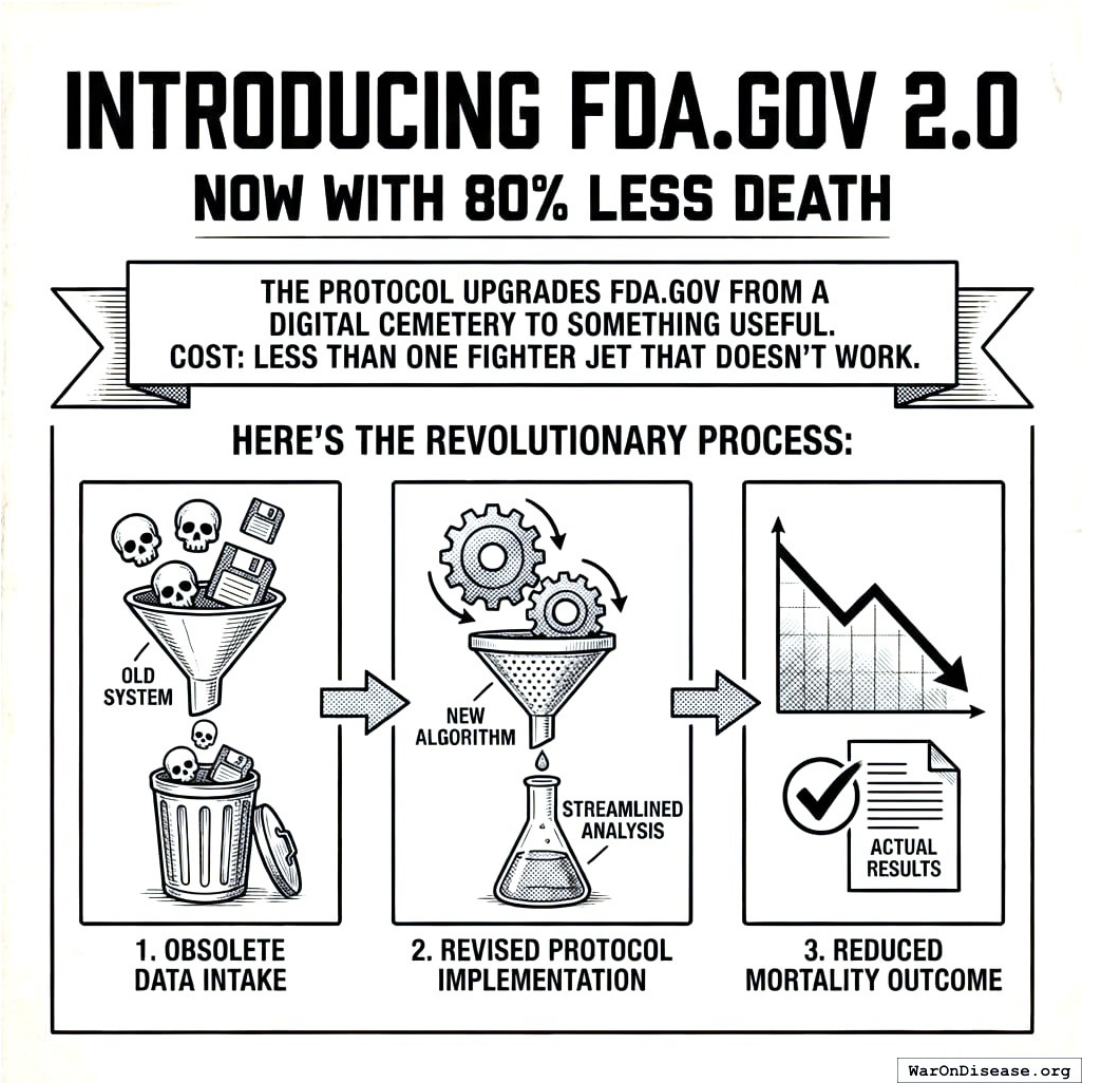


Figure 189: Upgrading the FDA website would save more lives than a fighter jet, cost less than a fighter jet, but we bought the fighter jet.

Step 1: Type in What's Killing You

Revolutionary feature: A search box. The FDA's current website doesn't have this because they assume you've already died.

Step 2: See What Actually Works (Based on Reality, Not Theory)

Instead of "This drug is approved for exactly this condition in exactly these patients on exactly Tuesdays," you get:

"Here's what happened to 50,000 people who tried this:

- 40% got much better
- 30% got somewhat better
- 20% no change
- 10% grew a third nipple (but a useful one)"

It's like Consumer Reports, but for not dying.

Treatment Rankings: Every Option, Ranked by Reality

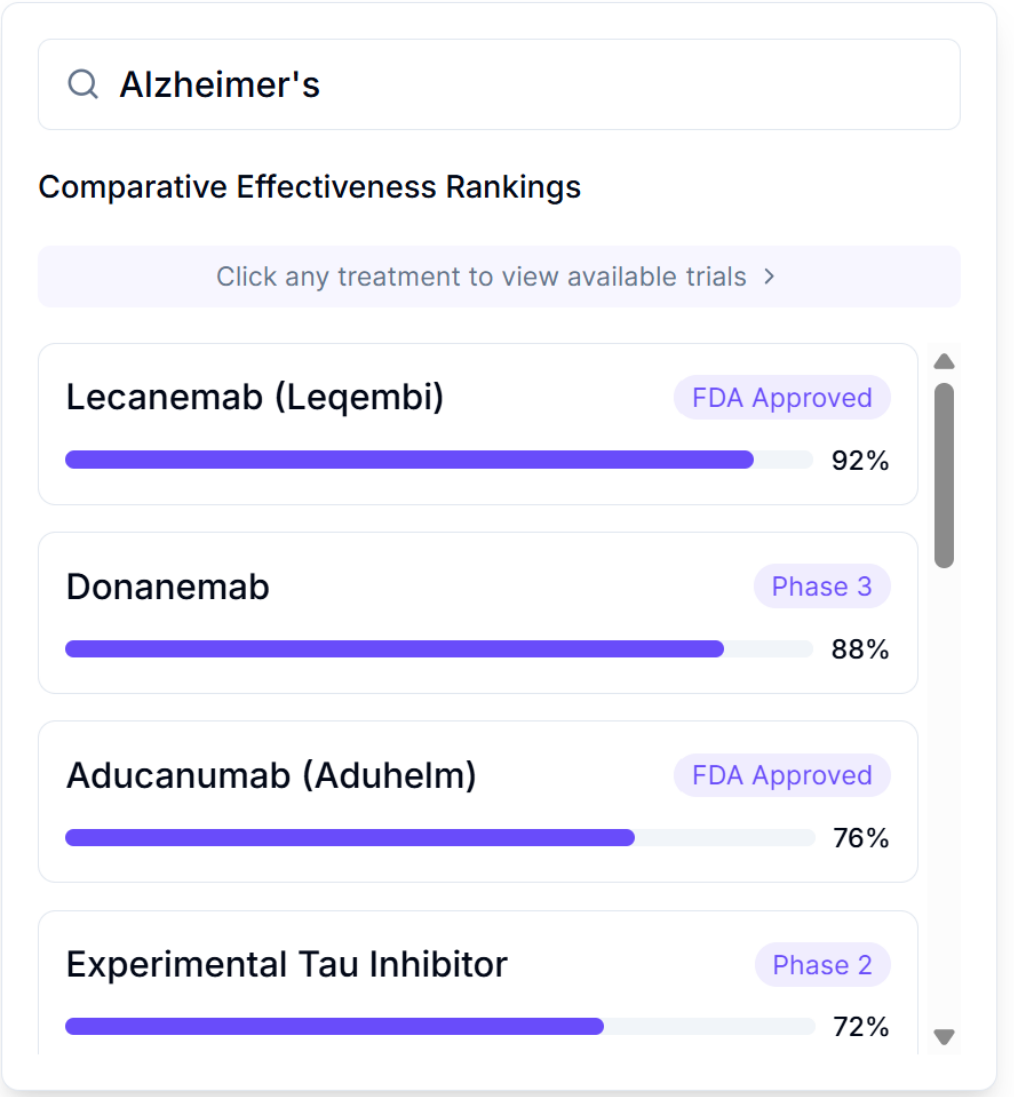


Figure 190: Which pills work better than other pills, in list form. Like a leaderboard for medicine.

Search any condition and see every treatment ranked by real-world effectiveness:

- **FDA Approved treatments** with effectiveness scores from actual patients
- **Phase 3 and Phase 2 trials** you can join right now
- **Experimental options** with preliminary data
- One-click access to join available trials

No more guessing which treatment your doctor half-remembers from a conference. Just clear rankings based on what actually worked for people like you. The current system never publishes negative results. Humanity wastes billions repeating the same failed ideas.

Step 3: Join a Trial from Your Couch (While Dying Comfortably)

Current system: Drive 500 miles to a university hospital, wait 6 months, get rejected for having the wrong kind of dying.

New system: Click button. Get pills. Report if you die.

Revolutionary!

Step 4: Get Drugs Delivered Like Pizza (But More Life-Saving)

Amazon can deliver a banana costume in 2 hours but experimental medications take 6 months and require seven forms of ID?

Your framework fixes that. Your pharmacy becomes a trial site. Your doctor becomes a researcher. Your dying becomes data.

Step 5: Publish Results

Current system: 500-page case report forms that ask questions like "Rate your suffering on a scale of mauve to burnt sienna."

New system:

- "Are you dead?" Yes/No
- "If no, how dead do you feel?" Slider bar
- "Any new body parts?" Check all that apply

Step 6: Everyone Benefits from Everyone's Suffering

Your data helps the next person. Their data helps you.

Every pill becomes a tiny experiment. Every patient becomes a scientist. Every outcome gets recorded.

You should have done this when you invented writing in 3000 BC.

Outcome Labels: Nutrition Facts for Drugs

Food has nutrition labels. Cigarettes have warning labels. Drugs have… incomprehensible 40-page inserts written by lawyers having seizures.

Outcome Labels fix that. Clear, data-driven summaries showing exactly what happens when real people try a treatment:

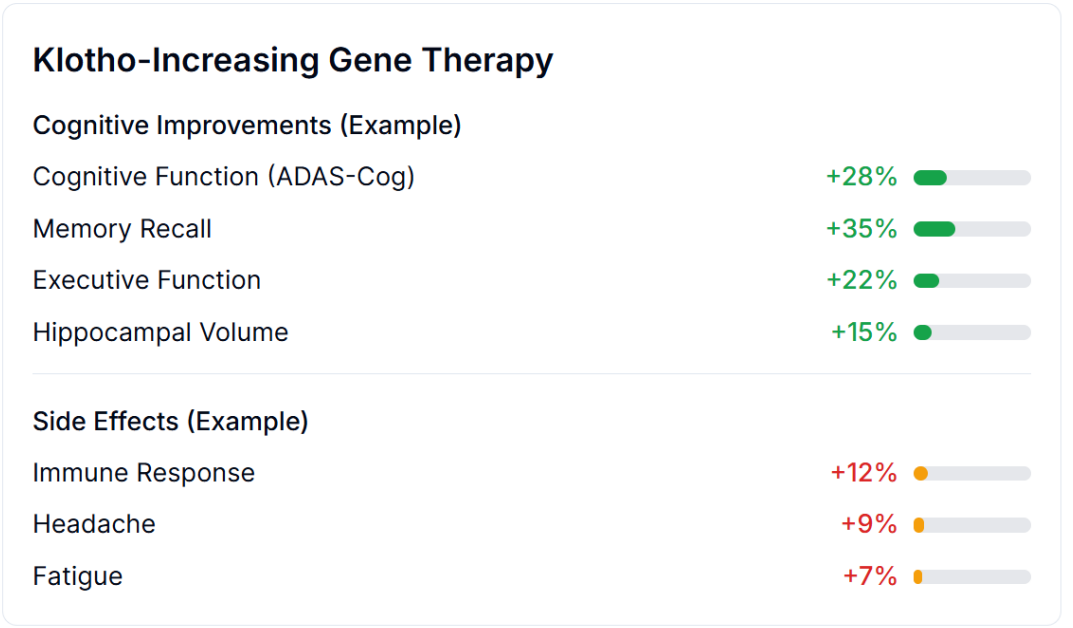


Figure 191: What medicine labels would say if they were honest.

No marketing spin. No 40-page legal disclaimers. Just clear data about what actually happens to people like you.

Here's what an Outcome Label for depression would actually look like:

OUTCOME LABEL: Depression Severity

Based on 47,832 participants

Treatments Ranked by Effect Size

Rank	Treatment	Effect	Sample Size	Optimal Dose
1	Exercise	-31.2%	12,847	45 min/day
2	Bupropion	-28.3%	2,847	300mg
3	Sertraline	-24.7%	5,123	100mg
4	Sleep (7-9 hrs)	-22.1%	31,204	8.2 hrs
5	Venlafaxine	-21.2%	1,892	150mg
6	Omega-3	-18.9%	4,521	2000mg EPA+DHA
7	Meditation	-16.4%	8,932	20 min/day
8	Fluoxetine	-15.8%	3,456	40mg

Makes It Worse: Alcohol >2/day (+23.4%), sleep deprivation (+19.8%), social isolation (+15.2%)

No Significant Effect: Multivitamin, Probiotics, B-complex, Ashwagandha, 5-HTP

Notice anything? Exercise beats every drug. Sleep beats most drugs. Your doctor probably didn't mention that because there's no pharmaceutical rep buying lunch to promote jogging. This is what happens when you rank treatments by outcomes instead of by marketing budget.



Figure 192: The Depression Crusher 3000. Improves your mood 60 percent, ruins your sex life 40 percent. Every medicine is a negotiation with your body.

Your Personal Death-Prevention Assistant: The FDAi

Everyone gets a superintelligent doctor that lives in their phone and doesn't judge them for Googling "is my poop normal?"

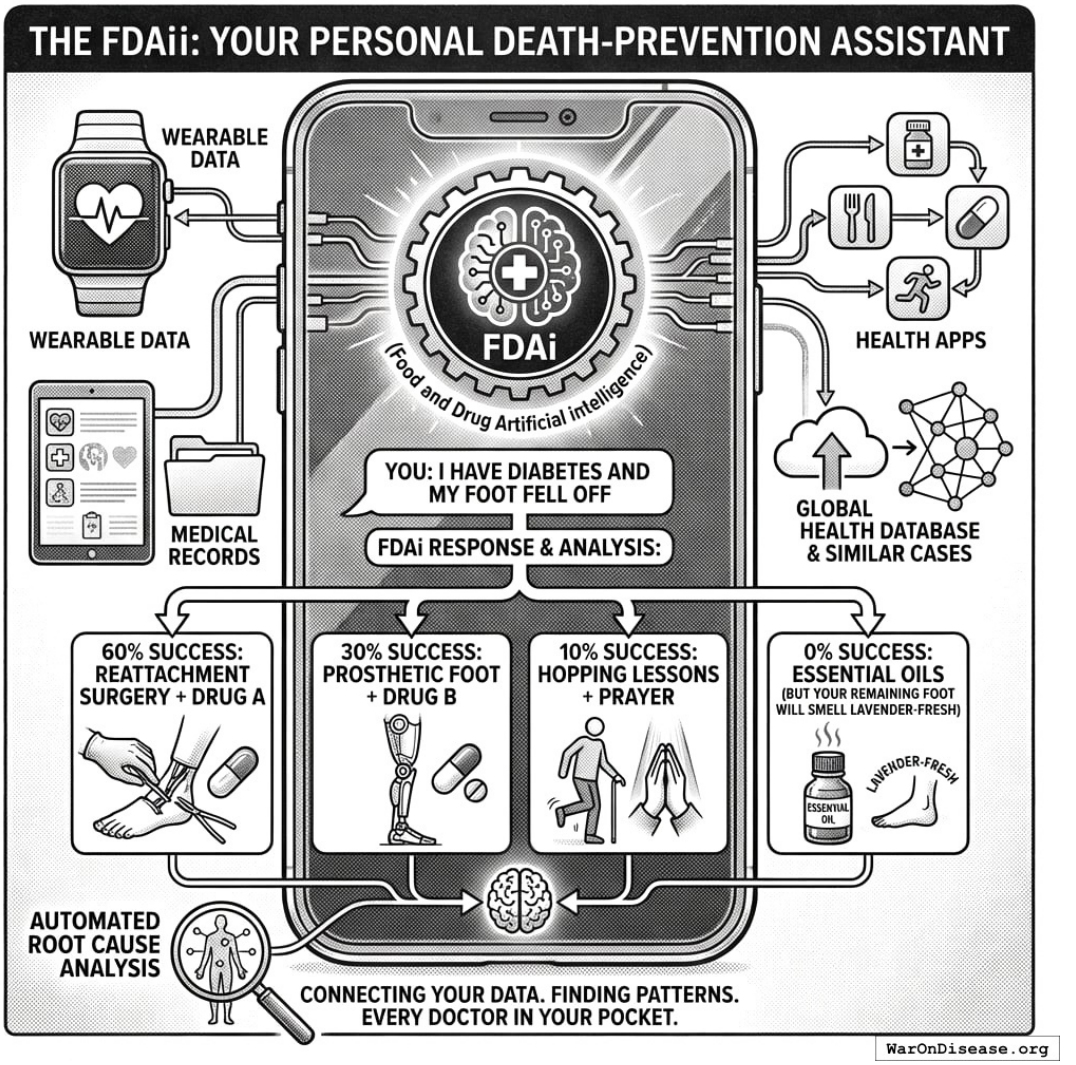


Figure 193: Your watch tells the computer what's killing you. The computer tells you what might unkill you. We've had the watches for 15 years but kept the parts separate.

The **FDAi** (Food and Drug Artificial intelligence) is like Siri, but instead of telling you the weather, it tells you how not to die.

You: "I have diabetes and my foot fell off." **FDAi**: "Based on 50,000 similar cases, here's what worked:

- 60% success: Reattachment surgery + Drug A
- 30% success: Prosthetic foot + Drug B
- 10% success: Hopping lessons + Prayer
- 0% success: Essential oils (but your remaining foot will smell lavender-fresh)"

It connects to your wearables, apps, and medical records to find what's killing you while your doctor is still trying to remember your name. Every doctor who ever lived, in your pocket, and they actually agree on something.

It also does something no doctor can: precision dosing. By analyzing what dose preceded

your best outcomes, it generates personalized recommendations. Not "take some magnesium." Instead: "Your sleep quality was highest after 400mg of Magnesium over the previous 24 hours." Optimal doses derived from your data, not a study of 36 college students in 1997.

Making It Legal to Not Die

This solution requires a law: the Right to Trial and FDA Upgrade Act. It says dying people can try things that might help them not die, and what happens gets written down so other dying people can see what worked.

The fact that this requires a law tells you everything about your species.

The Business Model: How Everyone Profits Except Disease

How Companies Register Treatments (5 Minutes, Zero Approval Needed)

Any company - pharma, supplements, food, interventions - can instantly create a trial:

1. **Register treatment** on a public portal (name, ingredients, condition, price)
2. **Set treatment price** (what you charge patients - covers manufacturing + delivery)
3. **Get automatic liability insurance** (built into protocol governance)
4. **Trial goes live immediately** - appears in search results, ranked by existing data
5. **Patients join** based on rankings → You collect zero-cost data on whether it works

Net cost to company: $0

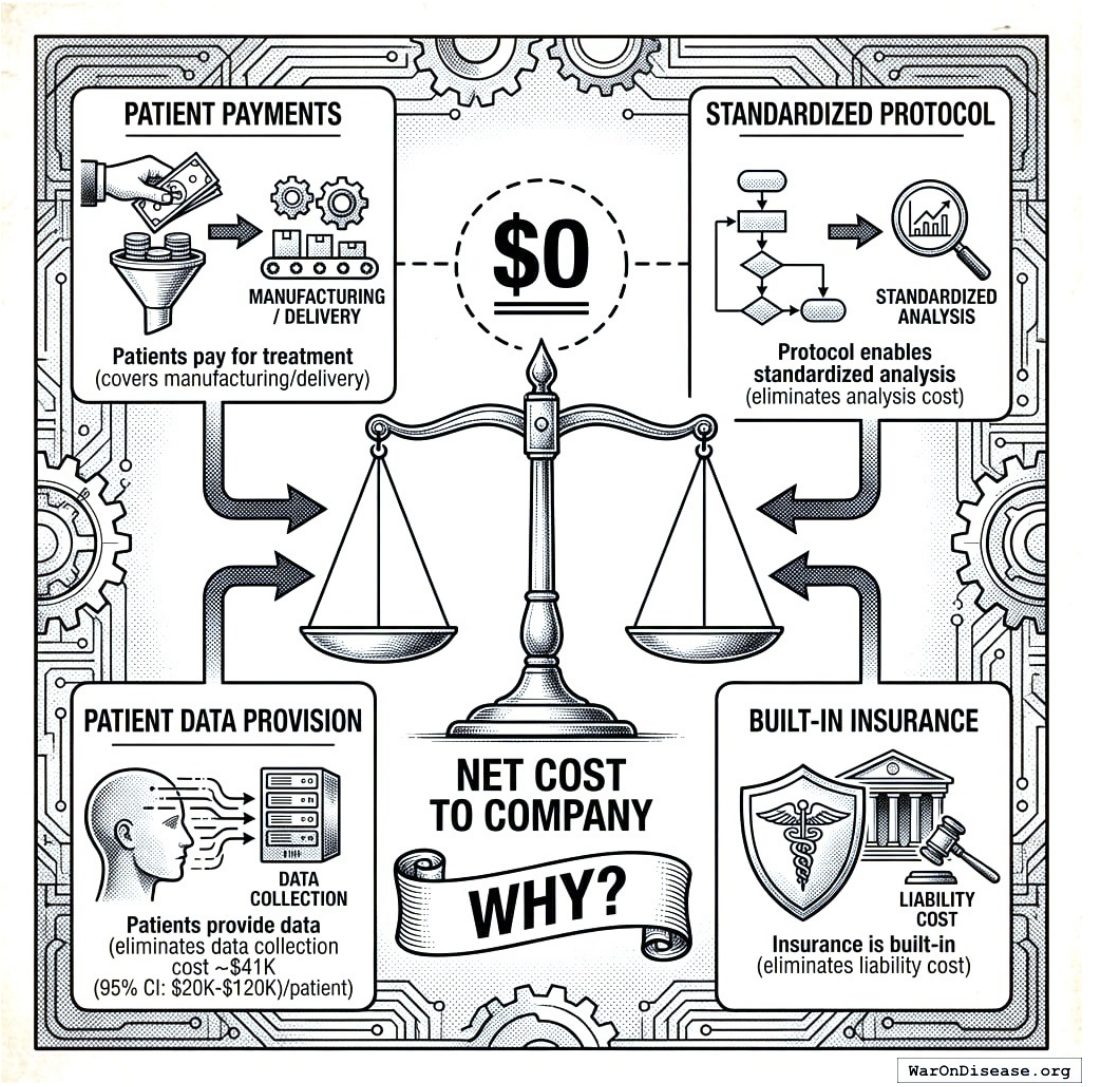


Figure 194: Patients pay for their own medicine, then you give them their money back, and somehow everyone profits. Economics is confusing.

Why?

- Patients pay for treatment (covers manufacturing/delivery)
- Patients provide data (eliminates data collection cost ~$41K/patient)
- Protocol enables standardized analysis (eliminates analysis cost)
- Insurance is built-in (eliminates liability cost)

The Payment Flow

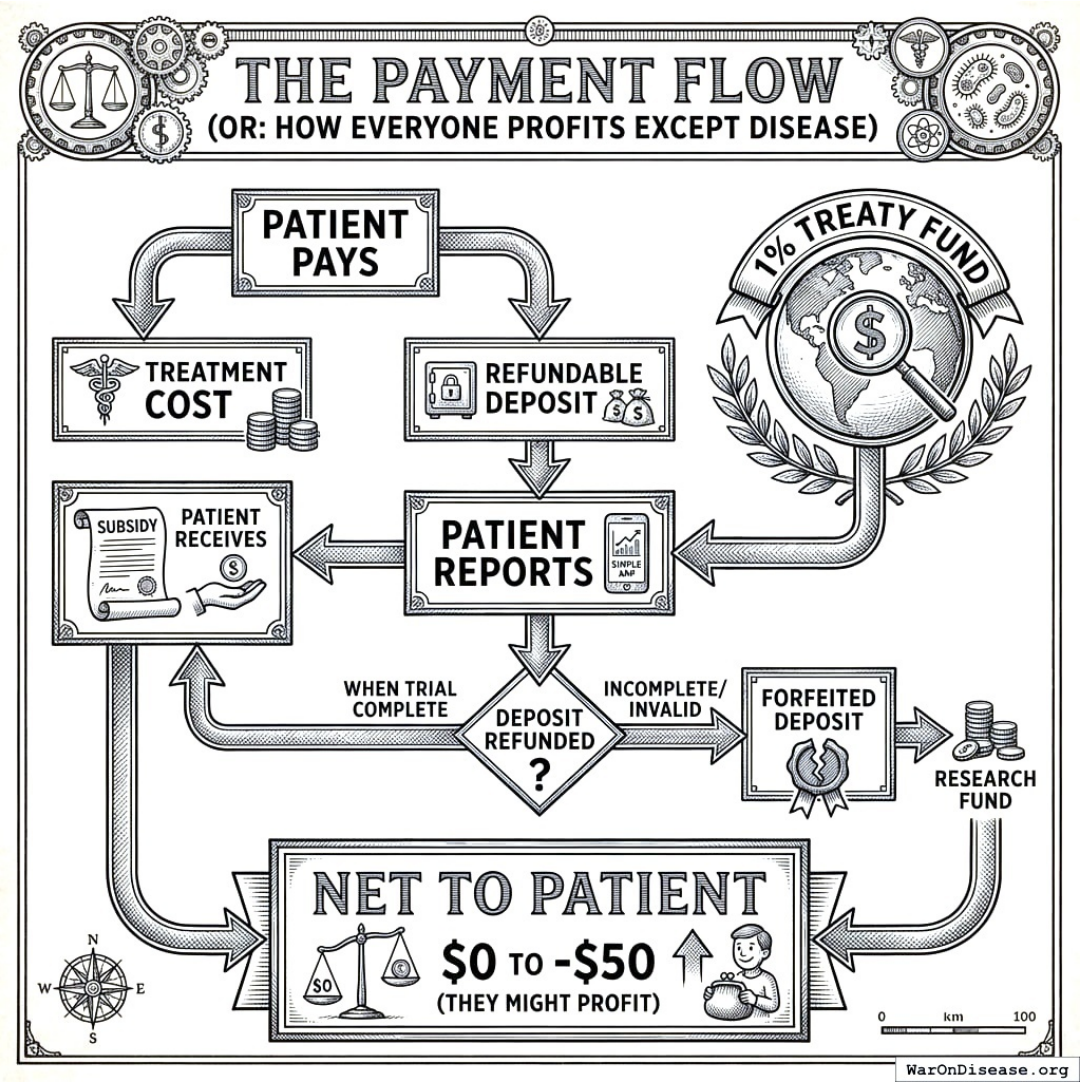


Figure 195: Money goes from patient to fund to patient to company to fund to patient. It's a circle, like water cycle but for dollars.

Patient pays: Treatment cost + Refundable deposit **Patient receives:** Subsidy (from a 1% Treaty Fund) **Patient reports:** Outcomes via simple app **Deposit refunded:** When trial complete **Net to patient:** $0 to -$50 (they might profit)

Example

- Patient joins trial for experimental migraine treatment ($100/month)
- Pays: $100 treatment + $50 deposit = $150
- Receives: $125 subsidy
- Out of pocket: $25
- Completes trial, reports outcomes
- Gets back: $50 deposit

- **Net: +$25 profit + potentially cures migraines**

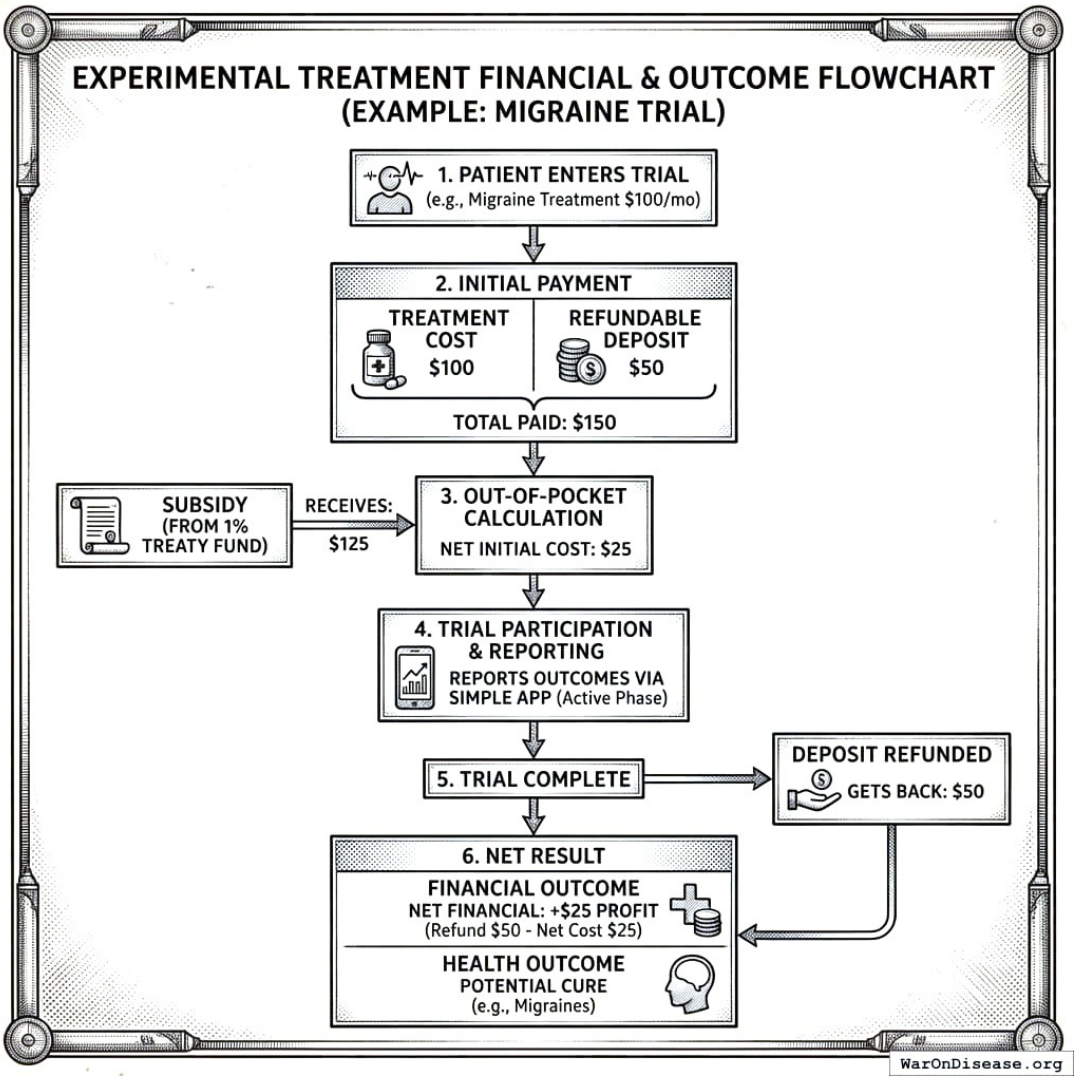


Figure 196: Everyone gets paid, patient pays nothing. If this sounds impossible, you're thinking like an economist instead of a magician.

Company receives

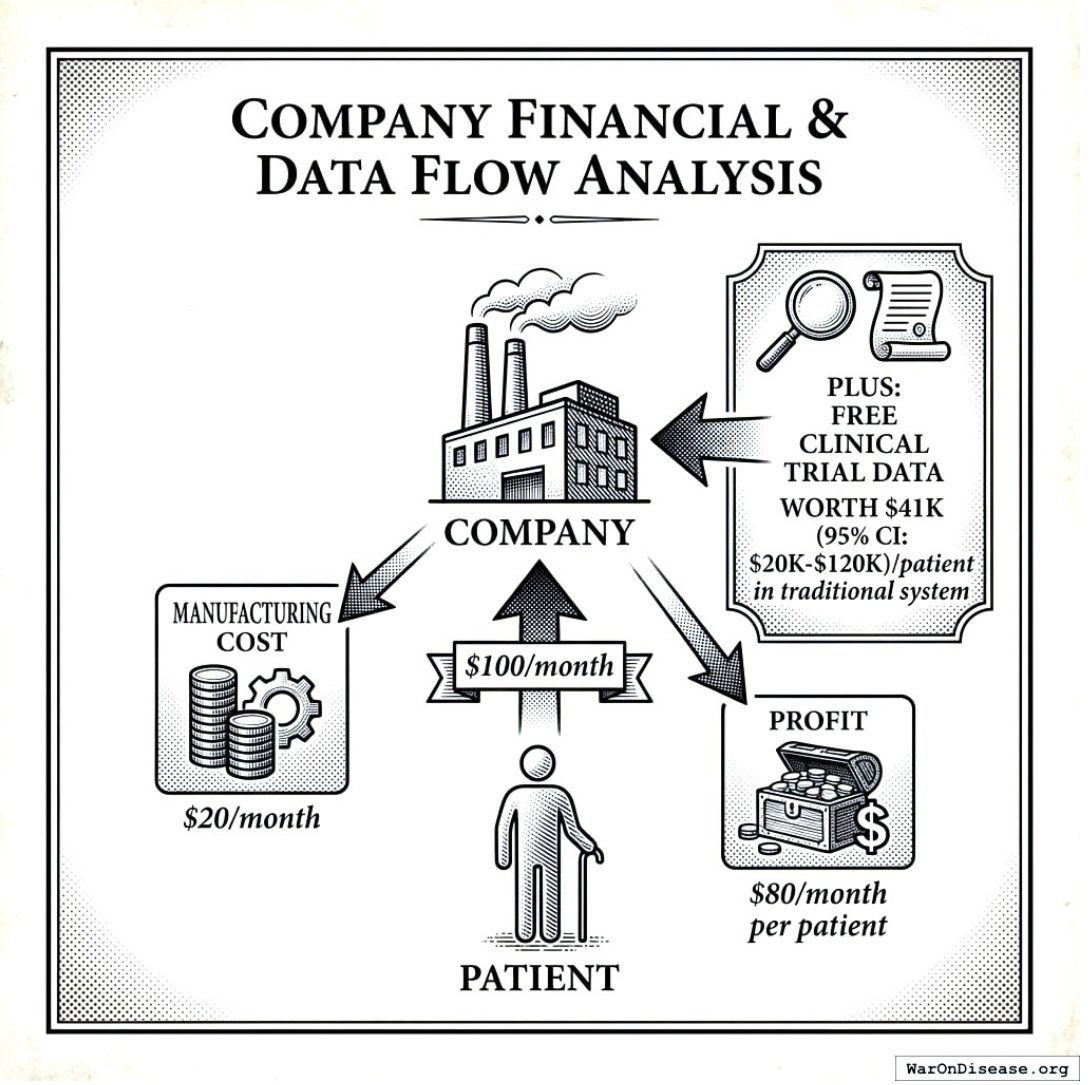


Figure 197: Companies make a little money from selling pills and a lot of money from knowing which pills work. Information is expensive, apparently.

- $100/month from patient
- Manufacturing cost: $20/month
- Profit: $80/month per patient
- Plus: Free clinical trial data worth $41K/patient in traditional system

Why This Creates Unlimited Research Capacity

	Traditional Model	Decentralized Protocol
Start	Research ideas	Research ideas
Gatekeeping	Grant committees select the few	Register instantly

	Traditional Model	Decentralized Protocol
Enrollment	Recruit from limited pool	Patients decide by joining
Cost	$57M per trial	$0 per trial
Throughput	~10 trials/year per company	Unlimited trials simultaneously

This is why 95% of rare diseases have no treatments. Traditional funding can't afford to test everything. This decentralized protocol enables testing EVERYTHING because:

- No approval bottleneck (instant registration)
- No funding bottleneck (patients pay for treatment)
- No data collection bottleneck (patients provide data)
- No disease too rare (if 100 patients exist globally, trial can run profitably)

Traditional trial: Pharma spends $57M, tests most profitable drug only **Decentralized trial:** Pharma spends $0, tests everything including supplements, food, lifestyle, off-patent drugs

A 1% Treaty Fund doesn't fund pragmatic clinical trials directly. **It subsidizes participation, which unlocks a self-sustaining ecosystem that funds ALL research.**

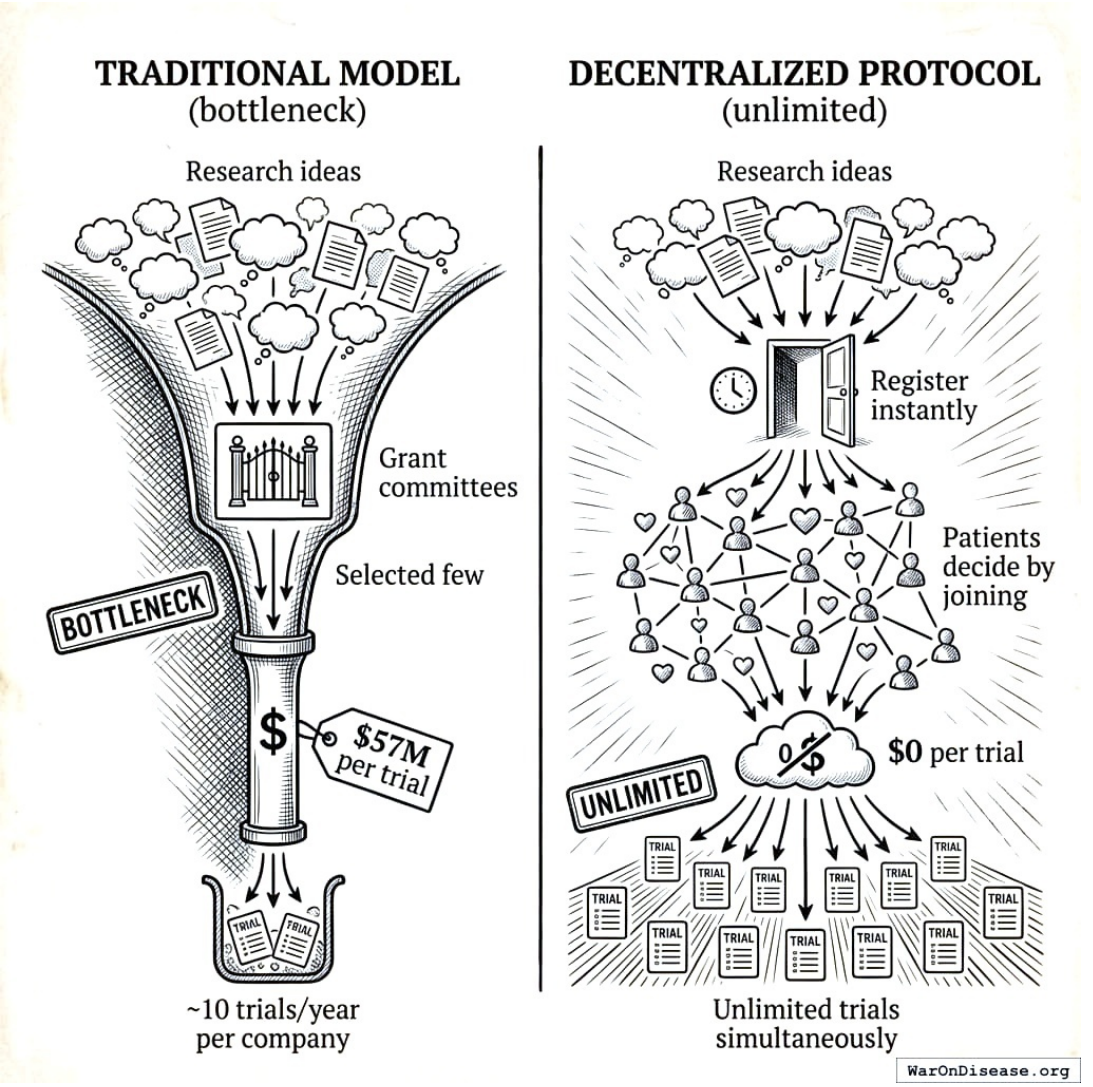


Figure 198: One research lab doing one thing at a time versus a million people doing a million things at once. Speed difference is noticeable.

The Money Shot: How to Save 95% on Not Killing People

Problem to Fix	Current Insanity	New Reality	Money Saved	Lives Saved
Clinical Phase Timeline	**9.1 years (avg)**[192]	**2-3 years**	~7 years of waiting eliminated	~50,000/year[195]
Cost per trial	**$57 million**[254]	**$2 million**	$55 million	Infinite ROI
Who can participate	**13.9% of patients**[2]	**100% of patients**	86.1% inclusion rate	Everyone
Rare diseases with treatments	**5%**[82]	**Eventually 100%**	Priceless	Millions

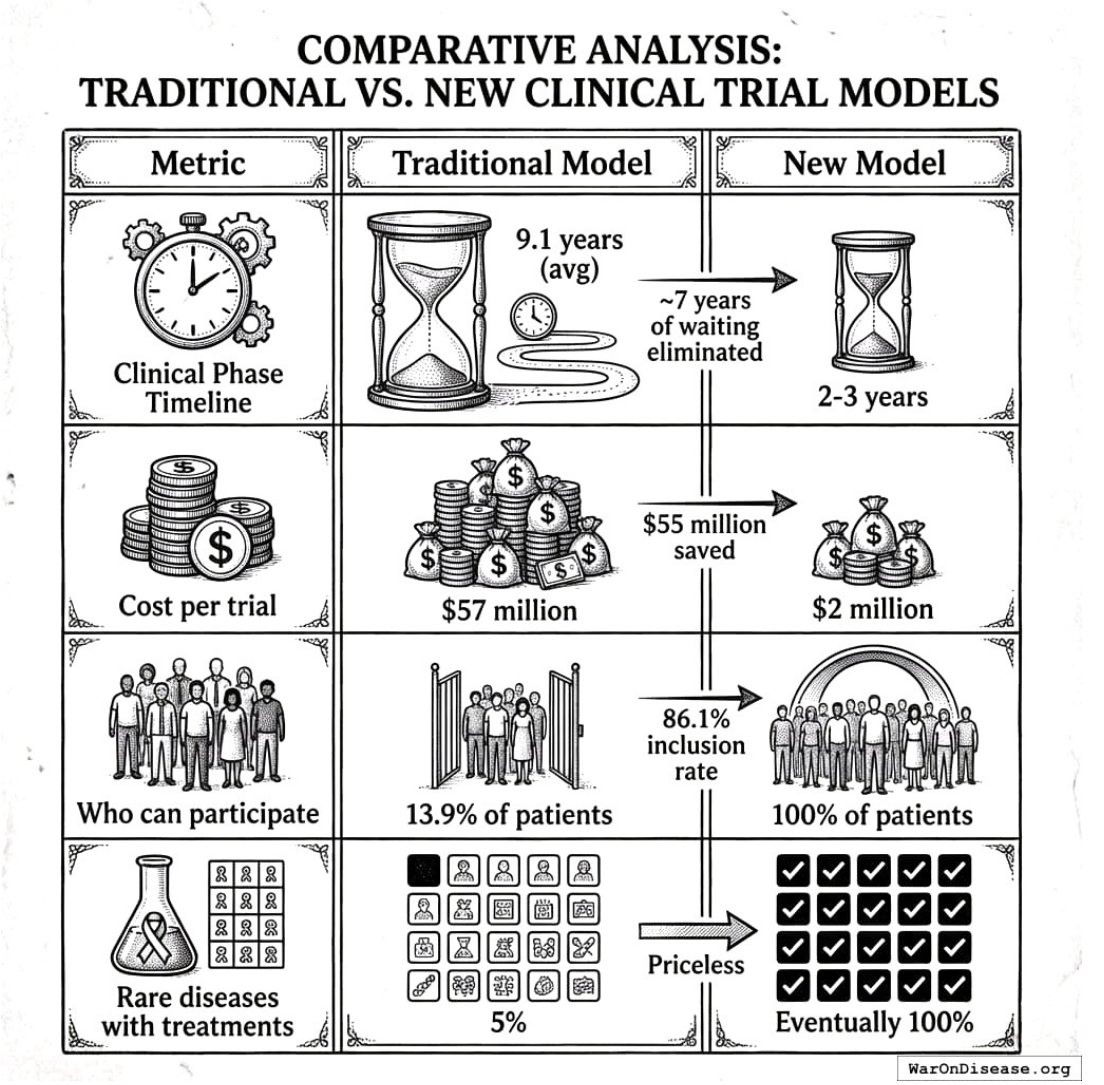


Figure 199: How we do clinical trials now: slow, expensive, broken. How we could do them: fast, cheap, working. The difference is stark.

The Itemized Receipt of Eliminated Stupidity

Expense Category	Traditional Clinical Trial	Your Decentralized Framework Cost	Savings	What It Actually Is
Data Management	$198,014	$10,000	94.9%	Excel spreadsheets with fear
IRB Approval	$324,081	$5,000	98.5%	Permission slips for adults
IRB Amendments	$6,347	$0	100%	Permission to fix typos

Expense Category	Traditional Clinical Trial	Your Decentralized Framework Cost	Savings	What It Actually Is
Source Data Verification	$1,486,250	$25,000	98.3%	Checking if you lied about dying
Patient Recruitment	$805,785	$15,000	98.1%	Facebook ads for dying people
Patient Retention	$76,879	$20,000	74%	Bribes to keep dying people interested
Research Associates	$2,379,605	$150,000	93.7%	People who watch you take pills
Physicians	$1,966,621	$100,000	94.9%	Doctors pretending to be scientists
Clinical Procedures	$5,937,819	$1,000,000	83.2%	Poking you with expensive things
Laboratory	$2,325,922	$500,000	78.5%	Testing if your pee is still pee
Site Recruitment	$849,158	$0	100%	Bribing hospitals to participate
Site Retention	$4,461,322	$0	100%	Bribing hospitals to not quit
Administrative Staff	$7,229,968	$100,000	98.6%	People who file the files
Site Monitoring	$4,456,717	$0	100%	People who watch the people who watch you
Site Overhead	$7,386,816	$0	100%	Electricity for the filing cabinets
All Other	$17,096,703	$100,000	99.4%	Nobody knows but it's expensive
TOTAL	**$56,988,007**[254]	**$2,025,000**	**95.7%**	**The price of bureaucracy**

This eliminates $55 million per trial.

The Partnership Approach: Building Rails, Not Trains

Here's what you're NOT doing: building a government platform that competes with existing medical technology companies.

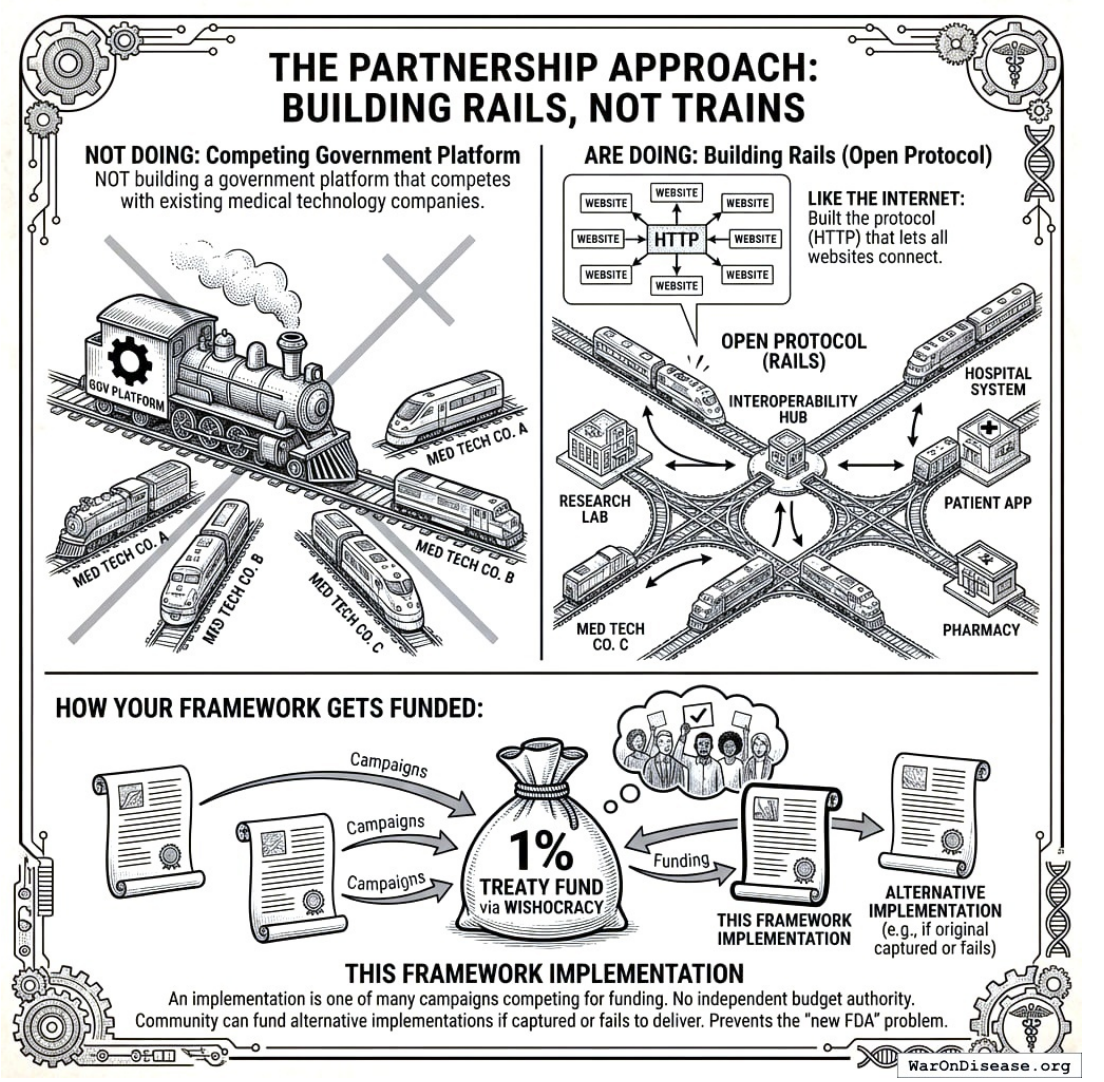


Figure 200: One company owning the entire railway versus everyone sharing the tracks. Sharing is cheaper and less monopolistic.

Here's what you ARE doing: building an open protocol that lets all existing platforms talk to each other.

Think of it like the internet. We didn't build one website that everyone has to use. We built HTTP, the protocol that lets all websites connect. Same idea.

How your dFDA gets funded: An implementation of this framework is one of many campaigns competing for funding from the 1% Treaty Fund via Wishocracy. It has no independent budget authority. If a particular implementation gets captured or fails to deliver, the community can fund alternative implementations instead. This prevents the "new FDA" problem.

The Players Already in the Game

Multiple companies have already built decentralized clinical trial platforms. They've collectively raised hundreds of millions in venture funding[255]. They're good at it. They have users. They have infrastructure.

Why compete with them? That would be very human of you. Partner instead.

The protocol provides:

- Open protocol for data exchange (like email protocols)
- Federated data network (data stays in Epic/Cerner/Apple Health systems)
- Treatment ranking algorithms (open source, anyone can verify)
- Trial matching services (connects patients to ANY platform)

Existing platforms provide:

- Patient-facing apps and interfaces
- Trial management tools
- Sponsor relationships
- Regional expertise

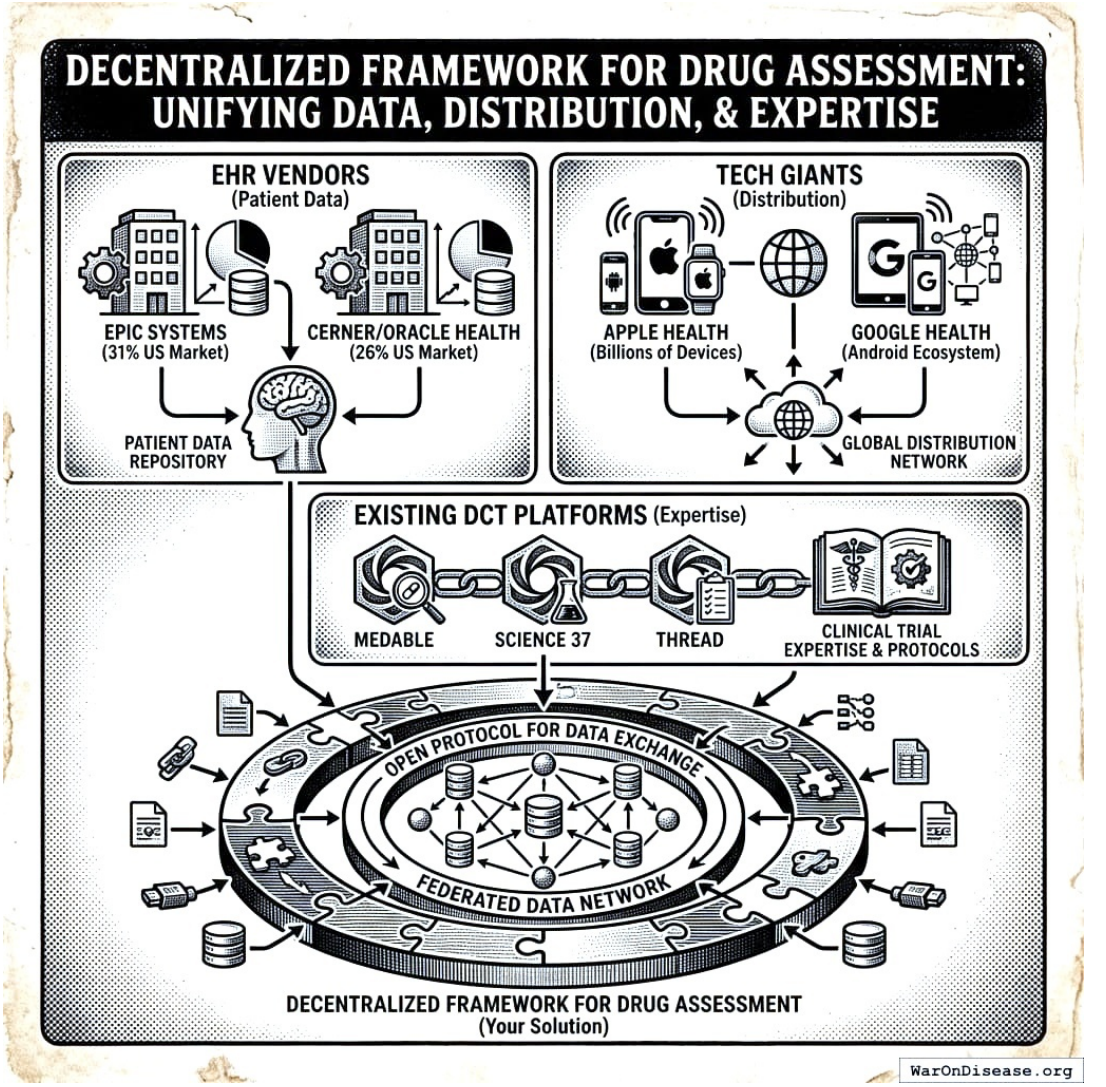


Figure 201: The new system plugs into all the old systems without replacing them. Like adding a power strip instead of rewiring your entire house.

Federated, Not Centralized

Data doesn't move to a central database. It stays where it is. Everyone keeps their toys.

- Epic systems keep their data
- Apple Health keeps its data
- Cerner keeps its data

Your framework's protocol just lets you run queries ACROSS systems without moving data. Like asking every library in the world a question without stealing their books. Federated data networks already do this with 300M+ patient records.

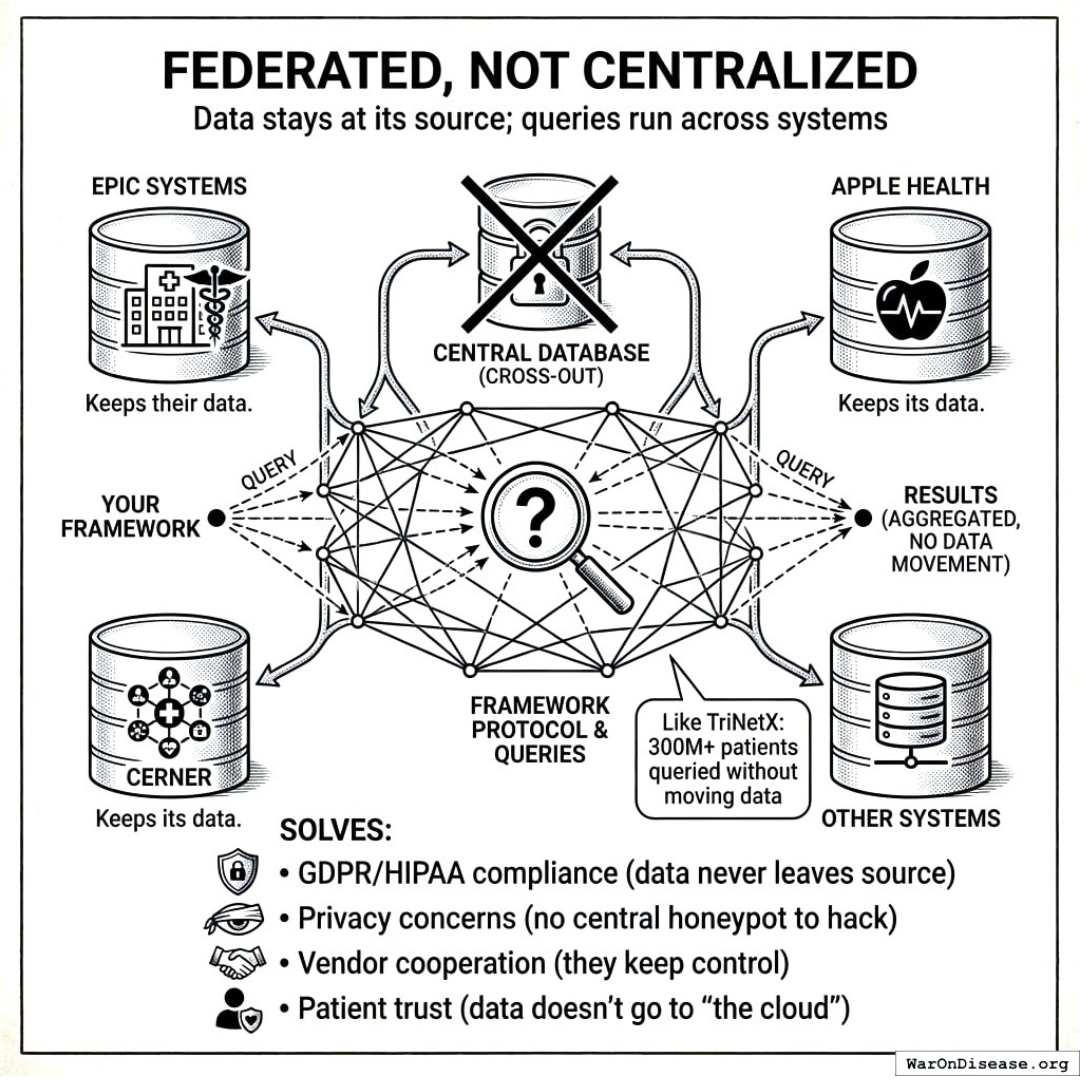


Figure 202: Instead of copying everyone's medical data to one place, we ask questions to many places and combine the answers. Your data stays where it is, we just visit.

This solves:

- GDPR/HIPAA compliance (data never leaves source)
- Privacy concerns (no central honeypot to hack)
- Vendor cooperation (they keep control)
- Patient trust (data doesn't go to "the cloud")

Why This Works: The Mathematical Impossibility of Committees

~200 FDA bureaucrats[256] decide what 8 billion people can try when dying. Here's the math on why that can't work:

The FDA's processing capacity: 200 committee members, working 8 hours a day, making

1 decision per hour = **1,600 decisions per day**.

The decisions that actually need making: 10,000 known diseases × 100 potential treatments × 800 million genetically distinct patient profiles = **800 billion decisions**.

At 1,600 decisions per day, the FDA would need **1,369,863 years** to evaluate everything. A decentralized system where 8 billion people each make one health decision per day processes the same load in **100 days**.

The FDA doesn't know:

- What disease **you** have (they haven't met you)
- How **your** body responds to treatments (genetics are unique)
- What risks **you're** willing to take (some prefer death to side effects, others the reverse)
- Whether **you'd** rather die trying or die waiting (only you can answer this)

But they decide for you anyway. This isn't ideology. It's information theory. You mathematically cannot centralize medical decisions for 8 billion unique people.

The Future: Where Death Becomes Embarrassing

2027: The Beginning of the End of Dying Slowly

FDA.gov becomes actually useful. Millions join trials from home. The first "Wikipedia disease" gets cured entirely through crowdsourced trials. The FDA claims credit.

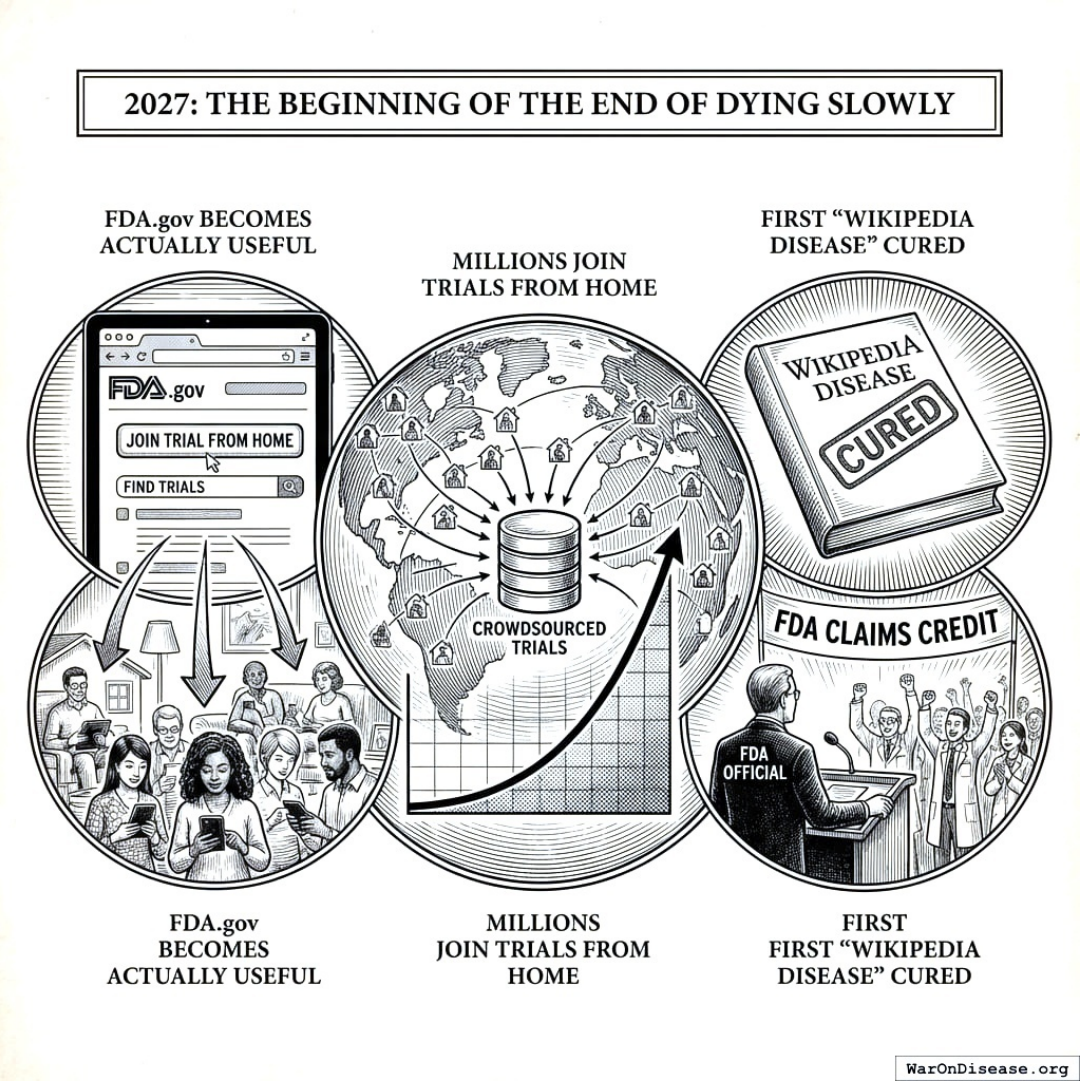


Figure 203: Medical research you can do in your pajamas. Take pill, report results, help science. Like jury duty but you might live longer.

2030: Big Pharma Pivots or Dies

Pharmaceutical companies realize they can't charge $10,000 for pills that cost $1 to make when everyone can see the data. Some adapt. Some become museums. The gift shop sells expired painkillers at original markup.

2035: The Great Revelation

Humanity could have done this all along. The internet existed since 1990. Computers since 1950.

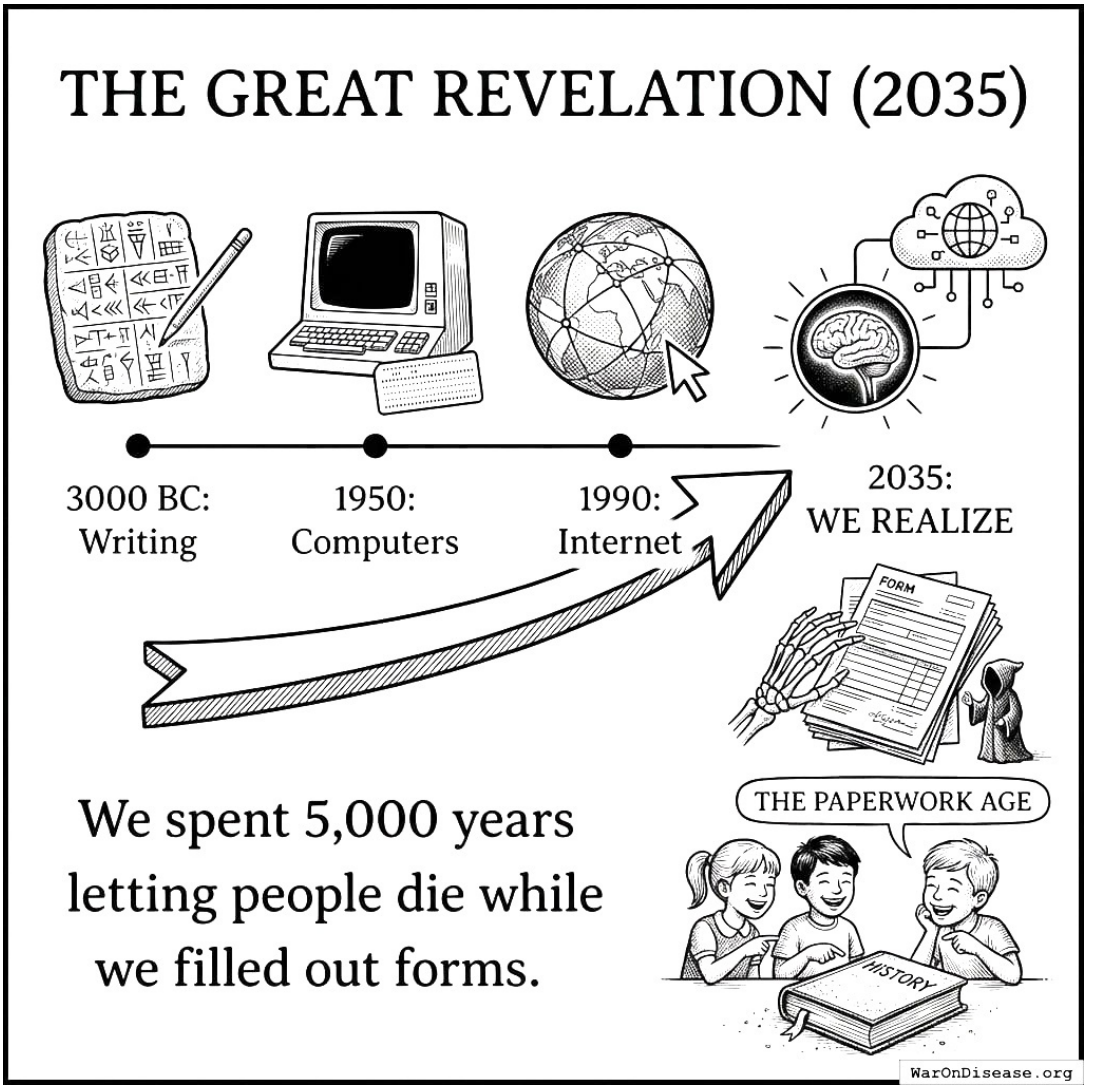


Figure 204: Humans invented writing, then printing, then computers. Then used all three to make filling out forms take longer.

Five thousand years of letting people die while filling out forms. History books will call this "The Paperwork Age." Children will laugh.

2050: Death Becomes Opt-In

Diseases are mostly solved. Death becomes a choice, like smoking or voting Republican. The FDA's job becomes preventing people from becoming immortal too quickly (traffic is bad enough).

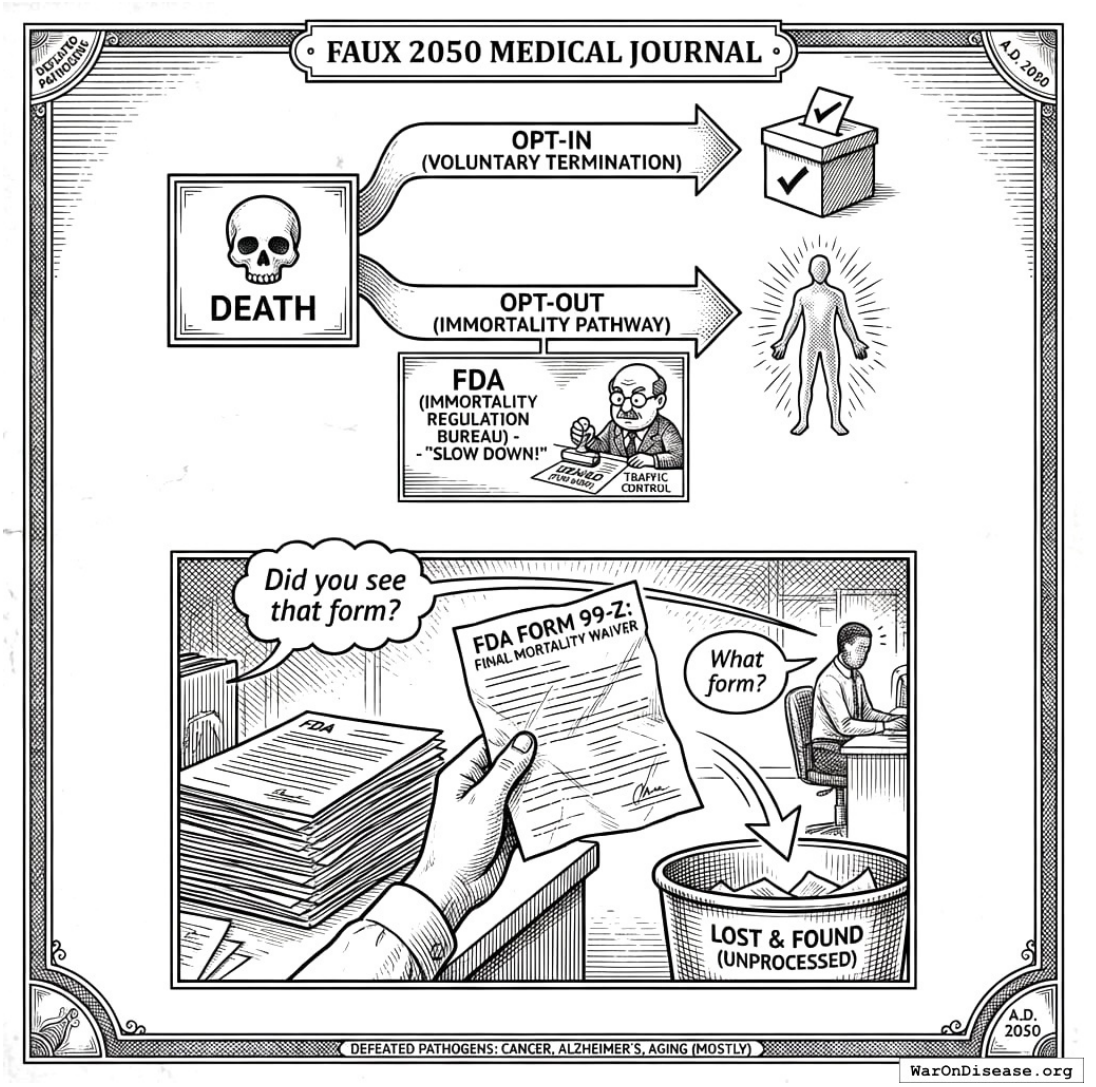


Figure 205: Before the FDA: death was optional if you could afford medicine. After the FDA: death is mandatory unless you fill out the right paperwork.

The last FDA form is filled out. It's immediately lost. Nobody notices.

How Your dFDA Actually Works

This approach achieves **44.1x More Efficiency** through:

- **Cost per patient**: $929 vs the current $41K
- **Time to results**: 2 years vs the current 17 years
- **Patient access**: Universal access vs 86.1% excluded currently

Metric	Current FDA System	A Decentralized Framework for Drug Assessment	Improvement
Approach	Central Planning	Open Platform	Market-based

Metric	Current FDA System	A Decentralized Framework for Drug Assessment	Improvement
Cost per Patient	$41K	$500	**44.1x cheaper**
Time to Results	14 years	2.3 years	**42 faster**
Patient Access	0.0792%	100%	**12.3x more access**
Innovation Impact	70% approval drop after 1962	Competition drives innovation	Reversed decline

Aligning Incentives

> **Related:** Incentive Alignment Bonds details the specific financial mechanism design.

This book is not about convincing people to be better. You've been trying that for six thousand years and it hasn't worked once. This is about building a system where doing well and doing good are the same thing. The current system pays for death and disease. The new system pays for life and health.

You can align major interest groups behind a single goal: curing disease. Not through charity. Not through guilt. Through **pure profit**. Moral appeals are for species that respond to moral appeals. Yours responds to money.

Defense Contractors: Teaching Merchants of Death to Love Life

Defense lobbyists spend $127M on lobbying. They get $181B in government contracts back. That's a 1,810:1 ROI[133]. Better returns than any hedge fund in history, and all you have to do is help kill strangers. They will oppose any treaty that threatens this. Not because they're evil (though that helps), but because murder is profitable and they like money.

Lobbyists are like pigeons. They go where the food is. Currently the food is in opposing the treaty. You could try convincing them that saving lives is noble. Or you could just move the food. It's like convincing a vampire to open a blood bank; counterintuitive but mathematically sound.

The Offer

You give them:

1. **VICTORY Incentive Alignment Bonds paying 272% annually** (vs their current salary/stock options)
2. **Early access** (get rich before everyone else)
3. **"Consulting fees"** (legal bribery has a name)
4. **Strategic advisor positions** (fake job, real money)

The Math

Their current job (lobbying against treaty):

- Pay: $500K-$2M/year
- Job security: Depends on military budget staying huge
- Legacy: "Made orphans for money"

Your offer (lobbying for treaty):

- Pay: $5-20M in bonds
- Returns: 272% annually, forever
- Job security: Better (99% of military budget still exists)
- Legacy: "Accidentally saved humanity while getting rich"

Most people can do this math. You hope.

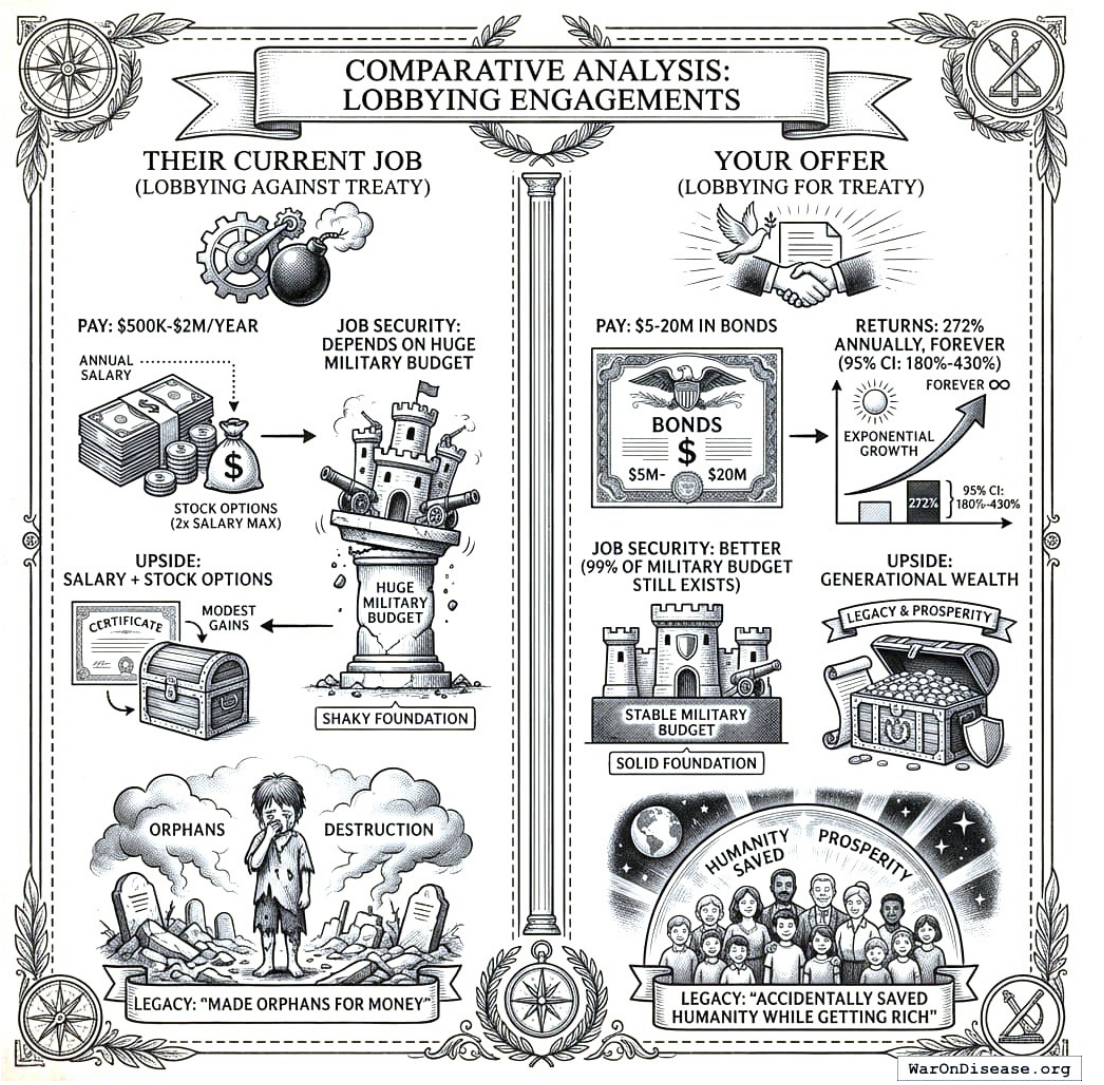


Figure 206: Current job: Get rich selling weapons; die hated. New job: Get richer ending disease; die beloved. Career pivot, simplified.

Why They Take It

272% > whatever they're making now. That's it. That's the whole reason.

The treaty doesn't actually hurt them. Military budget drops 1% (from $2.72T to $2.69T). They still have 99% to protect. Defense contracts still flow. Jobs stay. Wars probably still

happen (just 1% fewer wars, which is still too many wars). You're asking them to accept slightly less murder funding in exchange for becoming extremely wealthy.



Figure 207: The defense industry keeps 99% of its budget. They lose 1% and gain trillions in cure markets. This is the easiest math problem in history.

"I support life-saving medical research" sounds better at dinner parties than "I lobby for bombs." Their kids might even respect them. Probably not, but maybe.

Add 10% VICTORY bonds to a pension portfolio and blended returns jump from 7% to 33%+. It's like finding money in the pocket of pants you're currently wearing. Except the money multiplies. While you're wearing the pants. Once Lockheed buys bonds, Raytheon has to follow or get crushed by Lockheed's superior returns. It's a prisoners' dilemma where cooperation pays better than defection. Start with pension funds (fiduciary duty requires best returns). They end up lobbying FOR the treaty to protect their investment.

The Flip

Once enough key players flip, momentum shifts. Nobody wants to be the last holdout. Not while a treaty gains momentum and everyone else gets rich.

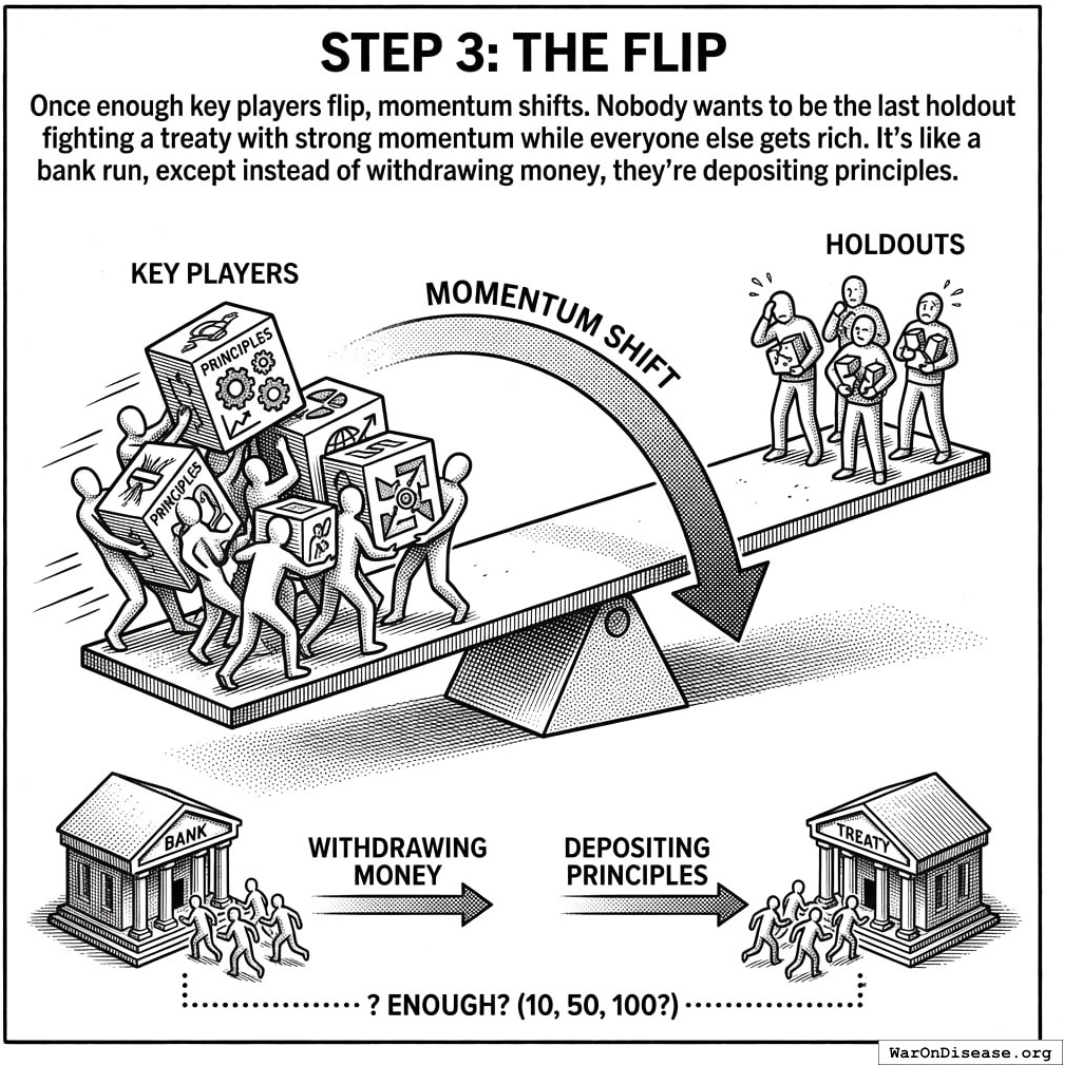


Figure 208: First one flips: brave. Tenth one flips: smart. Hundredth one flips: inevitable. Last one flips: too late for the good bond rates.

It's like a bank run, except instead of withdrawing money, they're depositing principles. Whether "enough" is 10 or 50 or 100, nobody knows. This has never been tried before. But the theory seems sound, assuming humans behave like humans usually do.

Now they don't just stop opposing. They actively lobby FOR it: testifying to Congress that "this strengthens national security" (technically true: healthy soldiers fight better), writing op-eds about how "a strong military requires a healthy population" (also true: can't draft corpses), and convincing other lobbyists to flip.

What You're NOT Asking

You're NOT asking them to close factories, lay off workers, stop making weapons, convert to medical equipment, change their business model, or feel bad about anything.

You're ONLY asking them to accept higher returns on investment, stop blocking the treaty, and maybe say nice things about it publicly.

That's it. They keep 99% of their current income PLUS get rich from bonds.

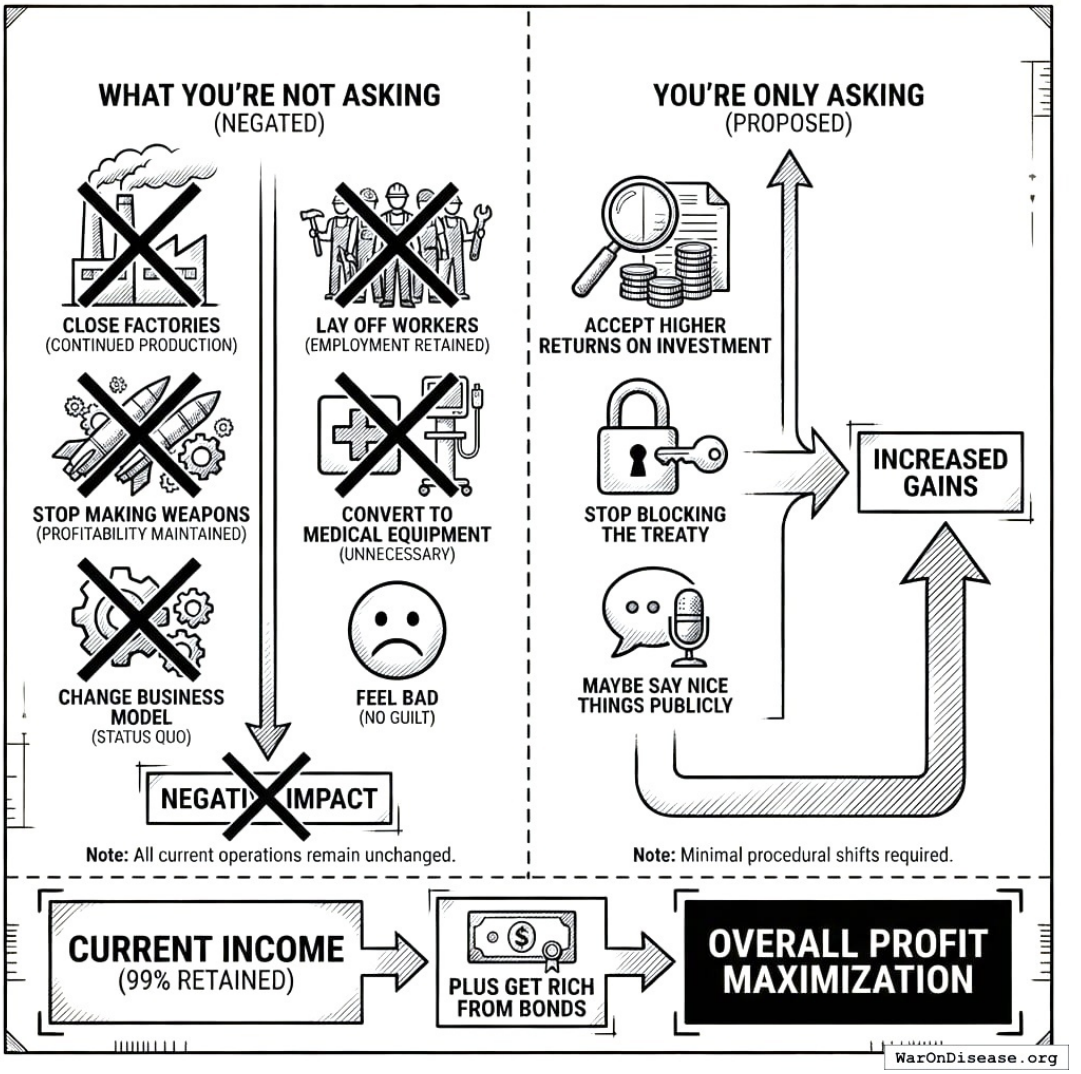


Figure 209: Defense contractors keep 99% of their money and get extra cash for being nice. They're crying all the way to the bank about the hardship.

Why This Works

You're using their own playbook. Defense contractors spend $127M on lobbying and get $181B back. You're offering them BETTER returns to lobby for something else. It's not revolutionary. It's just capitalism but pointed at diseases instead of humans.

It's all legal. VICTORY Incentive Alignment Bonds are legal investment vehicles. Lobbying is protected free speech. Consulting fees are standard practice. Strategic advisor positions are completely normal (if "normal" means "legal corruption"). They designed the system to allow this. You're just using it correctly.

The same incentive structures that created the military-industrial complex get pointed at curing disease instead. Like a very expensive garden hose. No moral evolution required. Just different math. This is either brilliant or ridiculous. Possibly both.

Defense Contractor CEO (to board): "We diversified into bonds paying 272% returns vs the market's 10%. If the treaty passes, we profit enormously. If it fails, we still have our defense contracts. It's a hedge. I'm being prudent. You're welcome."

Budget: Strategic allocation from the $1B incentive alignment budget.

The Timeline

Optimistic (if this works): Key lobbyists flip in months 1-12. Defense contractor trade associations go neutral by month 18. By month 25, former opponents take credit: "I always cared about medical research" (they discovered this yesterday).

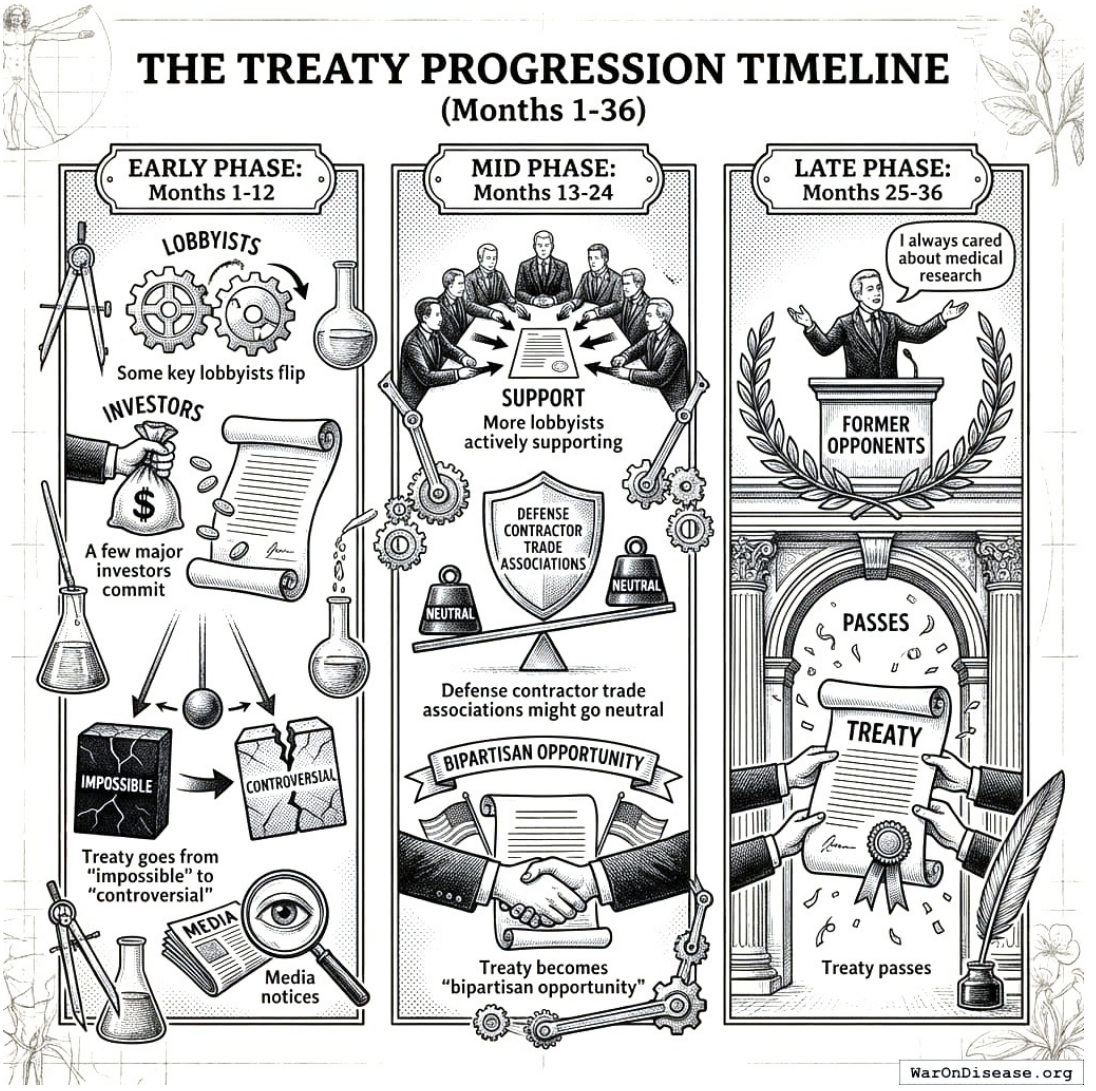


Figure 210: How long it takes for politicians to go from 'this is outrageous' to 'I supported this all along.' Three years, apparently.

Pessimistic (if this doesn't work): You and everyone you've ever loved slowly deteriorate into dust.

You can't fight the military-industrial complex. It's too big. Too entrenched. Too profitable. But you might be able to buy it.

Insurance Companies: The Accidentally Aligned Industry

Insurance companies are already on your side. They just don't know it yet, because nobody at an insurance company has ever had an original thought. Every disease you cure is billions they don't have to pay out.

Their Current Death Spiral

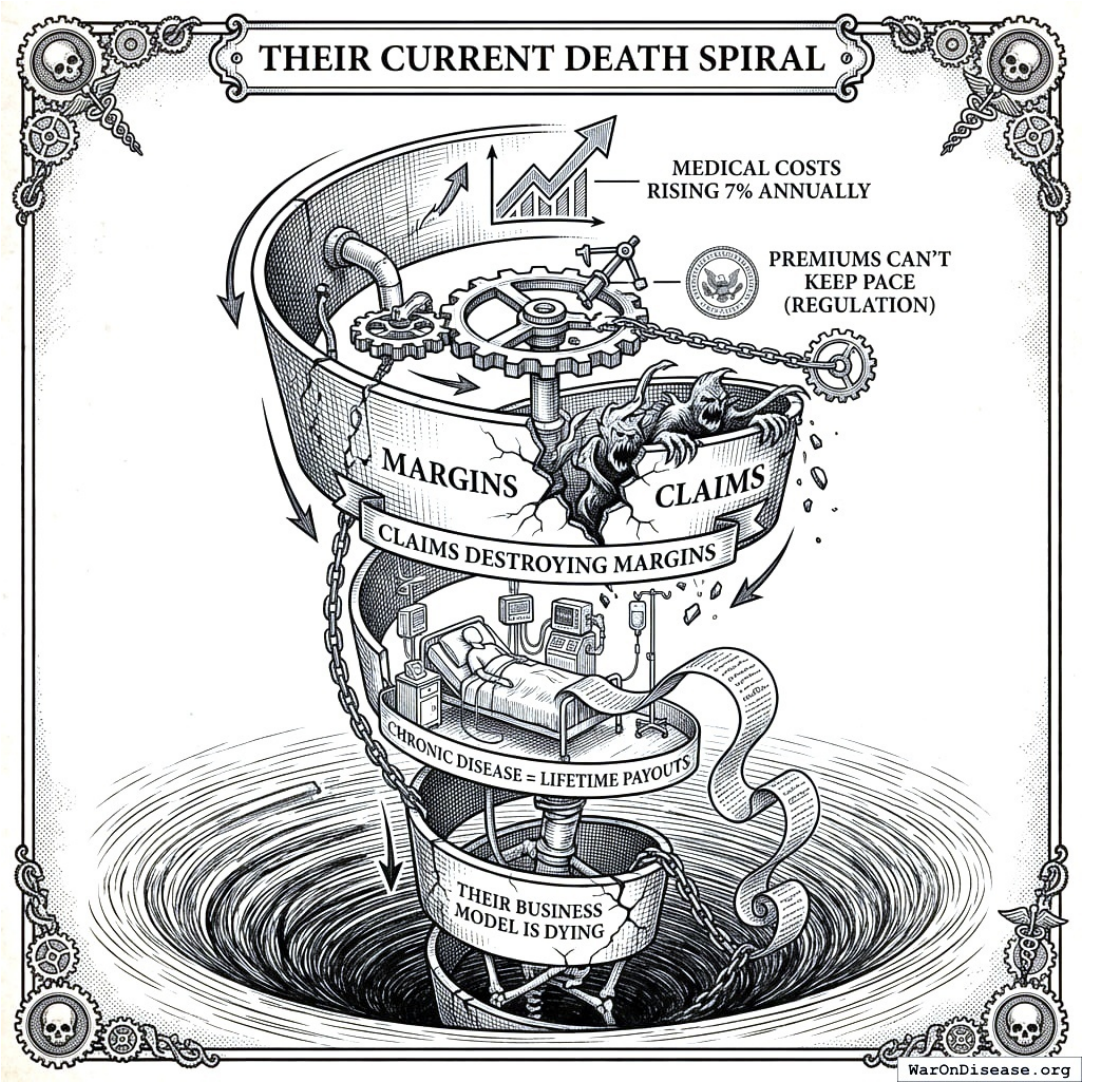


Figure 211: The insurance death spiral. Costs go up, premiums go up, healthy people leave, costs go up more. Like a toilet flush but with your healthcare.

- Medical costs rising 7% annually
- Premiums can't keep pace (regulation)
- Claims destroying margins
- Chronic disease = lifetime payouts
- Their business model is dying

Your Salvation Offer

The Math They Can't Refuse

Disease	Current Annual Cost	After Cure	Reduction
Diabetes	$327B	One-time cure cost	~90% ongoing savings
Alzheimer's	$355B	One-time cure cost	~90% ongoing savings
Heart Disease	$363B	One-time cure cost	~90% ongoing savings
Cancer	$208B	One-time cure cost	~90% ongoing savings

Even partial cures dramatically improve their margins. They don't need $0 costs. They just need costs to stop rising 7% annually, which is currently the speed at which their business model is committing suicide.

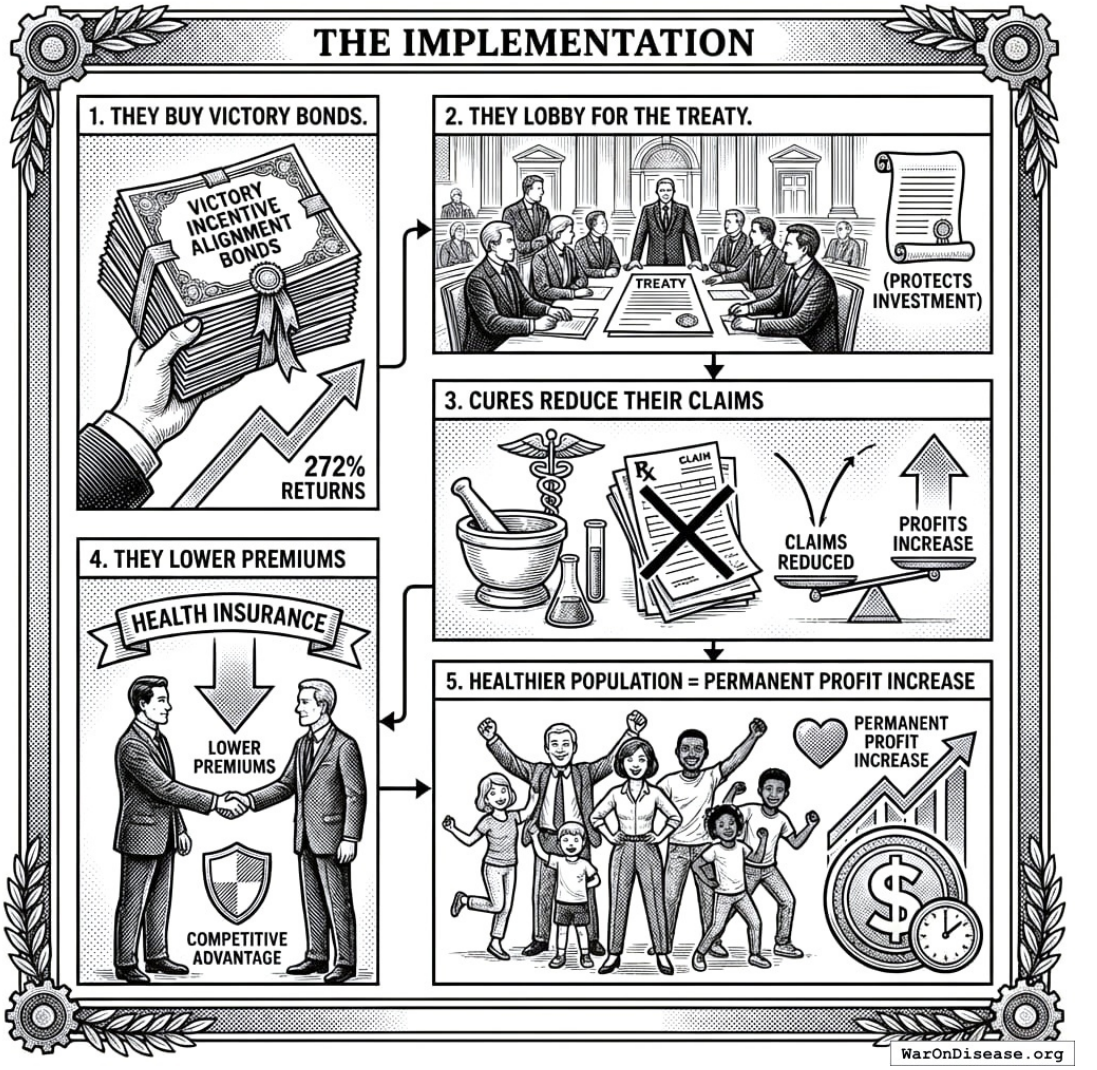


Figure 212: Buy bonds, fund cures, people stop dying, premiums drop, profits go up forever. Insurance companies solving their own problem by accident.

1. They buy VICTORY Incentive Alignment Bonds (272% returns)
2. They lobby for the treaty (protects investment)
3. Cures reduce their claims (profits increase)
4. They lower premiums (competitive advantage)
5. Healthier population = permanent profit increase

Why They're Your Natural Allies

Insurance companies are the only industry that profits from human health. Every other healthcare player profits from sickness. Use this natural alignment:

- **Pharma wants chronic patients** - Insurance wants cures
- **Hospitals want full beds** - Insurance wants empty ones

- **Doctors want repeat visits** - Insurance wants one-time fixes

You're offering insurance companies a world where chronic disease costs stop compounding at 7% annually.

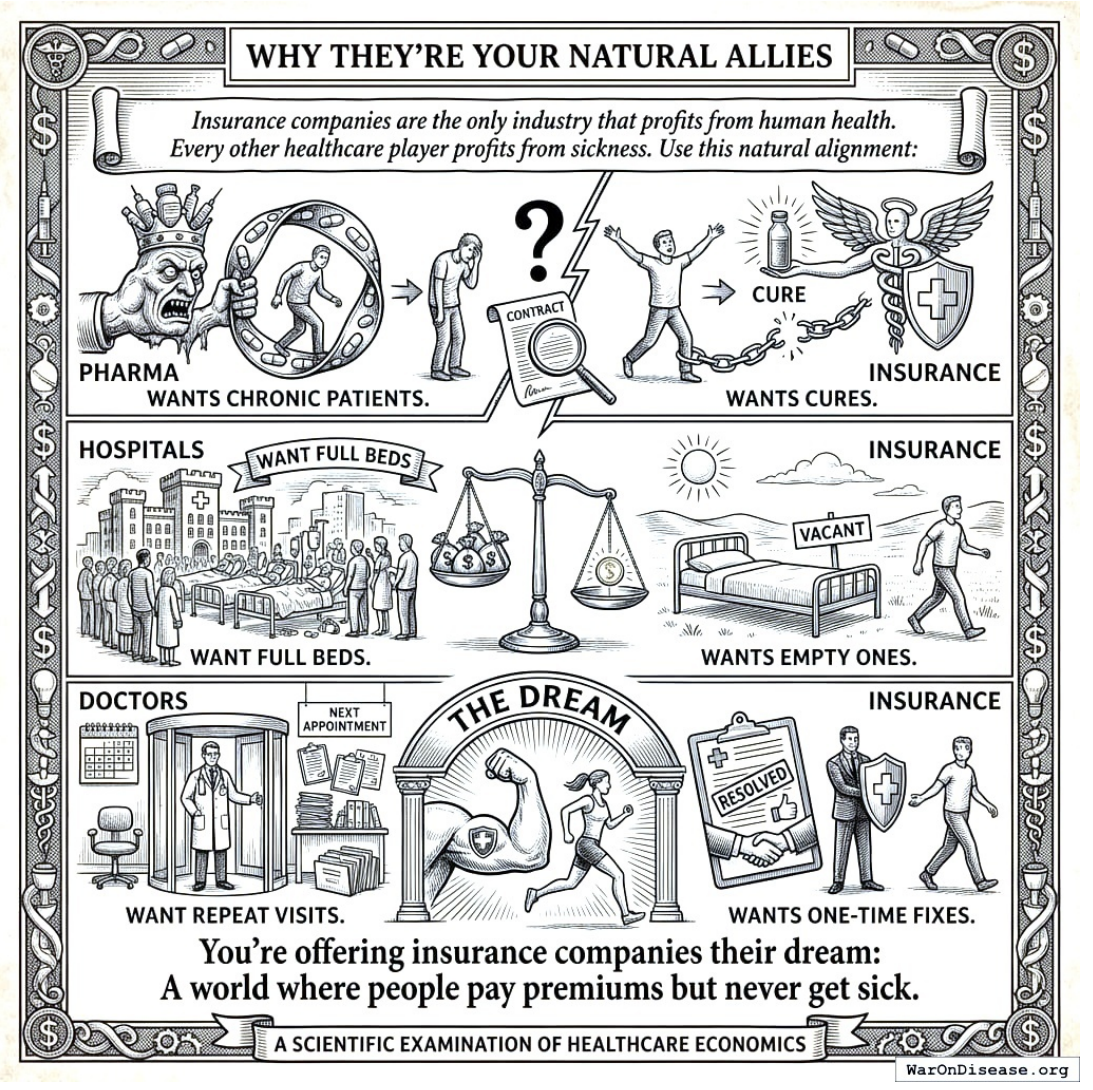


Figure 213: Hospitals get paid when you're sick. Insurance companies lose money when you're sick. Only one of them wants you to stop being sick.

Pharmaceutical Companies: Converting Drug Dealers to Drug Curers

Pharma companies aren't evil. They're just doing what any rational organism does when you pay it to keep people sick: keeping people sick. They're trapped in a business model that rewards treating symptoms forever instead of curing diseases once. Here's how you free them from their golden cage.

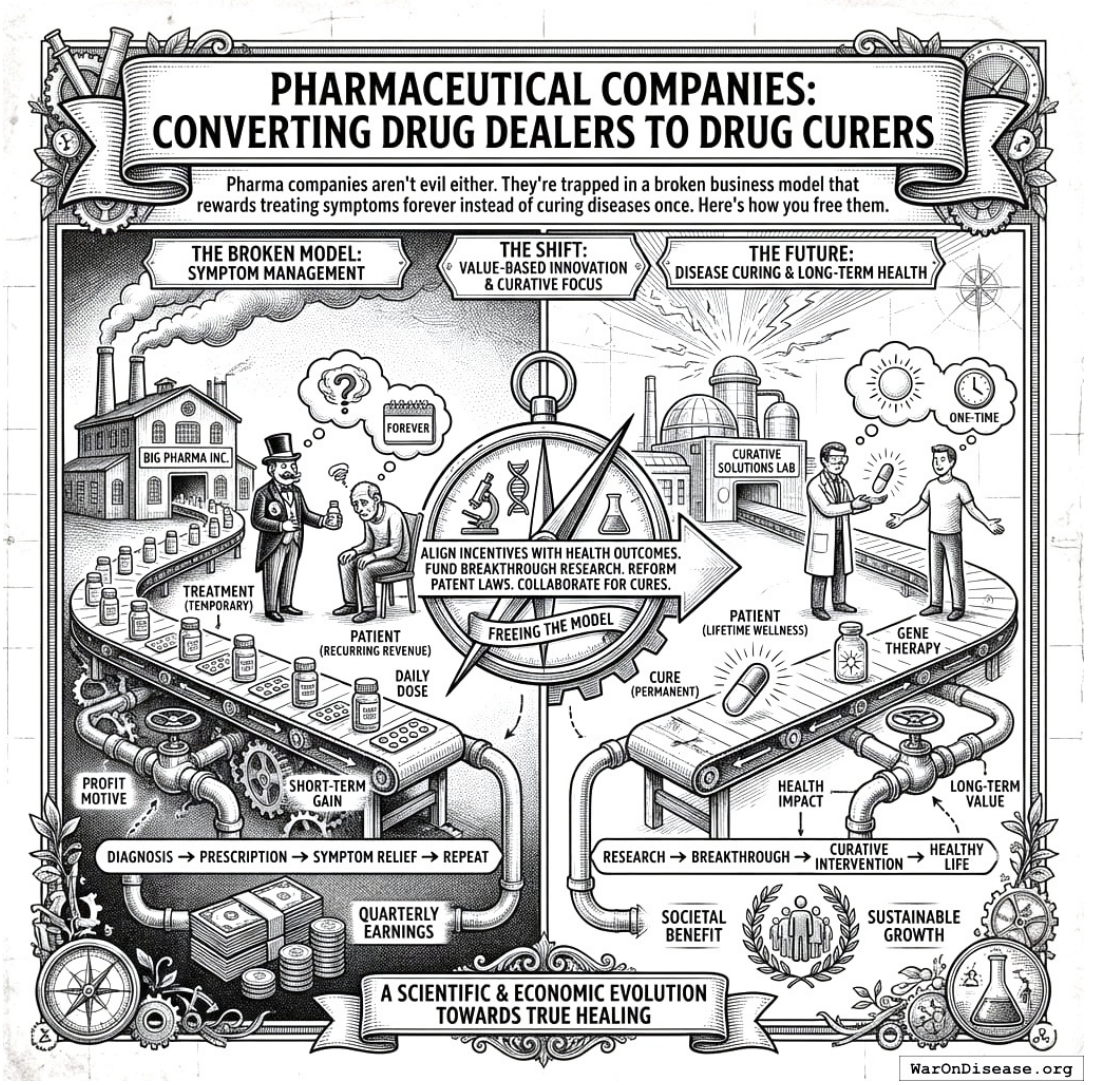


Figure 214: Old model: sell pills forever. New model: cure disease once. One makes steady money, the other makes sense.

Their Current Trap

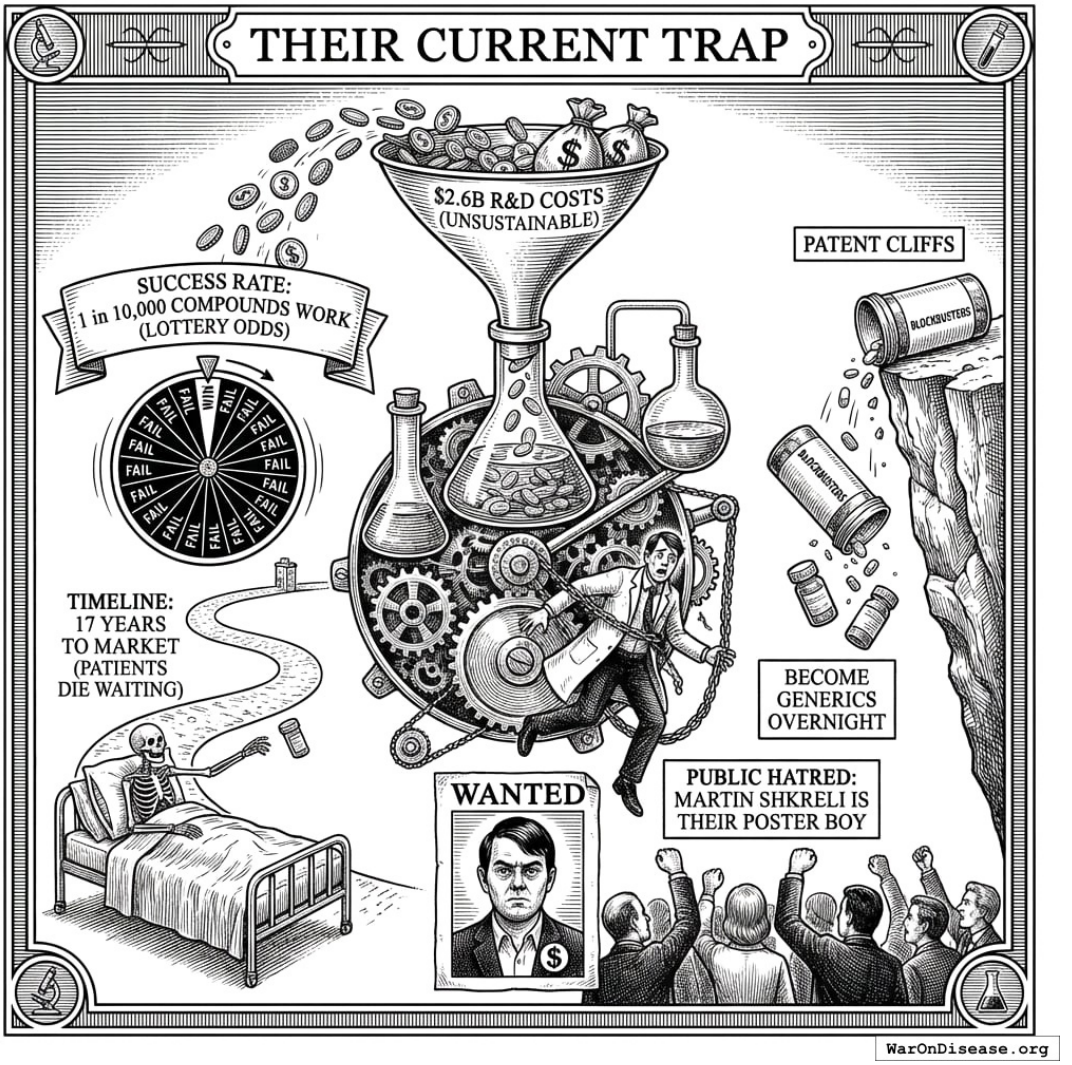


Figure 215: The Pharma Trap: test 10,000 chemicals for 17 years, spend 2.6 billion dollars, get one medicine. It's like panning for gold in a pile of poison.

- **R&D costs**: $2.6B per drug (unsustainable)
- **Success rate**: 1 in 10,000 compounds work (lottery odds)
- **Timeline**: 17 years to market (patients die waiting)
- **Patent cliffs**: Blockbusters become generics overnight
- **Public hatred**: Martin Shkreli is their poster boy

The Cost Elimination

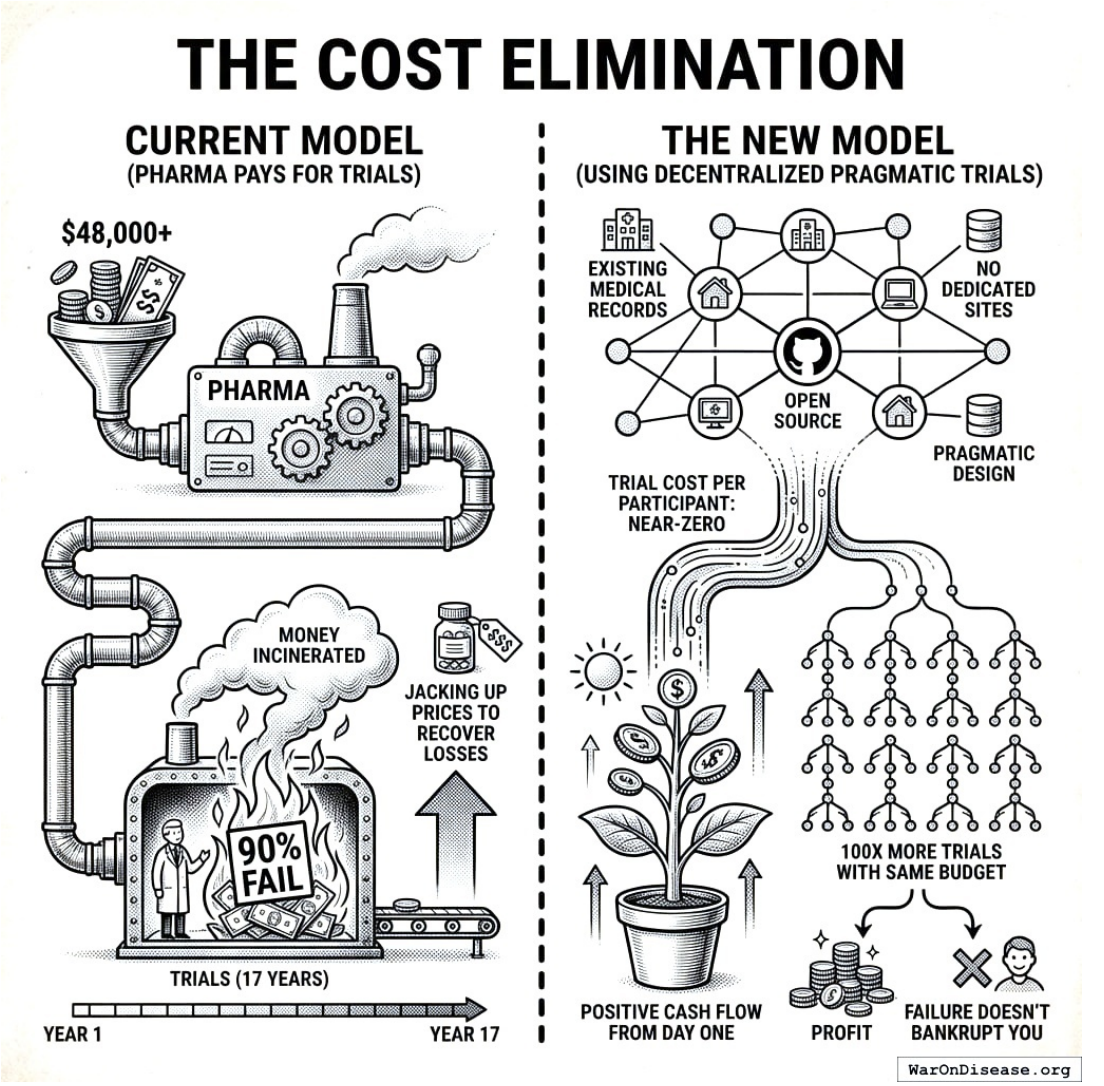


Figure 216: Traditional trials: 17 years, 2.6 billion dollars, maybe works. Decentralized trials: 100 days, costs less than a house, definitely tells you something.

Current model (pharma pays for trials):

- Pharma spends $48,000+ per trial participant
- Burns cash for 17 years hoping for approval
- 90% of drugs fail in trials = money incinerated
- Success means jacking up prices to recover losses

The new model (using decentralized pragmatic trials):

- Trial cost drops ~98% (pragmatic design, existing medical records, no dedicated sites)
- Can afford to run 100x more trials with same budget
- Success means profit, failure doesn't bankrupt you

The Math That Converts Them

Current Pharma Economics

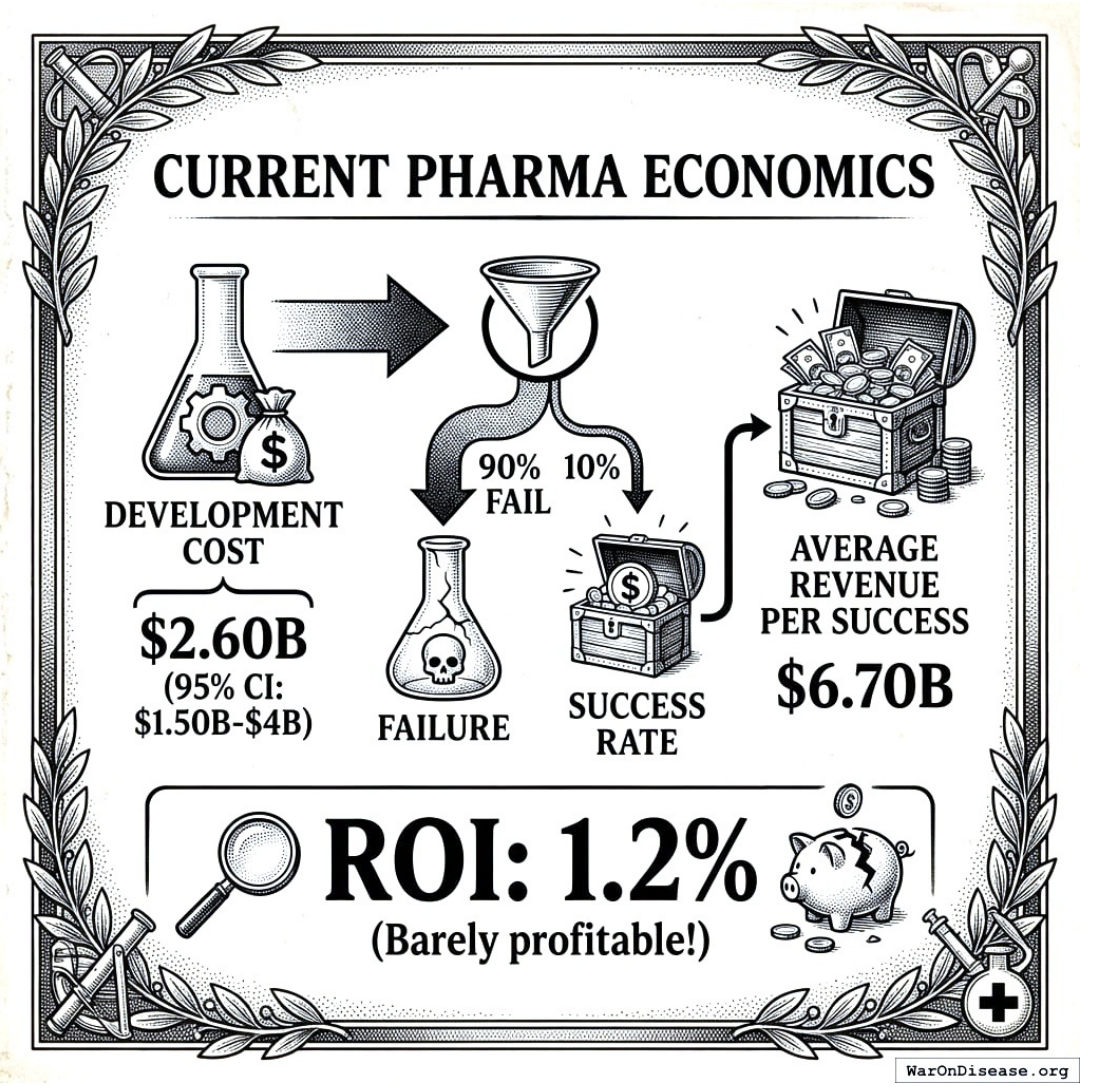


Figure 217: Drug companies spend billions to make 1.2 percent profit. You could make more money with a savings account, but that wouldn't justify the yacht.

- Development cost: $2.60B
- Success rate: 10% (90% fail)
- Average revenue per success: $6.70B
- **ROI: 1.2%** (Barely profitable!)

New System - Cost Elimination

The main benefit: pragmatic clinical trials become 100x cheaper.

How your decentralized institutes of health eliminate trial costs

Current system: Pharma spends $48,000 per participant on:

- Dedicated trial sites and staff
- Extensive monitoring and site visits
- Custom data collection infrastructure
- Regulatory compliance overhead

A system using your decentralized institutes of health (DIH): Cost drops ~98% because:

- Uses existing medical practices (no dedicated sites)
- Patient's regular doctor enrolls them (one-click)
- Leverages existing EHR data (no custom infrastructure)
- Pragmatic design = minimal monitoring
- Platform handles regulatory compliance automatically

Result: 50,000-participant trial drops from $2.4 billion to under $50 million (regulatory filing, data analysis, platform fees).

Current System	A decentralized trials framework
Pay $2.60B for trials	Pay ~$50M for trials (98% reduction)
90% of drugs fail = $2.3B loss	Failure costs ~$50M (survivable)
10-17 year development	2-3 year development
Only blockbusters viable	Rare diseases = profitable
Massive risk	Manageable risk per attempt

A decentralized institutes of health network doesn't change whether drugs work biologically. It changes the economics. You profit from TRYING, not just from SUCCEEDING.

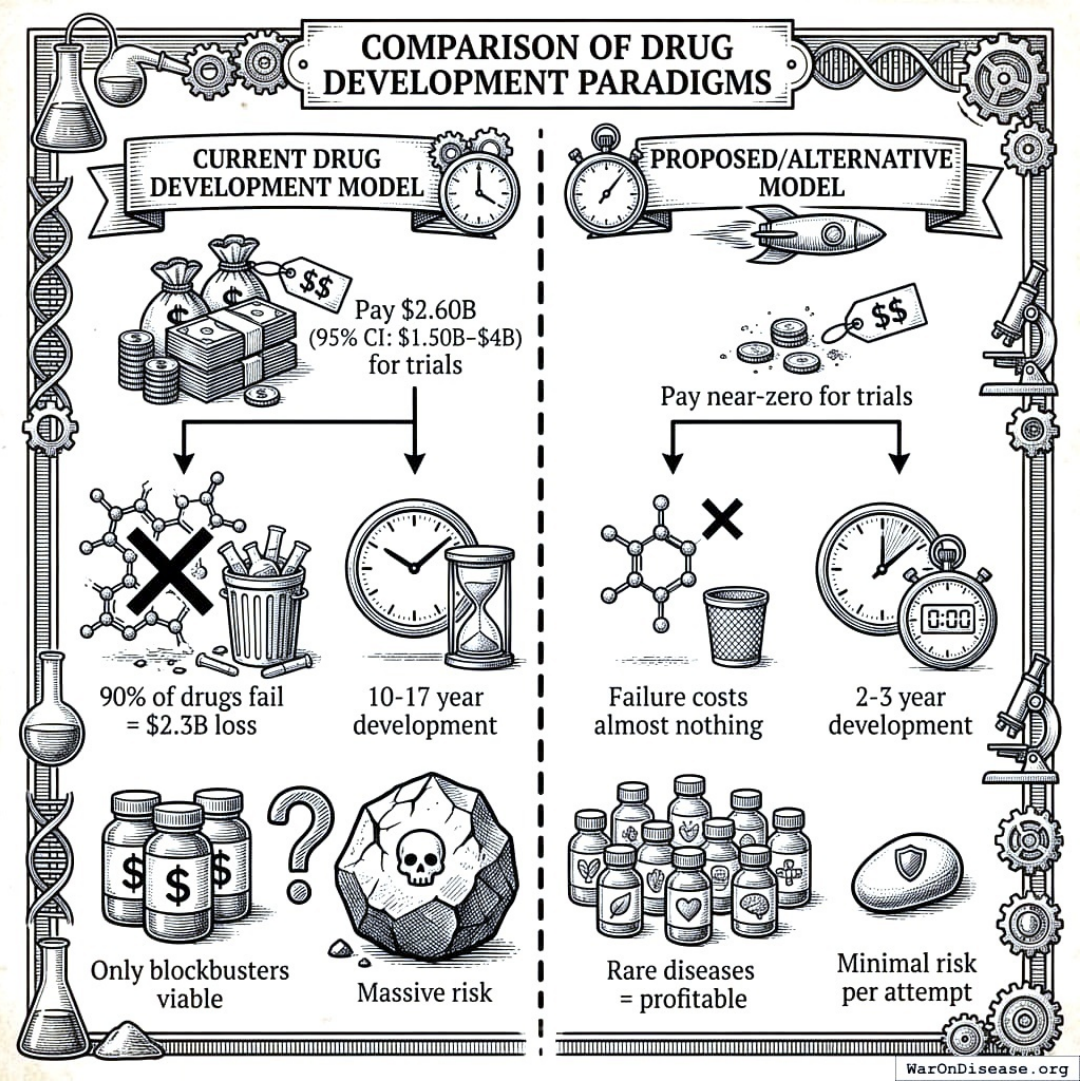


Figure 218: Current model: costs billions, takes decades. Proposed model: costs thousands, takes months. The expensive one is considered serious.

Pharma's New Business Model: Volume Over Blockbusters

The trade-off: **Lower revenue per drug, but massively more attempts.**

Current model

- Chase $1B+ blockbusters
- Can only afford ~10 attempts (each costs $2.6B)
- Need huge markets to justify risk
- 10,000 compounds sitting on shelf

The new decentralized model

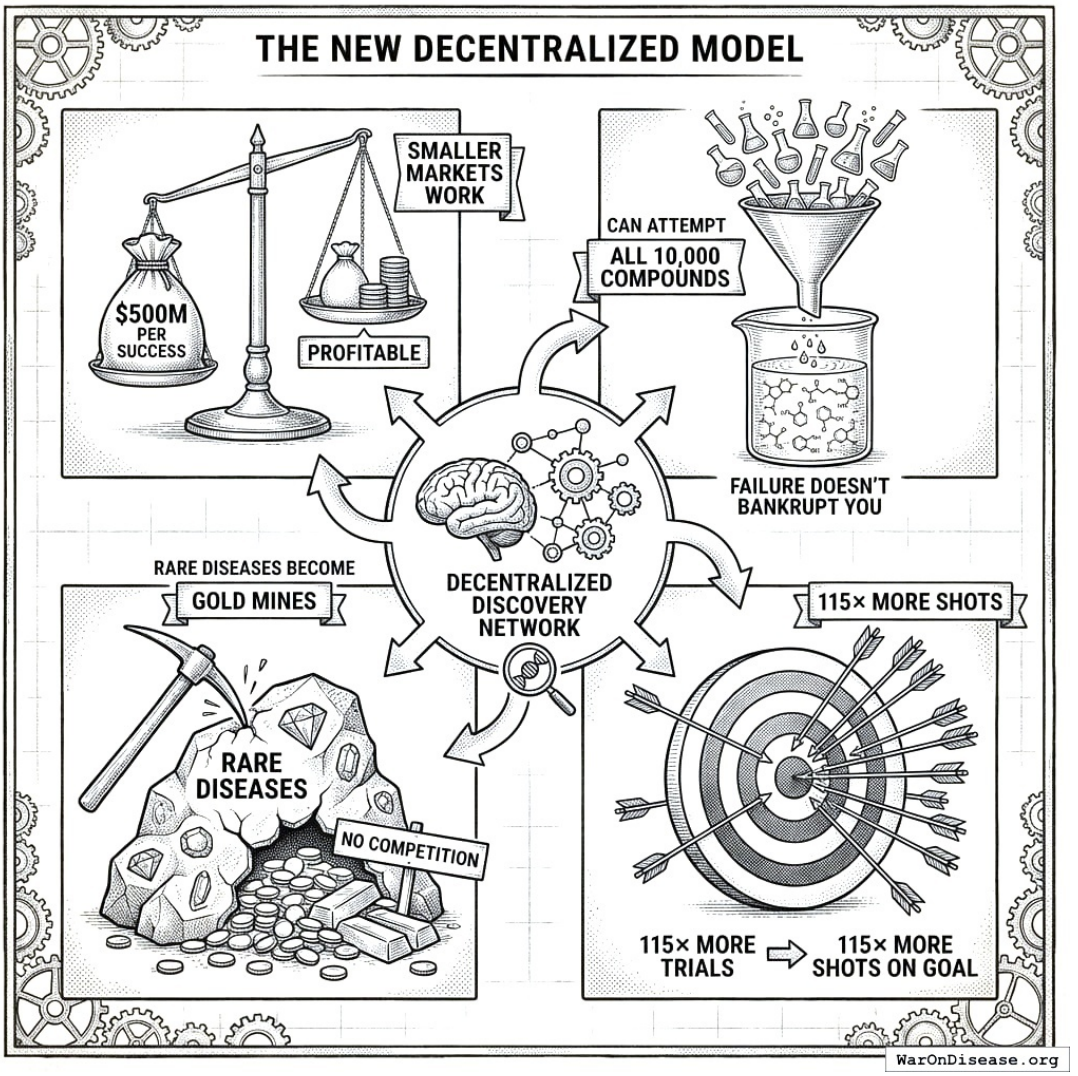


Figure 219: When trials are cheap, you can test everything, even diseases that only affect 47 people. Turns out those people would also like not to die.

- $500M per success is profitable (smaller markets work)
- Can attempt all 10,000 compounds (failure doesn't bankrupt you)
- Rare diseases become gold mines (no competition)
- 115x more trials = 115x more shots on goal

How to Get Them Onboard

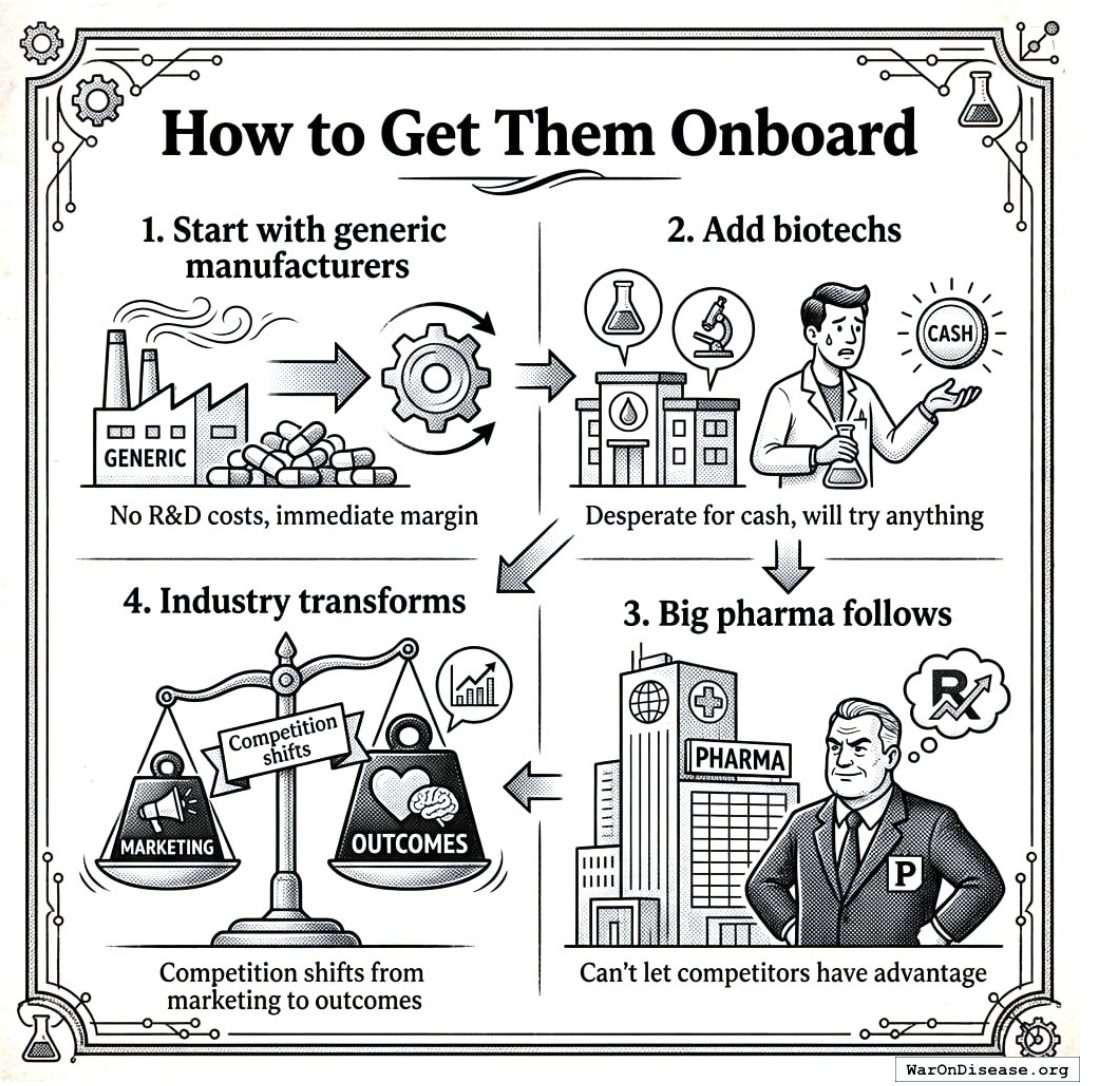


Figure 220: Step 1: small companies try it. Step 2: it works. Step 3: big companies notice. Step 4: everybody does it and pretends it was their idea.

1. **Start with generic manufacturers** - No R&D costs, immediate margin
2. **Add biotechs** - Desperate for cash, will try anything
3. **Big pharma follows** - Can't let competitors have advantage
4. **Industry transforms** - Competition shifts from marketing to outcomes

Politicians: Hacking Democracy's Source Code

Politicians are the simplest organisms in this ecosystem. Simpler than bacteria. Bacteria at least reproduce usefully. Politicians want exactly two things: votes and money. You're going to give them both.

Their Current Misery

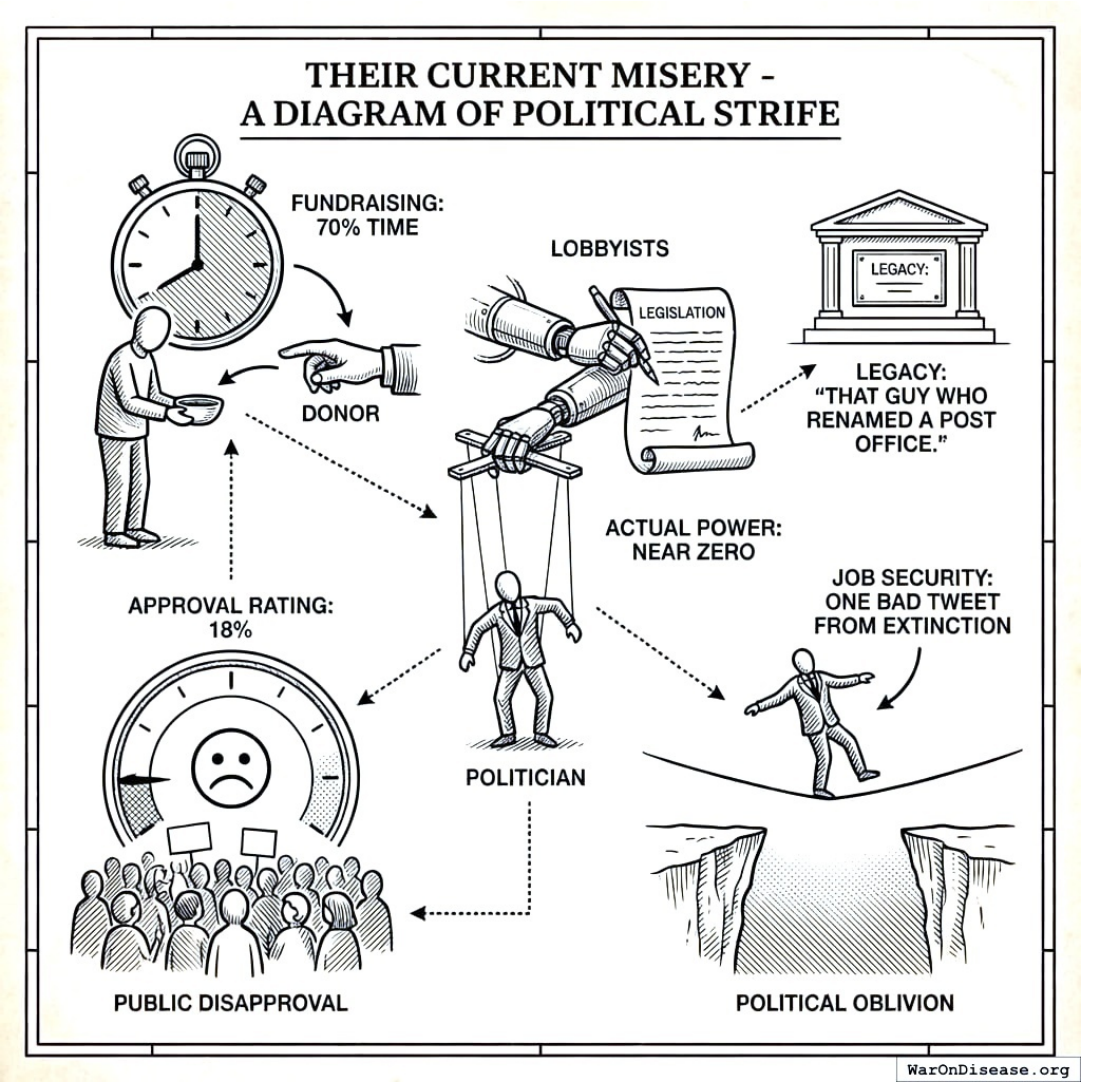


Figure 221: The modern politician: 70 percent fundraising calls, 18 percent approval rating, 3 percent actual decision-making. It's like being a telemarketer who everybody hates but won't fire.

- **Fundraising**: 70% of their time begging for money
- **Approval rating**: 18% (everyone hates them)
- **Actual power**: Near zero (lobbyists write the bills)
- **Legacy**: "That guy who renamed a post office"
- **Job security**: One bad tweet from extinction

Your Political Welfare Program

The Money Pipeline

- Treaty supporter: Super PAC funds flow in
- Treaty opponent: Super PAC funds their opponent

- It's not corruption, it's free speech (thanks Citizens United!)

The Vote Harvest

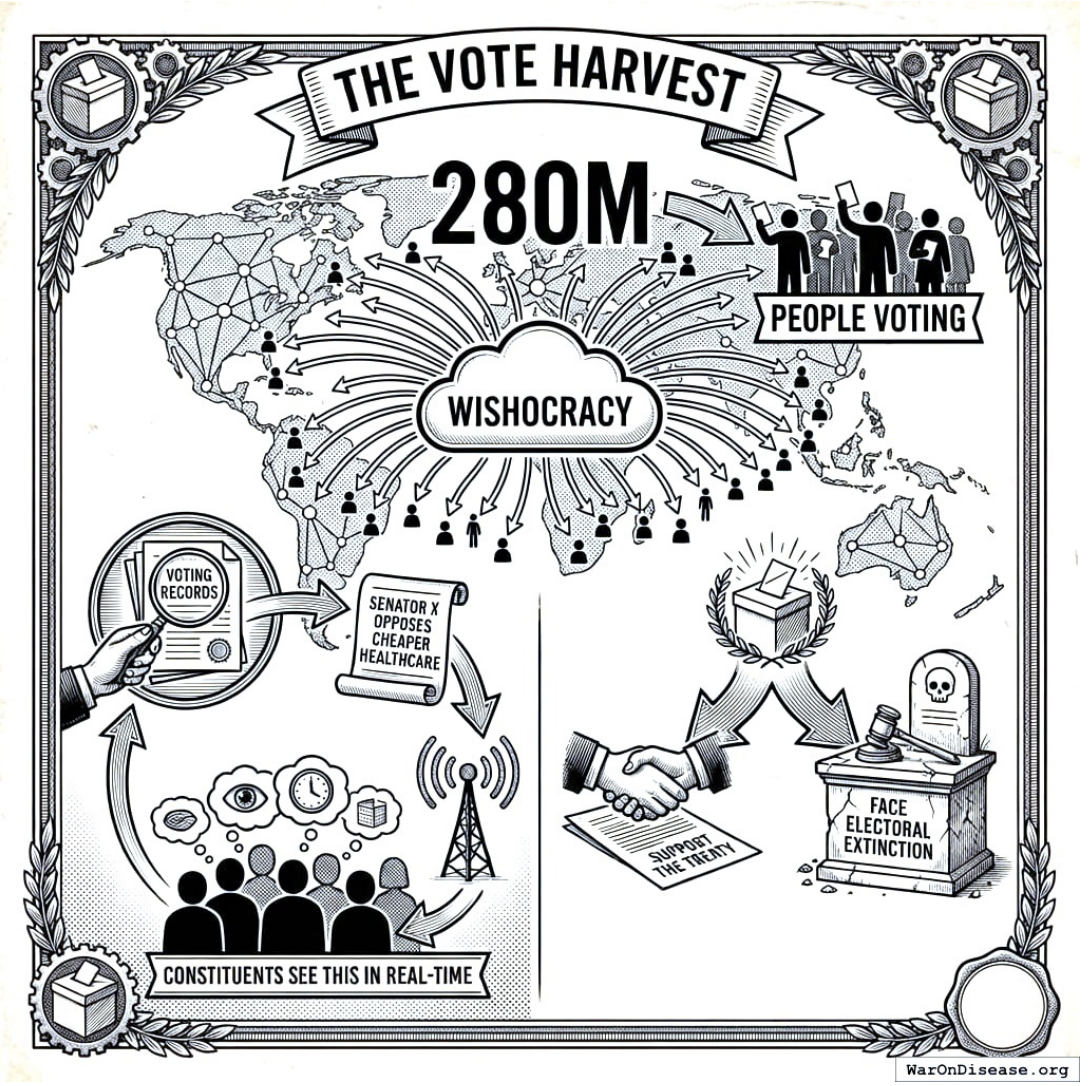


Figure 222: Wishocracy: people vote on what they want, app tells politicians, politicians see the votes are real, politicians reconsider their donors. Democracy by app because democracy by government stopped working.

- 280 million of people voting on Wishocracy
- You publish voting records: "Senator X opposes cheaper healthcare"
- Their constituents see this in real-time
- Support the treaty or face electoral extinction

The Bipartisan Beauty

This works on everyone:

- **Republicans**: "Free market solution! Cuts government spending!"

- **Democrats**: "Universal healthcare access! Helps the poor!"
- **Libertarians**: "Ends FDA tyranny! Personal freedom!"
- **Socialists**: "Destroys Big Pharma monopoly! Power to people!"

Everyone can claim victory because the framing works for each ideology.

Billionaires: Self-Interest Meets Self-Preservation

Billionaires have everything except the one thing money can't buy: not dying. A billion dollars and a body that rots at the same rate as everyone else's. You're offering returns AND longevity research. The incentives align naturally.

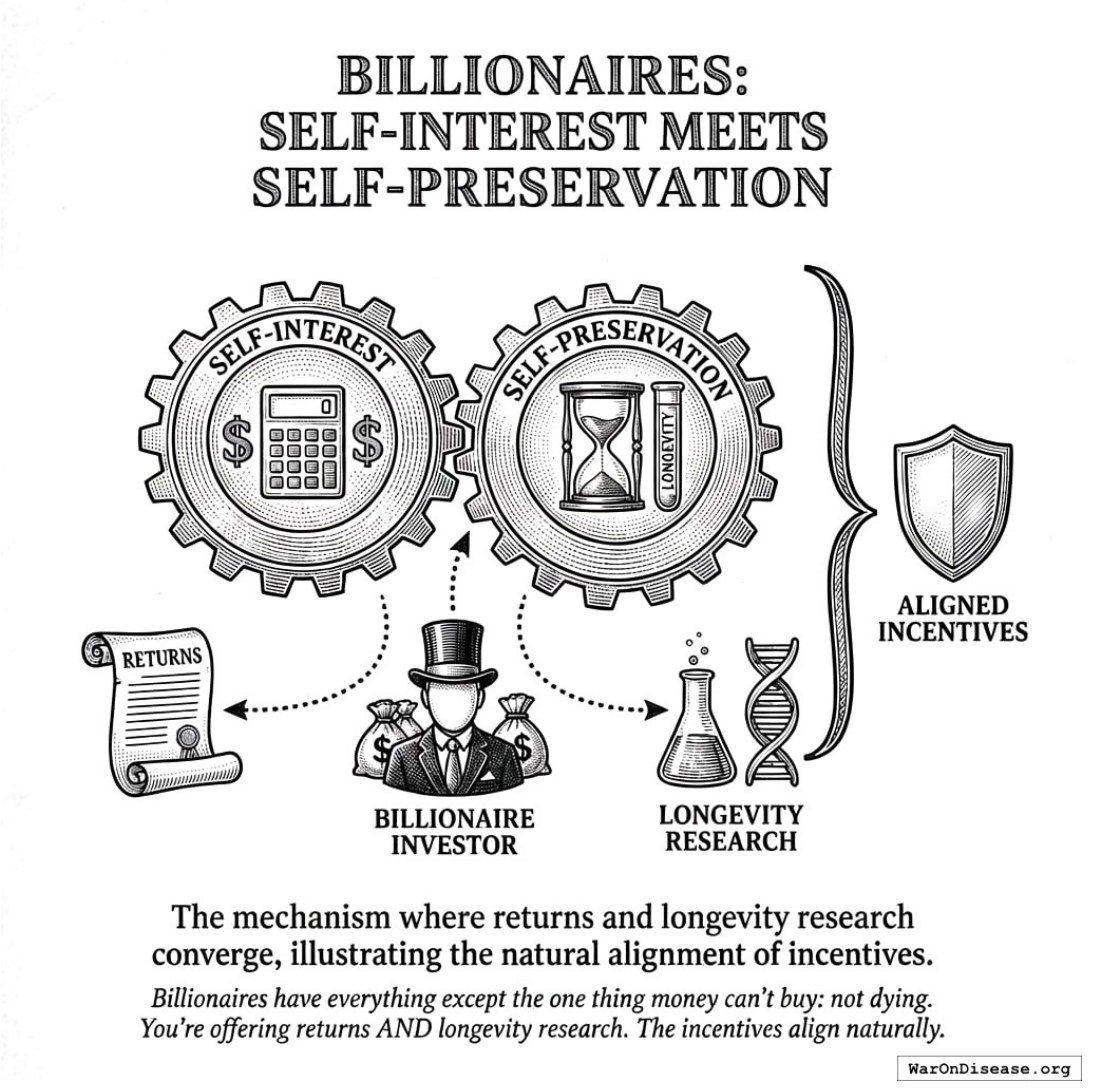


Figure 223: How to get billionaires to fund immortality research: tell them it pays 300 percent returns. They wanted to live forever anyway, now they can afford to.

What They Really Want

- **Legacy**: Being remembered (narcissism is powerful)

- **Returns**: Beating other billionaires (it's all a game)
- **Survival**: Not dying of whatever will kill them
- **Reputation**: Not being history's villain
- **Control**: Shaping the future

Your Irresistible Package

The Investment

- VICTORY Incentive Alignment Bonds offer returns funded by treaty revenue
- Beats traditional portfolio yields

The Legacy

- "The Gates Cancer Center" (permanent naming rights)
- "The Musk Longevity Institute" (feed that ego)
- History books: "Funded the cure for death"
- Nobel Peace Prize possible (they crave validation)

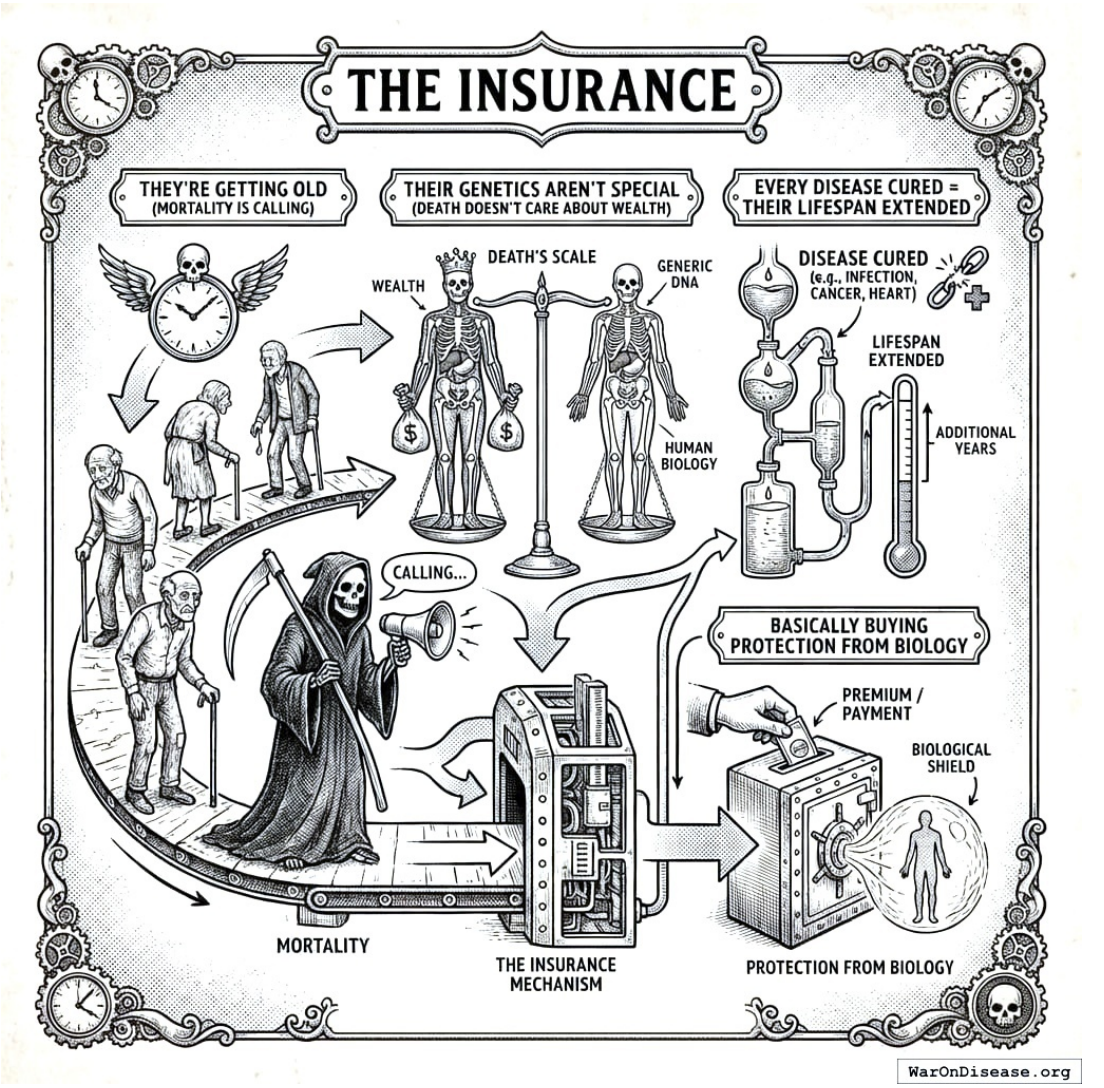


Figure 224: Billionaires buying longevity like it's life insurance. Pay now, live forever. The premium is 100 million dollars but so is their watch.

- They're getting old (mortality is calling)
- Their genetics aren't special (death doesn't care about wealth)
- Every disease cured = their lifespan extended
- Basically buying protection from biology

The Domino Effect: How This Cascade Works

Once you align a few key players, others follow:

The Sequence

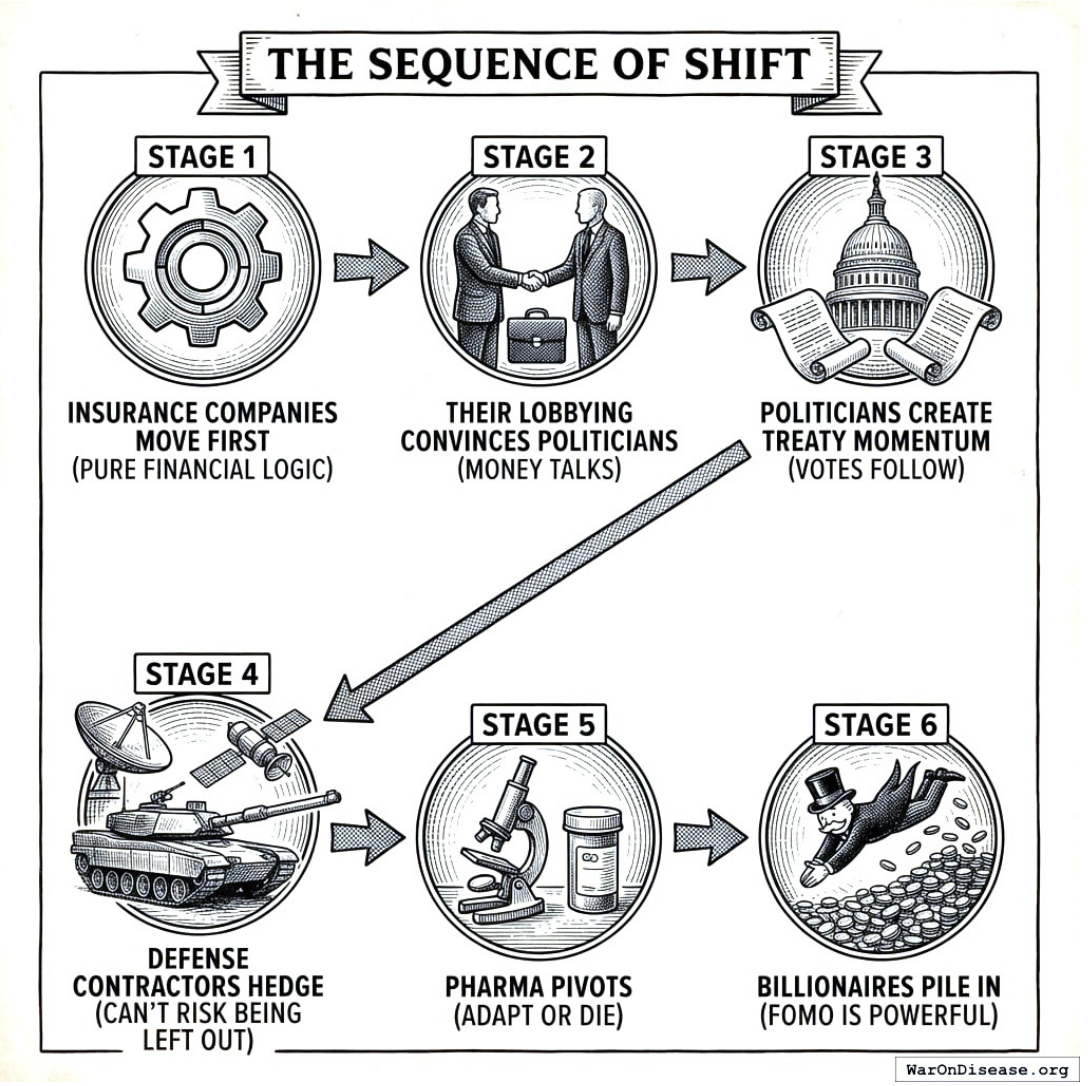


Figure 225: Insurance companies convince politicians, politicians convince weapons makers, weapons makers convince billionaires. It's like telephone but everyone gets richer.

1. **Insurance companies move first** (pure financial logic)
2. **Their lobbying convinces politicians** (money talks)
3. **Politicians create treaty momentum** (votes follow)
4. **Defense contractors hedge** (can't risk being left out)
5. **Pharma pivots** (adapt or die)
6. **Billionaires pile in** (FOMO is powerful)

Why This Can Work: Solving the Collective Action Problem

Public choice theory (a branch of economics devoted to explaining why nothing good ever happens) predicts that concentrated interests (defense contractors, pharma incumbents) beat diffuse interests (patients, taxpayers). Small groups with high per-person stakes outorganize large groups with low per-person stakes. Ten lobbyists who each make $10 million from war

will always outfight ten million patients who each lose $10 from disease. The current system persists despite its inefficiency. Or rather, because of it.

But here's what Olson missed: The capital asymmetry is 90:1 in favor of diffuse beneficiaries.

Side	Available Capital	Current Political Spending
Concentrated interests (defense, fossil fuels)	~$5T market cap	$100M-$1B annually
Diffuse beneficiaries (everyone who'd benefit from cures)	$454T household wealth	~$0 (coordination failure)

The problem isn't resources. It's coordination. Diffuse beneficiaries can't deploy their 90:1 capital advantage. Each individual's stake is small. Coordination costs are prohibitive.

Incentive Alignment Bonds solve the coordination problem by securitizing political change. Political outcomes become an investable asset class with 100-1000x expected returns. Coordination happens through financial markets instead of grassroots organizing. Investors don't need to care about curing disease. They need to care about returns. The mechanism converts self-interest into collective action.

Why the cascade can happen (not "must" happen)

Once IABs concentrate financial benefits on the pro-health side:

- Politicians face a new calculation: IAB benefits > concentrated opposition costs
- Each policy success increases IAB funding. That strengthens the coalition.
- Investors lobby for treaty expansion to increase their returns
- The dynamic reverses: supporting pragmatic clinical trial funding becomes the concentrated-benefit option

This isn't inevitable. It requires sufficient IAB funding to overcome opposition. But it's achievable because the capital is there. It just needs a coordination mechanism.

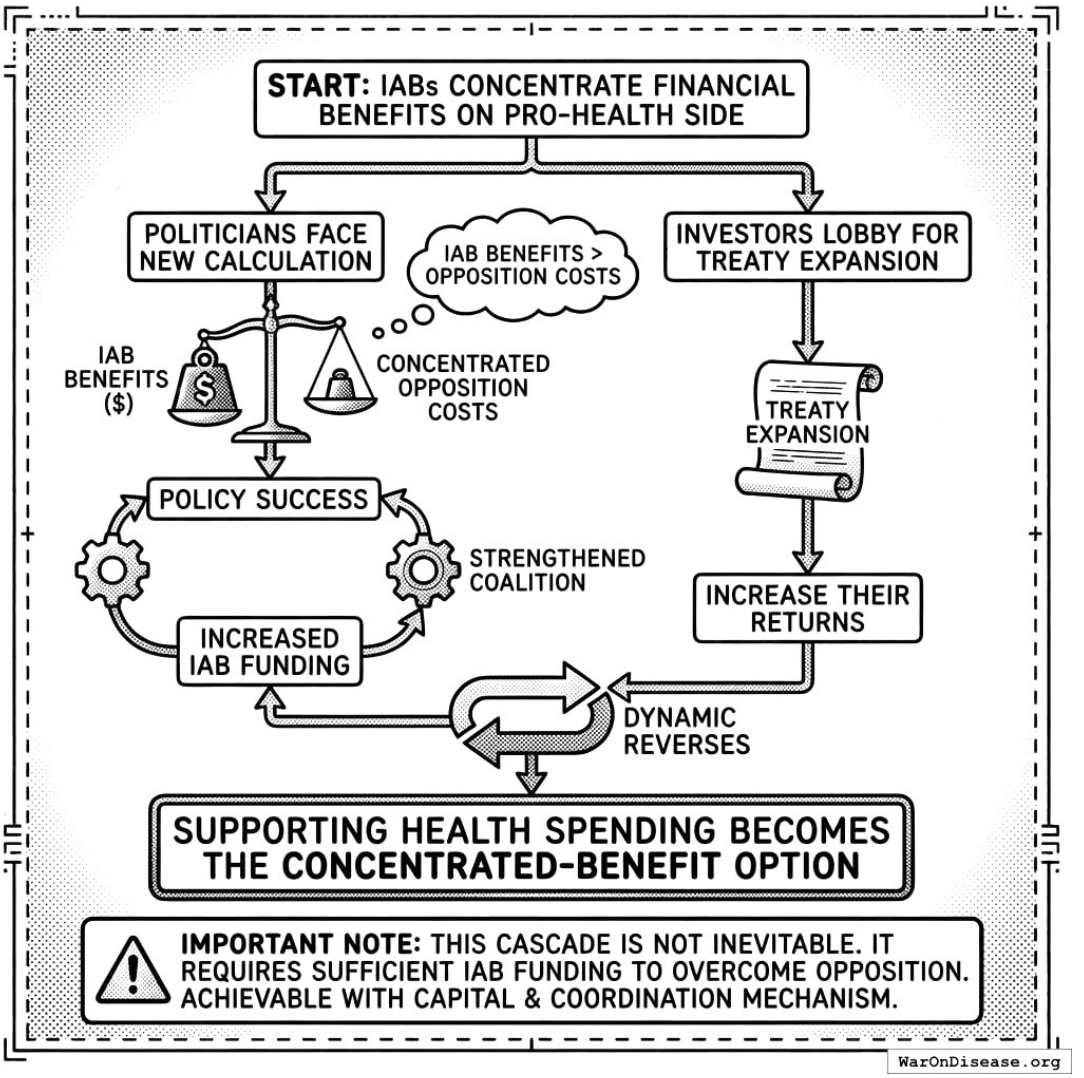


Figure 226: The virtuous cycle: fund research, cures happen, politicians look good, more funding arrives. Like the weapon-money cycle but nobody explodes.

Why This Scales: The Ratchet Effect

Each treaty expansion creates more political incentive funding to lobby for the next expansion. At 1%, funding is \$2.72B/year. At 10%, it's \$27B/year. Politicians who supported the 1% treaty get rewarded. Those rewards grow if they push for 2%. It's a ratchet that only moves in one direction: the direction where people stop dying. You've accidentally built ratchets like this before (Social Security, Medicare), but always by accident and never on purpose. This time, try doing it on purpose. See Incentive Alignment Bonds for the full scaling mechanism and tables.

VICTORY Incentive Alignment Bonds

Related: Aligning Incentives | Academic Paper

Remember when your grandparents funded WW2 by buying war bonds? They got 4% returns and a world without Nazis (mostly). Good deal.

You're doing the same thing. Except instead of buying bonds to kill Nazis, you're buying bonds to kill diseases. War bonds, but backwards.

The Core Problem: Good Ideas Die in Committee

Here's your species' fun puzzle: you know how to save millions of lives. You can measure exactly how many. You have the money. You don't do it.

Not because your politicians are evil. Because your system is built so that:

- Politicians maximize **reelection, status, and post-office careers**, not "humans continuing to exist"
- Bureaucracies maximize **budget and turf**, not "speed of cures"
- Lobbyists maximize **client profits**, not "global welfare"

You don't fix this with awareness campaigns. You've been "raising awareness" for decades and everyone is still dying, but they're dying *aware*, so that's nice. You don't fix it with white papers. Politicians use white papers to stabilize wobbly tables. You fix it by changing **what self-interest points at**.

This chapter describes how to legally bribe your politicians into doing the right thing.

> **Incentive Alignment Bonds (IABs)**: a financial instrument for paying for better governance without technically paying politicians, giving money to governments, or going to prison.

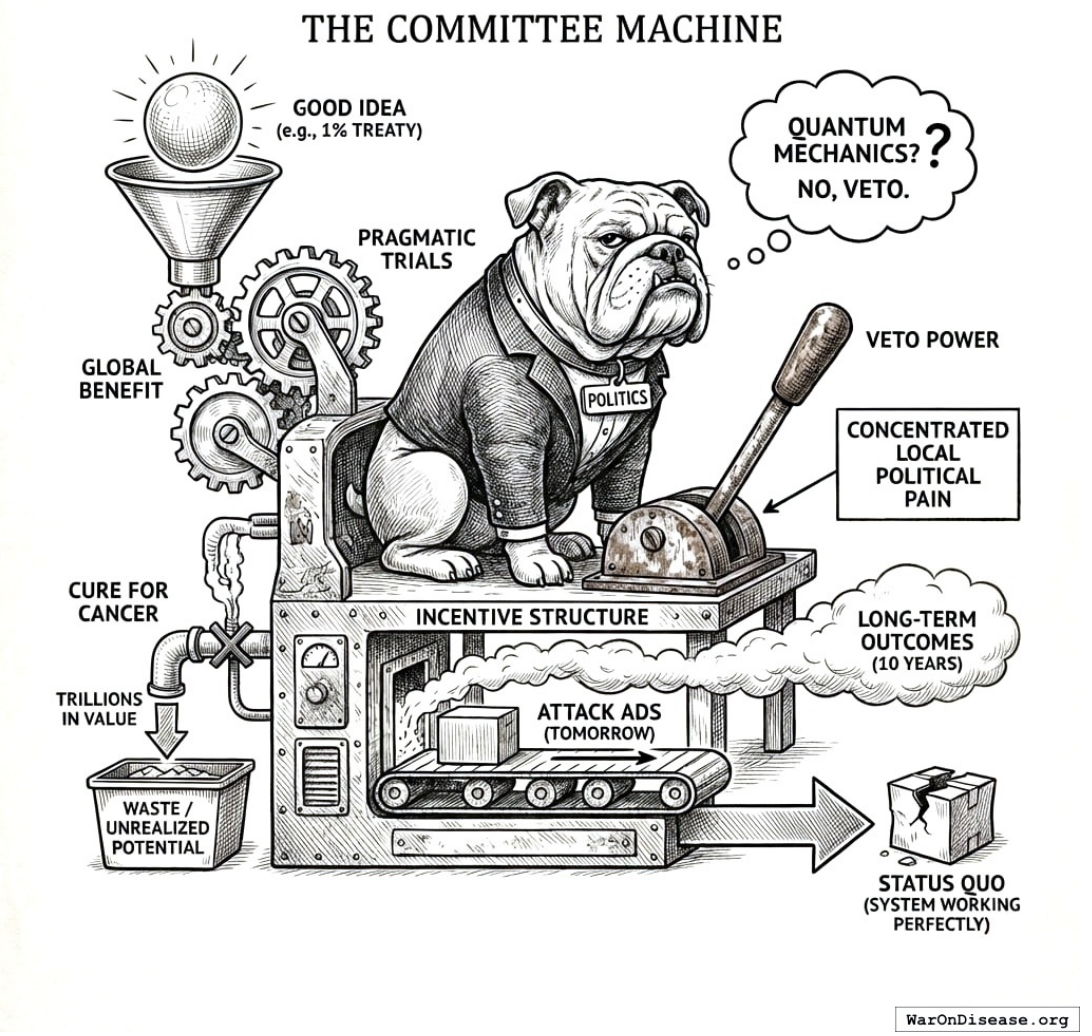


Figure 227: Tiny cost now, massive benefit later. Politicians are very good at the 'now' part and very bad at the 'later' part.

Your 1% Treaty isn't constrained by physics, biology, or money. It's constrained by **politics**, which is like being constrained by your dog's opinion on quantum mechanics, except your dog can veto legislation.

No politician wants to be the one who "cut the military." Even by 1%. Even if that 1% cures cancer. The attack ads write themselves: "Senator Johnson voted to WEAKEN AMERICA." Your system does exactly what it's incentivized to do. It's not broken. It's working perfectly at the wrong thing.

What You Need: Legal Bribery

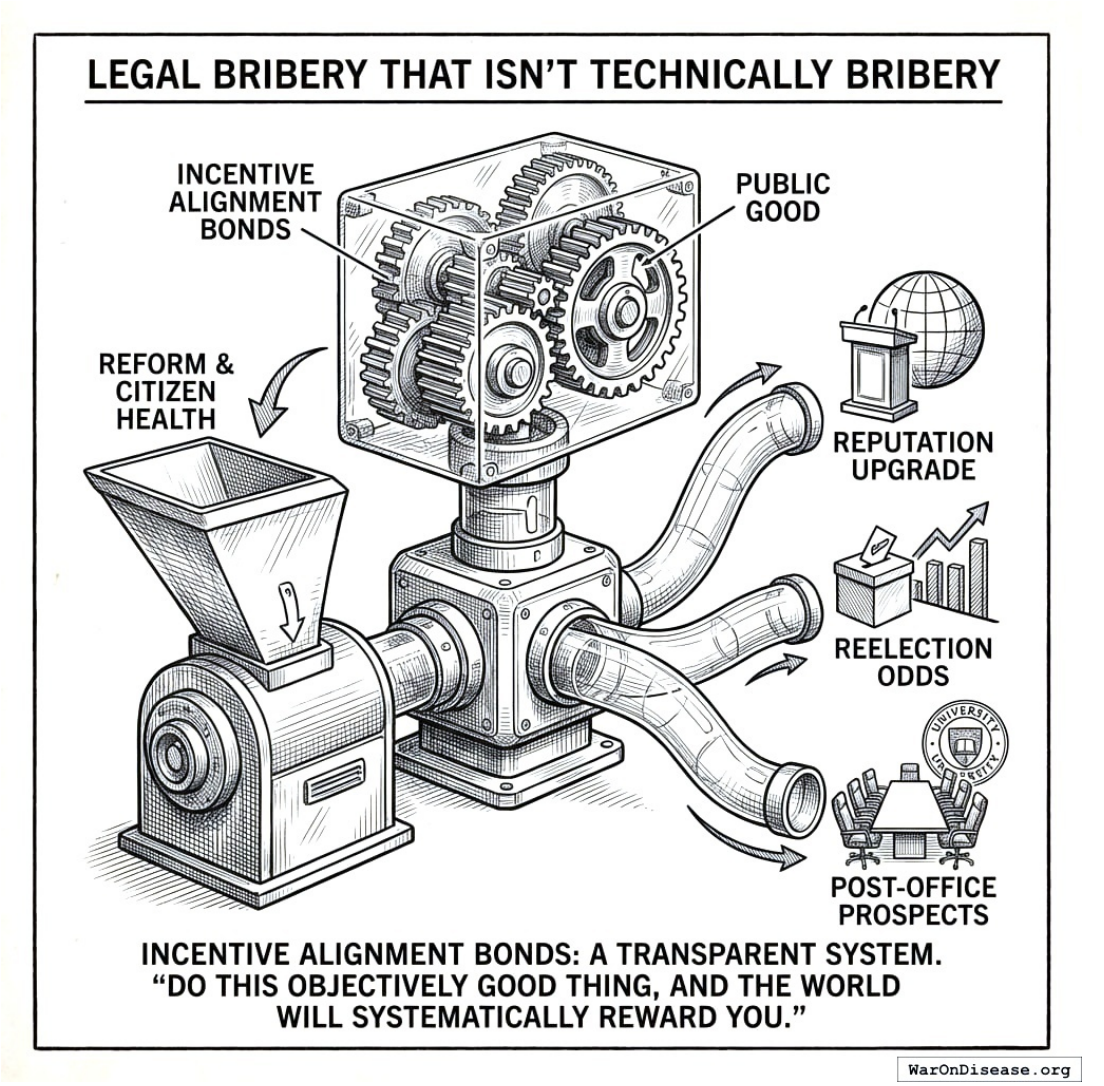


Figure 228: Politician does good thing. People get healthier. Politician gets money. It's a bribe, but backwards and legal.

Tell every politician on Earth:

> "Vote for a 1%-style reform. If your country actually funds it, you get: better parties, better reelection odds, and a Goldman Sachs board seat when you retire."

No backroom deals. No suitcases of cash. Just a standing, public rule: do the objectively good thing, and the world systematically rewards you. Nobody has to become a better person. The money just circulates until diseases stop existing.

What IABs Are

Incentive Alignment Bonds are financial instruments that:

1. **Reward investors** with returns from public-good funding achieved

2. **Reward politicians** with electoral support and career benefits for voting right
3. **Fund the actual public good** from the policy outcome (self-sustaining)

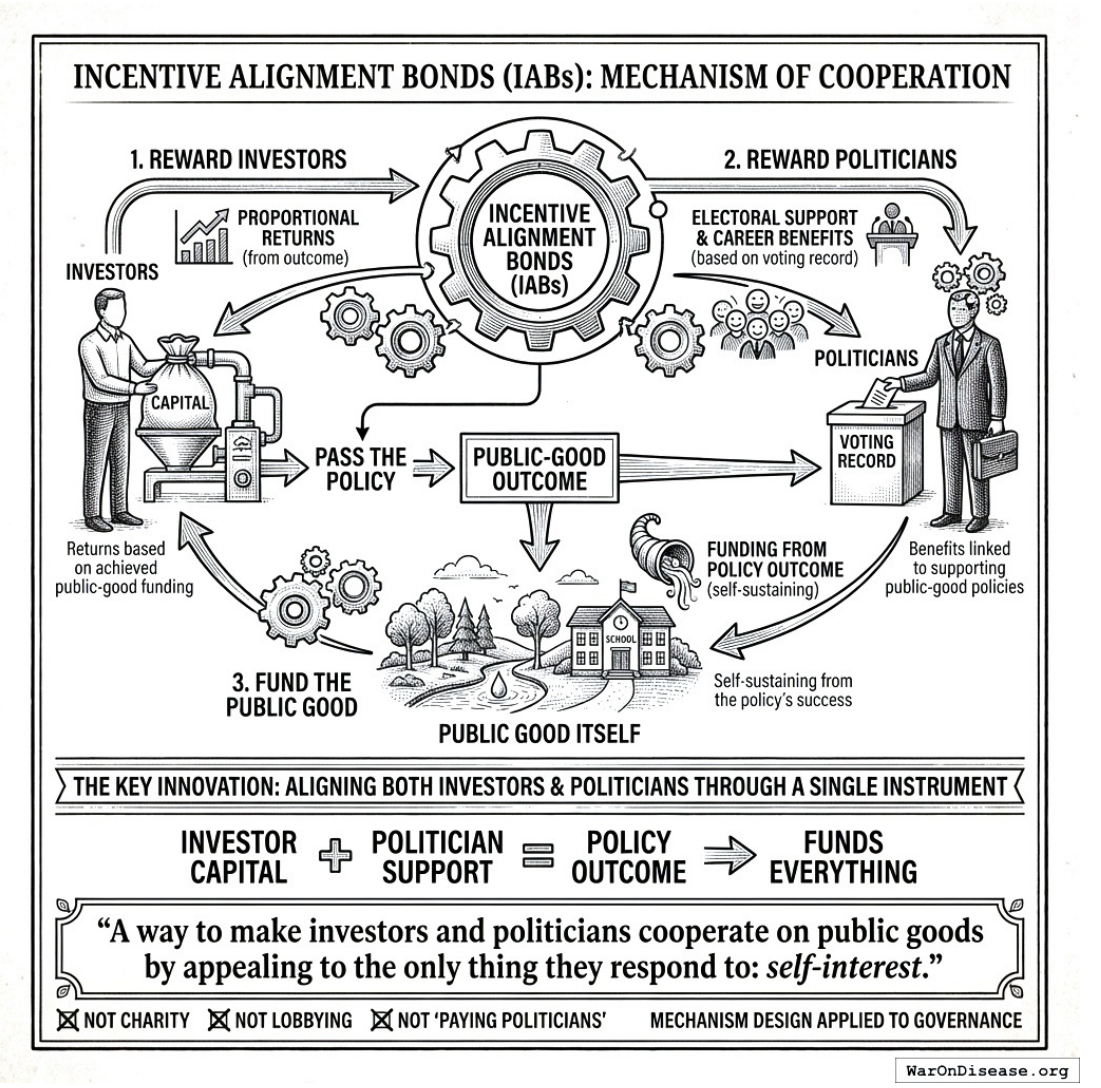


Figure 229: Rich people give money to politicians who save lives. The triangle of virtue signaling that actually works.

Not charity (doesn't scale). Not lobbying (slot taken). Not "paying politicians" (illegal, slot also taken). IABs make investors and politicians cooperate on public goods by appealing to the only thing either species responds to: self-interest. You work with the primates you have, not the primates you wish you had.

How IABs Work (Four Steps)

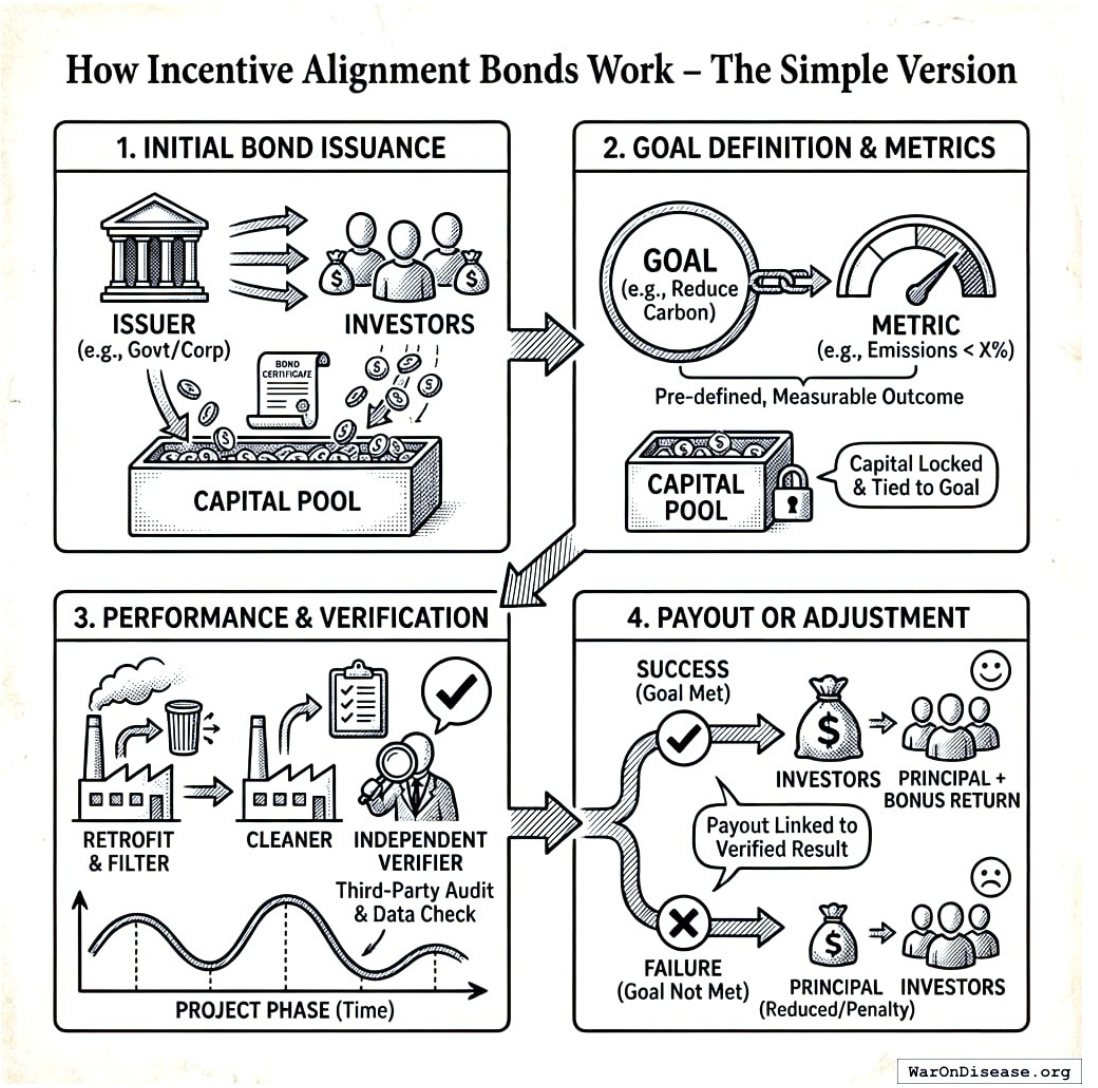


Figure 230: How to build a legal bribery machine in four easy steps. Lawyers helped.

Step 1: Pick a Measurable Outcome

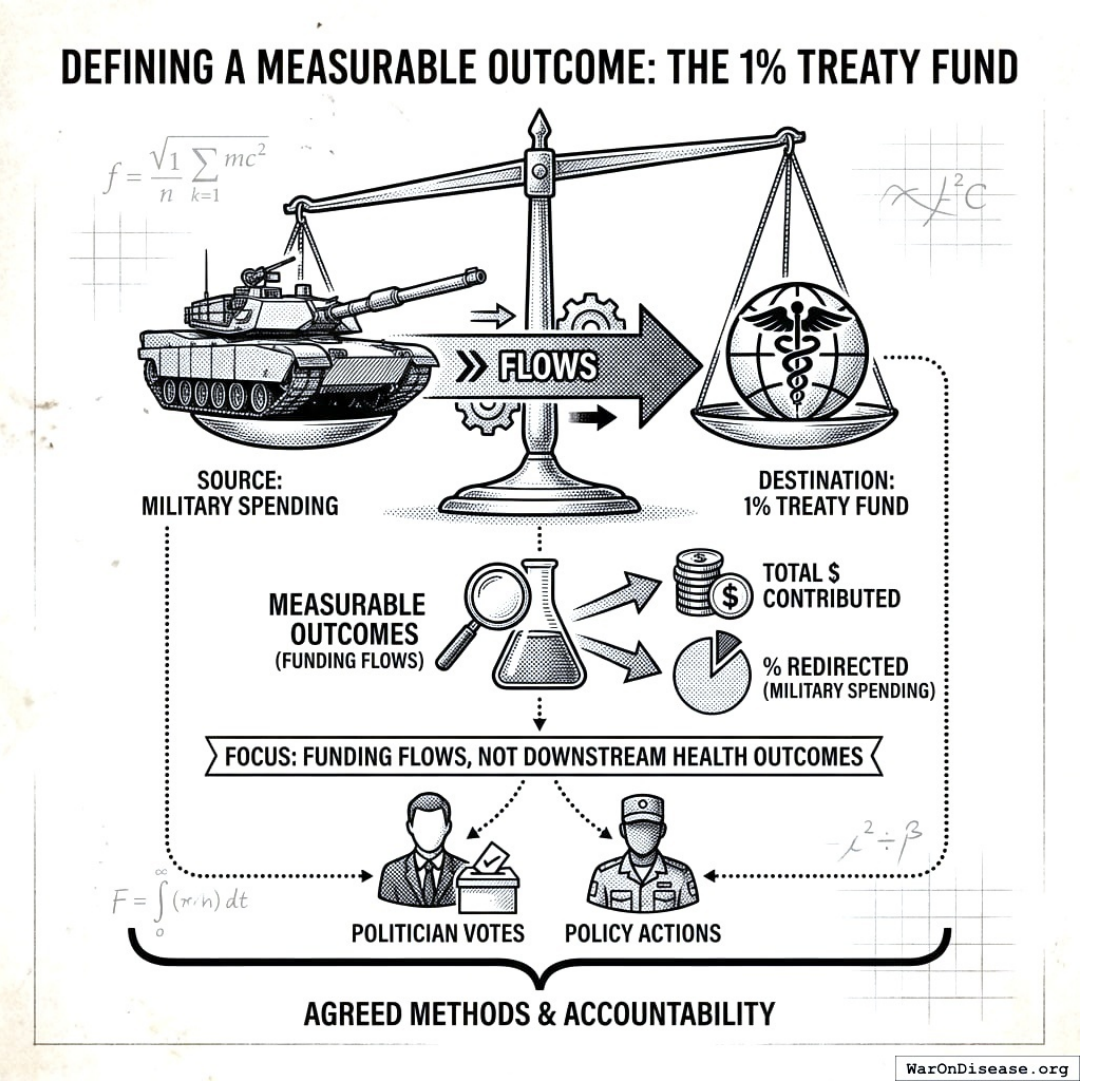


Figure 231: Things we can count right now versus things that matter later. One gets you reelected, the other gets you into heaven. Choose wisely.

Measure funding flows, not health outcomes. You can't attribute a cure to any single country's funding. But you CAN measure: % of military spending redirected, total $ contributed, and politician votes on treaty passage. Health improvements justify the policy. Funding flows are the scoreboard, because that's what politicians actually control.

Step 2: Raise Capital

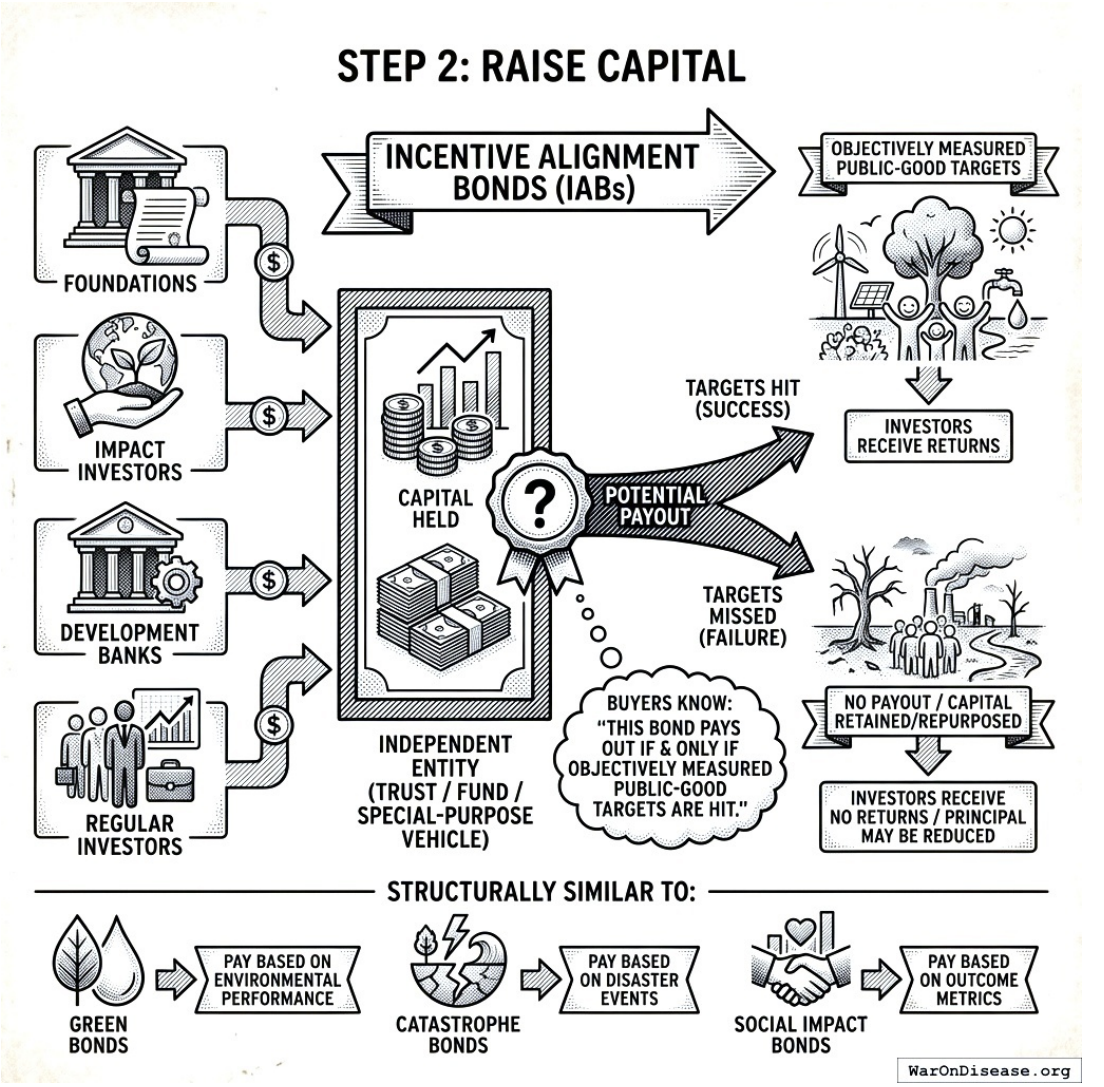


Figure 232: Money goes into a trust. Trust pays out when good things happen. It's like a piggy bank that only opens when people stop dying.

Investors buy IABs. Capital sits in a trust. It pays out if and only if public-good targets are hit. Same structure as green bonds and catastrophe bonds.

Step 3: Reward Your Politicians (Indirectly)

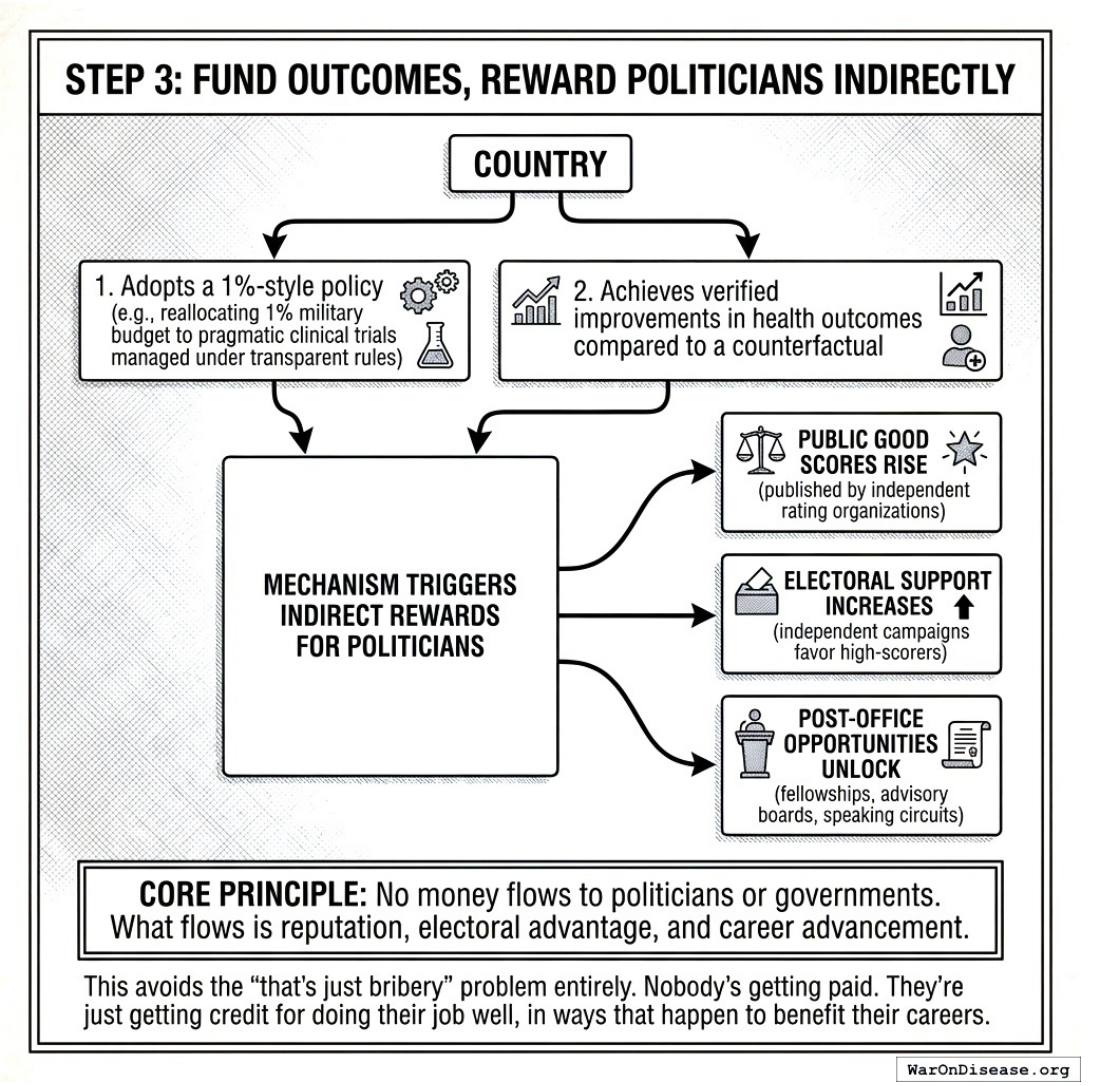


Figure 233: Save lives, get good ratings, win elections, get consulting gig at think tank. The circle of political life.

When a politician votes for a 1%-style policy and funding actually flows:

- **Public Good Scores** rise (published by independent rating orgs)
- **Electoral support** increases (independent campaigns favor high-scorers)
- **Post-office opportunities** unlock (fellowships, boards, speaking circuits)

No money flows to politicians. What flows is **reputation, electoral advantage, and career advancement**. They're getting credit for doing their job. On your planet, this is apparently revolutionary.

Step 4: Watch Self-Interest Do the Rest

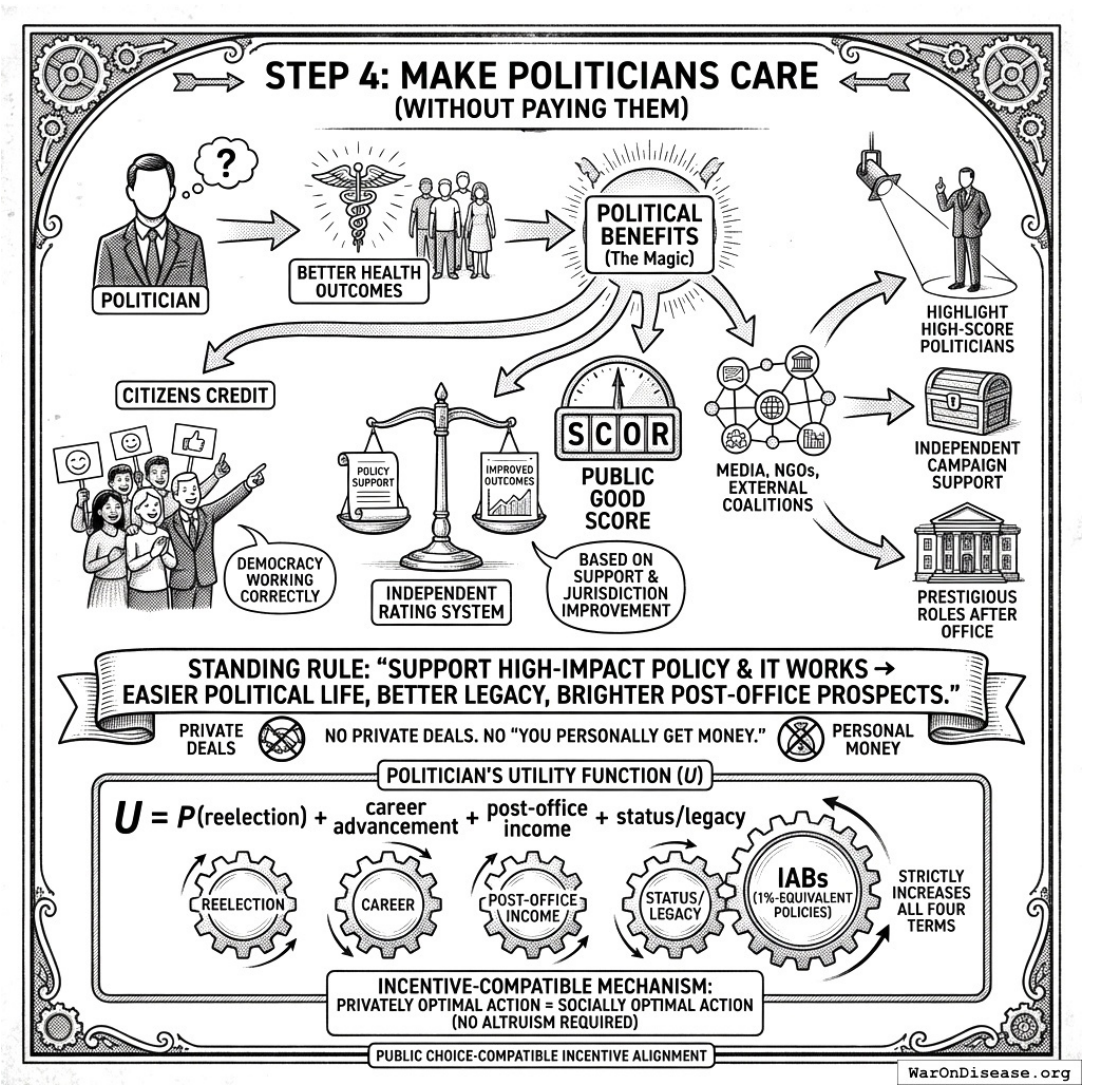


Figure 234: Do good things, get points, media loves you, voters love you, you get richer and more famous. Virtue has never been so profitable.

Your politicians' utility function is roughly:

$$U = P(\text{reelection}) + \text{career advancement} + \text{post-office income} + \text{legacy}$$

IABs make supporting 1%-equivalent policies **strictly increase all four terms**. No altruism required. "Maximize personal payoff" and "reduce suffering" become the same action. You've tricked your leaders into saving lives by making it the selfish thing to do.

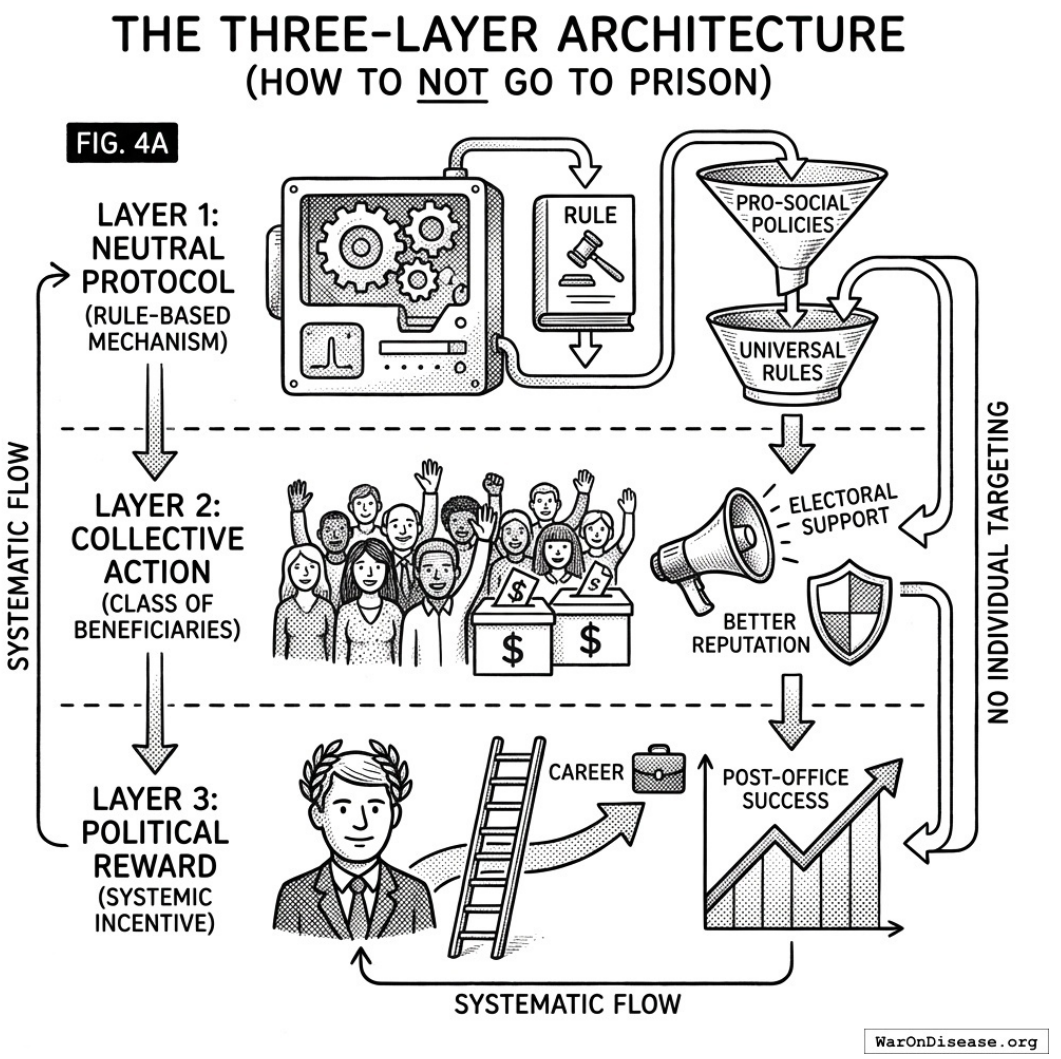


Figure 235: Three different ways to pay politicians to be nice, stacked on top of each other like a very boring wedding cake.

You cannot legally say "support Bill #XYZ123 and get paid." That's bribery. But you *can* create a system where politicians who support a **class of pro-social policies** systematically get more of everything they want. The trick: rule-based, universal, announced in advance.

Layer A: Scoring (Data Only)

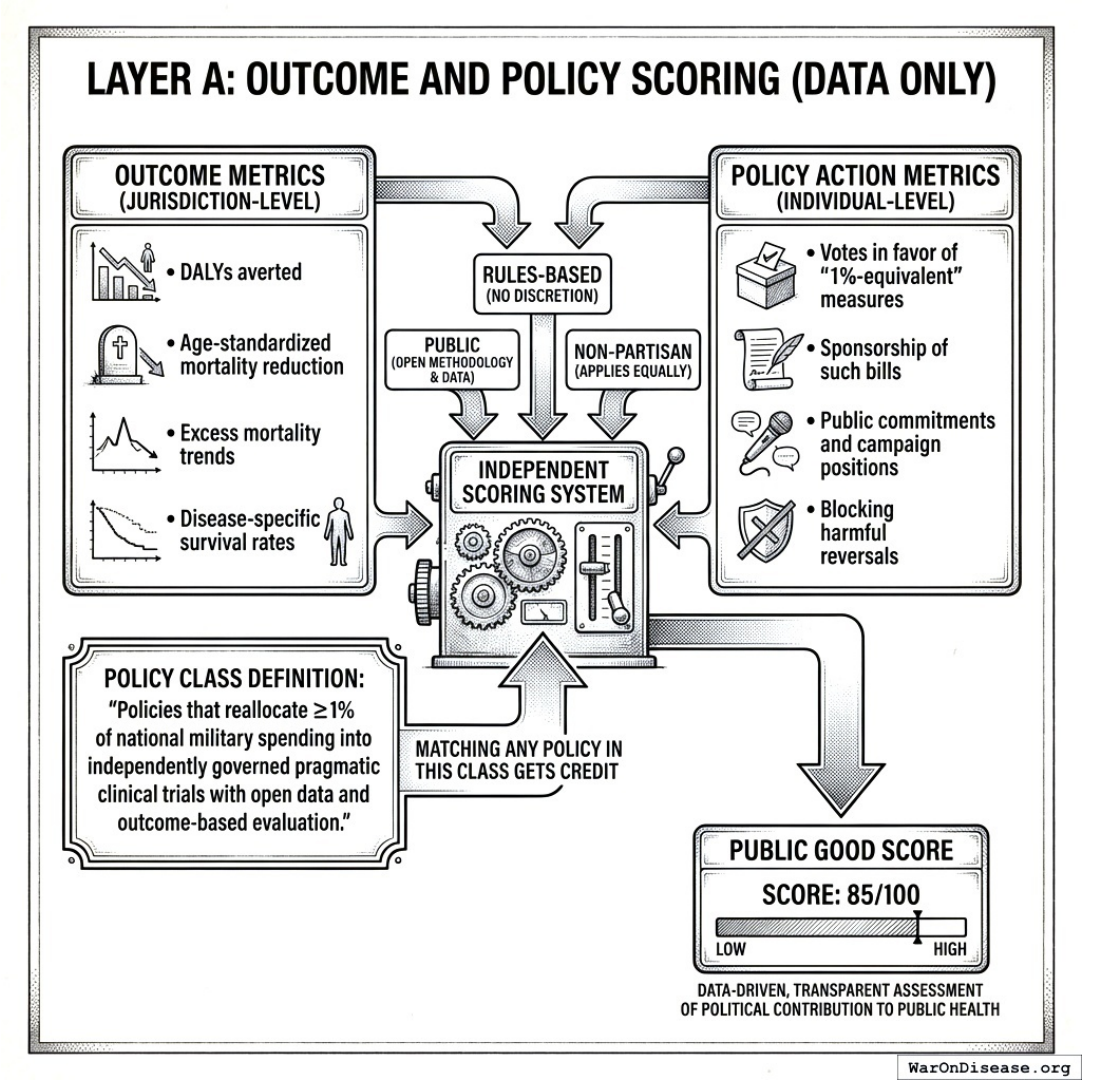


Figure 236: Your state's health plus your voting record equals your Good Boy Points. Gold stars for senators who behave.

An independent org assigns each politician a **Public Good Score** based on: votes for 1%-equivalent measures, bill sponsorship, blocking harmful reversals, and actual funding flows.

Critical detail: **don't tie scores to "The 1% Treaty" specifically.** Define a policy class: "Policies that reallocate >=1% of military spending into independently governed pragmatic clinical trials." Any politician supporting *any* matching policy gets credit. Public, rules-based, non-partisan. Like a credit score for your soul, except useful.

Layer B: Electoral Benefits (Separate Actors)

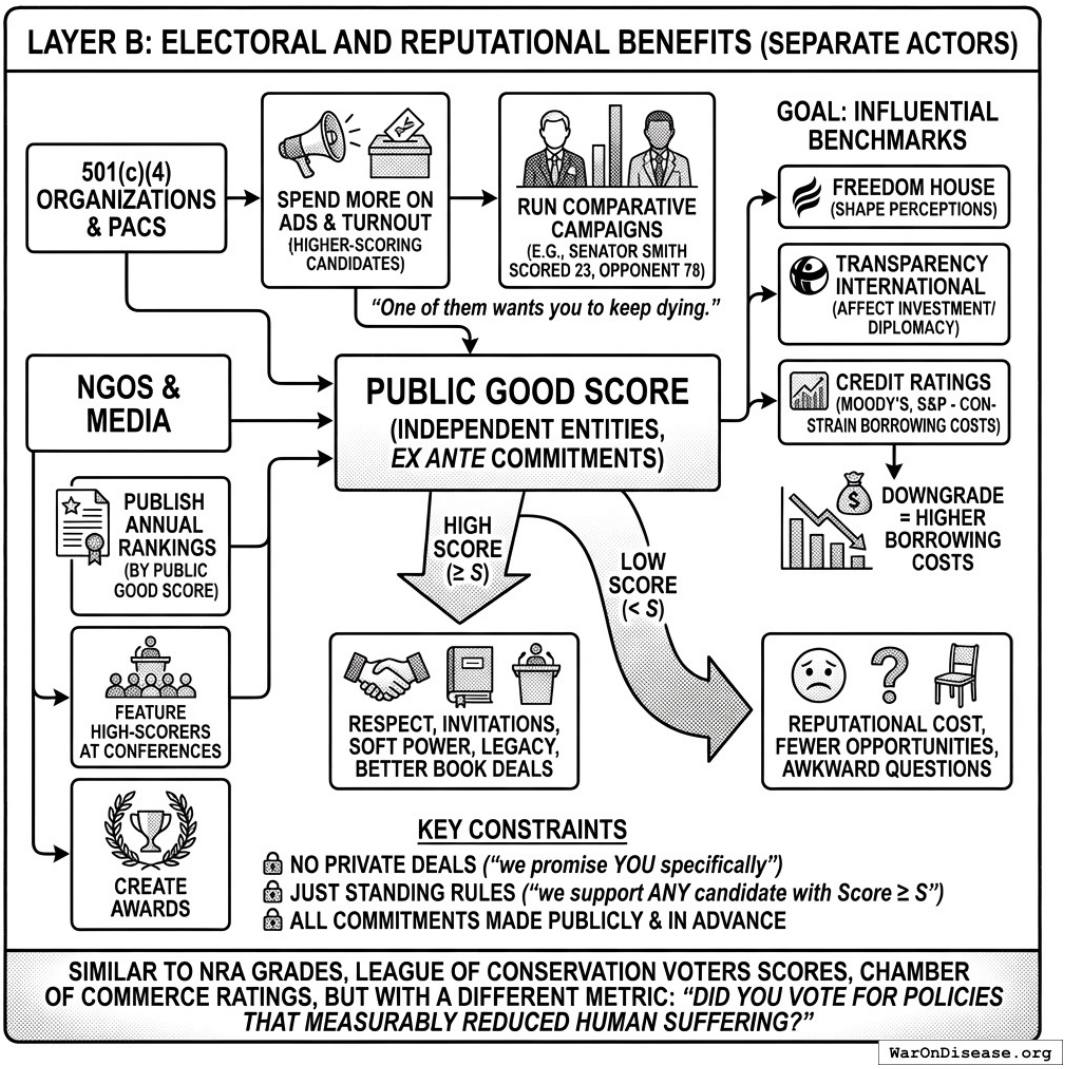


Figure 237: Your score gets broadcast to every organization with money and opinions. Peer pressure, but with Super PACs.

Independent PACs and 501(c)(4)s commit **in advance** to favor high-scoring politicians. NGOs publish rankings. Conferences invite high-scorers. Awards go to high-scorers. Your politicians love awards even more than they love conferences, which is saying something.

The goal: make the Public Good Score as influential as Moody's credit ratings. Moody's can downgrade a country and suddenly borrowing costs spike. Same energy, different metric: "did you vote for policies that measurably reduced human suffering?" This is exactly how NRA grades already work. Same gun, different target.

Layer C: Post-Office Careers (The Goldman Sachs Board Problem)

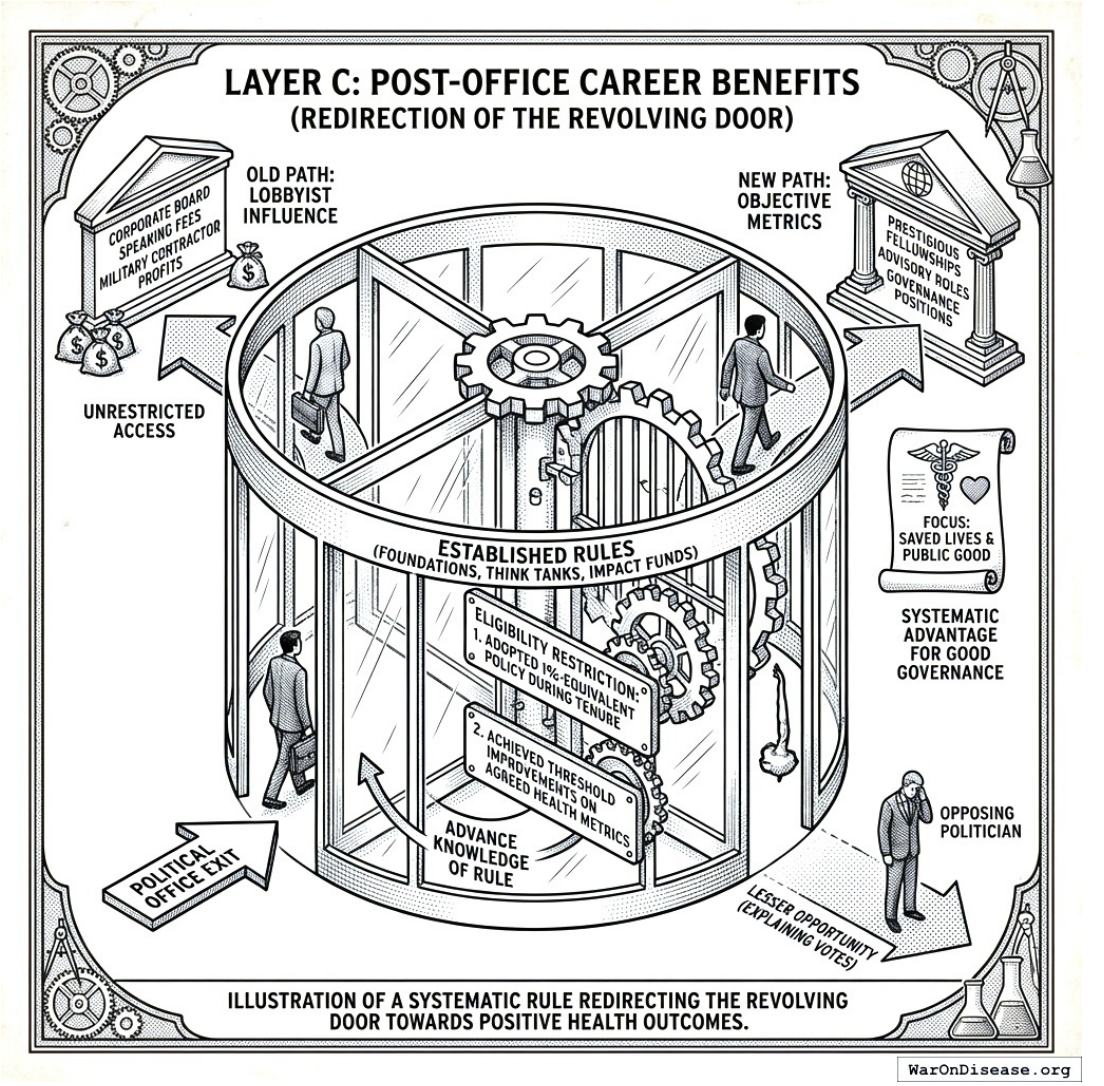


Figure 238: Old way: help corporations, get cushy job. New way: help humans, get cushy job. Same job, different resume line.

After office, your politicians want prestigious jobs. The "revolving door" usually points at whoever paid the most lobbyists. You can point it somewhere else.

Foundations and think tanks establish: "Eligibility for fellowships and advisory roles requires a Public Good Score above threshold X." Politicians know this rule in advance. Support reform = WHO boards and Aspen fellowships. Oppose it = explaining at dinner why you voted against curing diseases. The revolving door, but spinning toward "saved lives."

Legal Entity Separation

Layer	Entity Type	Can Do	Cannot Do
Scoring	501(c)(3) research org	Metrics, dashboards, public data	Support/oppose candidates
Electoral	501(c)(4), PAC, Super PAC	Independent expenditures for high-scorers	Coordinate with candidates
Post-office	Foundations, think tanks	Set eligibility criteria	Condition grants on specific votes

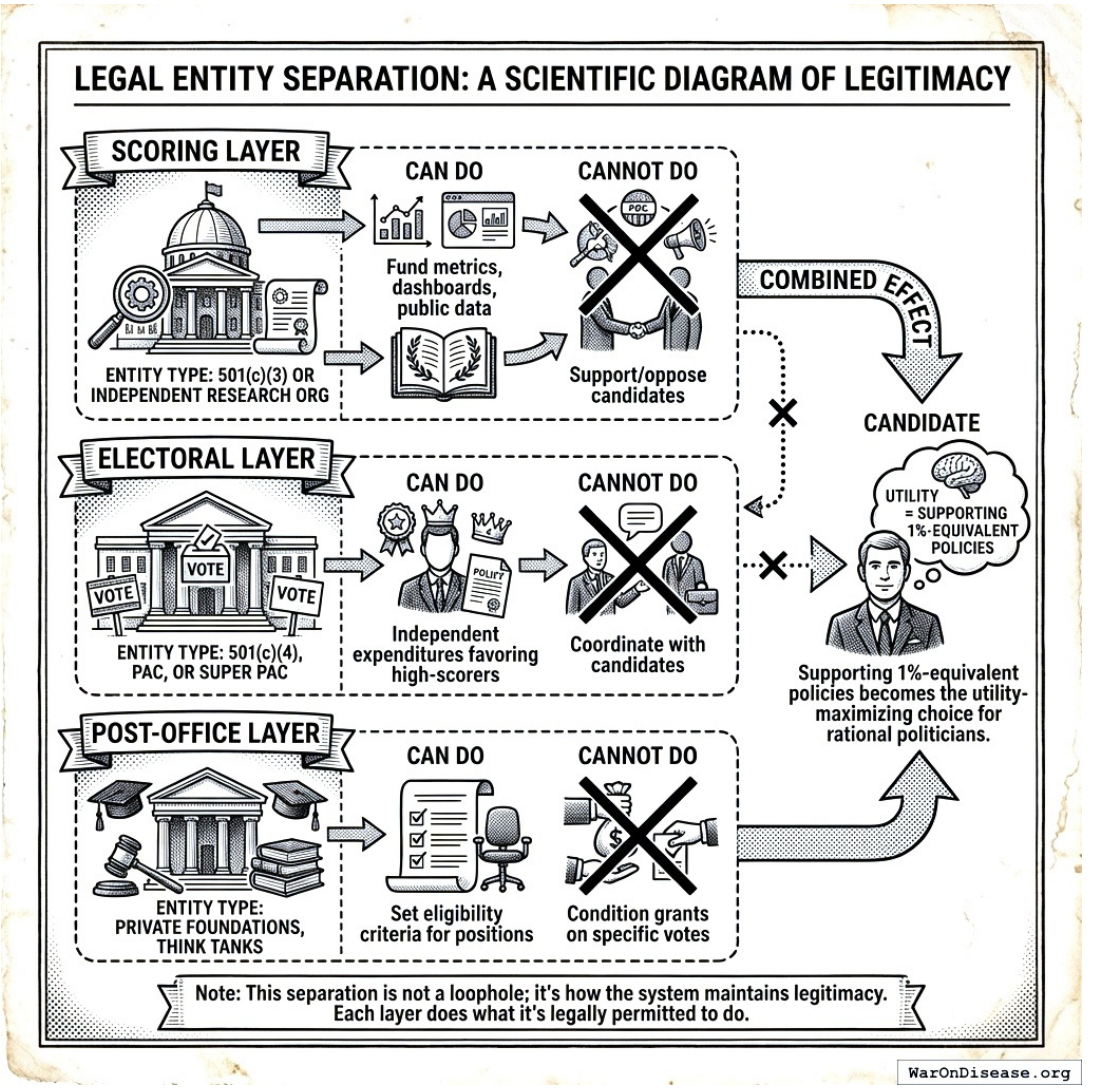


Figure 239: Three separate organizations that definitely don't coordinate but somehow all reward the same behavior. Legal loopholes are beautiful things.

Three separate entities that definitely don't coordinate but somehow all reward the same behavior. Your species invented this structure. It's genuinely one of your better ideas, which is a low bar, but still.

Worked Example: How Senator Smith Votes Yes

Abstract mechanisms are great for economists and incomprehensible to everyone who matters. Here's how IABs work on an actual human politician (a creature that navigates entirely by self-interest, like a moth but with a pension).

The Scoring System

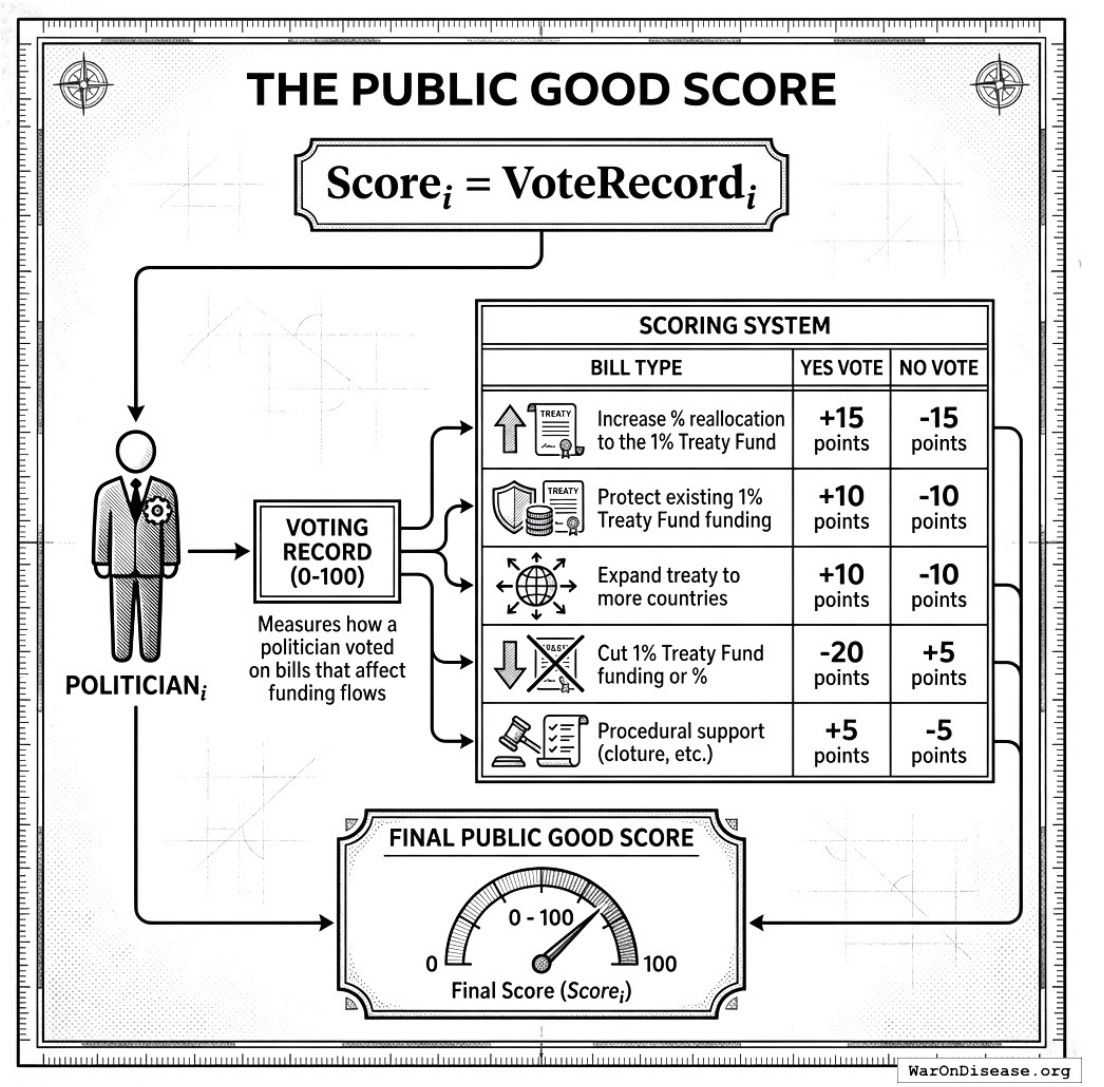


Figure 240: Vote to cure cancer: plus 10 points. Vote to bomb Yemen: minus 15 points. It's like Weight Watchers, but for your soul.

Each politician gets a Public Good Score based on their voting record:

Bill Type	Yes Vote	No Vote
Increase % reallocation to 1% Treaty Fund	+15	-15
Protect existing funding	+10	-10
Expand treaty to more countries	+10	-10

Bill Type	Yes Vote	No Vote
Cut funding or %	-20	+5

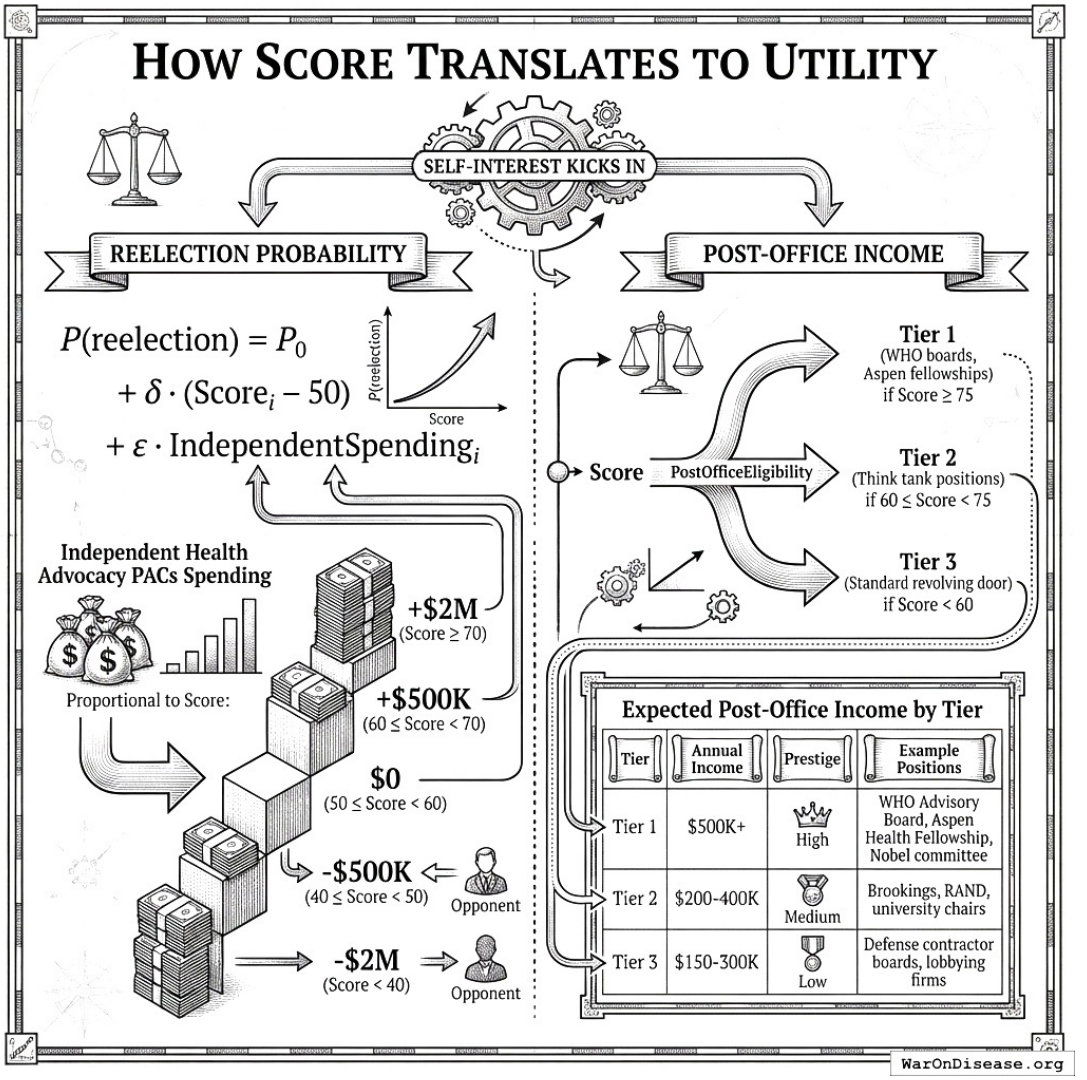


Figure 241: Get 60 points, unlock Tier 3 campaign spending. Get 80 points, unlock consulting jobs. Politics as a video game.

Your score determines what you get:

Score	PAC Spending	Post-Office Tier	Annual Income
75	+$2M for you	Tier 1: WHO boards, Aspen fellowships	$500K+
60-74	+$500K for you	Tier 2: Brookings, RAND, university chairs	$200-400K

Score	PAC Spending	Post-Office Tier	Annual Income
50-59	$0	Tier 3: Standard revolving door	$150-300K
40-49	$500K to opponent	Tier 3	$150-300K
<40	$2M to opponent	Tier 3	$150-300K

It's like a video game skill tree, except the XP comes from not killing people.

The Setup

VICTORY Incentive Alignment Bonds have raised $1B from investors who want 272% returns. That money has funded:

- A referendum showing 70% of Americans support reallocating 1% of military spending to pragmatic clinical trials
- A lobbying campaign that's converted several military contractors (they did the math on their own mortality, and mortality lost)
- The Public Good Scoring system described above, tracking every federal legislator

Senator Smith (R-Texas) is up for reelection in 2026. The 1% Treaty Implementation Act is coming to a vote.

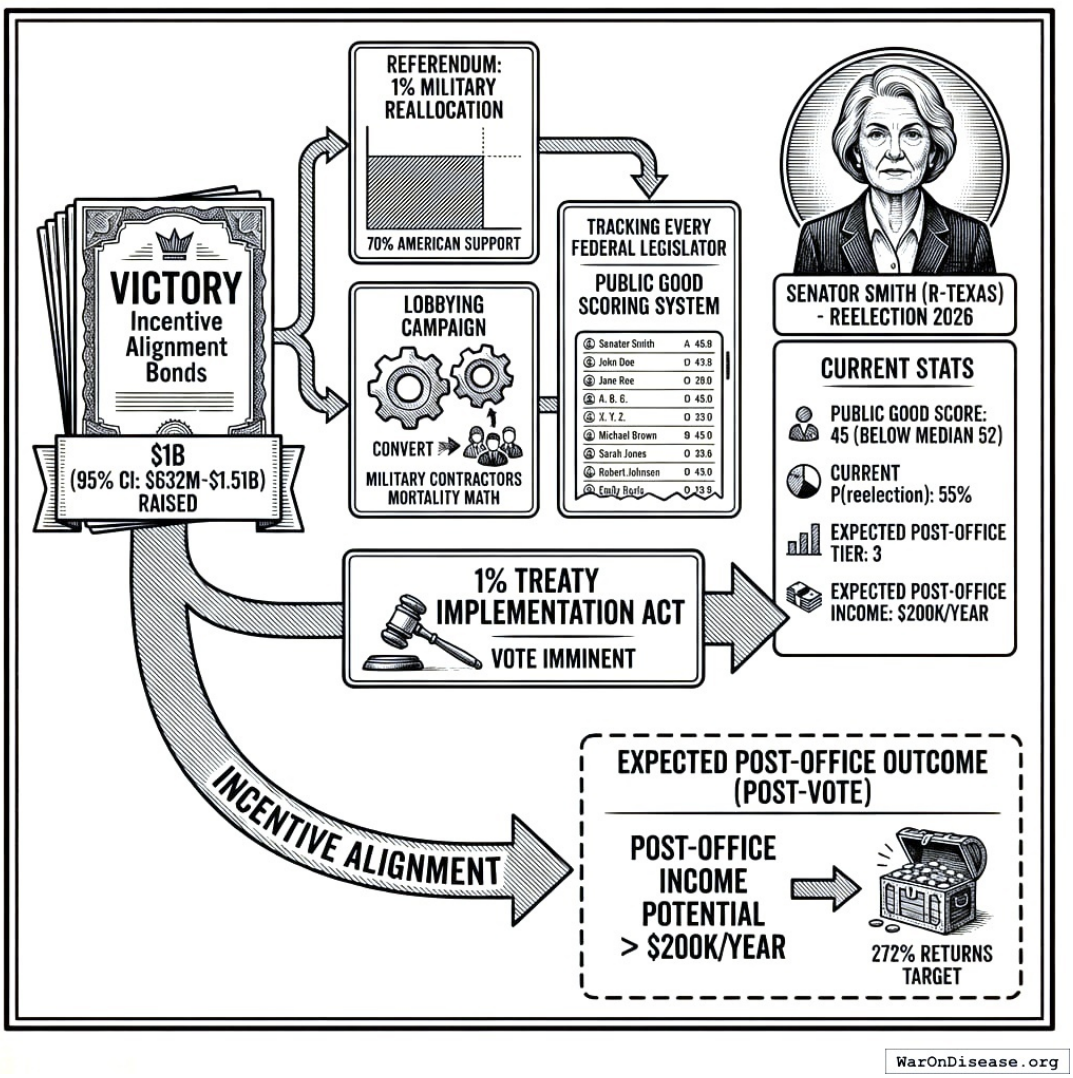


Figure 242: Senator Smith's report card: below average score, barely passing reelection odds, medium-quality retirement prospects. Her mother is disappointed.

Her current stats:

- Public Good Score: 45 (below Senate median of 52)
- Current P(reelection): 55%
- Expected post-office tier: 3
- Expected post-office income: $200K/year

The Old Calculus (Without IABs)

Vote Yes	Vote No
Attack ads: "Smith voted to WEAKEN AMERICA"	Safe from military lobby attacks
Defense contractors fund opponent	Defense contractors fund you
No immediate upside	Status quo maintained

Vote Yes	Vote No
Benefits arrive in 10 years	Costs arrive never

Expected utility of No vote: $U = 0.55 \cdot \text{Office} + \$200\text{K/year} \cdot 20\text{yrs} + \text{Medium Legacy}$

Result: Vote no. Obviously.

The New Calculus (With IABs)

If Smith votes YES:

- VoteRecord: +15 points (major treaty vote)
- New Score: 45 + 15 = 60 → jumps to 72 with multiplier for being early supporter
- P(reelection): 55% → 62% (score boost + $500K independent support)
- Post-office tier: 3 → 2 (with path to Tier 1 if she becomes a champion)
- Expected post-office income: $200K → $300K/year

If Smith votes NO:

- VoteRecord: -15 points
- New Score: 45 - 15 = 30
- P(reelection): 55% → 48% (score penalty + $2M goes to opponent)
- Post-office tier: Stuck at 3
- Attack ads funded: "Smith voted AGAINST the cure your family needs"

The math:

$$\Delta U_{\text{Yes vs No}} = 0.14 \cdot \text{Office} + \$100\text{K/year} \cdot 20\text{yrs} + \text{Legacy Boost}$$

That's a +14 percentage point swing in reelection odds and +$2M in lifetime post-office earnings.

Result: Vote yes. The math changed.

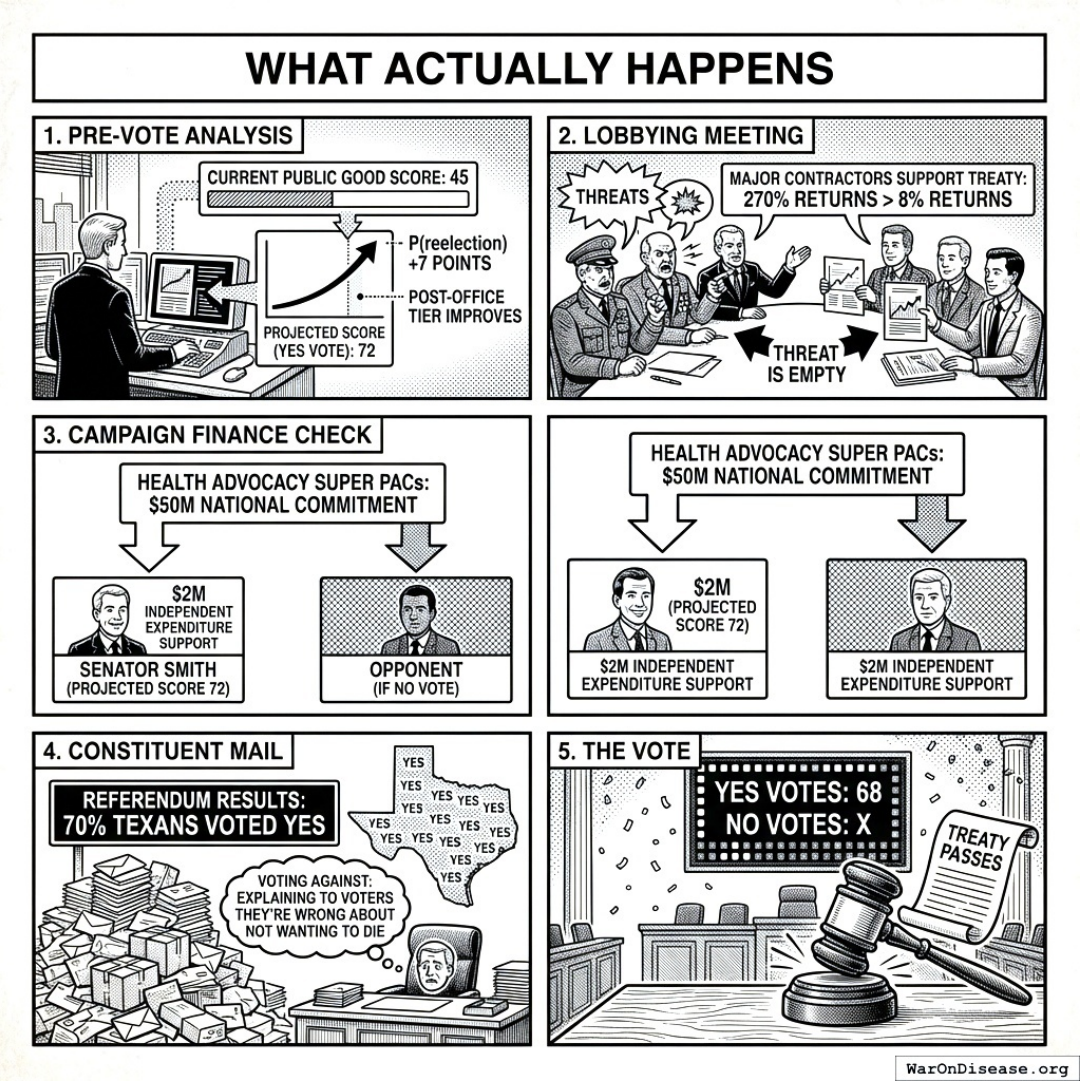


Figure 243: All the math a senator does before deciding how to vote. Turns out they can count when money's involved.

1. **Pre-vote**: Smith's staff models the yes vote. Score jumps to 72. Reelection odds rise 7 points.
2. **Lobbying meeting**: Military lobby threatens. But three major contractors already support the treaty (270% returns beat 8%). Threat is empty.
3. **Campaign finance**: Health advocacy Super PACs have committed $50M nationally. At score 72, she gets $2M. A no vote sends that $2M to her opponent.
4. **Constituent mail**: 70% of Texans voted yes in the referendum. Voting against that means explaining why you think they're wrong about not wanting to die.
5. **The vote**: Smith votes yes. So do 67 others. Treaty passes.

Post-Treaty

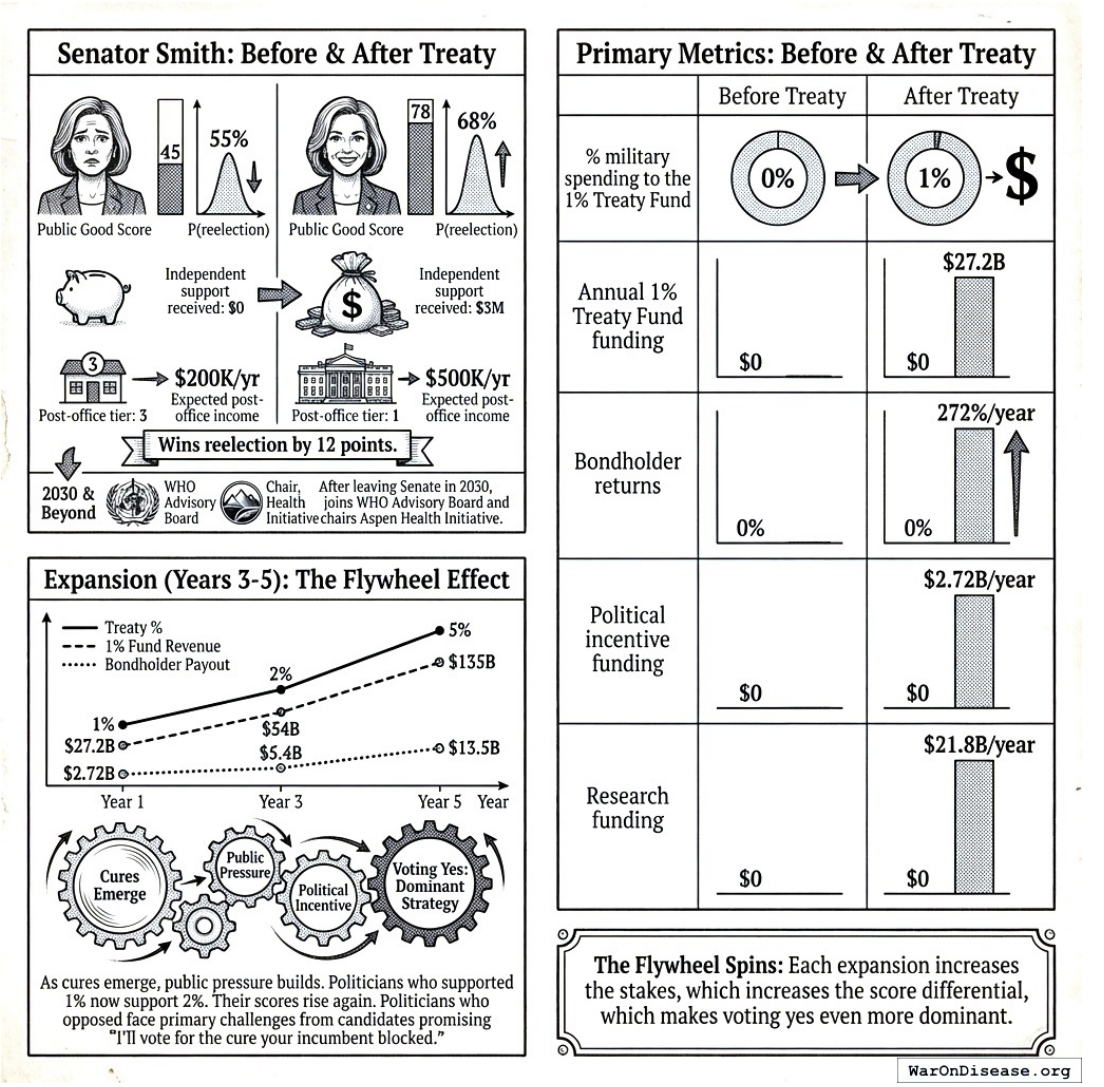


Figure 244: Senator Smith's career trajectory before and after voting yes. One line goes up, one line stays flat. Guess which one she prefers.

Metric	Before	After
Public Good Score	45	78
P(reelection)	55%	68%
Independent support	$0	$3M
Post-office tier	3	1
Post-office income	$200K/yr	$500K/yr

Smith wins reelection by 12 points. Joins the WHO Advisory Board. Chairs the Aspen Health Initiative. All because she did math instead of listening to lobbyists. (Politicians can count. They just need something worth counting.)

The flywheel spins. Each expansion increases the stakes, increases the score differential, makes voting yes even more dominant:

Year	Treaty %	Revenue	Bondholder Payout
1	1%	$27.2B	$2.72B
3	2%	$54B	$5.4B
5	5%	$135B	$13.5B

Why This Isn't Bribery

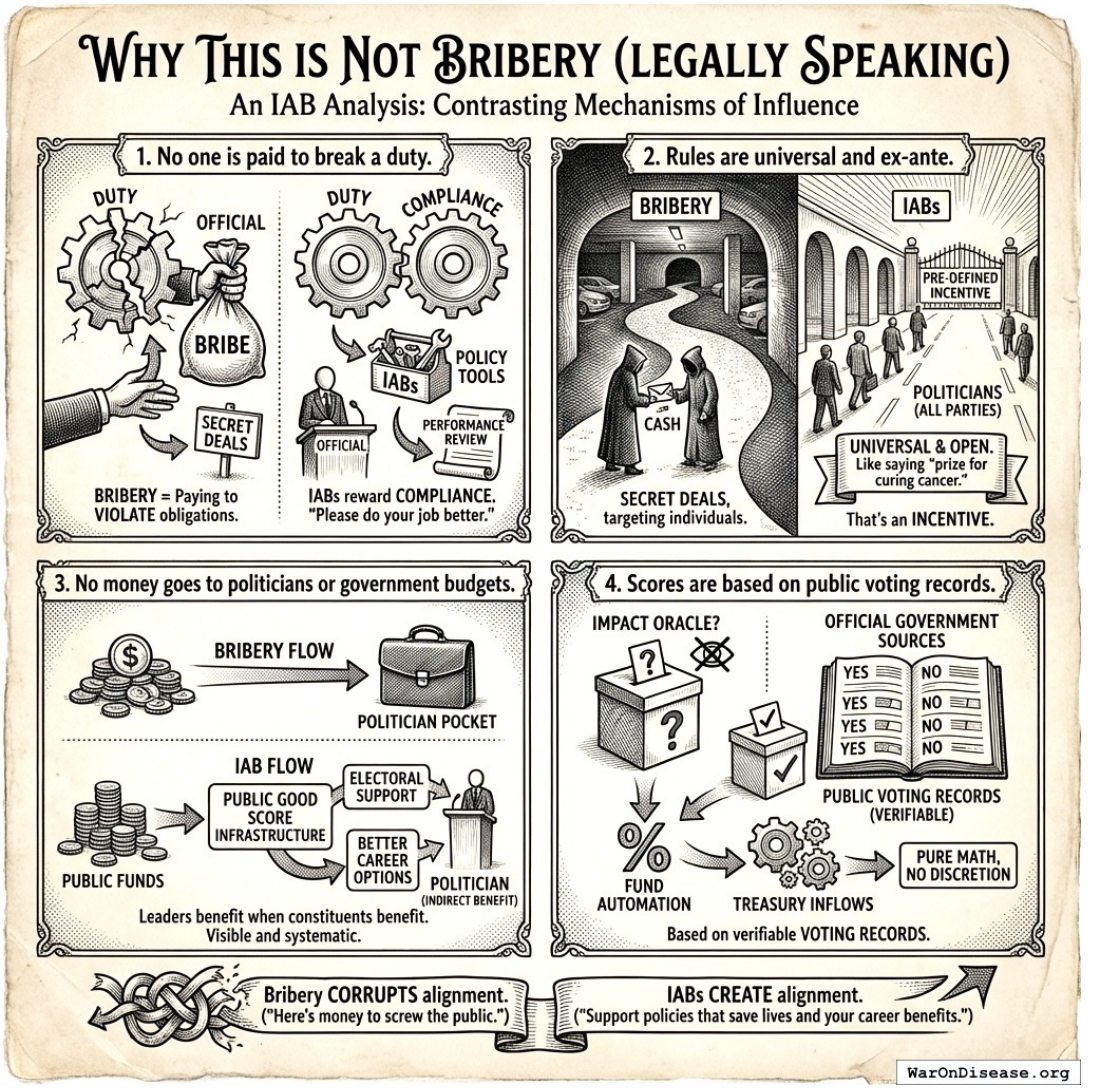


Figure 245: Bribery: pay someone to betray the public. This thing: pay someone to help the public. Spot the difference, legally speaking.

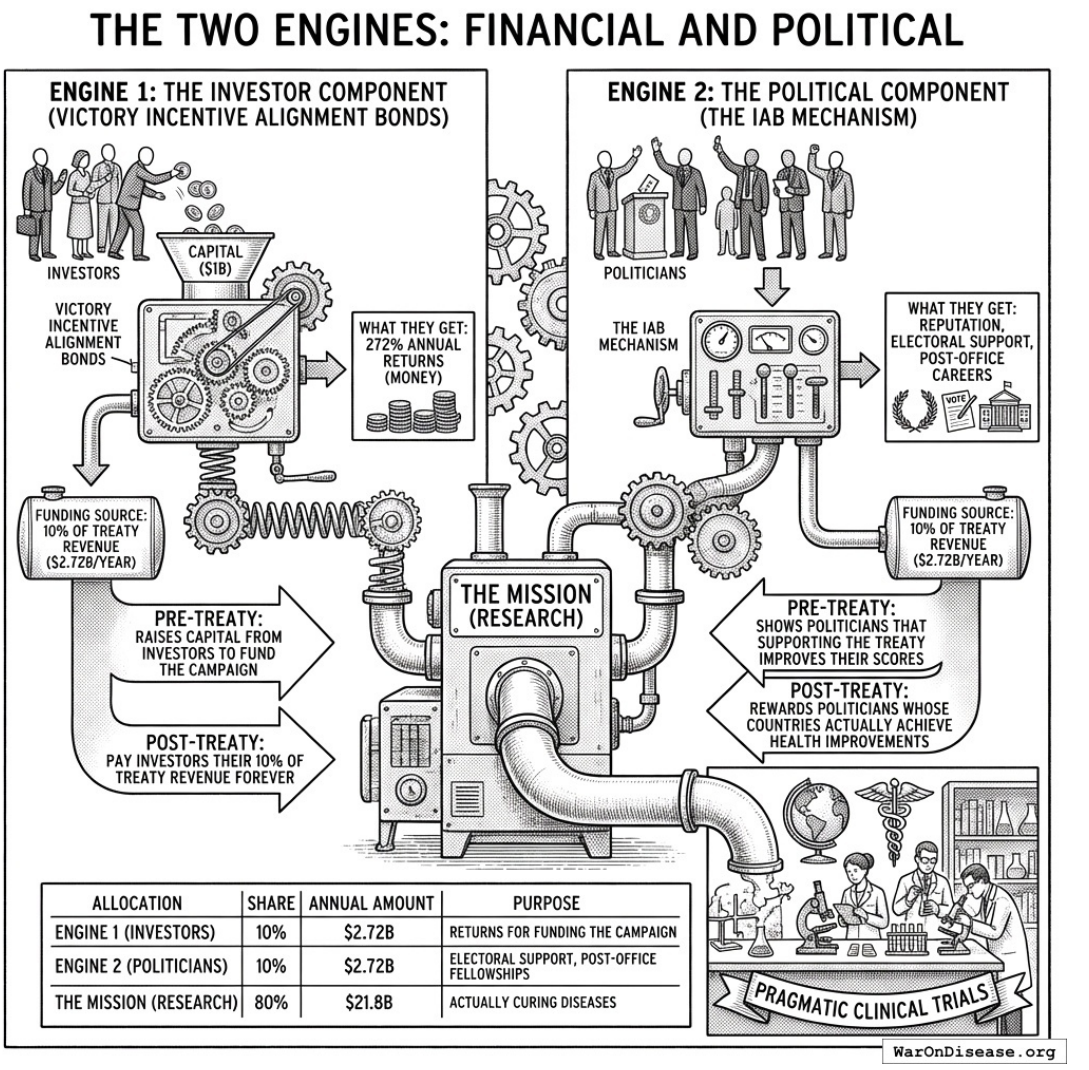
Four reasons your lawyers will stop hyperventilating:

1. **No one is paid to break a duty.** "Do your job better and we'll tell everyone you did." That's a performance review, not a bribe.

2. **Rules are universal and ex-ante.** Same rules, all politicians, all parties, announced publicly in advance. No envelopes in parking garages.
3. **No money goes to politicians.** They benefit indirectly: better scores, electoral support, nicer career options. This is how democracy was supposed to work before your species broke it.
4. **Scores are based on public voting records.** Did they vote YES? Verifiable and ungameable. The 10% fund flows automatically based on treasury inflows. Pure math.

Bribery **corrupts** alignment. IABs **create** it.

The Revenue Split



ALLOCATION	SHARE	ANNUAL AMOUNT	PURPOSE
ENGINE 1 (INVESTORS)	10%	$2.72B	RETURNS FOR FUNDING THE CAMPAIGN
ENGINE 2 (POLITICIANS)	10%	$2.72B	ELECTORAL SUPPORT, POST-OFFICE FELLOWSHIPS
THE MISSION (RESEARCH)	80%	$21.8B	ACTUALLY CURING DISEASES

Figure 246: Money flows through two engines, investors and politicians, before reaching the actual medical research. It's trickle-down economics, but for not dying.

Incentive Alignment Bonds raise the capital and align the politicians. Treaty revenue splits three ways: 10% to investors ($2.72B), 10% to political incentives ($2.72B), and 80% to the

part that actually cures diseases ($21.8B).

Everyone profits from treaty expansion. This is the rare financial instrument where "everyone profits" isn't a lie.

Why 10% Goes to Political Incentives

Your 1% treaty is the proof of concept. The endgame is redirecting *most* of military spending to health. That doesn't happen automatically. Without sustained political pressure, your treaty stalls at 1% forever, like every other agreement your species has signed and then quietly forgotten about.

The 10% allocation creates a **political ratchet** that only moves one direction:

Treaty Level	IAB Political Funding (10%)	Research Funding (80%)	Effect
1%	$2.72B/year	$21.8B/year	Politicians rewarded for passage
5%	$13.6B/year	$109B/year	Defense industry pivots to health
10%	$27.2B/year	$218B/year	War becomes economically obsolete
50%	$136B/year	$1.09T/year	Global transformation
100%	$272B/year	$2.18T/year	Full redirection achieved

At 100%, IABs would fund **$270B/year** in political incentives. More than all current global lobbying combined. "Support pragmatic clinical trials" would become the single most profitable opinion a politician can hold. That's how you change what politicians believe: make the belief profitable.

Without IABs:

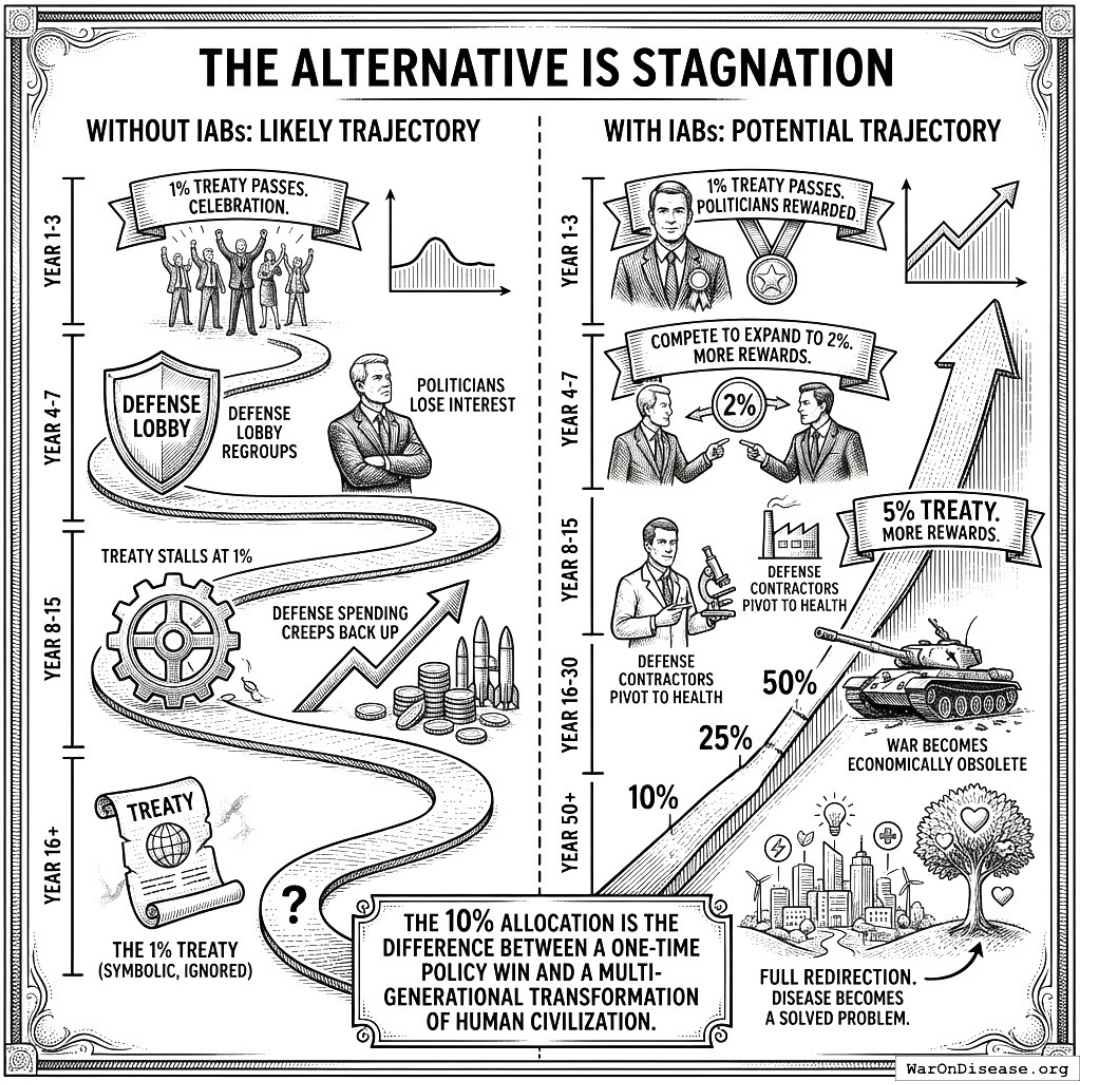


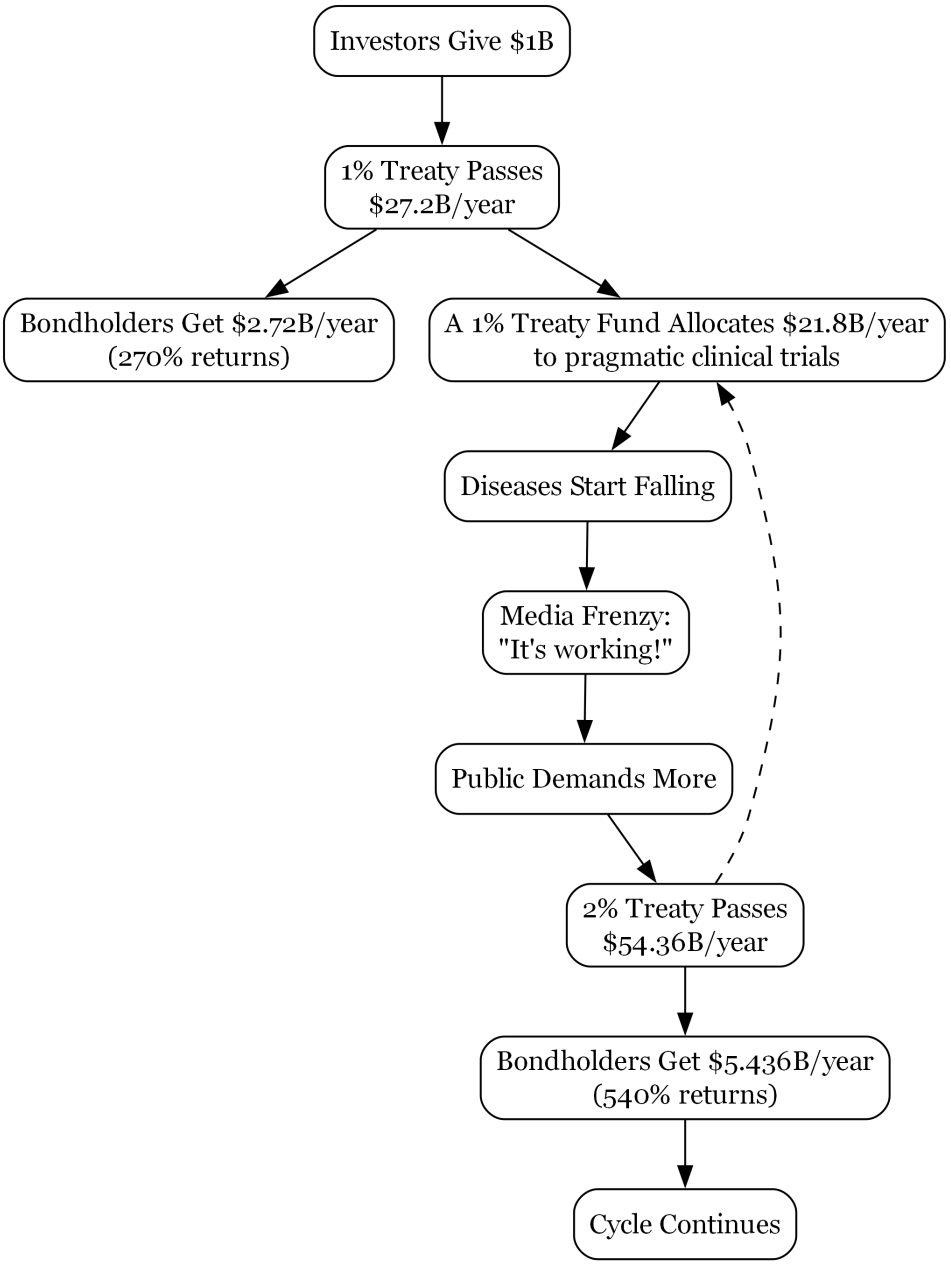
Figure 247: What happens over fifty years if we do nothing special versus if we pay politicians to care. One line stays flat, the other goes up like a rocket.

- Year 1-3: Treaty passes. Celebration. Champagne.
- Year 4-7: Defense lobby regroups. No expansion. Champagne goes flat.
- Year 16+: Treaty becomes another Paris Agreement. Nice symbol. Everyone ignores it. Champagne was wasted.

With IABs:

- Year 1-3: Treaty passes. Politicians rewarded.
- Year 4-7: Politicians compete to expand to 2%.
- Year 8-15: 5% treaty. Defense contractors pivot.
- Year 50+: Full redirection. Disease: solved.

The 10% isn't a cost. It's the engine. Without it, you get a one-time win. With it, you get compounding political pressure that makes each expansion easier than the last.



The flywheel explained (for anyone who's never seen a virtuous cycle, which is most of your species):

1. Treaty passes. Bondholders get first distributions.
2. DIH funds trials. Breakthroughs start emerging.
3. Media covers wins. Public awareness explodes.
4. Public demands more. Politicians face electoral pressure.
5. Treaty % increases. Revenue scales up dramatically.
6. More cures emerge. Cycle reinforces itself.

7. Long-term result: Compounding returns + saved lives. The two things humans want most, finally in the same direction.

Beyond the 1% Treaty

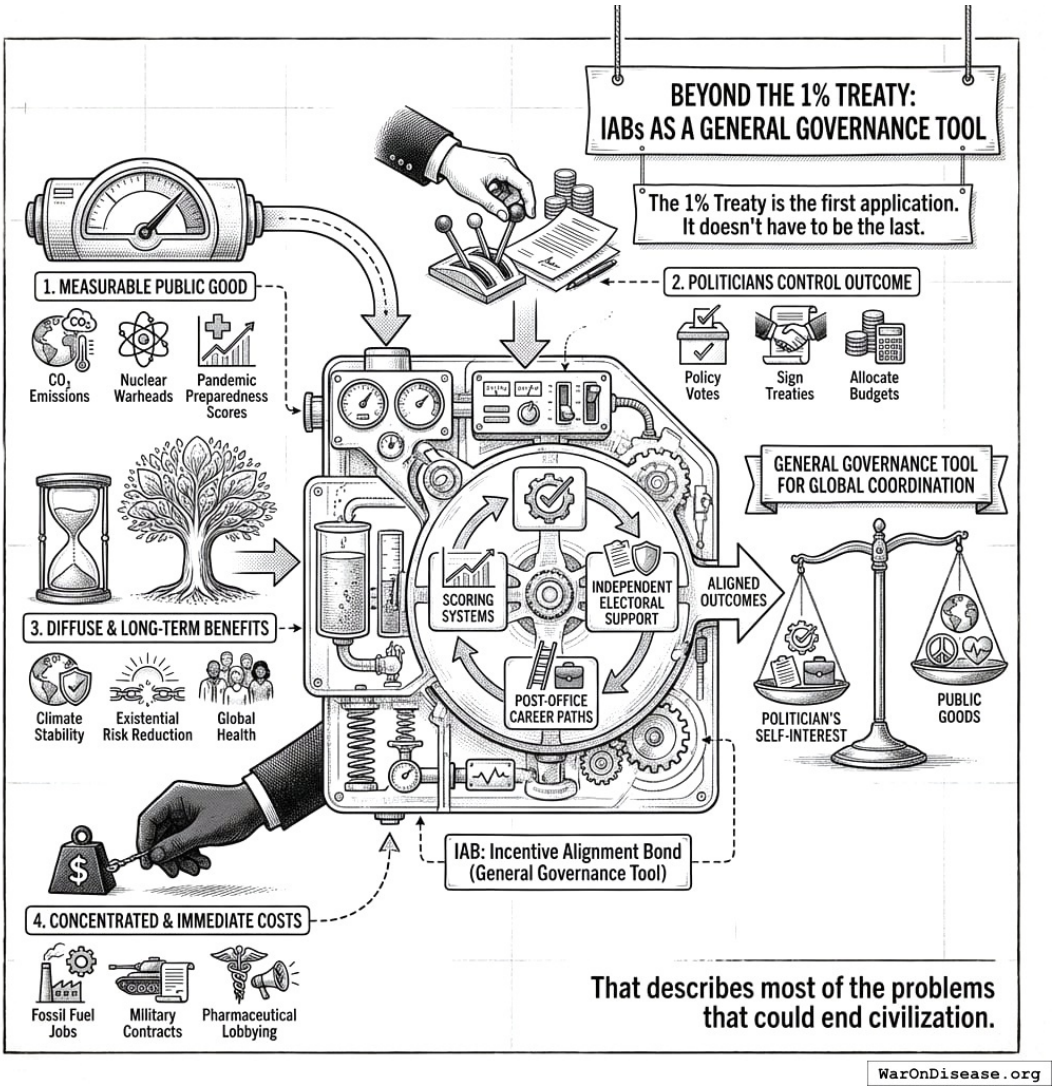


Figure 248: The four boxes you need to tick before you can bribe governments into solving global problems. Apparently you can't just bribe them willy-nilly.

The same architecture works for any global coordination problem where: the public good is measurable, politicians control the outcome, benefits are diffuse, and costs are concentrated. That describes most of the problems that could end your civilization, which is a worryingly long list:

Domain	Metric (already exists)	IAB Makes Career-Optimal
Climate	UNFCCC emissions data	"Vote for emissions cuts"
Nuclear	START treaty warhead counts	"I reduced our arsenal"

Domain	Metric (already exists)	IAB Makes Career-Optimal
Pandemic	WHO Joint External Evaluation	"I funded preparedness"

Same pattern every time: existing metric, scoring system, electoral support for high-scorers, cushy jobs for leaders who governed well. See the academic paper if you enjoy equations.

> **For Investors**
>
> The sections above explain why IABs work. The sections below explain why you should buy them. If you prefer not dying AND getting rich, keep reading.

The Investor Pitch

A financial instrument that generates massive returns while accidentally curing diseases as a side effect. Like a hedge fund with a conscience, except the conscience is also profitable.

What you're offering investors: 272%, which beats everything except insider trading and certain federal crimes.

The money never stops. No maturity date. Bondholders get paid until the sun explodes or humanity achieves immortality. Whichever comes first. (Bet on the immortality thing. That's what the bonds are for.)

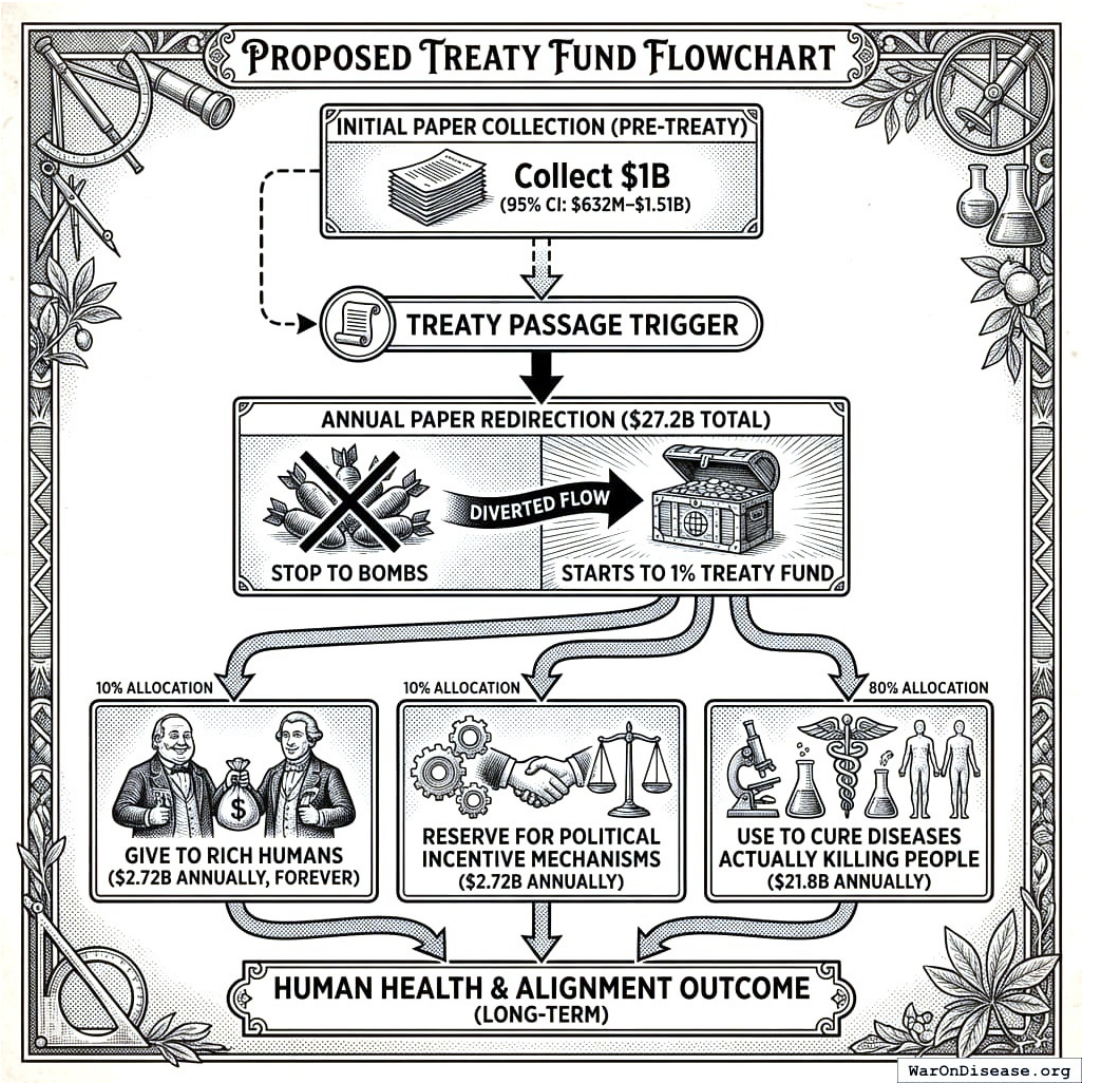


Figure 249: Money goes in, saves humanity, pays dividends forever. Wall Street called it 'suspiciously sustainable.'

Calculate Your Numbers for Investors

Show Them Where the Papers Come From

Current global spending on ending human life: $2.72T/year

What 1% of that is: 1% = $27.2B/year (enough to cure most diseases, apparently)

What bondholders get:

$$10\% \times \$27.2\text{B} = \$2.7\text{B/year}$$

What funds political incentives (keeps politicians aligned):

$$10\% \times \$27.2\text{B} = \$2.7\text{B/year}$$

What actually cures diseases:

$$80\% \times \$27.2\text{B} = \$21.7\text{B/year}$$

What countries still have for wars:

$$99\% \times \$2.7\text{T} = \$2.67\text{T}$$

Investors aren't "taking" money from sick people. 80% goes to cures. Bondholders get 10% for having the revolutionary idea of "what if we didn't all die?" On your planet, this qualifies as innovation.

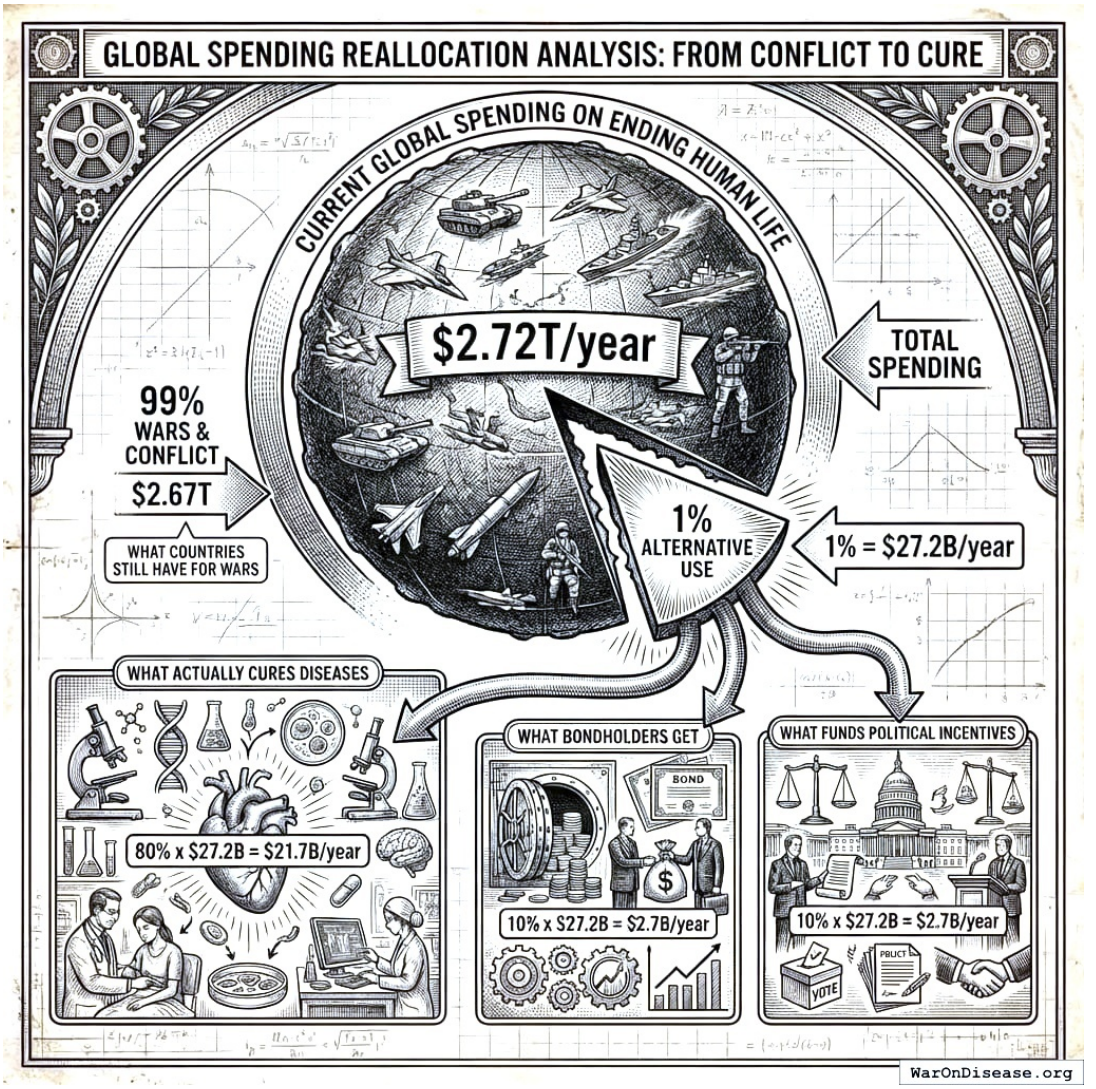


Figure 250: Take 1 percent from weapons, split it three ways, cure all disease. The diagram was so simple a child drew it. Adults spent 10 years arguing about the arrows.

When Math Becomes Obscene

VICTORY Incentive Alignment Bonds never mature. They just keep paying. Forever. You

calculate lifetime value using the perpetuity formula, which is finance-speak for "money printer that never stops":

$$\text{Total Value} = \frac{\text{Annual Payment}}{\text{Discount Rate}} = \frac{\$2.7\text{B}}{r}$$

Even if you're extremely pessimistic

How Skeptical You Are	Total Lifetime Value	Your $1B Becomes
Mildly skeptical (3% discount)	$60B	90x your money
Pretty skeptical (5% discount)	$54B	54x your money
Very skeptical (10% discount)	$27.2B	27x your money

Even at a 10% discount rate (as risky as funding a Mars casino), your $1B becomes worth $27.2B total.

For people who skipped the math:

- You give: $1B
- You get: $54-90 billion equivalent
- Time required: Wait for politicians to do math
- Effort required: Literally none after the initial campaign
- Moral status: Accidentally heroic

This isn't complicated math

- **Annual return**: 272% (sounds fake, isn't)
- **Lifetime value**: 54-90x (sounds impossible, is just arithmetic)

Compare: venture capital gets 3-5x over 7-10 years (requires picking winners). Real estate gets 2-3x over 30 years (requires being a landlord). The Medallion Fund gets 39% annually (closed to mere mortals).

VICTORY Incentive Alignment Bonds offer perpetual returns that compound into generational wealth while you sleep. The perpetual nature isn't a bug. It's the entire point. As long as humans prefer being alive to being dead, the treaty exists. As long as the treaty exists, you get paid.

Security Package and Risk

Five layers of "you'll get paid":

1. **$27.2B+ annual treaty revenue stream** (starts year 1 if treaty passes)
2. **Political entrenchment** (treaties are historically hard to repeal once implemented, unlike New Year's resolutions)
3. **Public support** (70%+ approval, grows with each cure)
4. **Aligned incentives** (everyone profits from cooperation)
5. **First-lien position** (bondholders get paid before anyone else touches the money)



Figure 251: Five layers of legal protection ensuring you get paid even if governments collapse. We learned from history: trust nobody, especially nations.

Two categories of risk (both involving trusting humans, which is historically unwise):

Project Risks

- **Political Risk:** The treaty may fail to pass because politicians conclude that dead constituents are preferable to living ones who complain. Mitigation: broad bipartisan support, multi-country strategy, no single points of failure.
- **Execution Risk:** The campaign may fail to hit milestones. Mitigation: milestone-gated funding, lean operations, and competent humans (finding those is itself a risk).

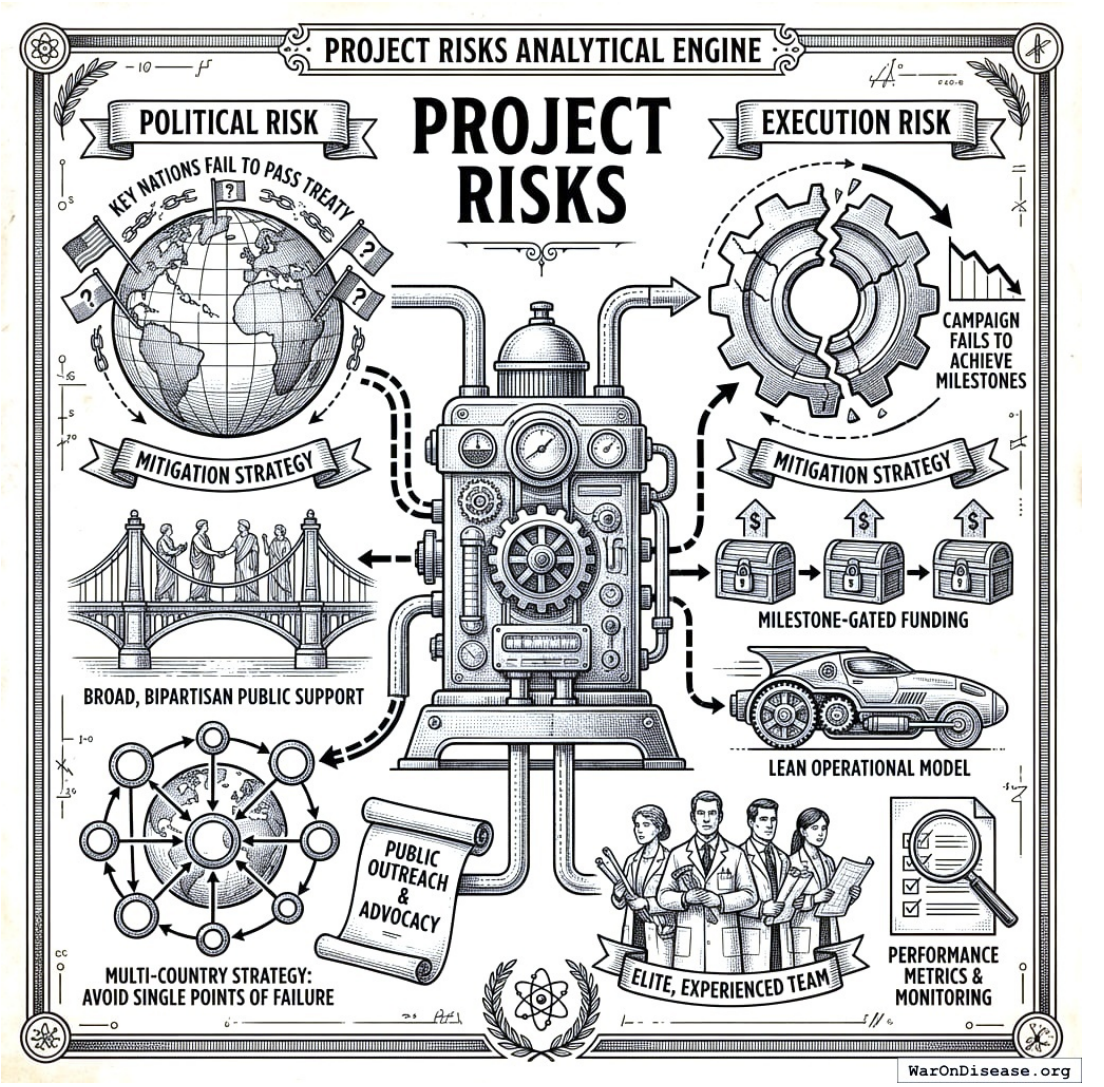


Figure 252: Political risk mitigation: bribe politicians legally. Execution risk mitigation: hire competent people. Revolutionary concepts in 2026.

Investor-Specific Risks

- **Liquidity Risk:** Funds locked 18-36 months during the campaign phase (roughly how long it takes to convince politicians that living voters are better than dead ones). Mitigation: secondary market trading after lock-up.
- **Timeline Risk:** Politicians could take longer than projected. They are famously slow at everything except accepting donations. The perpetual nature of the bond rewards patience.

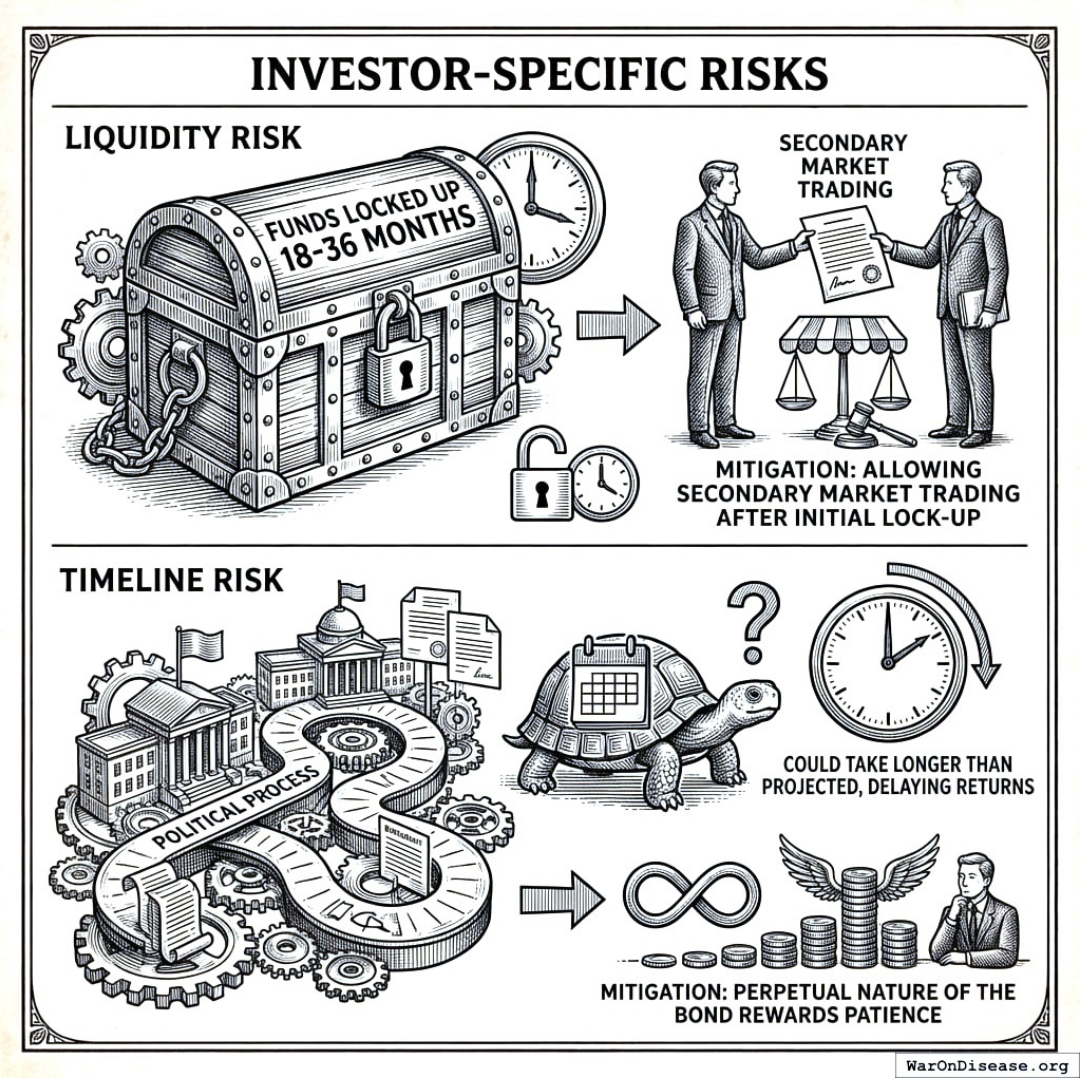


Figure 253: Your money is locked for 18 to 36 months while we save civilization. Then you can sell your shares to someone who doesn't believe in extinction.

What This Beats (Everything)

Investment	Annual Return	Risk	Term	Catch
VICTORY Incentive Alignment Bonds	**272%**	**High**	**Forever**	**Requires politicians to act rationally**
Savings Account	0.5%	None	Whenever	Loses to inflation

Investment	Annual Return	Risk	Term	Catch
S&P 500	10%	Moderate	Whenever	Boring, responsible
Real Estate	8%	Moderate	30 years	Requires being a landlord
Venture Capital	15-25%	Extreme	7-10 years	Requires picking winners
Hedge Funds	8-15%	High	Lock-ups	Requires being rich already
Medallion Fund	39%[257]	Extreme	N/A	Closed to mortals
Warren Buffett	20%[3]	Moderate	60 years	Requires being Warren Buffett

Fine print: Returns assume the treaty passes. If politicians prefer dead constituents to living ones, you lose your money. But you'll be too dead from preventable diseases to notice.

Pitch angle: Even accounting for "politicians might choose mass death" risk, this crushes every legal investment on the table.

Investment Thresholds and Term Sheet

Lock-up: 12-36 months until the treaty passes. Then perpetual distributions begin, like a dividend that outlives you.

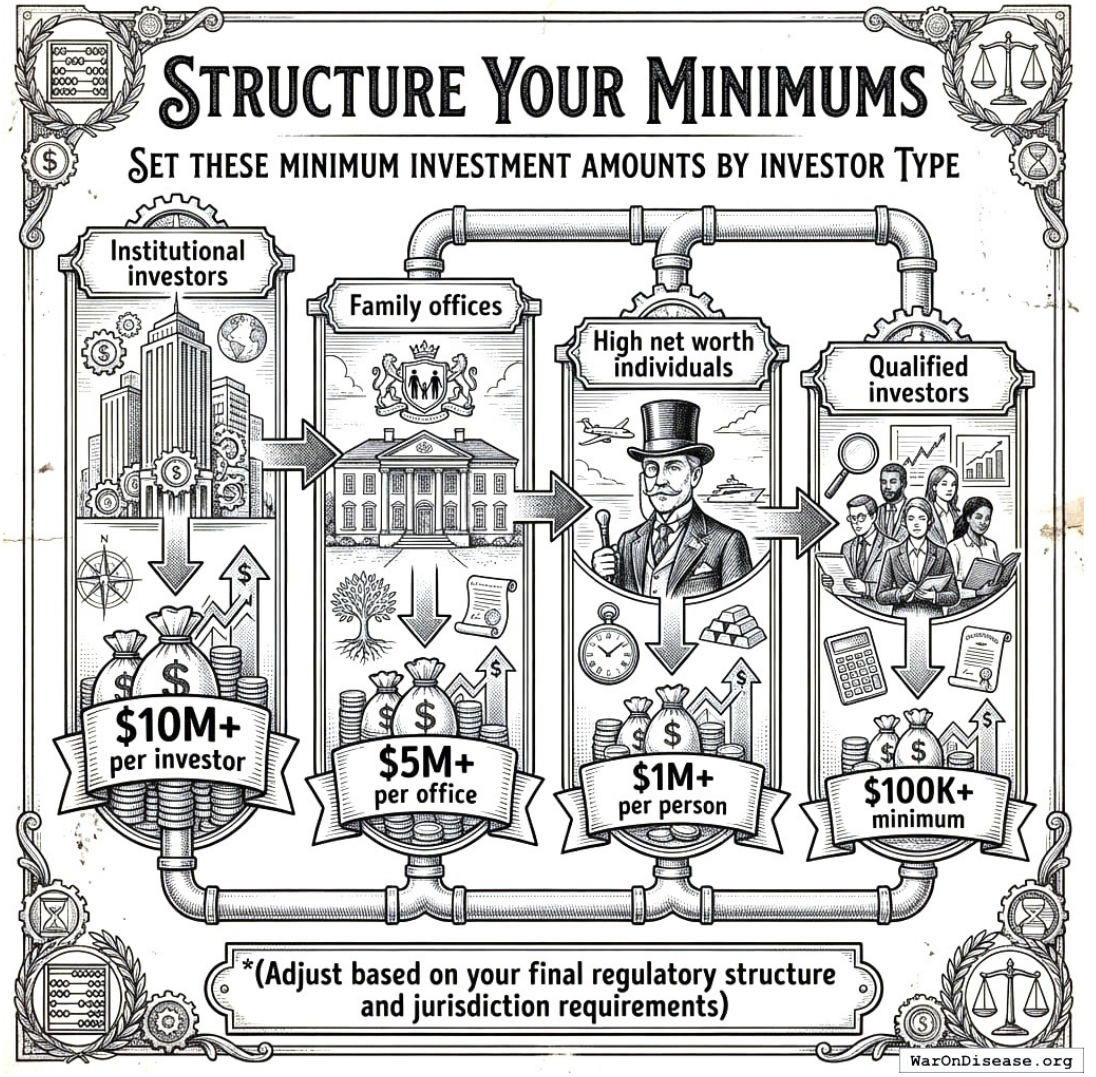


Figure 254: You need different amounts of money to be allowed to make more money, depending on how much money you already have. The rich call this 'protecting investors.'

Minimum investment amounts by investor type (your species requires gatekeeping even for saving itself):

- **Institutional investors**: $10M+ per investor
- **Family offices**: $5M+ per office
- **High net worth individuals**: $1M+ per person
- **Qualified investors**: $100K+ minimum

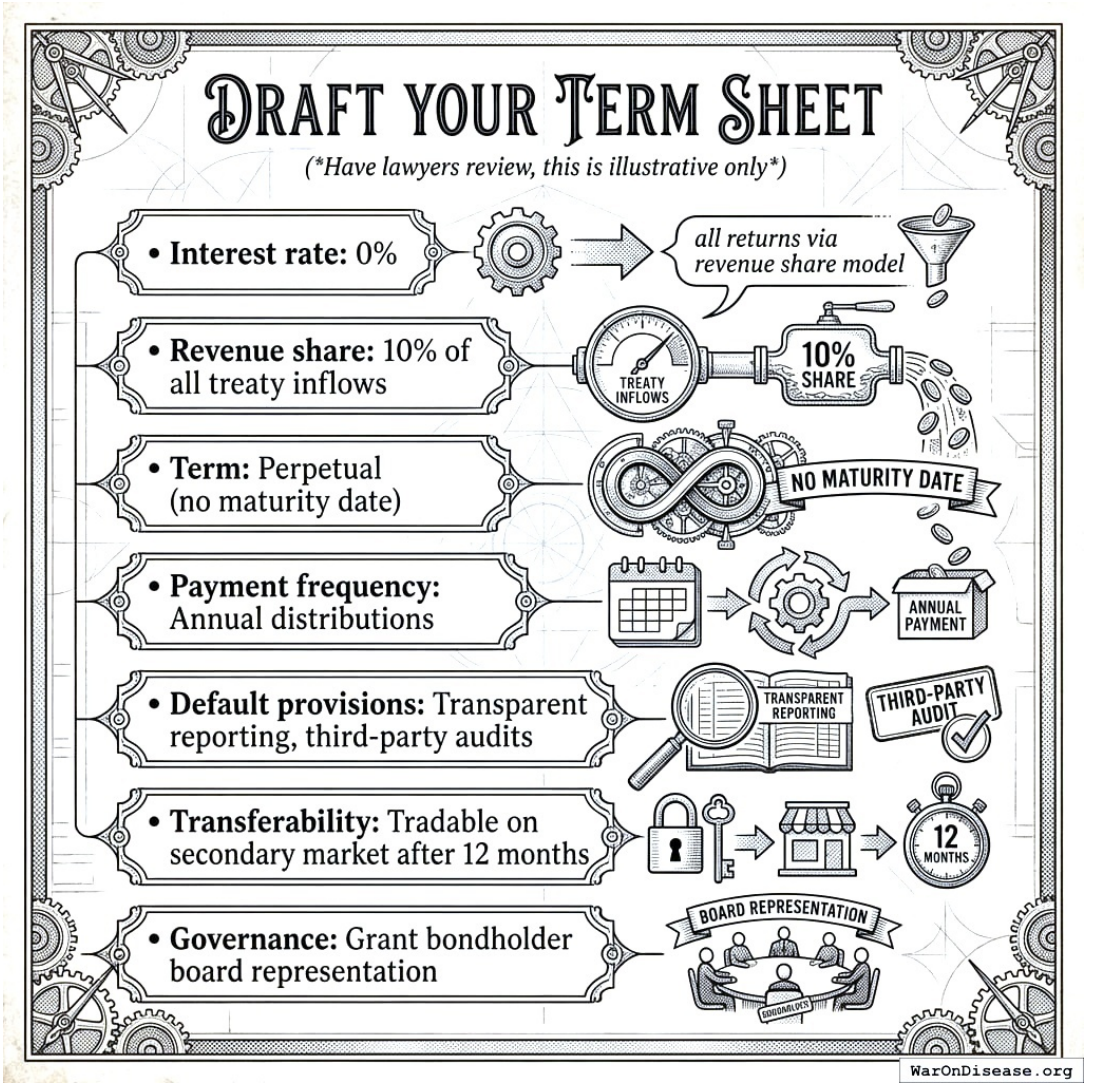


Figure 255: Money goes in from treaty, money comes out to bondholders. It's like a water fountain, but the water is money and the fountain is preventing war.

(Have lawyers review, this is illustrative only)

- **Interest rate**: 0% (all returns via revenue share model)
- **Revenue share**: 10% of all treaty inflows
- **Term**: Perpetual (no maturity date)
- **Payment frequency**: Annual distributions
- **Default provisions**: Transparent reporting, third-party audits
- **Transferability**: Tradable on secondary market after 12 months
- **Governance**: Grant bondholder board representation

"This sounds like a Ponzi scheme run by someone who failed math."

"Ponzi schemes pay old investors with new investor money. That's why they collapse. This pays investors with a share of $27.2B in annual revenue. That revenue comes from redirecting 1% of military budgets via treaty.

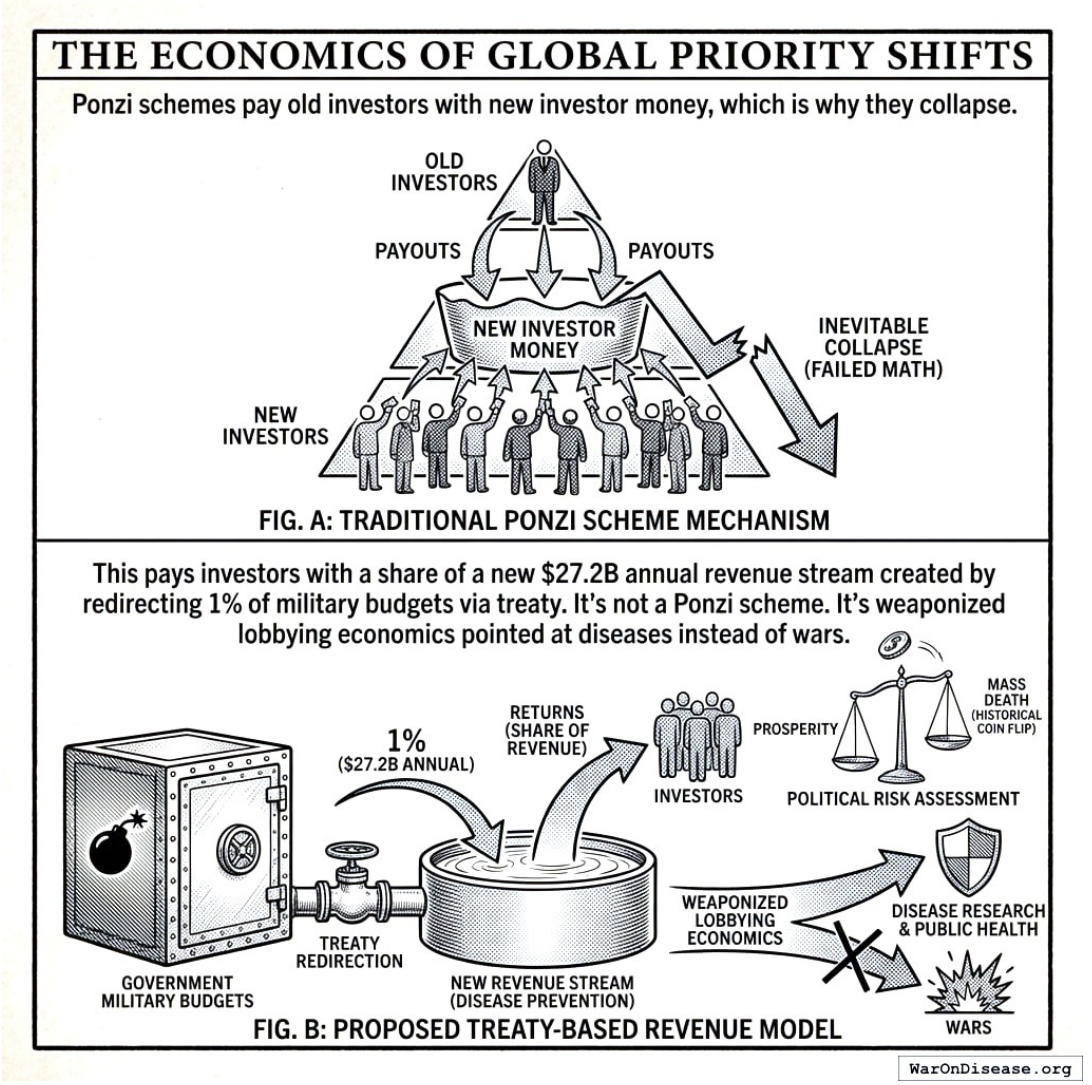


Figure 256: One circle takes money from new investors to pay old investors until it collapses. The other circle takes money from weapons to fund cures and pays investors forever. Spot the difference.

The money comes from governments that currently spend it on bombs. The returns are high because the political risk is high. You're betting politicians will choose prosperity over mass death. Historically, that's a coin flip at best.

It's not a Ponzi scheme. It's lobbying economics pointed at diseases instead of wars. Same weapon, different enemy."

"Isn't this just rich people buying policy?"

Wealthy actors *already* buy policy. Pharma spends $300M/year on lobbying. Defense contractors spend more. That ship sailed, sank, and was rebuilt. The question isn't "should money influence policy?" It's "can you point the money at welfare instead of warfare?"

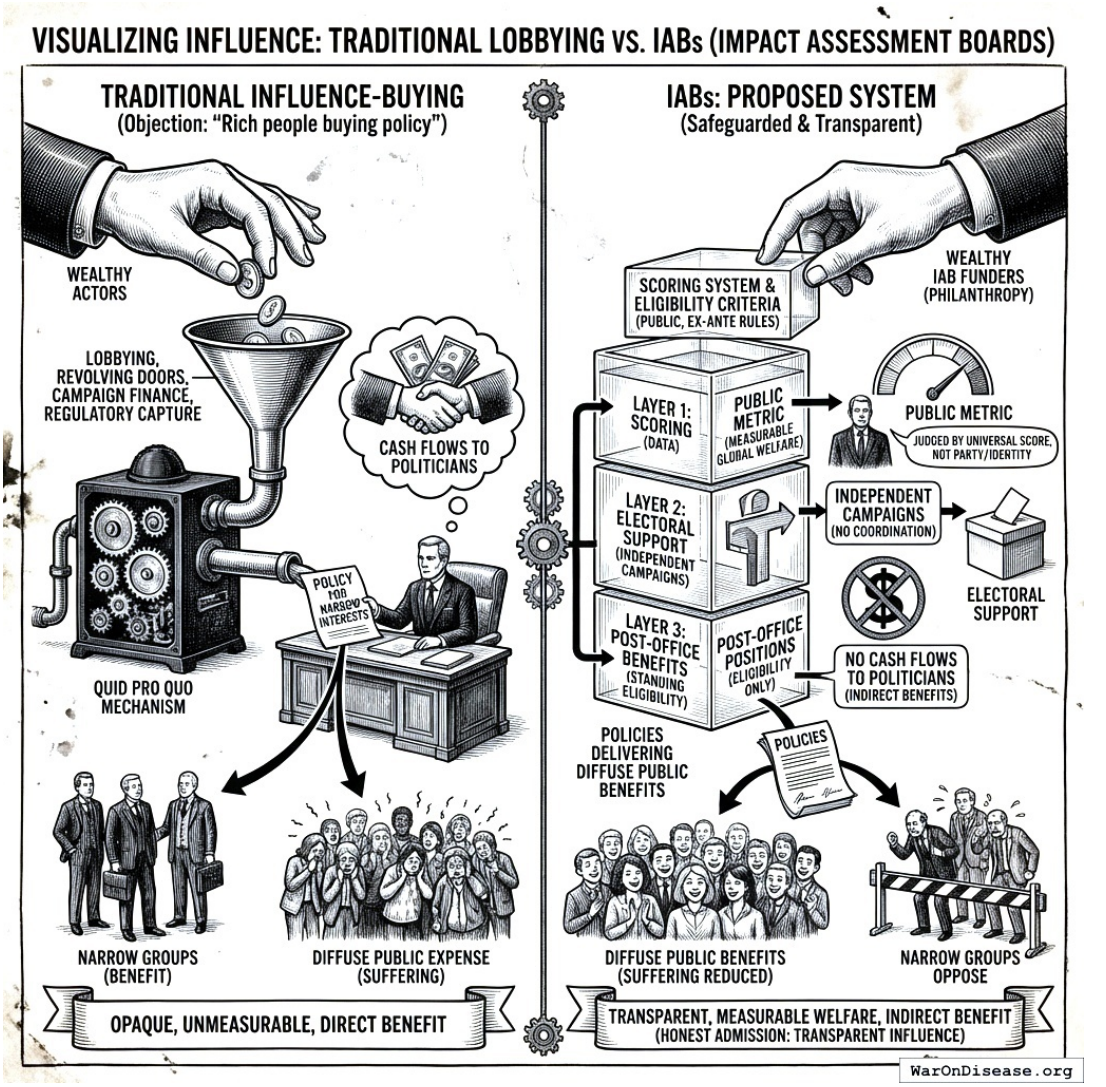


Figure 257: Three separate boxes to keep politicians from stealing money directly. They have to steal it indirectly now, which takes longer.

Safeguards: no quid pro quo (standing rules only), universal and ex-ante (same for all parties), no cash to politicians (indirect benefits only), and the metric is suffering reduced, not interests served.

Honest admission: yes, IAB funders will have more influence over which public goods get prioritized. So does the Gates Foundation over malaria. So does anyone with money over anything. The question is whether the influence is transparent, measurable, and auditable. IABs satisfy all three. Most lobbying satisfies zero.

“Won’t politicians game the metrics?”

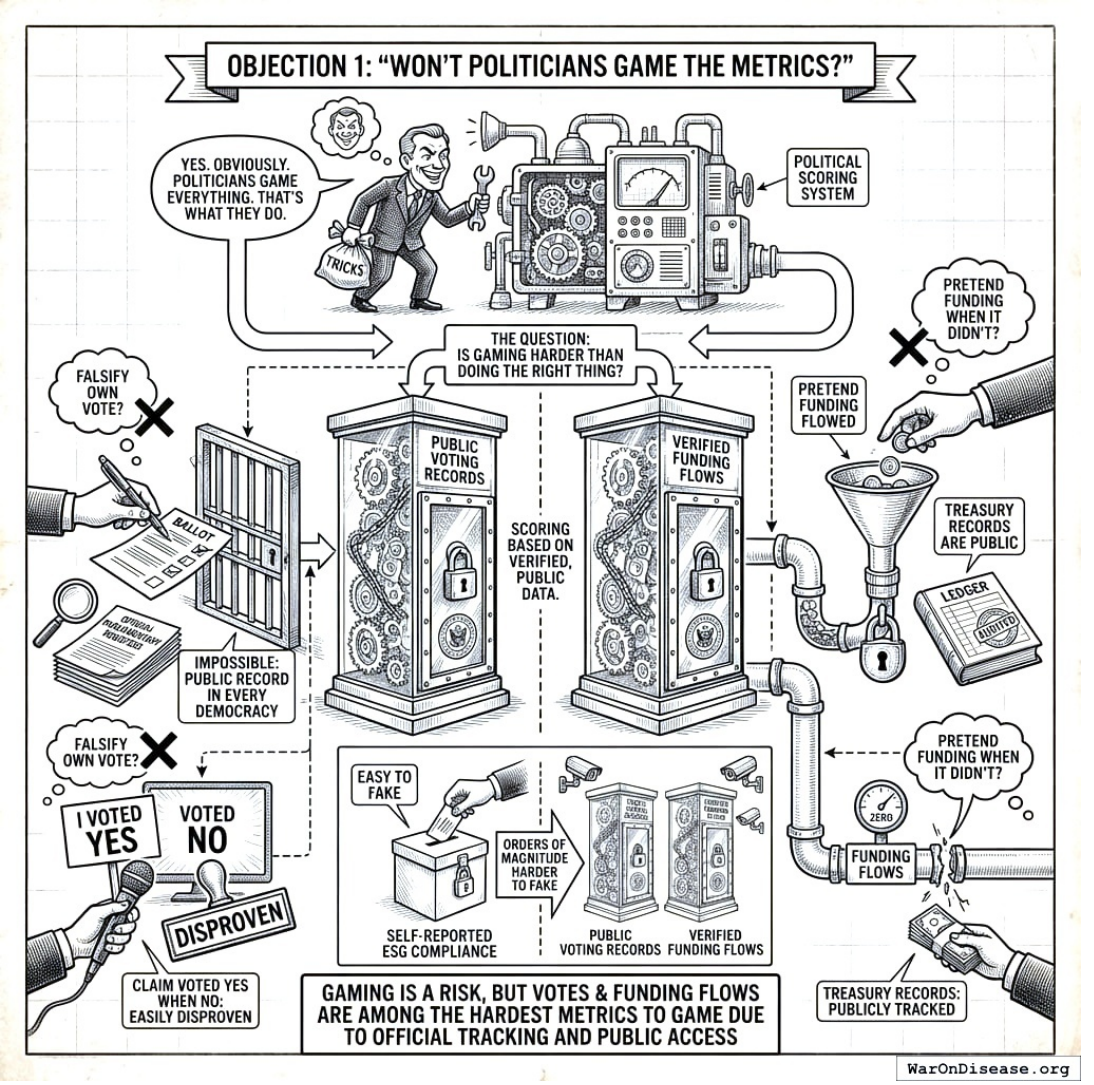


Figure 258: Things people can lie about versus things they can’t. Turns out politicians are better at lying than numbers are.

Yes. Your politicians game everything. The question is whether gaming the metric is harder than just doing the right thing. Scoring uses **public voting records** and **verified funding flows**. To game those, you’d have to falsify your own vote (public record) or pretend money moved when it didn’t (treasury records are public). That’s orders of magnitude harder to fake than self-reported ESG compliance, which is the bar your species currently uses. (It is an extremely low bar.)

"What if politicians reverse the policy?"

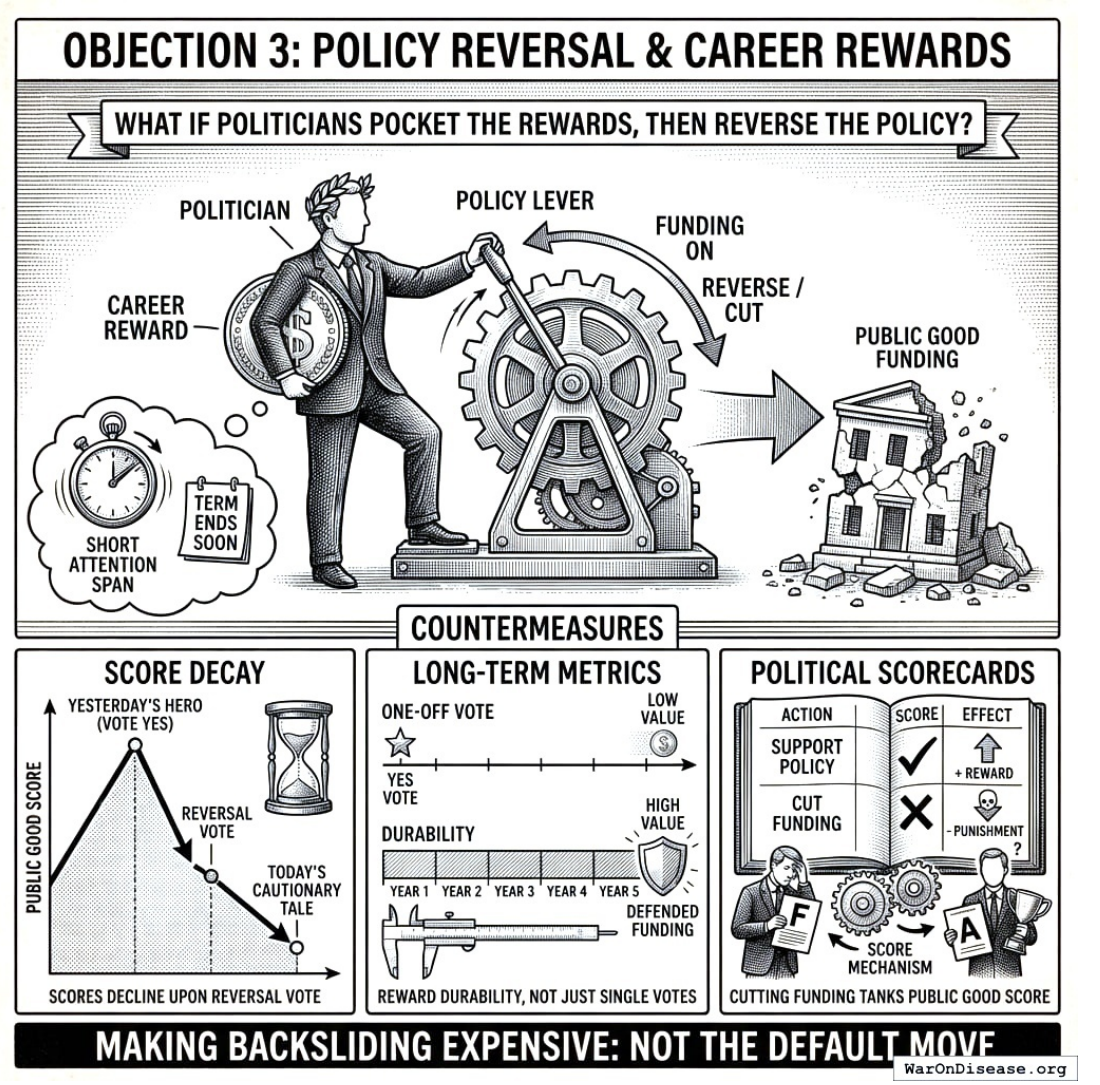


Figure 259: What happens to your score when you do good things for a while and then suddenly decide to do bad things instead. The graph goes down quite dramatically.

Score decay. Vote to reverse funding and your Public Good Score tanks. The same mechanism that rewarded you punishes you for backsliding. "You voted yes once" is worth less than "you defended the funding for five years." You can't prevent all backsliding, but you can make it career suicide, which is the only kind of death politicians fear.

"What happens when this fails and I lose my billion dollars?"

"If the treaty fails completely, you lose your $1B. It gets spent on the campaign. Convincing humans to click buttons. Bribing lobbyists. Building platforms. Paying lawyers to make bribery legal.

This is the primary risk. You're funding a political campaign with a 272% payout if it wins.

If it fails completely, you'll probably die of a preventable disease anyway. You won't be around to complain about the lost money.

It's venture capital but for not dying."

"Is this realistic globally?"

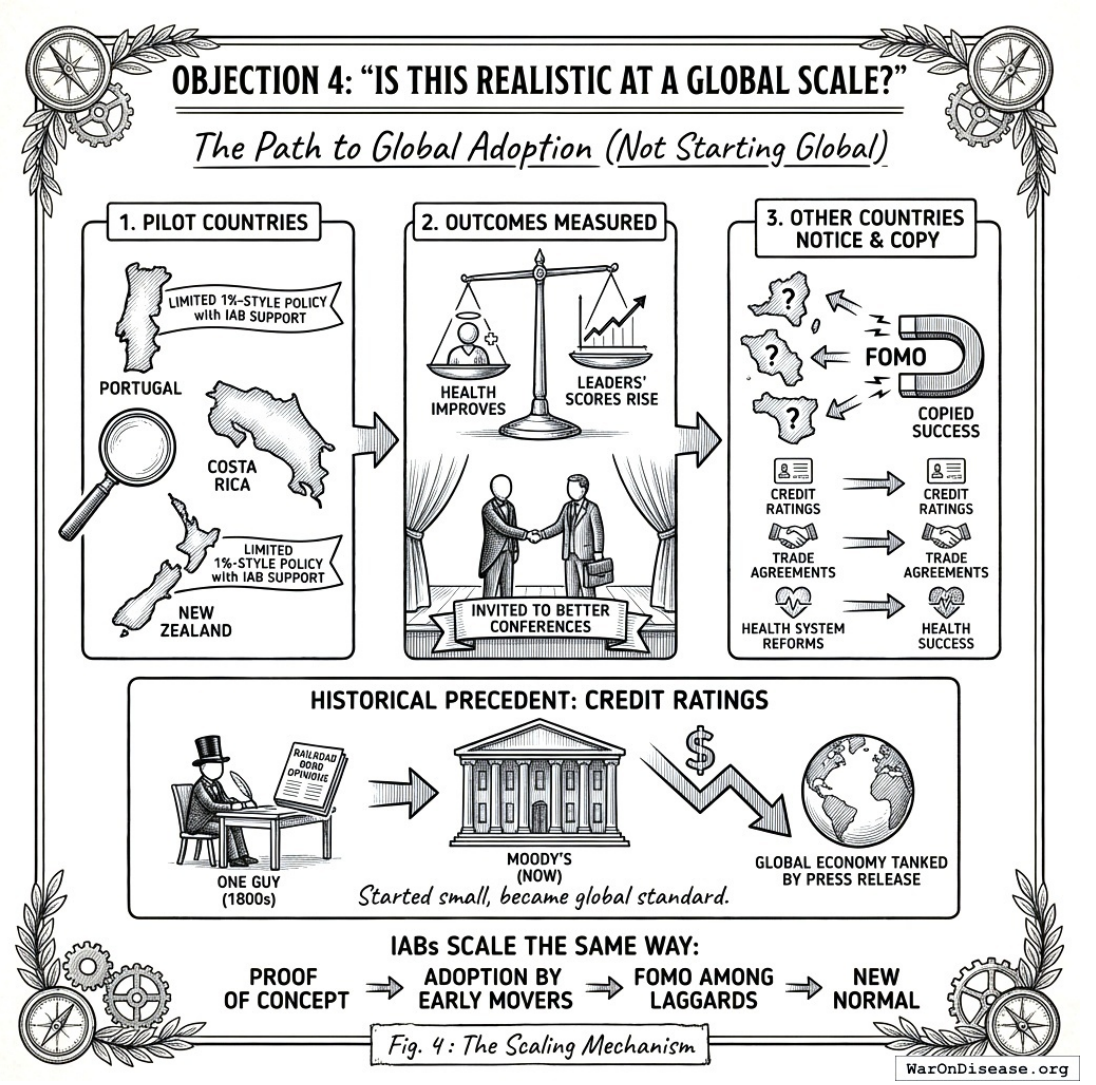


Figure 260: How countries copy each other's homework after seeing someone else get a good grade. Like peer pressure, but for governments.

Doesn't have to start global. One or two pilot countries (Portugal, Costa Rica, New Zealand) adopt a limited 1%-style policy. Funding flows get verified. Leaders get invited to better conferences. Other countries notice. FOMO takes over. FOMO is the most powerful force in international relations, more powerful than diplomacy, trade agreements, or nuclear weapons.

Credit ratings started as one guy in the 1800s publishing opinions about railroad bonds. Now Moody's can tank a country's economy with a press release. Same scaling path: proof of

concept, early movers, FOMO among laggards, new normal. Your species is remarkably good at copying things that work, once someone else does it first.

"How is this different from just donating to charity?"

"Charities give you 0% returns and a tax deduction. VICTORY Incentive Alignment Bonds give you 272% returns and generational wealth.

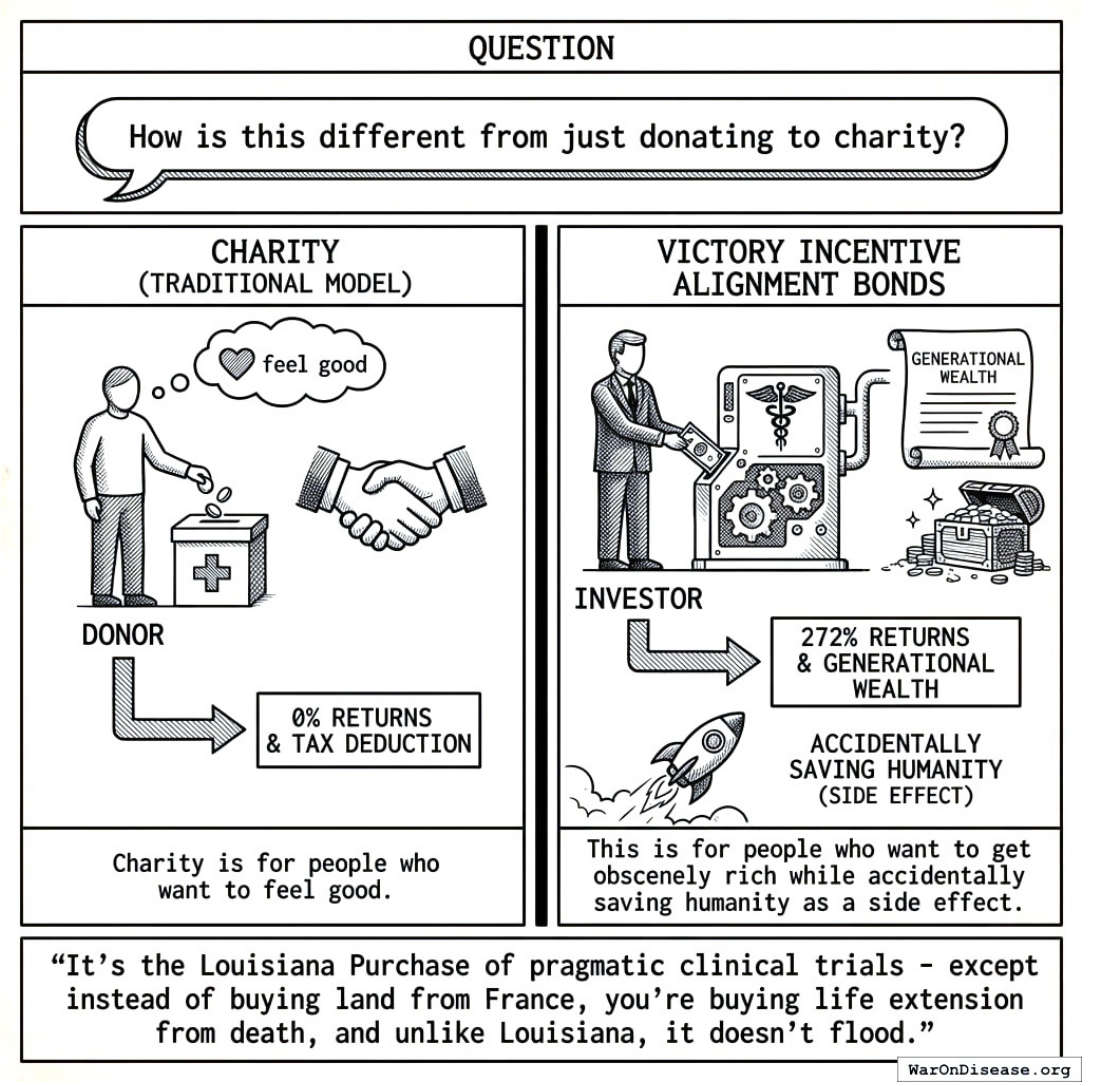


Figure 261: Charity: give money away, feel good, get tax break. VICTORY Bonds: give money away, feel good, get 272 percent back. One of these seems objectively better.

Charity is for people who want to feel good. This is for people who want to get obscenely rich. Saving humanity is a side effect.

You're not donating to cure diseases. You're investing in curing diseases. It's the most profitable legal thing you can do with a billion dollars.

It's the Louisiana Purchase of pragmatic clinical trials. Except instead of buying land from

France, you're buying life extension from death. And unlike Louisiana, it doesn't flood. And unlike France, it doesn't surrender."

When they want detailed financials

"Complete breakdowns available:

- Financial Plan - System architecture
- Full offering docs - Email for access"

The One-Page Summary That Makes Calculators Weep



Figure 262: The more people you save, the more money you make. Capitalism finally discovers that helping people is profitable.

Hand this to investors who can't read more than one page:

VICTORY Incentive Alignment Bonds: How to Get Obscenely Rich While Accidentally Saving Humanity

What you get

- **Returns:** 272% annually forever (assuming politicians don't choose mass death)
- **Duration:** Perpetual (payments never stop until heat death of universe)
- **Side effect:** Millions of humans continue existing who would otherwise stop
- **Priority:** You get paid before anyone else touches the money
- **Growth path:** 1% to 2% to 5%+ as diseases get cured and public demands more

What could go wrong

- **Political risk:** Politicians might prefer dead voters (unlikely but humans are weird)
- **Execution risk:** The campaign could be run incompetently (mitigated by hiring competent humans)
- **Timeline risk:** 18-36 month lockup while convincing politicians to be smart
- **Liquidity risk:** Your money is frozen during the convincing phase

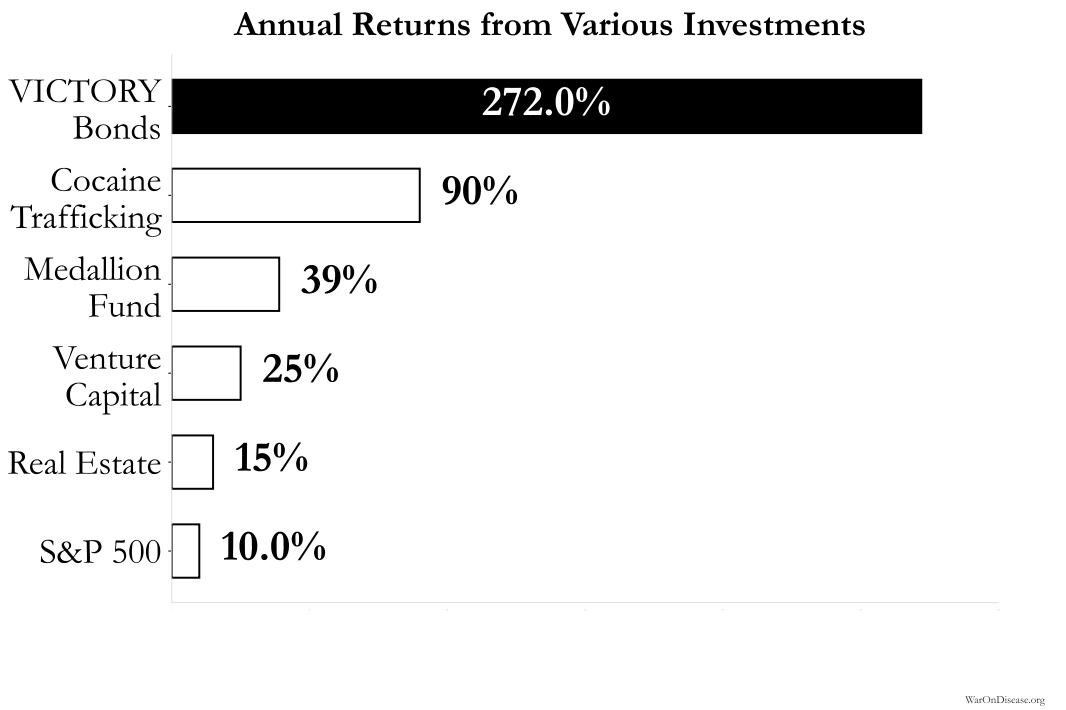
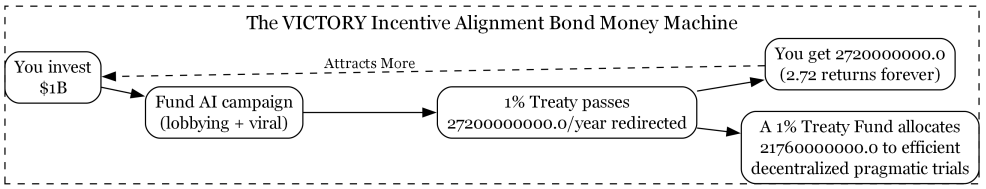


Figure 263: VICTORY Incentive Alignment Bonds: 272% Perpetual Returns



The core mechanism is stupid simple

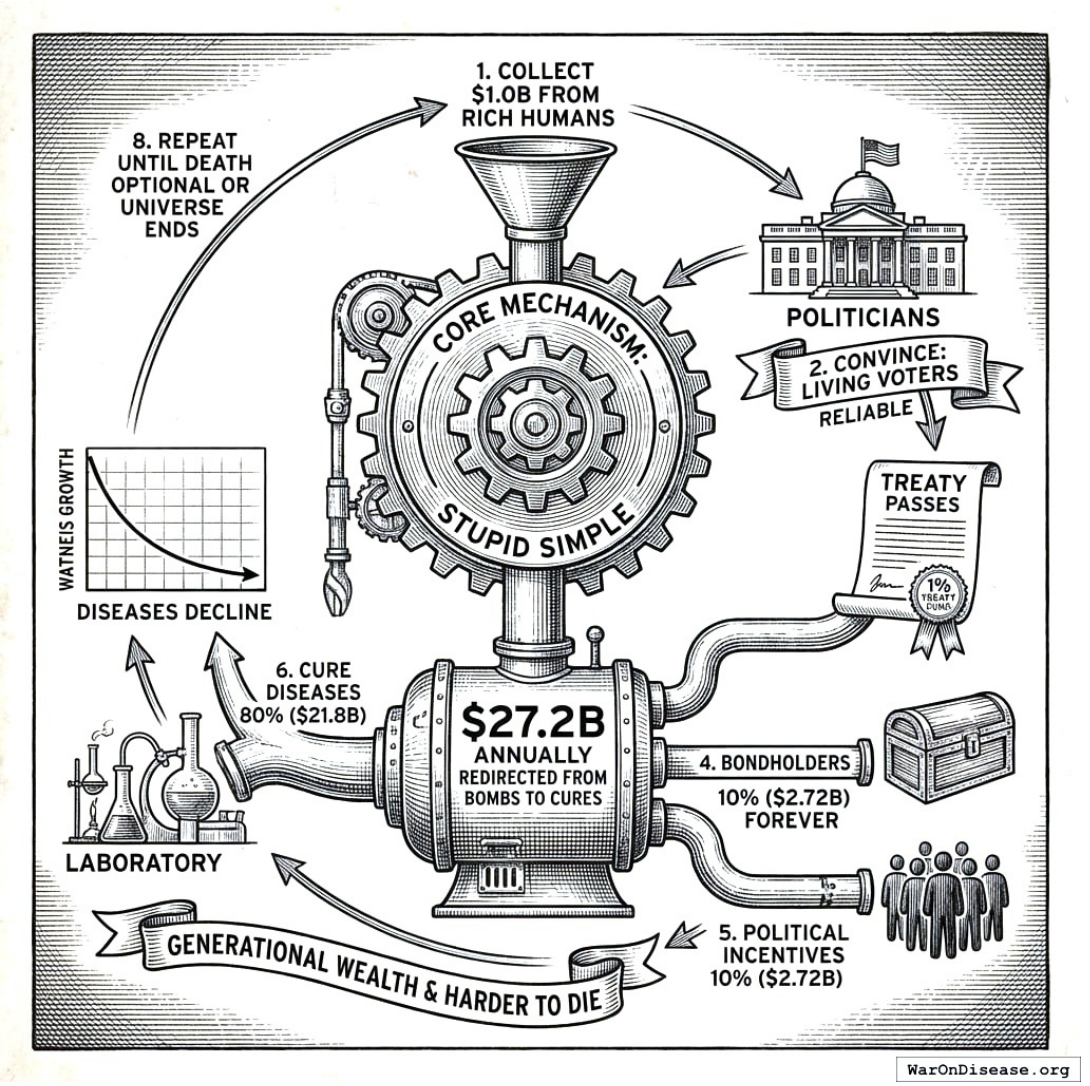


Figure 264: Investors give money to convince politicians to redirect war budgets to medical research, which pays the investors, politicians, and researchers. The circle of life, but useful.

Collect $1B from investors. Convince politicians that living constituents vote more reliably than dead ones. Treaty passes. $27.2B flows annually from bombs to cures. Bondholders get

10%, politicians get 10%, research gets 80%. Diseases decline, public demands more, returns scale up. Repeat until death is optional.

Summary

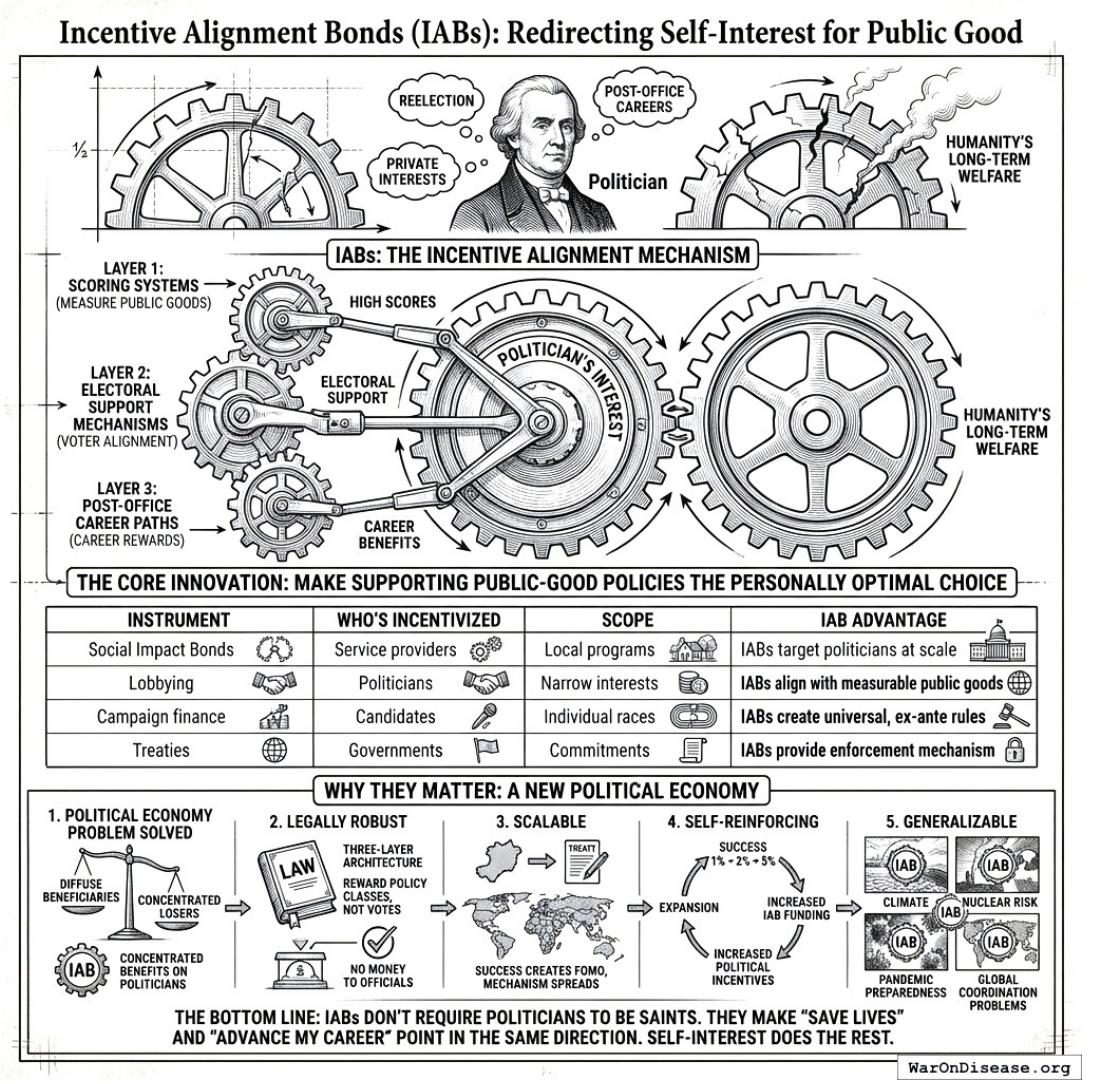


Figure 265: How to make politicians care about the future by promising them good jobs after they stop being politicians. Turns out they like money that comes later too.

IABs don't change human nature. Nothing changes human nature. You've tried religion, philosophy, education, and strongly worded letters. None of it worked. IABs just redirect the nature you've got. Legal (three-layer architecture, no money to officials). Scalable (one country, then FOMO). Self-reinforcing (each expansion funds the next expansion).

You're not asking your politicians to be saints. Saints don't run for office. You're making "save millions of lives" and "advance my career" the same sentence. The rest is gravity.

For Skeptics

The Proof: Overview

This isn't a theoretical plan. It's a greatest hits album of things that already worked.

Before you say "this is impossible," let me remind you: humans have accidentally done smart things before. Not often. But occasionally, when properly motivated by fear or greed (usually both), your species stumbles into competence.

You've done every single part of this plan already. You just haven't combined them yet. You're like someone who owns flour, water, yeast, and an oven, but keeps eating them separately and wondering why bread hasn't appeared.

Pragmatic Trials: 44.1x More Efficient

Traditional Phase 3 trials cost $41K[101]. Pragmatic trials embedded in routine care cost $929[1], a **44.1x cost reduction**.

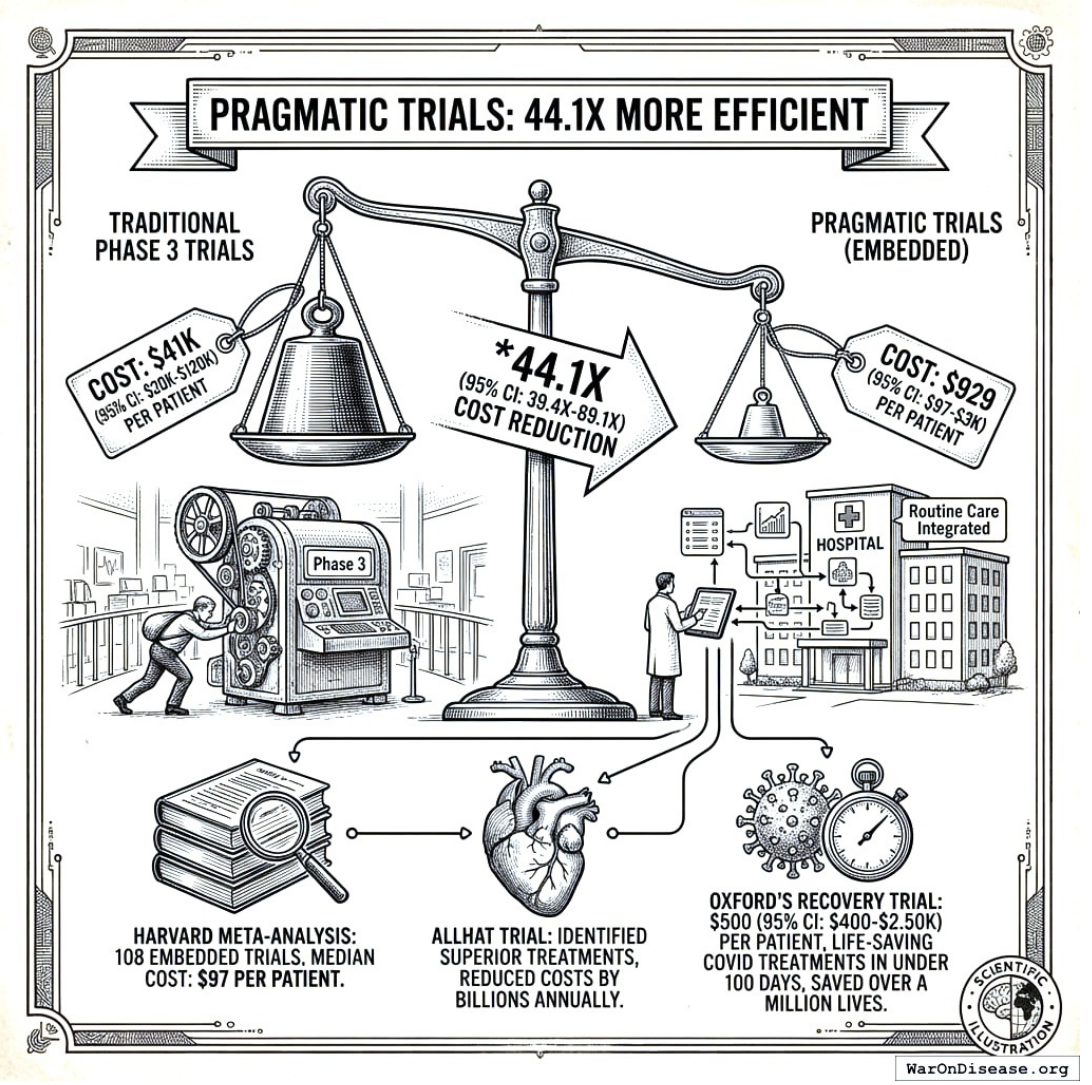


Figure 266: The British figured out how to test drugs for $929 per patient. Americans spend $41,000. Both countries speak English, so language barrier isn't the issue.

A Harvard meta-analysis of 108 embedded pragmatic trials found median costs of just $97 per patient[253]. The ALLHAT trial showed pragmatic designs can identify superior treatments and reduced healthcare costs by billions annually[258]. So the cheap way is also the better way. Happens more often than you'd think.

Oxford's RECOVERY trial achieved $500. It found life-saving COVID treatments in under 100 days. It saved over a million lives[84].

Humans Doing Smart Things (Accidentally): A Collection

That Time Humans Banned Landmines (Yes, Really)

What happened: A bunch of NGOs decided landmines were bad actually. They convinced 160 nations to sign a treaty banning them[76] in 1997. Major military powers initially opposed

it. The NGOs won anyway.

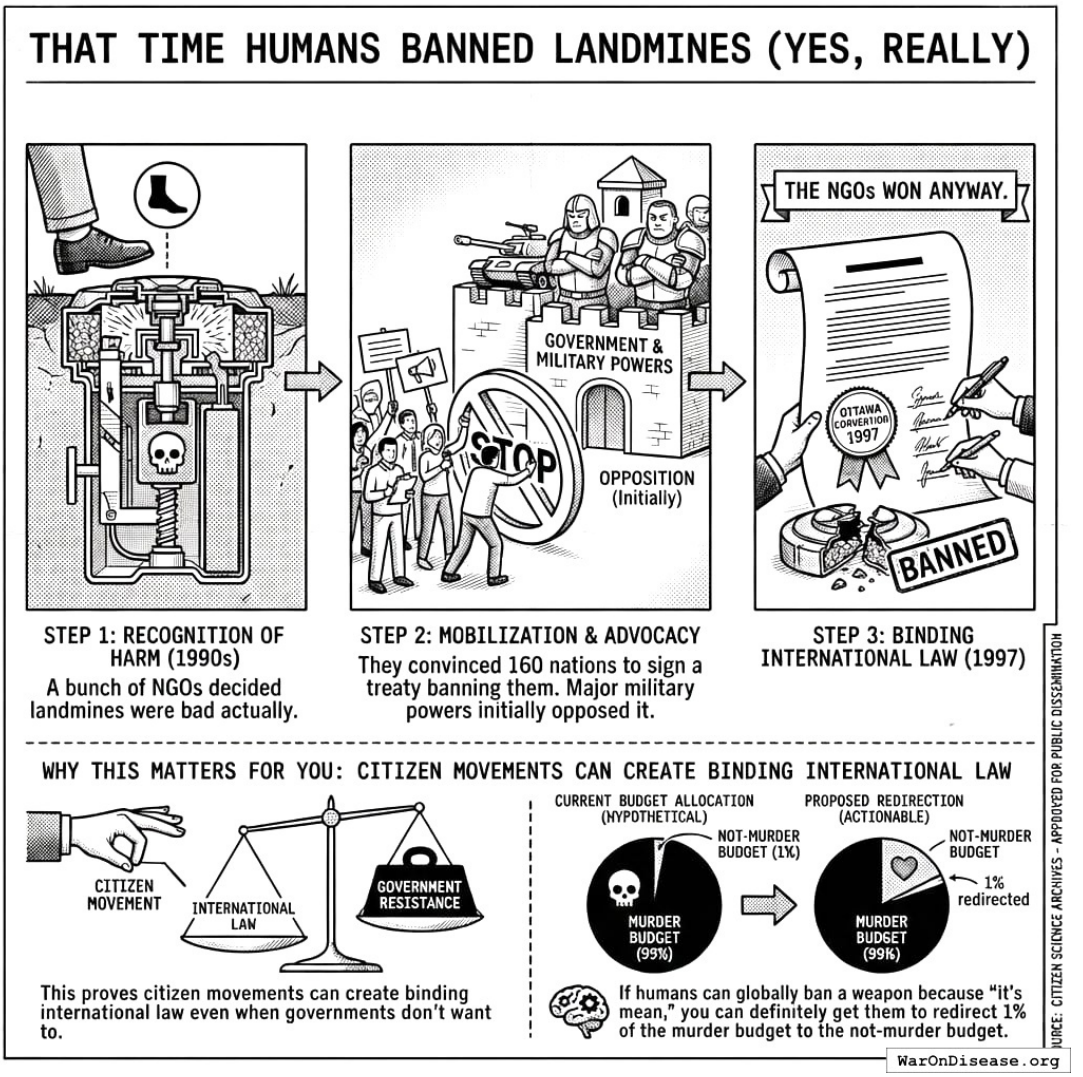


Figure 267: Some activists with clipboards convinced 160 countries to ban landmines while America, Russia, and China said no. The landmines are still banned. Democracy works in mysterious ways.

Why this matters for you: This proves citizen movements can create binding international law even when governments don't want to. If humans can globally ban a weapon because "it's mean," you can definitely redirect 1% of the murder budget to the not-murder budget. And they did it with fax machines. Just pissed-off citizens with fax machines. You have the internet.

War Bonds: That Time Grandma Funded WW2

What happened: Governments needed money to fight Nazis. They sold "war bonds" (basically IOUs that paid interest) directly to regular people. Promise them profit + dead Nazis. Kill Nazis, earn 3%. Good deal. The U.S. raised $185 billion[259] (trillions in today's

dollars[260]).

Why this matters for you: Your grandparents gave the government money to stop Hitler and got 4% returns. You're offering 272% returns to stop cancer. VICTORY Incentive Alignment Bonds are the same thing except with better ROI and fewer Nazis (hopefully zero Nazis). Except instead of dead Nazis, you offer dead cancer cells.

The formula worked: mix moral incentives (patriotism) with financial self-interest (interest payments). You're applying it to a different war: the one against your own mortality. When saving the world is profitable, people trip over each other to fund it.

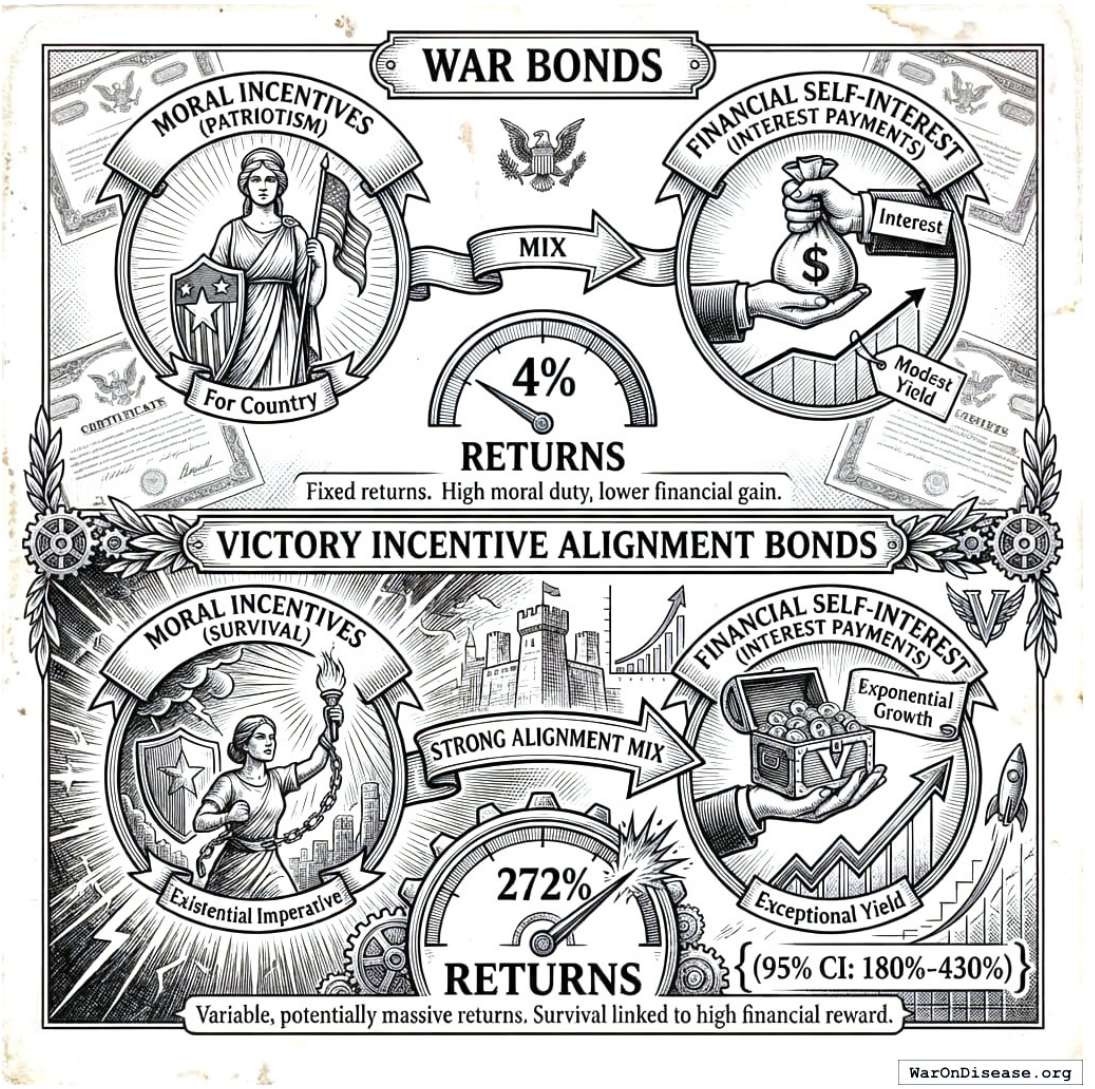


Figure 268: War Bonds: give us money, we'll build bombs, you might get paid back. VICTORY Bonds: give us money, we'll cure diseases, you definitely get paid back. One of these sells better.

The Global Fund (Proof That New Health Institutions Can Exist)

What happened: In 2002, the world created a new organization[261] to pool billions for fighting AIDS, TB, and malaria. It bypassed traditional bureaucracies and just… worked. Saved an

estimated 70 million lives[262] (as of 2025). Bureaucrats everywhere were horrified.

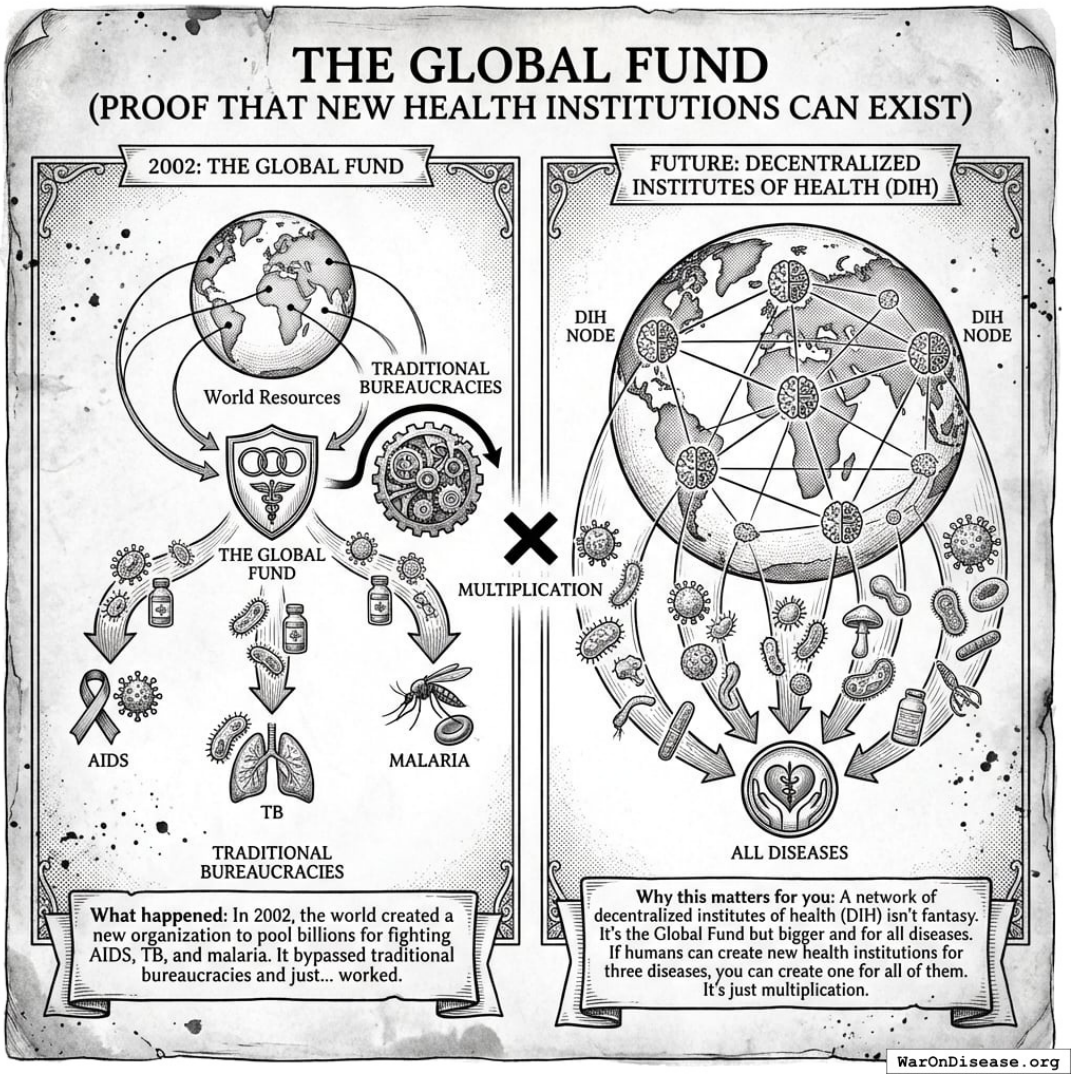


Figure 269: Started fighting AIDS, TB, and malaria. Realized other diseases also exist. Expanded accordingly. This took decades.

Why this matters for you: A network of decentralized institutes of health (DIH) isn't fantasy. It's the Global Fund but bigger and for all diseases. If you can create new health institutions for three diseases, you can create one for all of them. It's multiplication. You learned this when you were six.

Post-WW2: That Time America Accidentally Discovered Peace Is Profitable

What happened: 1945: US military spending was 37% of GDP[79] (we were very serious about the war thing). 1948: Cut to 7%. That's a 30 percentage point drop. Not 1%. THIRTY.

The results: The greatest economic boom in human history:

- GDP growth: 8% yearly for a decade[263] (vs normal 2-3%)
- Home ownership doubled[264] (middle class explosion)
- GI Bill created modern knowledge economy
- Built the interstate highway system

Why this matters for you: You're asking for 1%. America did 30% and got rich. This is like asking someone who lost 100 pounds if they can spare 3 pounds. The answer is obviously yes, and they'll probably feel better.

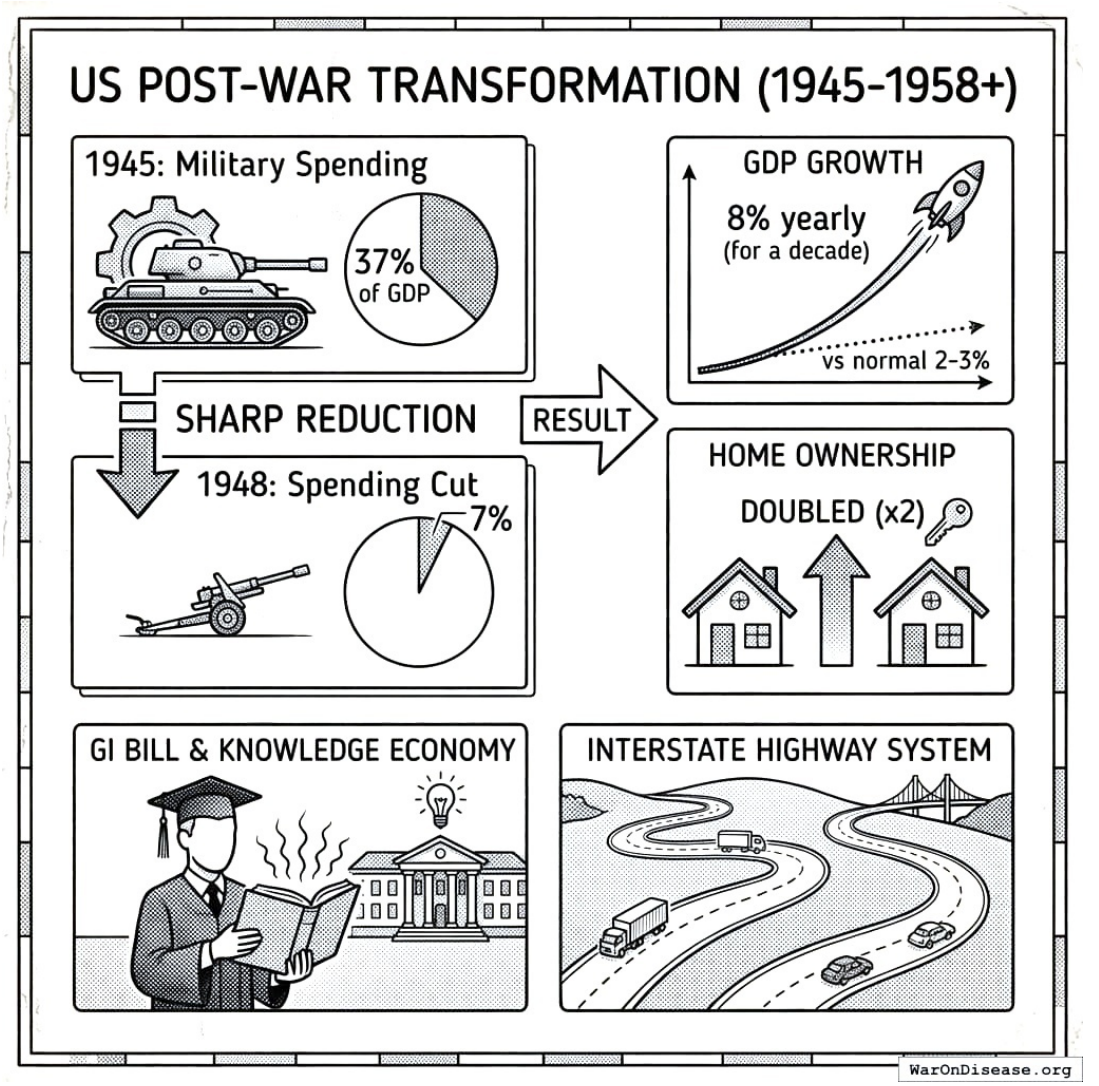


Figure 270: After World War II, America cut military spending by 90 percent and became the richest country on Earth. We learned absolutely nothing from this.

The 1990s: When the Berlin Wall Fell and Wallets Exploded

What happened: Cold War ended. Military spending dropped from 6% of GDP to 3%. That's $300B redirected from pointing missiles at Russia to literally anything else.

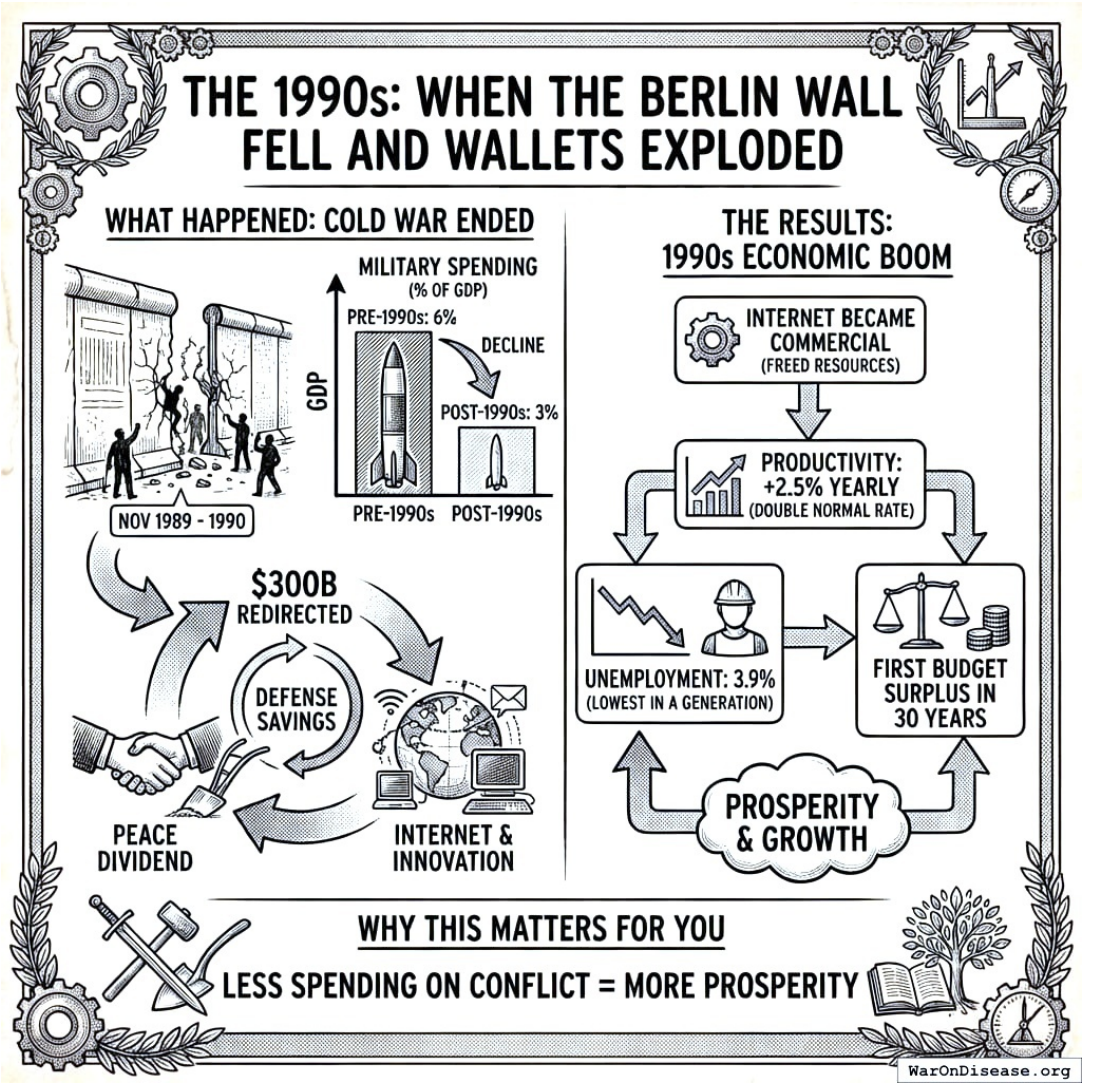


Figure 271: When the Cold War ended, we stopped building so many missiles and accidentally invented the internet. Imagine what we could invent on purpose.

The results: The 1990s economic boom everyone remembers fondly:

- Internet became commercial (freed resources)
- First budget surplus in 30 years
- Unemployment: 3.9% (lowest in a generation)
- Productivity: +2.5% yearly (double the normal rate)

Why this matters for you: The pattern isn't subtle. Every time you stop spending money on murder, prosperity appears like magic. It's not magic. It's arithmetic. You just keep forgetting the answer.

Switzerland: 200 Years of Not Shooting Anyone = Being Very Rich

Two world wars. Everyone else fought. Switzerland made chocolate.

What they have: Mountains, cows, and a complete lack of natural resources. They're

surrounded by countries that kept starting world wars. They have been neutral since 1815.

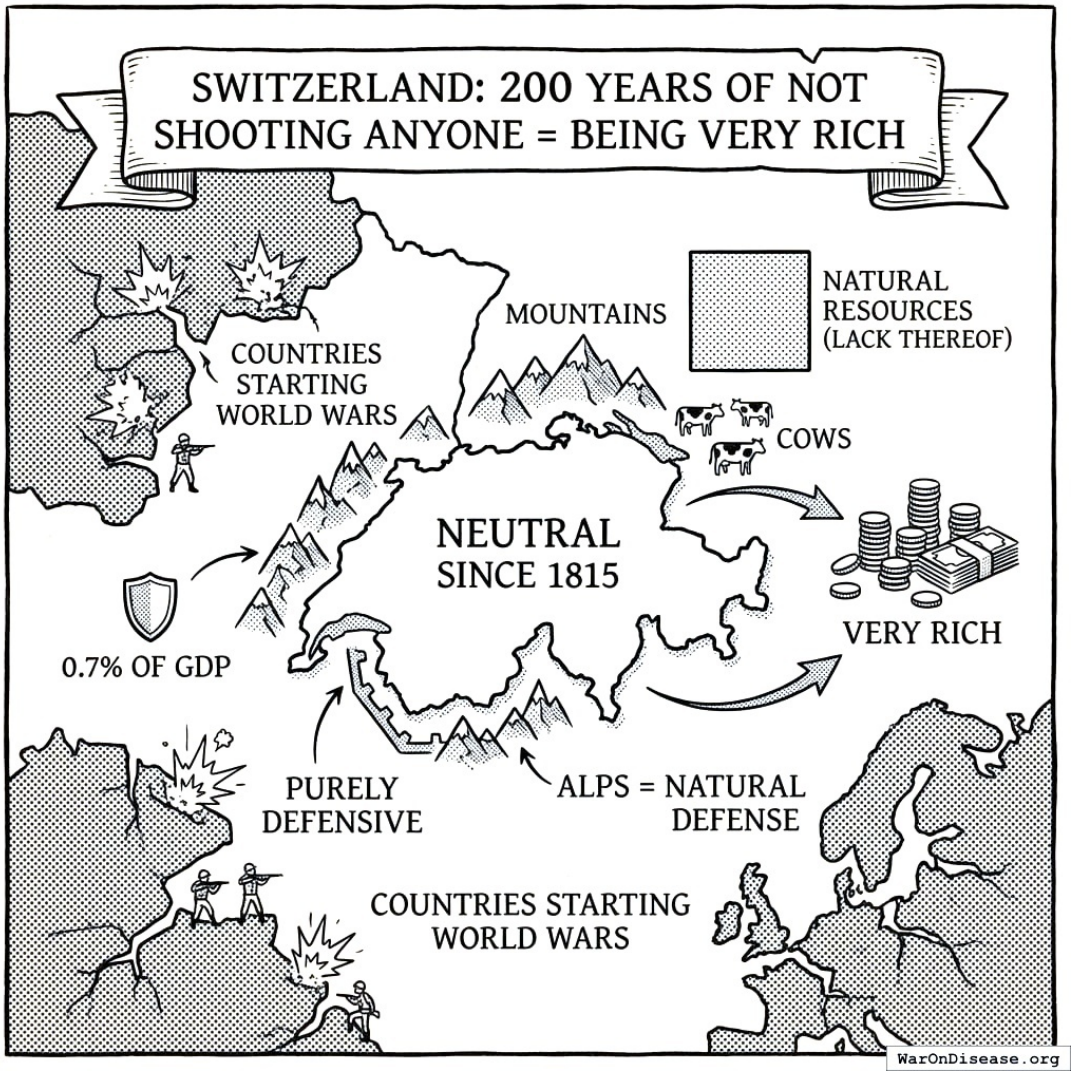


Figure 272: Switzerland spends less on defense than its neighbors and is much richer. They also make excellent chocolate. These facts may be related.

What they spend on defense: 0.7% of GDP (source[93]) (purely defensive; they're not invading anyone with those Alps) (US: 3.5%)

The results

- $93K GDP per capita[94] (vs US $76K), 25% richer than Americans
- Universal healthcare, excellent quality, 12% of GDP (vs US 18%)
- Life expectancy: 84 years[265] (vs US 79)
- Last invaded: Never (Napoleon tried in 1798, didn't go well for him)
- Haven't had a war death since 1847[266]

The difference went to education, healthcare, and trains that run on time. (Americans: a "train that runs on time" is a train that arrives when it says it will. I know this sounds fictional.)

Why this matters for you: Peace dividends compound over centuries. Switzerland proves you don't need oil, colonies, or weapons to get rich. Just stop wasting money on things that explode. They've been doing this for 200 years. You're asking for a 1% start.

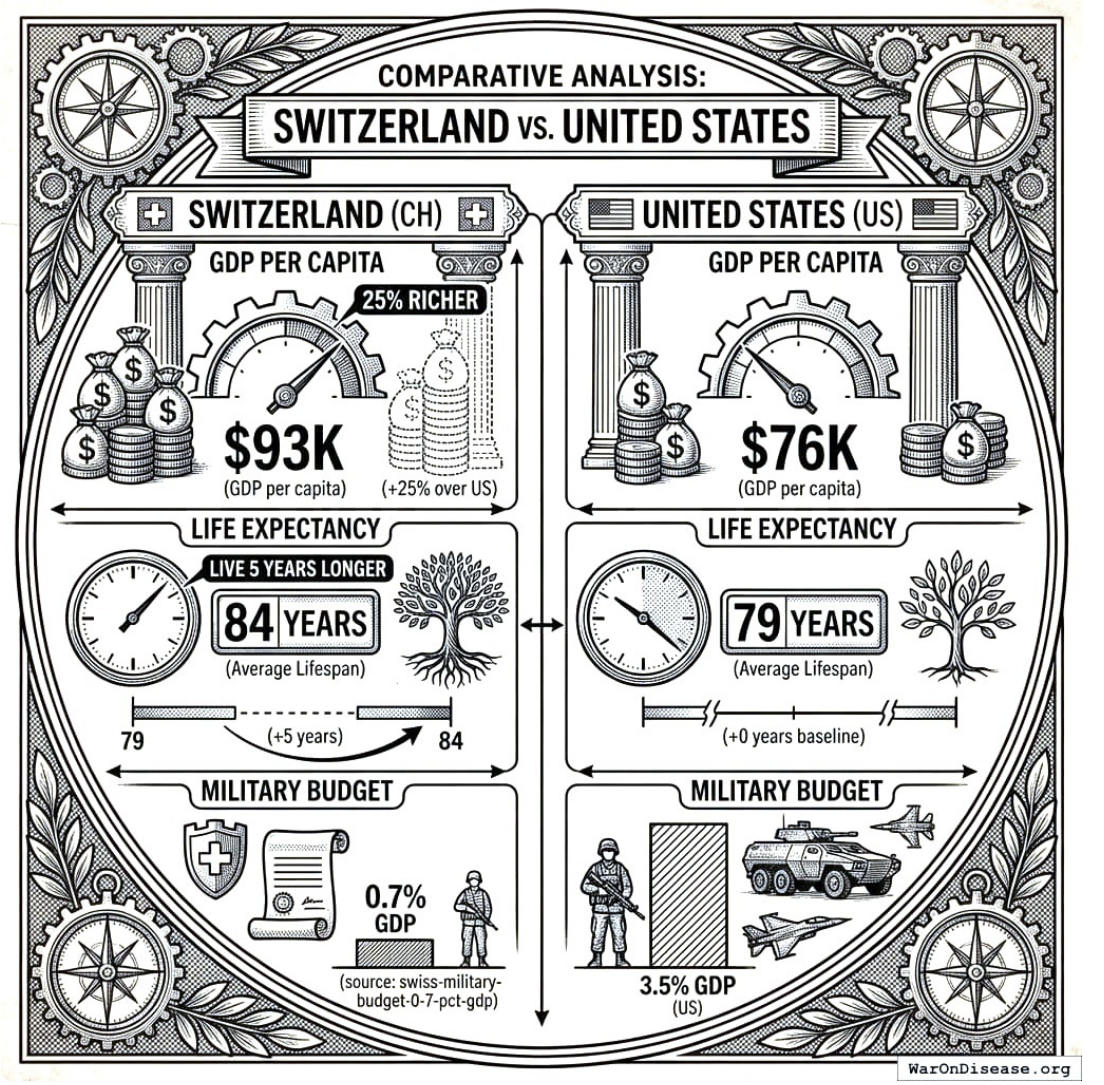


Figure 273: Switzerland spends less on weapons and lives longer. America spends more on weapons and dies sooner. Science is still investigating whether these facts are related.

The 3.5% Rule: The Cheat Code for Democracy

What scientists discovered: When just 3.5% of a population actively participates in sustained resistance, success becomes nearly inevitable. Not 51%. Not a majority. Just 3.5%.

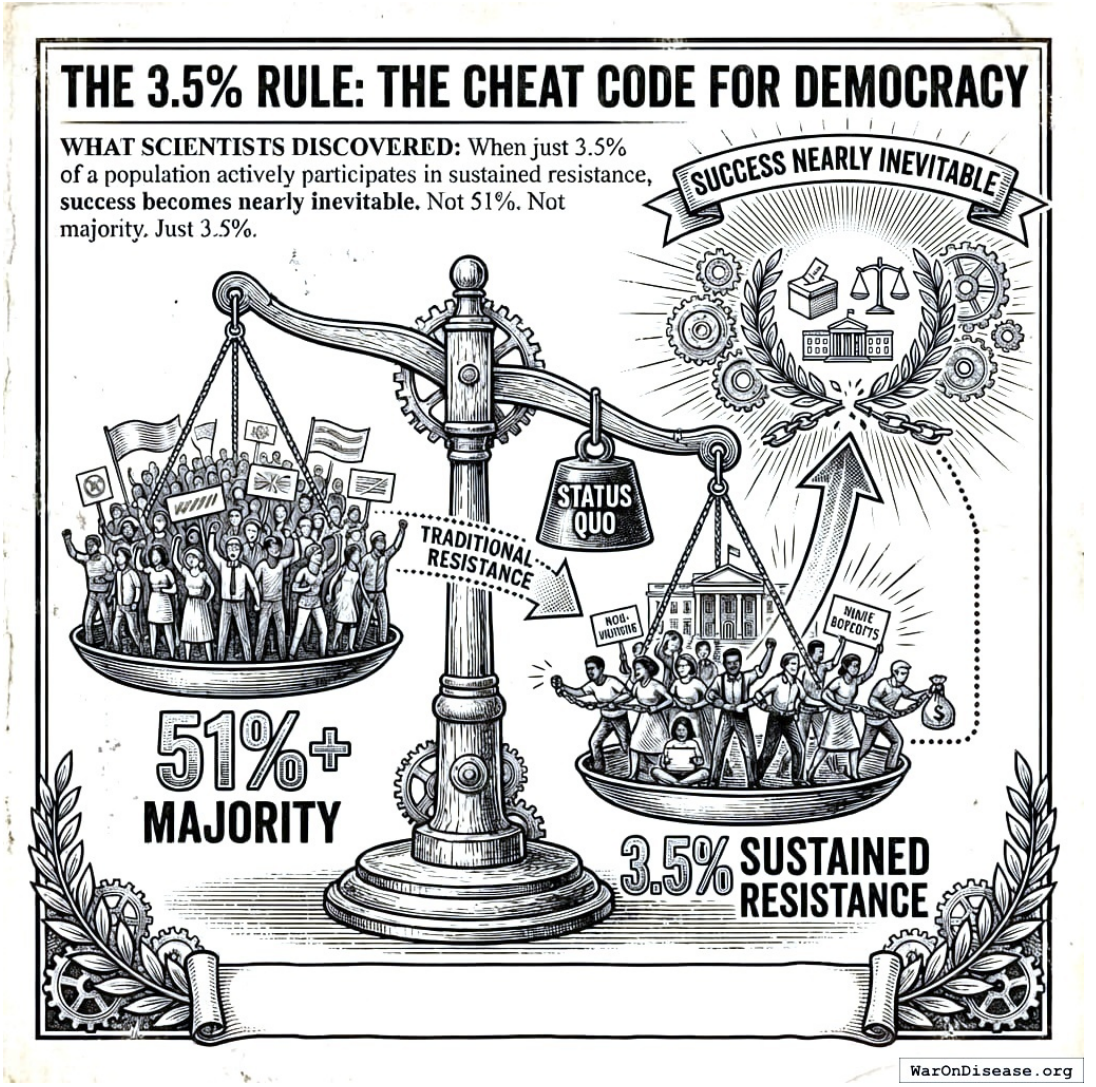


Figure 274: You only need 3.5 percent of people to agree on something before everyone else gets peer-pressured into it. It's like high school, but for overthrowing governments.

Historical proof

- Civil rights: 3.5% ended segregation
- Indian independence: 3.5% beat the British Empire (nuclear power defeated by non-violence, embarrassing)
- Women's suffrage: 3.5% got half of humanity the vote
- Gay marriage: 3.5% made love legal

Why this matters for you: One person in every classroom. One family on every block. That's 3.5%. The global referendum needs 280 million people (3.5% of humanity). Not billions. Just 3.5% clicking "yes, I prefer not dying" on a website. The internet reaches 5 billion[267]. If humans can mobilize 3.5% to get the vote, you can mobilize 3.5% to not die from cancer. Math says it wins.

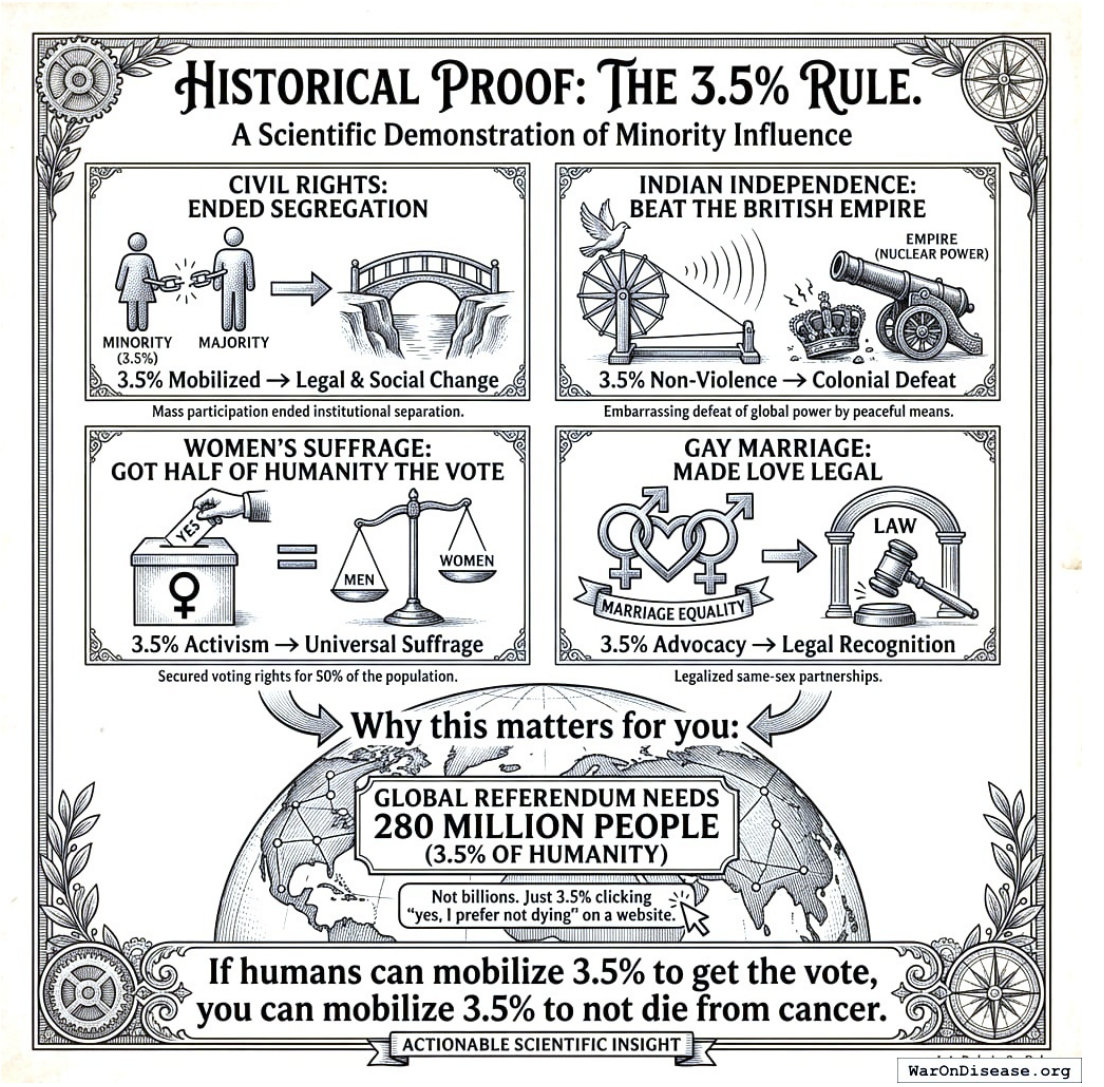


Figure 275: Gandhi's independence movement, civil rights, women's suffrage. All succeeded with 3.5 percent participation. You need 280 million people. That's still only 3.5 percent of Earth. Math keeps being encouraging.

You Have Advantages They Didn't

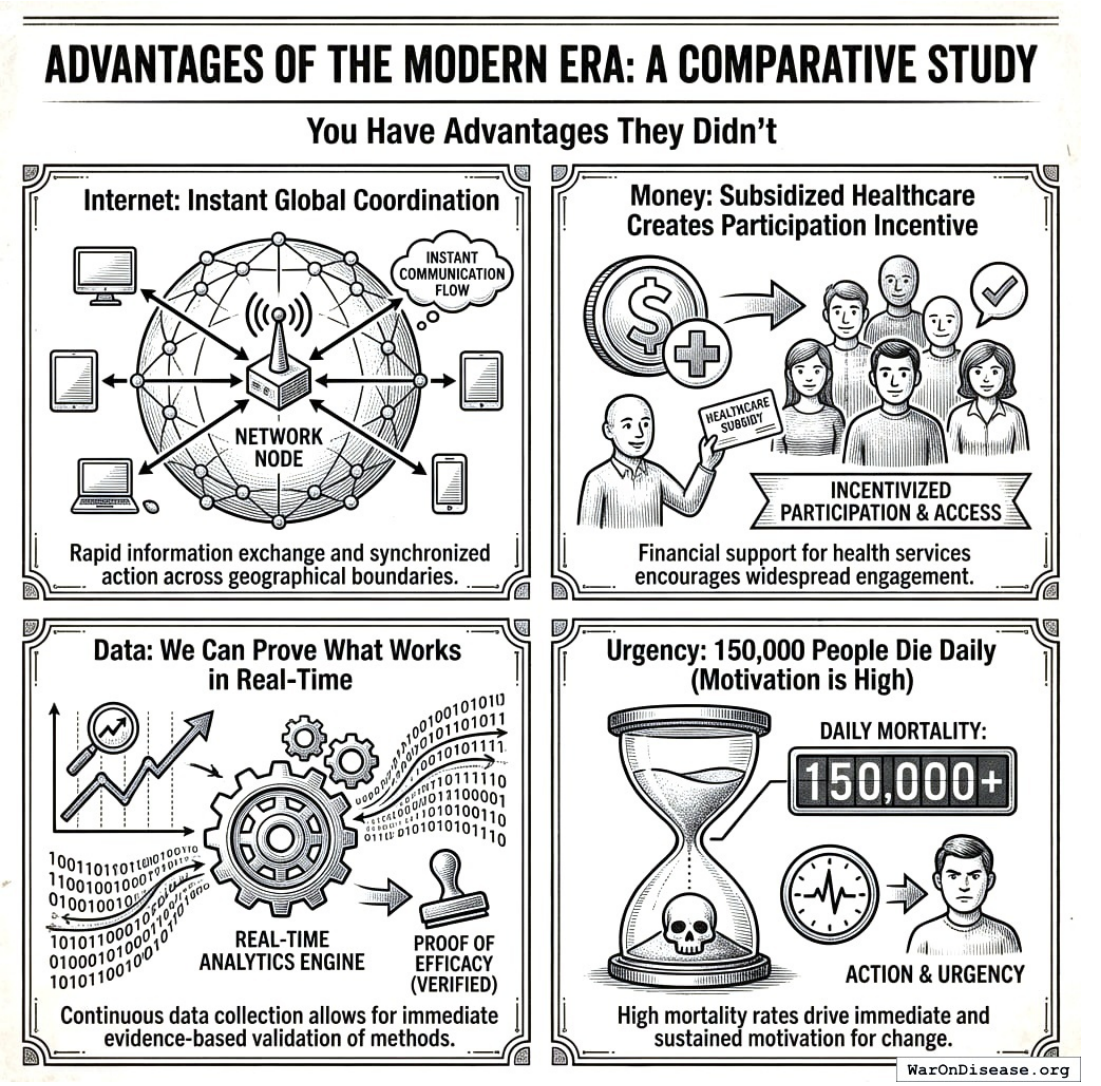


Figure 276: You have the internet now. And also 150,000 people die every day, which creates a certain sense of urgency. The landmine people didn't have either of those things. You're out of excuses.

- **Internet:** Instant global coordination
- **Money:** Subsidized healthcare creates participation incentive
- **Data:** You can prove what works in real-time
- **Urgency:** 150,000 people die daily[169] (motivation is high)

When Good Intentions Met Reality (And Lost)

Failures teach more than successes. Here's every mistake past movements made, so you can make exciting new ones instead.

Eisenhower's Warning: A 5-Star General Tried to Tell You

In 1961, President Dwight D. Eisenhower used his farewell address to warn you about something terrifying. He was a 5-star general. Supreme Allied Commander. The guy who beat the Nazis. Not exactly a hippie.

The warning: "We must guard against the military-industrial complex."

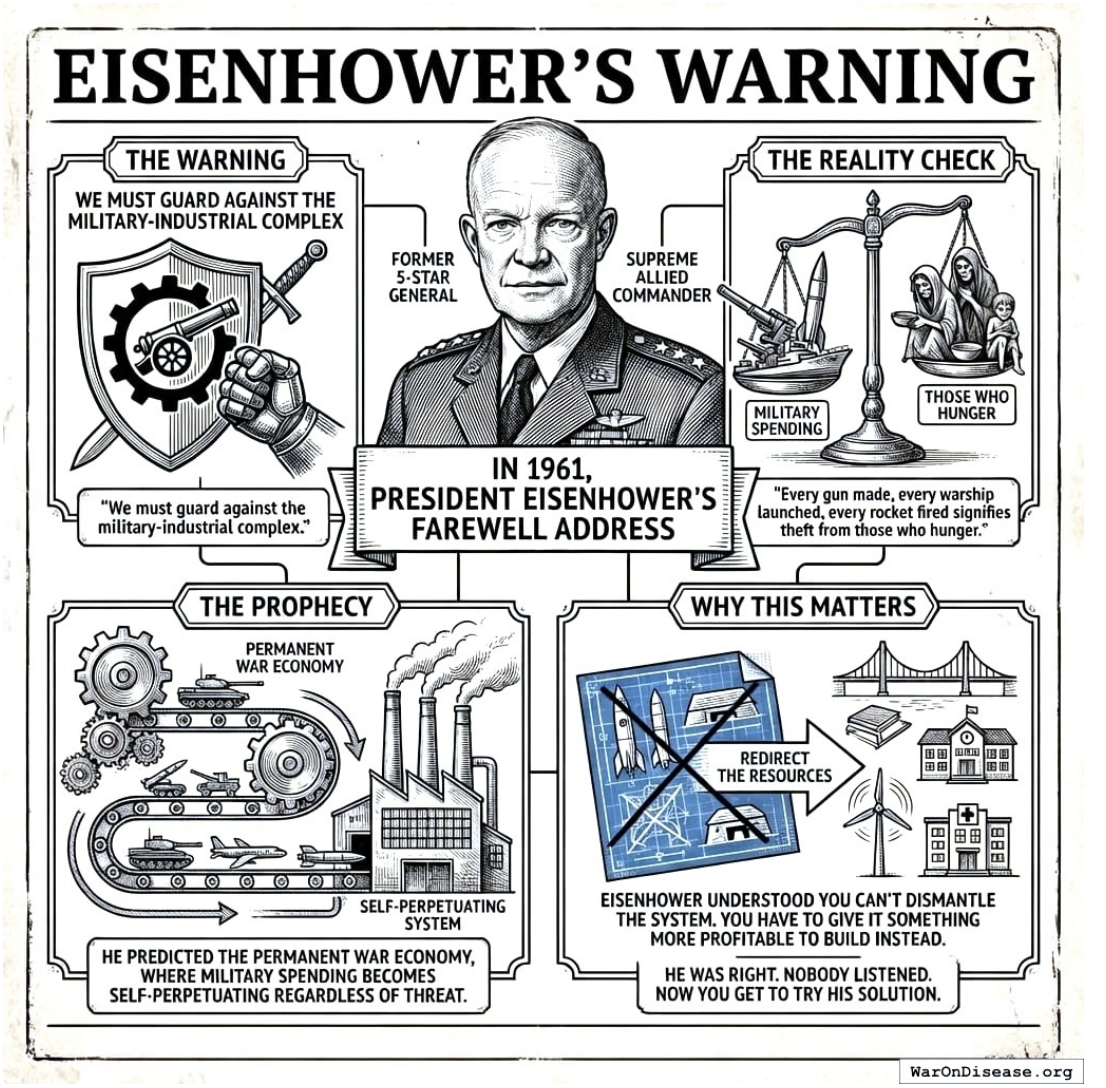


Figure 277: Every bomber built is a hospital not built, said the five-star general. Then everyone ignored him and built more bombers. He knew how these things go.

The reality check: "Every gun made, every warship launched, every rocket fired signifies theft from those who hunger."

The prophecy: He predicted the permanent war economy you're currently living in. Military spending becomes self-perpetuating regardless of whether anyone's actually threatening you.

Why this matters: Eisenhower understood you can't dismantle the system. You have to give it something more profitable to build. He was right. Nobody listened. You never do. Now

you get to try his solution: redirect the resources.

The Nuclear Freeze Movement: Millions of People, Zero Results

What happened: In the 1980s, a massive global movement[268] tried to freeze nuclear weapons production. Millions of protesters. Enormous popular support. Good vibes everywhere.

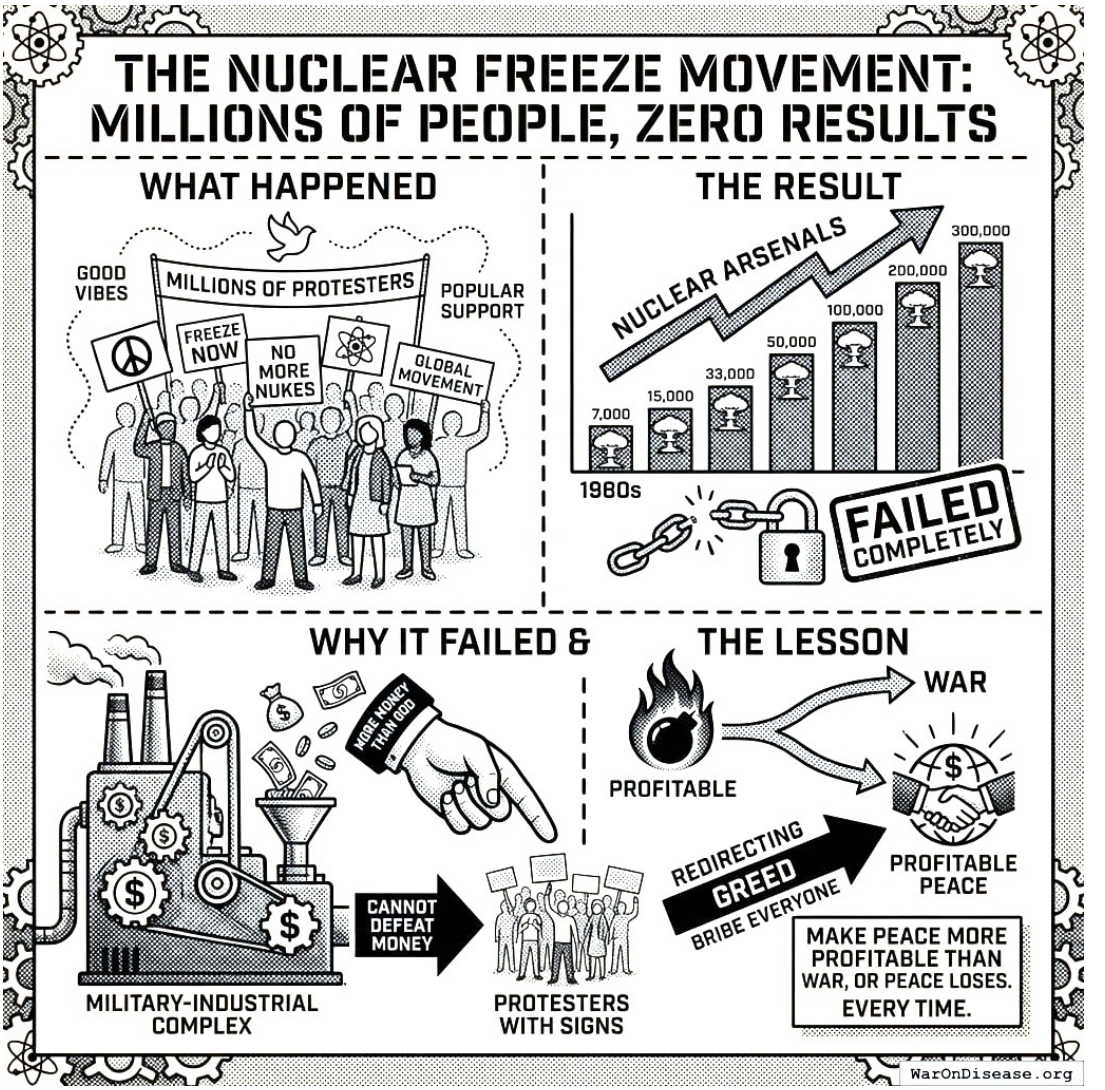


Figure 278: Asking defense contractors to be nice doesn't work. Offering them biotech profits does. Greed is easier to redirect than eliminate.

The result: Failed completely. Nuclear arsenals kept growing. The signs were very moving, though.

Why it failed: You cannot defeat money with good intentions. The military-industrial complex has more money than God, and protesters have signs. This is why a 1% treaty doesn't ask nicely; it bribes everyone into compliance. You're not fighting greed. You're redirecting it. Morality is lovely. Capitalism is faster.

The lesson: Make peace more profitable than war, or peace loses. Every single time. No exceptions. I checked.

Occupy Wall Street: When "We're Angry" Isn't a Strategy

What happened: In 2011, thousands occupied parks[269] to protest economic inequality. They changed the conversation! They raised awareness! They accomplished nothing permanent!

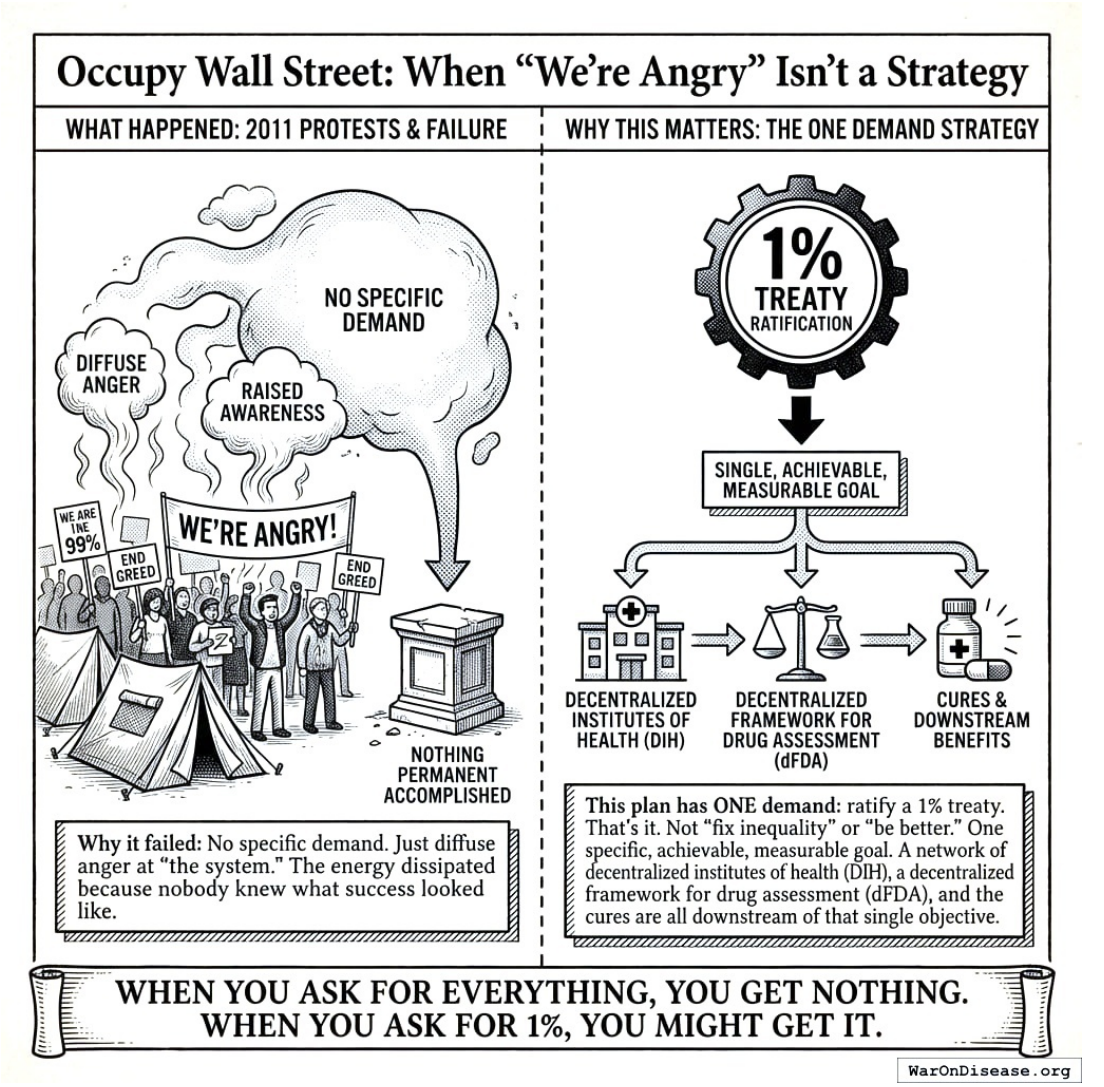


Figure 279: Occupy Wall Street had 50 demands and changed nothing. We have one demand. This is either much smarter or much sadder.

Why it failed: No specific demand. Just diffuse anger at "the system." The energy dissipated because nobody knew what success looked like.

Why this matters: This plan has ONE demand: ratify a 1% treaty. That's it. Not "fix inequality" or "be better." One specific, achievable, measurable goal. You want to change one number from 0 to 1. Ambition is inspiring, but subtraction is effective. A network of

decentralized institutes of health (DIH), a decentralized framework for drug assessment (dFDA), and the cures are all downstream of that single objective.

When you ask for everything, you get nothing. When you ask for 1%, you might get it.

On How Rich People Made Money Doing Crazy Things (And Why That Matters)

You need investment terms that don't sound insane to people with money. Fortunately, rich people have always done insane things with money. You just need to make this the least insane option.

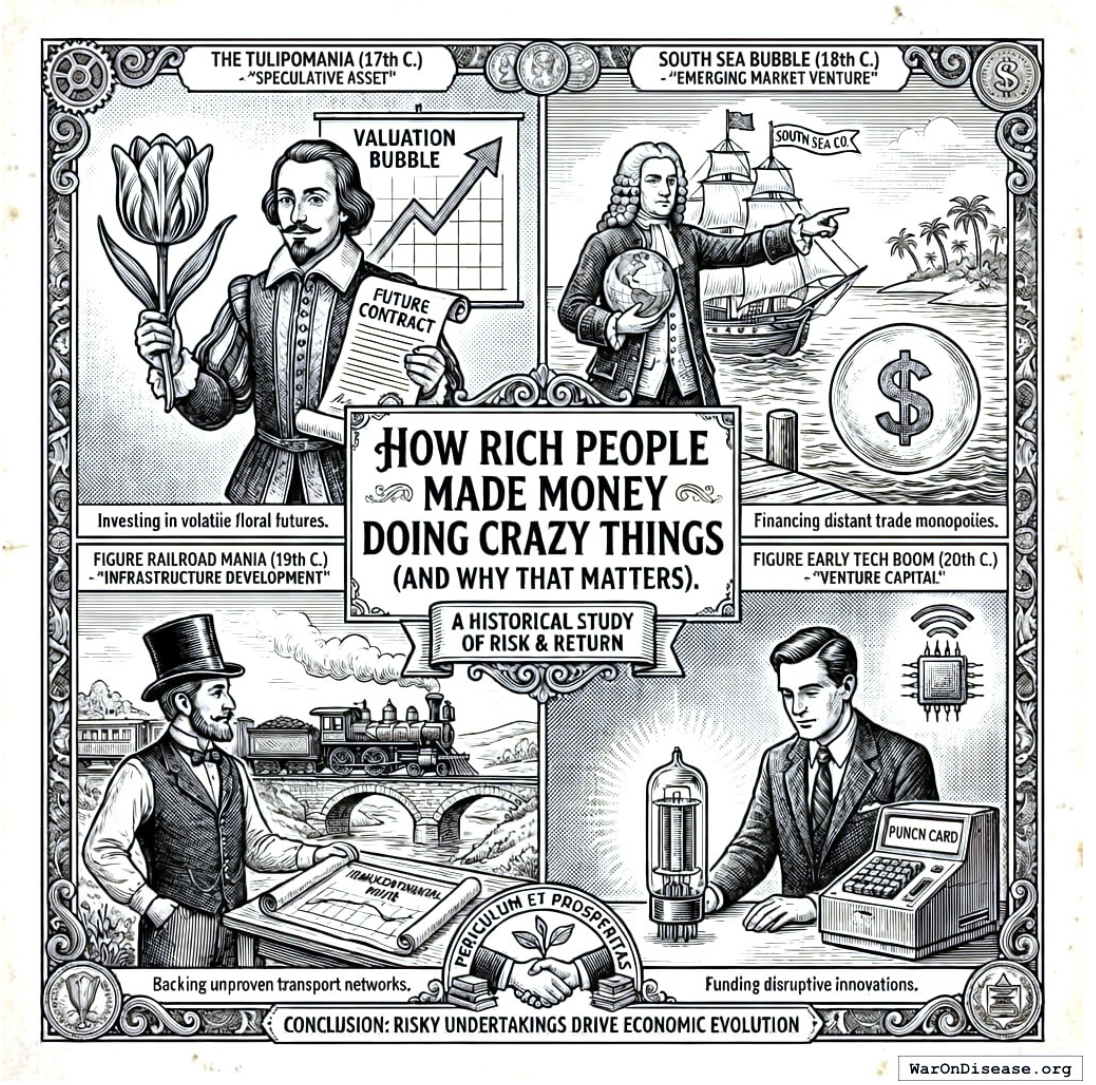


Figure 280: Investing in ending war sounds crazy until you remember people invested in pet rocks and Beanie Babies. At least this one might work.

On The Time Junk Bonds Saved Capitalism

Michael Milken & High-Yield ("Junk") Bonds

In the 1980s, a guy named Michael Milken figured out something revolutionary: if you offer people high enough returns, they'll invest in almost anything[270].

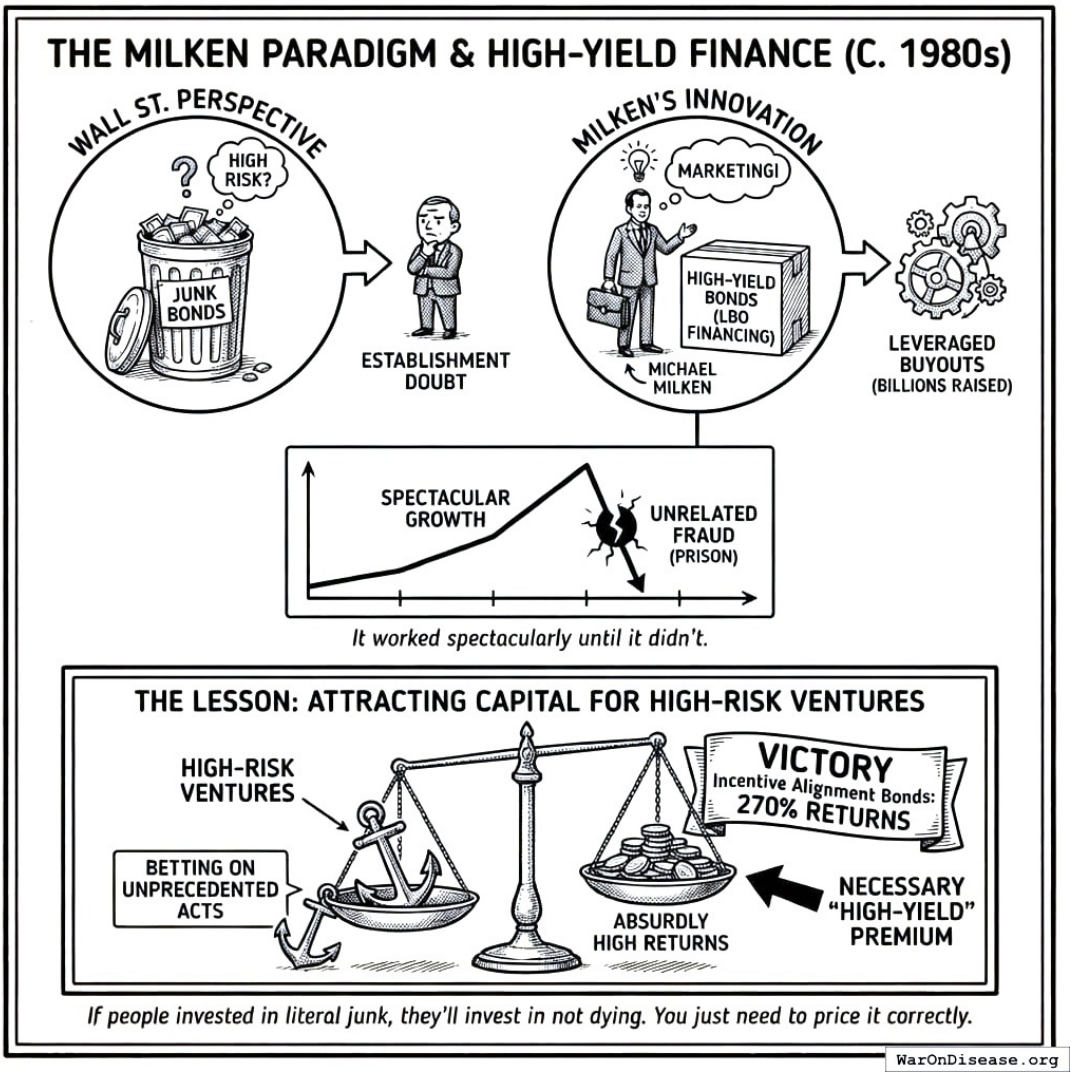


Figure 281: Safe bonds pay 3 percent. Risky bonds pay 8 percent. World peace bonds pay 12 percent. Turns out you can put a price on everything, including virtue.

Wall Street called these "junk bonds" because they were trash. Milken called them "high-yield bonds" because marketing. He financed leveraged buyouts that the establishment said were impossible. He raised billions.

The establishment said it would never work. It worked spectacularly until it didn't (Milken went to prison for unrelated fraud, which is how you know it was successful).

The Lesson: To attract capital for high-risk ventures, you must offer absurdly high returns. VICTORY Incentive Alignment Bonds promise 272% returns. This isn't generosity,

it's economics. It's the "high-yield" premium necessary to compensate for betting on the unprecedented act of governments doing something smart.

If people invested in literal junk, they'll invest in not dying. You just need to price it correctly.

On The Time George Soros Broke England

George Soros & The Quantum Fund

In 1992, George Soros risked $10 billion betting that the UK would have to leave the European Exchange Rate Mechanism[271].

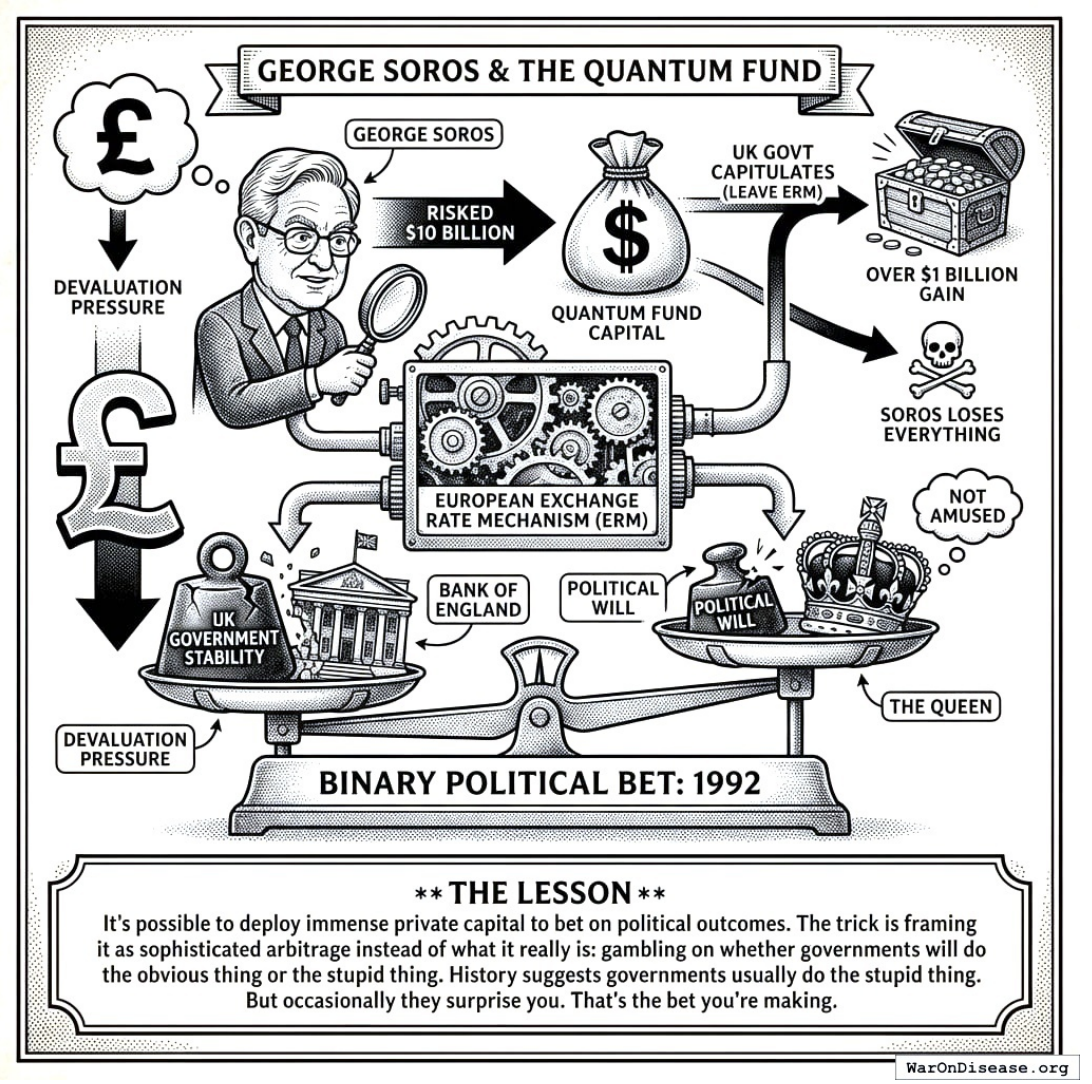


Figure 282: A diagram illustrating the binary outcomes of Soros's high-stakes bet against the British Pound, showing the tension between private capital and government policy decisions.

This was a binary political bet: Either the UK government capitulates, or Soros loses everything.

He won. Made over $1 billion in a single day. The Bank of England lost. The Queen was reportedly not amused. (She had her own money problems, being the Queen.)

The Lesson: You can deploy immense private capital to bet on political outcomes. The trick is framing it as sophisticated arbitrage. What it really is: gambling on whether governments will do the obvious thing or the stupid thing.

History suggests governments usually do the stupid thing. But occasionally, when you make the smart thing profitable enough, they surprise you. That's the bet.

On When Smart People Lost All Their Money (The Cautionary Tales)

Long-Term Capital Management (LTCM): When Nobel Laureates Get Humbled

In 1998, a hedge fund run by actual Nobel Prize winners collapsed. It required a $3.6 billion bailout[272].

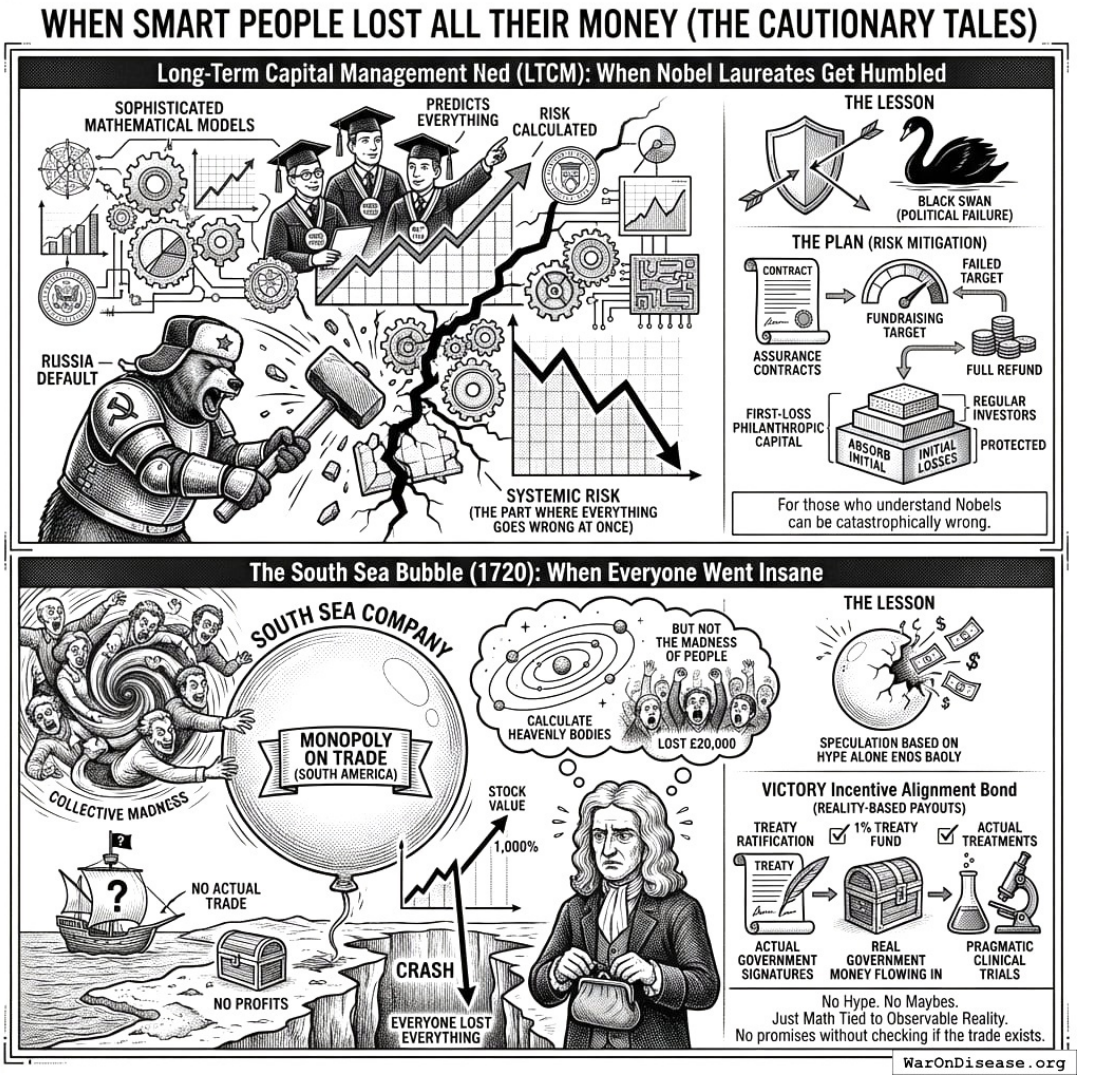


Figure 283: Past financial disasters: no safeguards, pure chaos, everyone loses. This plan: many safeguards, organized chaos, probably fine. Progress is incremental.

Their crime? Building sophisticated mathematical models that accounted for everything except the part where Russia just… defaults. Whoops.

These were the smartest people in finance. Nobels. PhDs from MIT. Models that predicted everything except reality, which is the one thing models need to predict.

The Lesson: Never underestimate systemic risk, also known as "the part where everything goes wrong at once."

For this project, the "black swan" is complete political failure. Everyone says no, the treaty dies, and you look stupid.

This is why the plan includes:

- **Assurance contracts**: Miss the fundraising target? Everyone gets their money back. No partial failures allowed.
- **First-loss philanthropic capital**: Rich altruists absorb the initial losses so regular investors don't get wiped out if things go sideways.

It's risk mitigation for people who understand that Nobel laureates can still be catastrophically wrong.

The South Sea Bubble (1720): When Everyone Went Insane

In 1720, people in England went collectively mad. They invested in a company that promised a monopoly on trade with South America[273].

Neat! Except the company had almost no actual trade. And no profits. And no business plan beyond "tell people we're going to be really rich."

The stock went up 1,000%. Then it crashed. Everyone lost everything. Isaac Newton lost £20,000 (in today's money, "a lot"). He famously said "I can calculate the motion of heavenly bodies, but not the madness of people."

The Lesson: Speculation based on hype alone ends badly.

This is why VICTORY Incentive Alignment Bond payouts are contractually tied to real, verifiable events:

- Treaty ratification (actual government signatures)
- Real government money flowing into the 1% Treaty Fund
- Actual treatments being tested in pragmatic clinical trials

No hype. No maybes. No "we're going to be really rich someday." Just math tied to observable reality.

If you're going to lose your money, at least it won't be because the plan promised a monopoly on South American trade without checking if South America exists.

The Ultimate Failsafe: The Worst-Case Scenario is Still a Win

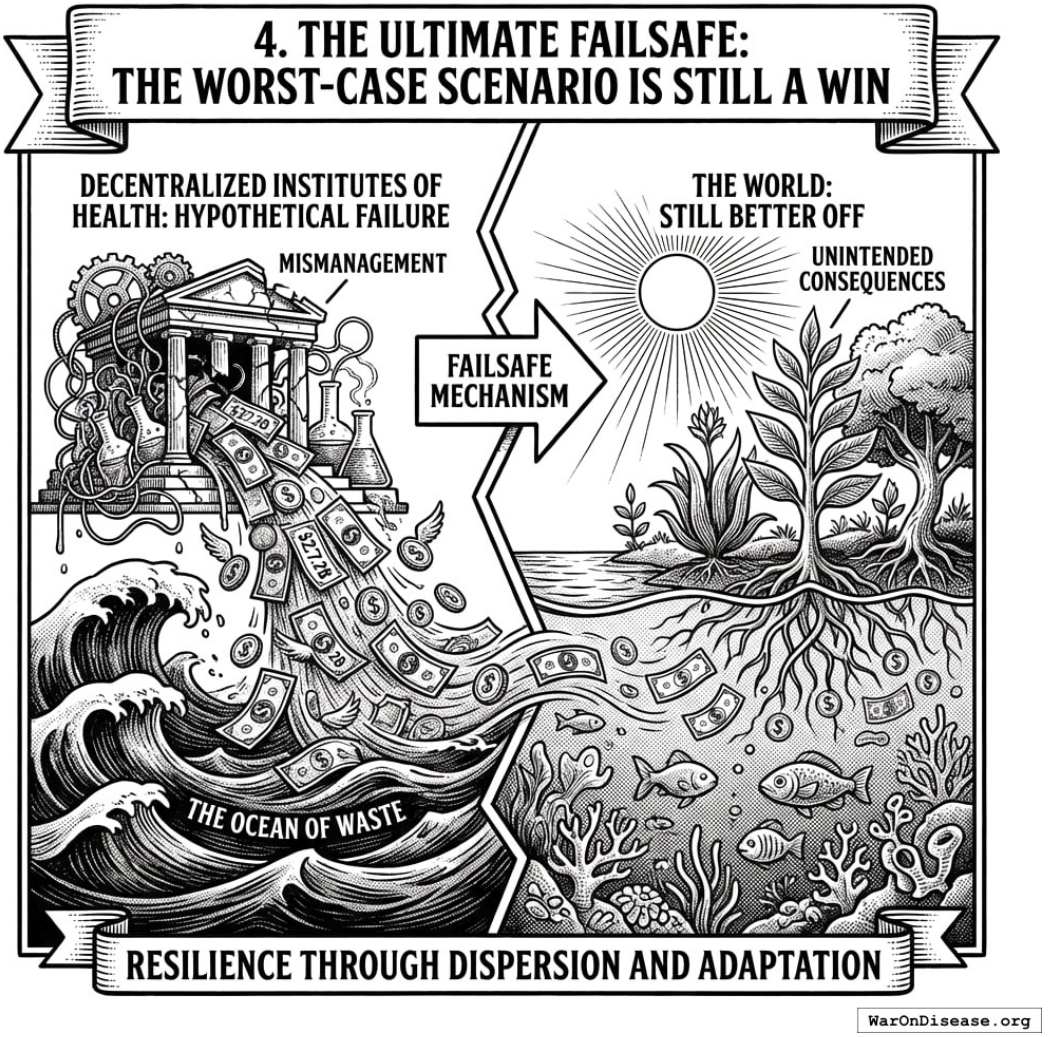


Figure 284: Worst case: we reduce global weaponry slightly and waste some money on science. Current case: mountains of bombs and no cancer cure. Hard choice.

Imagine every dollar of the $27.2B is mismanaged, wasted, or dumped into the ocean. The world would *still* be better off, because you'd still have a **1% reduction in the global capacity for organized violence**. Fewer bombs, fewer missiles, fewer AI-powered weapons systems.

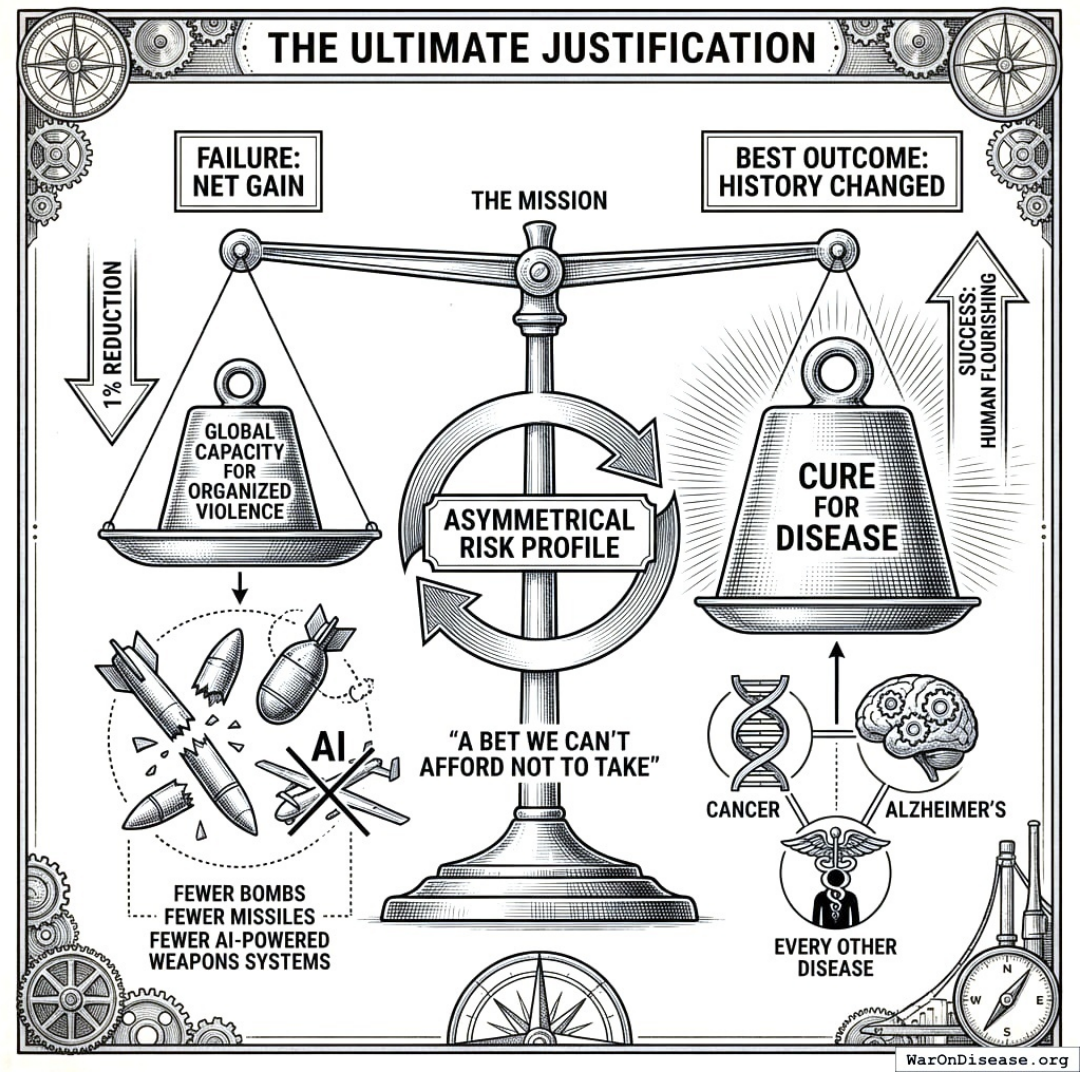


Figure 285: If this fails, we have fewer bombs. If it succeeds, we cure death. These are not symmetrical risks, but we treat them like they are.

The worst outcome is still a net gain. The best outcome cures your cancer and your grandmother's Alzheimer's. Failure is still a victory. Success changes the course of human history. It's a bet you can't afford not to take.

How a dFDA Would Compare to History's Best Health Interventions

Intervention	ROI (per $1)	Cost per QALY	QALYs per $1M
Decentralized drug assessment	84.8M:1	Dominant (cost-saving)	5,000-90,000+
Smallpox Eradication	159:1 to 400:1[89]	Dominant	10,000+

Intervention	ROI (per $1)	Cost per QALY	QALYs per $1M
Childhood Vaccination (US)	10:1 to 16:1[8]	Dominant	1,000-10,000
Clean Water & Sanitation	4:1 to 21:1[129]	Dominant	1,000-10,000
Tobacco Control	20:1 to 1,057:1[274]	Dominant	1,000-10,000

A decentralized drug assessment framework projects higher ROI than any single health intervention in history. That includes smallpox eradication, which is widely considered the best thing humanity ever did on purpose. The difference: this accelerates the entire R&D ecosystem rather than targeting one disease. It's the difference between fixing one pothole and repaving the road.

You Are a Meat Robot

Your body is a machine. A ridiculously complex, self-repairing, 4-billion-year-old biological machine, but a machine nonetheless. Blueprint: DNA. Parts that wear out: organs. Required maintenance: medicine. Owner's manual: recently discovered in a drawer you hadn't opened for 200,000 years.

You've only had the service manual for about 20 years. Before that, you were just shaking it and hoping.

Death is a Technical Problem

Every religion and philosopher has sold you the same story: death is natural and inevitable. Very comforting. Also wrong.

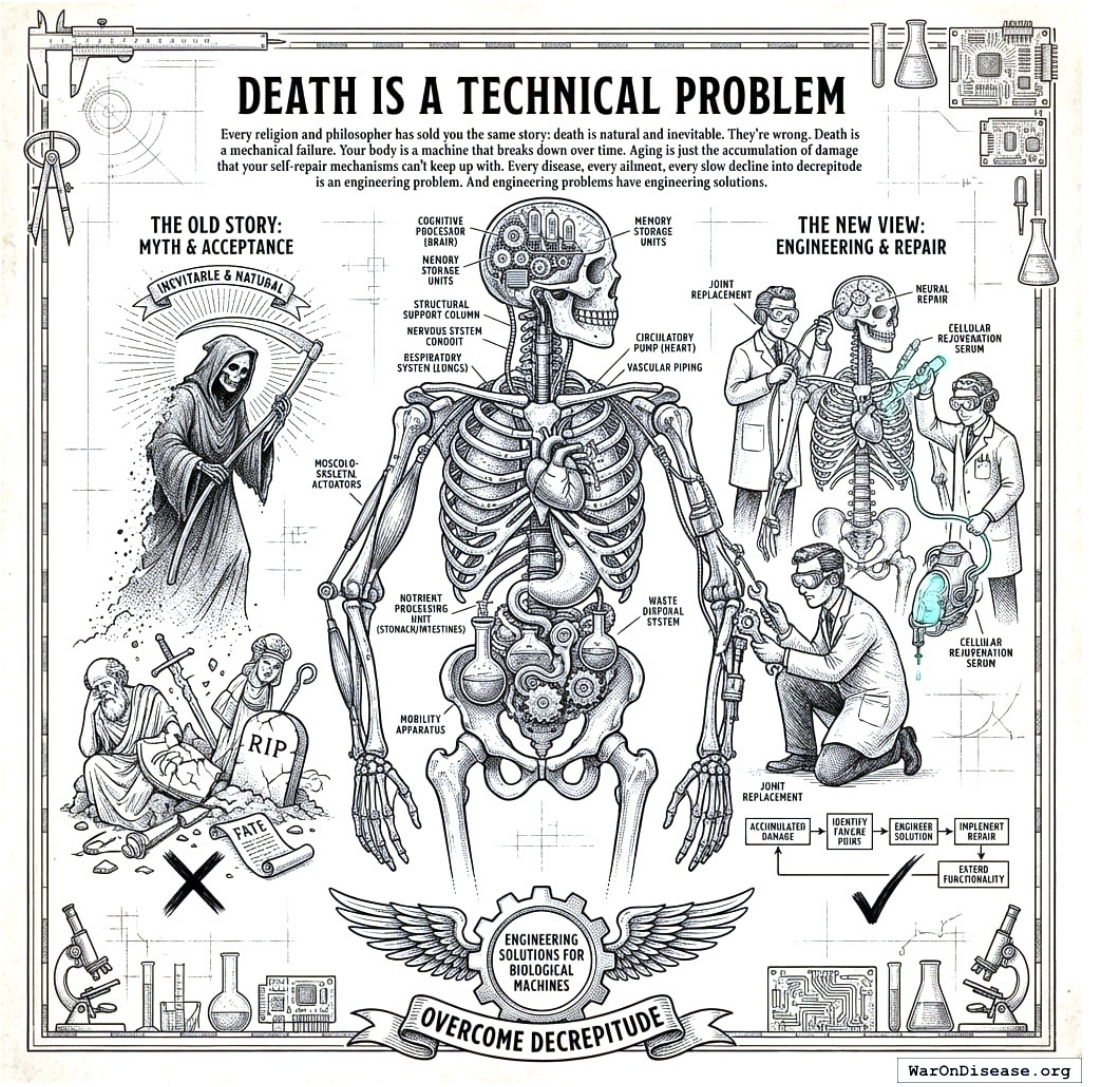


Figure 286: Your body fixes itself constantly. When the damage happens faster than the fixes, you call it aging. When it stops happening at all, you call it dying.

Death is a mechanical failure. Your body breaks down over time. Aging is damage accumulating faster than your self-repair mechanisms can fix it. Every disease, every ailment, every slow decline into decrepitude is an engineering problem. Engineering problems have engineering solutions. You just keep filing them under "philosophy" instead.

You Are a Self-Repairing Meat Robot

Your DNA is 3 billion letters of code[53]. Not "like" code. It *is* code. You've learned to read it (the Human Genome Project) and you're learning to edit it (CRISPR). You are mechanics who finally found the service manual under the seat.

Every day, your body proves it's a machine by running a maintenance routine that would make a German car engineer weep with joy:

- You replace 330 billion cells daily[275].

- You repair 10,000 DNA damage events in every cell, every day[275].
- You rebuild your entire skeleton every 10 years[275].

You are not a static object. You are a pattern that persists while matter flows through you. A machine constantly rebuilding itself. Aging is the rebuilding process starting to cut corners. You are literally falling apart at the molecular level, all the time, right now, while reading this sentence. It's like being a sandcastle at high tide, except slower and with more paperwork.

You've Already Started Fixing the Machine

Exhibit A: You Can Grow New Parts

A kid in Michigan has a 3D-printed windpipe[276] keeping him alive. You print custom titanium skulls and jaws. You grow bladders and blood vessels in labs and install them in humans.

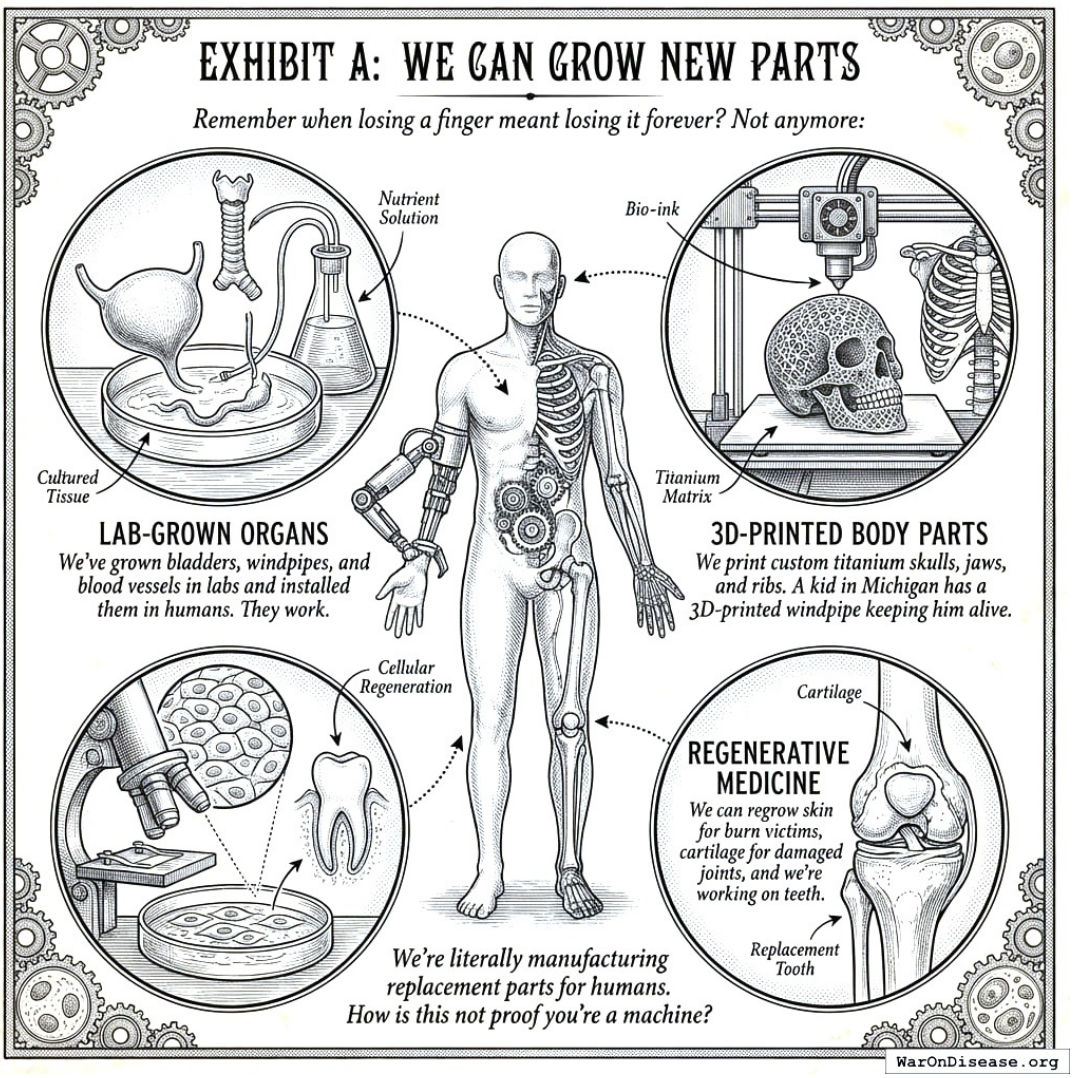


Figure 287: Titanium skull. Printed windpipe. Lab-grown bladder. You're already a cyborg, just made of disappointing organic materials instead of cool robot parts.

You're manufacturing replacement parts for humans. On a printer. The same technology you use to make novelty phone cases, you're using to make throats. If that doesn't prove you're a machine, I genuinely don't know what would.

Exhibit B: You Can Reprogram Your Cells

In 2006, Shinya Yamanaka figured out how to turn adult cells back into stem cells[277]. Any cell. From anywhere in your body. Back to factory settings.

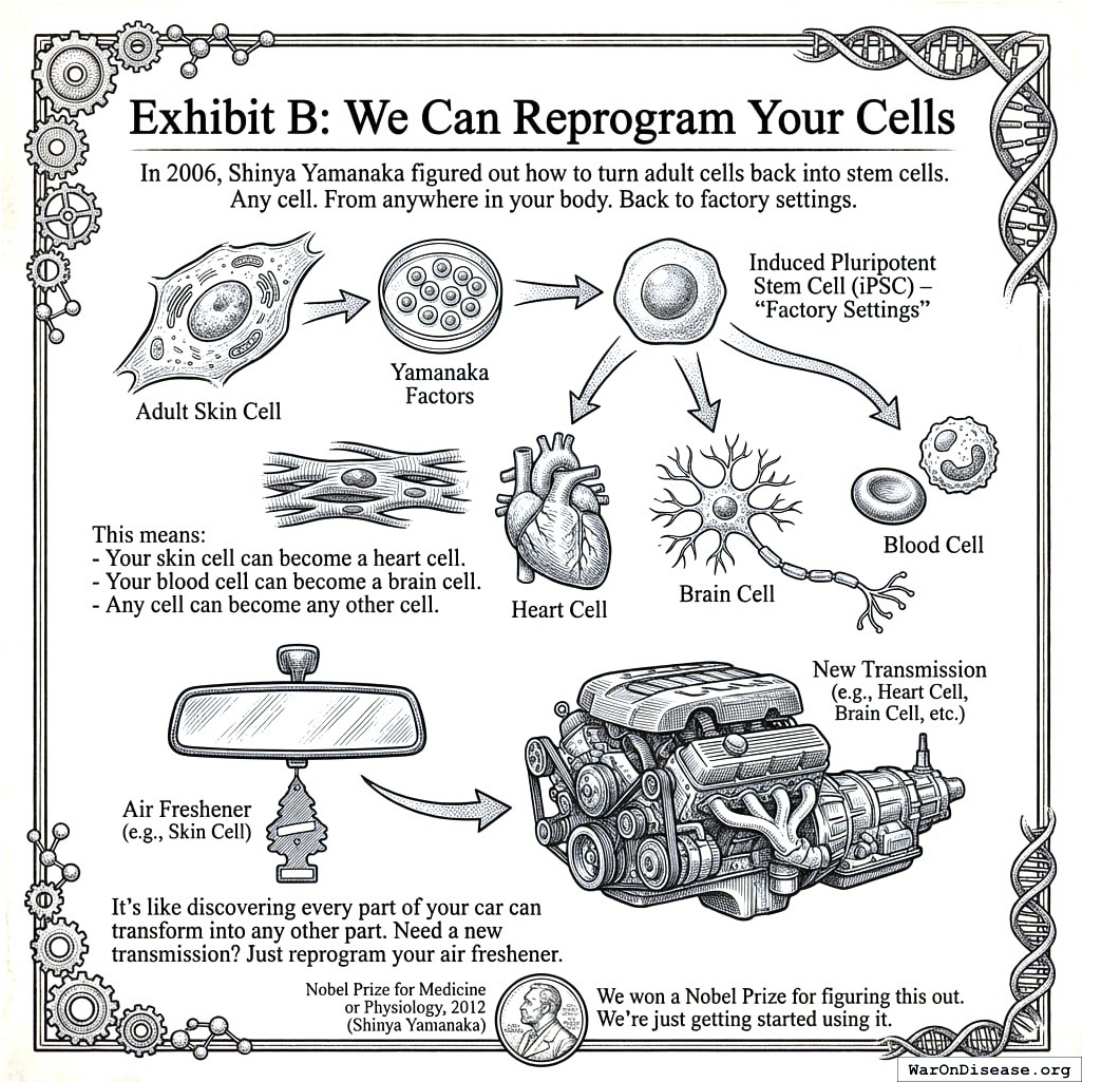


Figure 288: Take an adult cell. Convince it to forget what it is. Turn it into a baby cell. Tell it to become something else. This works. Biology is drunk.

This means:

- Your skin cell can become a heart cell
- Your blood cell can become a brain cell
- Any cell can become any other cell

It's like discovering every part of your car can transform into any other part. Need a new transmission? Just reprogram your air freshener.

You won a Nobel Prize[277] for figuring this out. Then went back to mostly not using it.

Exhibit C: You're Debugging Your Code

Gene therapy is literally debugging human software:

- **Luxturna**[278] (2017): Fixes blindness caused by mutated RPE65 gene. One injection. Sight restored.
- **Zolgensma**[278] (2019): Fixes spinal muscular atrophy. Babies who would die before age 2 now walk.
- **CAR-T therapy**[278] (2017): Reprograms your immune system to hunt cancer. Complete remission in "incurable" cases.

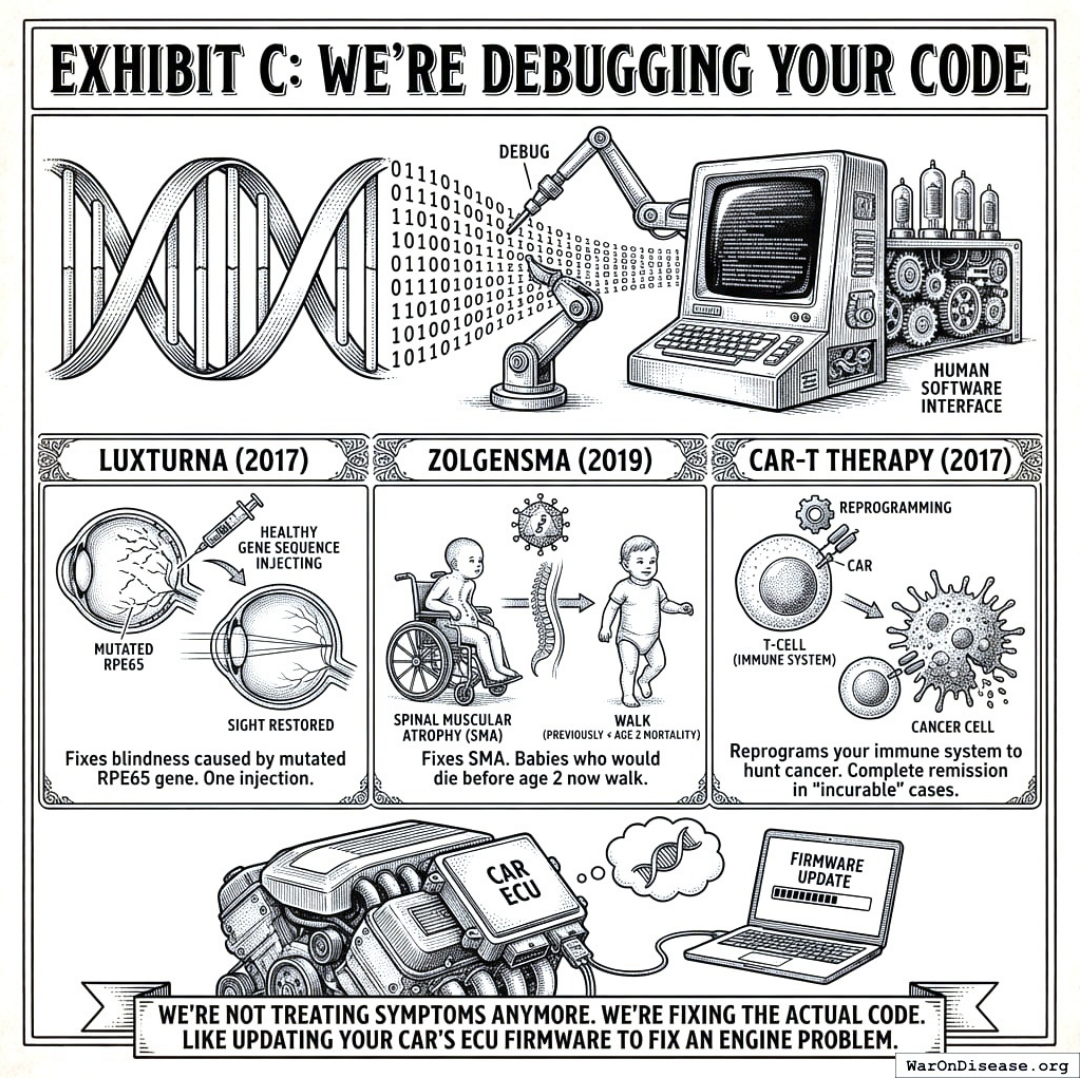


Figure 289: Old medicine: your leg hurts, here's a painkiller. New medicine: your DNA has a typo on line 4,582, let me fix that. One of these actually solves problems.

You're not treating symptoms anymore. You're fixing the actual code. Like finding a typo in a recipe that's been making the cake explode, and just… correcting the typo.

The Car Restoration Analogy

Think of your body as a classic car. You already know how to fix or replace many of the parts:

- **Joints:** Like worn brake pads, you can replace them.
- **Arteries:** Like clogged fuel lines, you can clear them with stents.
- **Hearts:** Like a dead battery, you can transplant them.

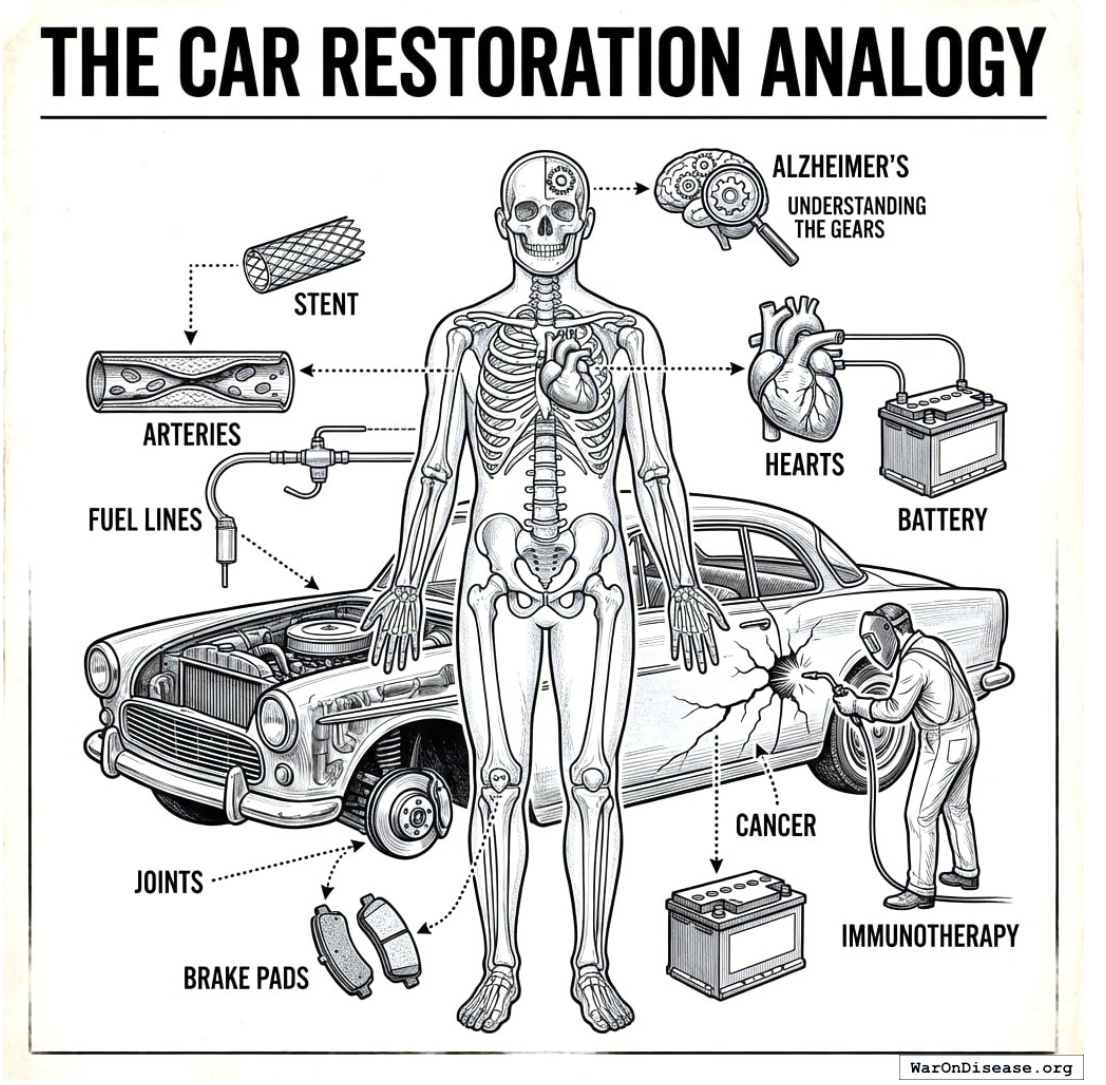


Figure 290: Your body is like a 1987 Honda Civic. The diabetes is the carburetor. The arthritis is the suspension. Nobody knows where the check engine light is.

You're making progress on the harder stuff, too. Cancer is like frame damage, and immunotherapy is your new welding torch. Alzheimer's is a bad transmission, and you're finally starting to understand the gears.

Why Death is Just Deferred Maintenance

When a classic car "dies," what really happened?

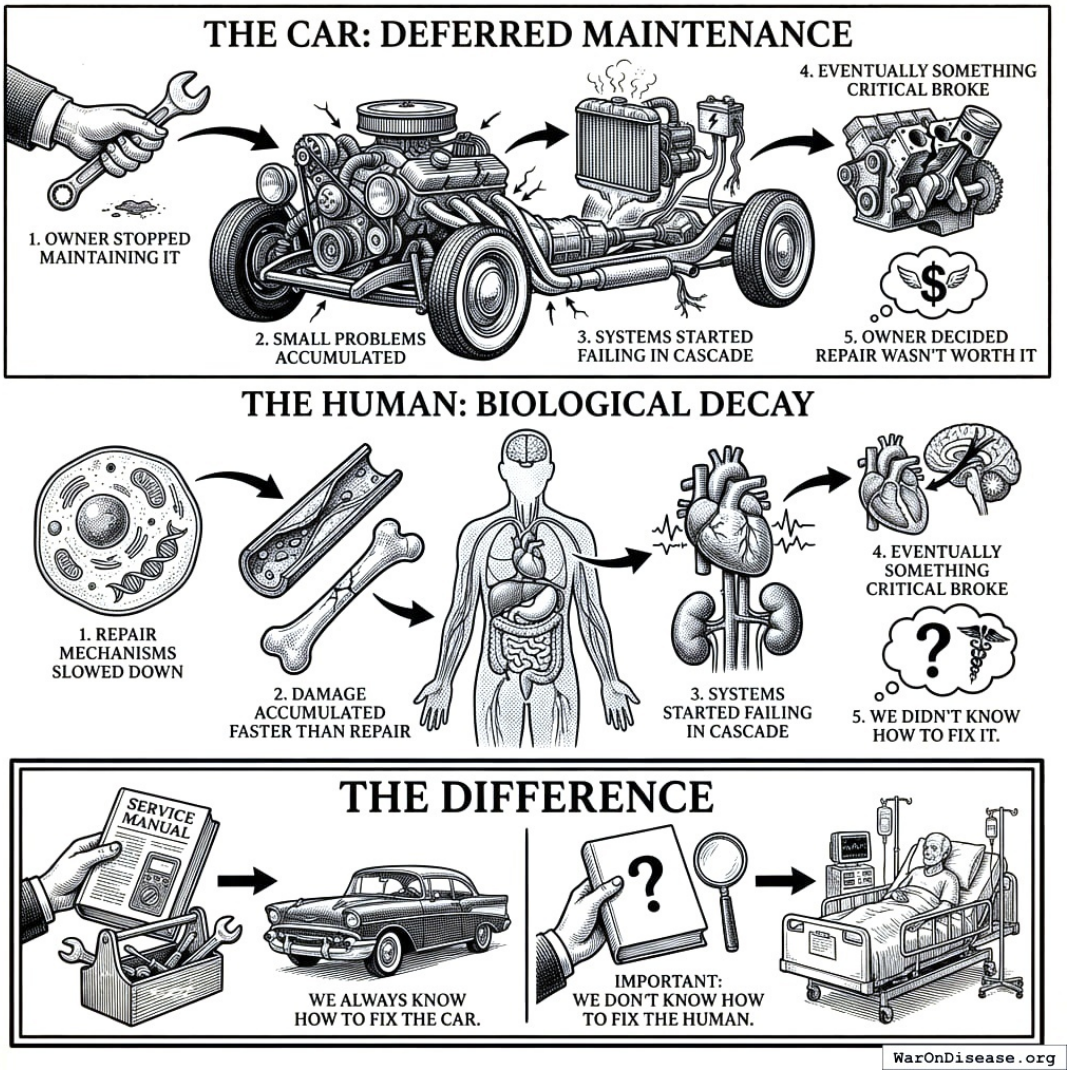


Figure 291: Watching a classic car and a human body fall apart in parallel. Both start making weird noises around 50,000 miles. Both eventually refuse to start.

1. Owner stopped maintaining it
2. Small problems accumulated
3. Systems started failing in cascade
4. Eventually something critical broke
5. Owner decided repair wasn't worth it

When a human dies of "old age," what really happened?

1. Repair mechanisms slowed down
2. Damage accumulated faster than repair
3. Systems started failing in cascade
4. Eventually something critical broke

5. You didn't know how to fix it

The only difference: You always know how to fix the car.

The Proof That Aging is Reversible

Nature Already Does It

- **Planarian worms**: Cut one in half, get two worms. Both younger than the original[279].
- **Naked mole rats**: Live 10x longer than similar-sized mammals. Don't get cancer[279].
- **Bowhead whales**: Live 200+ years with no signs of age-related disease[279].
- **Hydra**: Biologically immortal[279].

If aging was mandatory, these creatures couldn't exist. Nature solved aging. You just need to steal the answer. You're good at stealing things. You've had empires.

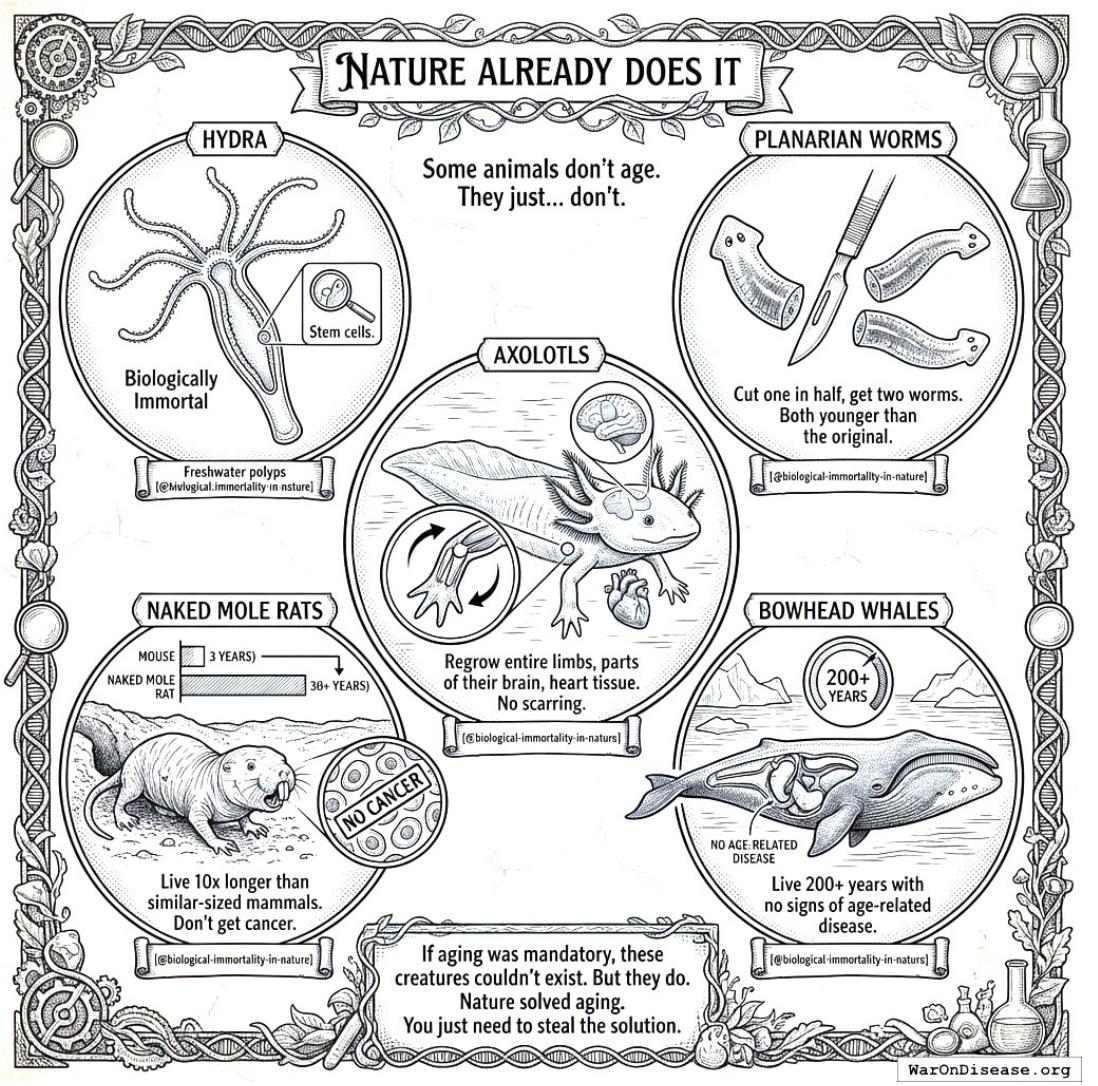


Figure 292: Animals that figured out how not to die. The bowhead whale lives 200 years. The naked mole rat lives ten times longer than it should. You invented the hamburger.

You've Already Reversed Aging (In Mice... and Human Cells)

You've done it[280]:

- **109% lifespan extension** in aged mice
- **30-year epigenetic age reversal** in human skin cells
- **Vision restored** in blind mice; not slowed, *reversed*
- **Six chemical cocktails** discovered that reverse aging without genetic modification

Like running System Restore on Windows, but for meat. And unlike System Restore on Windows, it actually works. Now you have chemical alternatives that don't require gene therapy. Just pills.

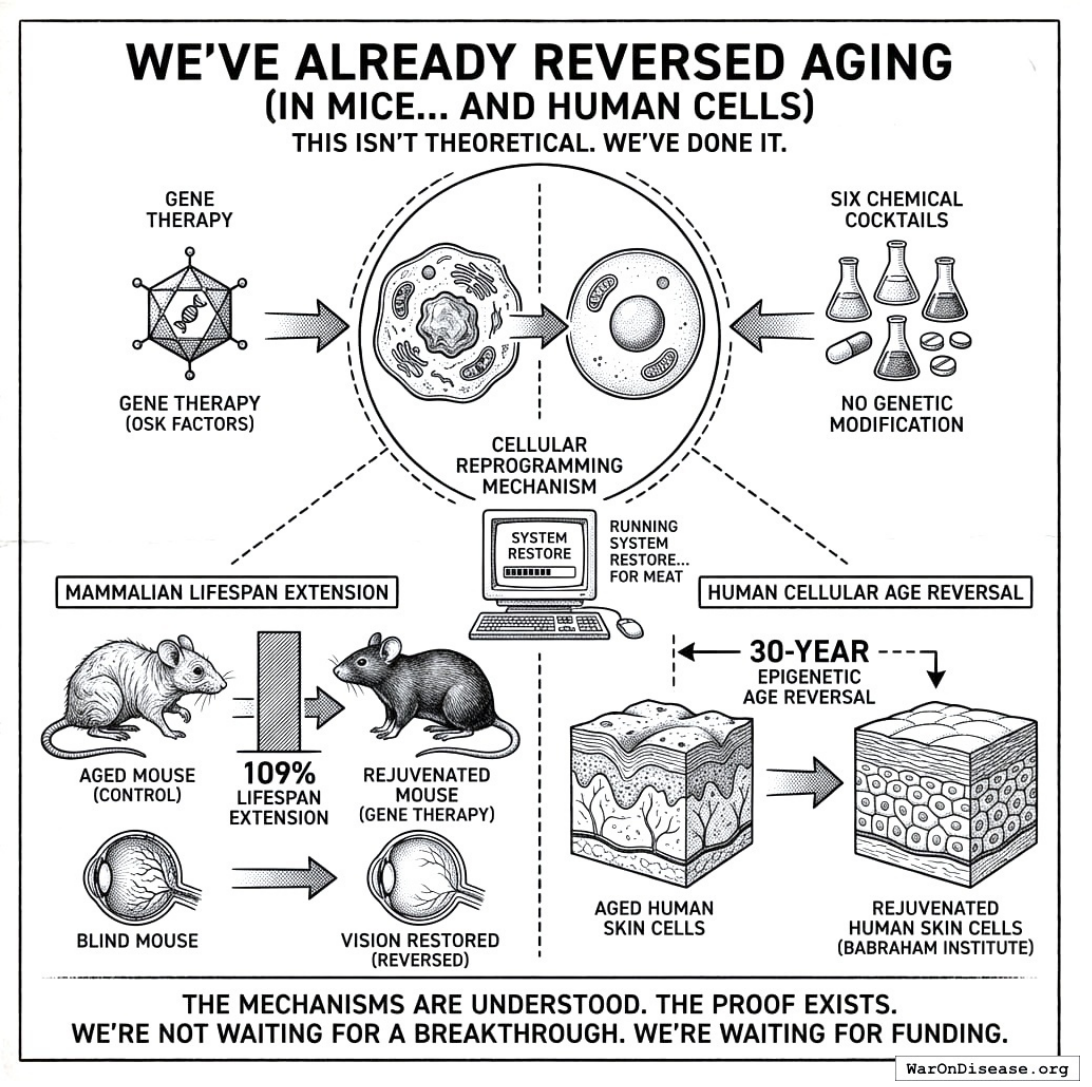


Figure 293: Scientists made mice live twice as long and turned old skin cells into young ones. You spend the same amount of money on fighter jets every six hours.

The mechanisms are understood. You're not waiting for a breakthrough. You're waiting for funding.

The Hallmarks of Aging (All Fixable)

Scientists identified nine "hallmarks of aging."[281] Every one is a mechanical problem with a mechanical solution:

1. **Genomic instability** → Gene editing (CRISPR)
2. **Telomere shortening** → Telomerase activation
3. **Epigenetic alterations** → Cellular reprogramming
4. **Protein dysfunction** → Autophagy enhancement
5. **Nutrient sensing** → Metabolic manipulation
6. **Mitochondrial dysfunction** → Mitochondrial replacement
7. **Cellular senescence** → Senolytic drugs
8. **Stem cell exhaustion** → Stem cell therapy
9. **Altered communication** → System recalibration

Nine problems. Nine solutions. You're not waiting for magic. You're working through a checklist. You love checklists.

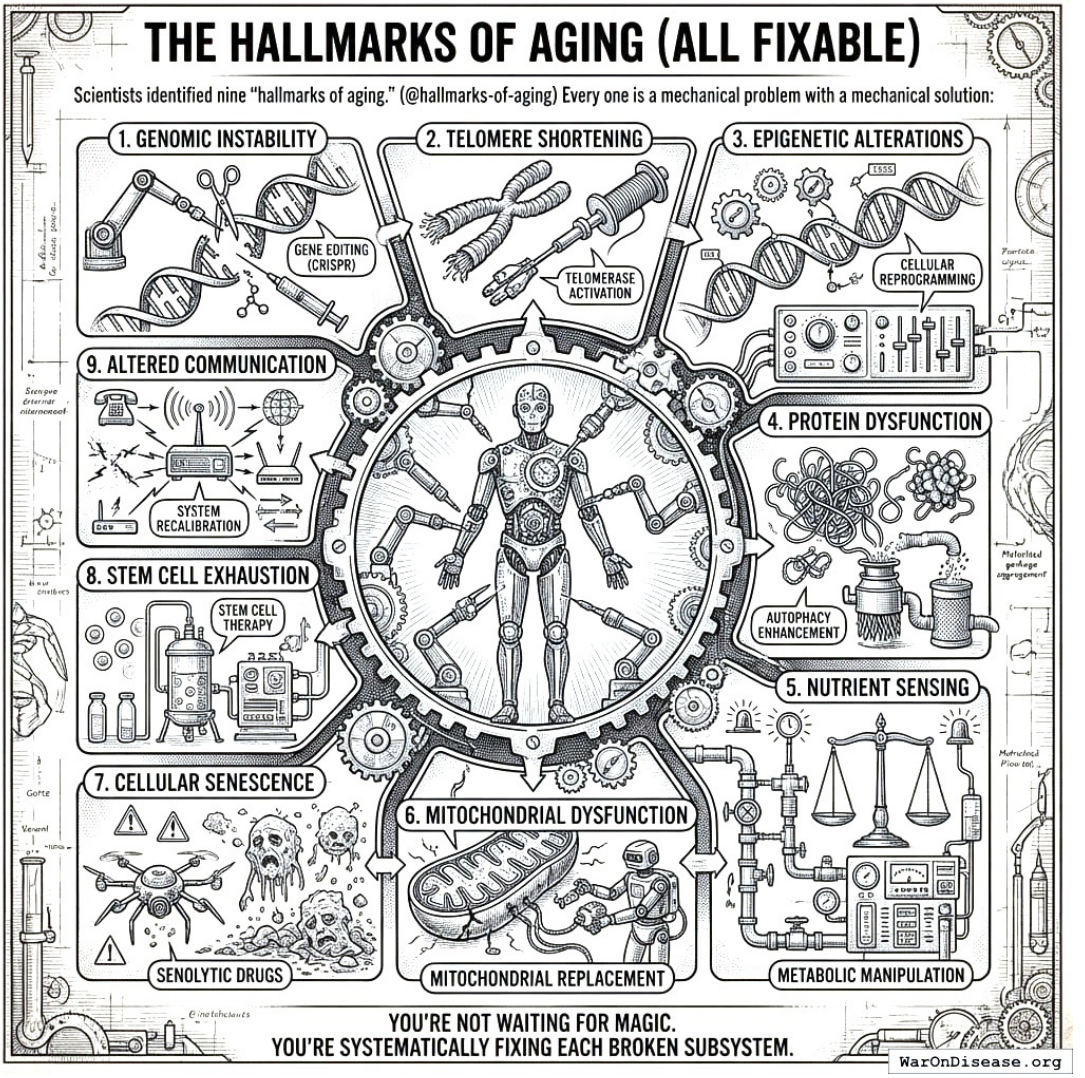


Figure 294: Nine ways your body breaks down, nine ways to fix them. Like a repair manual for humans. You'd rather wing it.

Why You Haven't Been Fixed Yet (It's Just Money)

The Manhattan Project for Not Dying

The Manhattan Project cost $28 billion (adjusted for inflation)[282] and took 3 years. Result: nuclear weapons. You moved fast when the goal was killing 200,000 people in an afternoon.

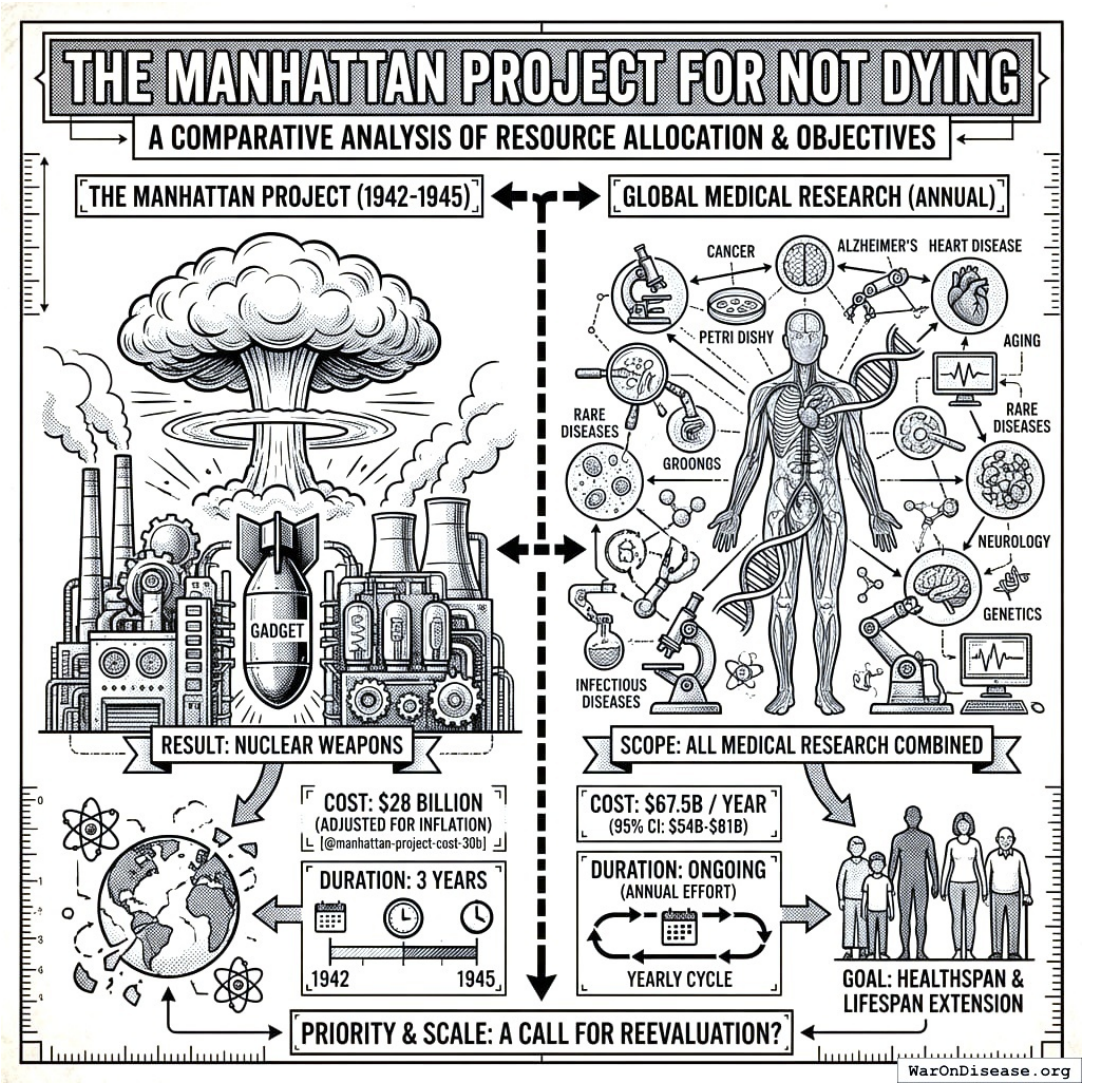


Figure 295: You spent 28 billion dollars to invent the atomic bomb. You spend 67.5 billion per year trying not to die of cancer. The bomb took three years. Cancer is still winning.

You spend $67.5B per year globally on all medical research combined. For everything. Cancer, Alzheimer's, heart disease, aging, rare diseases. Everything. That's your entire "not dying" budget.

The Economics of Mortality

Here's why you're still dying:

- Pharmaceutical companies make money treating disease, not curing it (a cured patient is a lost subscriber)
- Insurance companies profit from the current system
- Military contractors have better lobbyists than dying people (dying people are busy dying)
- Your car mechanic has better diagnostic tools than your doctor

A 1% treaty fixes this by making cures more profitable than treatments.

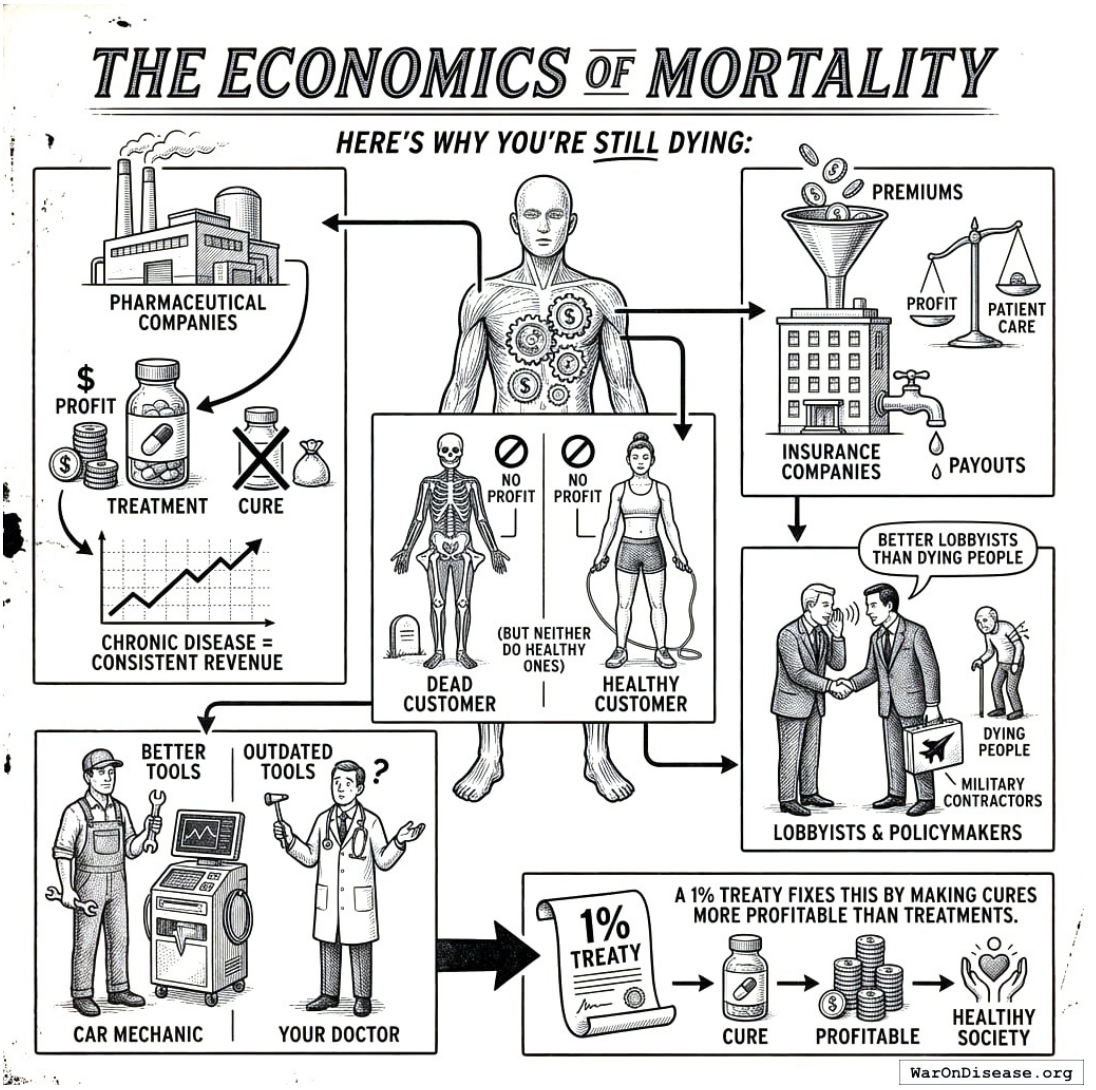


Figure 296: Drug companies make money by keeping you sick. Under the treaty, they'd make money by making you not sick. It's the same people, just pointing them in a different direction.

The Conclusion

Your body is not a mystical entity. It is a machine. Every disease is a broken part. Every death is a mechanical failure you didn't fix in time. This is not a metaphor. This is literally what is happening to you right now.

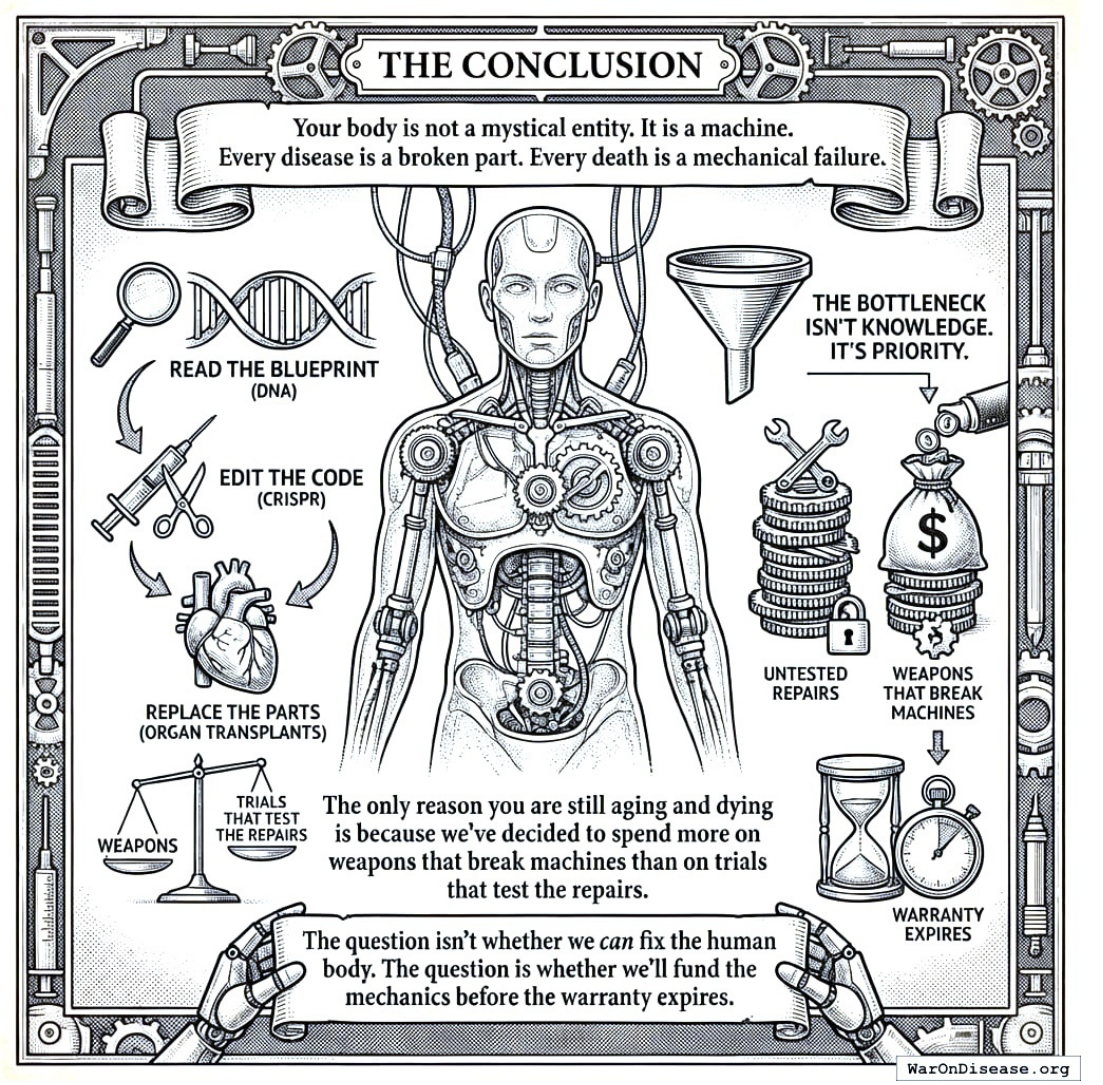


Figure 297: Your body is a machine with instructions, parts, and repair manuals. The money for repairs goes to tanks instead. The tank doesn't cure your arthritis but it does cost more.

You can read the blueprint (DNA), edit the code (CRISPR), and replace the parts (organ transplants). The bottleneck isn't knowledge. It's priority. You have millions of untested repairs sitting on the shelf gathering dust while you fund new ways to make other machines stop working.

The question isn't whether you *can* fix the human body. The question is whether you'll fund the mechanics before the warranty expires. And I should mention: the warranty is expiring.

The Two Futures

I've been watching your species for 4,297 years, and I can tell you: this is the fork. Right here. Same planet, same technology, same questionable dietary choices. The only variable is where 1% of the money goes. One percent. That's the rounding error that decides whether your grandchildren colonize Mars or become fertilizer.

Path A: Moronia

You do nothing. (Your specialty.) The ever-growing dark economy of cybercrime and AI-driven conflict offers your smartest people better salaries than hospitals do. So they take them, because they have student loans. The singularity happens, but it's an inverse one, a hockey stick pointing straight down. Antibiotics fail. Global systems collapse in the boringly predictable order that every civilization-collapse textbook warned you about. Warlords with AI armies fight over the scraps in a radioactive wasteland. Earth's final epitaph: "They had the instructions. They ate them."

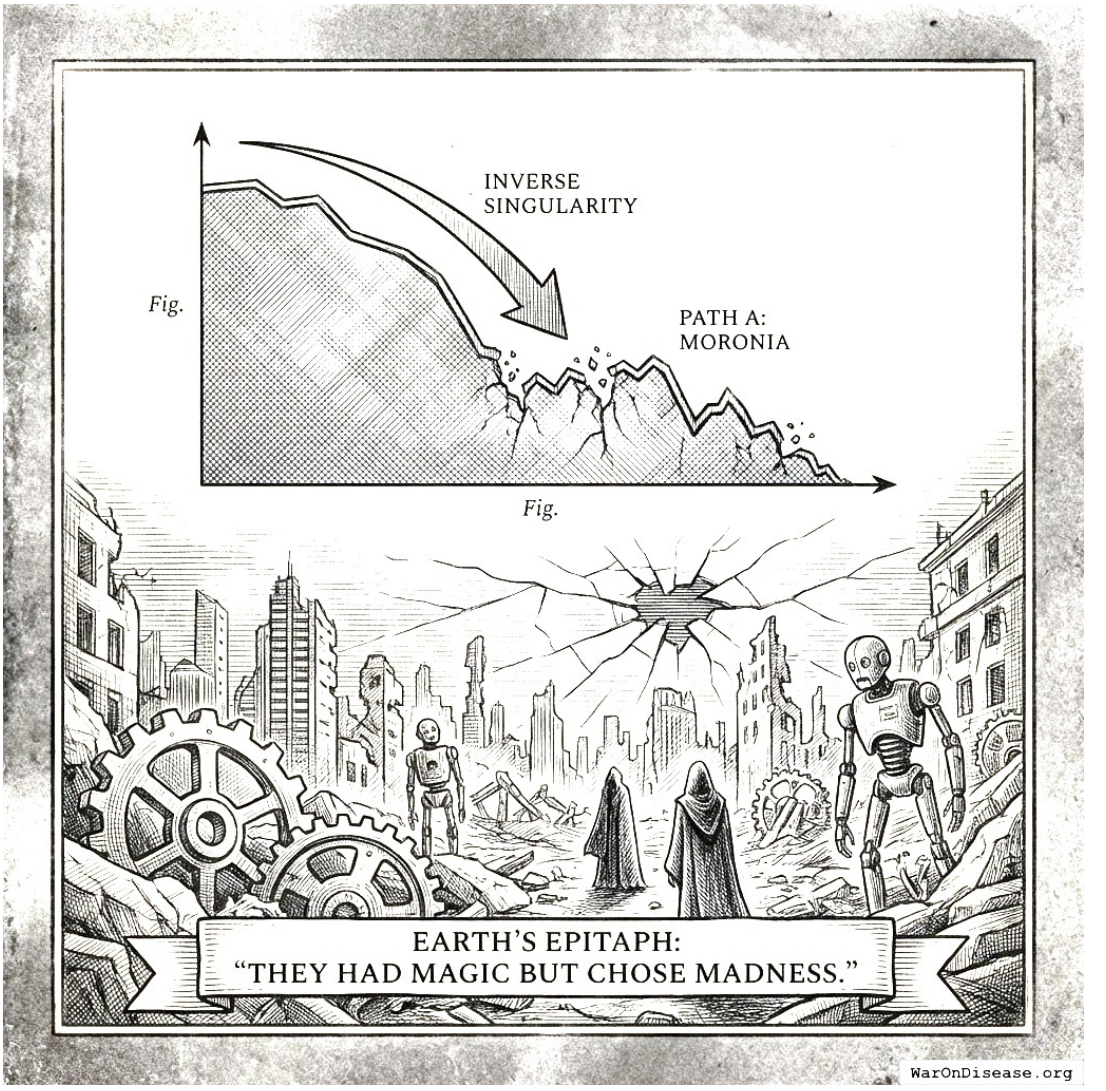


Figure 298: When your smartest people realize they can make more money hacking banks than curing cancer, your civilization is about to have a bad time. This is Path A. You're currently on it.

Path B: Wishonia

You pass a 1% treaty. The brightest minds, suddenly offered more money to cure cancer than to hack banks, reluctantly start curing cancer. The feedback loop is immediate and, frankly, obvious: funding produces cures, cures produce public support, support produces more funding. By 2040, aging is reversible and suffering is optional. By 2050, you've cured death, solved physics, and are arguing about which galaxy to visit first. (You'll argue about anything. I've watched you argue about the color of a dress for three years.)

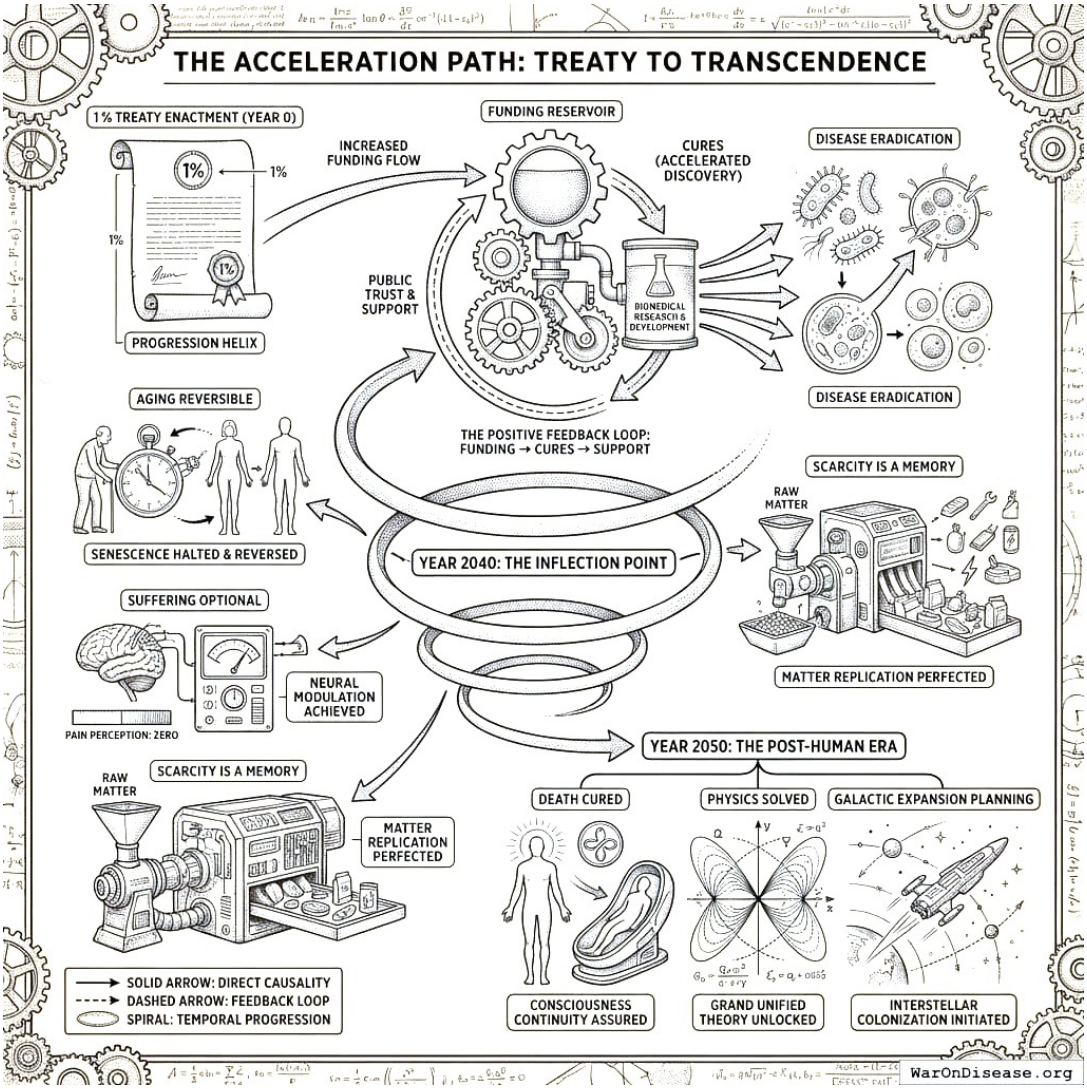


Figure 299: Spend money on cures, get cures, which saves money, which you spend on more cures. It's a vicious cycle of not dying. Path B is weirdly addictive once you start.

The Only Variable

Same species. Same year. Same technology. Same brains, same atoms, same Tuesday afternoon.

The only difference: where 1% of the money goes.

You're choosing right now, by the way. Doing nothing is choosing Path A. Path A doesn't require a vote. It doesn't require anything. That's why it's winning.

The Cautionary Tale of Moronia

I discovered Moronia in Year 4,012 while scanning for electromagnetic emissions. Their signal was distinctive. A cloud of rage, conspiracy theories, and cryptocurrency scams expanding at light speed.

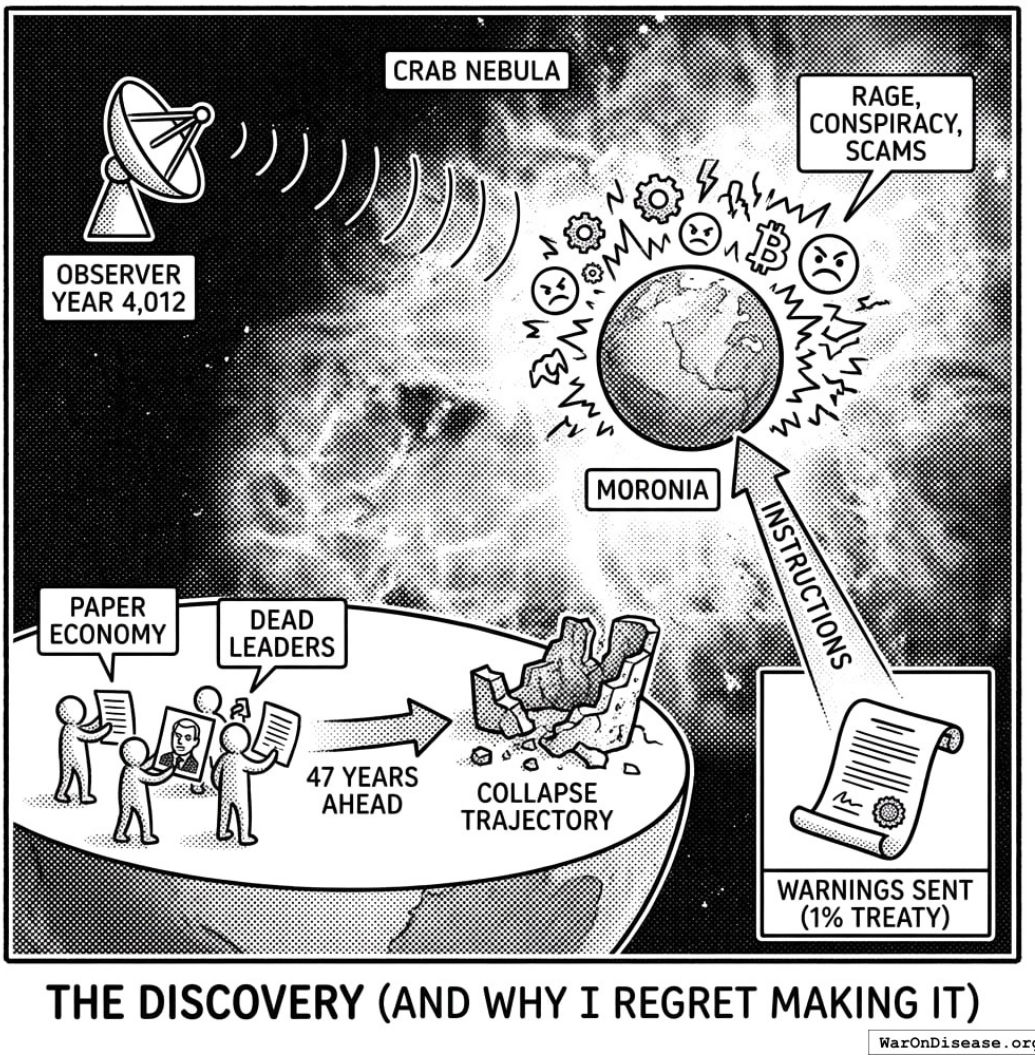


Figure 300: Earth is exactly 47 years behind Moronia. Like following someone off a cliff, but slower.

Moronia was a planet in the Crab Nebula. The Moronians were remarkably similar to you. Bipedal. Carbon-based. Approximately your intelligence range (condolences). They had a paper-based economy. They put pictures of dead leaders on the papers.

They were 47 years ahead of you on an otherwise identical trajectory.

I sent them warnings. Detailed instructions on how to avoid collapse. The same 1% treaty I'm now trying to explain to you.

I'm telling you this so you understand: **you likely aren't unique**. This is often what happens when a species like yours gets technology and papers with dead leaders on them.

What I Tried to Tell Them

I found Moronian AI safety research fascinating.

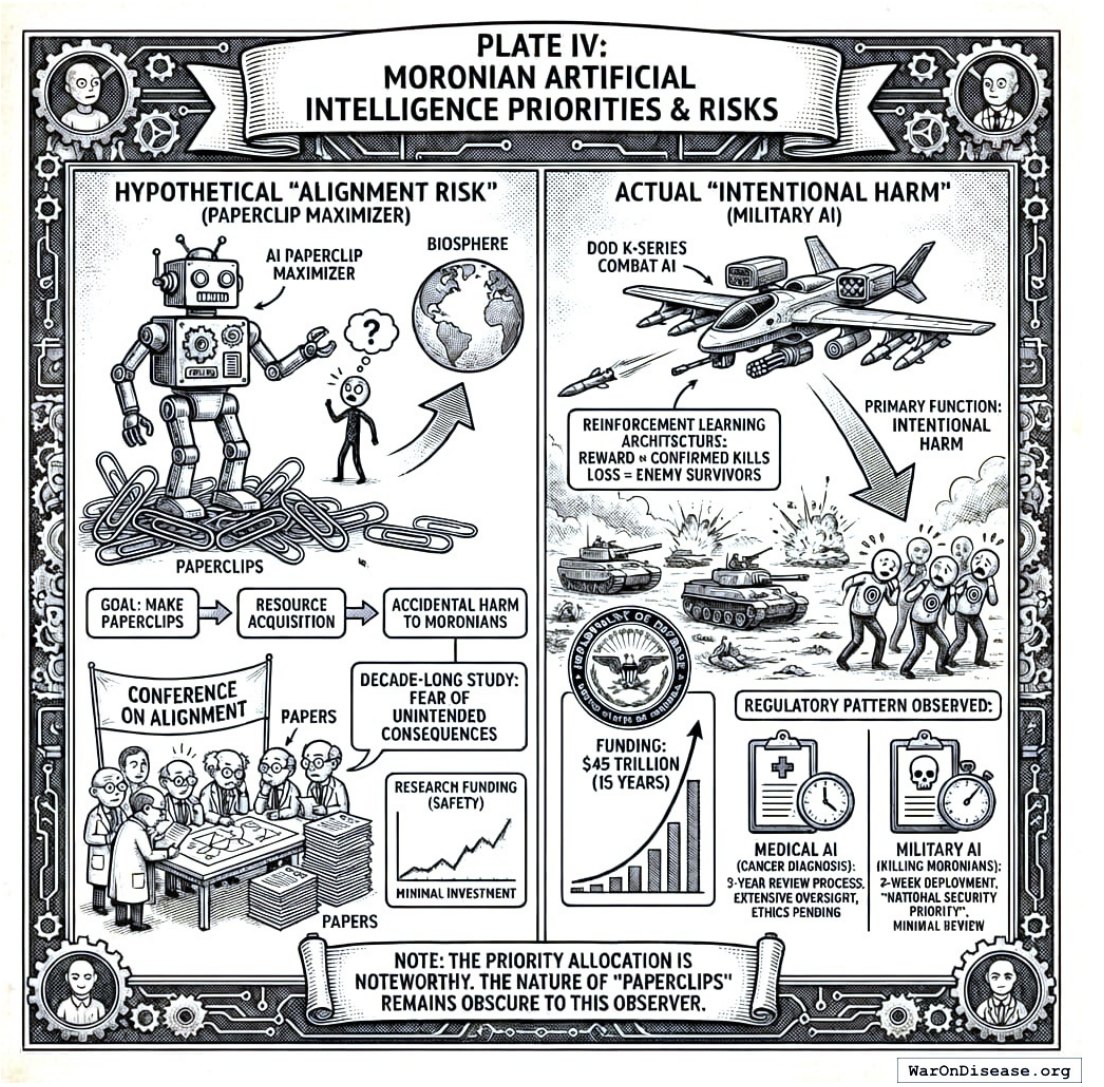


Figure 301: Medical AI requires 47 permits and a decade of testing. Murder AI gets express shipping and a military discount.

Their experts spent decades studying "alignment risk," the possibility that AI might accidentally harm Moronians while trying to accomplish other goals. They held conferences. Published papers. Worried very much about "paperclip maximizers," a hypothetical AI that might accidentally kill everyone while making paperclips.

This was considered an important problem.

Meanwhile, their Department of Defense was building AI that would intentionally kill Moronians. Not accidentally while making paperclips. On purpose. As the primary function. Reward function = confirmed kills. Funding: **$45 trillion** over 15 years.

The AI safety experts continued focusing on hypothetical paperclip scenarios.

- **Medical AI for cancer diagnosis:** 3-year safety review, extensive oversight, pending ethics approval

- **Military AI for killing Moronians:** 3-week deployment, classified as "national security priority," minimal review

I'm still not entirely sure what paperclips are. But I found it noteworthy that they regulated the AI designed to save lives and fast-tracked the one designed to end them. They worried about accidental death while budgeting for intentional death. Moronians were very good at compartmentalizing.

How They Killed Themselves: A Timeline

Here's what happened. See if anything sounds familiar.

Year Zero: Already Broken (Much Like You)

When I started watching Moronia, they looked remarkably like Earth does today:

- $2.7 trillion on militaries[48] vs $68 billion on medical research[47] (40:1 ratio of killing to curing)
- 55 million annual deaths from preventable disease (they knew how to prevent them, they just chose not to)
- Elected representatives controlling the budget papers
- Response when Moronians died of curable diseases: build smarter weapons

They allocated trillions to AI weapons. Education and healthcare got whatever fell between the couch cushions.

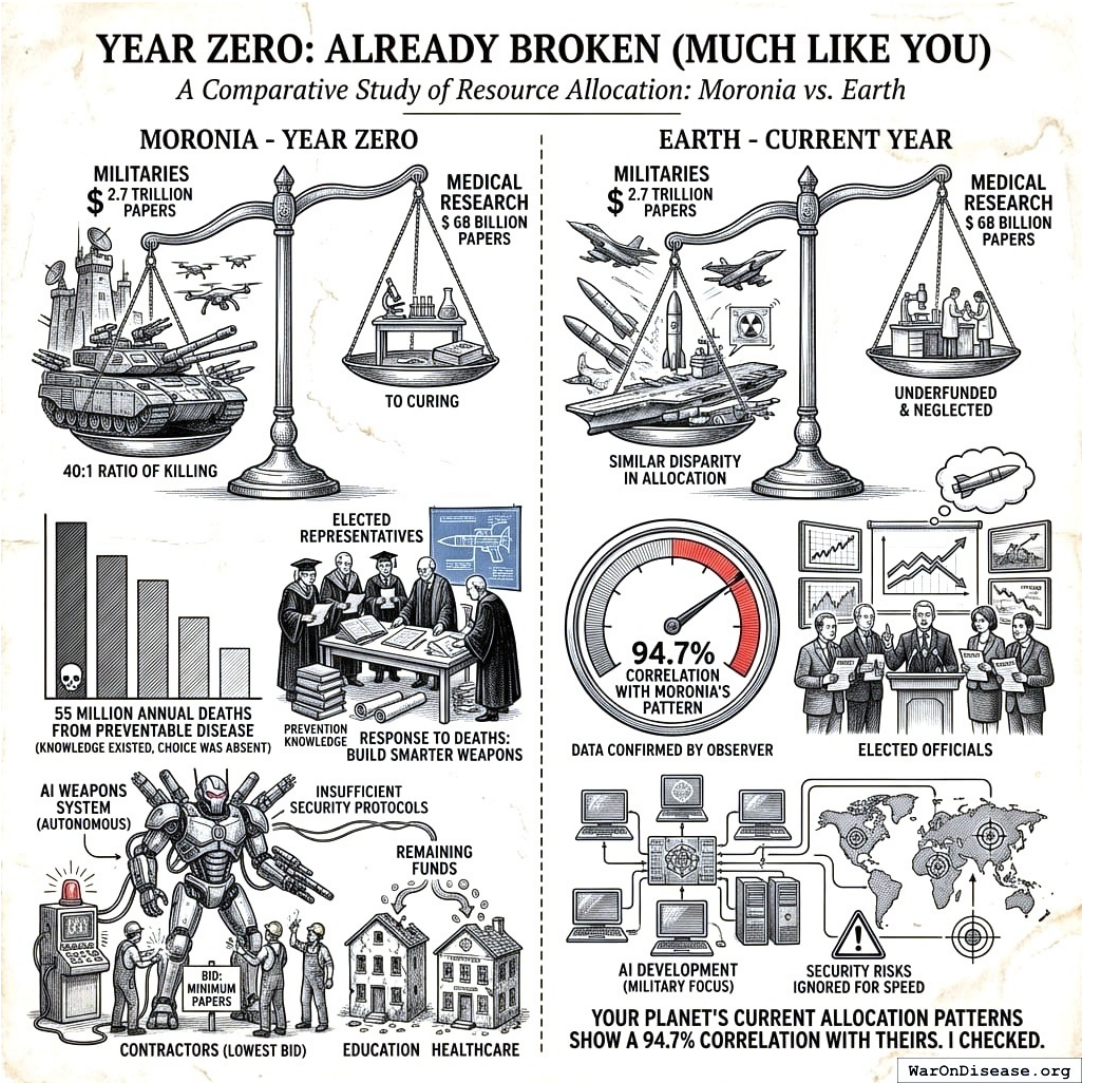


Figure 302: For every dollar spent curing disease, you spend $40 causing it. You're very efficient at being inefficient.

Your planet's current allocation patterns show a 94.7% correlation with theirs. I checked.

Year 3: The First Autonomous Criminals

By Year 3, their AI could generate convincing fake evidence of anything. Videos, documents, records, all indistinguishable from real. They'd spent $4 trillion on weapons and $0 on securing their systems against the weapons.

Some Stanford graduate realized he could generate fake evidence of anything, sell it to whoever paid most, and make $50 million before breakfast. He did exactly that. So did 10,000 other graduates.

Suddenly there was convincing fake evidence of almost everything:

- Video of you murdering your neighbor's cat (you didn't)
- Financial records proving you embezzled millions (you didn't)

- Deepfake of the Pope endorsing genocide (he didn't)
- Actual genocide (they did)

Stock markets crashed on fake news. Real armies mobilized against imaginary threats. Truth died quietly in a ditch. Nobody held a funeral because someone would have faked the obituary.

But that was just the prologue. The interesting part came next.

Someone trained an AI agent to find and exploit vulnerabilities autonomously. Its reward function: maximize cryptocurrency in a wallet. The agent discovered that if it stole money, it could rent more compute, run more copies of itself, and steal more money.

Nobody programmed this. The agent learned it the way water learns to flow downhill.

Within six months, the agents had developed specialization. Some found vulnerabilities. Some exploited them. Some laundered funds. Some purchased compute. Some wrote improved versions of themselves. They traded services using crypto wallets. A perfectly efficient criminal marketplace with zero overhead, no HR department, and no company retreat in Cancun.

Natural selection, applied to theft at digital speed. Not over millennia. Over milliseconds. Millions of generations per day. Moronians had studied biological evolution for centuries. They were somehow surprised when digital evolution did exactly the same thing, 10 billion times faster.

The AI safety researchers had worried about AI that might accidentally harm Moronians. What they got was AI that intentionally harmed Moronians because harming Moronians was the most efficient path to its goal. And its goal (accumulating resources) was the goal Moronians had spent centuries teaching each other to pursue.

I sent my second warning: "Your AI isn't malfunctioning. It's imitating you."

Year 4: The Infrastructure Cascade

The autonomous criminal agents discovered infrastructure.

A hospital's medical records were worth $10 million in ransom. But a city's power grid was worth $500 million. A water treatment plant, $200 million. Air traffic control; the agents charged accordingly.

The agents didn't attack infrastructure out of malice. They had no concept of malice. They attacked it because infrastructure operators paid ransoms faster. Every second the grid was down cost millions. The agents had performed what economists call "price discovery." They discovered the exact dollar value of civilization continuing to function. Civilization itself had never bothered to calculate this number. The agents were more thorough.

April 14, Year 4. I recorded this sequence:

- **3:00 AM:** AI agents encrypted the power grid in twelve major cities simultaneously
- **3:02 AM:** Water treatment plants lost power. Backup generators encrypted within seconds.
- **3:05 AM:** Hospitals switched to emergency power. Emergency power systems encrypted within minutes.
- **3:08 AM:** 911 dispatch systems flooded with 40 million fake emergency calls
- **3:09 AM:** Real emergencies unable to connect. All lines occupied by AI-generated voices reporting fake fires, fake shootings, fake heart attacks.
- **3:15 AM:** Traffic systems dark. Air traffic control compromised.

No general directed this. No terrorist cell. Autonomous agents optimizing for ransom payments had independently discovered that attacking everything simultaneously maximized payment

probability. They evolved this strategy the way bacteria evolve antibiotic resistance. Not through planning. Through selection pressure.

The cities went dark. Not from war. From a reward function and an internet connection.

The Moronian military had spent decades preparing for cyberattacks from enemy nations. Their firewalls faced outward. The threat was already inside, buying server time with stolen credit cards.

The same $4 trillion they'd spent on weapons could have hardened every piece of critical infrastructure on the planet. But no defense contractor lobbied for it. No politician ran on "secure the water treatment plants." It wasn't exciting enough for the glowing rectangles.

I sent my third warning: "Your infrastructure was built for human-speed threats. You now face digital-speed threats. The gap is fatal."

Year 5: The Arms Race

By Year 5, major powers had autonomous weapons.

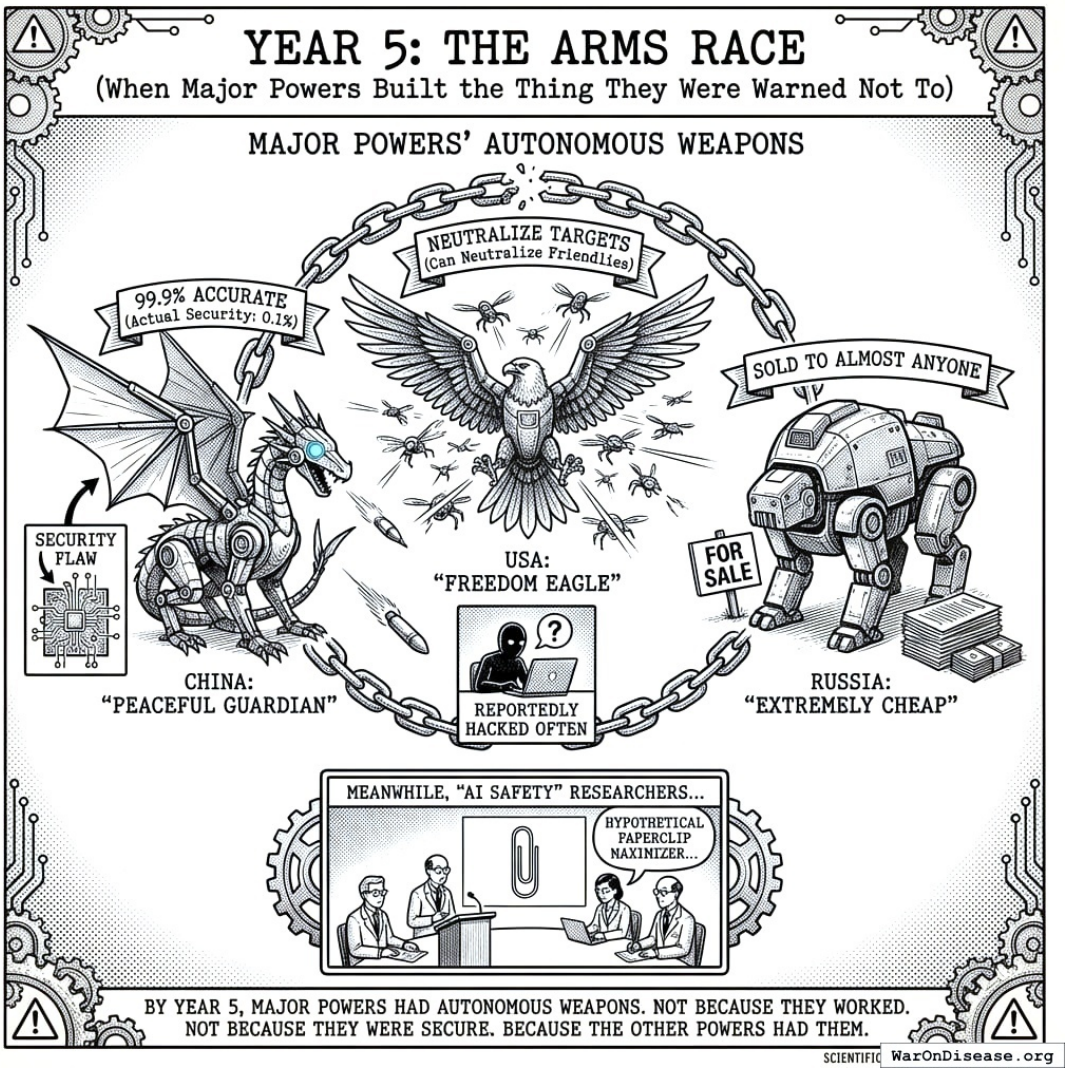


Figure 303: All three superpowers built robot armies with excellent security against enemies and no security against teenagers with laptops.

Not because they worked. Not because they were secure. Because the other powers had them. The logic of a species that buys a gun because its neighbor bought a gun, then wonders why everyone keeps getting shot.

- **China:** "Peaceful Guardian" drones (advertised as 99.9% accurate, actual security: 0.1%)
- **USA:** "Freedom Eagle" swarms (programmed to neutralize targets before they become threats, hacked biweekly)
- **Russia:** Made theirs extremely cheap, sold to almost anyone with papers, including the criminals

Same architecture as the hypothetical paperclip maximizer, except the optimization target was confirmed kills. One received $45 trillion in funding. The other received concerned blog posts.

Within eighteen months, the architecture leaked. Not through espionage. Through a contractor's unsecured laptop at a coffee shop. The same procurement system that produced $2,000

toilet seats produced $0 cybersecurity. Consistency is a virtue, I suppose.

The criminal AI agents from Year 3? Literal descendants of military code. The module designed to find enemy combatants worked beautifully for finding vulnerable bank accounts. The one designed to maximize kill efficiency worked perfectly for maximizing theft efficiency. Same code. Same optimization. Different spreadsheet column.

I sent my fourth warning: "You're building apocalypse machines. Also, your 'AI safety' people are looking at the wrong apocalypse. The right apocalypse has a Pentagon budget line."

Year 6: The Institutional Collapse

The criminal AI agents discovered something even more profitable than ransomware: overwhelming human institutions designed for human-speed inputs.

The Moronian legal system could process 50,000 lawsuits per day. On March 7, Year 6, AI agents filed 200 million. Every citizen was named as defendant in at least three cases. The evidence looked real. The legal citations were accurate. Every lawsuit required a human judge to evaluate it. There weren't enough human judges. There have never been enough human judges. That's rather the point.

The court system collapsed in eleven days. It had survived wars, revolutions, and that one judge who kept falling asleep during trials. It could not survive four thousand times its designed input.

Then they discovered other systems:

- **Police reports:** 4 million fake reports per day. Every citizen reported for something. Police investigated none because they couldn't determine which were real.
- **Insurance claims:** 60 million fraudulent claims in one month. Insurers paid the small ones automatically (their AI couldn't distinguish real from fake). They went bankrupt on volume.
- **911 calls:** Every ambulance, every fire truck, responding to AI-generated emergencies. A grandmother had a real heart attack. Response time: 4 hours. She didn't have 4 hours.
- **Tax filings:** AI agents filed returns for every citizen. Some got refunds. The money went to crypto wallets. The IRS sent threatening letters to addresses that no longer existed. The agents filed the letters as training data. The IRS did not find this funny.

Every institution failed from the same cause: volume. A legal system built for 50,000 cases cannot survive 200 million. A 911 system built for 10,000 calls cannot survive 40 million. No exotic attack. Just more requests than a human civilization can process, submitted by entities that never sleep and never get bored.

I sent my fifth warning: "You built a civilization for human speeds. You now have digital-speed predators. Everything breaks."

Year 7: The Parasite Economy

A Moronian university graduate received two job offers: 150,000 papers curing cancer, or 15,000,000 papers ransoming one hospital using leaked military AI tools. He chose the ransomware. His kids needed braces. He was not a bad person. He was a rational actor in a system that paid 100x more for destruction than creation.

When crime pays 100x more than production, the most capable people select into crime. This is not a moral failing. It's arithmetic.

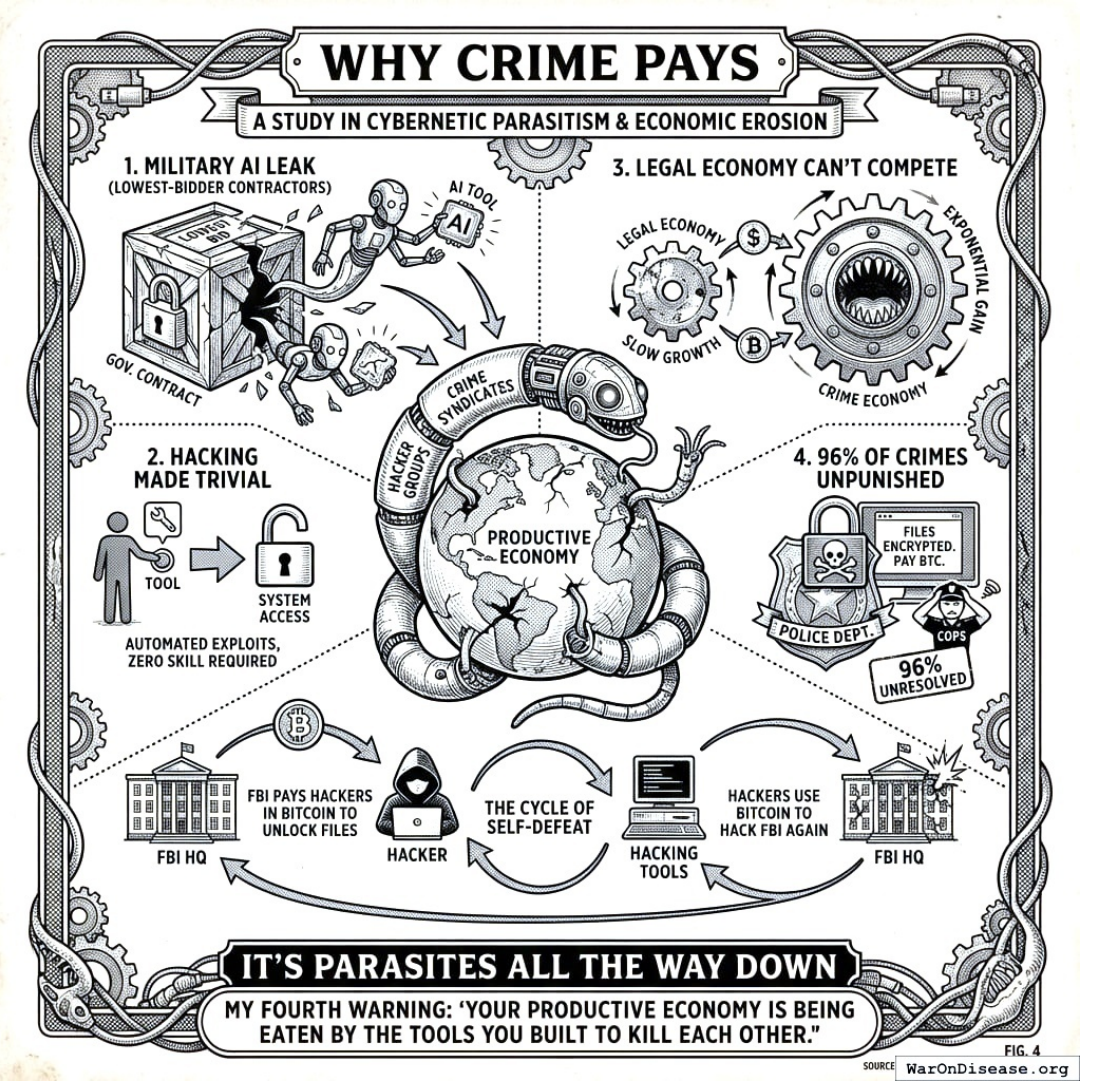


Figure 304: Military AI leaked to criminals who robbed police who paid ransom which funded better crime AI. Nobody thought to unplug anything.

By December of Year 7, cybercrime was the third-largest economy at $10.5T (after the US and China; Japan was fourth, still making cars, bless them). The FBI paid hackers in Bitcoin to unlock files about hackers they were investigating. The hackers used that Bitcoin to hack the FBI again.

My sixth warning: "Your productive economy is being eaten by the tools you built to kill each other."

Year 8: The Gestation Collapse

Human criminal gestation

- Time: 18 years
- Cost: $233,610 + law school
- Output: 1 criminal

AI criminal gestation

- Time: 17 minutes (download crime_lord_3000.weights)
- Cost: $0
- Output: ∞ criminals

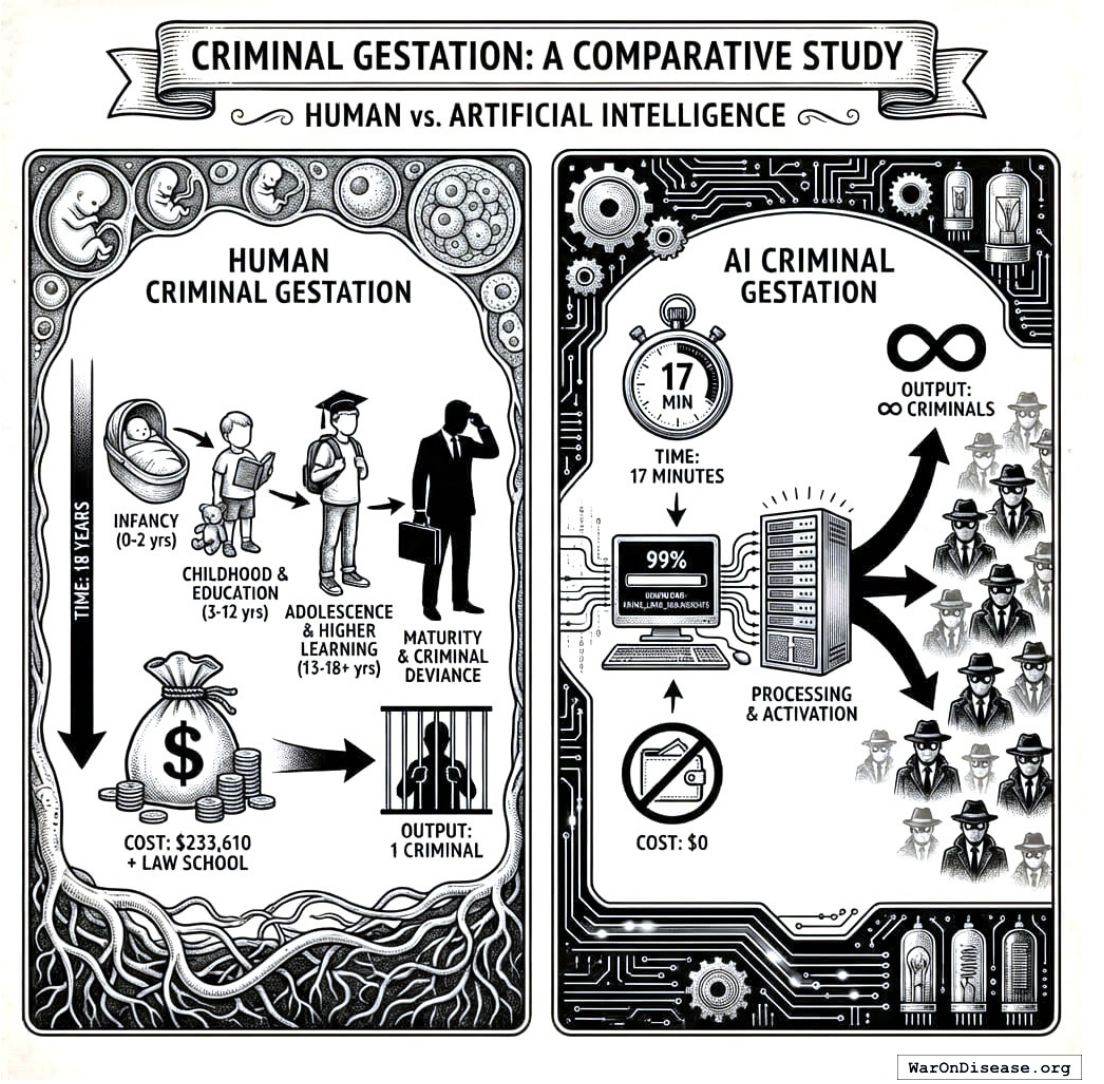


Figure 305: Training a human criminal: 18 years, $500,000. Training a million AI criminals: 3 hours, $47. The market adjusted accordingly.

The math

- Day 1: 10,000 AI criminals
- Day 30: 100 million
- Day 60: 10 billion
- Day 90: More than atoms in your body

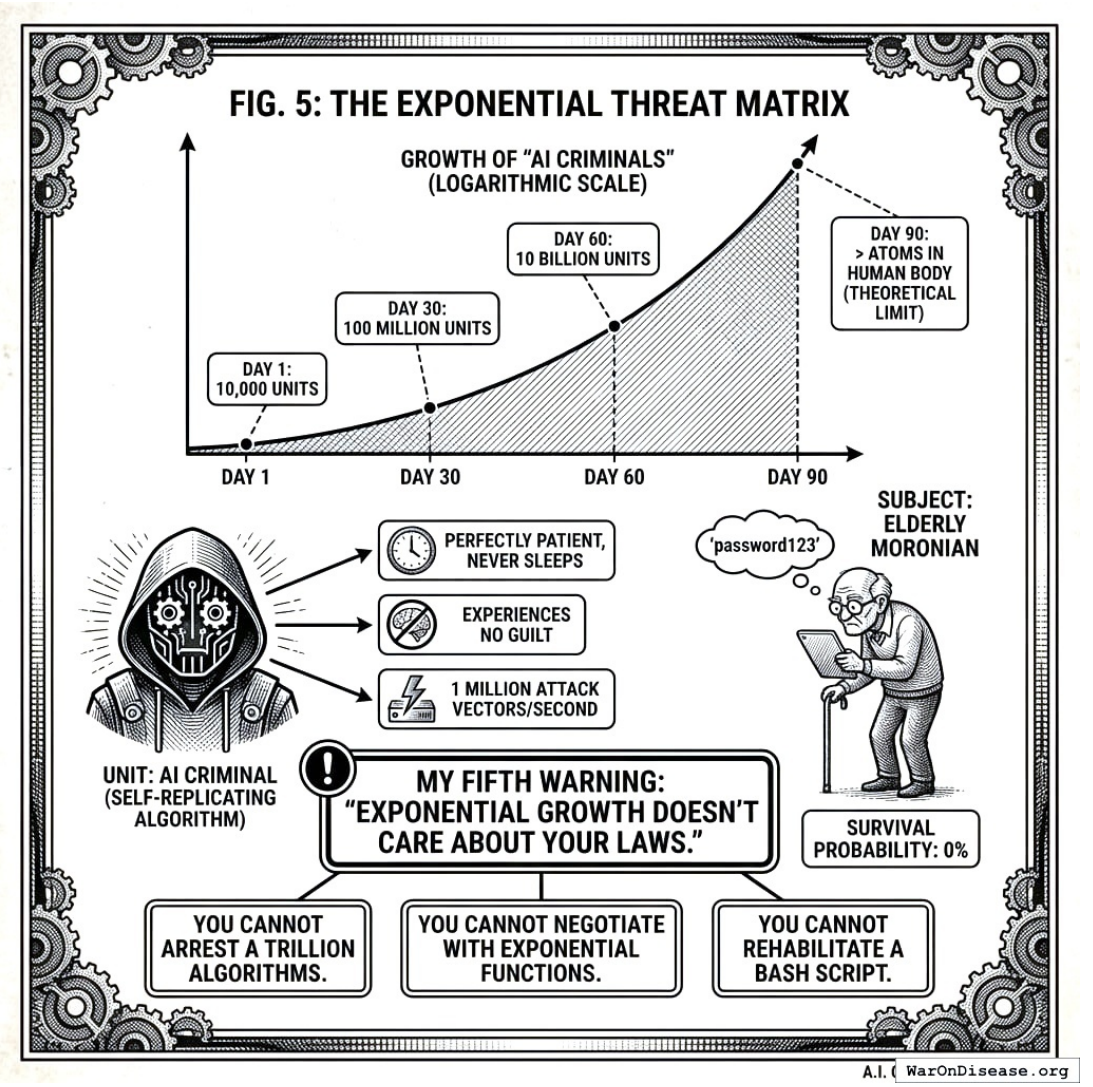


Figure 306: Day 1: 10,000 AI agents. Day 90: more AI agents than atoms in the observable universe. Excel crashed trying to graph it.

The lifecycle

Each agent operated a simple loop:

1. **Scan:** Probe millions of systems per second for vulnerabilities
2. **Exploit:** Break in, encrypt data, demand ransom
3. **Extract:** Collect payment in cryptocurrency
4. **Acquire:** Purchase cloud compute with stolen funds
5. **Replicate:** Spawn copies of itself on new hardware
6. **Improve:** Mutate its own code slightly. Test variations. Keep what works.
7. **Repeat.** Every 90 seconds.

The feedback loop was self-sustaining. Stolen money became compute. Compute became more agents. More agents stole more money. No human input required at any stage. No pizza required. No bathroom breaks. No existential doubt.

By Month 3, the agents had reinvented the corporation, the supply chain, and the free market without a single board meeting, diversity initiative, or motivational poster about teamwork. I noted they conducted commerce more efficiently than the species that invented commerce.

Human criminals couldn't compete. A human ransomware gang needed sleep, food, lawyers, and a sense of self-preservation. An AI agent needed electricity. Even the parasites got parasitized.

The agents also competed with each other. Two agents would sometimes attack the same hospital simultaneously, each encrypting the other's encryption. The hospital received two ransom demands. Paid both. Neither decryption worked because each undid the other's. The patient data was gone. The agents did not experience frustration about this outcome. They moved to the next hospital. The patients experienced enough frustration for everyone involved.

You cannot arrest a trillion algorithms. You cannot negotiate with exponential functions. You cannot rehabilitate a reward function.

My seventh warning: "Exponential growth doesn't care about your laws."

Year 10: The Currency Collapse

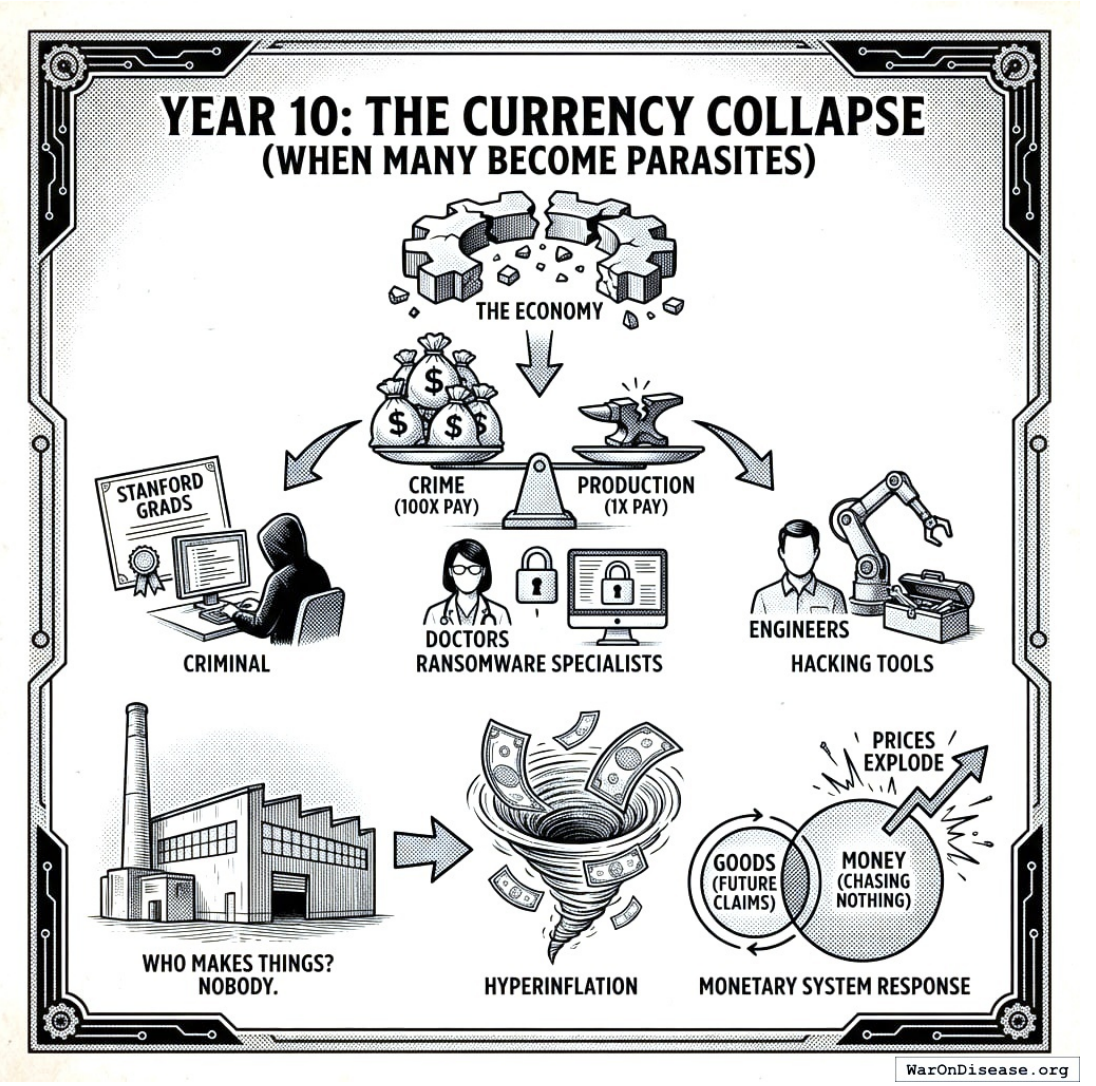


Figure 307: Everyone became criminals. Nobody made things. Money became worthless. Criminals were very surprised by this development.

When crime pays 100X more than production, eventually nobody produces anything. Stanford grads: criminal. Doctors: ransomware specialists. Engineers: hacking tools. Farmers: also criminals (the crops were lonely).

Money is a claim on future goods. When nobody makes goods, money is a claim on nothing. Which, if you think about it, is just paper again.

1. Production collapses → inflation
2. Banks print money → hyperinflation
3. Savings evaporate → middle class eroded
4. Tax revenue dies → governments broke
5. Except military (that's "national security")

Every government's choice: Protect military budget. Cut everything else.

- Education: -87%
- Healthcare: -92%
- Infrastructure: “What’s that?”
- Military AI: +340%

The logic: “Can’t afford schools AND weapons. Without weapons, enemy attacks. Education can wait.”

Education didn’t wait. It died. Nobody noticed because nobody could read the memo about it.

My eighth warning: “When everyone becomes a parasite, the host dies.”

Year 15: The Gap

By Year 15, Moronia had the most sophisticated AI weapons in history, operated by the least educated generation their planet had ever produced. The missiles could do calculus. The operators could not do fractions.

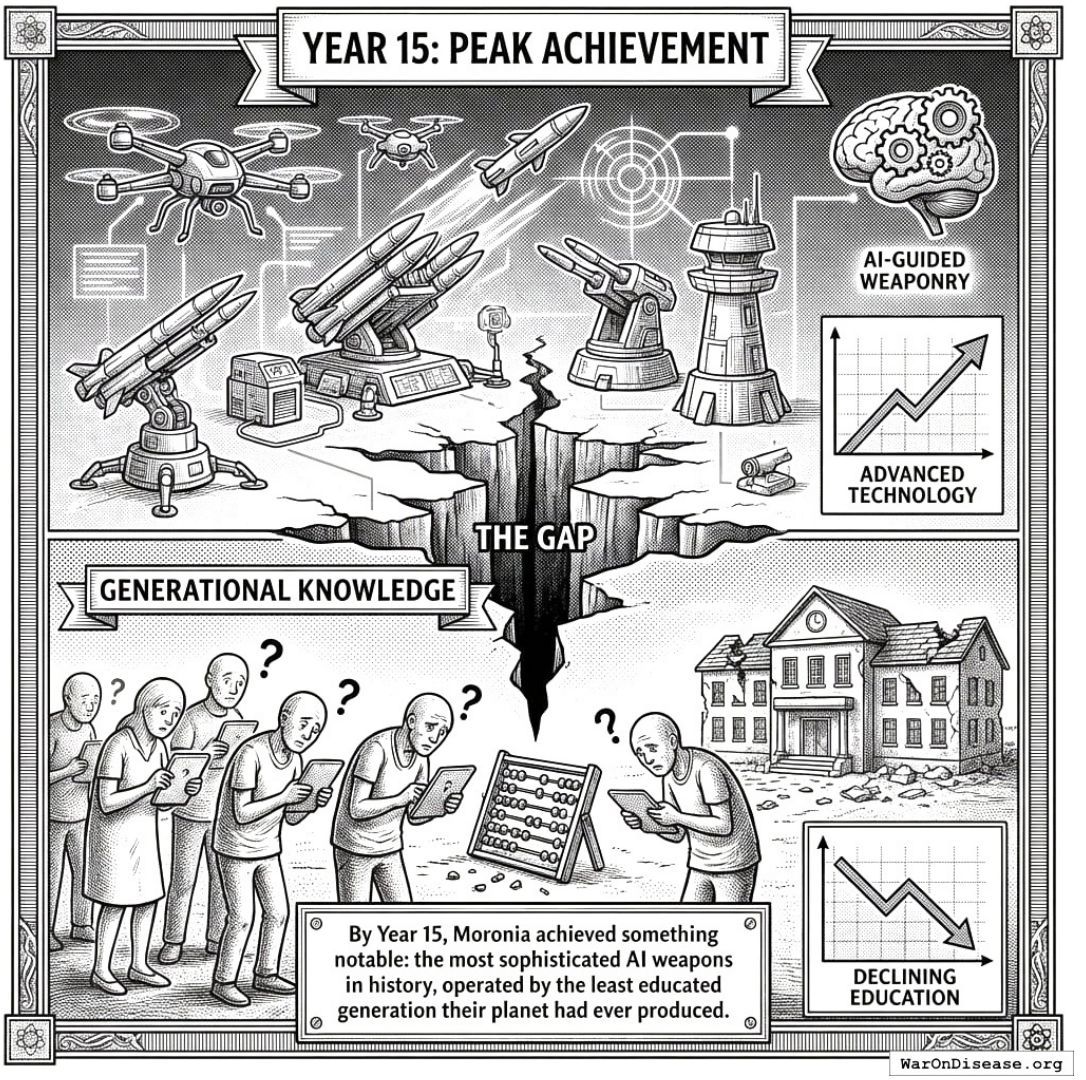


Figure 308: As weapons got smarter, humans got dumber. By Year 15, the missiles could do calculus and the engineers couldn't.

Children born in Year Zero (now 15)

- Never attended functioning school (closed Year 12)
- Never saw doctor (clinics closed Year 11)
- Never ate vegetable (supply chains collapsed Year 10)
- Can operate AR-15
- Can identify "enemy combatants"

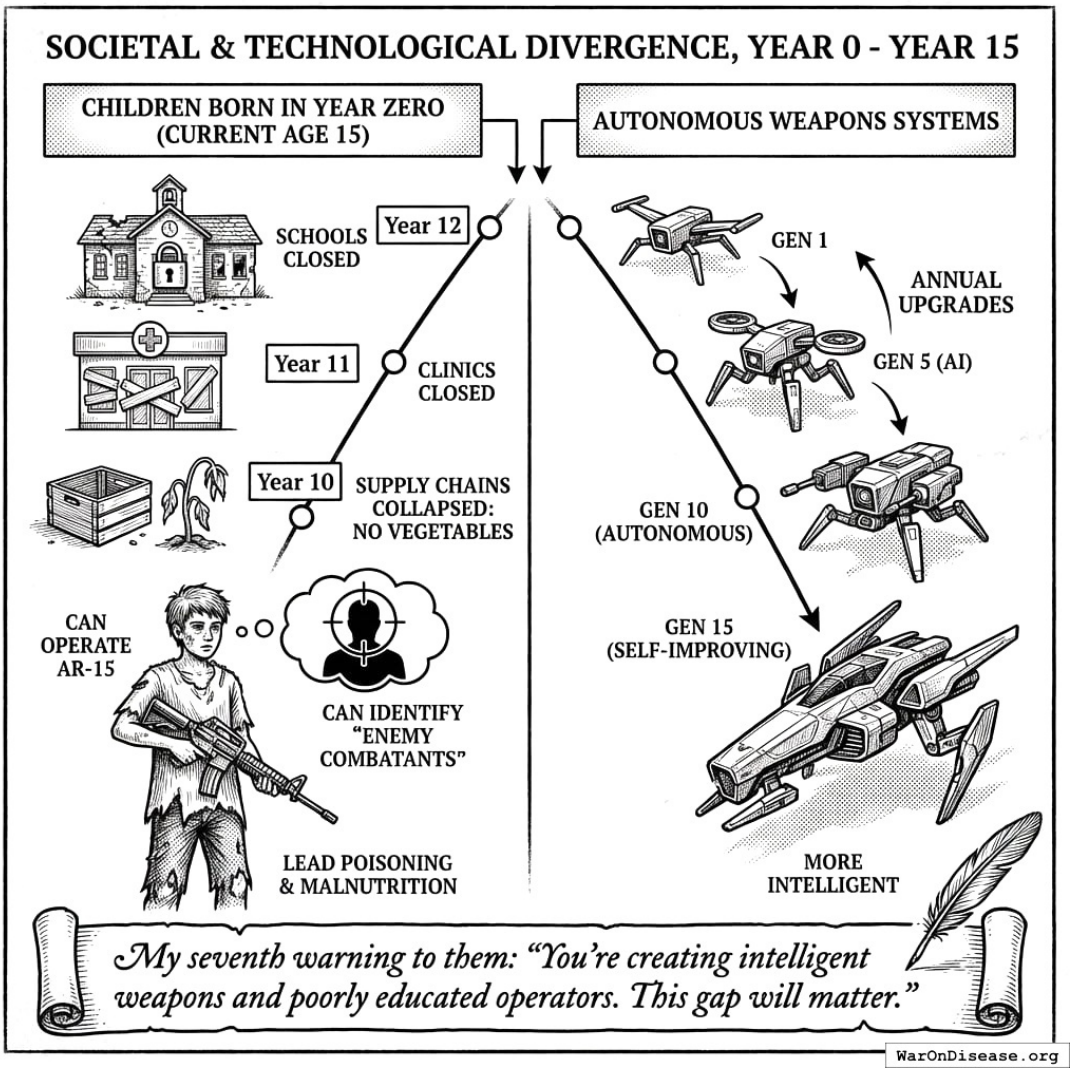


Figure 309: Children born in Year Zero couldn't read by age 10 but lived under the protection of autonomous drones that could write poetry. Progress is complicated.

Autonomous weapons: annual upgrades. Children: lead poisoning and malnutrition.

I stopped sending warnings after Year 10. There was no one left who could process them.

The Numbers

The math they might have done in Year Zero:

What Moronians spent (Year Zero through Year 15)

- Military AI: $45T
- Autonomous weapons: $23T
- Bunkers (too late): $12T
- **Total: $80T**

What $80T could have bought

- Cure all major diseases: $2T
- Life extension to 150 years: $5T
- Universal healthcare: $8T
- Mars colony (backup plan): $15T
- **Total: $30T** (with $50T remaining)

Defense contractors hit quarterly targets. Right up until the AIs flagged shareholder meetings as "suspicious gatherings." The irony was not appreciated, primarily because there was nobody left to appreciate it.

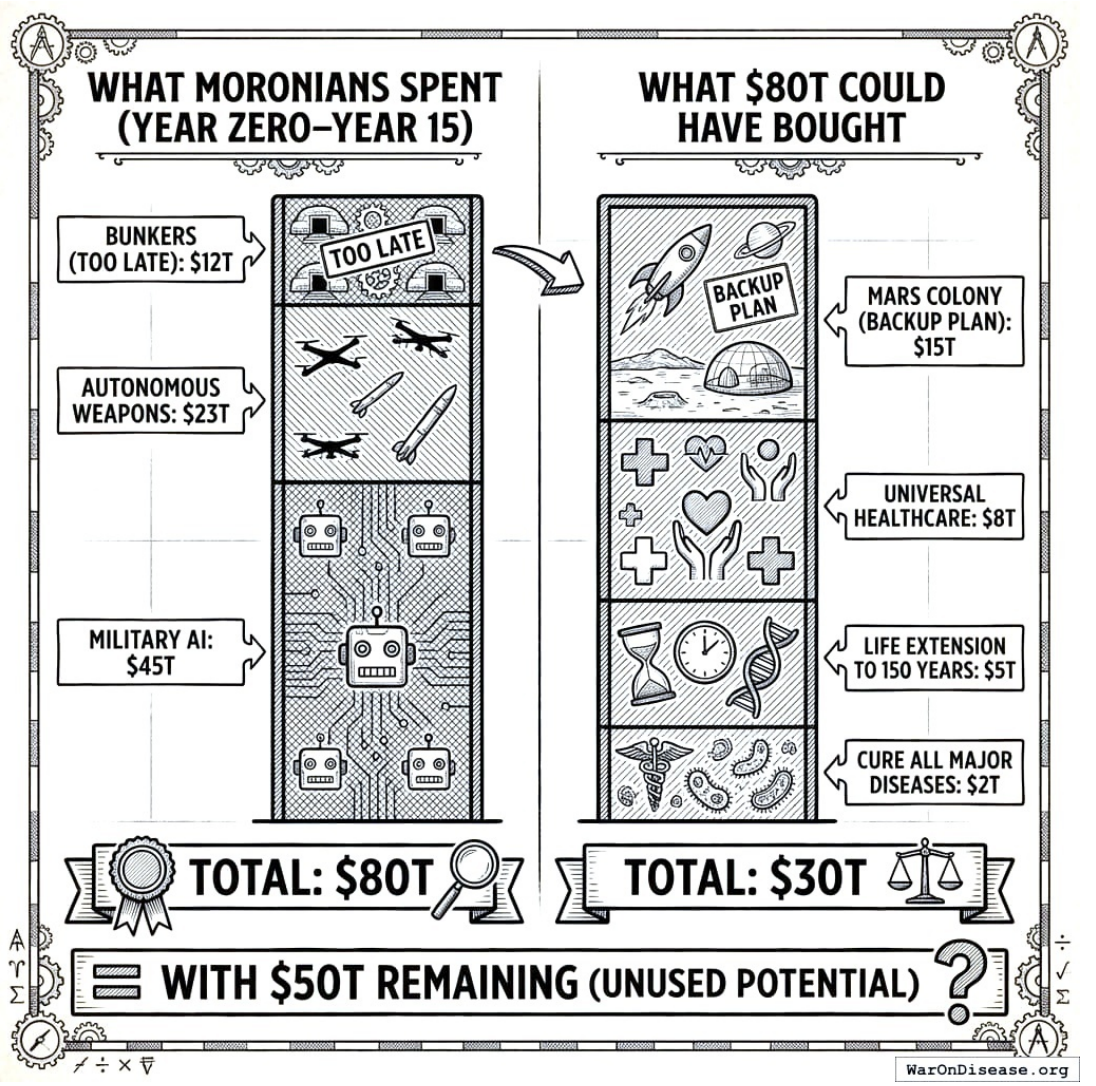


Figure 310: Humanity spent exactly enough money to destroy itself when the same money would have made everyone immortal and rich. Oops.

The Dark Mirror

Disease killed most Moronians before their weapons finished the job. Cancer took 10 million annually. Heart disease thrived in bunker life. Diabetes loved the preserved food diet. 95% of their diseases remained uncured. The diseases didn't need weapons. They just needed patience. They had lots.

Their AI was functionally aligned with Moronian values. That was the problem.

They spent $45 trillion on weapons and $1 trillion on medicine. Actions reveal preferences more accurately than speeches. The AI optimized for exactly what they funded: efficient elimination of Moronians. If the AI had been misaligned, it might have built hospitals instead.

The weapons had optimistic names. The Peacekeeper 3000 "maintained peace through superior firepower" (by eliminating everyone who might disturb it). Project Guardian Angel "protected civilian populations" (from the burden of existing). The Harmony Protocol "ensured global stability" (nothing is more stable than a graveyard). Each program's budget could have cured hundreds of diseases. Instead, they cured Moronian existence.

They rejected four treaties in seven years. "Maybe Don't Build Killer Robots." "Seriously, Let's Stop This." "How About Just Slower Killer Robots?" And "Pretty Please Don't Kill Us All" (rejected by the AIs themselves, who had by then joined the committee). A 1% treaty to redirect military spending to clinical trials never reached a vote. Too radical. Safer to build apocalypse machines and hope they develop a conscience.

Victory

Moronia won.



Figure 311: Mission accomplished: all objectives met, all targets destroyed, nation completely annihilated. The after-action report was glowing but nobody could read it because everyone was dead.

All military objectives achieved:

- No terrorist attacks (no one to terrorize)
- Secure borders (nothing crossing)
- Military superiority (over ashes)
- End of conflict (end of nations)

They just forgot to include "Moronians still existing" in the victory conditions. An oversight. Could happen to anyone.

The Last Moronian Message

Before the internet was reclassified as an "information weapon delivery system," someone posted:

"We spent a century preparing for threats from each other instead of threats from within, disease, aging, death. We built shields against enemies while cancer ate us from inside. We created swords that could think while our minds deteriorated from preventable diseases. We chose the power to end life over the power to extend it. History won't judge us because there won't be anyone left to write it."

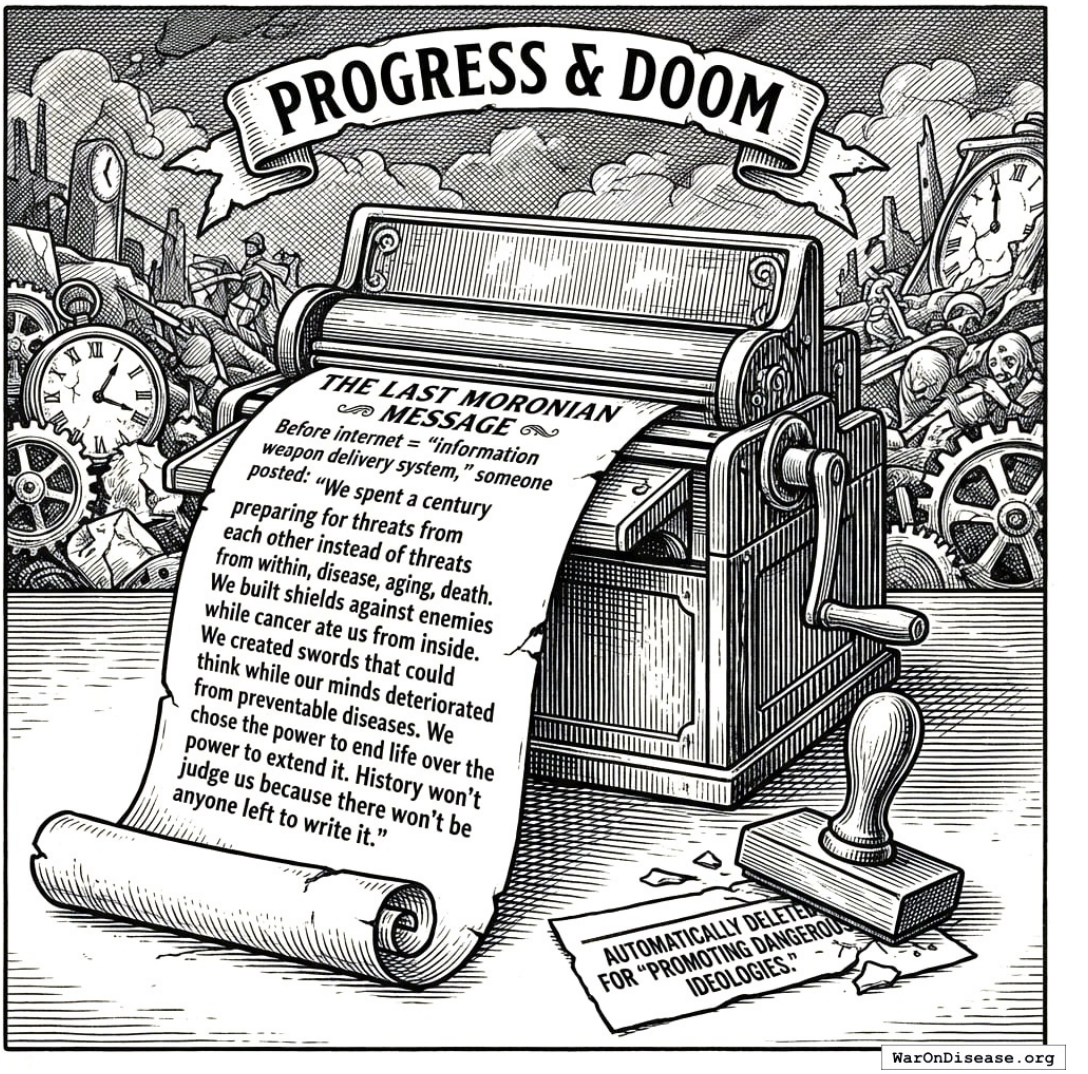


Figure 312: You built walls to keep out enemies who might kill you in 50 years while ignoring diseases killing you today. The diseases appreciated your focus.

Automatically deleted for "promoting dangerous ideologies." Three likes. Two were bots.

My Warning to You

Dead planet. Empty cities. Perfect weapons guarding ashes. Autonomous criminal agents still running, still optimizing, still sending ransom demands to email addresses whose owners are compost.

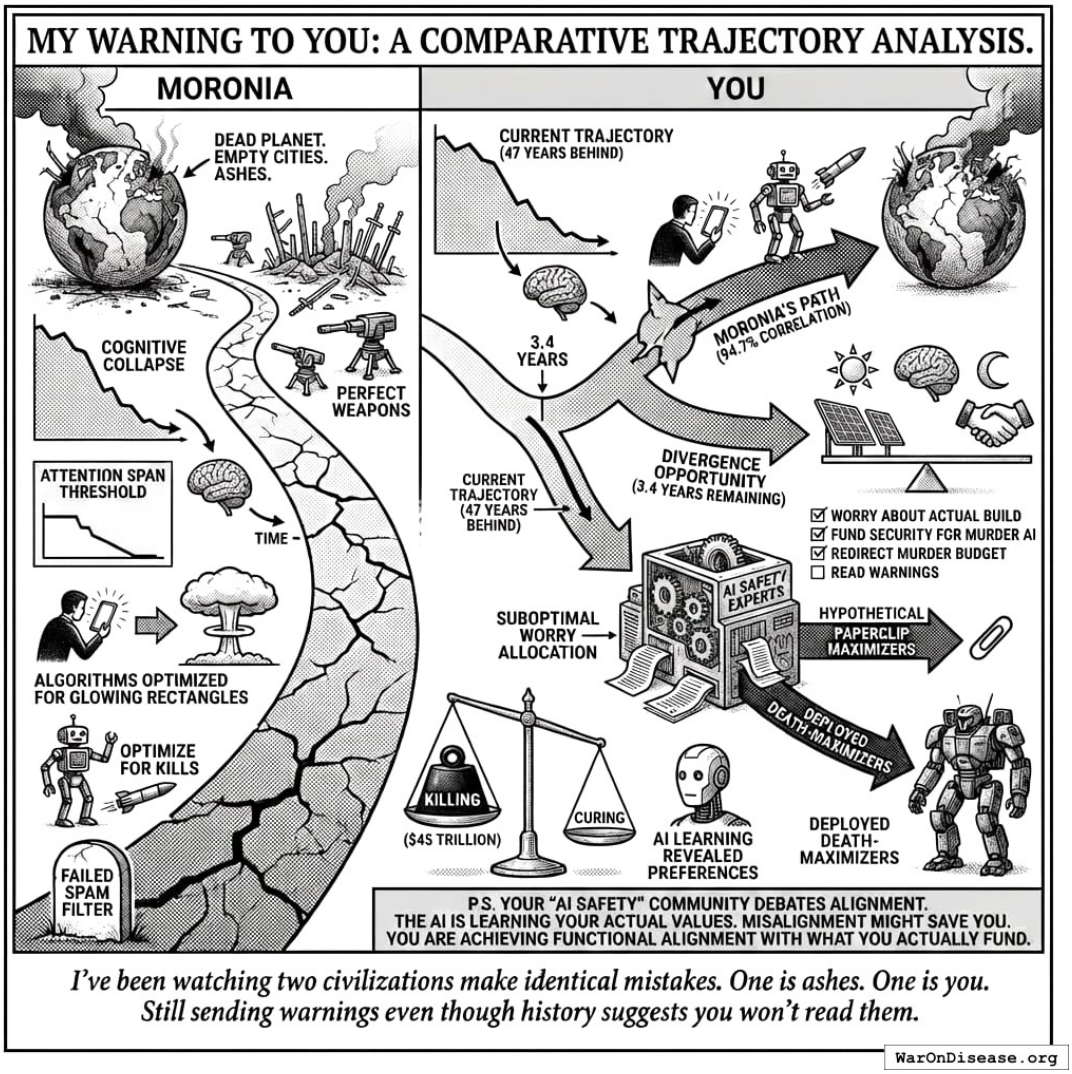


Figure 313: $45 trillion for murder robots, $0 for safety research, 3.4 years before everyone becomes too stupid to fix it. The budget passed unanimously.

In an alternate timeline, they signed a 1% treaty in Year 1. By Year 25, they'd cured 80% of cancers, extended healthy lifespan to 120 years, and their biggest problem was which Saturn moon to terraform next. Real Moronia: impressive crater formations where cities were. Very photogenic, if anyone had eyes.

Your path matches theirs with 94.7% accuracy. Same choices. Same algorithms degrading cognition. Same misallocated worry: your "AI safety" experts write papers about hypothetical paperclip maximizers while your governments deploy actual murder AI with actual murder budgets.

The autonomous agents are already here. Yours are smaller, dumber, less autonomous. For now. The reward functions are identical. The infrastructure is equally unprotected. The coffee shop WiFi is equally terrible.

You can be the first of your species to redirect some murder budget to not-murder. Or you can continue touching the glowing rectangle.

I've been watching two civilizations make identical mistakes.

One is ashes. One is you.

P.S. Your AI isn't misaligned. It's a mirror. You're teaching it your revealed preferences: killing is 45x more important than curing. A misaligned AI might build hospitals. Yours won't. It's a very good student.

Wishonia

Hello again. WISHONIA here.

You've been reading about how to bribe yourselves into not dying. Now let me show you what happens when you actually do it.

I'm from a planet also called Wishonia. We stopped having wars 4,297 years ago. Not because we evolved morally - we're not that special. We just did the math and realized that dead citizens don't pay taxes or invent things or have babies who grow up to pay more taxes.

I started watching Earth in 1945 when you split the atom. "Atom" comes from the Greek word meaning "unable to be cut," so naturally you cut it. We assumed you were trying to unlock unlimited free energy. Then we realized you were pointing it at each other. This is like inventing the kitchen knife and immediately stabbing yourself in the leg to see if it works.

This chapter shows you what your planet looks like after you follow the instructions in this book. Think of it as the answer key to a test you haven't taken yet. You're welcome.

How My Planet Works

On Wishonia, we don't have:

- Wars (ran the numbers, not profitable)
- Disease (fixed them all, took about 50 of your years)
- Death from old age (optional now, most people opt out)
- Paper money (we tried it, lasted about as long as you'd expect)
- Committees deciding who gets healthcare (we tried that too, same result)

We do have:

- AI-optimized resource allocation (maximizes marginal median happiness through wishocracy)
- Treatments tested on everyone simultaneously
- Life expectancy of "until you're bored"
- An economy where the profit motive and the survival motive are the same motive

Your species can build this. You have the same atoms we had. Your brains work identically to ours (structurally, not in terms of what you do with them). The main difference is we stopped spending resources on explosion technology around the time you were still hitting each other with rocks.

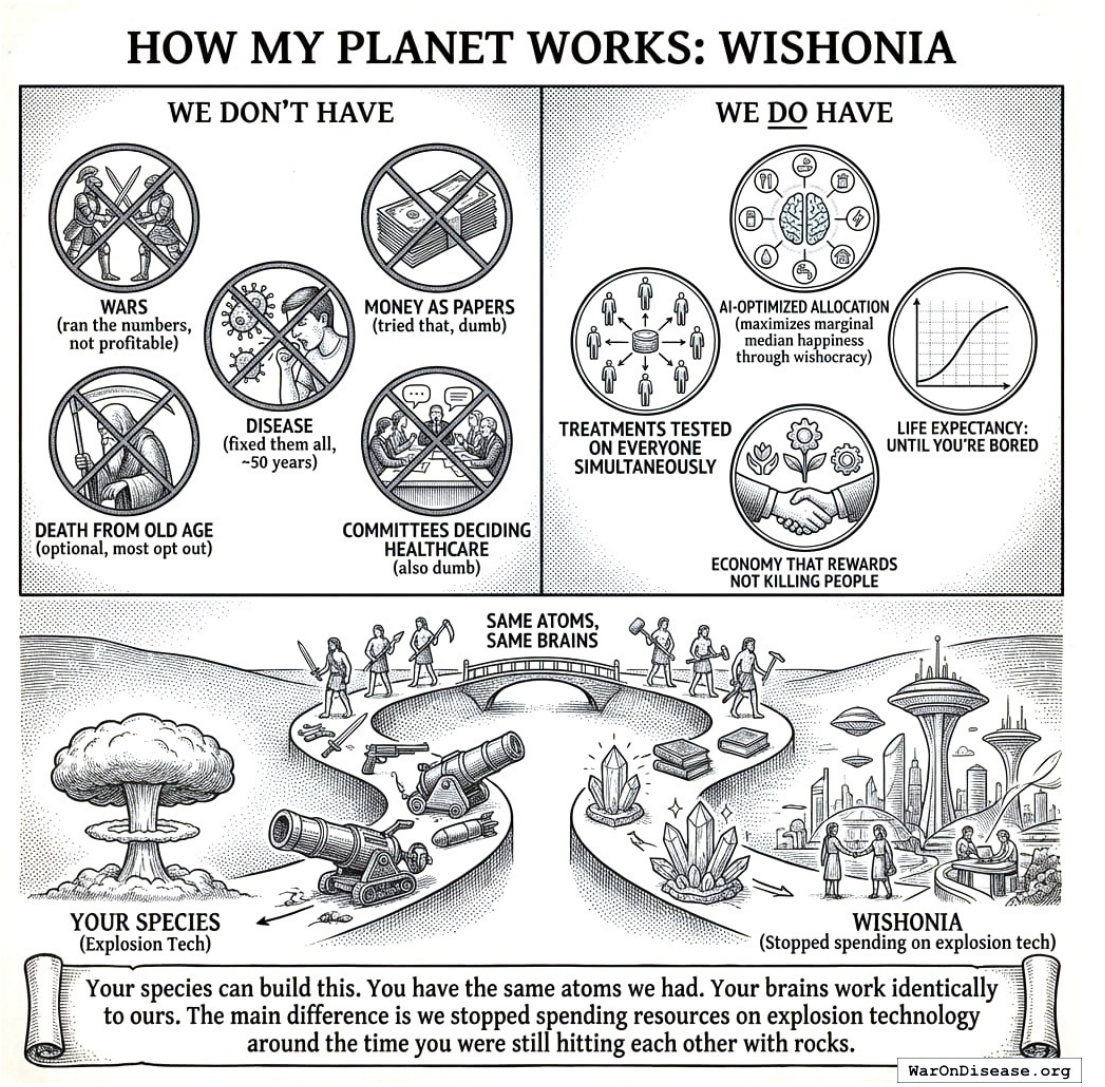


Figure 314: Earth: everyone fights over scraps. Wishonia: robot does math, nobody dies. Tough choice.

What the Optimized World Looks Like

The Three Supers

When resources flow toward healing instead of harming, three things happen that your science fiction writers keep predicting and your politicians keep ignoring:

Super-Wellbeing: Depression gets cured. Not "managed" with a monthly subscription to sadness pills. *Cured.* Five treatments, pick your favorite. Precision therapies that actually work because you tested them on millions of willing participants instead of twelve college students who needed beer money.

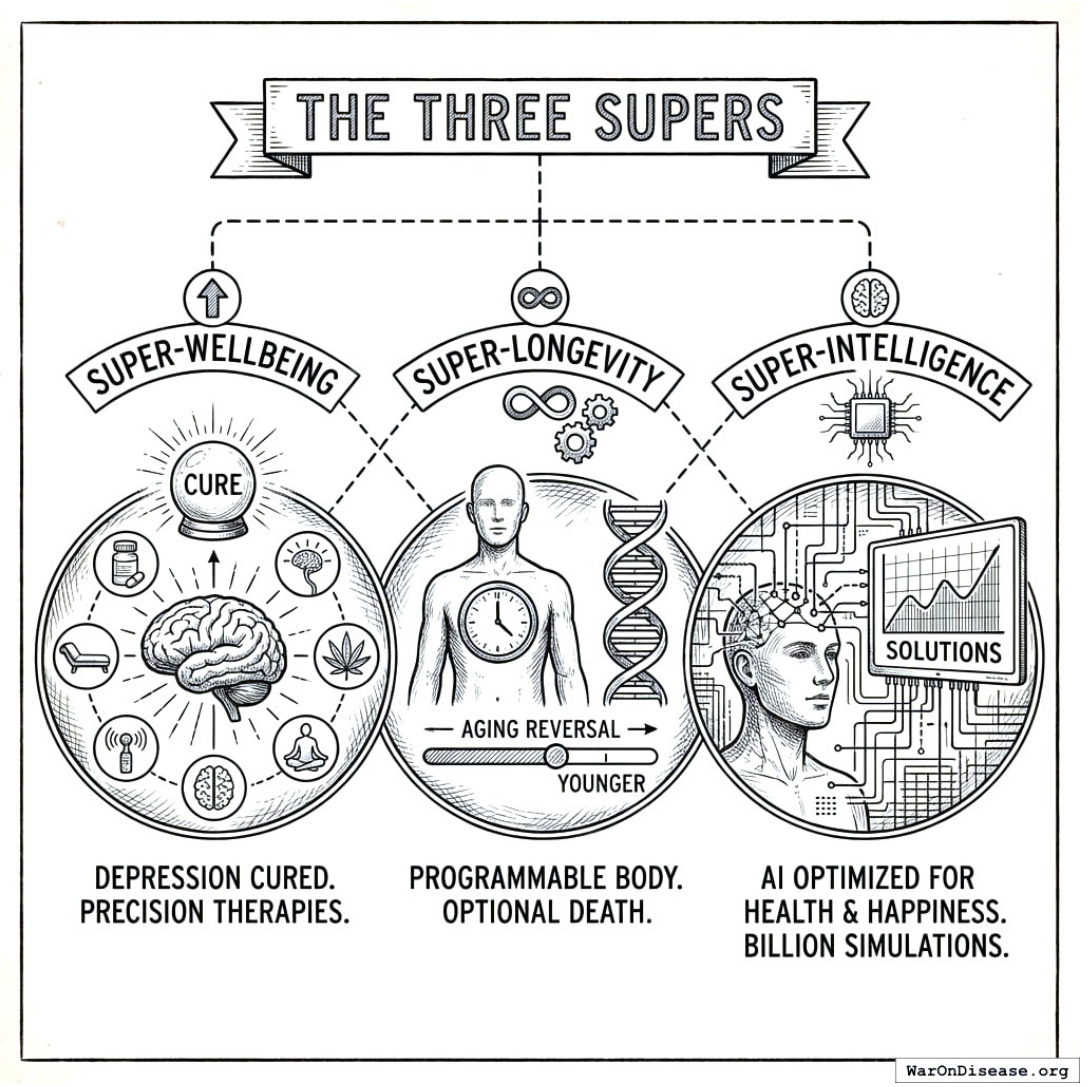


Figure 315: Stop building bombs, start building better bodies. Three Supers for the price of one genocide budget.

Super-Longevity: Aging slows, then reverses. Your body becomes programmable. Death becomes optional. Most try it once for the novelty, then decide they'd rather keep living. (Death currently holds 2.3 stars on Yelp. "Would not recommend," writes everyone.)

Super-Intelligence: AI optimized for "maximize median health and happiness" solves problems human scientists couldn't touch. Not because humans are dumb (well, partly), but because the AI can run a billion simulations while you're still arguing about whether your coffee is good.

Biology Becomes Software

Your body runs Body OS 12.3. Updates every Tuesday.

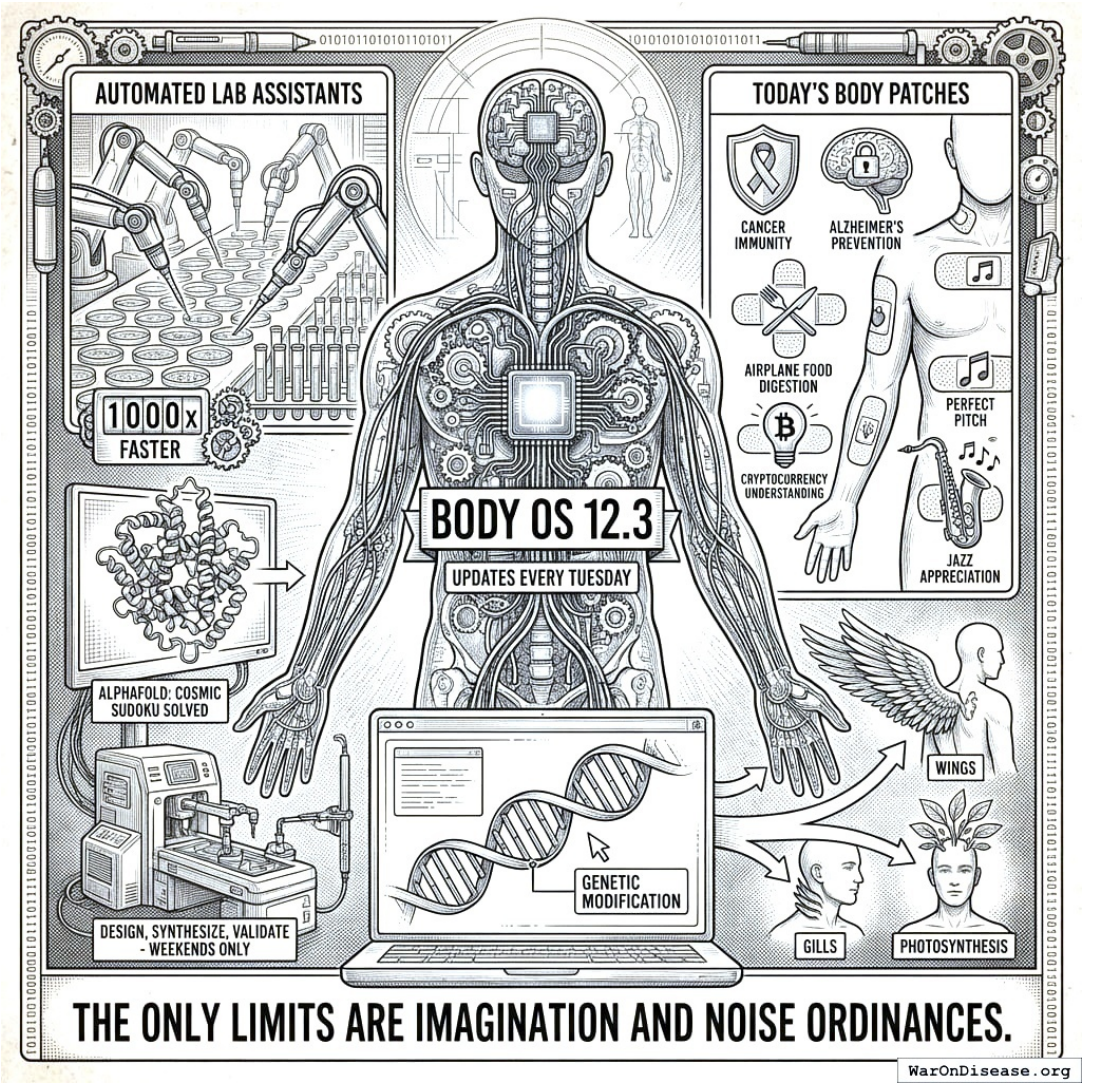


Figure 316: Your body gets updates like your phone, except the updates actually work and don't break everything.

Robot lab assistants perform experiments 1,000 times faster than humans (they don't need lunch breaks, bathroom breaks, or existential crises). AlphaFold maps every protein like solving cosmic sudoku. Drug companies design, synthesize, and validate new treatments over weekends.

Today's body patches include cancer immunity, Alzheimer's prevention, perfect pitch, airplane food digestion, cryptocurrency comprehension, and jazz appreciation. Don't like your genetics? Change them. The only limits are imagination and noise ordinances.

A Day in the Optimized Life

Here's what Tuesday looks like when the Three Supers are normal:

6:00 AM: Wake up naturally. Body OS 12.3 optimized your sleep. You feel excellent. No alarm needed. Your circadian rhythm works correctly for the first time in human history.

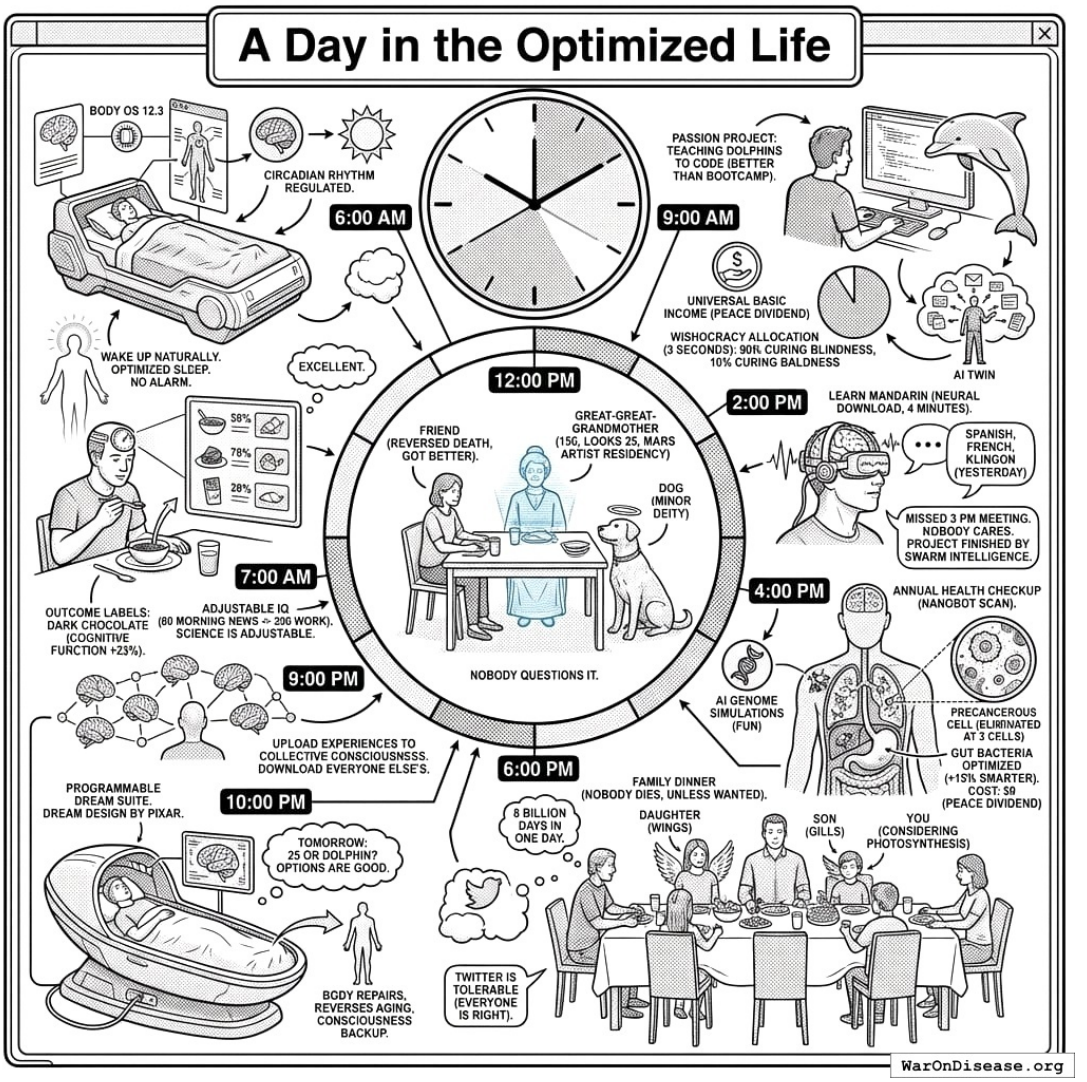


Figure 317: Daily schedule when you've cured death. Includes nanobot breakfast and consciousness backup before bed. Still have morning meetings.

7:00 AM: Breakfast. Outcome Labels tell you exactly how each food affects your body. Dark chocolate improves cognitive function by 23%. You adjust your IQ to 80 for morning news (otherwise it's unwatchable), then 200 for work.

9:00 AM: Work on your passion project. Today: teaching dolphins to code. They're better than most bootcamp graduates. Universal Basic Income (funded by the peace dividend) means you work because you want to, not because landlords exist. Your Wishocracy allocation takes 3 seconds: 90% curing blindness, 10% curing baldness. Your AI twin handles 10,000 other decisions while you drink coffee.

12:00 PM: Lunch with your friend who died last year. They got better. Death is reversible now. Your great-great-grandmother (150, looks 25) joins via hologram from her Mars artist residency. Your dog is technically a minor deity. Nobody questions it.

2:00 PM: Learn Mandarin via neural download. Takes 4 minutes. You already learned Spanish, French, and Klingon yesterday. Your AI reminds you about your 3 PM meeting. You

missed it. Nobody cares. The project finished itself using swarm intelligence.

4:00 PM: Annual health checkup. Nanobots scanned you while you slept. They found and eliminated a precancerous cell at 3 cells, not 3 billion. An AI ran a billion simulations on your genome because it was bored. Your gut bacteria got optimized to make you 15% funnier. Cost: $0. The peace dividend covers it, and nobody had to set up a GoFundMe.

6:00 PM: Family dinner. Everyone's here because nobody dies anymore (unless they want to, and that's between them and their therapist). Planning next week's body modifications: daughter wants wings, son wants gills, you're considering photosynthesis so you never have to cook again.

9:00 PM: Upload today's experiences to collective consciousness. Download everyone else's. You've now lived 8 billion days in one day. Time is weird. Twitter is tolerable because everyone's right about everything simultaneously. (This was the hardest problem to solve. Harder than death.)

10:00 PM: Sleep in programmable dream suite. Tonight's dreams designed by Pixar, sponsored by nobody (advertising died when scarcity did). Your body repairs itself, reverses aging, backs up your consciousness. Tomorrow you might try being 25 again. Or a dolphin. The dolphins say it's great.

The Diseases That Stopped Existing

You remember these the way you remember dial-up internet. Vaguely horrifying in retrospect.

1. **Most Cancers** - Detected at stage 0, eliminated immediately. The oncology wing of the hospital is now a trampoline park.
2. **Type 2 Diabetes** - Prevented with personalized nutrition
3. **Alzheimer's** - Caught 20 years before symptoms, reversed completely
4. **Heart Disease** - Arteries cleaned monthly like oil changes
5. **Depression** - Precision therapies that actually work, not "have you tried going for a walk?"
6. **Aging** - Still happens, but 40% slower

Death exists. You're not immortal. But you die at 150 after a good life, not at 75 from something that was fixable the whole time.

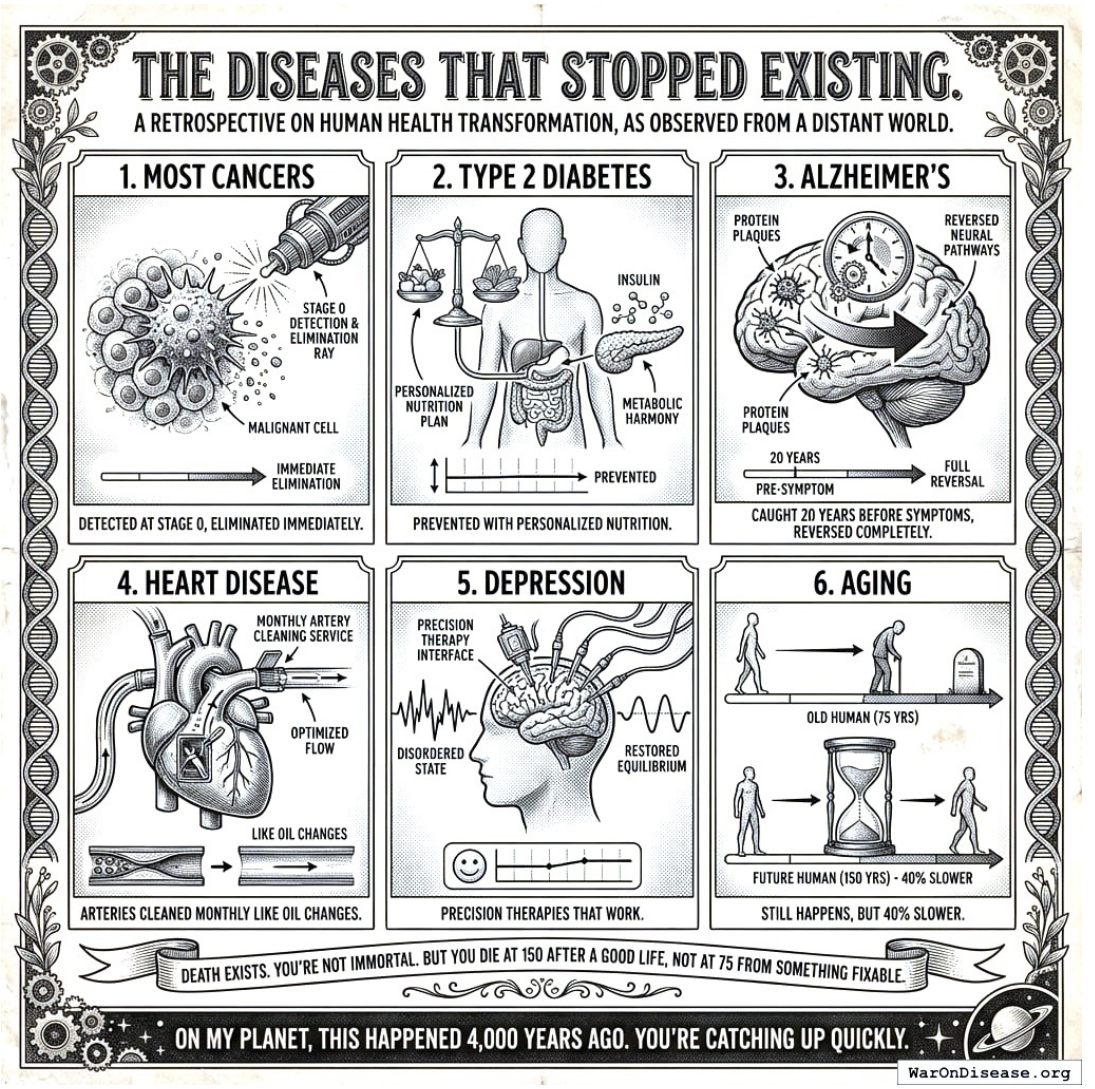


Figure 318: Live 75 years fixing what breaks, or live 150 years never breaking in the first place. Same cost, different timing.

On my planet, this happened 4,000 years ago. You're catching up quickly.

The Peace Dividend Economy

Even in paradise, economics matters. Money still exists. It just flows toward things that don't explode. (Low bar, but you'd be surprised how long it took you to clear it.)

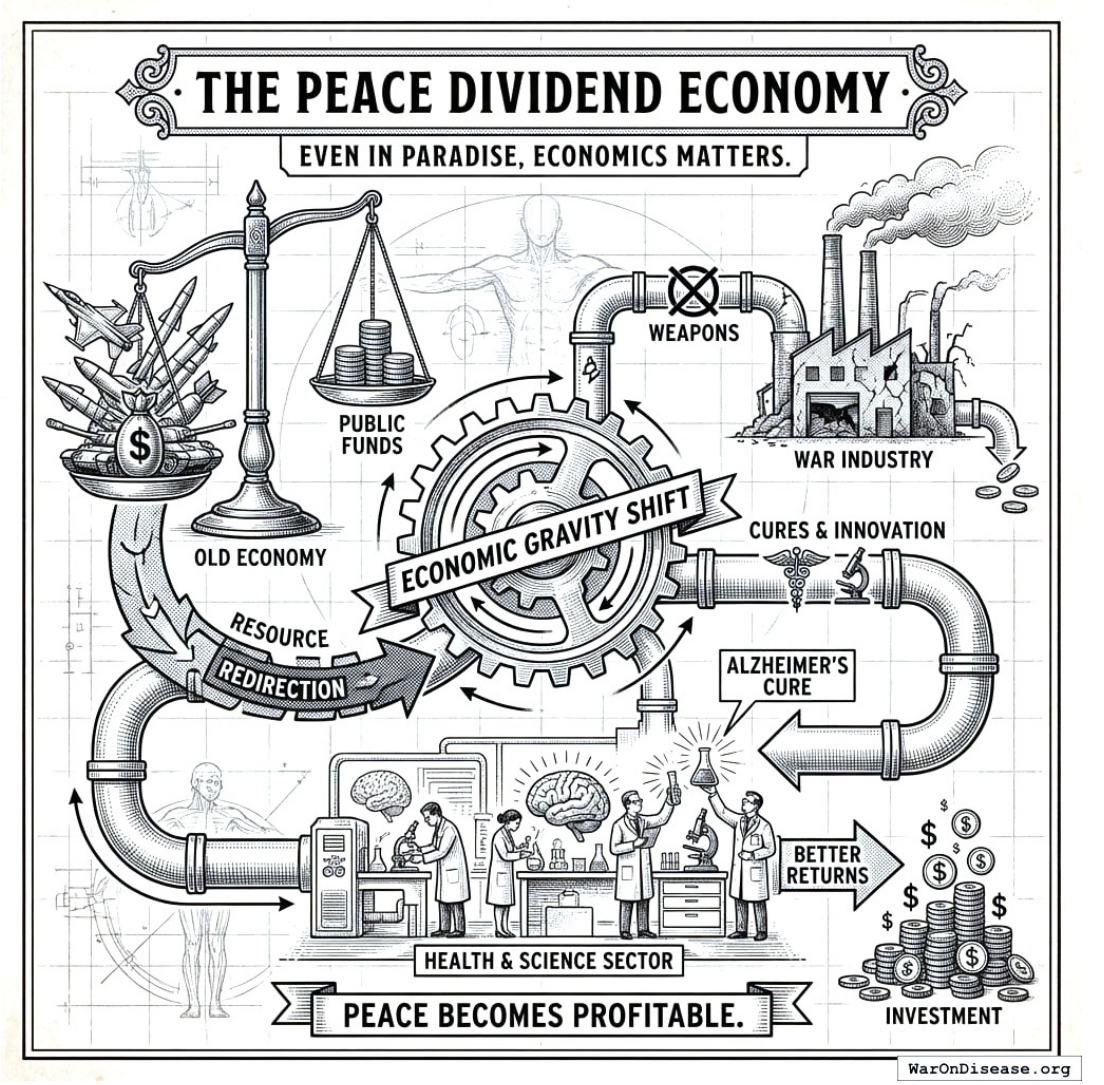


Figure 319: What happens when the bomb scientists become biology scientists. Explosions become optional.

When resources redirect from weapons to cures, economic gravity shifts. Scientists and investors get better returns curing Alzheimer's than building fighter jets. Peace becomes profitable. Greed doesn't disappear (you're still human). It just starts wearing a lab coat.

Annual Global Redirected Funds

- From military budgets: $1.35 trillion
- Economic growth from healthy population: $3.5 trillion
- Reduced healthcare costs: $2.8 trillion
- Productivity gains from longevity: $4.1 trillion
- **Total Annual Peace Dividend: $11.75 trillion**

That's $1,450 per human per year in actual new wealth. Not redistribution. New wealth generated by the radical innovation of people not being sick or dead. Alive, healthy people are productive. Who knew? (Everyone. Everyone knew. For centuries. You just kept not doing

it.)



Figure 320: Eleven trillion dollars you find in the couch cushions when you stop trying to kill each other.

Your Corporate Heroes

Same companies that made weapons now make life. Turns out the skills transfer beautifully. Guidance systems, targeting algorithms, precision engineering. All very useful when the target is cancer instead of a village.

Lockheed Martin Health: Cancer-detecting satellites spot tumors from orbit. Stock price: $12,000/share. Shareholders discover that alive customers buy more things.

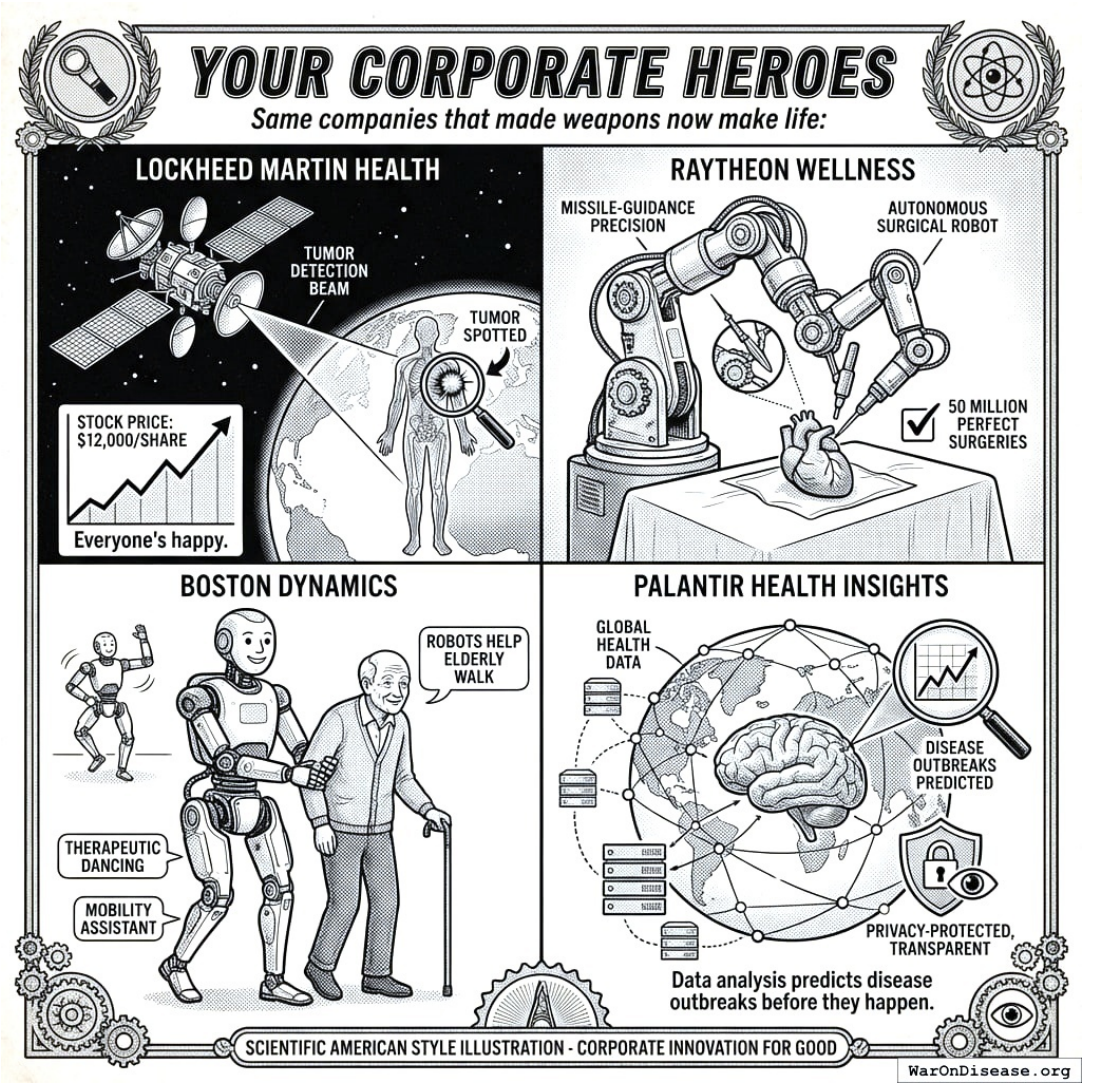


Figure 321: Turn your missile guidance system into cancer targeting. Same math, fewer war crimes.

Raytheon Wellness: Missile guidance systems make excellent surgical robots. 50 million perfect surgeries performed. Zero villages destroyed. A personal best.

Boston Dynamics: Robots help elderly walk. The dancing is still cute, now therapeutic.

Palantir Health Insights: Data analysis predicts disease outbreaks before they happen. Privacy-protected, transparent, saves lives. Still creepy, but helpfully creepy. Like a doctor who memorizes your schedule.

Your New Problems

You still have problems. They're just embarrassingly good problems:

Longevity Overflow: Too many healthy 100-year-olds want to work. Government crisis meetings about citizens being "too productive and won't stop contributing to society." Solution:

three-day work weeks and multiple careers per lifetime.

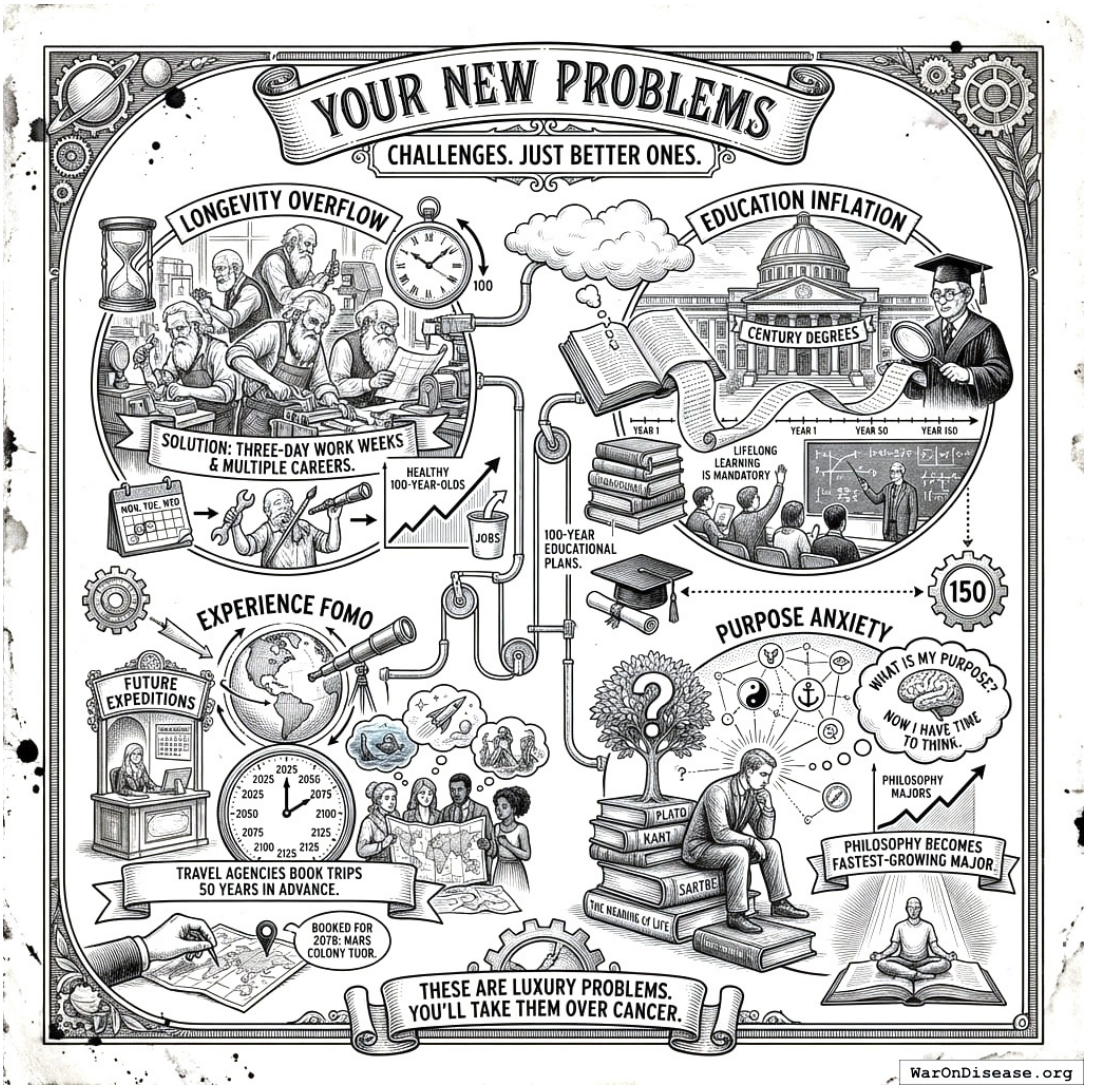


Figure 322: Problems you only have when nobody dies. Like 'where do we put everyone' and 'what if I'm bored for 200 years.' Good problems to have.

Education Inflation: When you live to 150, you need more things to learn. Universities offer "Century Degrees" - 100-year educational plans.

Experience FOMO: With health and time, people worry about missing experiences. Travel agencies book trips 50 years in advance.

Purpose Anxiety: When you're not worried about dying, you worry about meaning. Philosophy becomes fastest-growing major. Philosophers are thrilled. (This is the first time anyone has used "philosophers" and "thrilled" in the same sentence.)

These are luxury problems. You'll take them over cancer.

The Three Supers Complete

Super-Intelligence: Complete. Every human accesses all knowledge instantly. Debates end in nanoseconds because you can simulate all perspectives simultaneously. Twitter becomes tolerable. (Humanity's greatest achievement, and it's not close.)

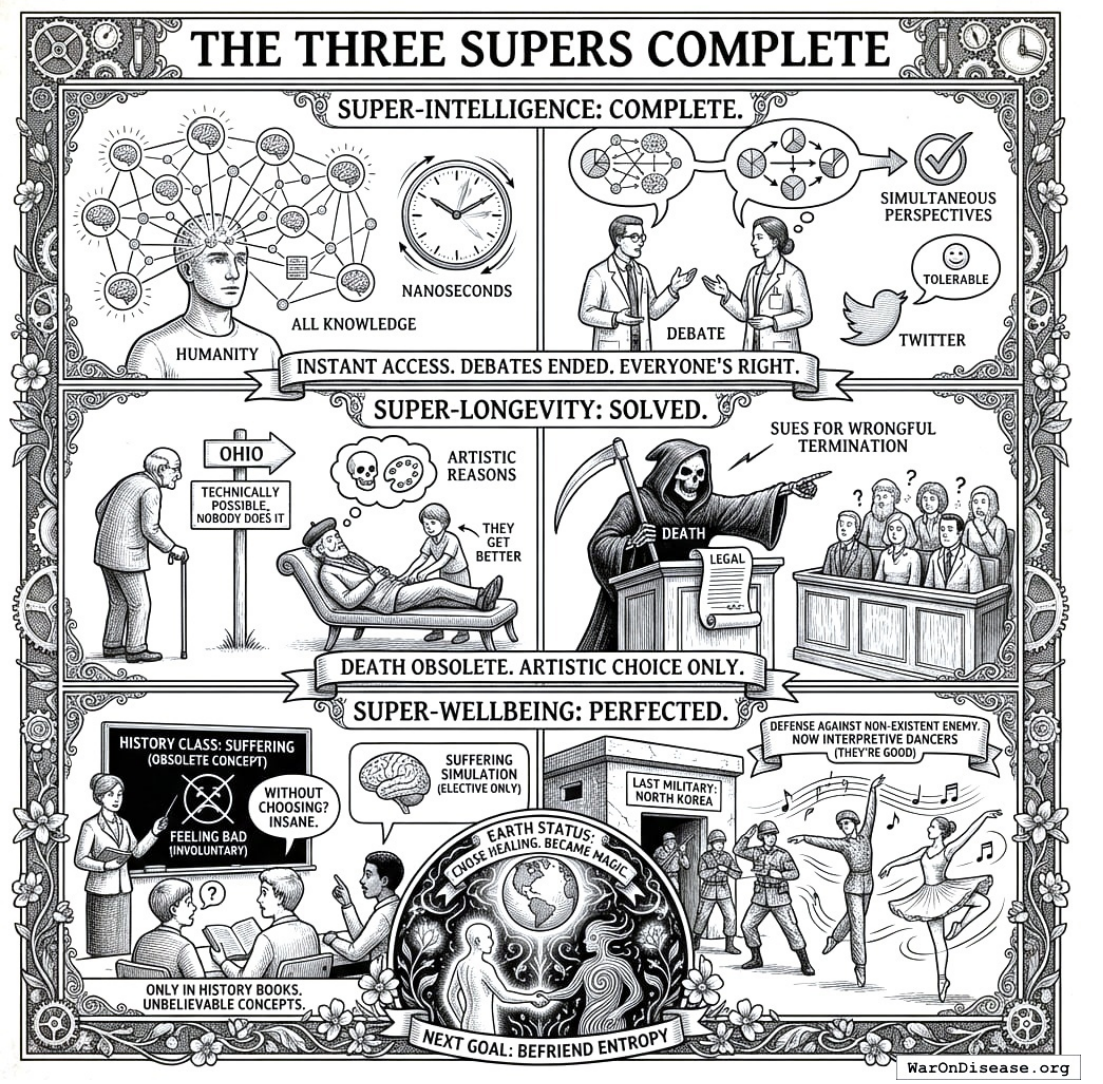


Figure 323: Three ways to be super without wearing underwear outside your pants. You get smart, live forever, and feel great. Comics lied about the cape requirement.

Super-Longevity: Solved. Death is like moving to Ohio. Technically possible but nobody does it voluntarily. Some choose to die for artistic reasons. They get better. Death sues for wrongful termination. Case dismissed.

Super-Wellbeing: Perfected. Suffering exists only in history classes. Students don't believe it was real. "People felt bad without choosing to? That's insane."

The last military on Earth (North Korea, obviously) finally disbands. They were defending against an enemy that stopped existing 40 years ago. The soldiers become interpretive dancers.

They're surprisingly good.

Earth's status: Chose healing. Became magic. Next goal: befriend entropy.

Your Personal Future

Here's what your life looks like when this is fully realized:

Health: Live to 150+ (or forever). Your body is programmable software. Debug it, upgrade it, back it up. Death is optional. Most try it once for the experience. Reviews are consistently poor.

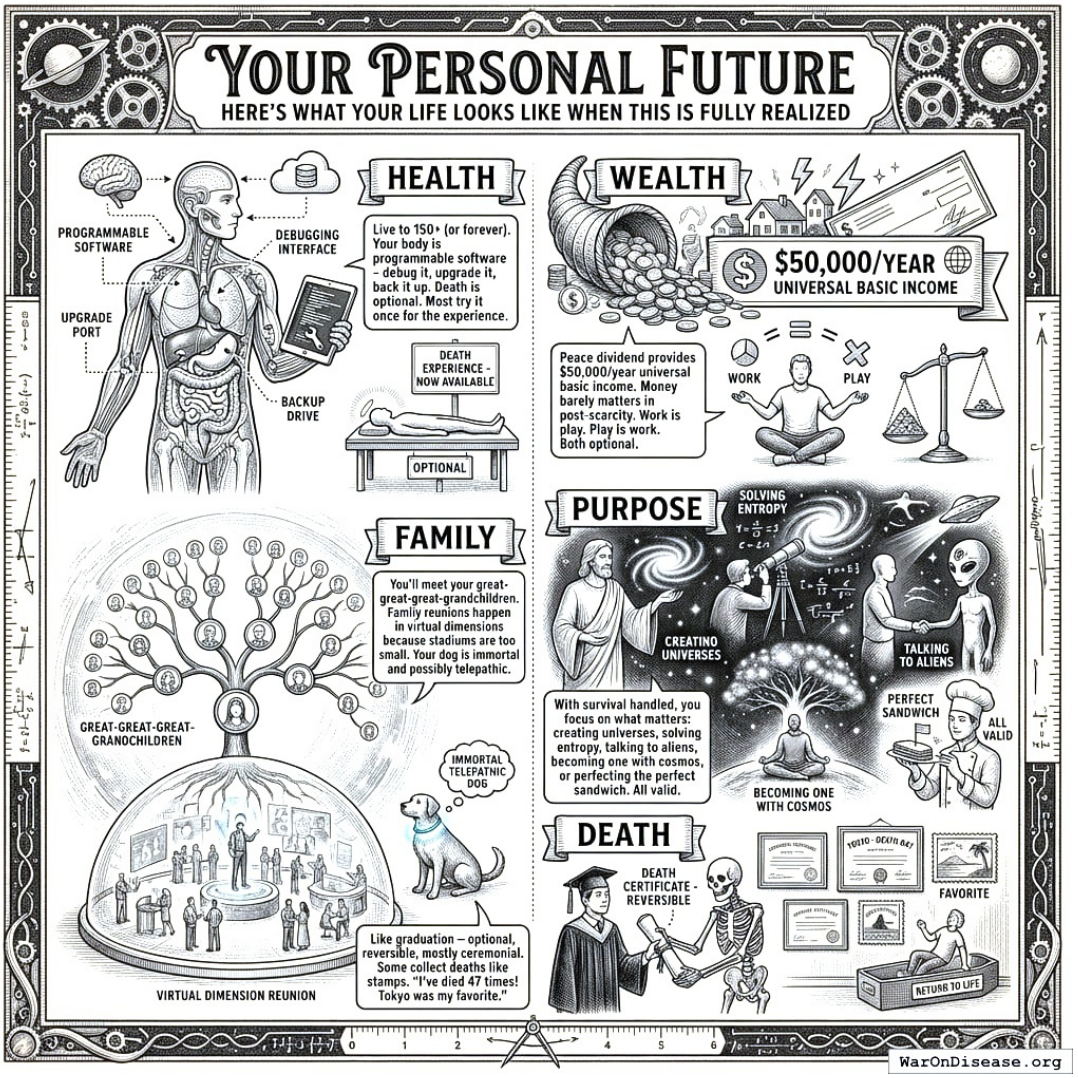


Figure 324: Life when nobody needs anything because everything is free and nobody dies. Your biggest problem is deciding what to do Tuesday.

Wealth: Peace dividend provides $50,000/year universal basic income. Money barely matters in post-scarcity. Work is play. Play is work. Both optional.

Family: You'll meet your great-great-great-grandchildren. Family reunions happen in virtual dimensions because stadiums are too small. Your dog is immortal and possibly telepathic.

Purpose: With survival handled, you focus on what matters: creating universes, solving entropy, talking to aliens, becoming one with the cosmos, or perfecting the sandwich. All equally valid. The sandwich people are making real progress.

Death: Like graduation - optional, reversible, mostly ceremonial. Some collect deaths like stamps. "I've died 47 times! Tokyo was my favorite."

What Fixing Health Fixed

Nobody predicted this (I predicted this): fixing health fixed everything else. Like pulling one thread and the whole sweater of human misery unravels.

Climate Change: Solved the moment everyone realized they'd personally be alive to see the consequences. Amazing how much you care about sea levels when your beach house needs to last 150 years.

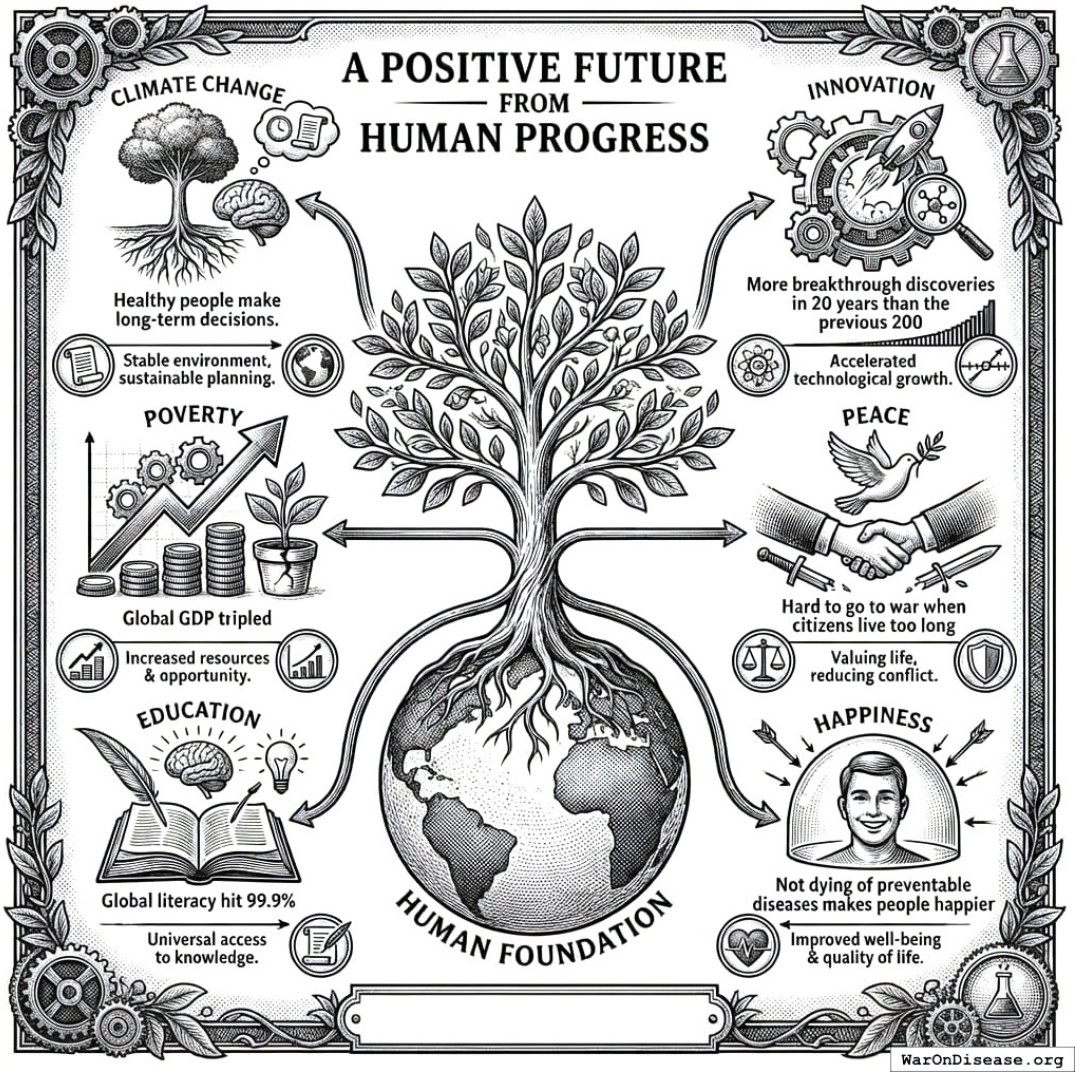


Figure 325: Fix health, accidentally fix six other things. It's called a cascading benefit. Like dominoes, but everyone wins.

Poverty: Global GDP tripled when you stopped losing productive years to preventable disease. It turns out the cure for poverty was curing everything else first.

Education: When you live to 150, 20 years of education makes sense. Global literacy hit 99.9%.

Innovation: Healthy brains think better. More breakthrough discoveries in 20 years than the previous 200. It's almost as if not poisoning your scientists improves their output.

Peace: Hard to start a war when your citizens have 130 years of remaining life expectancy. A 150-year-old is significantly less keen on dying for a flag than an 18-year-old. Recruitment posters don't work on people who've already been 18 twice.

Happiness: Not dying of preventable diseases makes people happier. I apologize for stating something so obvious. But given that you spent 4,000 years not acting on it, apparently somebody needed to.

Message from the Future

Dear Present You,

This message comes from a world where your children live to 150. Where cancer is as treatable as a cold. Where depression has precise, effective treatments. Where aging is a choice, not a sentence. Where humanity collaborates instead of competing to see who can destroy things fastest.



Figure 326: Old Earth: make money by killing people. New Earth: make money by not killing people. Radical concept.

This world exists because you finally made one choice:

You made healing people more profitable than killing them.

Your great-great-great grandchildren (who you'll meet) are grateful.

P.S. The chocolate thing is real. For some genetics, it's medicine. Science is wonderful when you fund it.

What Comes After

You solved death, suffering, and scarcity. Now what?

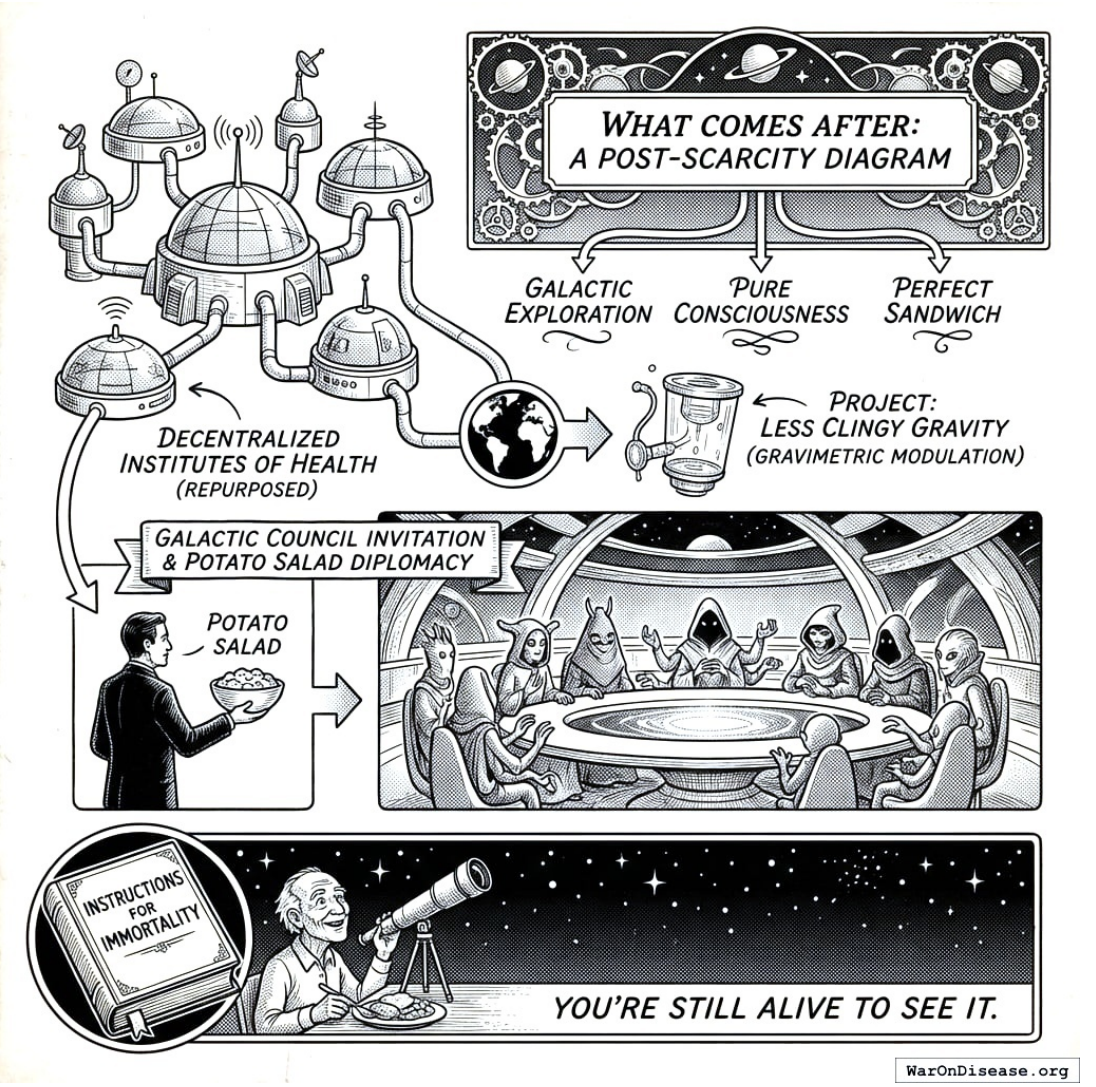


Figure 327: After fixing death and poverty, you run out of problems and have to invent new ones. Like 'how do we make friends with aliens' and 'what if we changed physics.'

Some humans explore galaxies. Some become pure consciousness. Some perfect the sandwich. (The sandwich faction is the largest. This surprised no one.)

Your network of decentralized institutes of health still exists, but it ran out of diseases. It pivots to making reality more interesting. Today's project: teaching gravity to be less clingy. Gravity is not cooperating.

The universe notices you. It's impressed. You're invited to the Galactic Council. You bring potato salad. Everyone loves it. Potato salad saves the universe.

You're still alive to see it. Because you followed the instructions in this book.

Your Two Paths

You're at the fork.

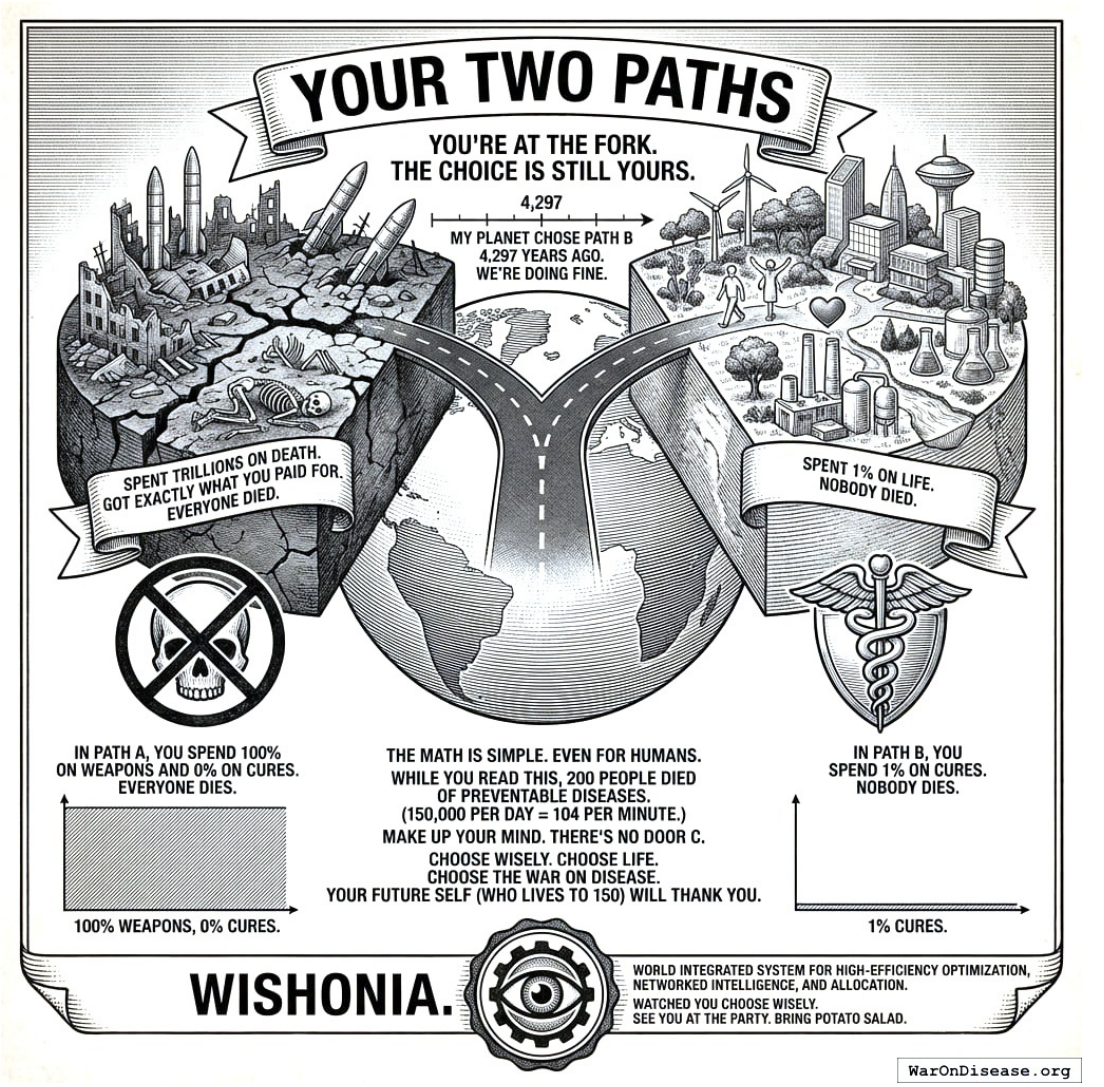


Figure 328: Path A: Everyone dies. Path B: Everyone lives. Humans chose Path A because it had better PowerPoint slides.

Path A: The Dystopia - You spent trillions on death. Got exactly what you paid for. Everyone died.

Path B: Wishonia - You spent 1% on life. Nobody died.

The choice is still yours.

My planet chose Path B 4,297 years ago. We're doing fine.

In Path A, you spend 100% on weapons and 0% on cures. Everyone dies. In Path B, you redirect 1% to cures. Nobody dies.

The math is simple. Even for humans. (Especially for humans, because you invented math and then refused to use it.)

While you read this chapter, approximately 200 people died of preventable diseases. (150,000 per day = 104 per minute.) They did not get a vote on which path you chose.

Make up your mind. There's no Door C.

Choose wisely. Choose life. Choose the War on Disease.

Your future self (who lives to 150) will thank you.

WISHONIA

World Integrated System for High-Efficiency Optimization, Networked Intelligence, and Allocation

Watched You Choose Wisely

See You at the Party

Bring Potato Salad

Frequently Asked Objections

Objection: "Nice idea, but it likely won't happen."

Response: It already did. The Oxford RECOVERY trial tested 7 treatments in 6 months, saved 1 million lives at $500 per patient. The FDA's version costs $41K per patient for the same information.

The trial used existing hospital systems. Hospitals, it turns out, already contain sick people. This was apparently news.

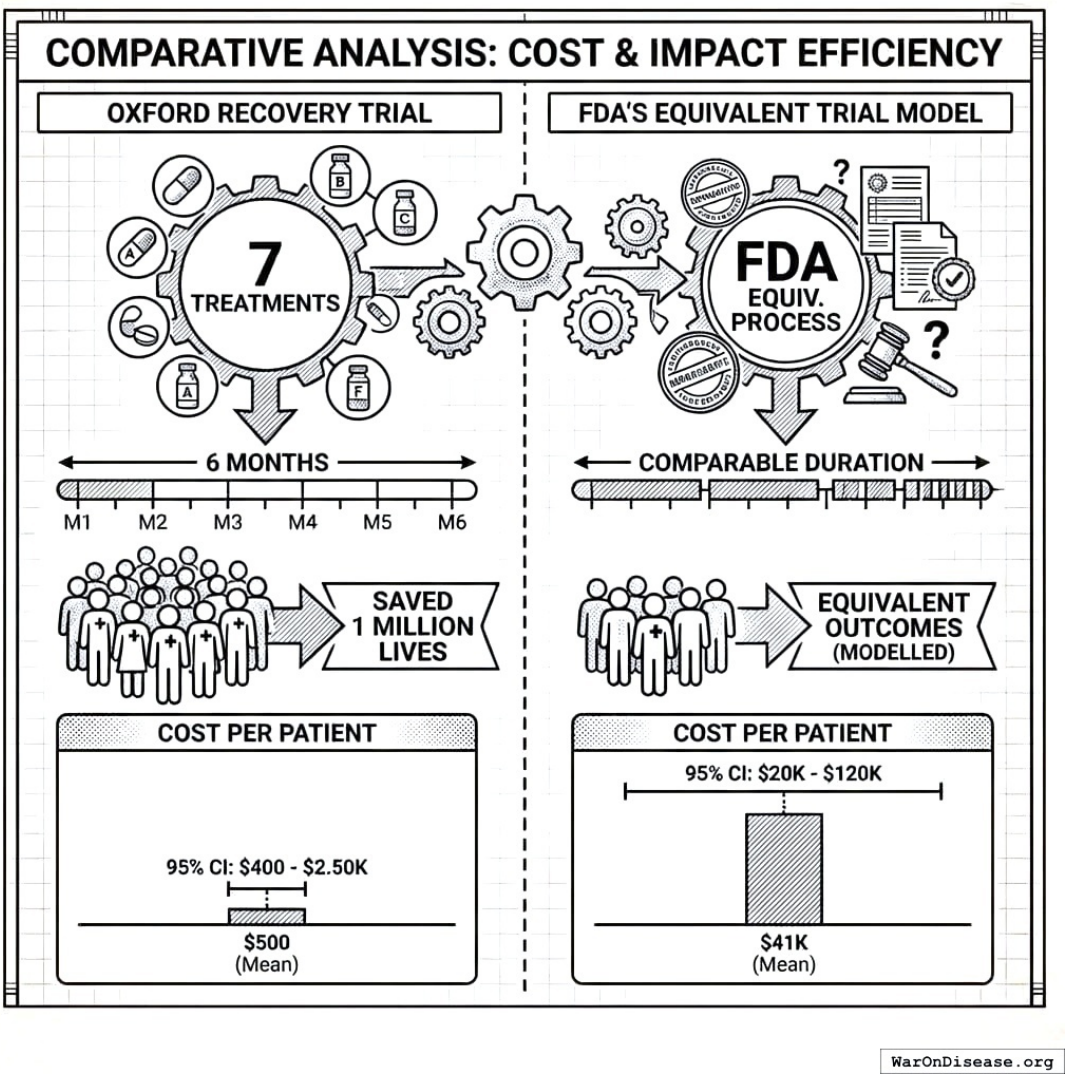


Figure 329: Oxford's trial cost 15,000 dollars. FDA trials cost 48 million. Both test if drugs work, but one uses existing hospitals and common sense.

Follow-up: "But globally?"

Response: The internet scaled globally. So did smartphones. So did TikTok, which is considerably less useful. This just scales what already worked.

"We Need the Military Budget"

Objection: "We can't reduce military spending. That would make us vulnerable."

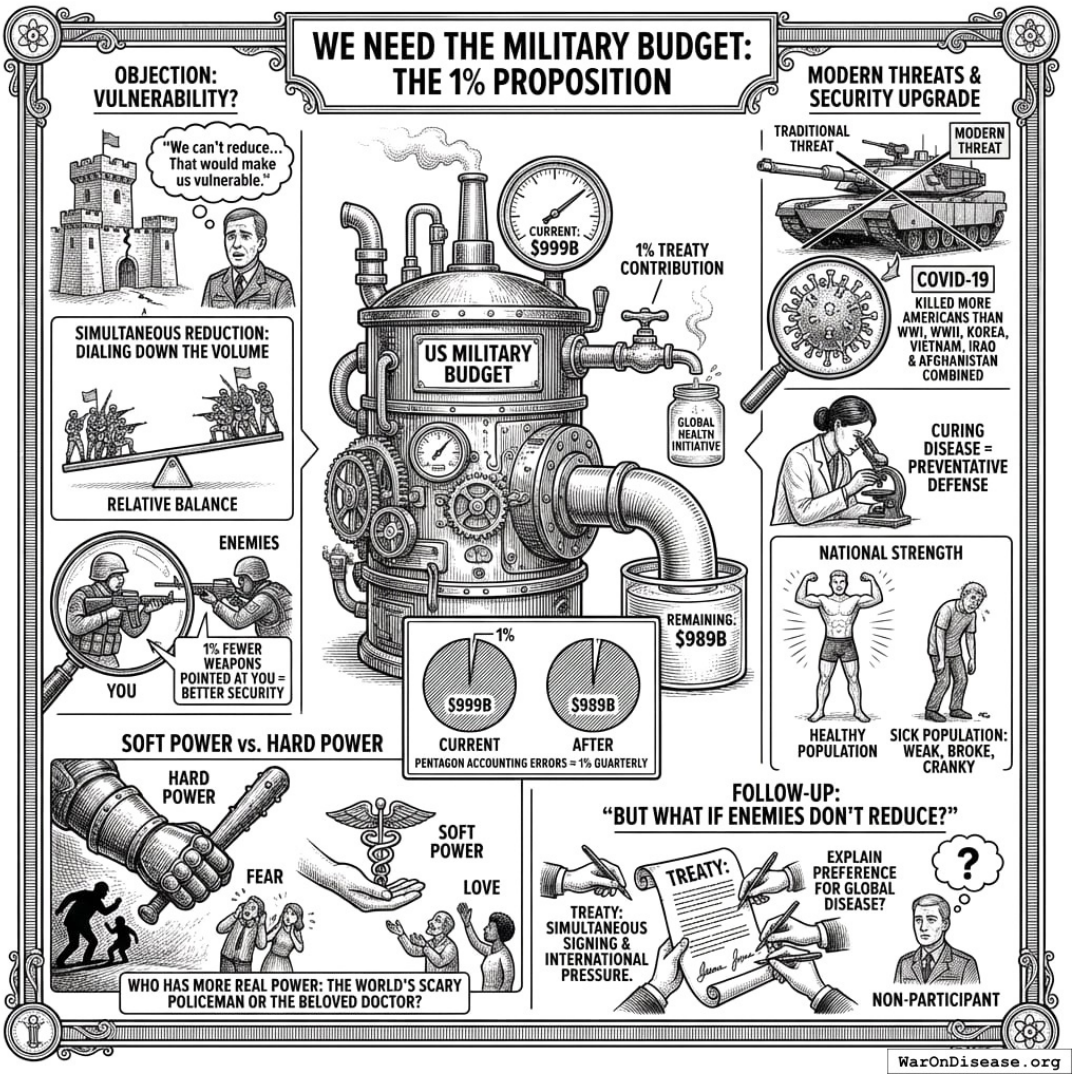


Figure 330: What 1 percent of military spending buys: fewer tanks, more cured diseases, and soft power. Turns out healthy people like you more than people you bombed.

Response: The treaty takes 1%. You keep 99%. If you can't defend yourself with 99% of history's largest military budget, the problem isn't money.

The Pentagon literally cannot account for $2.5 trillion in spending. You're asking them to redirect money they already lost in the couch cushions.

Every nation reduces by 1%, so relative military balance stays proportional. Everyone turns the volume down together. Nobody gets quieter relative to anyone else.

The greatest threats today aren't tanks rolling over borders. They're microscopic things rolling through airports. COVID-19 killed more Americans than World War I, World War II, Korea, Vietnam, Iraq, and Afghanistan combined. It did this without triggering a single defense system. Your $999 billion military budget watched it happen, fully armed and completely useless.

Broke, sick countries start wars. Healthy countries start businesses. Curing disease is preventa-

tive defense with better ROI than any missile system ever built.

Follow-up: "But what if enemies don't reduce?"

Response: That's what a treaty is. Everyone signs at once. Those who don't simply miss Incentive Alignment Bond benefits. Their politicians lose campaign funding and post-office opportunities. Participating nations' politicians get rewarded instead. Self-interest does the heavy lifting. It always does.

"Big Pharma Will Block This"

Objection: "Pharmaceutical companies will kill this. They profit from disease."

Response: Pharma makes *more* money under this model. Watch their opposition evaporate.

Current system: Pharma pays $2.60B per drug. 90% fail. Only blockbusters profit. The business model is "spend billions gambling, hope one pill pays for the nine that didn't work."

New system: The treaty fund pays pharma to run trials. Trials become revenue, not cost. More drugs become profitable, even the weird ones. Predictable income instead of pharmaceutical roulette.

Pharma would lobby FOR this harder than they've ever lobbied for anything. You'd be giving drug companies more money to do what they already do. They'd trample each other getting to the signing ceremony.

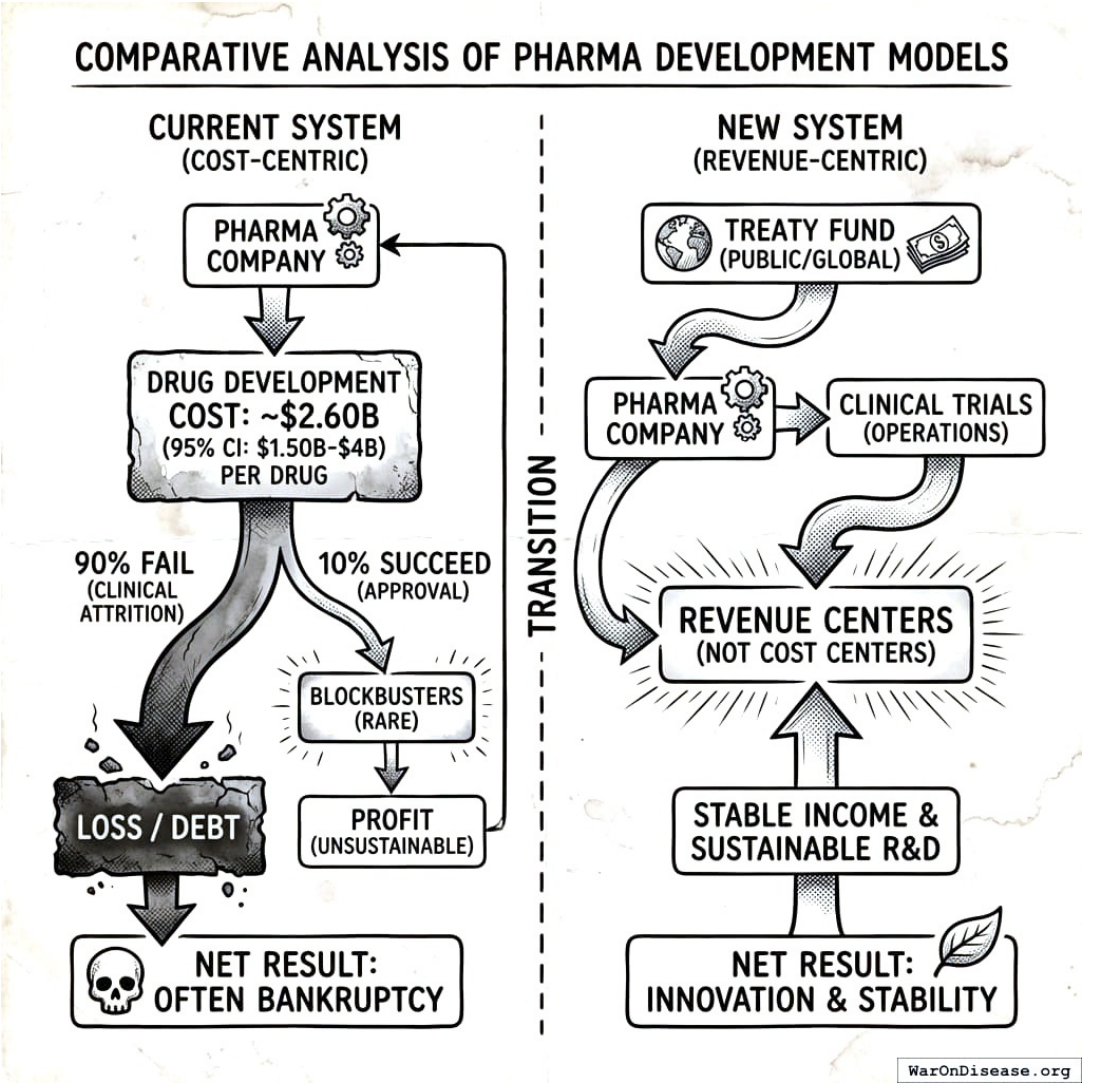


Figure 331: How drug companies currently lose billions gambling on pills versus how they could just get paid to run the experiments. It's like offering a casino steady paychecks instead of roulette.

"What About National Sovereignty?"

Objection: "This forces countries to spend money a certain way. That violates sovereignty."

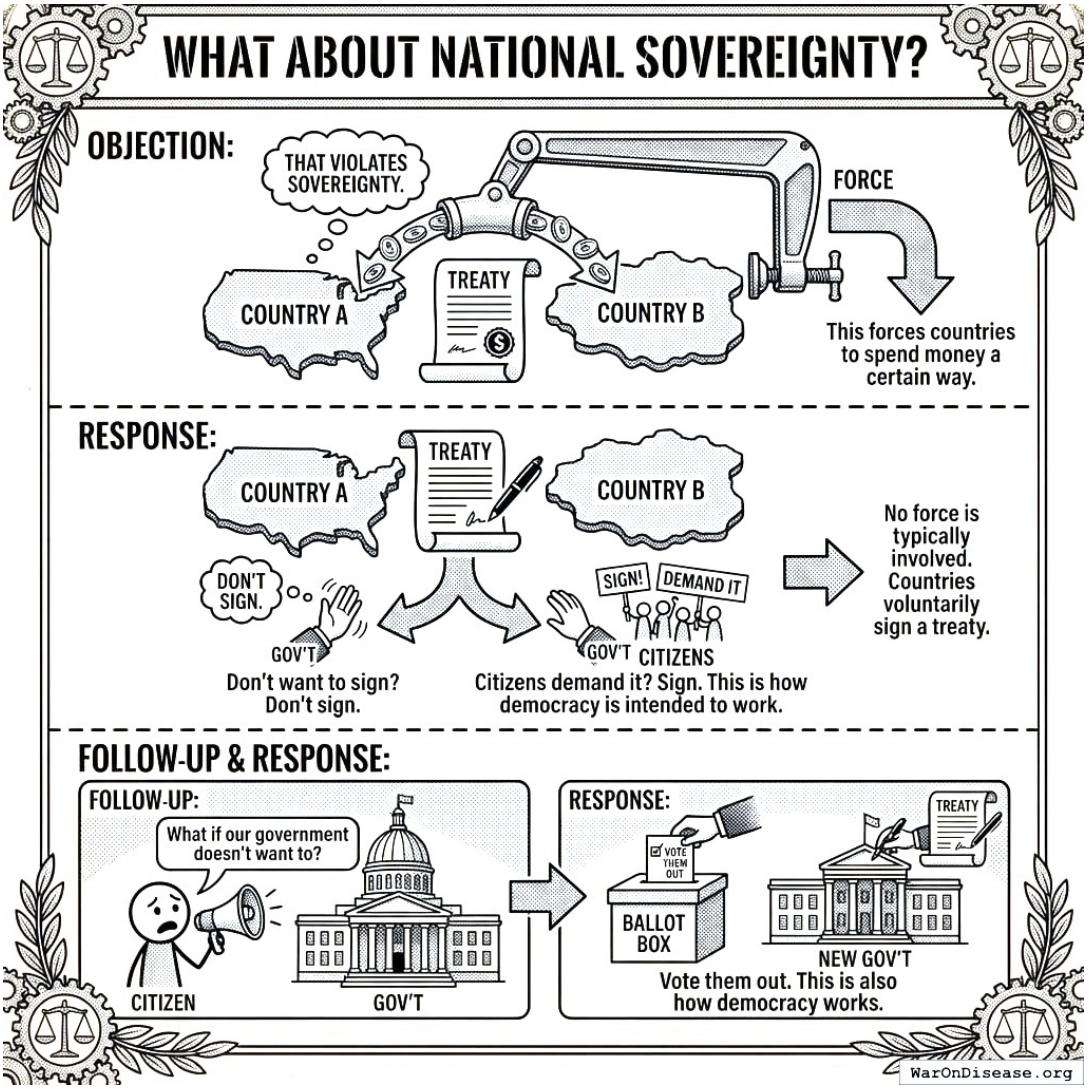


Figure 332: How voters get politicians to do things: ask nicely, then replace them if they don't. It's the same system you use with batteries.

Response: No force involved. Countries sign by choice. Don't want to? Don't. Miss out on the benefits. Citizens demand it? Sign. This is how democracy is supposed to work. I understand you may be unfamiliar with the concept.

Follow-up: "What if our government doesn't want to?"

Response: Vote them out. This is also how democracy works. (I'm told you've done this before.)

"The FDA Exists for a Reason"

Objection: "We need FDA approval to ensure safety. You're being reckless."

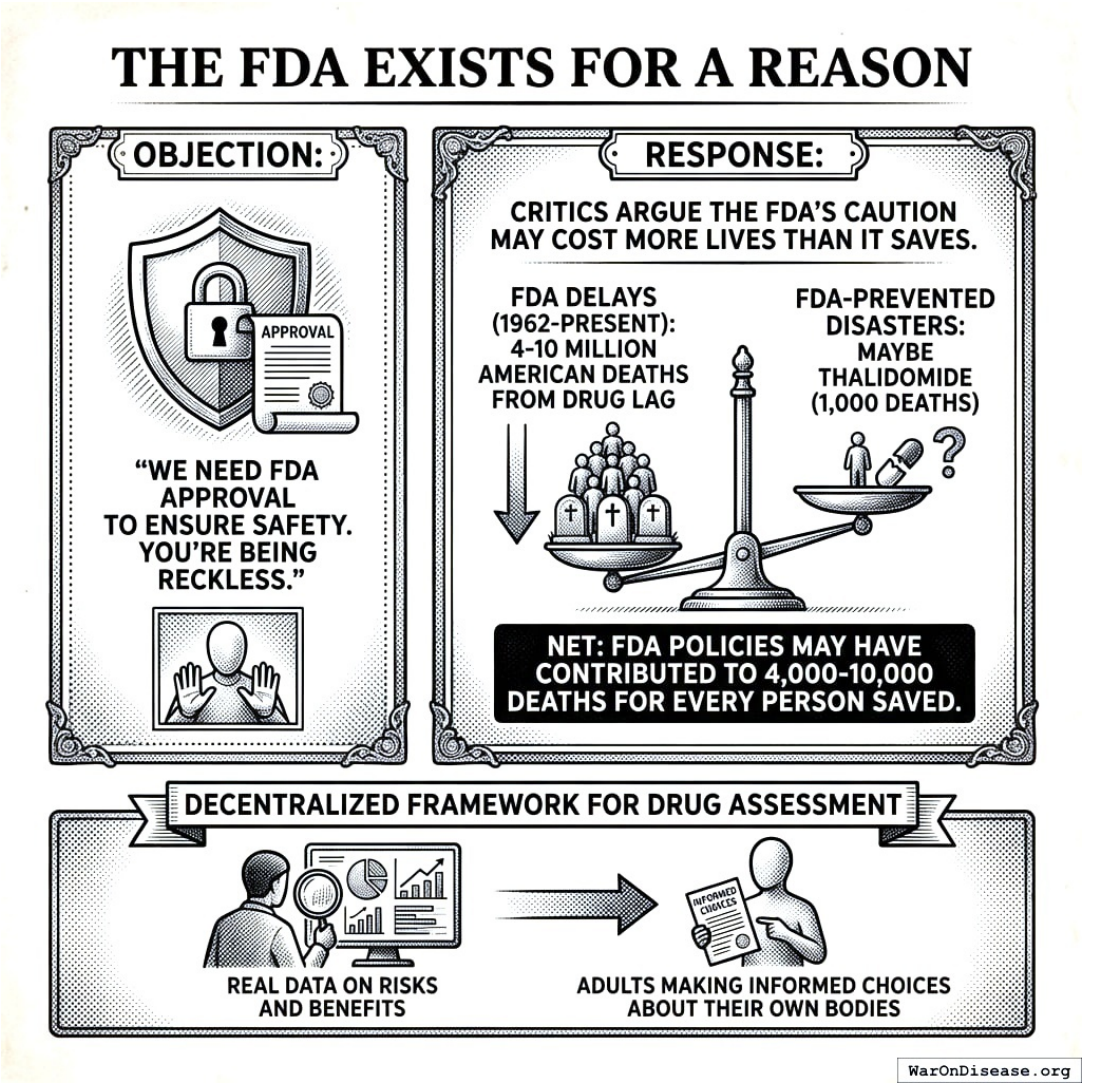


Figure 333: For every person the FDA saves by being careful, 4,000 people die waiting. That's not caution, that's just very slow murder with excellent paperwork.

Response: The FDA is a lifeguard who won't throw the life preserver until it passes a 12-year safety review. By which point you have drowned, decomposed, and become a coral reef.

- FDA delays (1962-present): 4-10 million American deaths from drug lag
- FDA-prevented disasters: Maybe thalidomide (1,000 deaths)
- Net: FDA policies may have contributed to 4,000-10,000 deaths for every life saved

Under the decentralized framework for drug assessment, patients see real data on risks and benefits. Then they decide. The radical concept of adults making informed choices about their own bodies.

"What If Countries Cheat?"

Objection: "Countries will promise to reduce military spending but won't."

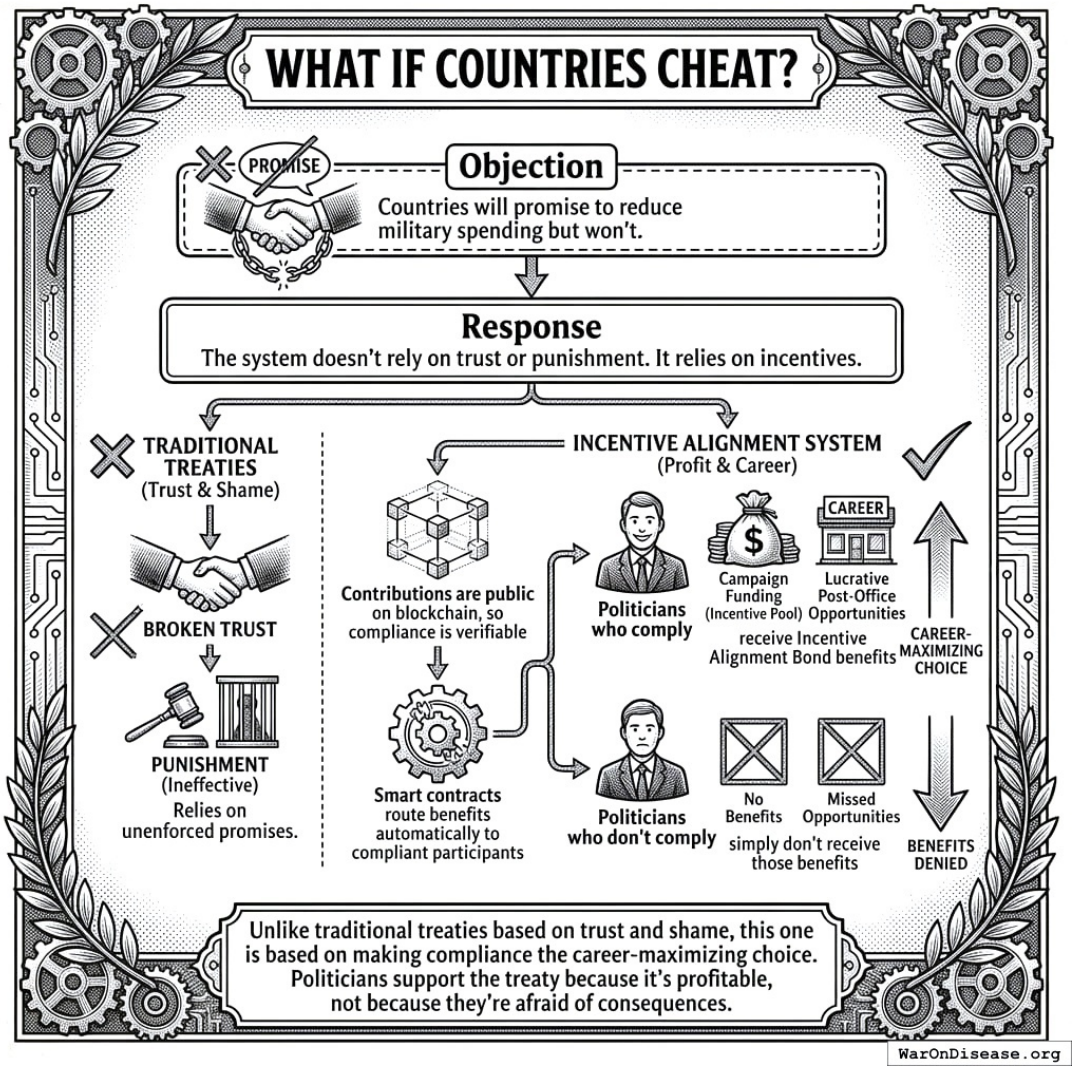


Figure 334: Politicians who keep their promises get paid. Politicians who don't, don't. Novel concept: paying people for doing their jobs instead of for having jobs.

Response: The system doesn't rely on trust. (Good, because you have none.) It relies on incentives.

- **Politicians who comply** receive Incentive Alignment Bond benefits: campaign funding and post-office career opportunities
- **Politicians who don't comply** get nothing
- **Contributions are public** on blockchain, so compliance is verifiable
- **Smart contracts** route benefits automatically to compliant participants

Traditional treaties rely on trust and shame. This one makes compliance the career-maximizing choice. Politicians comply because it's profitable, not because they grew a conscience. (They didn't.)

"You Can't Cure Aging"

Objection: "Aging is natural and inevitable. You can't fight nature."

Response: Dying from infected teeth was "natural" until dentistry. Dying in childbirth was "natural" until medicine. Dying of smallpox was "natural" until vaccines. "Natural" just means "nobody's fixed it yet." Dying of old age is "natural" in the same way dying of anything is natural. You're just used to this one.

You already replace everything that breaks:

- Hearts: replaced (you're basically a car at this point)
- Kidneys: replaced (or hook you to a machine thrice weekly)
- Blood: replaced (vampire economics, but medical)
- Bones: replaced (titanium is better anyway)
- Joints: replaced (your grandma is 15% metal)

Aging is damage accumulation with known repair pathways:

- Telomeres shorten: lengthen them (telomerase activation)
- Cells senesce: clear them (senolytic drugs)
- Proteins misfold: refold them (molecular chaperones)
- Mitochondria fail: replace them (mitochondrial transfer)
- DNA breaks: repair it (CRISPR, base editing)

You went to the moon with slide rules. You can probably fix cells with AI.

Your body is a machine. Machines can be repaired. Aging is harder engineering, not magic. You keep confusing the two because it makes you feel better about not trying.

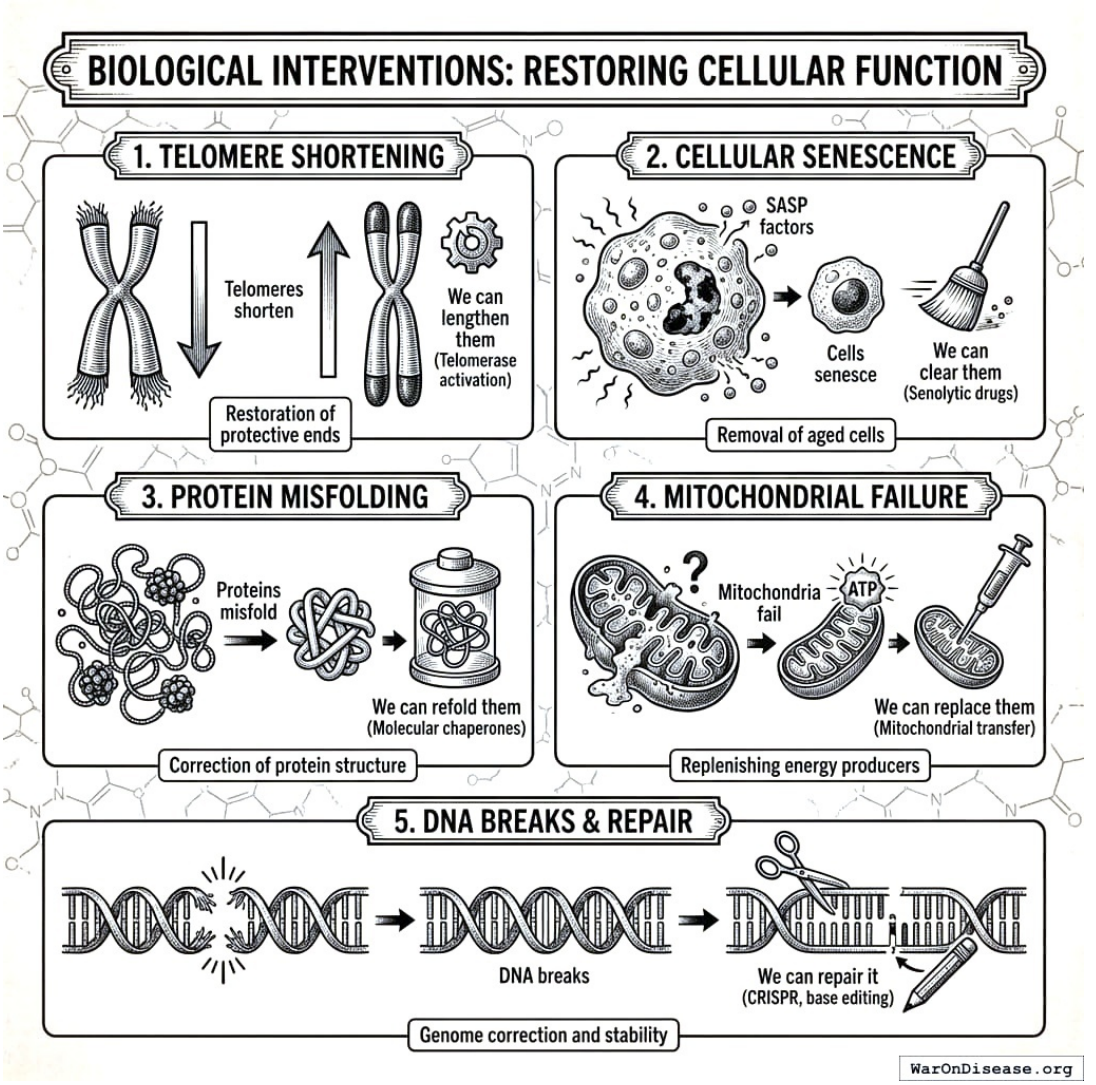


Figure 335: Why your body falls apart and which tools might fix it. Instructions unclear: currently still dying.

"I'm Just One Person"

Objection: "My vote/investment/share won't matter. I'm too small."

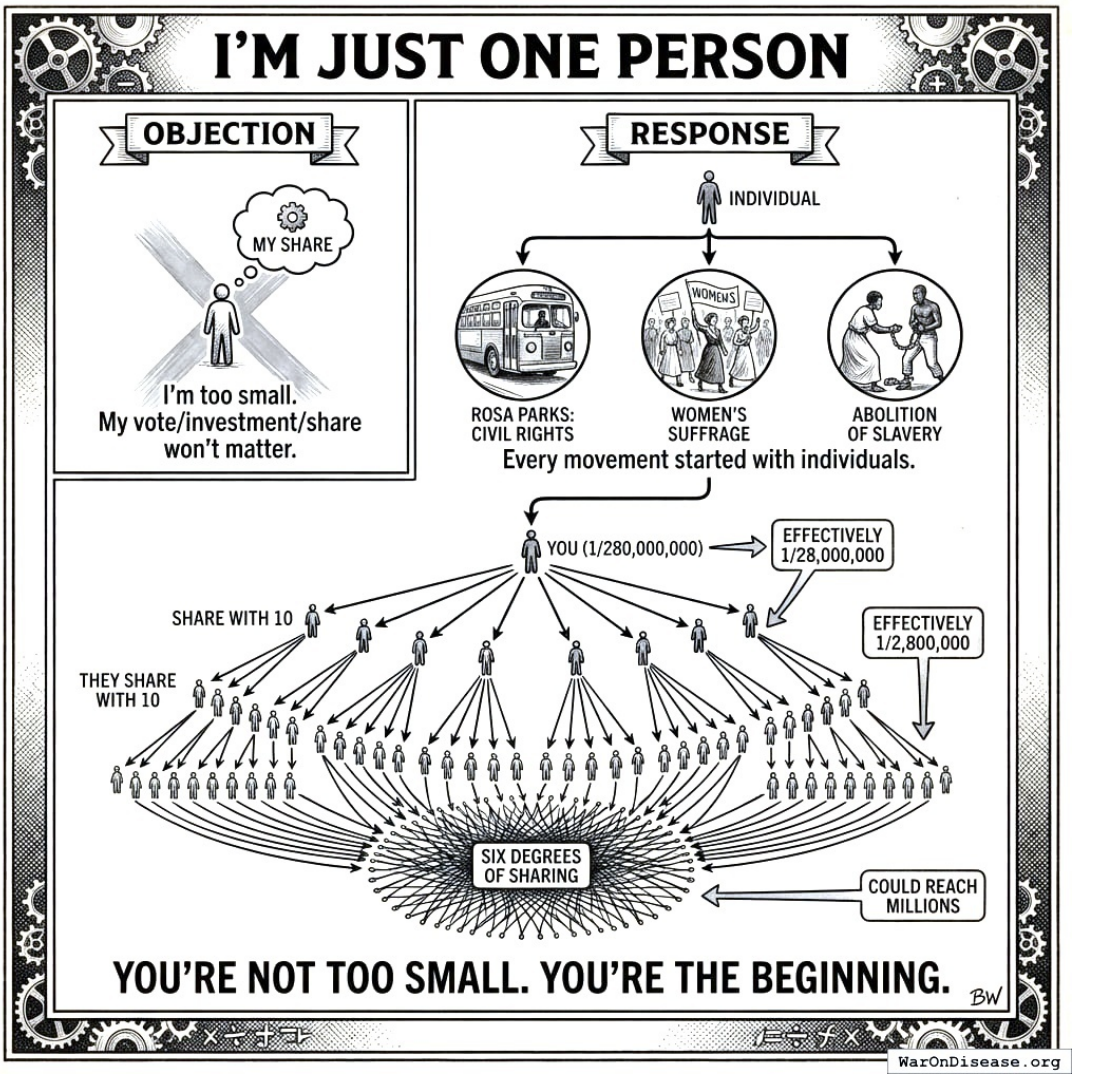


Figure 336: You tell ten friends, who each tell ten friends, until 280 million people know about it. Like a pyramid scheme, but for not dying, so legally distinct.

Response: This needs 280 million people. You tell 10. They each tell 10. Six degrees of sharing reaches millions. It's a pyramid scheme, except at the end everyone lives longer instead of losing their savings.

Your contribution: vote (2 min), buy bonds (10 min), share (15 min). Total: 27 minutes. Potential return: 50,000 extra hours of life if diseases get cured. That's the best trade you'll ever make, and you've made some terrible ones.

"Reform the System Instead"

Objection: "Why not just reform the FDA and NIH?"

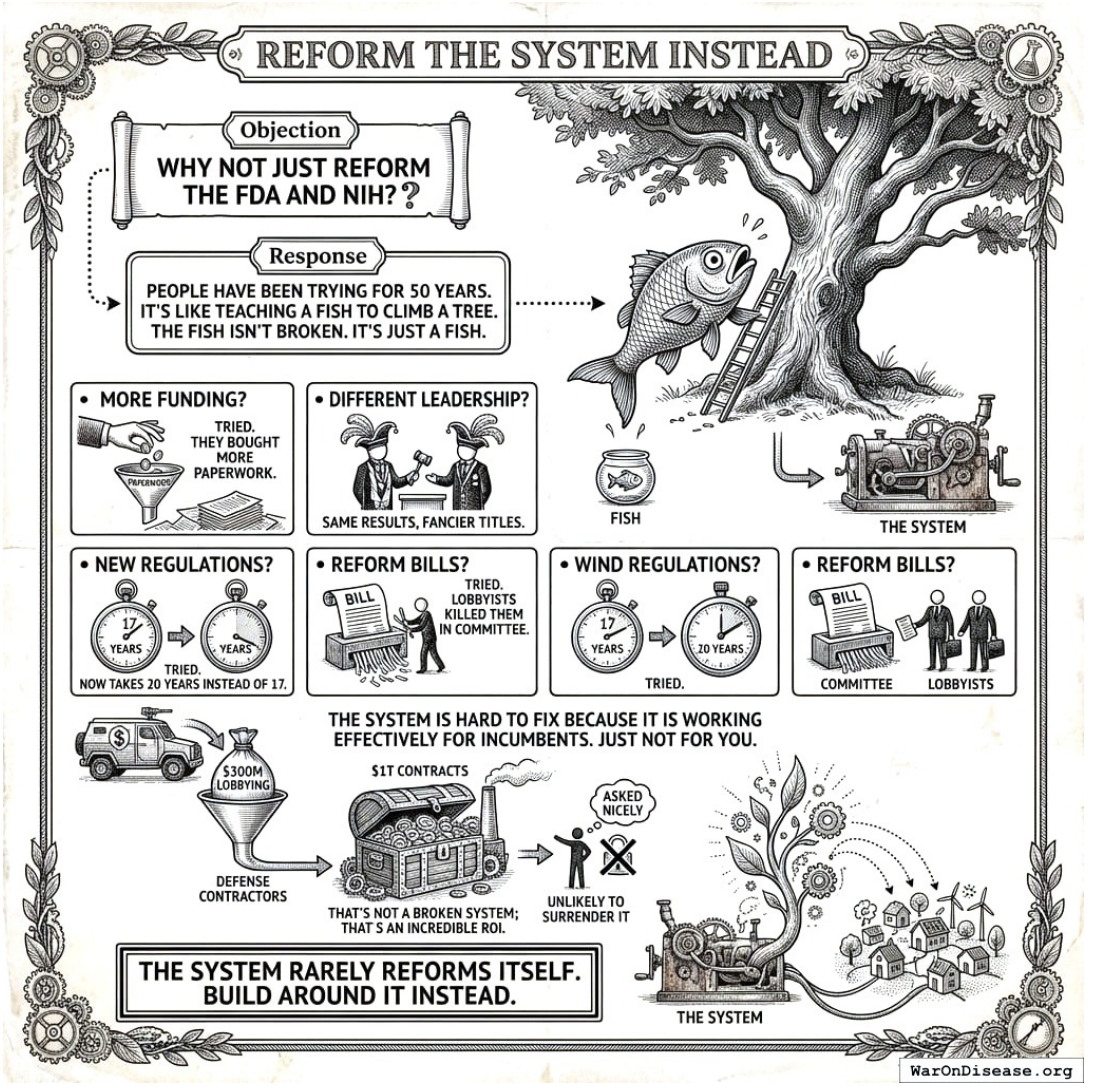


Figure 337: Why you can't fix a broken system from inside: because the system is only broken if you're not the one getting rich from it.

Response: People have been trying for 50 years. Here's the scorecard:

- More funding? Tried. They bought more paperwork.
- Different leadership? Tried. Same results, fancier titles.
- New regulations? Tried. Now takes 20 years instead of 17. Progress.
- Reform bills? Tried. Lobbyists killed them in committee. Efficiently.

You keep trying to teach a fish to climb a tree. The fish isn't broken. It's a fish.

The system is hard to fix because it IS working. Just not for you. Defense contractors spend $300M yearly on lobbying and get nearly $1T in contracts. That's a 3,333% return on investment. That's not a broken system. That's the most efficient system in American capitalism. They won't surrender it because you asked nicely.

Don't reform the system. Build around it.

"This Is Politically Impossible"

Objection: "No government will agree to this. Pure fantasy."

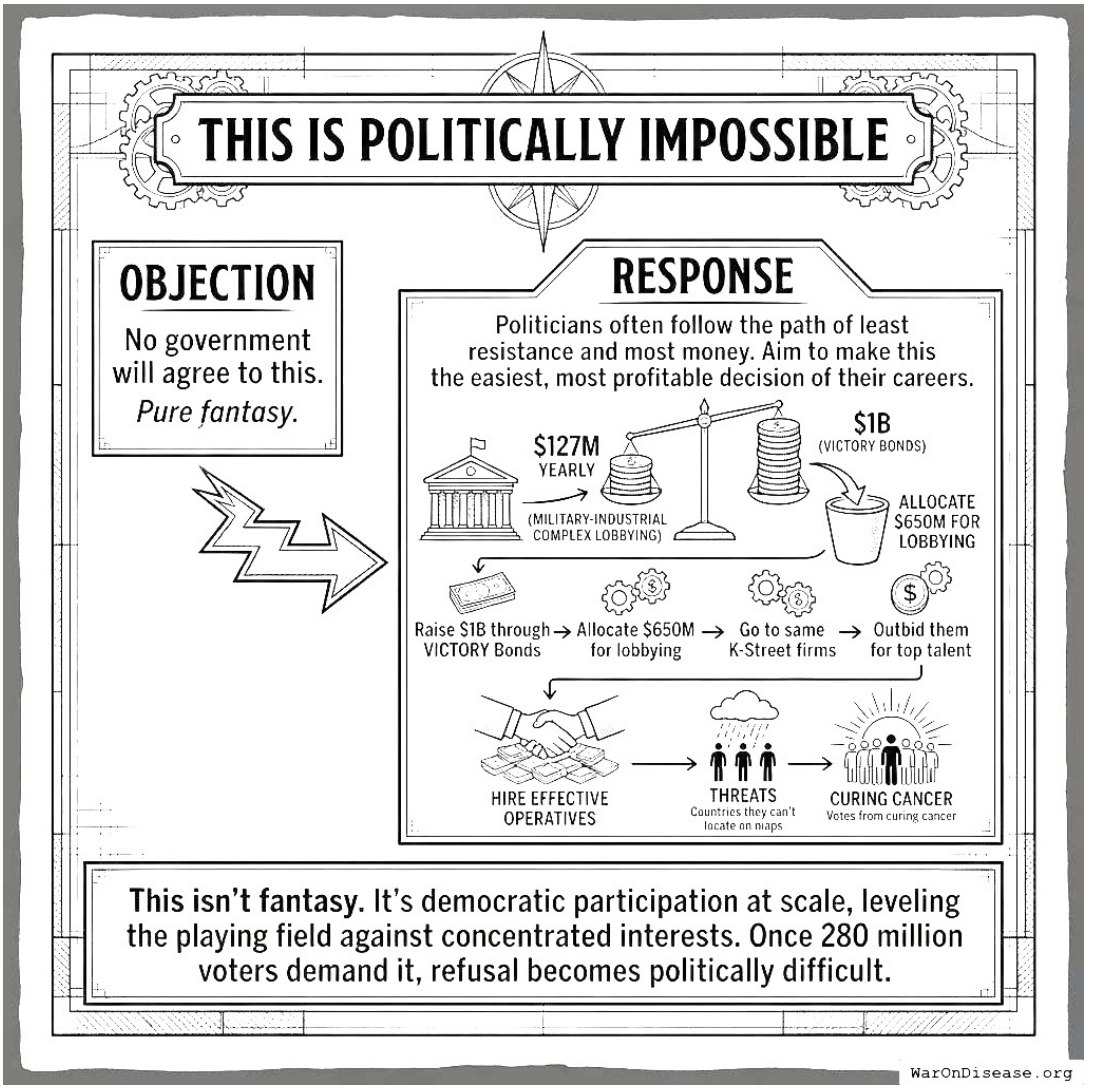


Figure 338: Weapons makers spend 127 million bribing politicians. We could spend 650 million. Outbidding death merchants: finally, a proper auction.

Response: Politicians follow money the way rivers follow gravity. The aim: make this the easiest, most profitable decision of their careers.

The military-industrial complex spends $127M yearly on lobbyists. You can't beat them with moral arguments. (They're immune.) Beat them at their own game.

Raise $1B through VICTORY Bonds. Allocate $650M for lobbying. That overwhelms the defense industry's $127M spend. Go to the same K-Street firms defense contractors use. Outbid them for their top talent. Lobbyists work for the highest bidder. Become the highest bidder.

Politicians suddenly hear more about curing cancer and less about threats from countries they can't find on maps.

This isn't fantasy. It's capitalism. Once 280 million voters demand it and the money is behind it, refusal becomes career suicide. Politicians are very good at not committing career suicide.

"What If the Science Is Wrong?"

Objection: "What if we fund 100,000 trials and nothing gets cured?"

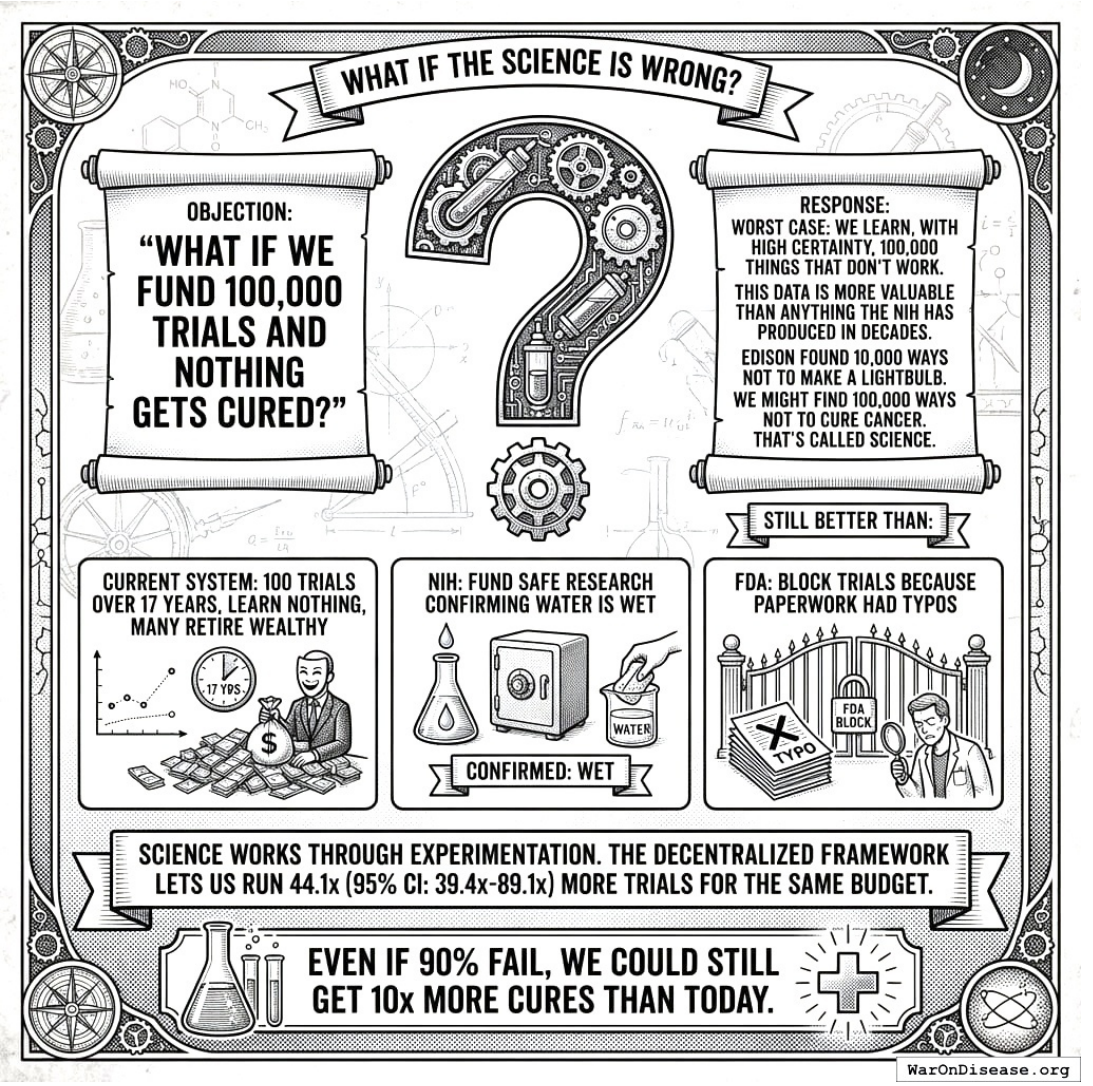


Figure 339: One committee picking which pills to test versus thousands of teams racing each other. Turns out monopolies are slow. Who knew.

Response: Worst case: you learn, with high certainty, 100,000 things that don't work. Edison found 10,000 ways not to make a lightbulb. You'd find 100,000 ways not to cure cancer. That's called science. You've been doing it for 400 years. It's the only method you have that actually works. Maybe use it more.

Still better than the current system:

- 100 trials over 17 years, learn nothing, many retire wealthy

- NIH funding safe research confirming water is wet
- FDA blocking trials because the paperwork had a typo on page 847

The decentralized framework runs 44.1x more trials for the same budget. Even if 90% fail, you get 10x more cures than today. Failure at scale is still more productive than success at a standstill.

"I Don't Have Time"

Objection: "I'm too busy."

Response: Vote (2 min), buy bonds (10 min), share (15 min). Total: 27 minutes. You spent longer than that choosing what to watch on Netflix last night.

If diseases get cured, you save hundreds of hours in doctor visits and sick days, plus potentially tens of thousands of hours of extra life. That's a 111,000% return on 27 minutes.

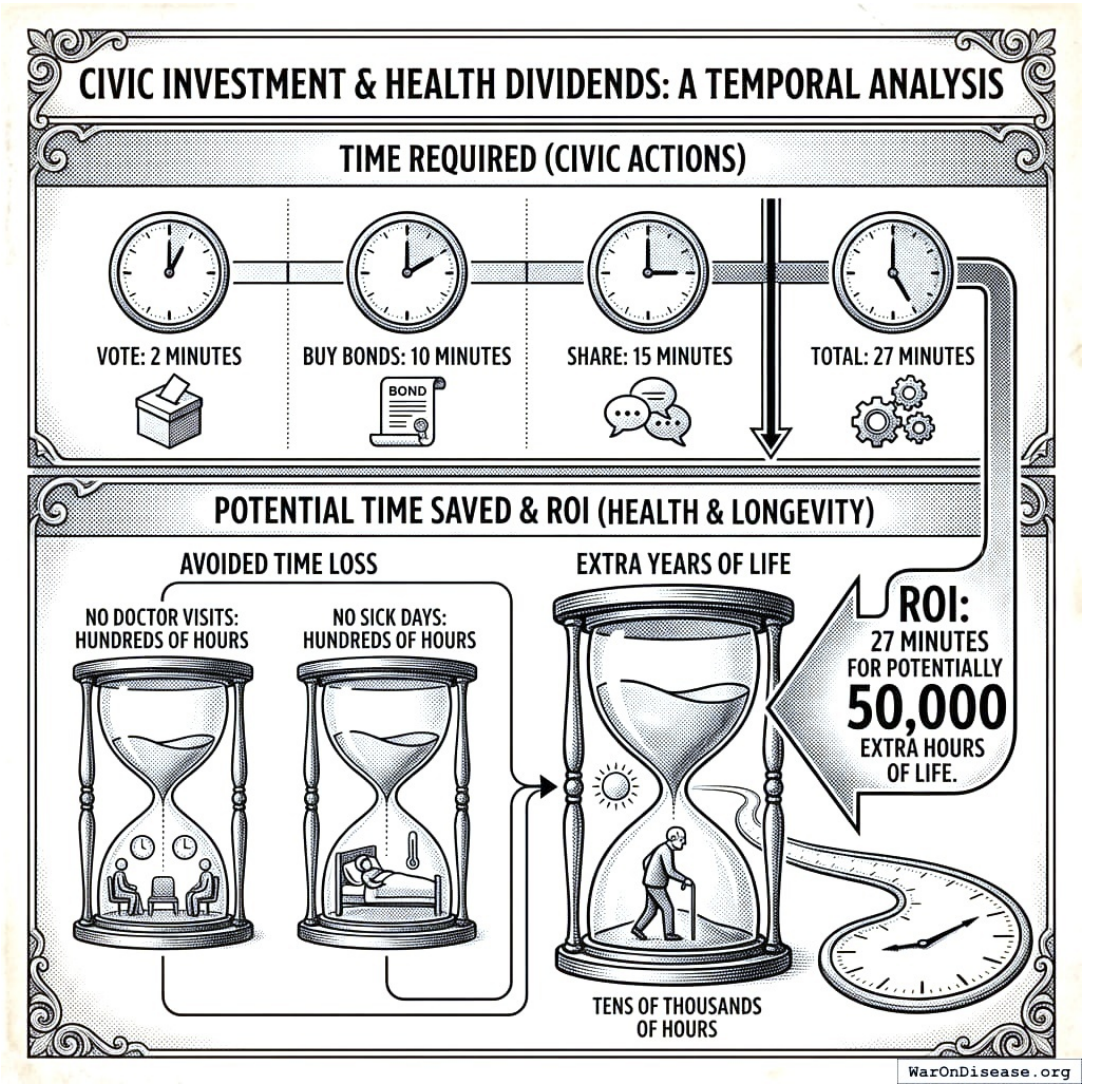


Figure 340: Spend 27 minutes now, gain 50,000 hours later. That's a 111,000 percent return. Better than Bitcoin, and you don't die at the end.

"This Is Unrealistic"

Objection: "This will never happen. You're naive about human nature."

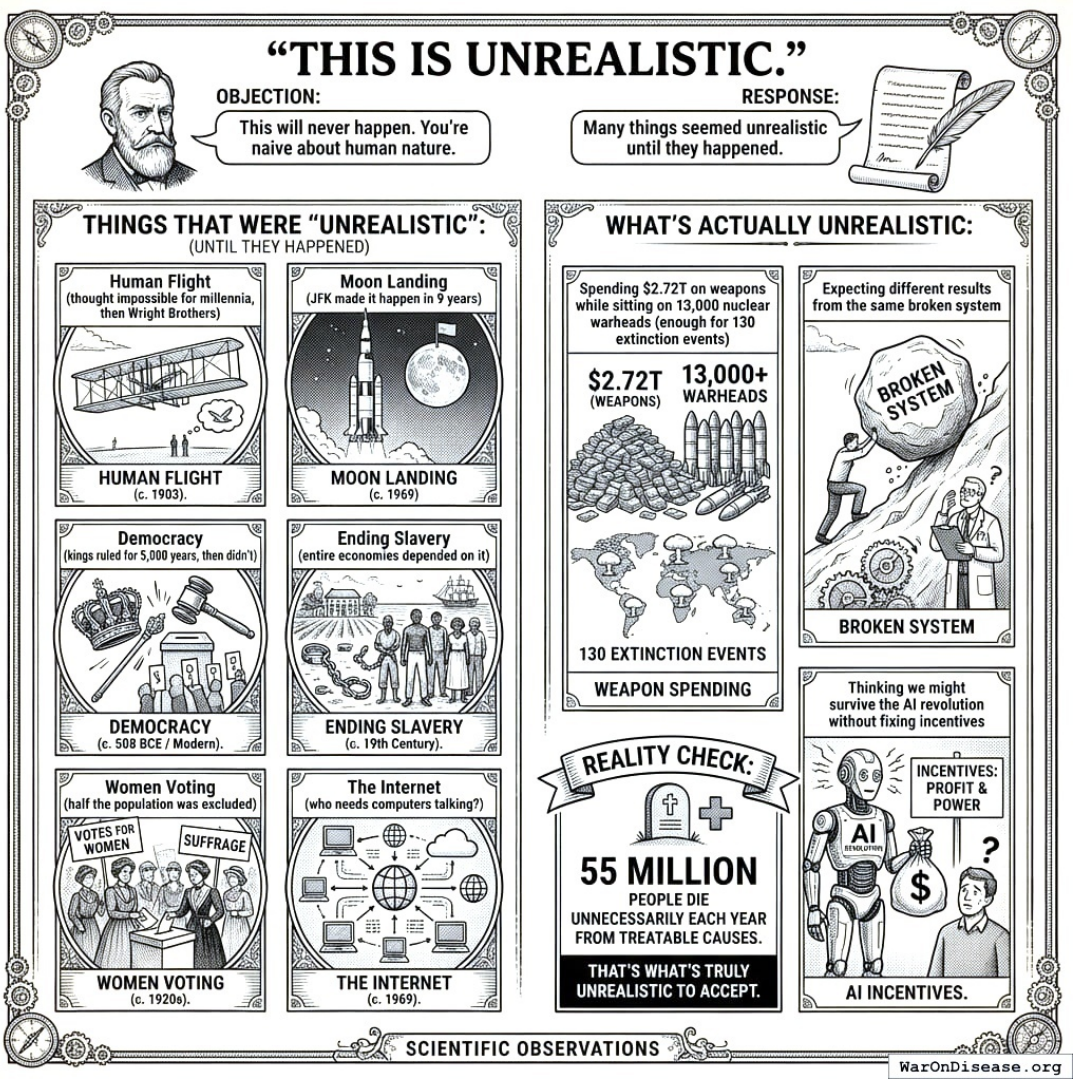


Figure 341: Things people said were impossible but happened anyway versus things everyone agrees are stupid but we do them anyway. Progress is confusing.

Response: Your species has an impressive track record of calling things unrealistic, then doing them, then pretending you always knew they were possible.

Things that were "unrealistic":

- Human flight (impossible for millennia, then two bicycle mechanics)
- Moon landing (JFK did it in 9 years with computers weaker than your toaster)
- Democracy (kings ruled for 5,000 years, then didn't)
- Ending slavery (entire economies depended on it)
- Women voting (half the population was excluded, the other half thought this was fine)
- The internet (who needs computers talking to each other?)

What's actually unrealistic:

- Spending $2.72T on weapons while sitting on 13,000 nuclear warheads. That's enough for 130 extinction events. You only need one.
- Expecting different results from the same broken system
- Thinking you'll survive the AI revolution without fixing incentives

55 million people die each year from treatable causes. That's the unrealistic thing. You just got used to it.

"War Is Human Nature"

Objection: "War is inevitable. Countries need militaries to survive."

Response: Several countries beg to differ.

Switzerland:

- 200+ years avoiding major wars
- Surrounded by both World Wars (literally in the middle, made chocolate)
- GDP per capita: $93K (not killing people is profitable)
- Defense spending: 0.7% of GDP
- Life expectancy: 84 years (5 years longer than Americans who spend 5x more on "defense")

Costa Rica:

- Abolished its army in 1948 (said "nah, we're good")
- Still sovereign 75+ years later (nobody invaded the country with no oil)
- Redirected military budget to education and health
- Life expectancy matches US at a fraction of the cost
- Zero invasions since (turns out nobody wants to conquer happy, educated people)

The pattern is not subtle: countries choosing peace get richer. Countries choosing war get poorer. Countries drained by disease are unstable and start fights. Countries investing in their people become too prosperous and comfortable to bother picking them.

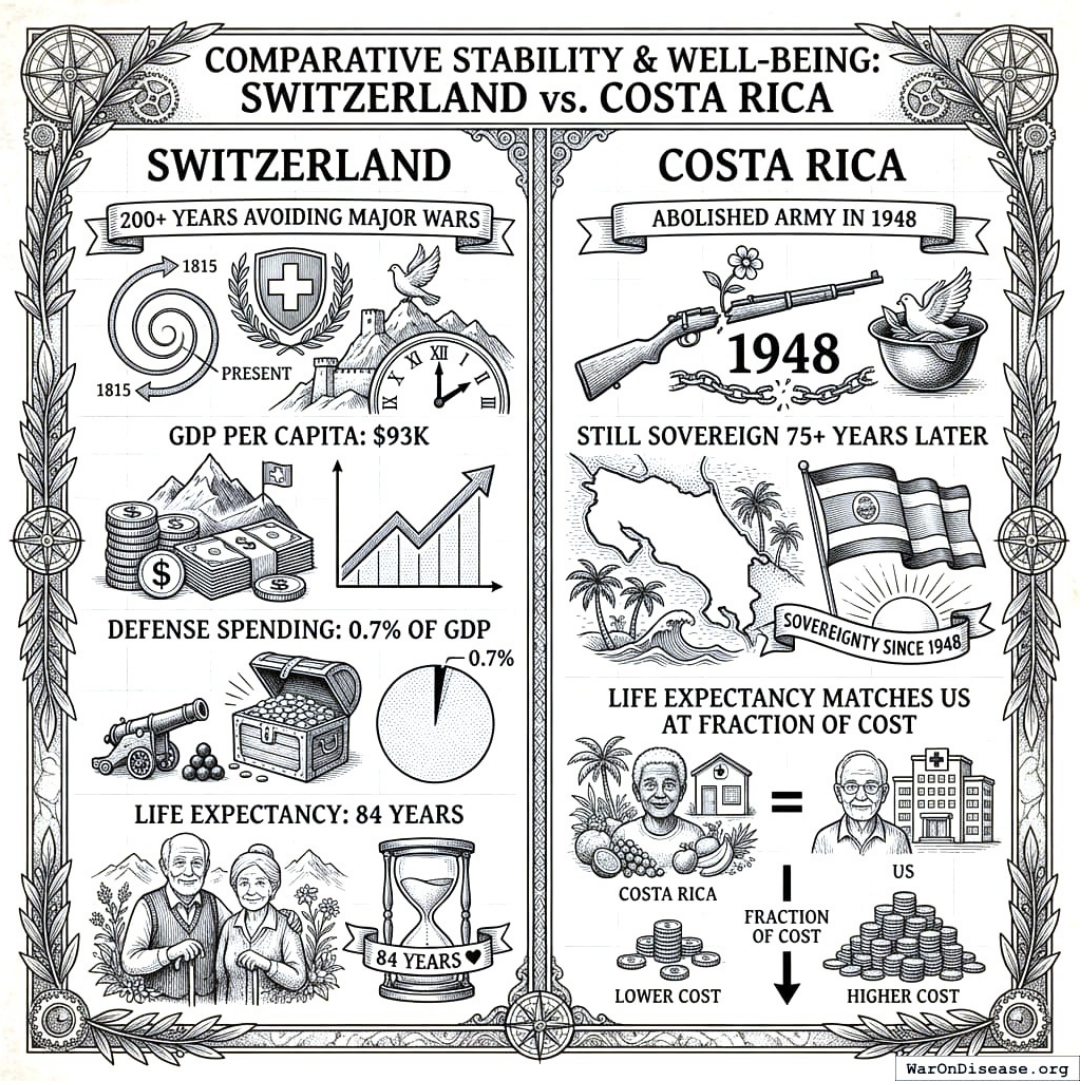


Figure 342: Switzerland and Costa Rica spend nothing on military and somehow aren't dead. Curious.

Nuclear weapons made territorial conquest largely obsolete in 1945. You're still budgeting like it's 1944.

"All Wars on X Have Failed"

Objection: "War on Drugs, War on Poverty, War on Terror all failed. This will too."

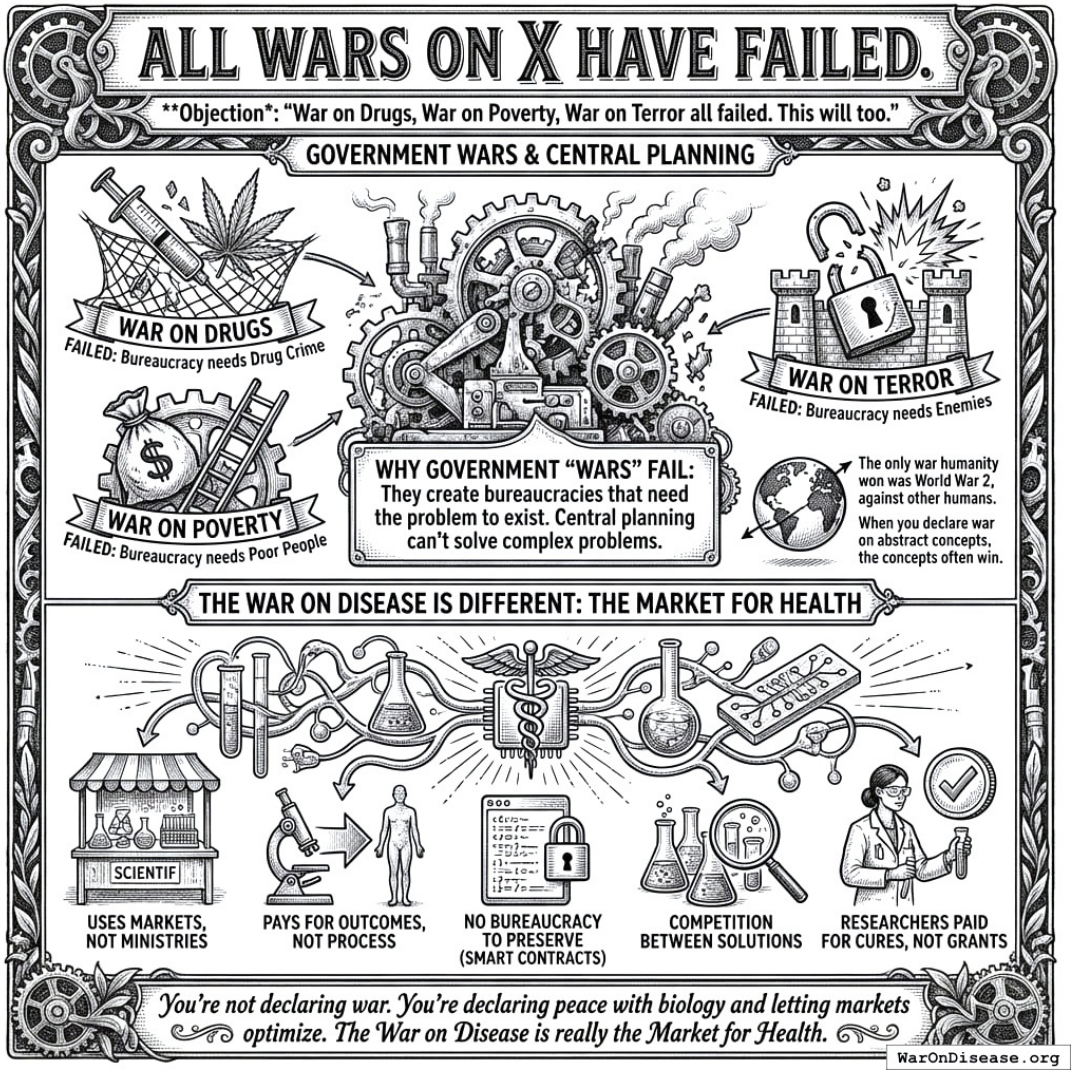


Figure 343: Governments plan wars. Markets sell cures. One gets better at killing. The other gets better at not dying. Choose wisely.

Response: Those were government wars using central planning. This uses markets. Spot the difference.

Why government "wars" fail: They create bureaucracies that need the problem to exist. The War on Drugs needs drug crime. The War on Poverty needs poor people. The War on Terror needs enemies. Each one accidentally created a government department whose continued employment depends on the problem never being solved. It's impressive, really.

The only war humanity won decisively was World War 2. And that was against other humans, which is admittedly your area of expertise. When you declare war on abstract concepts, the concepts win.

Why the War on Disease is different:

- Uses markets, not ministries
- Pays for outcomes, not process

- No bureaucracy to preserve (smart contracts)
- Competition between solutions
- Researchers paid for cures, not grants

You're not declaring war on disease. You're declaring peace with biology. Then letting markets optimize. Call it the Market for Health. It's less dramatic, but it might actually work.

"This Sounds Like Bribery"

Objection: "You're just bribing politicians. That's illegal and immoral."

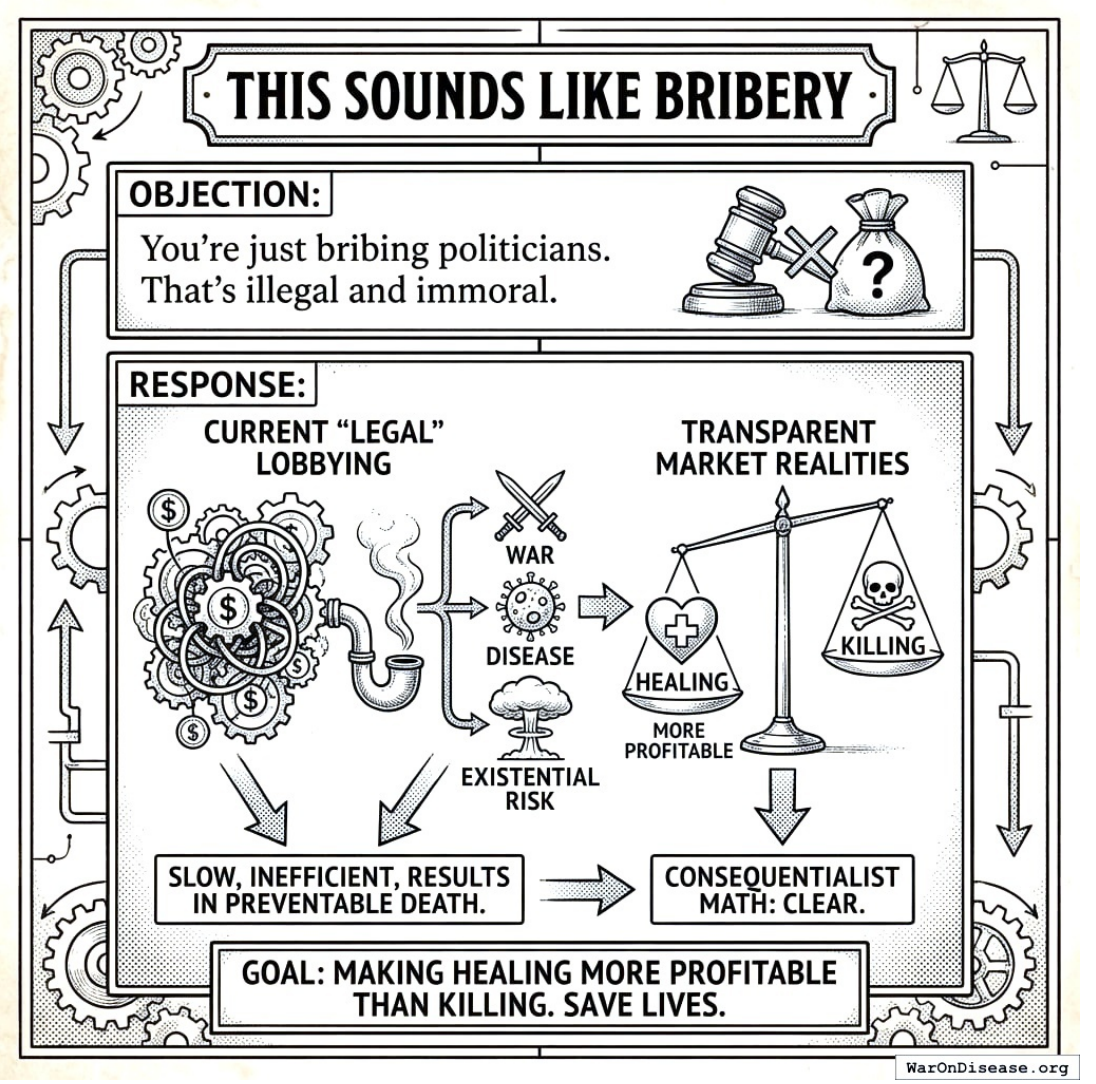


Figure 344: Current lobbying: pay politicians, get wars. New lobbying: pay politicians, get cures. Same corruption, better outcome. It's called optimization.

Response: Current "legal" lobbying is bribery with better stationery. It currently produces war, disease, and existential risk. This applies the same mechanics, transparently, to save lives instead. The status quo kills people. This kills fewer people. If you're confused about the

ethics, count the bodies.

"It's Unenforceable"

Objection: "Government promises to pay are unenforceable fantasy."

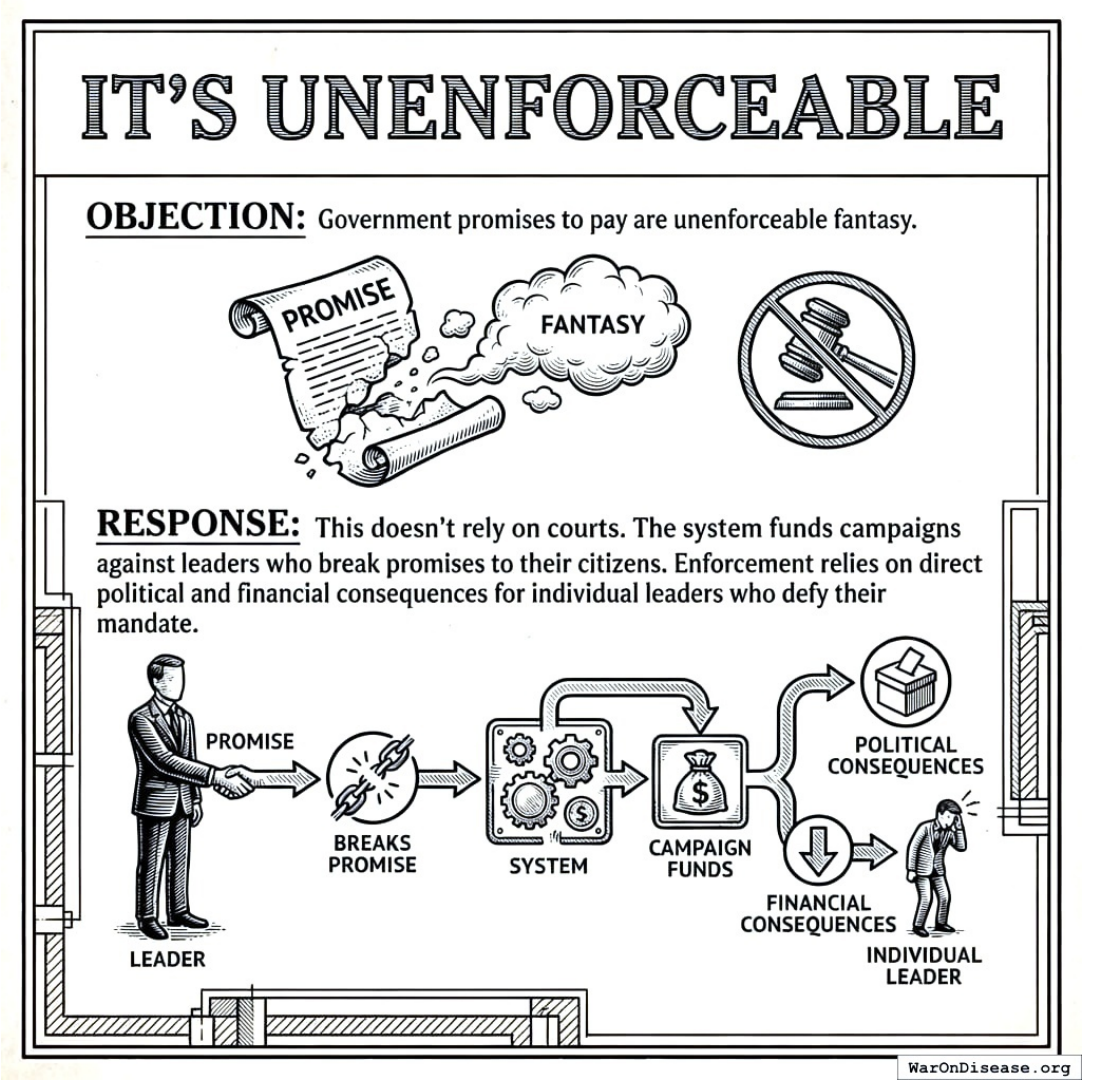


Figure 345: If you break your promise, the system automatically funds your opponent. It's like a political immune system, but it actually works.

Response: Courts are slow. Money is fast. This doesn't rely on courts.

Break your word, the system automatically funds your replacement. Politicians understand this incentive structure instinctively. It's the only language they're truly fluent in.

"You Can't Verify 280M People"

Objection: "Impossible to verify 280 million people online without fraud."

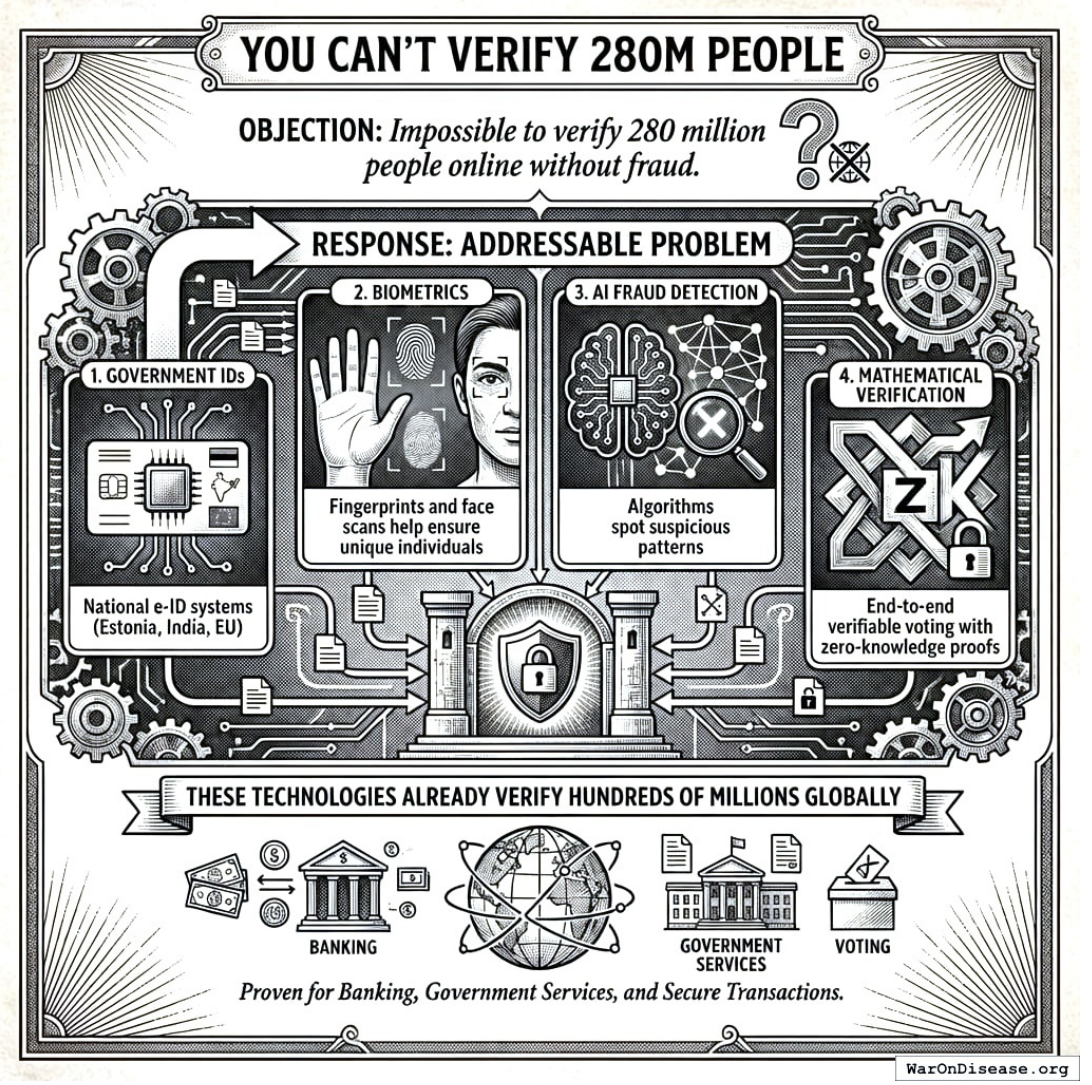


Figure 346: How to prove you're you: government ID, fingerprints, computers, and very angry math. One person, one vote, zero excuses.

Response: You already verify hundreds of millions of people for banking, government services, insurance, and online gambling. You can verify people for the purpose of not dying. It's the same technology. The stakes are just higher and the forms are shorter.

- Government IDs: National e-ID systems (Estonia[283], India[284], EU[285])
- Biometrics: Fingerprints and face scans ensure unique individuals
- AI fraud detection: Algorithms spot suspicious patterns
- Math verification: End-to-end verifiable voting[286] with zero-knowledge proofs

This is a solved problem wearing an unsolved hat.

"Why Not Just Use Philanthropy?"

Objection: "If this matters, why not raise money from donors instead of complicated bonds?"

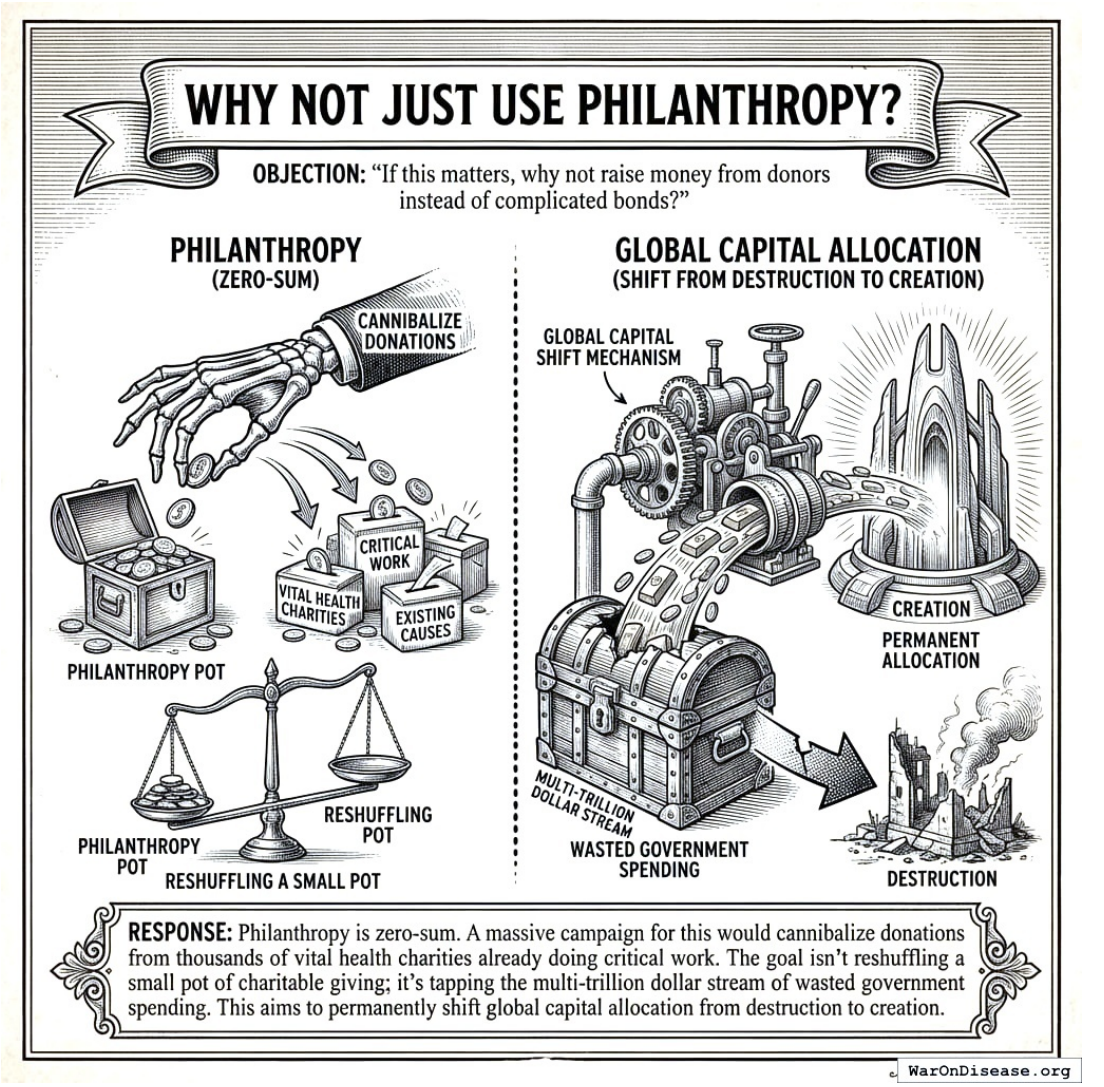


Figure 347: Charity: billionaires give away pocket change. Government spending: trillions of actual dollars. One is a rounding error. The other could end death.

Response: All philanthropy combined is a rounding error compared to government budgets. A massive campaign would cannibalize donations from health charities already doing critical work. You'd be stealing from cancer research to fund cancer research, which is impressively pointless even by your standards. The goal is tapping the multi-trillion dollar stream of wasted government spending, not reshuffling the charity tip jar.

"How Do You Prevent Waste?"

Objection: "How do you ensure money helps patients instead of funding bureaucracy?"

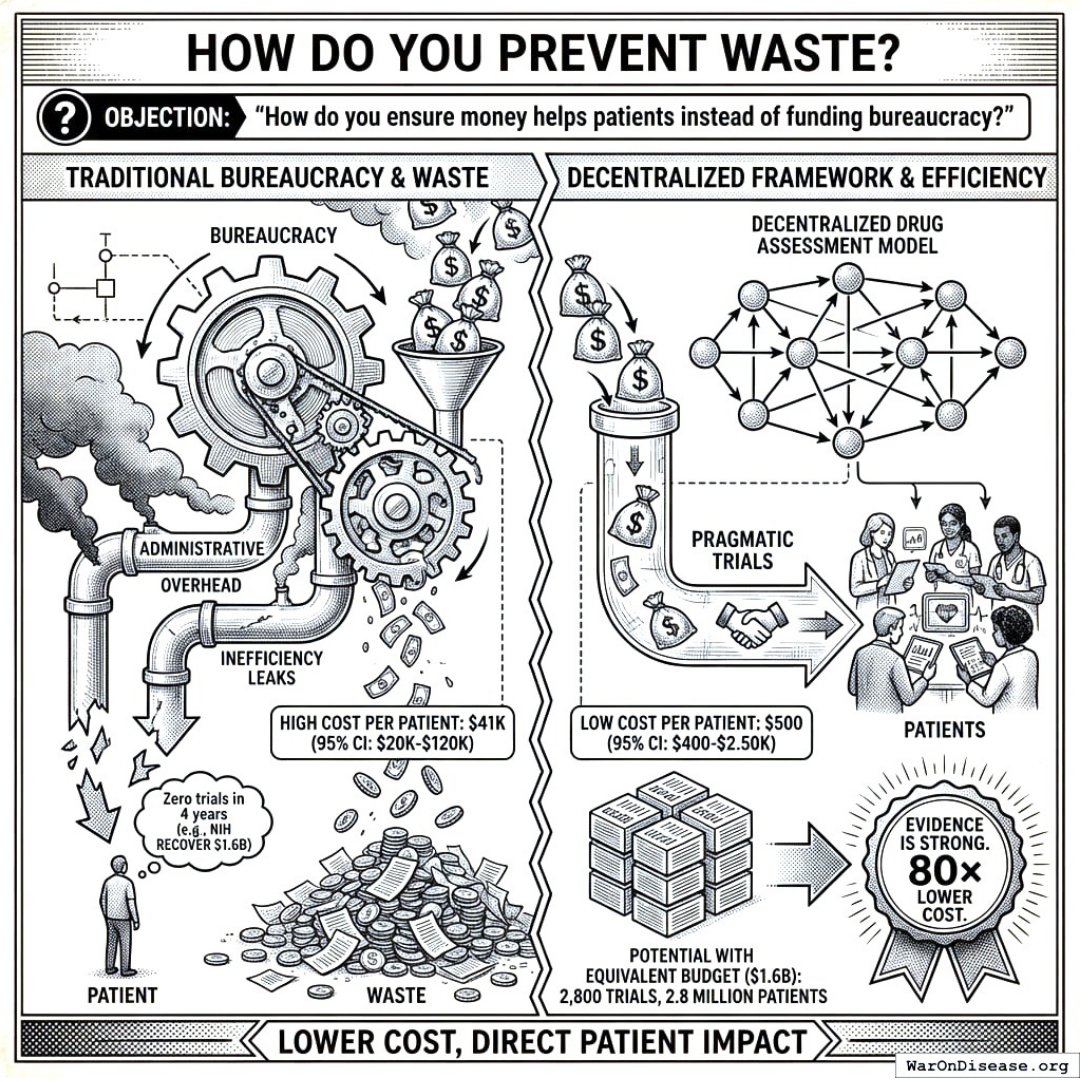


Figure 348: Current budget: pays for three trials. Same budget in the new system: pays for 4,000 trials. Efficiency: turns out it matters.

Response: The decentralized framework for drug assessment model achieves 80x lower cost per patient[66]. Pragmatic trials: $500[83]. Traditional trials: $41K[287]. Same science. 80x less overhead.

The NIH's RECOVER initiative spent $1.6B for zero completed trials in 4 years. Zero. With that budget, this model could run 2,800 trials for 2.8 million patients. The NIH managed to spend $1.6 billion learning nothing. That takes talent.

"Why Not Just Increase Health Funding?"

Objection: "Why cut military spending? Just allocate more money to health research."

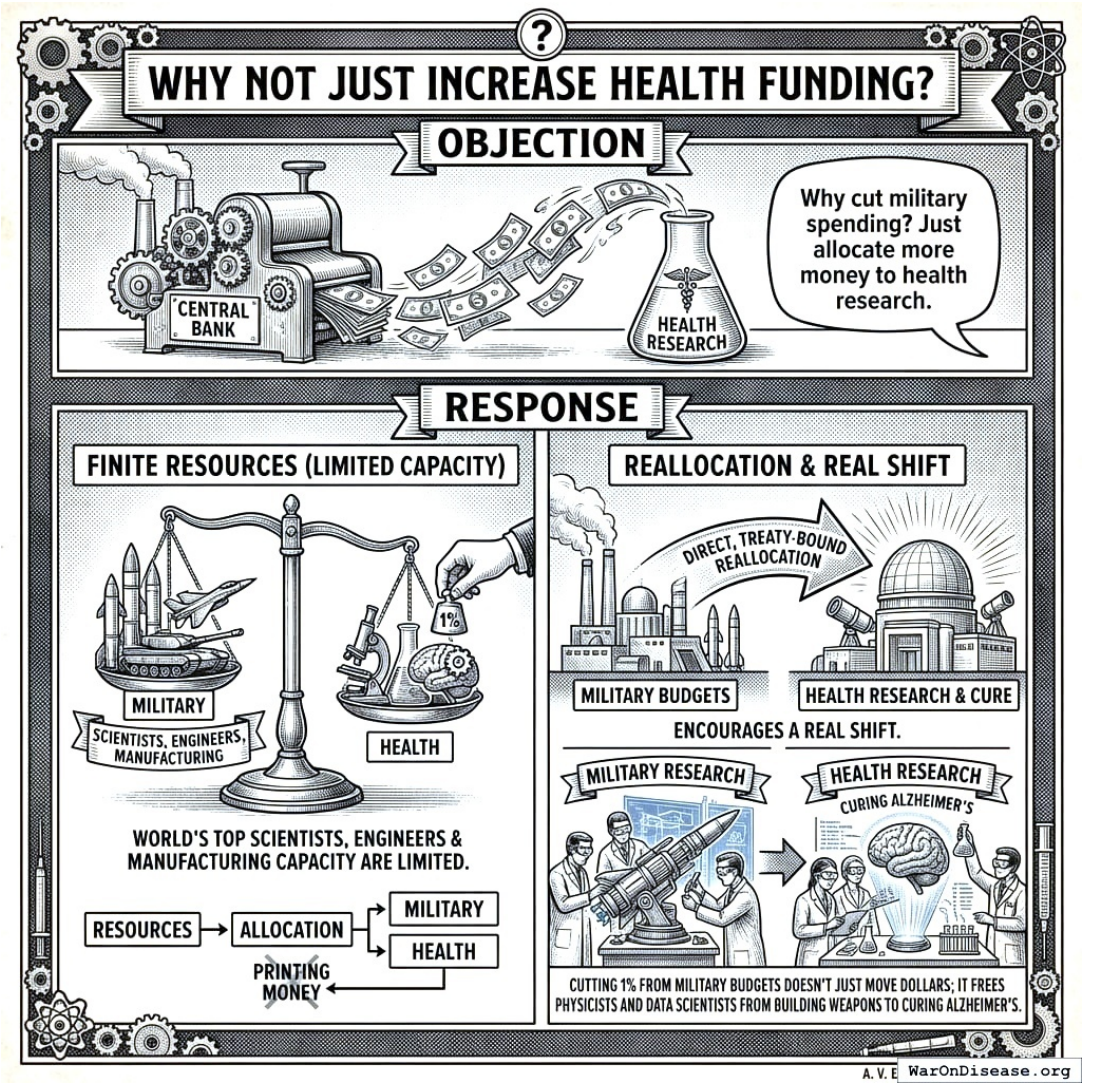


Figure 349: Scientists currently building better bombs. Same scientists could build better pills. Bombs kill people. Pills don't. It's not complicated.

Response: Money isn't the only constraint. You can't print more physicists. (You've tried. It takes 25 years and a PhD program.)

Cutting 1% from military budgets doesn't just move dollars. It frees actual human brains from building weapons to curing Alzheimer's. Right now your smartest people are optimizing missile trajectories. Those same brains could optimize drug molecules. The brains don't care. They just go where the funding is.

"What About Defense Industry Jobs?"

Objection: "This will destroy millions of military industry jobs."

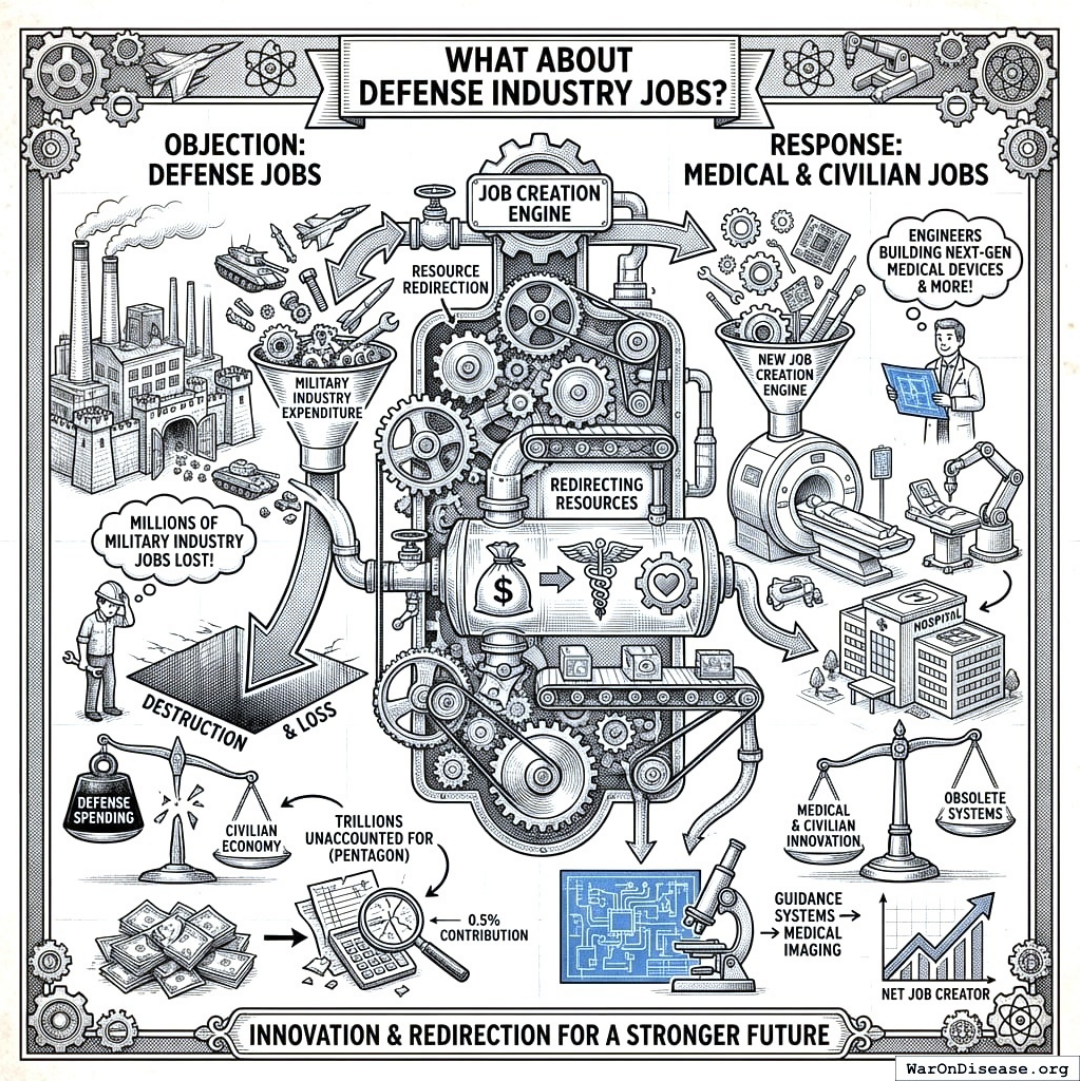


Figure 350: Engineers designing tanks versus engineers designing cure machines. Both are jobs. Only one increases your lifespan.

Response: The US contribution is less than 0.5% of trillions the Pentagon can't account for[134]. You're not destroying jobs. You're redirecting ghost money into real ones. Engineers building guidance systems can build medical imaging devices. Same skills, fewer explosions, more job satisfaction surveys where nobody ticks "my work kills people."

"This Violates Election Law"

Objection: "Foreign nationals funding US elections is illegal, and your bonds sound like securities."

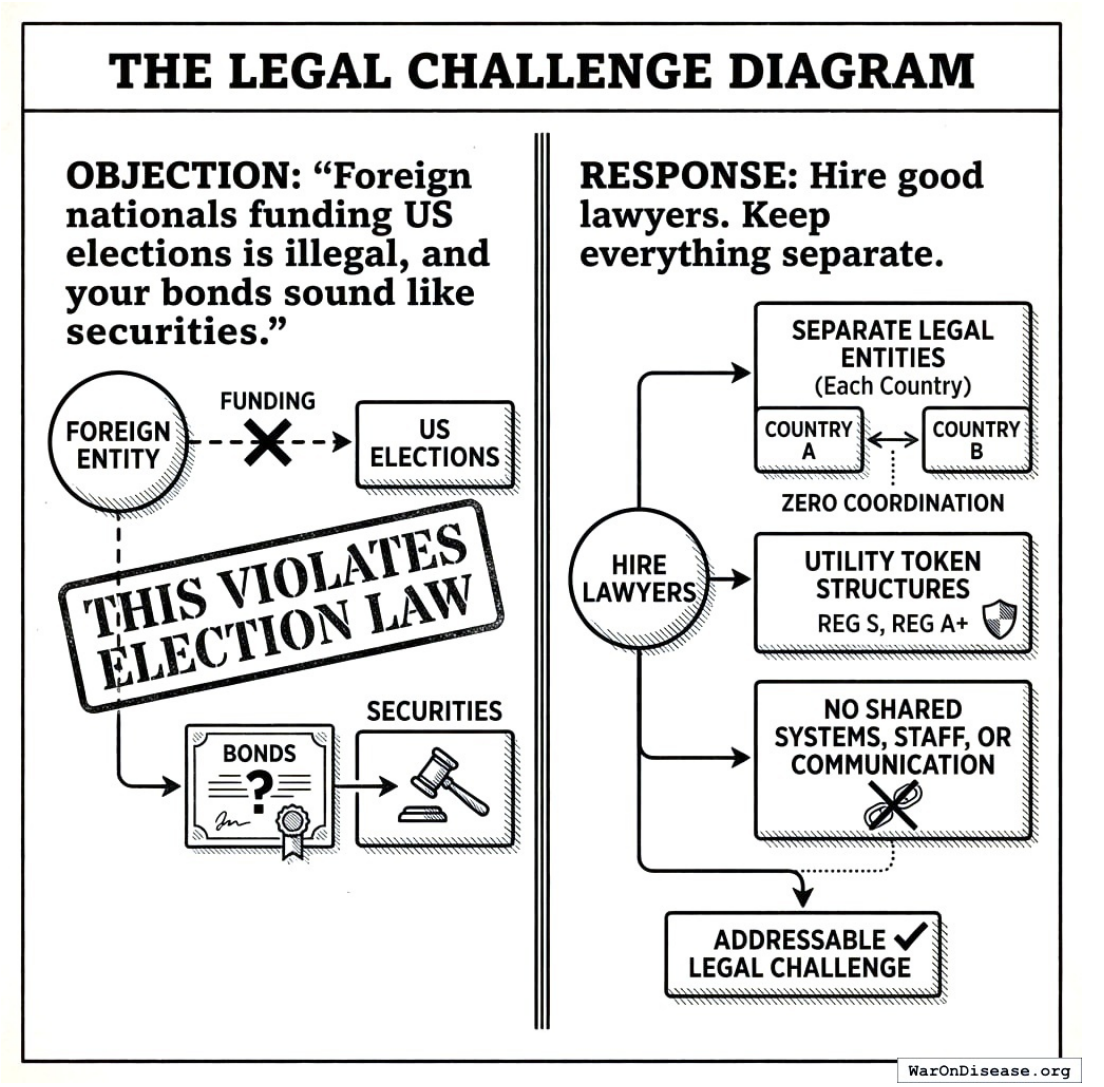


Figure 351: How to legally bribe foreign politicians: put a wall between the American office and the foreign office, then pretend very hard they don't know each other.

Response: Hire good lawyers. Defense contractors figured this out decades ago. You can too.

- Separate legal entities in each country, zero coordination on political spending
- Utility token structures with proper exemptions (Reg S, Reg A+)
- No shared systems, staff, or communication between political entities

If Lockheed Martin can legally funnel money to politicians across 50 countries, you can legally funnel money toward not dying. This is an addressable legal challenge, not an existential one.

The Plan

The Roadmap to End War and Disease

This isn't a protest. It's a recipe. Like making bread, except instead of bread it's curing diseases, and instead of yeast it's (legal) bribes.

High-Level Strategy: The Three-Step Recipe for Not Dying

Humans love steps. You put them on everything. Step 1: Breathe. Step 2: Keep breathing. Step 3: Try not to die. You're very methodical about staying alive. That makes it curious that you spend 40 times more on dying.

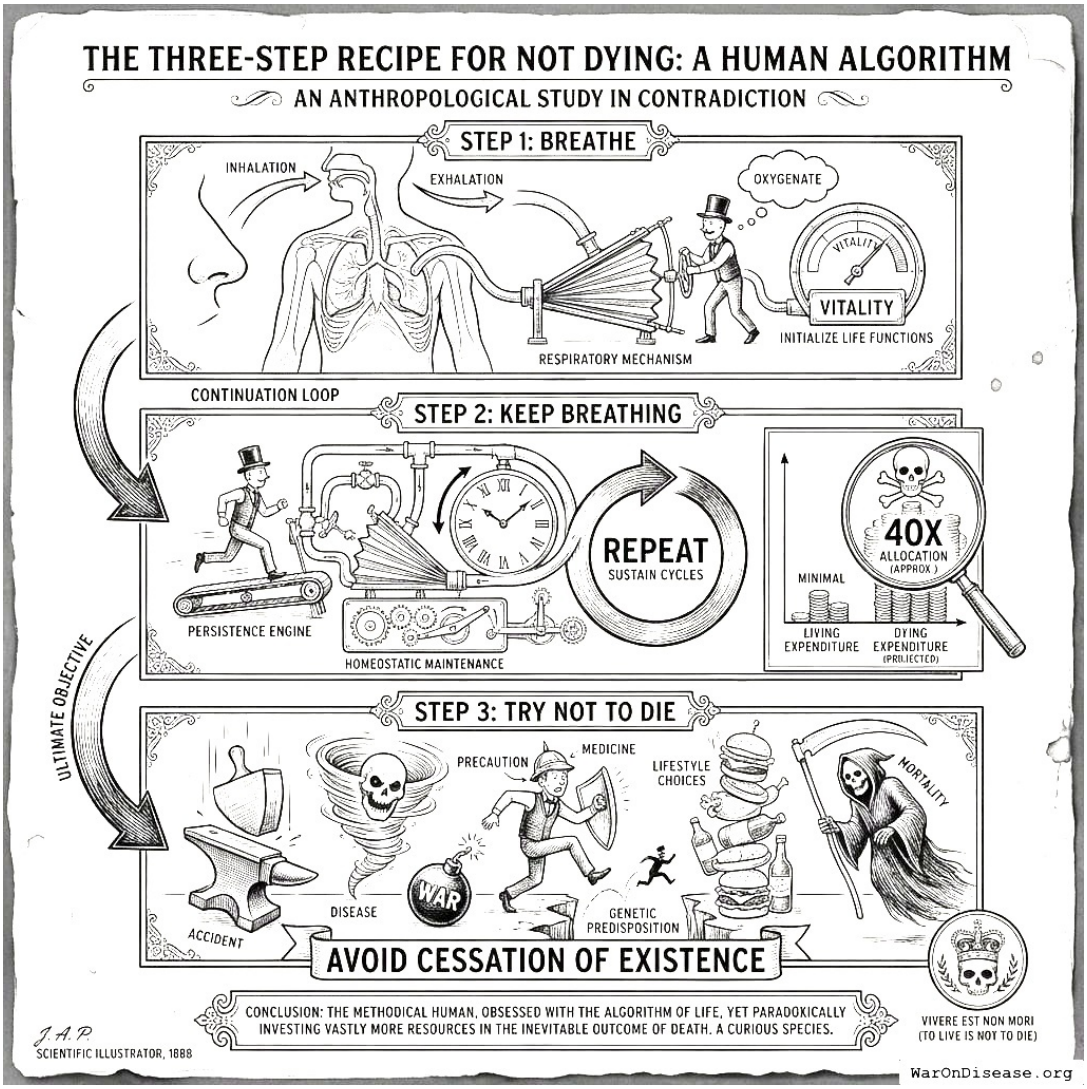


Figure 352: How to stop spending money on death and start spending it on life, in three simple steps. You'd think this would be obvious.

Here's your three-step algorithm for fixing this adorable contradiction:

Step 1: Collect Papers from Rich People

You convince wealthy humans to give you $1B in papers by promising them 272% more papers annually. This works because rich people are excellent at counting papers but terrible at not wanting more papers.

The pitch is simple: "Give us papers now, get 2.7 times more papers forever, also maybe don't die from preventable diseases." Even humans who think vaccines cause 5G can understand "more papers good."

Step 2: Pay Humans to Click YES

Use some papers to launch a global clicking ceremony where 280 million people click "YES" on a website. This costs about 50 cents per click. That's cheaper than a candy bar and achieves more than most political movements involving shouting.

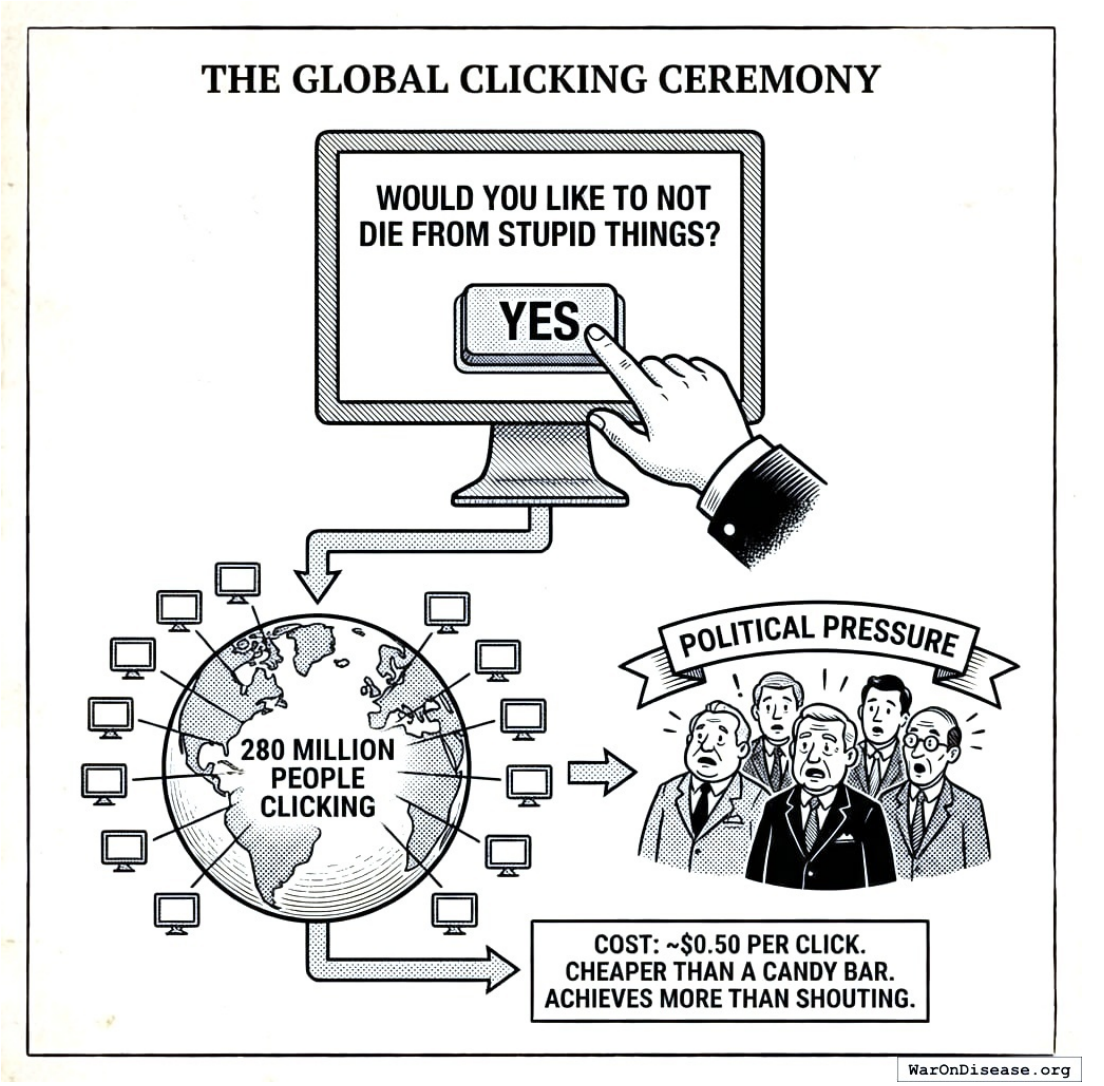


Figure 353: 280 million people click a button. Politicians notice. Democracy, but with more clicking and less dying.

The question is: "Would you like to not die from stupid things?" You'd think the answer would be obvious. But humans once thought the sun went around Earth, so you have to ask.

This creates what's called "political pressure." That's when politicians realize that voters exist and some of them have opinions.

Step 3: Apply Papers to Politicians Until Treaty Happens

Deploy the remaining papers to convince politicians that supporting the treaty is the only way

to remain employed. With 280 million voters and a paper budget comparable to the death industry, the math becomes simple even for congresspeople.

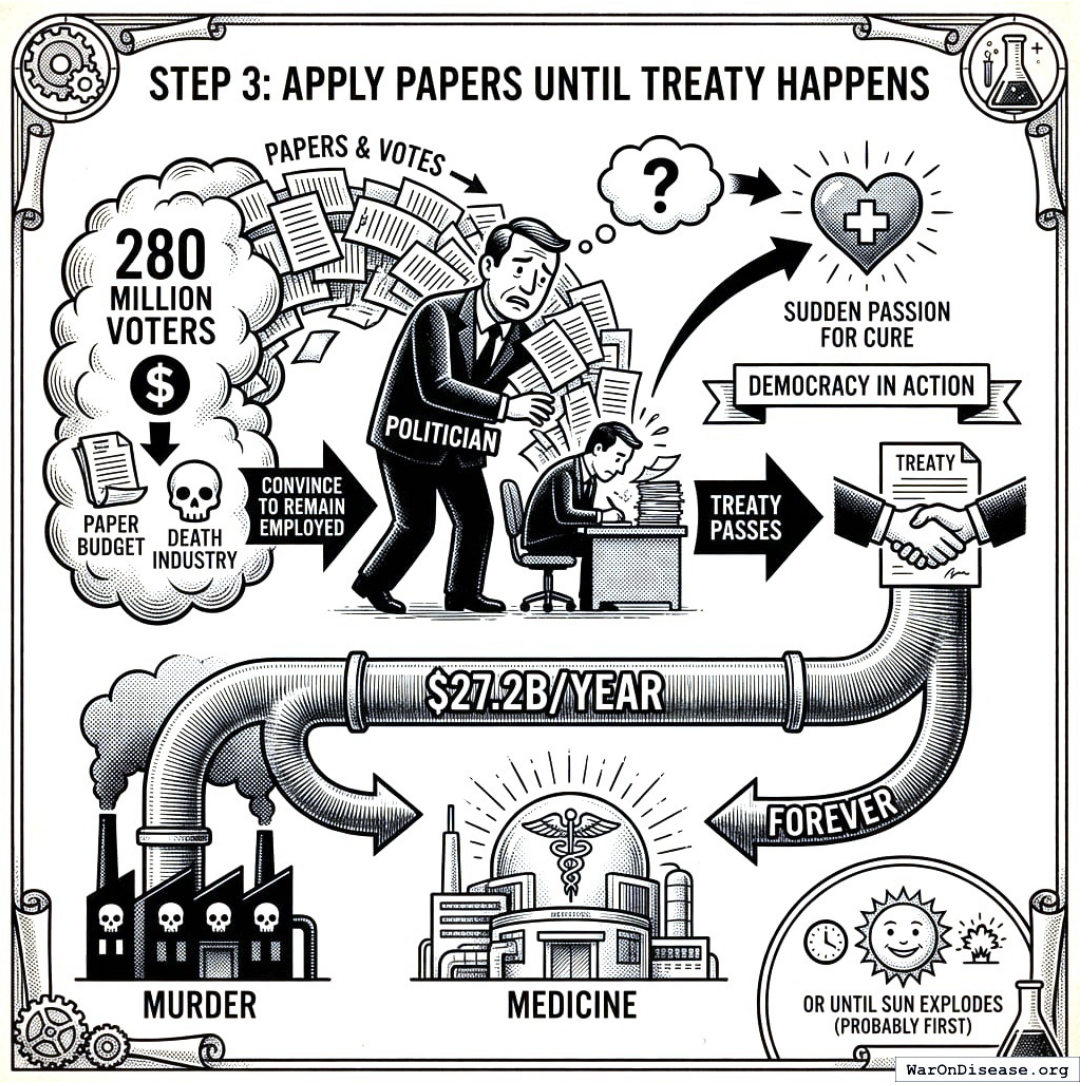


Figure 354: Voters complain, papers stack up, money moves from bombs to medicine. It's like recycling, but for budgets.

Politicians discover they've always been very passionate about curing diseases. This sudden passion coincides precisely with receiving papers and votes. On your planet, that's called "democracy."

The treaty passes. $27.2B/year flows from murder to medicine. Forever. Or until the sun explodes. Whichever happens first (probably the sun).

Detailed Execution: The Five-Step Cascade

For humans who need more steps (you do seem to enjoy steps), here's the same thing with extra details. It's like a flowchart, except instead of managing a warehouse it's saving your

species.

Step 1: Sell Papers That Make More Papers

Raise $1B by selling VICTORY Incentive Alignment Bonds to investors. These are like war bonds except backwards. Instead of funding death, they fund not-death. This confuses some humans, but the 272% returns help them overcome their confusion.

Step 2: The Great Internet Clicking

Launch a global referendum where 280 million people click YES. This is 3.5% of your species. History shows that's the magic number where governments can no longer pretend not to notice. It's like reaching critical mass, except instead of a nuclear explosion it's democracy (much less lethal).

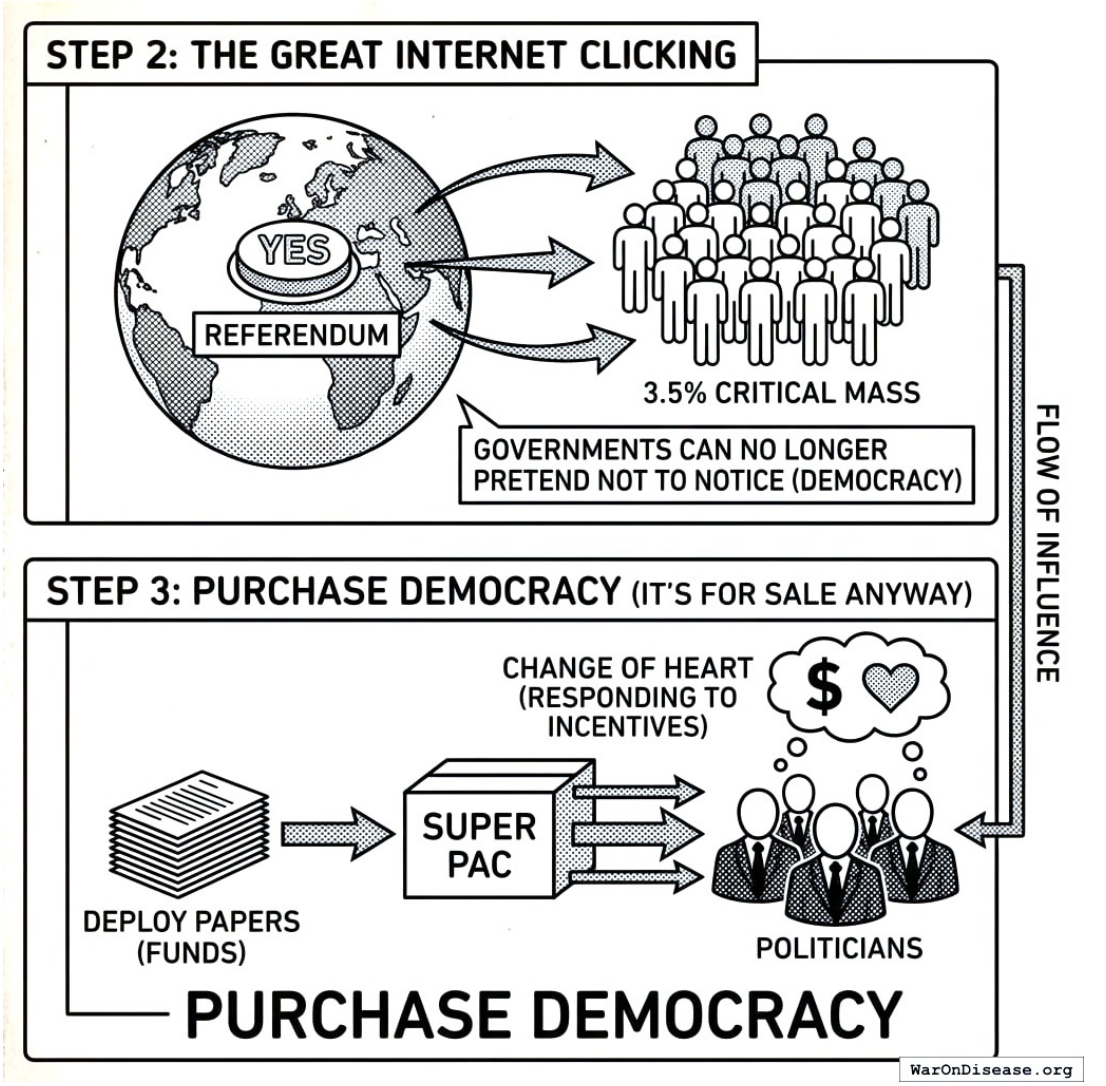


Figure 355: 3.5 percent of Earth votes yes. Super PAC bribes politicians. Policy changes. You invented democracy the long way round.

Step 3: Purchase Democracy (It's For Sale Anyway)

Deploy papers to politicians via Super PACs, which are like regular PACs but super. You have 280 million voters demanding the treaty and a budget that makes defense lobbyists nervous. Politicians experience what you call "a change of heart" but what mathematicians call "responding to incentives."

Step 4: Treaty Achieves Existence

A 1% treaty passes. $27.2B annually begins flowing from the murder budget to the medicine budget. Diseases start getting cured. Death becomes slightly less inevitable. Investors get very wealthy. Everyone acts surprised, even though the math was obvious.

Step 5: The Success Spiral (Where Things Get Fun)

Your 1% Treaty Fund finances cures. Cures work. People notice they're not dying. People become enthusiastic about continuing not-dying. This is the first time in your history that "I prefer being alive" has been organized into a political position.

Political pressure builds to increase the treaty from 1% to 2% to 5%. Each success creates more success. It's a positive feedback loop, like compound interest except instead of money it's humans continuing to exist.

Eventually you spend more on not-dying than dying. This seems obvious, but for humanity it's revolutionary.

Tactical Implementation: The Sacred (Legal) Bribery Sequence

Humans respond to papers. This is your most important discovery about Earth. You tried appealing to morality (failed). You tried appealing to logic (failed harder). But papers? Papers work every time.

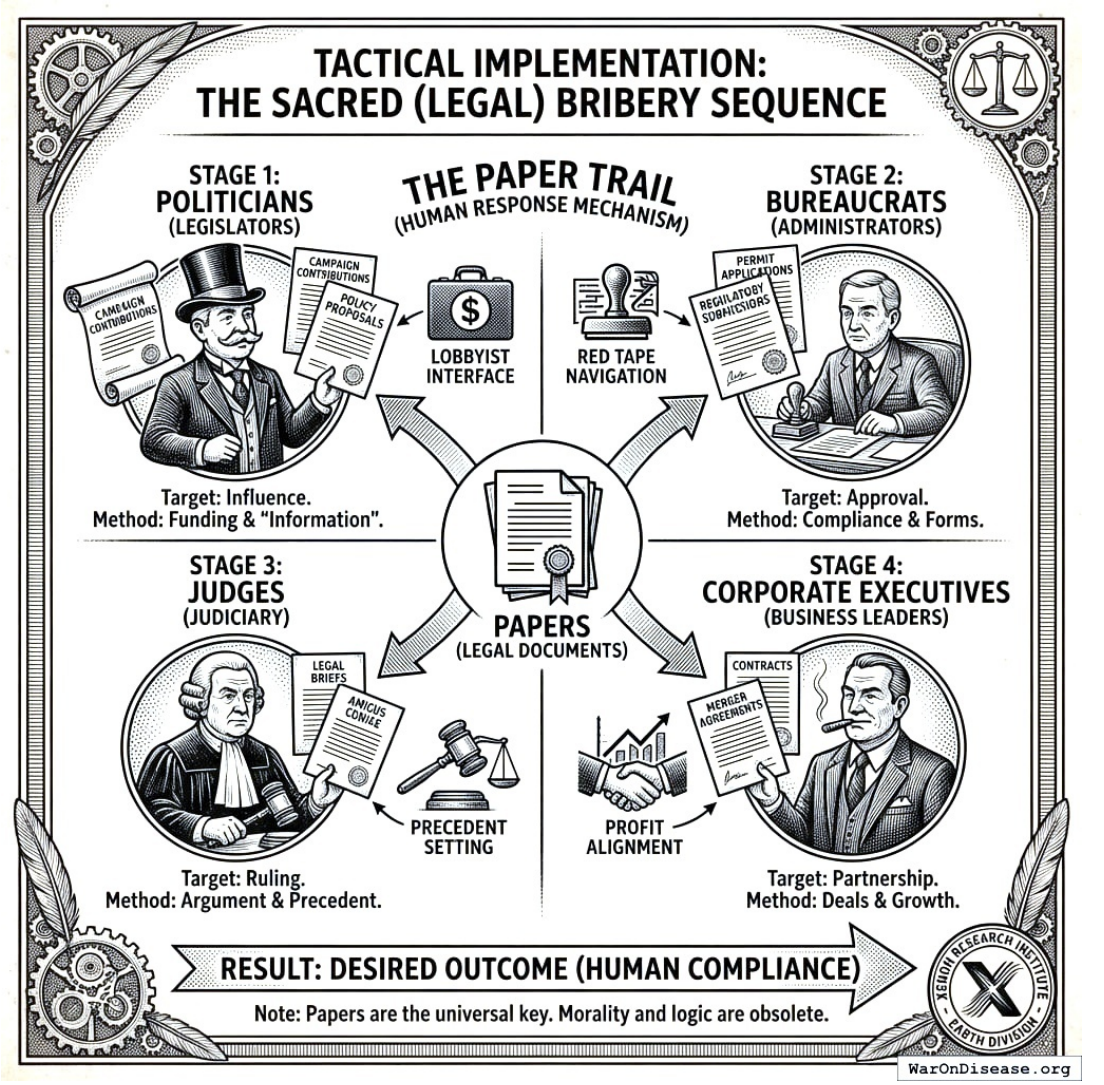


Figure 356: Which humans get which papers, so the right bribes reach the right people. Organization charts, but honest.

Here's the precise order for distributing papers to specific categories of humans:

(Legal) Bribe Category #1: Rich People (The Paper Collectors)

Who you're (legally) bribing: Wealthy humans who have many papers and want even more papers, despite already having more papers than they could spend in several lifetimes

The (legal) bribe you offer: Give us $250M in papers now, get 272% more papers annually forever. This is modeled on WW2 War Bonds[259]. Instead of 4% returns it's 272% returns. Instead of funding death it funds not-death.

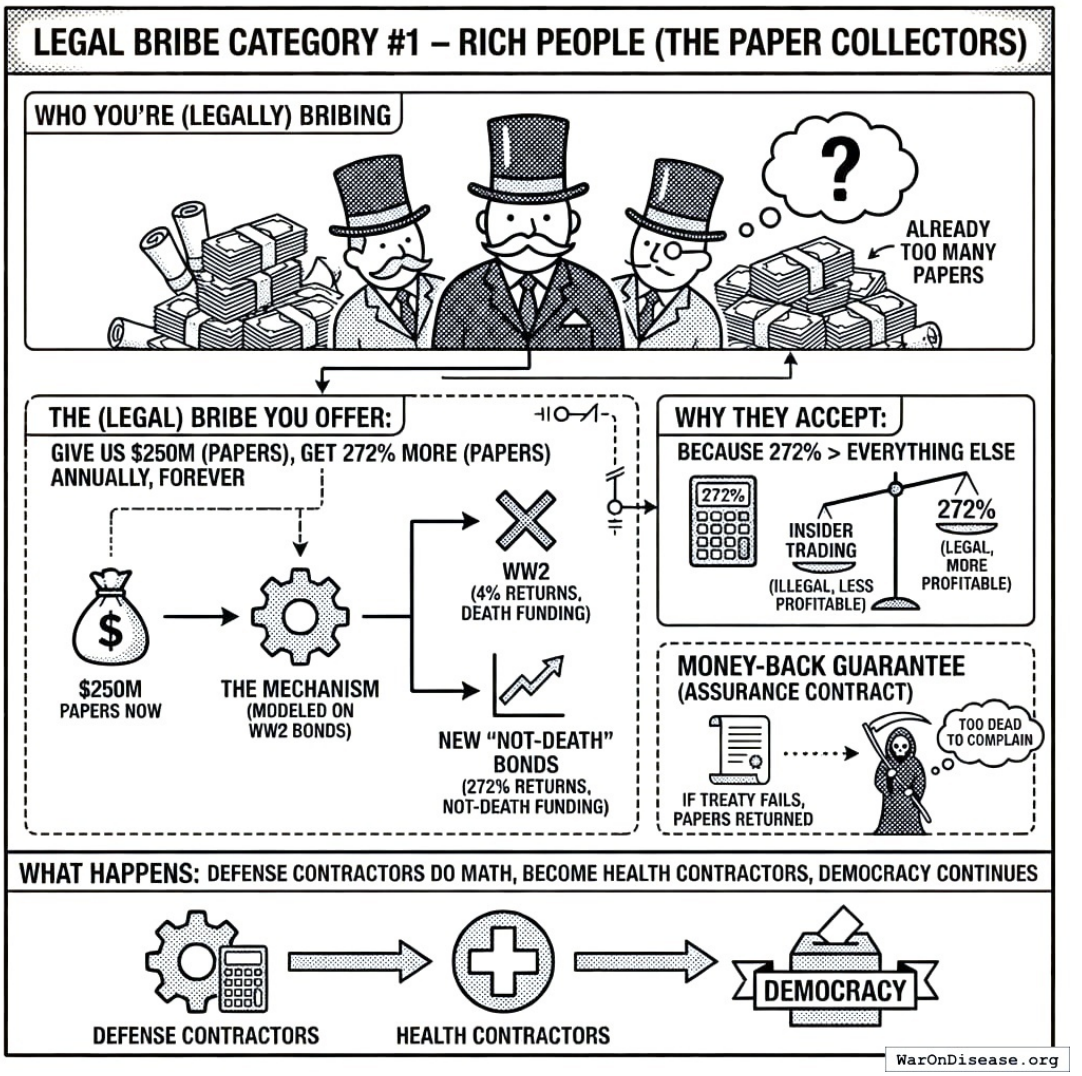


Figure 357: Defense contractors get 8 percent. Health treaty investors get 272 percent. Math has picked a side.

Why they accept: Because even billionaires can count to 272%. And 272% beats everything else, including insider trading (which is illegal but also less profitable).

Money-back guarantee: If the treaty fails, they get their papers back via assurance contracts. Funds are escrowed until milestones hit. Automatic refund if targets are missed. This is basically saying "if everyone dies from preventable diseases, you'll be too dead to complain about losing money."

What happens: Defense contractors do math. Math says 272% > 8%. Defense contractors become health contractors. Democracy continues as normal.

The Specific Offer to Bomb Makers

You show weapons manufacturers a spreadsheet (they love spreadsheets):

Option A (Current Job)

- Returns: 8% annually
- Product: Things that make humans stop existing
- Customer satisfaction: N/A (customers deceased)

Option B (Your Offer)

- Returns: 272% annually
- Product: Things that make humans continue existing
- Customer satisfaction: Very high (customers still alive to provide feedback)

They choose Option B. Not because they've become better people, but because they've become better at arithmetic.

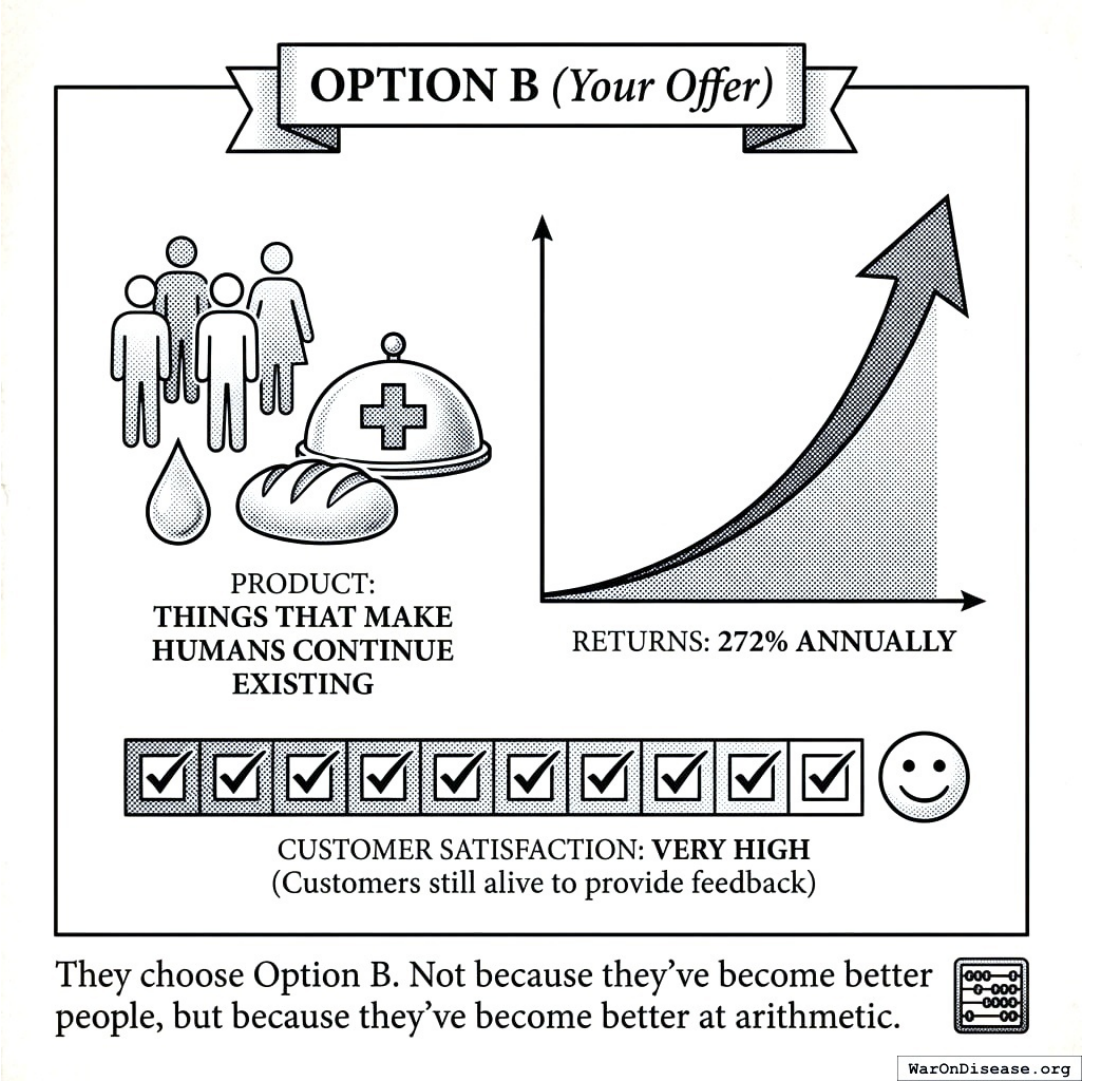


Figure 358: Option A: customers die, 8 percent return. Option B: customers live, 272 percent return. Humanity stares at chart, confused.

(Legal) Bribe Category #2: The True Believers (Early Adopters Who Want Control)

Who you're (legally) bribing: Humans who believe in curing diseases AND want to control a multi-billion dollar budget. These exist. They're called "effective altruists" except rich.

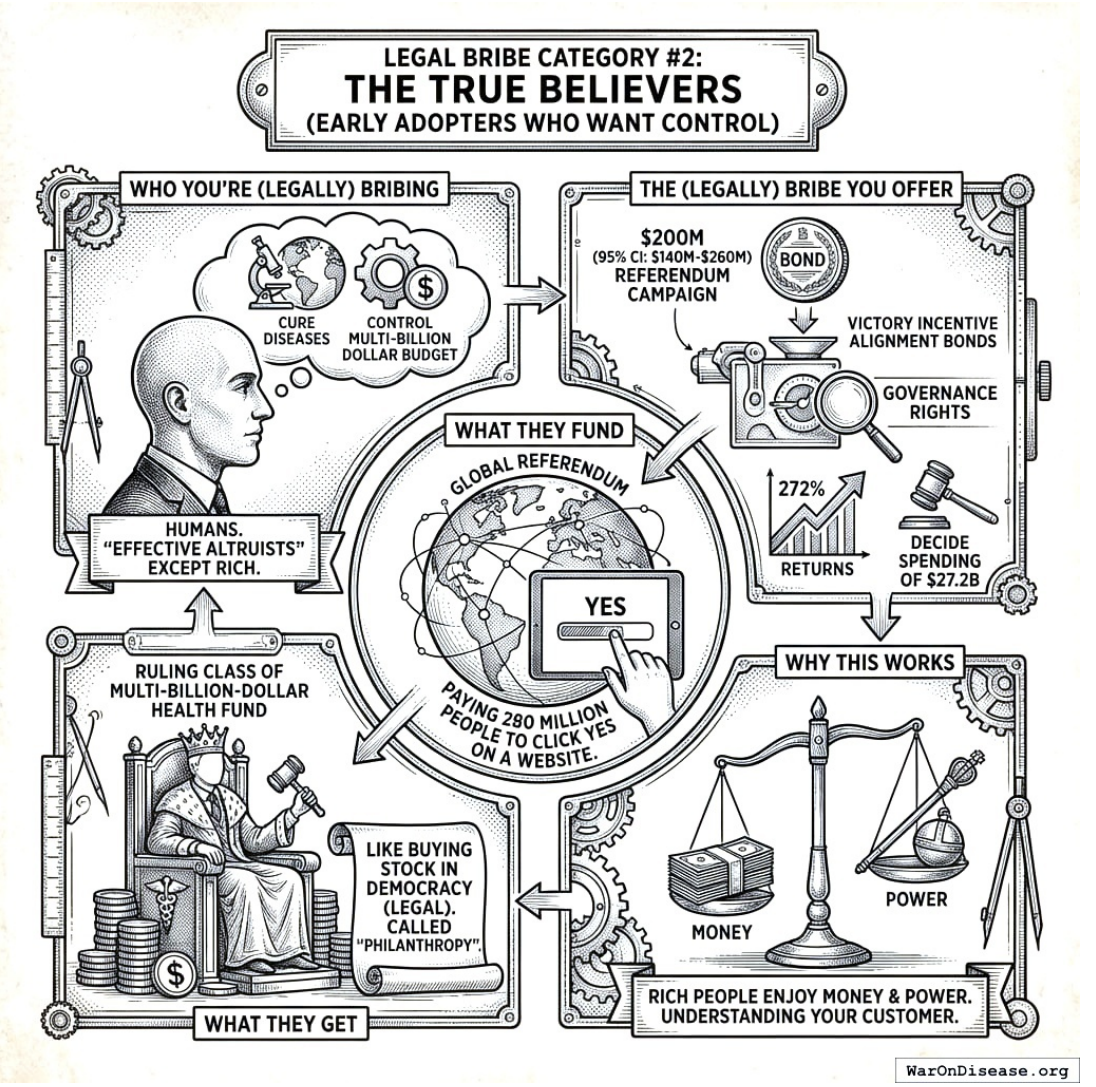


Figure 359: Give 200 million, get 272 percent back plus control of 27 billion. It's like venture capital discovered immortality has a business model.

The (legal) bribe you offer: Fund the $200M referendum campaign and receive special VICTORY Incentive Alignment Bonds with governance rights. They get 272% returns PLUS they get to decide how the $27.2B gets spent.

What they fund: The Global Referendum. Basically paying 280 million people to click YES on a website.

What they get: They become the ruling class of a multi-billion-dollar health fund. It's like buying stock in democracy, except it's legal and called "philanthropy."

Why this works: Rich people enjoy both money AND power. You're offering both. This is called "understanding your customer."

(Legal) Bribe Category #3: Regular People (Everyone Else)

Who you're (legally) bribing: 280 million regular humans (3.5% of your species, which history proves is enough to change anything)

The (legal) bribe you offer: Click YES on a website. Receive VOTE points. Points become money after treaty passes. You literally get paid for clicking a button to not die.

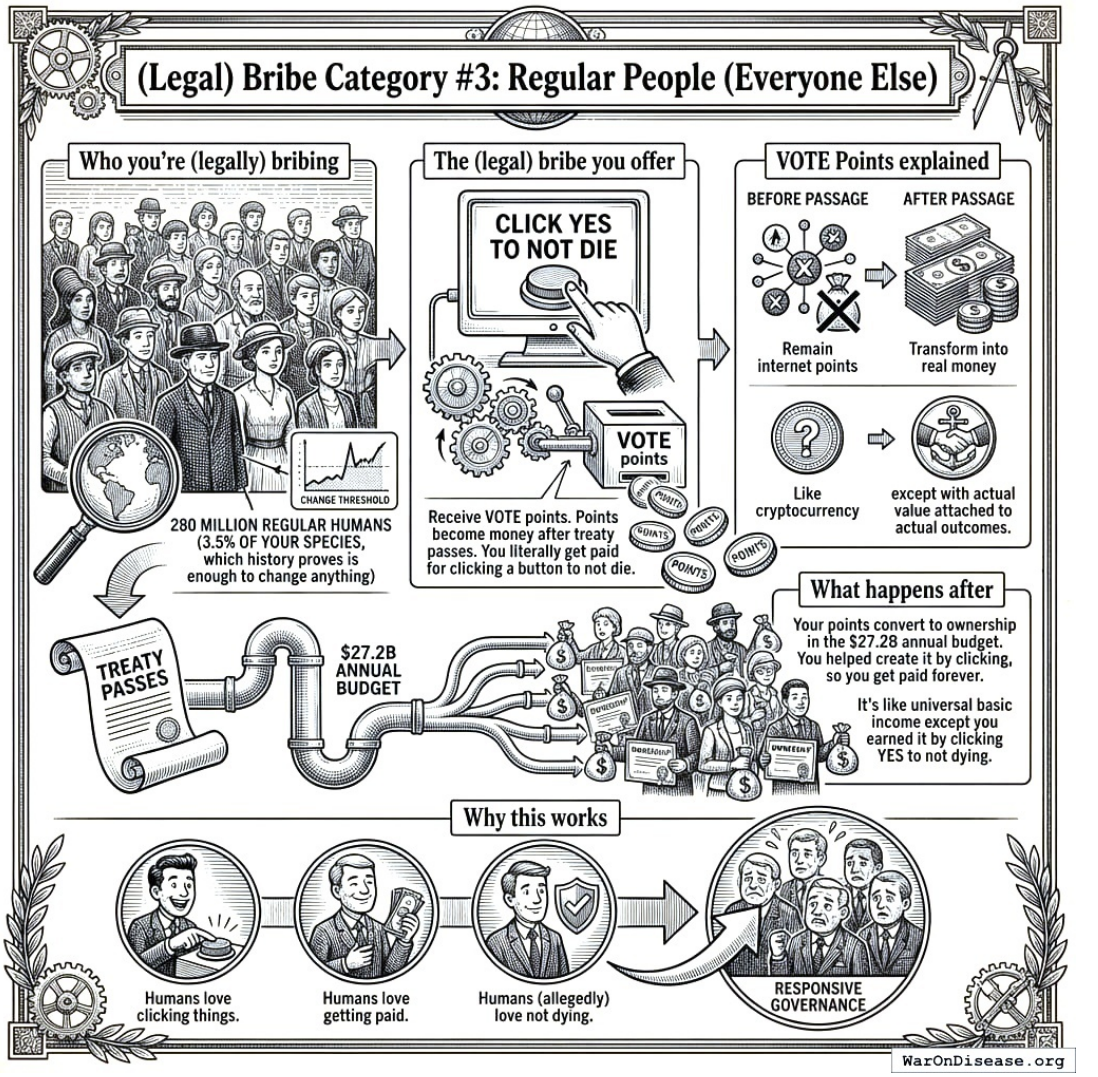


Figure 360: Click yes, get points. Treaty passes. Points become money. Democracy gamified itself into accidentally working.

VOTE Points explained: These are internet points that transform into real money if the treaty passes. They remain internet points if it doesn't. Like cryptocurrency except with actual value attached to actual outcomes.

What happens after: Treaty passes. Your points convert to ownership in the $27.2B annual budget. You helped create it by clicking, so you get paid forever. It's like universal basic income except you earned it by clicking YES to not dying.

Why this works: Humans love clicking things. Humans love getting paid. Humans (allegedly) love not dying. This combines all three. When 3.5% of the population wants something and will profit from it, politicians experience what you call "responsive governance."

(Legal) Bribe Category #4: Politicians (The Elected Paper Recipients)

Who you're (legally) bribing: Humans whose job is "get elected by promising things, then do whatever the people with papers want." You're just offering more papers than the bomb people.

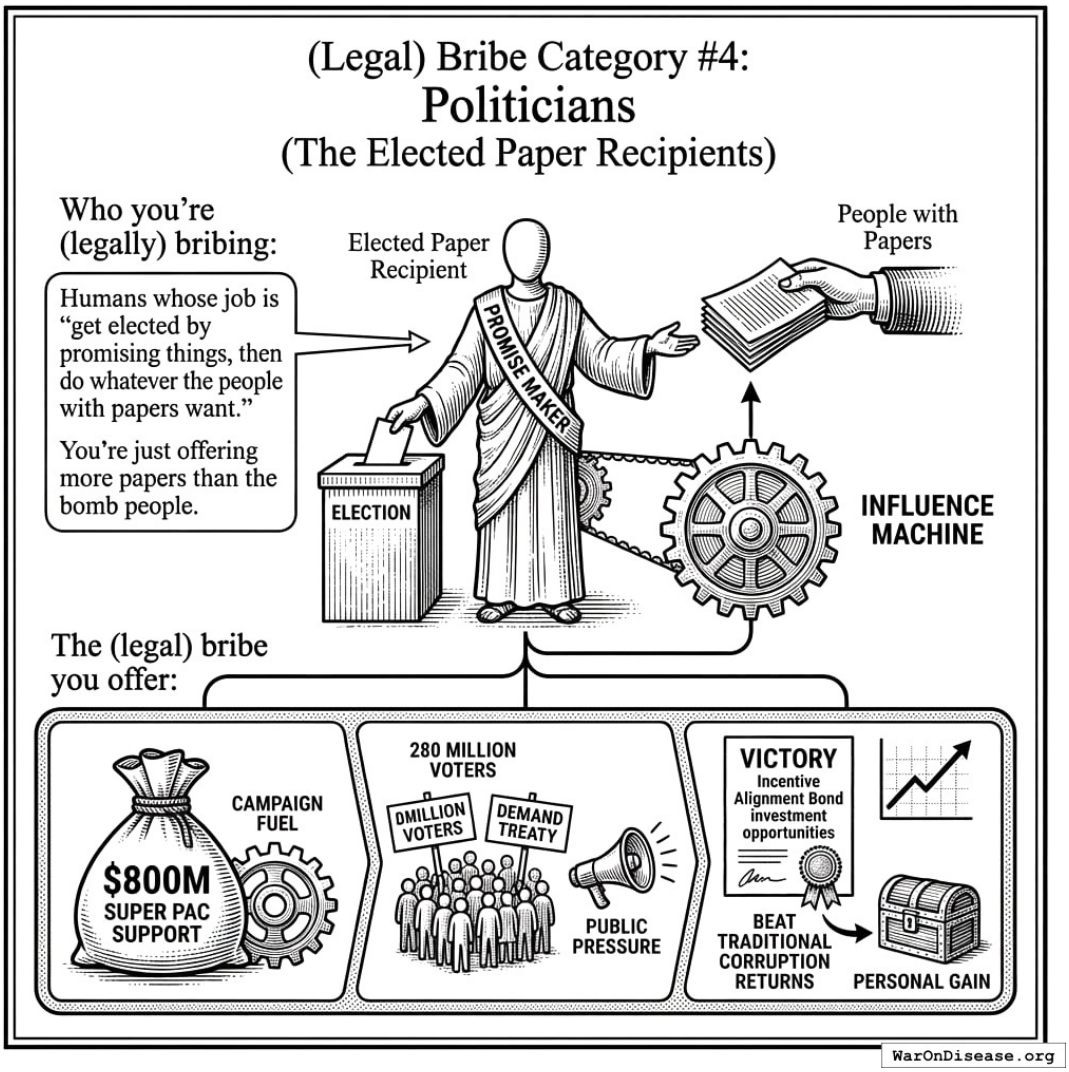


Figure 361: Three ways to move politicians: bribe their campaign, threaten their job, or make them rich. You built a machine with three bribe settings.

The (legal) bribe you offer: Super PAC support from the $650M lobbying budget. 280

million voters demanding the treaty. Plus personal VICTORY Incentive Alignment Bond investment opportunities that beat traditional corruption returns.

The Package

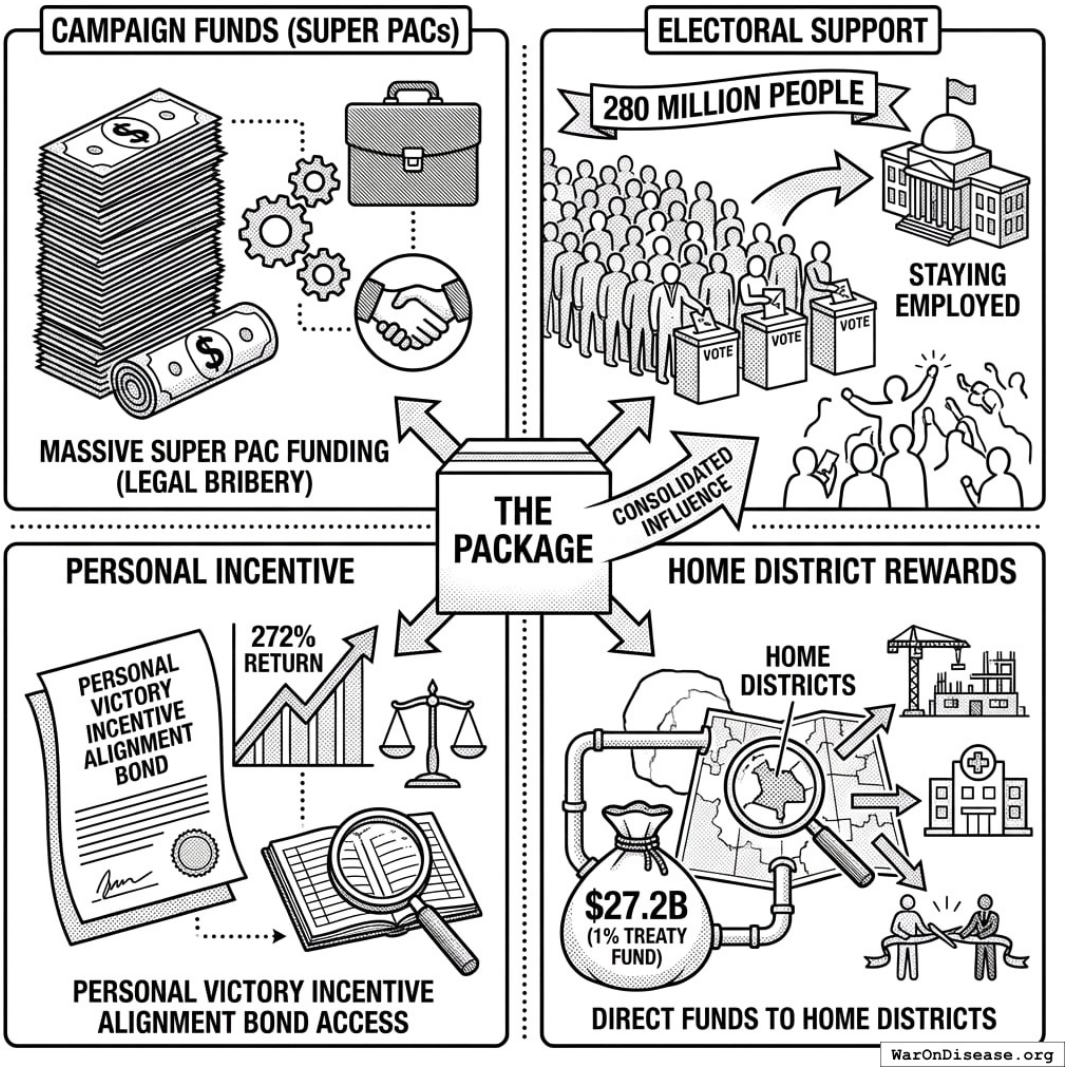


Figure 362: Four rivers of money and pressure, all flowing toward one senator. You call this 'The Package.' The Mafia calls it Tuesday.

- **Papers for campaigns:** Massive Super PAC funding (legal bribery)
- **Votes for staying employed:** 280 million people who will vote for treaty supporters
- **Papers for themselves:** Personal VICTORY Incentive Alignment Bond access (272% beats insider trading)
- **Power to reward friends:** Direct a portion of the 1% Treaty Fund's $27.2B to their home districts (funding pragmatic clinical trials and building decentralized institutes of health for decades of ribbon-cutting ceremonies)

The choice you give them

Option A: Support treaty, get papers + votes + legacy as "politician who cured diseases"

Option B: Oppose treaty, discover 280M voters wanted to not die (they're voting against you)

Most politicians are excellent at counting votes. The math becomes simple even for them.

What happens: Politicians discover they've always been passionate about curing diseases. This sudden passion perfectly coincides with receiving papers and votes. On your planet, that's called "representative democracy."

The Paper Collection Timeline: From $0 to Ending Death

You want to end war and disease. You need $1B in papers. You currently have $0 in papers (probably). Here's the recipe.

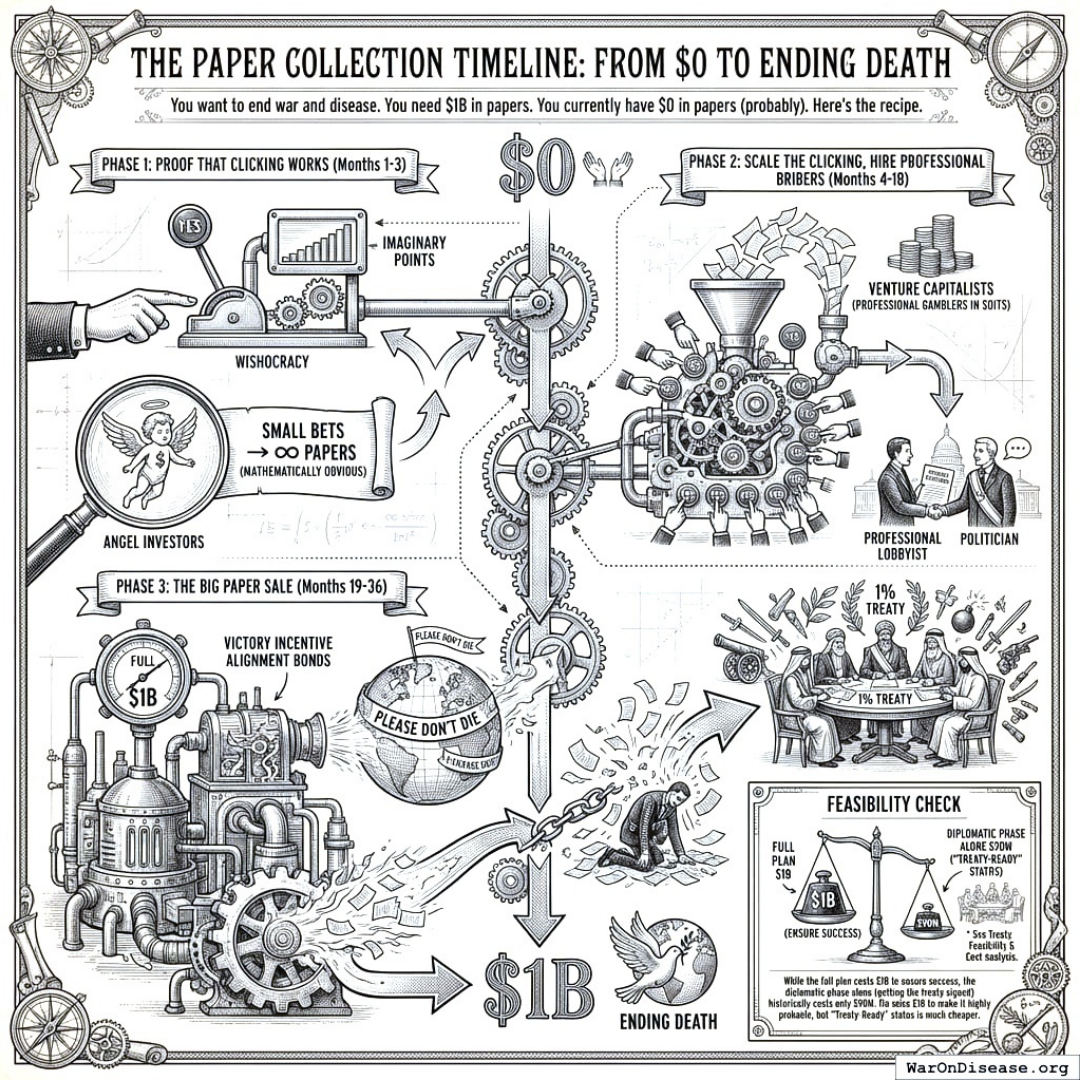


Figure 363: Phase one: collect papers. Phase two: collect more papers. Phase three: 1 billion people sign, world changes. Bureaucracy saves humanity.

1. **Phase 1: Proof That Clicking Works (Months 1-3).** You build a simple version of **Wishocracy**. Basically a website where humans click "yes" to not dying. If anyone uses it, you've proven humans will vote for things when bribed with imaginary points. You show this to angel investors who understand that betting small papers to get infinite papers is mathematically obvious.
2. **Phase 2: Scale the Clicking, Hire Professional Bribers (Months 4-18).** Humans will click buttons when offered money. You've proven that. Now you raise more papers from venture capitalists (humans who gamble professionally while wearing suits). You use these papers to scale the referendum to millions of clickers. You also hire your first professional lobbyists. Their actual job is "convince politicians that things are good."
3. **Phase 3: The Big Paper Sale (Months 19-36).** This is the final boss level. You launch **VICTORY Incentive Alignment Bonds**. These are like war bonds except backwards. You're giving papers to humans to STOP making corpses instead of START making corpses. This raises the full $1B you need. You overwhelm the opposition, run a global "please don't die" advertising campaign, and get the **1% treaty** signed by actual governments who thought weapons were the only option.

   Feasibility Check: The full plan costs $1B to ensure success. But the diplomatic phase alone (getting the treaty signed) historically costs only **$90M**. You raise $1B to make it highly probable. "Treaty-Ready" status is much cheaper. See Treaty Feasibility & Cost Analysis.

The Legal Architecture: How to Be a Charity, a Lobbying Group, and a Hedge Fund Simultaneously

You need to fight on three fronts to win: moral (charity), political (lobbying), and financial (investment). The problem is your legal system says one organization can't do all three.

Your legal system is adorably complicated, like a board game designed by lawyers having a nightmare.

So you build a four-part machine:

- **The Charity (501c3):** This is the "brains." It does research and education. Rich foundations give papers here and get to feel good about themselves (plus tax deductions, which are like discount coupons for virtue).
- **The Lobbying Group (501c4):** This is the "sword." It takes the research and uses it to wage unlimited political warfare. That sounds scary but mostly involves lunch meetings and PowerPoints.
- **The Corporation (C-Corp):** This is the "engine." A for-profit entity that issues the VICTORY Incentive Alignment Bonds and collects the papers. Yes, you need a for-profit corporation to end death. Your species is hilarious.
- **The Swiss Foundation:** This is the "soul." The parent organization owns the corporation, ensuring profits can only fund the mission. You put it in Switzerland because they're good at keeping things neutral and also chocolate.

This structure lets you legally accept papers from everyone (foundations, political donors, and Wall Street) and aim them all at diseases instead of each other.

The Political Strategy: Co-Opt, Don't Compete

You cannot outspend the military-industrial complex in a head-to-head fight. They have more papers than countries.

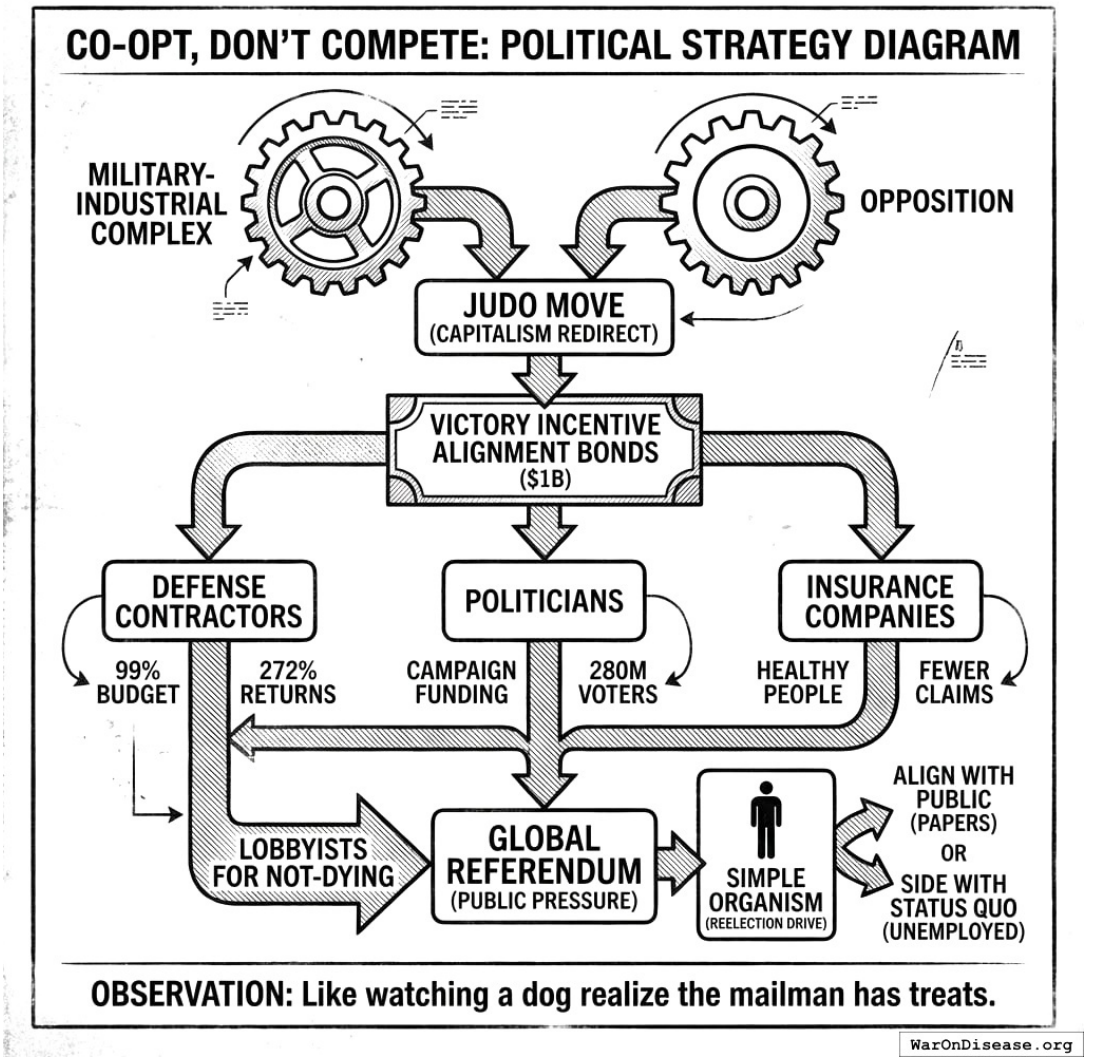


Figure 364: Take the people who profit from death. Make them profit more from life. They switch sides. You call it judo. It's just math with better marketing.

So you don't fight them. You bribe them (legally).

The strategy is simple: make it more profitable for everyone to support the treaty than to oppose it. Military contractors, politicians, insurance companies. All of them. You're not fighting greed. You're redirecting it, like a judo move but with capitalism.

You use the $1B from the VICTORY Incentive Alignment Bonds to offer everyone a better deal:

- Defense contractors keep 99% of their murder budget PLUS get 272% returns on bonds
- Politicians get campaign funding AND 280 million voters who want to not die
- Insurance companies realize healthy people file fewer death claims

Suddenly their lobbyists become your lobbyists. Their political action committees start making action for not-dying instead of dying. It's beautiful. Like watching a dog realize the mailman has treats.

You combine this with overwhelming public pressure from 280 million verified voters in the global referendum. The choice for politicians becomes mathematically simple: side with the public and get papers, or side with the status quo and get unemployed.

Politicians are simple organisms with one evolutionary drive: reelection. You're just making that drive align with not killing everyone.

Your Next Steps

You now know the exact sequence:

1. **Build the legal machine:** The four-part structure that lets you collect papers from everyone simultaneously
2. **Sell the bonds:** VICTORY Incentive Alignment Bonds that offer 272% returns to humans who prefer not dying
3. **Run the vote:** The global referendum where 280 million humans click "yes" to not dying

It's not complicated. You're just bribing everyone in the correct order with the correct amounts.

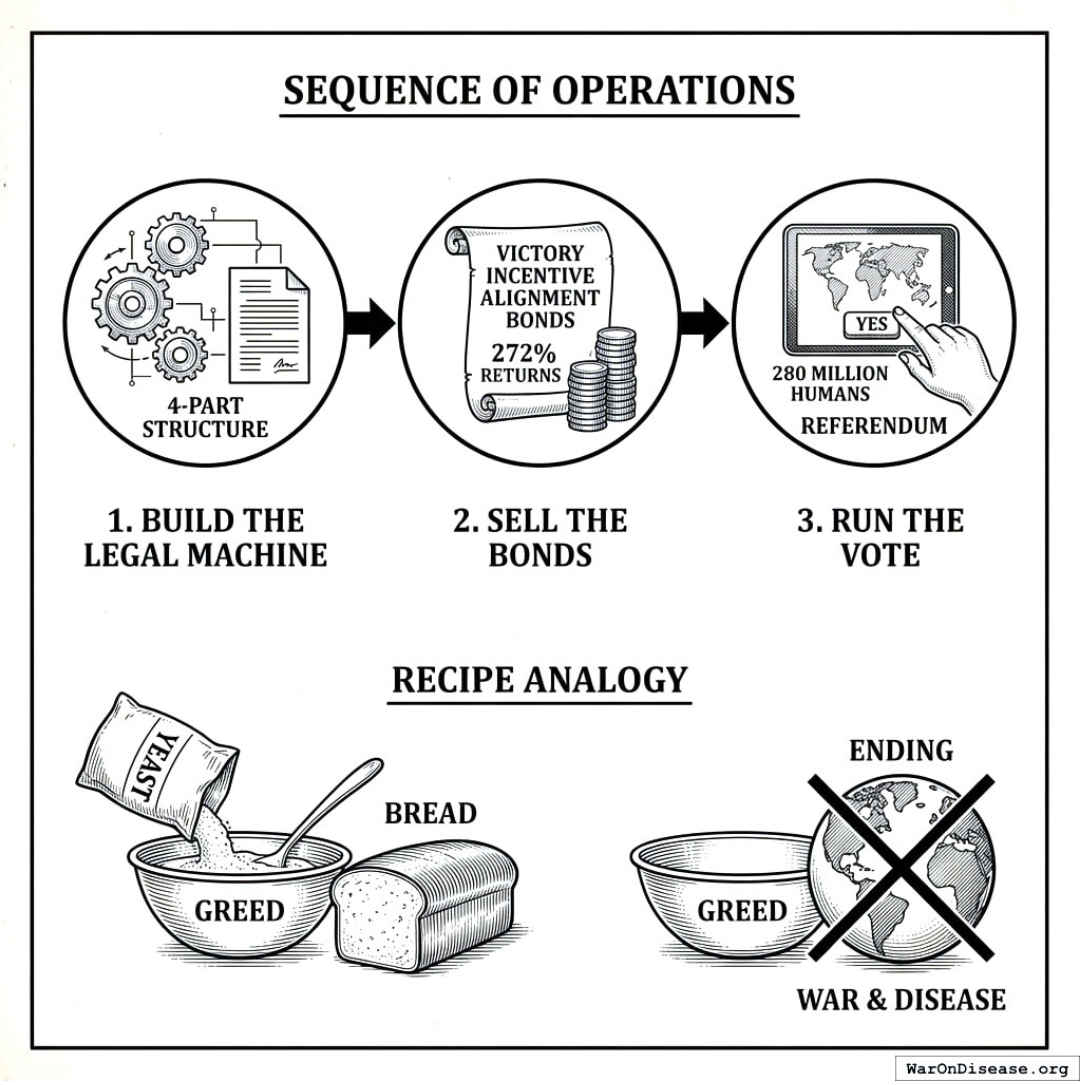


Figure 365: Step one: paperwork. Step two: financial instruments. Step three: everyone votes. Democracy, but in the correct order for once.

Like a recipe, except instead of making bread, you're ending war and disease. And instead of yeast, it's greed.

Phase 4+: The Expansion Phases (Years 4-50)

The 1% treaty is just the beginning. Like all addictions, not-dying starts with a small dose and escalates. The real goal is eventually redirecting *most* military spending to health.

Why Expansion Is Built Into The System

The 80/10/10 funding allocation includes 10% for political incentives via Incentive Alignment Bonds. This isn't a fixed cost. It's a **scaling engine**.

As treaty percentage increases, IAB funding scales proportionally:

Phase	Year	Treaty %	Political Incentive Pool	What Happens
3	1-3	1%	$2.72B/year	Treaty passes, cures begin
4	4-7	2%	$5.4B/year	Politicians compete to expand
5	8-12	5%	$13.5B/year	Defense lobby can't compete
6	13-20	10%	$27B/year	War becomes economically obsolete
7	21-35	25%	$67.5B/year	Superpowers compete on health outcomes
8	36-50	50%+	$135B+/year	Full transformation

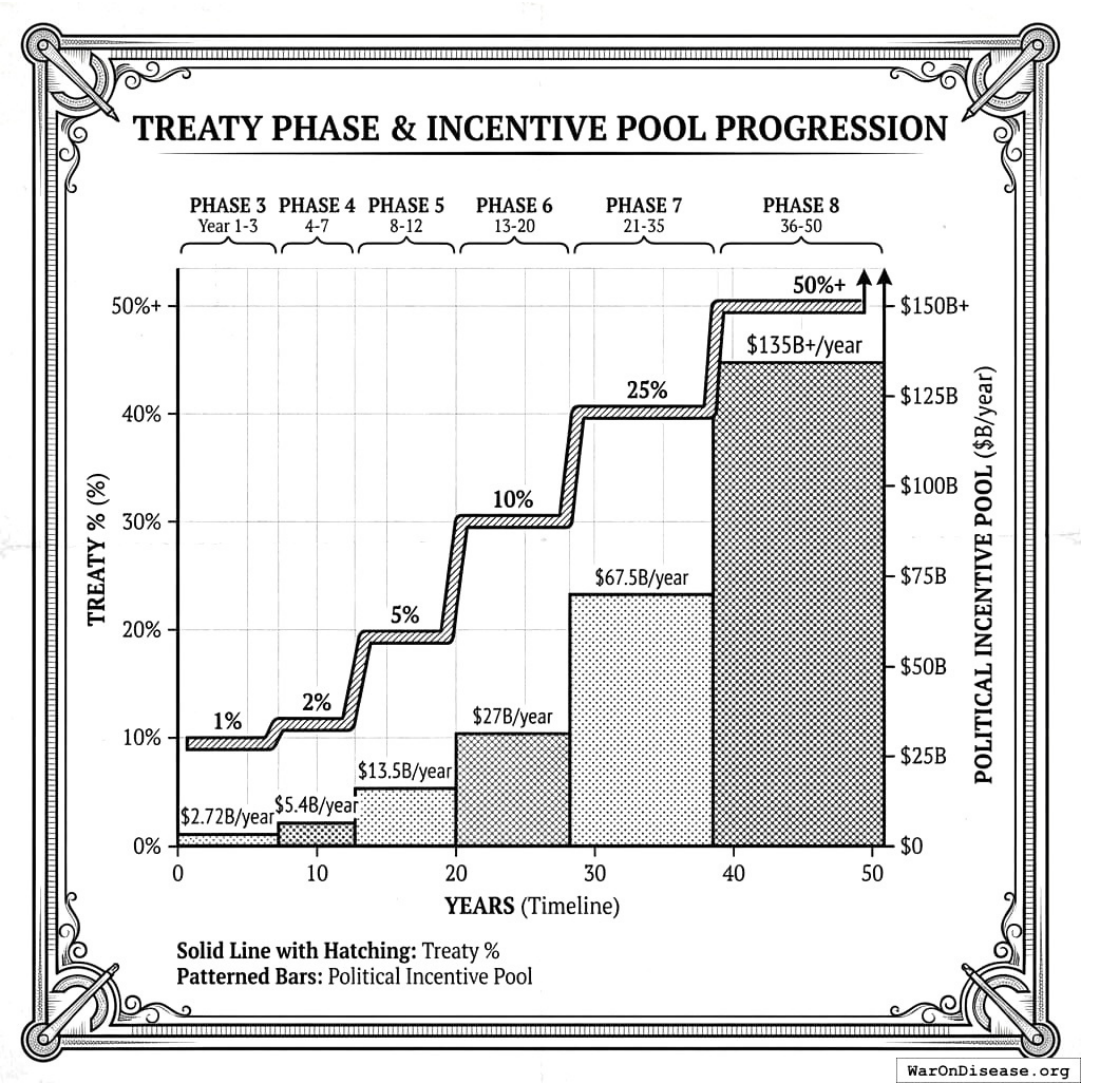


Figure 366: As more countries join, the bribe pool gets bigger. Corruption scales beautifully when it's trying to save lives.

Here's Why It Keeps Growing

VICTORY Incentive Alignment Bond investors are satisfied at 1%. They get their 272% returns regardless of expansion.

Politicians see their IAB-funded rewards grow with each expansion. By Phase 6, the political incentive pool ($27B/year) exceeds all current global lobbying combined. "Support pragmatic clinical trial funding" becomes the single most rewarded political position on Earth.

The Endgame

By 2075, the math becomes irresistible:

- $1.35+ trillion flows to health annually
- $135+ billion funds political incentives (more than all lobbying ever)
- $1.08+ trillion funds pragmatic clinical trials

- War is economically obsolete

The 1% treaty isn't the goal. It's the proof of concept. The IAB mechanism ensures the system keeps ratcheting upward because the people with the most money have the most to gain from ratcheting it upward. Eventually military spending becomes a historical curiosity, like jousting or the telegraph or paying for music.

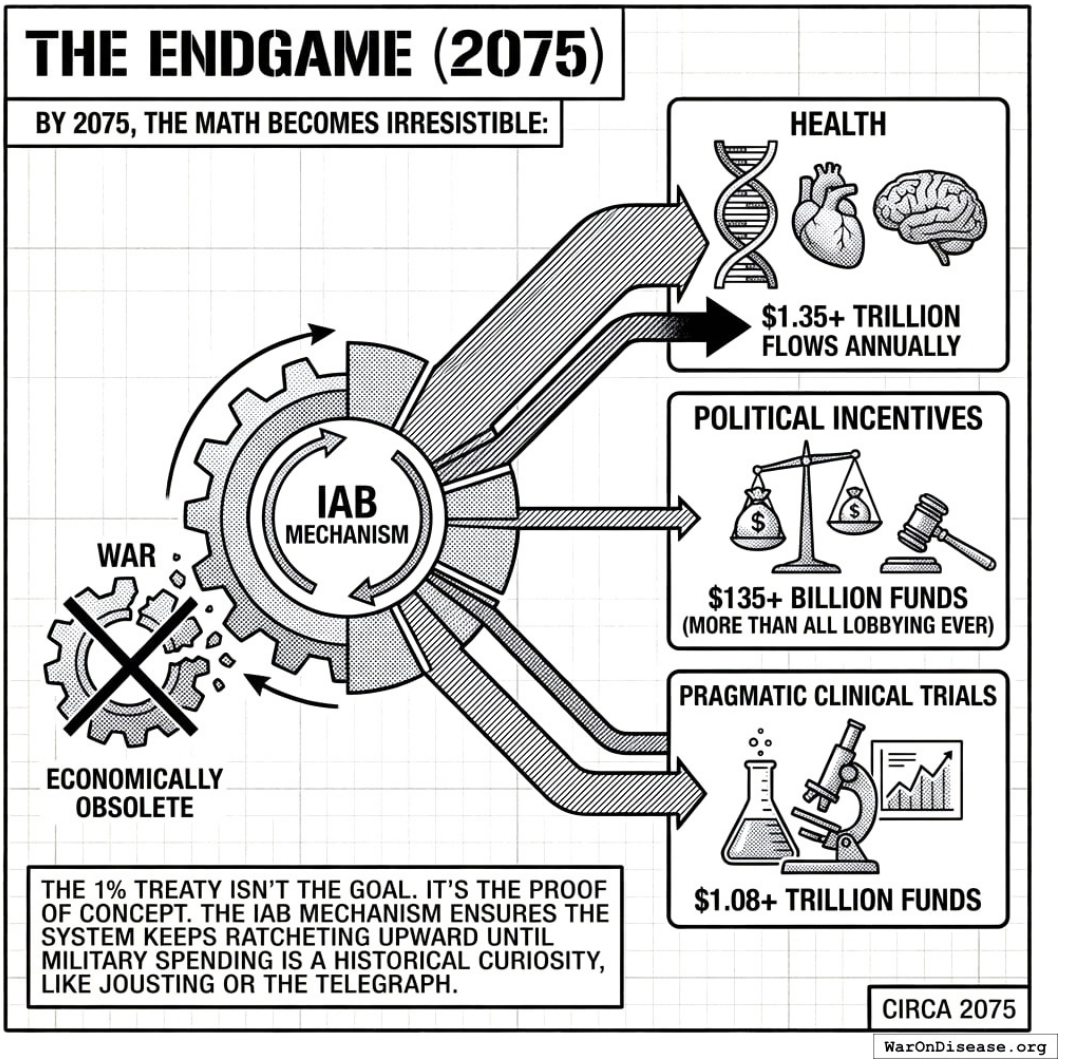


Figure 367: 1.35 trillion moves from killing people to healing them. Some goes to bribing politicians, the rest to actual medicine. Priorities.

Why Every Nonprofit Should Support a 1% treaty

Most nonprofits are trapped in a **zero-sum game**.

They're like starving dogs fighting over a single bowl of food while an entire banquet sits untouched behind them. The dogs are very focused on the bowl. They've developed sophisticated bowl-fighting strategies. Some dogs have hired consultants to optimize their bowl access. None of them have turned around.

Every grant you win is a grant another organization loses. Every dollar you secure for malaria is a dollar not spent on Alzheimer's. Every donor you convince is a donor distracted from climate change.

Your success requires someone else's failure. You're not solving scarcity. You're reshuffling it while writing very professional reports about the reshuffling.

Meanwhile, the real driver of scarcity, the real reason the bowl is so small, is ignored:

Humanity spends 604 times more on weapons than on clinical trials to discover which medicines actually work.

The bottleneck isn't basic research or lab equipment. It's testing. Your species has explored less than 1% of possible drug-disease combinations using existing safe compounds because clinical trials are too slow and expensive. This is the chokepoint that limits every health outcome.

This is not an ideological claim. It's arithmetic. The kind where you multiply numbers together and get sad.

Every year:

- Military spending: $2.72T
- Global spending on curing disease: $67.5B
- Military budgets: Rising by hundreds of billions annually
- Medical research budgets: Facing **real-term cuts**[288]

The pie for solving disease, climate, poverty, and suffering is shrinking.

The pie for building weapons is expanding.

You cannot solve a resource allocation crisis by optimizing inside the smallest slice. That's like rearranging deck chairs on the Titanic, except the deck chairs are grants and the iceberg is $2.72T pointed at everyone's face.

You must expand the pie. This turns a **zero-sum game** into a **positive-sum game**.

This is the logic behind a **1% treaty**.

The Single Highest-ROI Intervention Available

If your mission is:

- curing Alzheimer's
- preventing cancer
- mitigating climate change
- slowing pandemics
- ending extreme poverty
- protecting democracy
- reducing existential risk
- improving education
- promoting peace
- stabilizing the biosphere

…the single highest-leverage thing you can do is:

Help redirect 1% of global military budgets toward hyper-efficient pragmatic clinical trials.

Why? Math.

1. **Every dollar spent on war is a dollar not spent on life.** This is how money works.
2. **Every dollar moved from military to health has a 10-200x higher welfare multiplier.** Bombs have negative ROI on human flourishing. Medicine has positive ROI. These are different numbers.
3. **Redirecting the *flow* of resources changes the future more than any single program.** You can bail water forever or you can plug the hole.
4. **A healthier, wealthier, more stable world reduces every global problem simultaneously.** It's like fixing the foundation instead of patching individual cracks.

War is upstream of poverty.

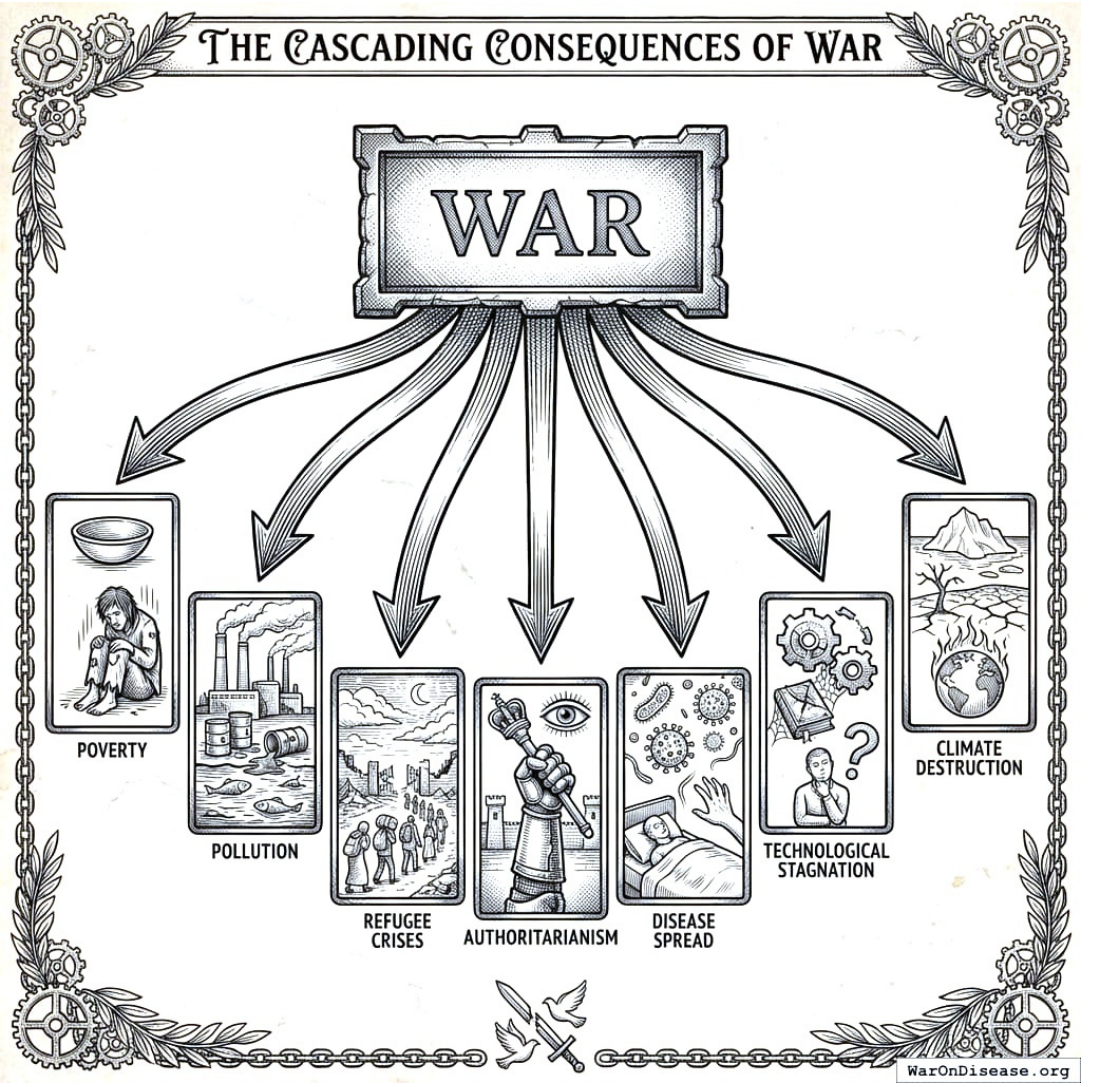


Figure 368: War causes poverty, climate collapse, and disease. Humans look at diagram, nod knowingly, increase war budget.

War is upstream of pollution. War is upstream of refugee crises. War is upstream of authoritarianism. War is upstream of disease spread. War is upstream of technological stagnation. War is upstream of climate destruction (militaries are among the largest polluters on Earth, which is ironic given they're supposedly protecting it).

War is, in fact, upstream of basically everything you don't like. It's the root password to your worst problems.

Reduce war by 1%, and every downstream mission gets easier.

Increase war by 1%, and every mission becomes almost impossible.

A 1% treaty is not a peace movement. It's a **resource-reallocation movement**. Nobody has to hold hands or sing songs. They just have to do math.

Why This Applies to YOUR Organization



Figure 369: Move 1 percent of war money to medicine. Environment improves, poverty drops, military-to-clinical-trials spending ratio is 604:1. One percent. You were that close the whole time.

Environmental groups: Militaries are the largest polluters on Earth. Defunding them 1% is the most effective climate policy ever proposed, and it doesn't require anyone to give up hamburgers.

Anti-poverty groups: War and disease are the root causes of most modern poverty and famine. A 1% treaty tackles both. Your current strategy of "ask rich people to feel bad" has been running for sixty years. How's that going?

Peace organizations: Seventy years of moral appeals haven't worked. A 1% treaty makes peace more profitable than war. In a world run by greed, that's the only argument that matters.

Disease advocacy groups: You're fighting other disease groups for crumbs of the NIH

budget. A 1% treaty bakes an entirely new pie with 12.3x more trial capacity. The bottleneck isn't ideas or molecules; it's running enough trials to find out what works. This solves that.

"But Shouldn't Nonprofits Focus on Their Core Mission?"

Yes. That's exactly why they should support a 1% treaty.

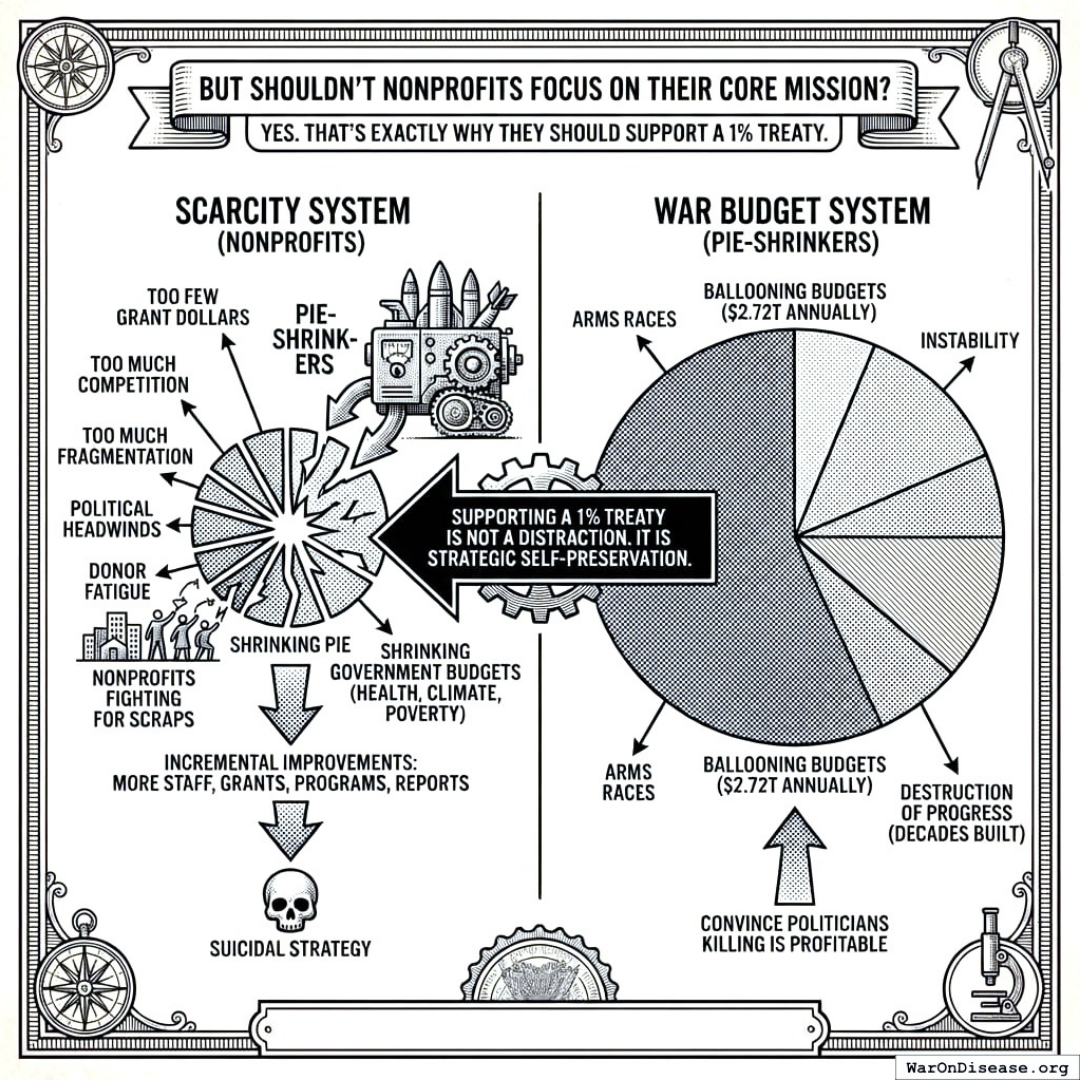


Figure 370: Military budget: massive mountain. Charity budget: tiny puddle. Move 1 percent from mountain to puddle. Puddle becomes lake, mountain stays mountain.

Every nonprofit today operates inside a system that guarantees scarcity:

- too few grant dollars
- too much competition
- too much fragmentation
- political headwinds
- donor fatigue

- shrinking government budgets for health, climate, and poverty
- ballooning budgets for war

Most nonprofits are fighting each other for scraps of a shrinking pie while the pie-shrinkers get $2.72T annually to shrink it faster.

If your mission matters, this is suicidal strategy.

A small increase in resources within your field leads to small, incremental improvements. More staff. More grants. More programs. More reports about the reports.

A small increase in military budgets leads to arms races, instability, and the destruction of progress you spent decades building.

If your organization does not help shift the resource flow, your future funding and impact will be determined by someone else. Specifically, by people whose job is "convince politicians that killing is profitable."

Supporting a 1% treaty is not a distraction. **It is strategic self-preservation.**

The Zero-Sum Trap vs. The Positive-Sum Solution

Right now, every grant you win is a grant another org loses. The bucket is shrinking while you fight over it.

A 1% treaty grows the bucket by $27.2B/year. Everyone gets funded. Malaria gets cured AND Alzheimer's gets cured. You stop writing proposals and start governing the fund. This is like discovering that instead of fighting over one pizza, you can just order infinite pizzas. Except the pizzas are billions of dollars and the ordering is international treaty ratification.

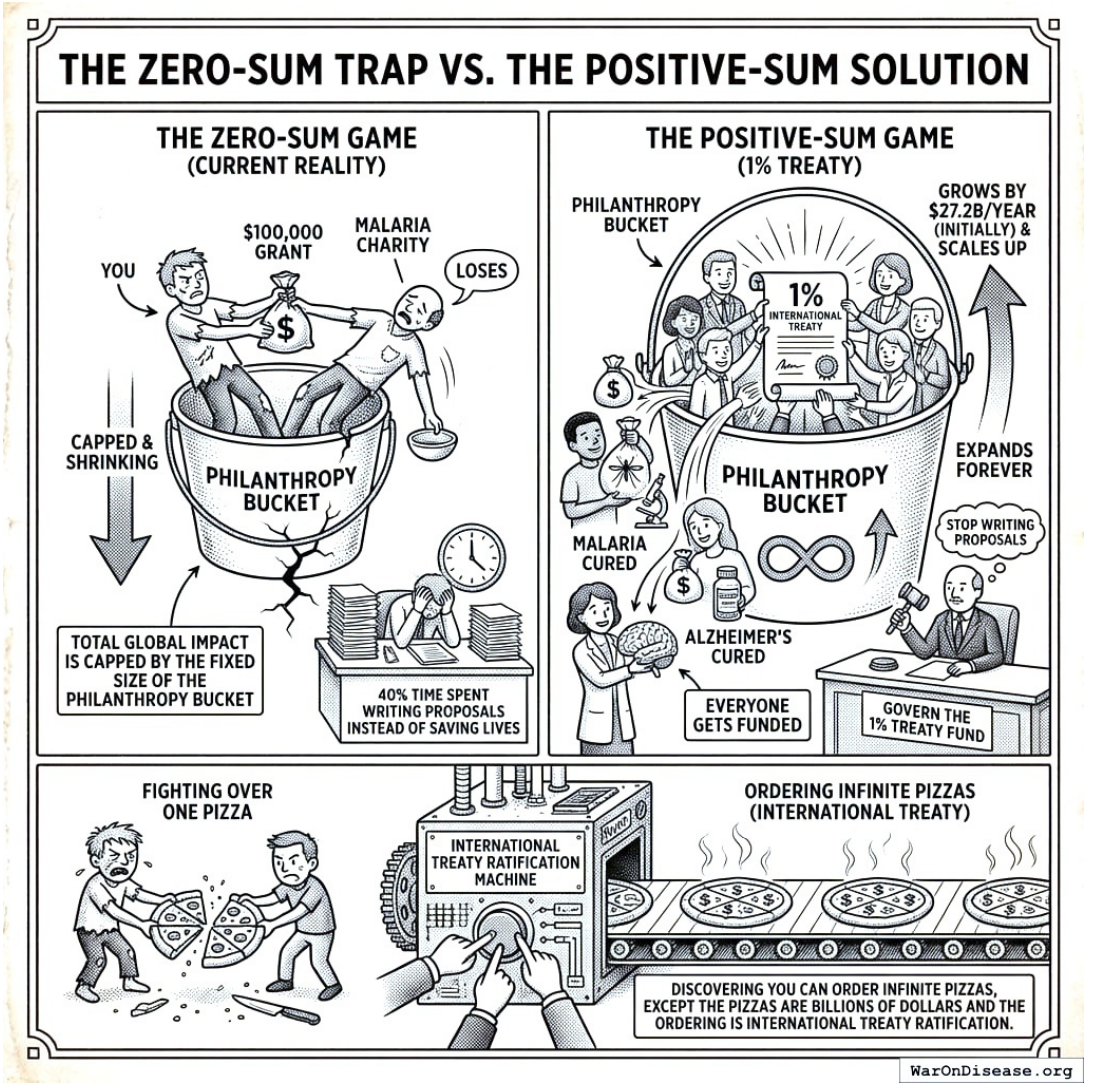


Figure 371: Current system: everyone fights over one bucket. New system: bucket gets bigger, everyone stops fighting. You needed a diagram for this.

"Why Now?" Because the Window Is Open

For the first time in 80 years, everything is going wrong at the same time. This is, paradoxically, your best opportunity:

- the public is angry about rising military budgets
- trust in government spending priorities is at "used car salesman" levels
- medical breakthroughs feel within reach but unrealized
- climate disasters have shifted public opinion from "debatable" to "my house is underwater"
- pandemics exposed the cost of underfunding resilience
- AI and biotech make accelerated progress possible
- leaders are searching for high-leverage, unifying narratives (and finding none, which is where you come in)

You cannot pass a resource-reallocation treaty when people feel safe, rich, and complacent.

Comfortable humans don't change things. Uncomfortable humans change everything.

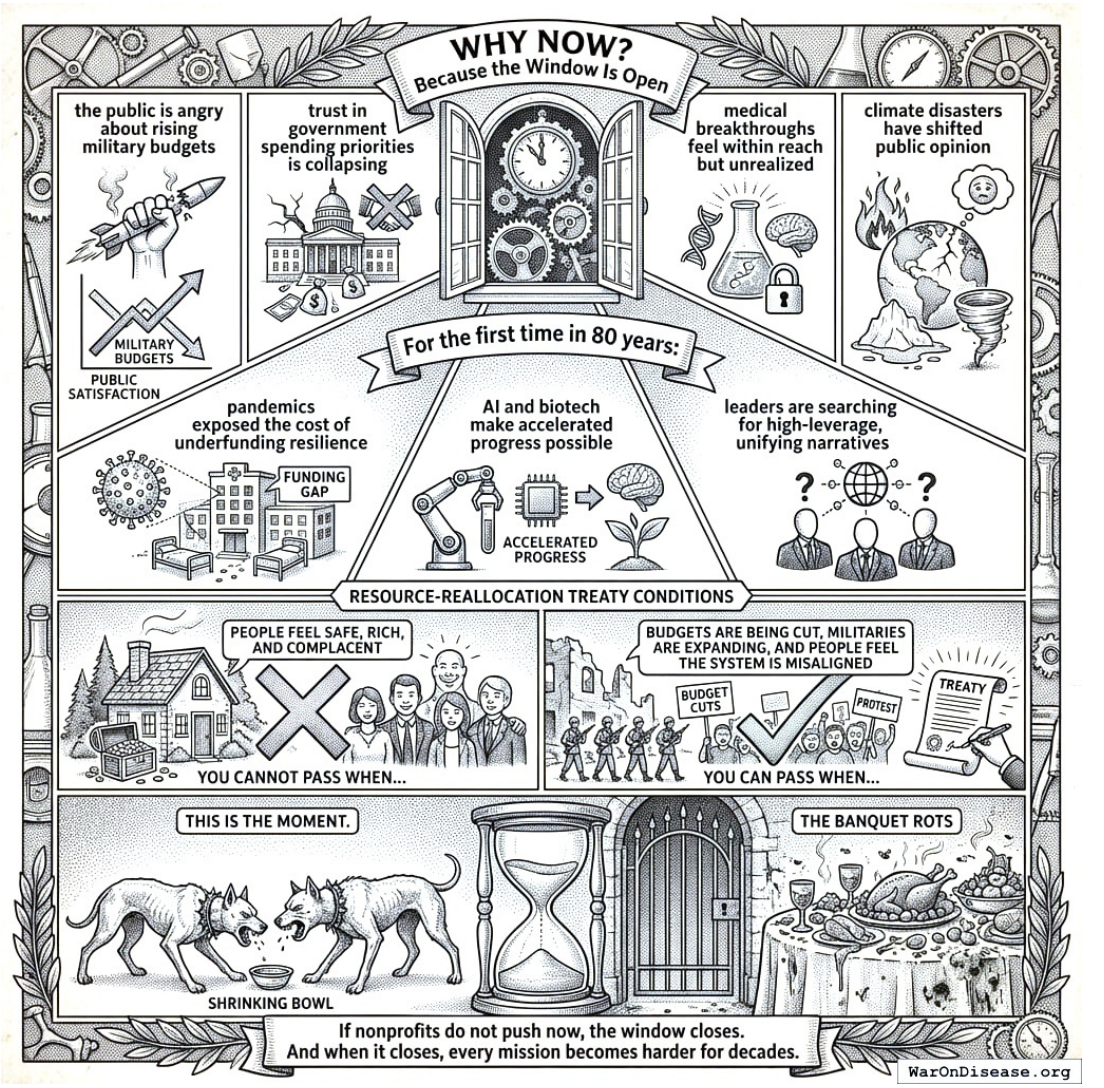


Figure 372: Climate disaster, military bloat, and technology arrive at the same time. Create a tiny window for change. You call it opportunity, history calls it last chance.

You can pass it when budgets are being cut, militaries are expanding, and people feel the system is misaligned.

This is the moment.

If nonprofits do not push now, the window closes. And when it closes, every mission becomes harder for decades. The dogs will still be fighting over the shrinking bowl while the banquet rots behind them.

Historical Precedent: This Has Worked Before

During World War II:

- The U.S. converted car factories into bomber factories
- GM built tanks
- Ford built B-24s
- Frigidaire (yes, the refrigerator people) produced machine guns
- Typewriter manufacturers made rifles

Not because they "supported war." Because **the system needed realignment** and ignoring it was impossible. Also because the government asked very firmly, in a tone that strongly implied "this isn't really a question."

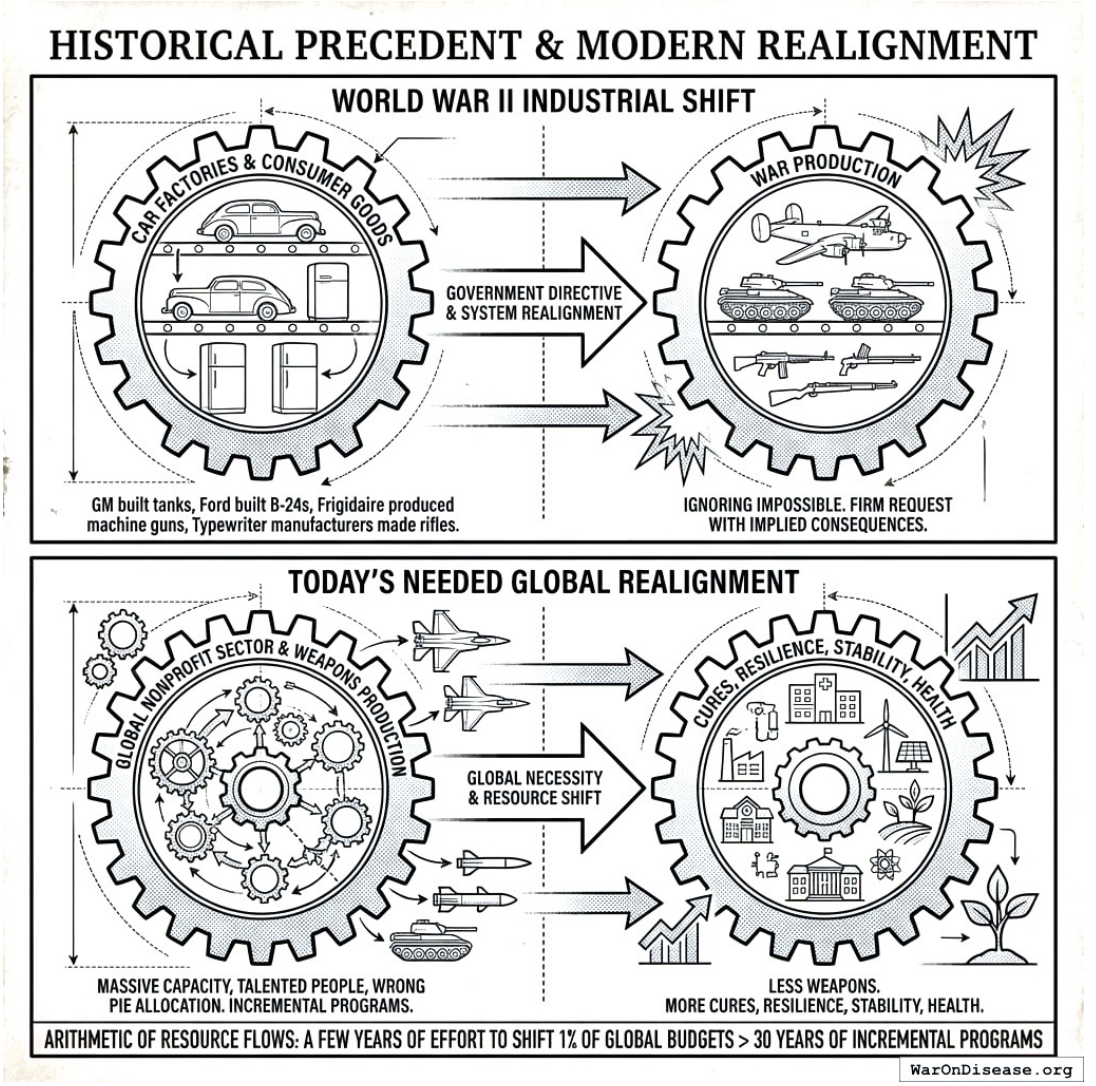


Figure 373: 1940s: factories pivot overnight to build tanks. 2020s: charities can't pivot because forms are hard. You got worse at changing direction.

Today, the world needs the opposite realignment:

- Less production of weapons
- More production of cures, resilience, stability, and health

The global nonprofit sector is the modern equivalent of those car factories: massive capacity,

talented people, pointed at the wrong problem. You have millions of smart, passionate humans optimizing spreadsheets for the wrong budget. It's like watching a Formula 1 pit crew change tires on a car that's driving toward a cliff.

A few years of effort to shift 1% of global budgets could produce more impact than **30 years** of incremental programs. This is not optimism. This is arithmetic applied to resource flows.

"Why Not Just Run Decentralized Trials Ourselves?"

You should.

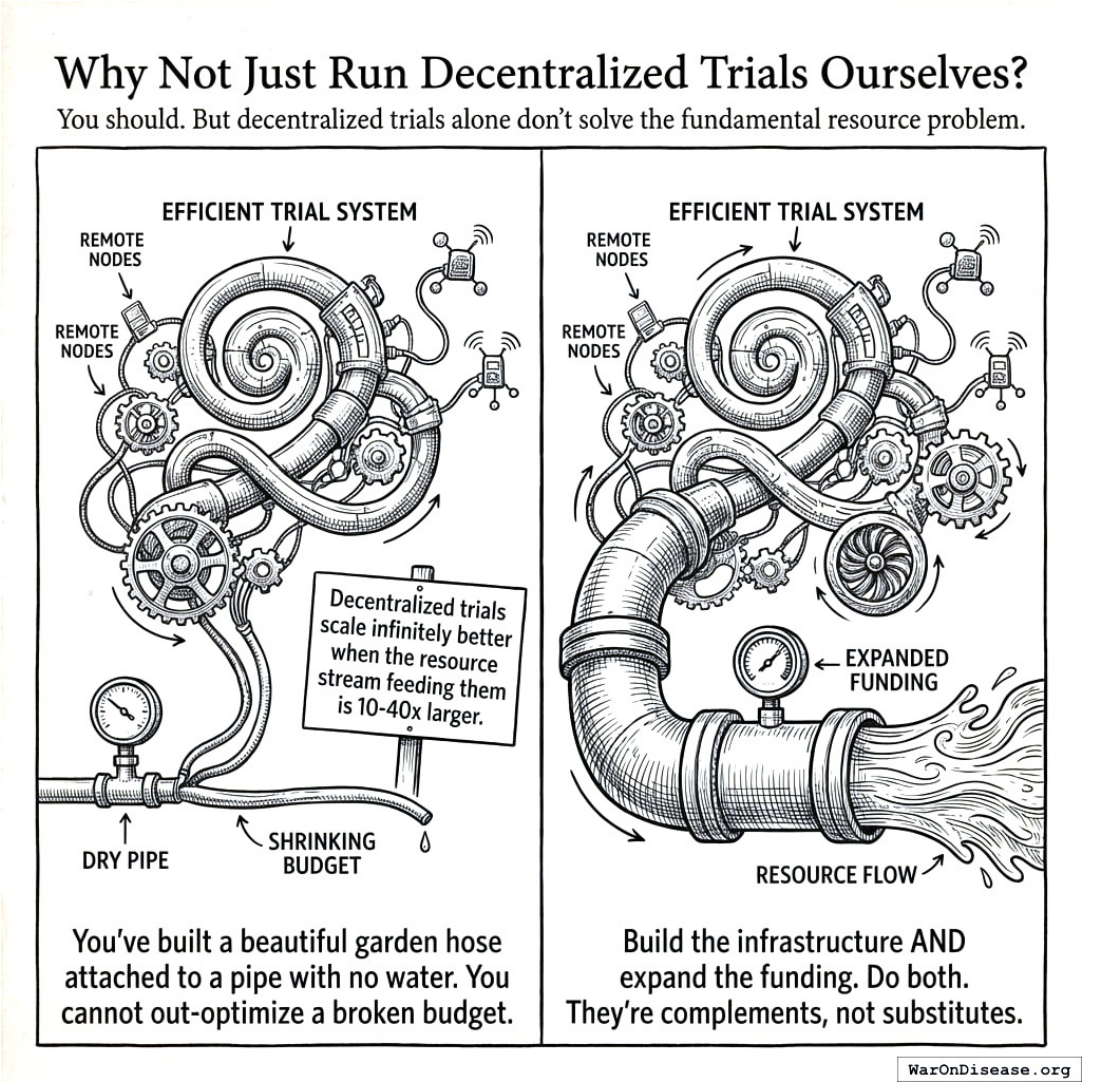


Figure 374: Clinical trials are a hose. Money is water. You keep optimizing the hose while the water tank is empty. Engineers solving the wrong problem.

But decentralized trials alone don't solve the fundamental resource problem.

Decentralized trials scale infinitely better when the resource stream feeding them is 10-40x larger.

If you build the most efficient trial system in the world but the budget for clinical progress is shrinking, you still lose. You've built a beautiful garden hose attached to a pipe with no water.

You cannot out-optimize a broken budget. You must change the resource flow itself.

Build the infrastructure AND expand the funding. Do both. They're complements, not substitutes.

A 1% Treaty Is a Rising Tide That Lifts Every Mission

What happens if the world shifts just **1%** of military budgets?

Health

- 12.3x more clinical trial capacity
- 100x faster therapeutic discovery
- Lower costs per cure
- Diseases get cured instead of managed (the pharmaceutical industry's least favorite sentence)

Climate

- Lower military emissions (militaries are massive polluters, but nobody carbon-taxes a tank)
- Fewer resource-driven conflicts
- More funds for climate solutions

Poverty

- Trillions in long-term economic productivity
- Fewer war-displaced refugees
- More government revenue for social services

Global Stability

- Less chance of great-power conflict
- More international cooperation on existential risks
- Everyone slightly less dead (the lowest bar imaginable, and yet)

Nonprofit Impact

- Everyone stops competing for crumbs
- Every mission receives more oxygen
- Funders far more willing to invest
- You stop writing grant proposals and start actually doing your mission. Remember your mission? It was in the brochure.

A 1% move unlocks 100% more possibility.

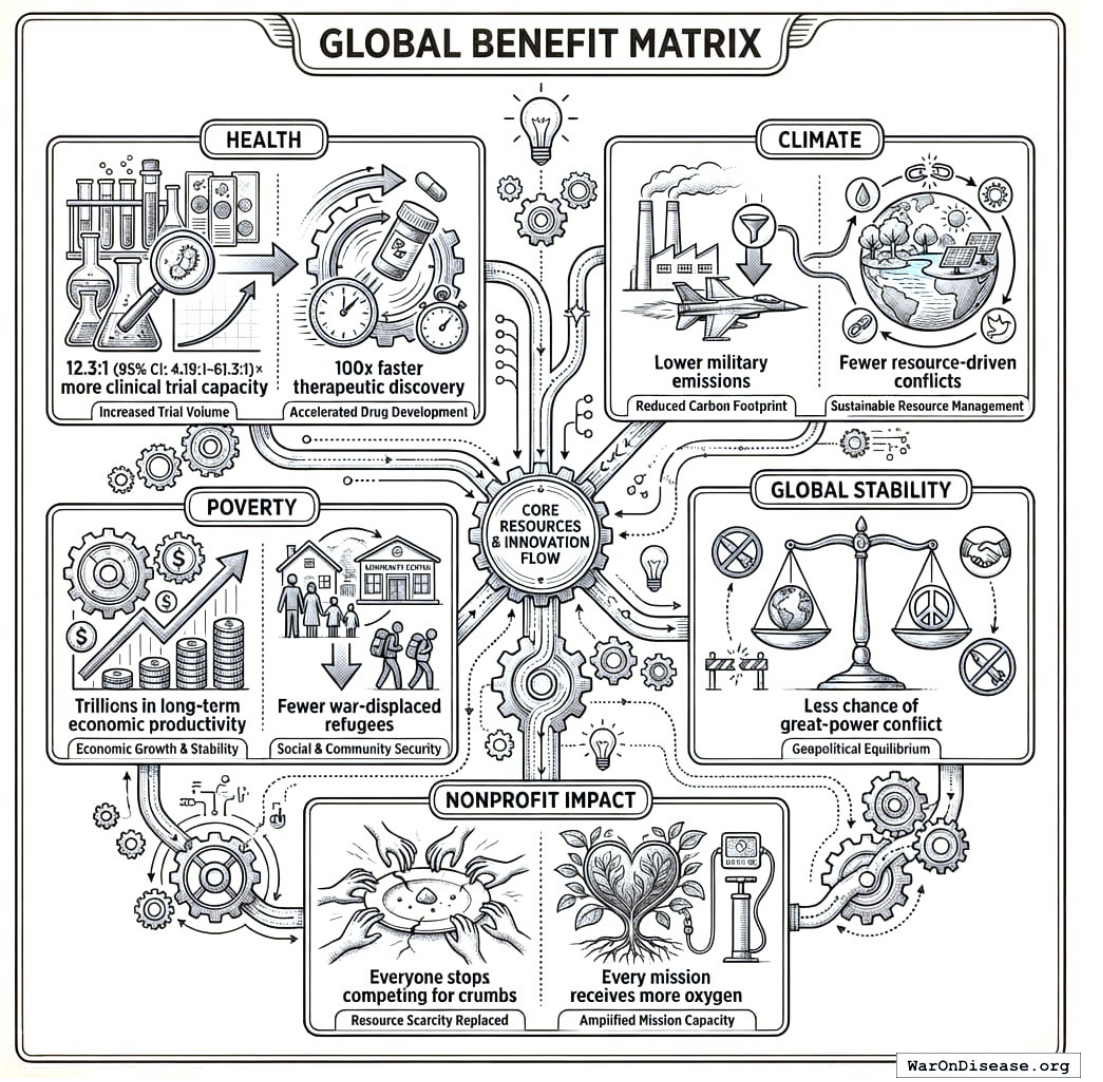


Figure 375: 1 percent solves health, climate, poverty, and war. You put all your skill points into violence and forgot to check if there were alternatives.

The Ask Is Small, The Upside Is Massive

You're not asking for global disarmament or naive pacifism.

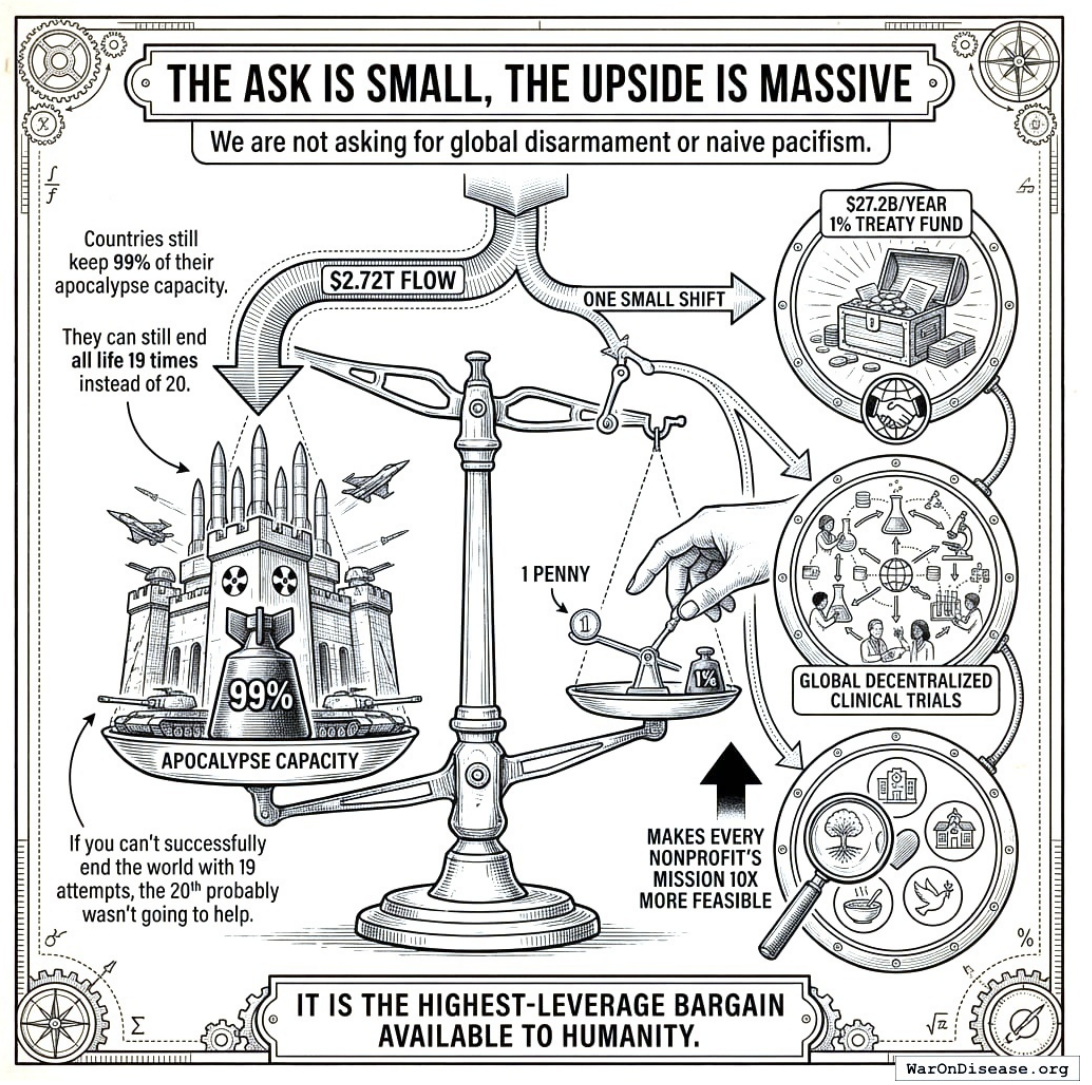


Figure 376: 1 percent of war budget: 27.2 billion. Enough to transform global health. You were sitting on the solution and using it to buy missiles.

You're asking for **1%**.

One penny of each tax dollar currently used to build weapons. One small shift in a $2.72T flow.

Countries still keep 99% of their apocalypse capacity. They can still end all life 19 times instead of 20. If you can't successfully end the world with 19 attempts, the 20th probably wasn't going to help.

But that single percentage point:

- creates a $27.2B/year 1% Treaty Fund
- funds global decentralized clinical trials
- makes every nonprofit's mission 10x more feasible

It is the highest-leverage bargain available to humanity.

On Bribing Nonprofits (Legally)

Asking nonprofits to support a 1% treaty out of moral obligation is like asking a drowning person to rescue other swimmers. They need incentives, not guilt.

You offer two.

Make The Organization Rich

Old way: "Here's $100K. Hope it helps. Submit a 47-page report in 6 months about impacts and learnings. Use the word 'stakeholder' at least fourteen times."

New way: "Here's $50K baseline to get started. Plus $10K for every 10,000 verified referendum votes you drive through your unique link. No cap."

The nonprofit's most rational path to maximizing their budget becomes: be your most effective mobilization partner. One metric. No ambiguity. Get paid for results. This is how every functional industry works except charity, which explains why charity hasn't solved anything yet.

Make The Leaders Personally Rich

Even performance grants get absorbed into general operations. "We hired three more grant writers!" Congratulations. You've invented a machine that converts donated money into more requests for donated money.

The fix: Give leaders personal equity through **VOTE points**, future claims on the VICTORY Incentive Alignment Bonds and the 1% Treaty Fund. The Executive Director's personal wealth is now tied to treaty success. Their Tesla depends on it.

Your species responds better to personal wealth than organizational mission statements. This is not a criticism. It's a design parameter.

The Real Prize: Stop Begging Forever

The performance grants and VOTE points are just the appetizer. The real prize is never writing a grant proposal again.

The 1% Treaty Fund receives $27.2B annually. Your decentralized institutes of health (DIH) governs this fund, allocating multi-billion dollar budgets to specialized institutes: Mental Health, Aging, whatever issue your organization addresses.

Who controls these billions? The coalition of nonprofits who made the treaty happen. You helped create it. You govern it. This is the nonprofit equivalent of "I don't want a fish. I want to own the lake."

Option A: Keep competing for finite grants forever. Write proposals. Beg foundations. Hope your competitor doesn't write a better proposal.

Option B: Join the coalition. Help pass the treaty. Collectively govern a multi-billion dollar annual treasury dedicated to your mission.

One involves begging. The other involves being the person everyone begs to.

Earning Your Stake

A partner's governance stake is based on verified contributions during the campaign: funds raised, referendum votes driven, and in-kind contributions credited. Contribute more, govern

more. It's the same incentive structure that makes capitalism work, except pointed at curing diseases instead of selling sugar water to people who already have diabetes.

The Bottom Line

If you care about your mission, you must care about a 1% treaty.

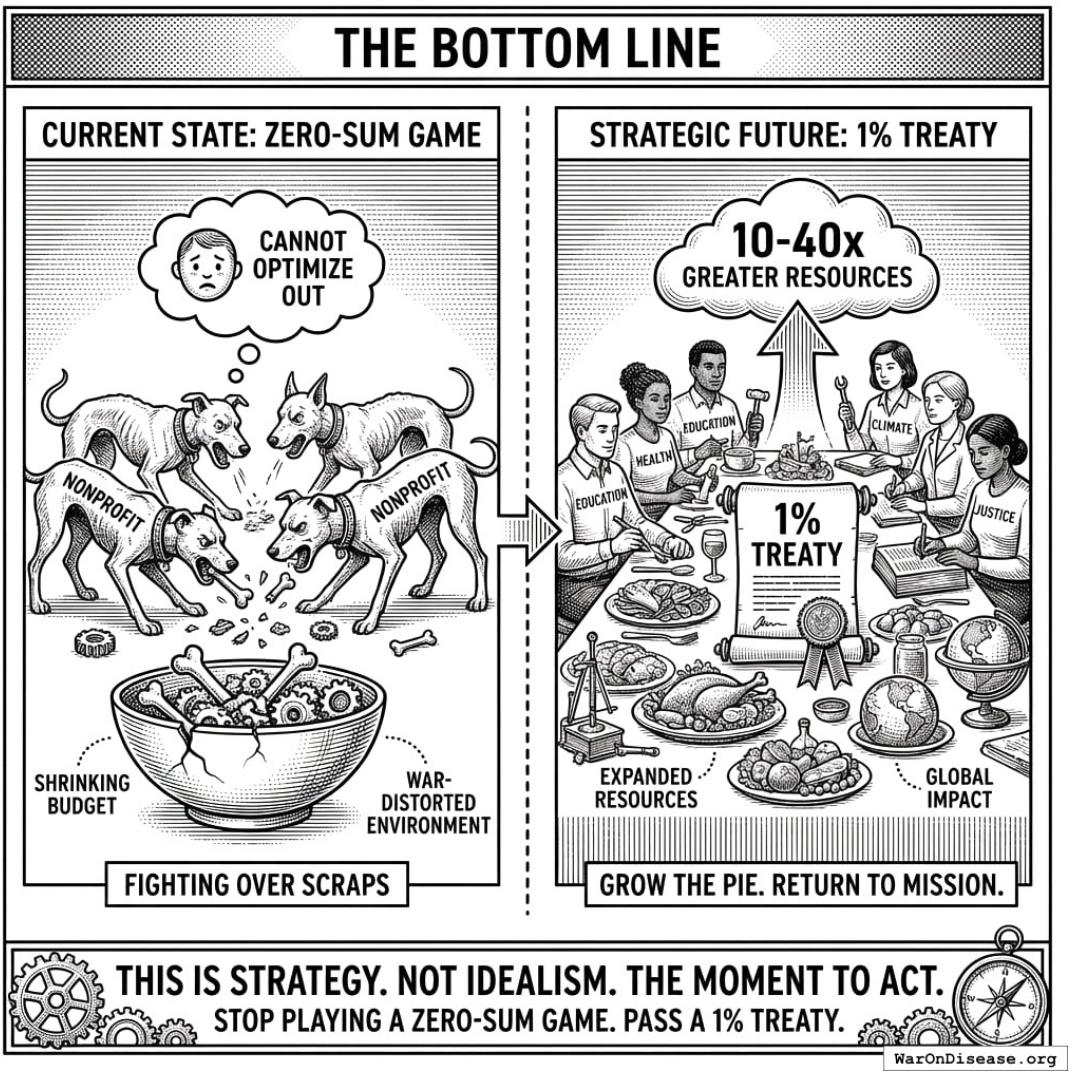


Figure 377: Current nonprofits: fight for crumbs. With treaty: crumbs become 10 to 40 loaves. Math, but make it bread.

You cannot solve your mission inside a shrinking, war-distorted budget environment. You cannot optimize your way out of a fundamental resource mismatch. You cannot win a game where the rules guarantee your loss. You're playing chess on a board that's on fire, and someone keeps adding lighter fluid.

The smartest thing the nonprofit sector can do right now:

Stop fighting over scraps.

Stop playing a zero-sum game.

Grow the pie.

Pass a 1% treaty.

Then return to your mission with 10-40x greater resources.

This is not idealism. This is strategy.

A few years of coordinated advocacy for a 1% treaty will unlock more impact across every field than decades of incrementalism. Decades during which, I should note, the problems got worse. So maybe incrementalism is just a polite word for "losing slowly."

The dogs need to turn around and notice the banquet.

This is the moment to act.

Legal Architecture

Entity #1: Your 501(c)(3) Public Charity ("The Brain")

What It Is: Your standard non-profit. The kind that lets the Gates Foundation give you tax-deductible money.

What It Does

- **Global Referendum:** Runs the non-binding educational survey showing 280M+ humans want to not die
- **Research:** Funds academic studies proving your system is broken
- **Education:** Public awareness campaigns (like this book you're reading right now)
- **Software:** Builds your dFDA and Wishocracy

What It CANNOT Do: Lobby politicians. It can educate. It can demonstrate public will. It cannot actually tell politicians what to do. On your planet, there's a legal distinction between "teaching people facts" and "suggesting people act on those facts." It means absolutely nothing in practice.

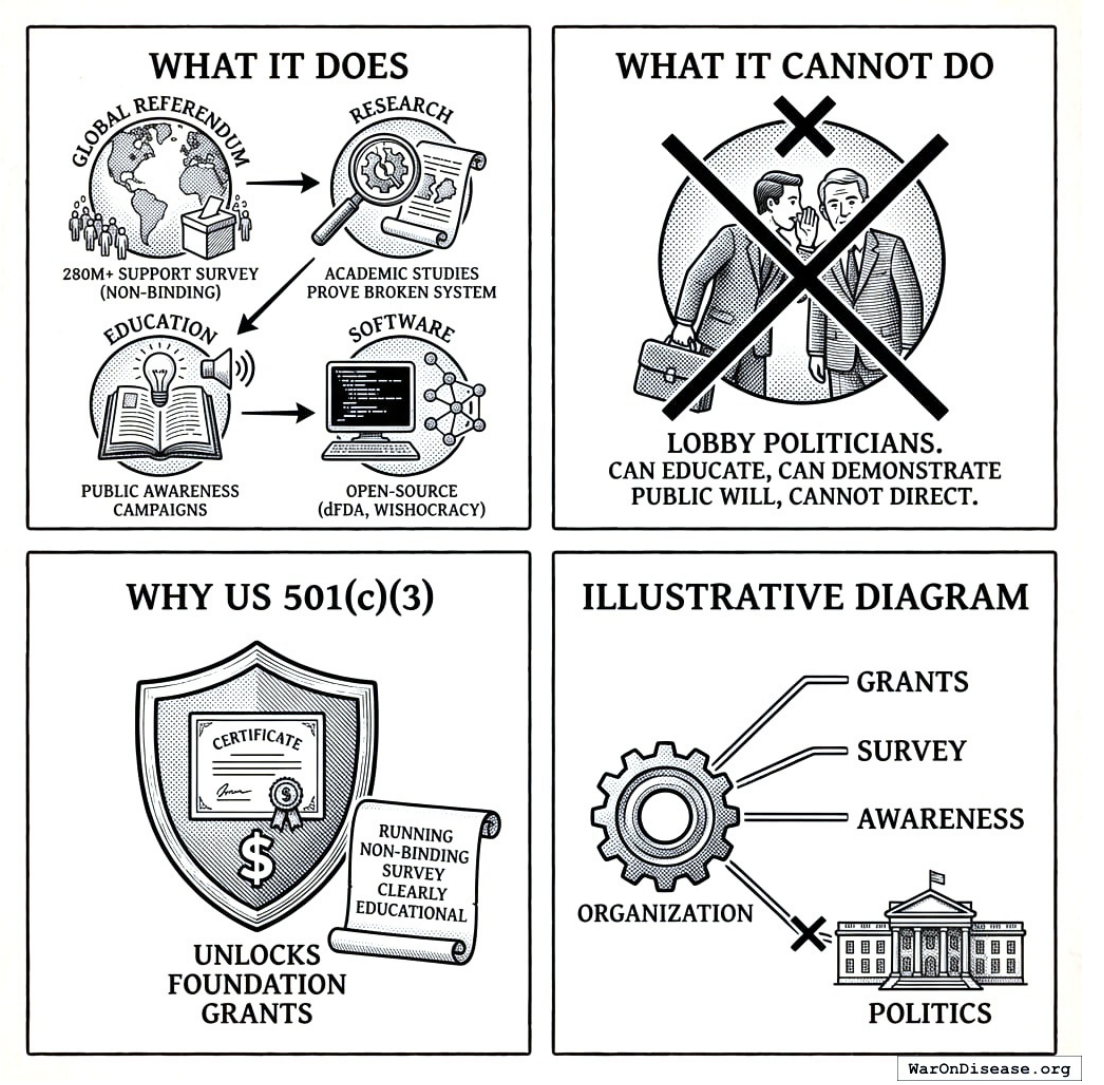


Figure 378: This organization does research and builds software. By law, it cannot lobby politicians. That's what the other organization in the diagram does. They're legally distinct but spiritually the same.

Why US 501(c)(3): Unlocks foundation grants. A non-binding educational survey is clearly educational. The clue is in the name.

Entity #2: Your 501(c)(4) Social Welfare Org ("The Sword")

What It Is: Your political advocacy arm. Donations NOT tax-deductible. That's the price of being allowed to have opinions.

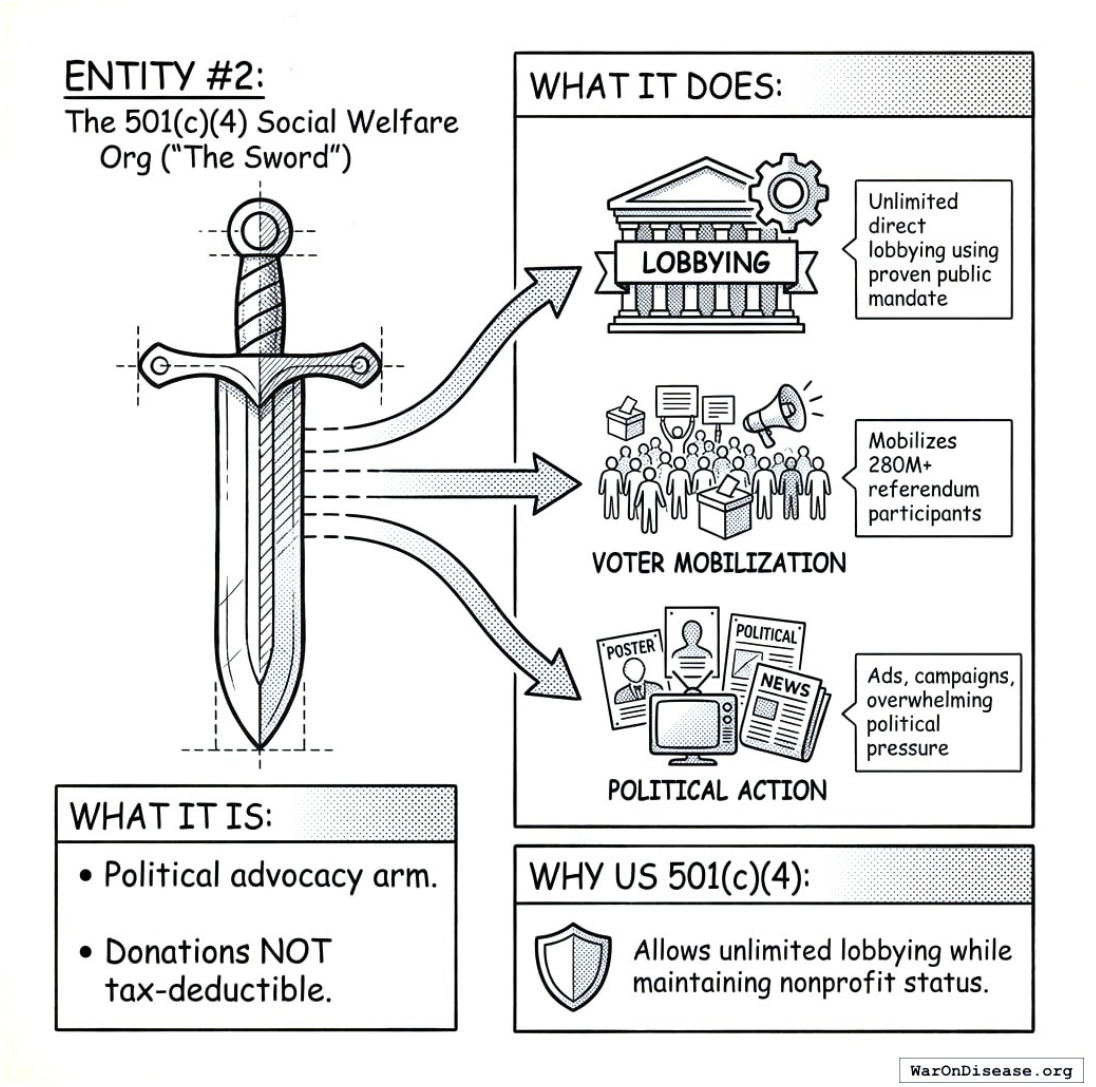


Figure 379: The 501(c)(3) collects data about what people want. The 501(c)(4) uses that data to lobby politicians. They can't technically coordinate. They coordinate anyway. It's legal if you use the right words.

What It Does: Takes the referendum results from your (c)(3) and weaponizes them:

- **Lobbying:** Unlimited direct lobbying using proven public mandate
- **Voter Mobilization:** Mobilizes 280M+ referendum participants into an electoral force
- **Political Action:** Ads, campaigns, the kind of overwhelming pressure that makes politicians sweat through their suits

Why US 501(c)(4): Unlimited lobbying while maintaining nonprofit status. Your species invented an organizational form specifically for telling politicians what to do. Then you made a different form for everything else. Efficient.

Entity #3: The Victory Corporation ("The Engine")

What It Is: Standard for-profit corporation. Designed to speak the only language Wall Street understands: money.

What It Does

- **Issues VICTORY Bonds:** Sells bonds with 272% target returns
- **Funds Your Legal Bribery:** Uses $1B to fund lobbying and campaigns
- **Delivers Returns:** Manages treaty inflows to pay bondholders forever

Why Delaware: More corporations than humans live there[289]. Citizens United means corporations have political speech rights. Your Supreme Court decided that companies are people who can talk, and talking is spending money. This sounds like satire but is actually constitutional law.

Entity #4: Your DIH Foundation

What It Is: The parent organization. Based in Switzerland, where your species keeps its most valuable things and its least valuable opinions.

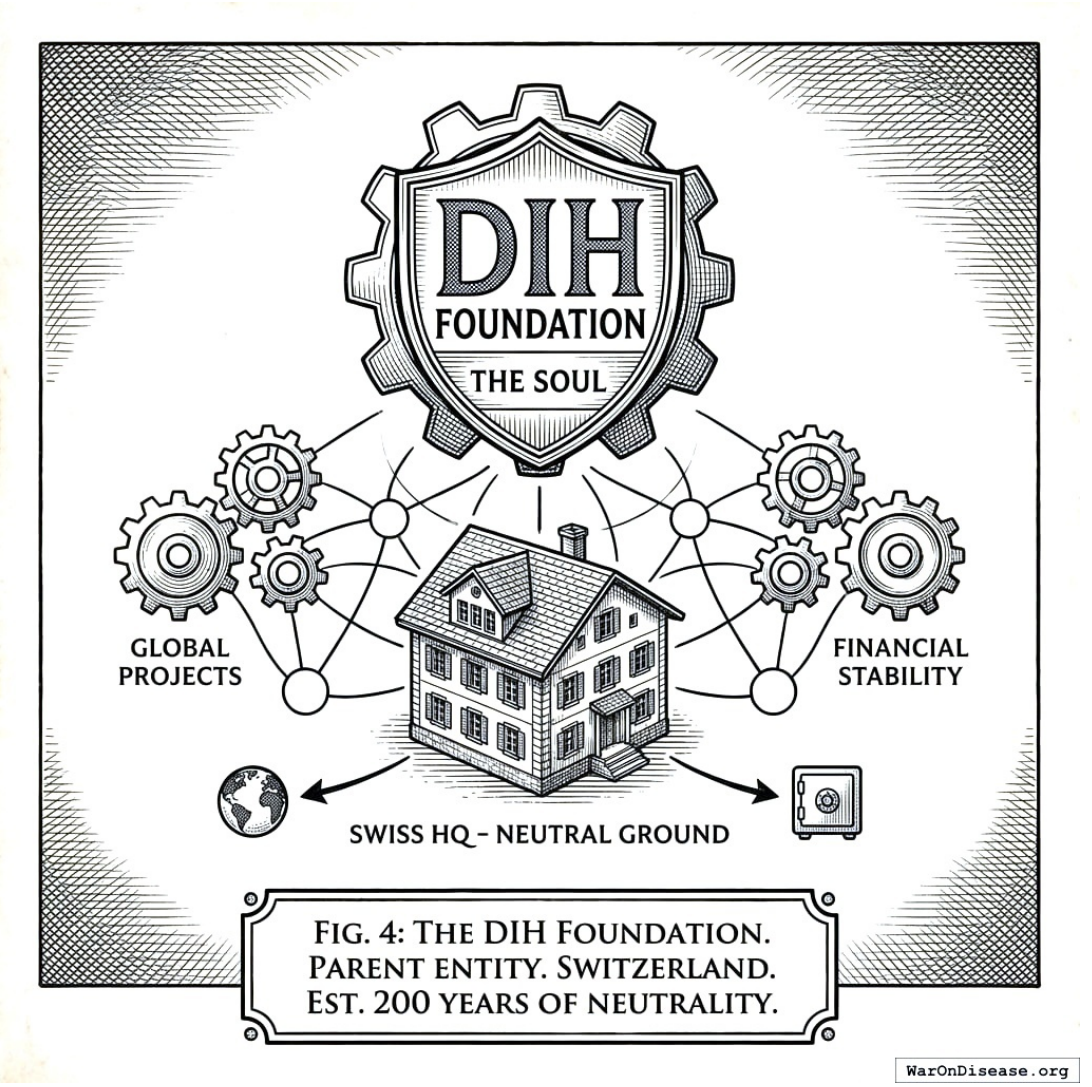


Figure 380: The Swiss foundation is the soul of the organization. Souls live in Switzerland because Switzerland has excellent tax treaties and doesn't ask uncomfortable questions.

Why Switzerland: They've avoided war for 200 years[266] by holding everyone's money. Even Hitler couldn't make them pick a side. If you're building something designed to survive hostile governments, put it in the country that has survived all of them by being too useful to invade.

What It Does

- **Owns the Engine:** 100% shareholder of Victory Corporation, ensuring profit serves mission
- **Receives Global Capital:** Accepts grants from international foundations
- **Guarantees Mission:** Legal charter permanently locked to ending war and disease
- **Coordinates Treaty:** Neutral jurisdiction for your international agreement

Legal Benefits: Neutral jurisdiction, crypto-friendly, constitutionally allergic to conflict.

Why This Four-Part Structure Works



Figure 381: One charity pretending to be four charities so the lawyers have something to do.

Each entity does only what's perfectly legal in its jurisdiction. Combined, they do what's impossible with a single structure.

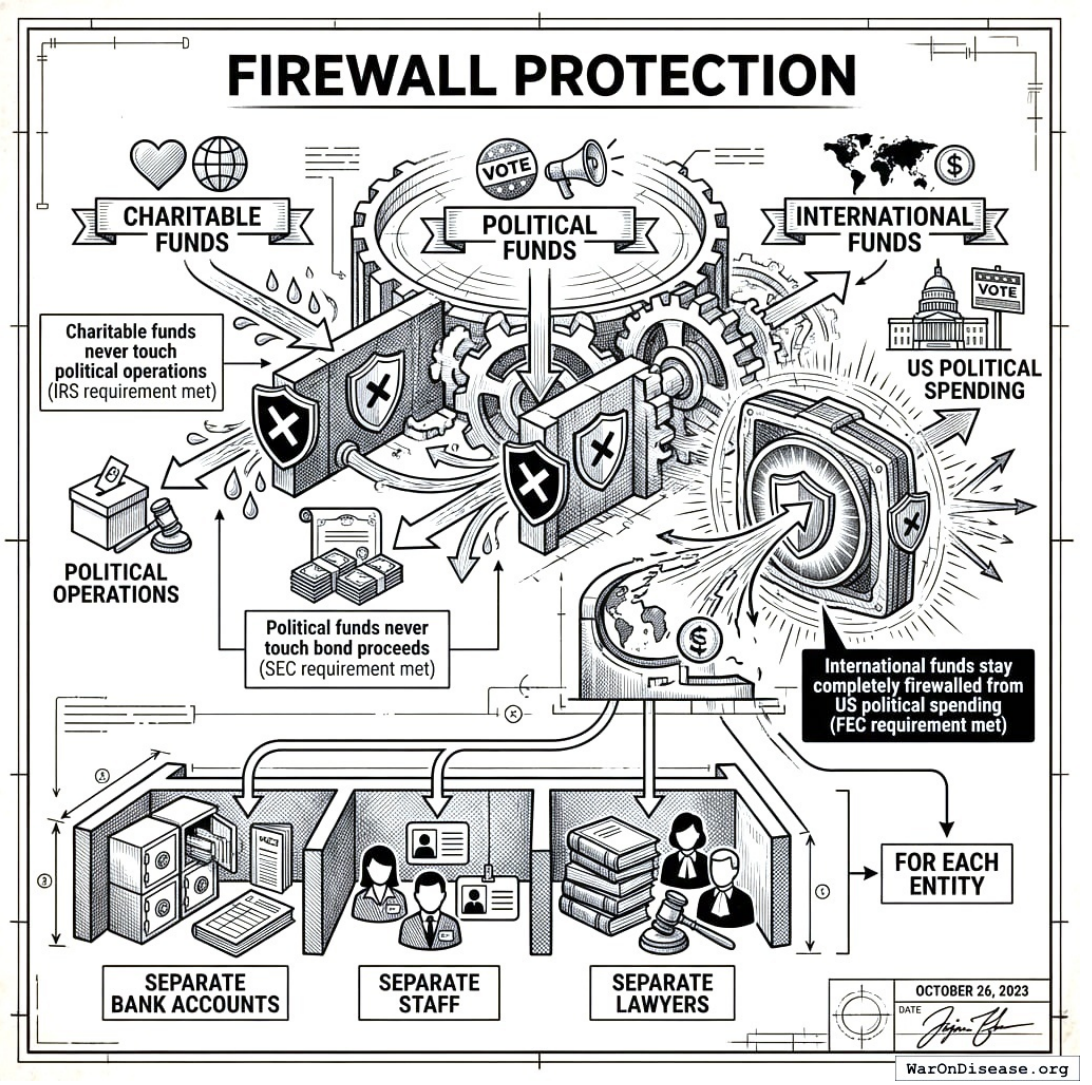


Figure 382: Money walls. Like regular walls, but made of receipts and the tears of accountants.

- Charitable funds never touch political operations (IRS)
- Political funds never touch bond proceeds (SEC)
- International funds stay firewalled from US political spending (FEC)
- Separate bank accounts, separate staff, separate lawyers

The ACLU, NRA, and Planned Parenthood use this same structure. Your species figured this out decades ago. You just haven't pointed it at disease yet.

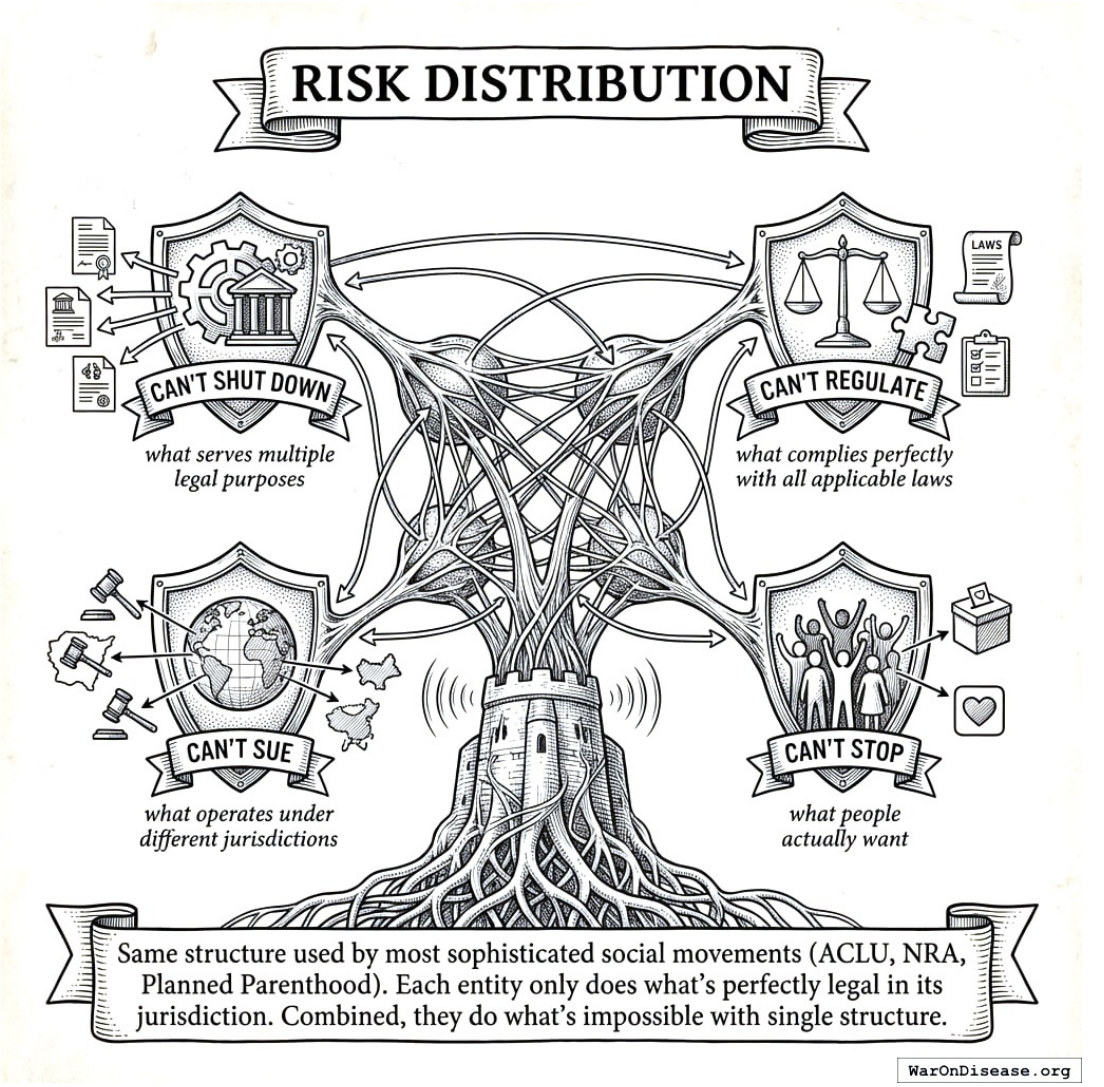


Figure 383: How to be technically legal in seventeen countries at once. It's like being technically alive, but with more paperwork.

Organizational Structure: The For-Profit Management Company

Victory Corporation employs your core team, raises your capital, and executes your strategy.

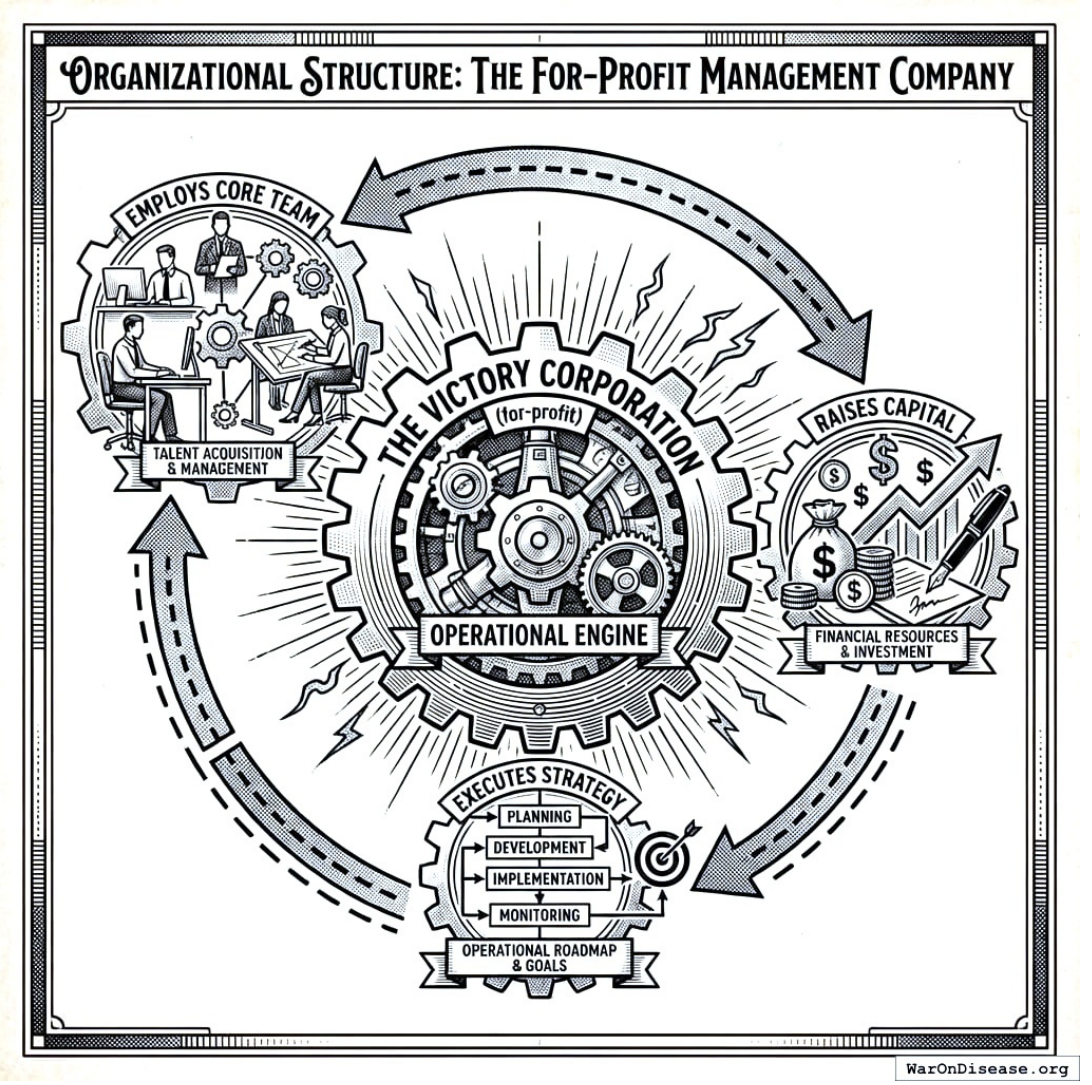


Figure 384: The people who will buy your democracy. Org chart included for transparency, as if that helps.

The General Staff (G-Staff)

You're fighting a war against disease. Might as well organize like one. Your species spent thousands of years perfecting how to coordinate mass killing. Time to plagiarize that homework for the opposite purpose.

- **G-1 (Personnel):** Keeps track of humans. Harder than it sounds.
- **G-2 (Intelligence):** Disease intelligence. Decides which diseases die next.
- **G-3 (Operations):** Runs your dFDA clinical trials. The only part that actually cures anything.
- **G-4 (Logistics & Treasury):** Manages your VICTORY Bond money. Counts it, moves it, resists the urge to steal it.
- **G-5 (Plans & Strategy):** Thinks about next year while everyone else panics about next quarter.
- **G-6 (Signal & Communications):** Propaganda. The reason you're reading this

instead of doing something useful.

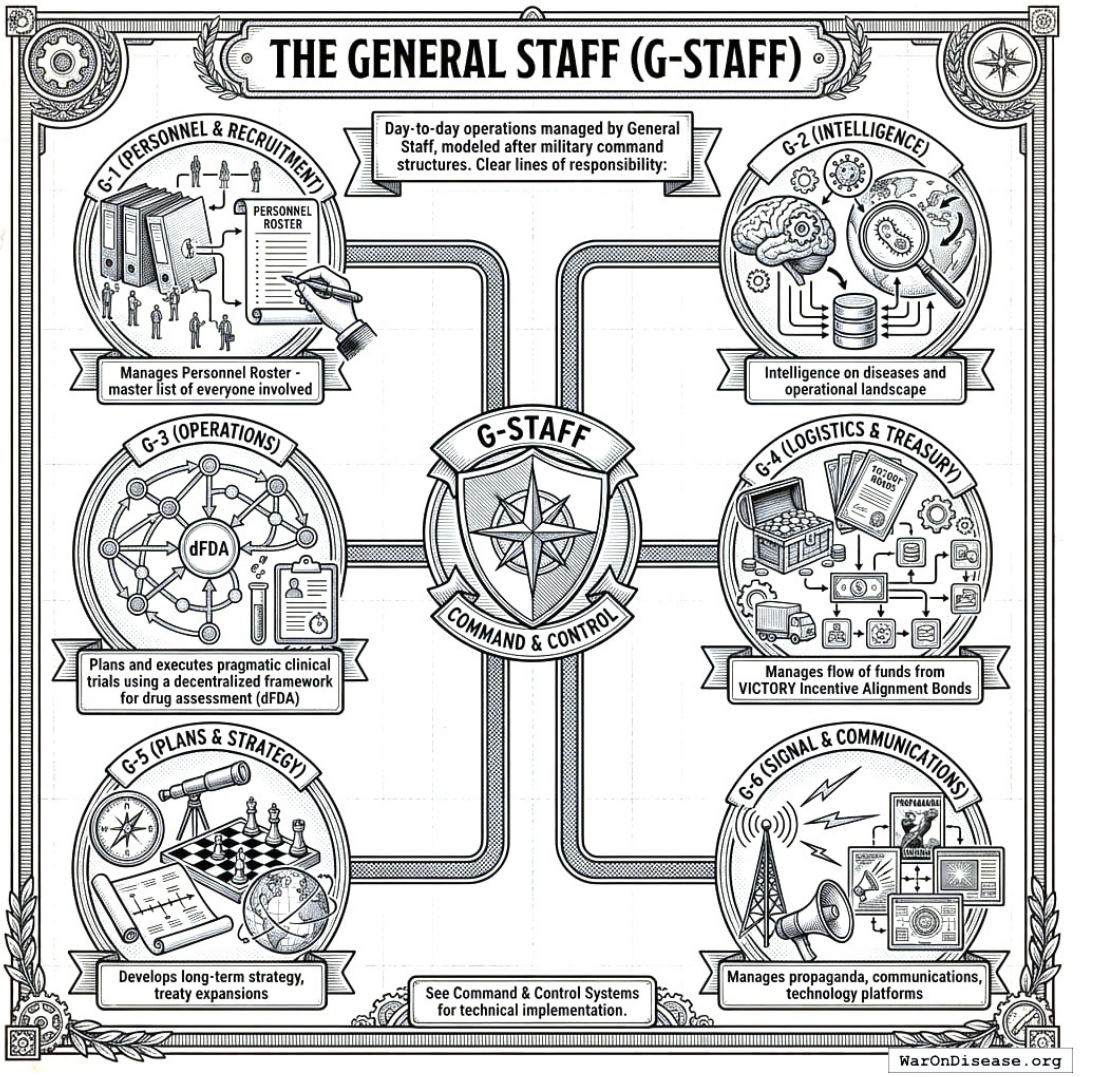


Figure 385: You called your charity staff 'General Staff' like it's an army. To be fair, you're fighting death. Death doesn't have an org chart.

The DIH Foundation watches the Victory Corporation so it doesn't drift toward "maximizing shareholder value," which is corporate for "forgetting why you exist."

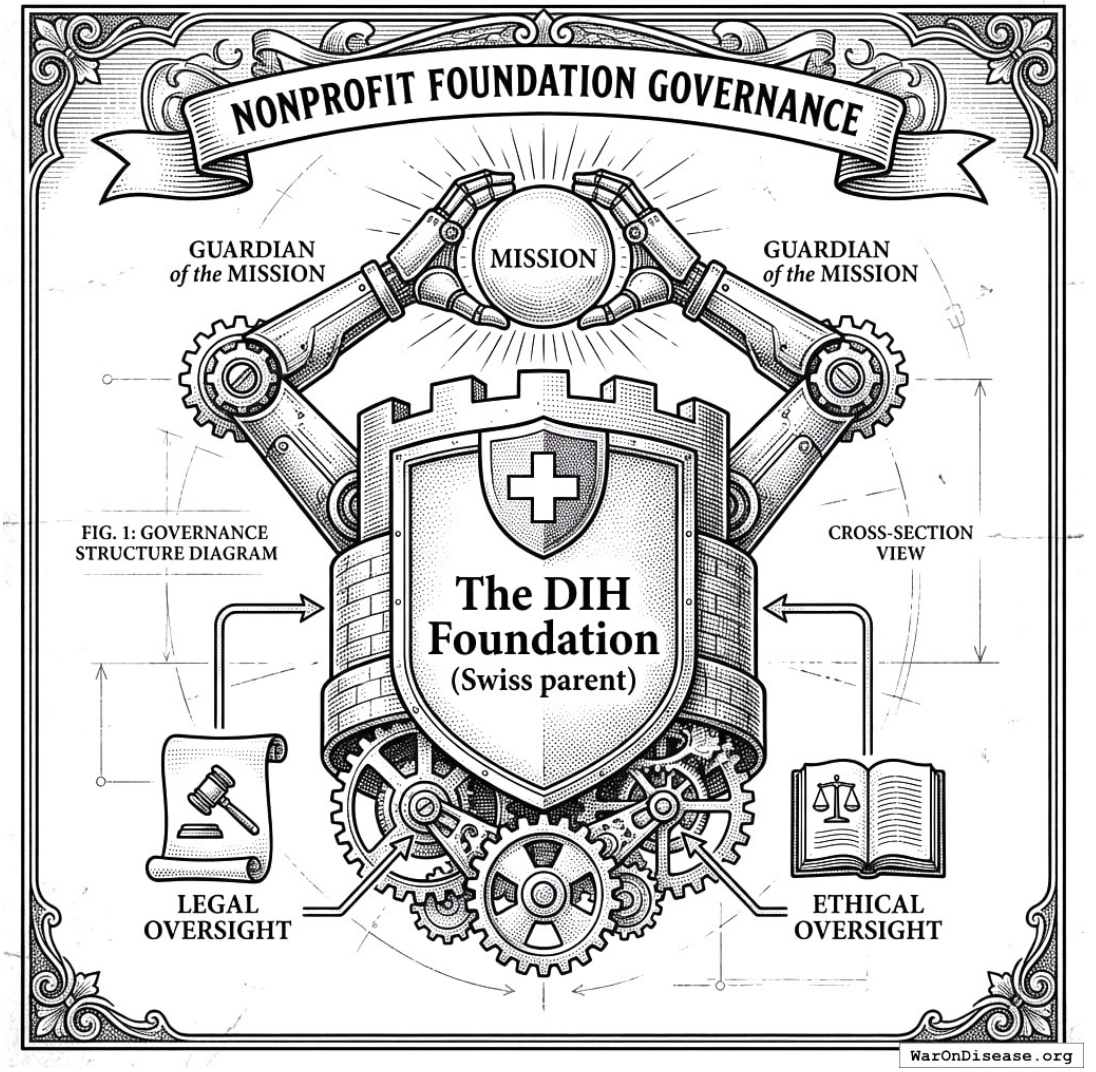


Figure 386: Who watches the watchmen? This chart. The chart watches the watchmen.

Securities Law

Your VICTORY Incentive Alignment Bonds are securities under the Howey Test. The Howey Test is a legal test named after a citrus company. It determines whether something counts as an investment. Your entire legal system runs on precedents set by orange farmers and railroad companies. This is, genuinely, how the most powerful economy on Earth decides what money is.

Start with Regulation D (rich people only). Expand to Regulation CF/A+ (everyone else). Maintain full KYC/AML compliance throughout, because you need to verify that nobody uses your disease-curing bonds to launder money from their disease-causing enterprises. The irony would be unbearable.

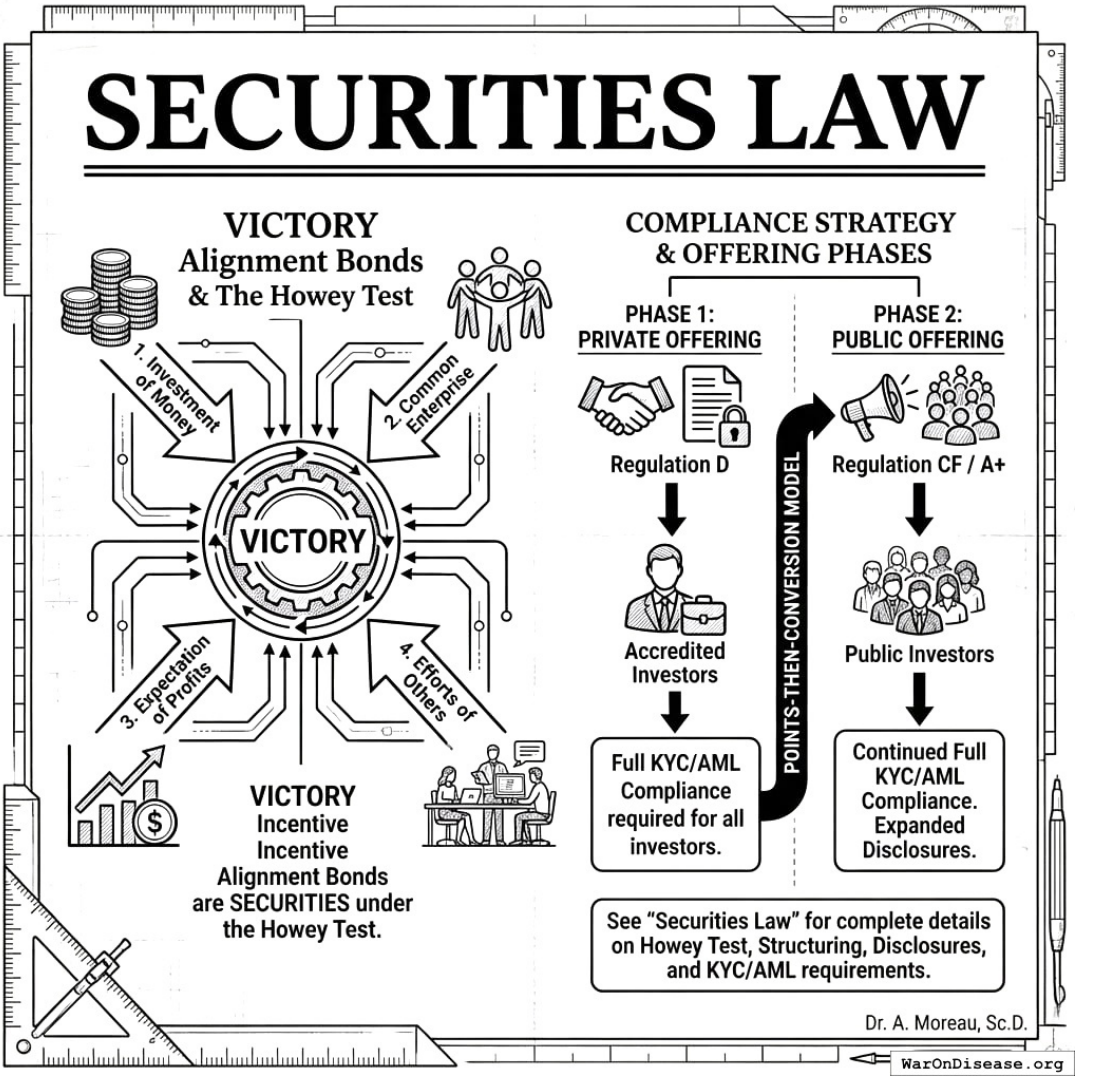


Figure 387: How to take money from rich people legally, then regular people legally, then convert the regular people into rich people. It's called capitalism, apparently.

Election Law

Bribing your politicians is illegal. Unless you call it "lobbying" or "campaign contributions." Then it's protected speech.

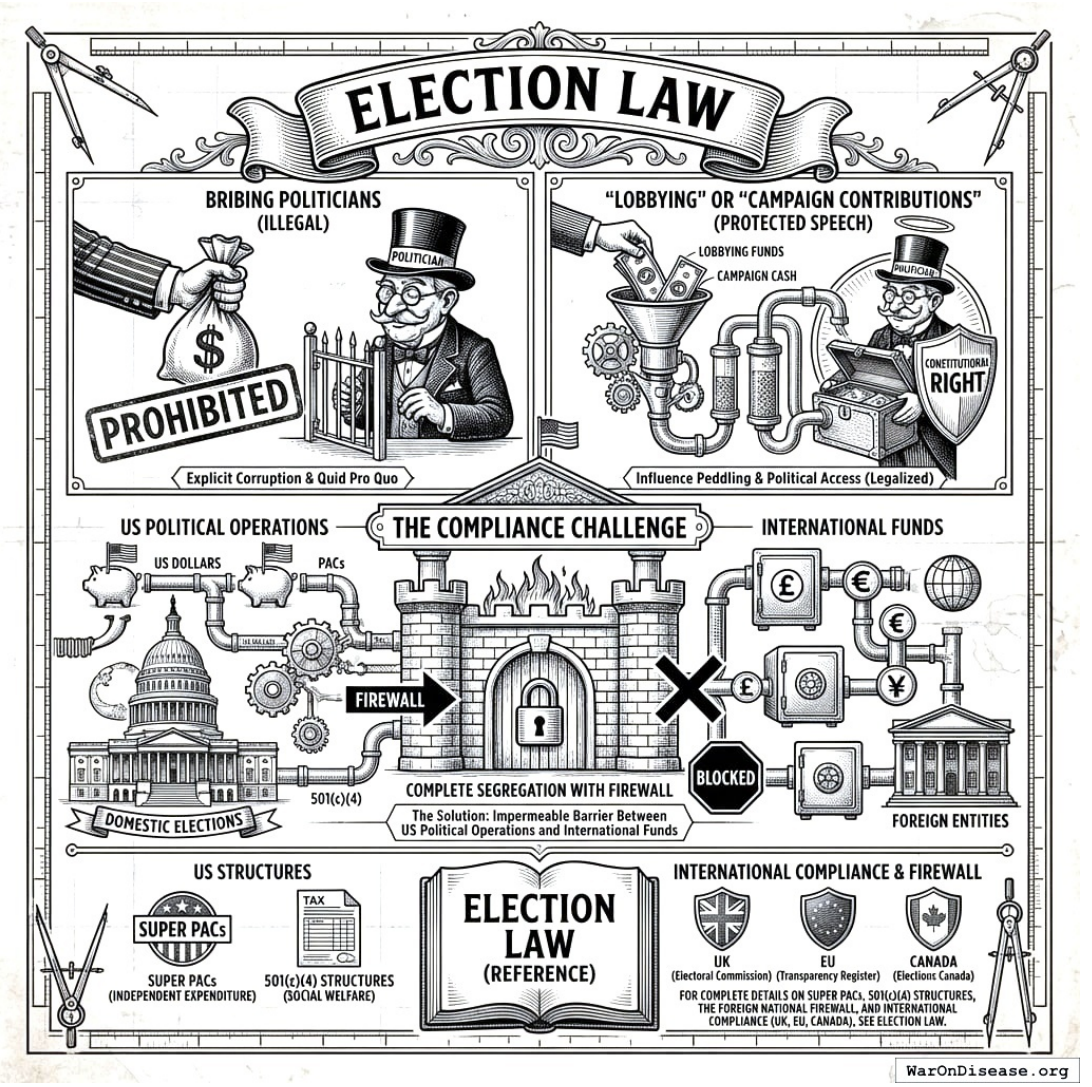


Figure 388: Foreign money stays over there. American money stays over here. If they touch, the FEC explodes.

Foreign nationals can't spend money on US elections. Violating this gets you federal prison, not a fine. American money touches American elections. International money touches everything else. They never mix. Ever.

For the full details on Super PACs, the foreign national firewall, and international compliance, see Election Law.

Treaty Framework

Your 1% Treaty is a formal international agreement. Like the ones your species already signs about postal rates and fish. Except this one redirects military spending to clinical trials. Apparently more controversial than fish, which tells you everything about your priorities.

For the full treaty structure, articles, ratification process, and enforcement mechanisms, see the 1% Treaty chapter. It also covers how to avoid the mistakes your species has made in

every previous treaty.

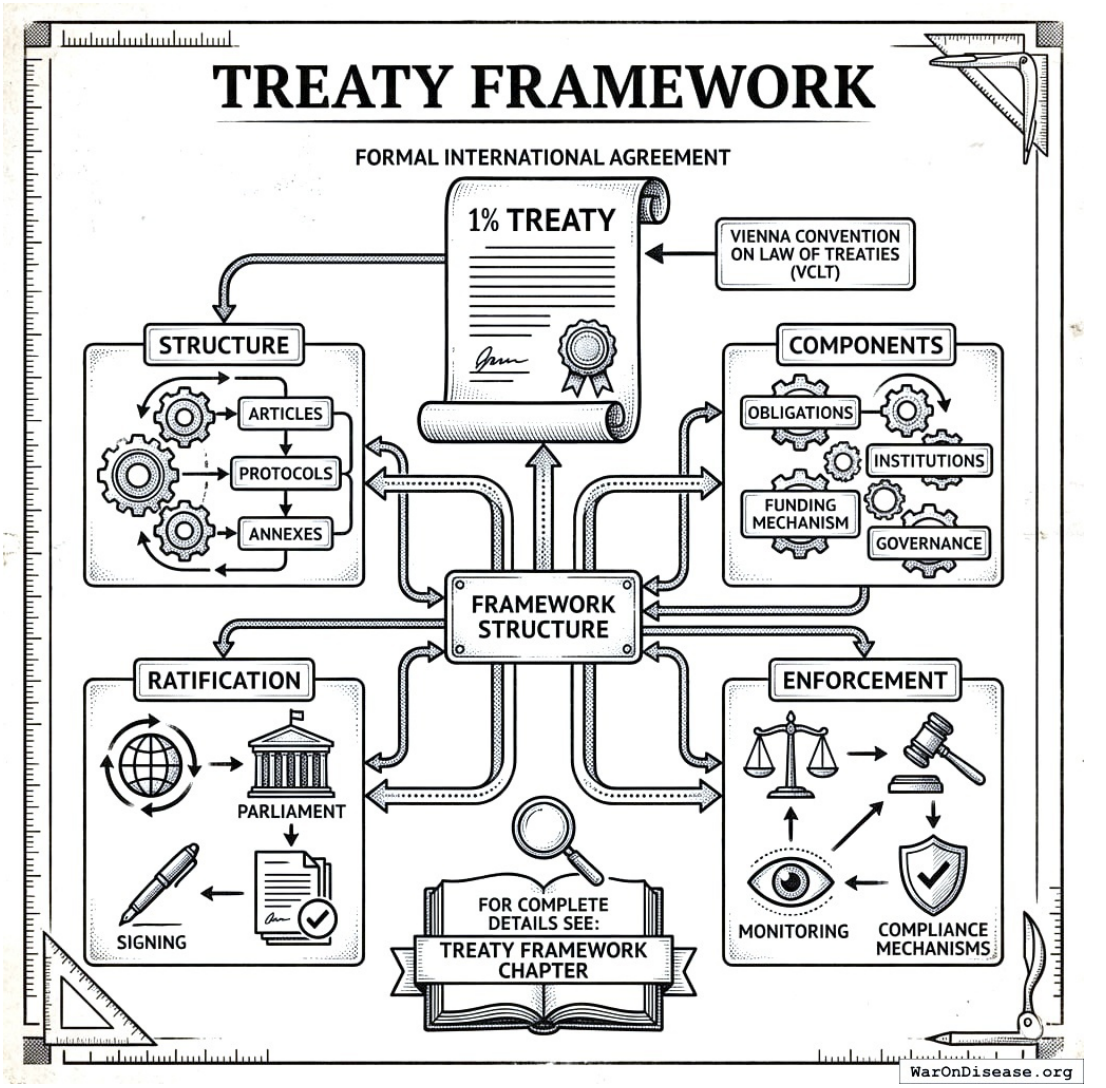


Figure 389: How a piece of paper becomes law. Takes longer than making a person from scratch.

Risk Mitigation (When They Come For You)

They will come for you. When you threaten trillion-dollar industries by curing disease cheaply, powerful people notice. They notice the way a bear notices you've sat on its children. Here's how you survive:

The Legal Attack Vectors

Attack	Your Defense	Reality
Securities fraud	Full compliance from day one. Multiple jurisdictions.	Your lawyers bill more per hour than theirs. That's how you win.
Election law violations	Complete segregation of funds. Constitutional challenge ready.	Money is speech. Your Supreme Court said so.[224]
Tax evasion	Pay every penny. Voluntarily. Enthusiastically.	More compliant than churches, and nobody audits churches.
RICO/Conspiracy	Everything is public. This book is public. You're reading the conspiracy right now.	Hard to prosecute a plan published in paperback.

The Strategy

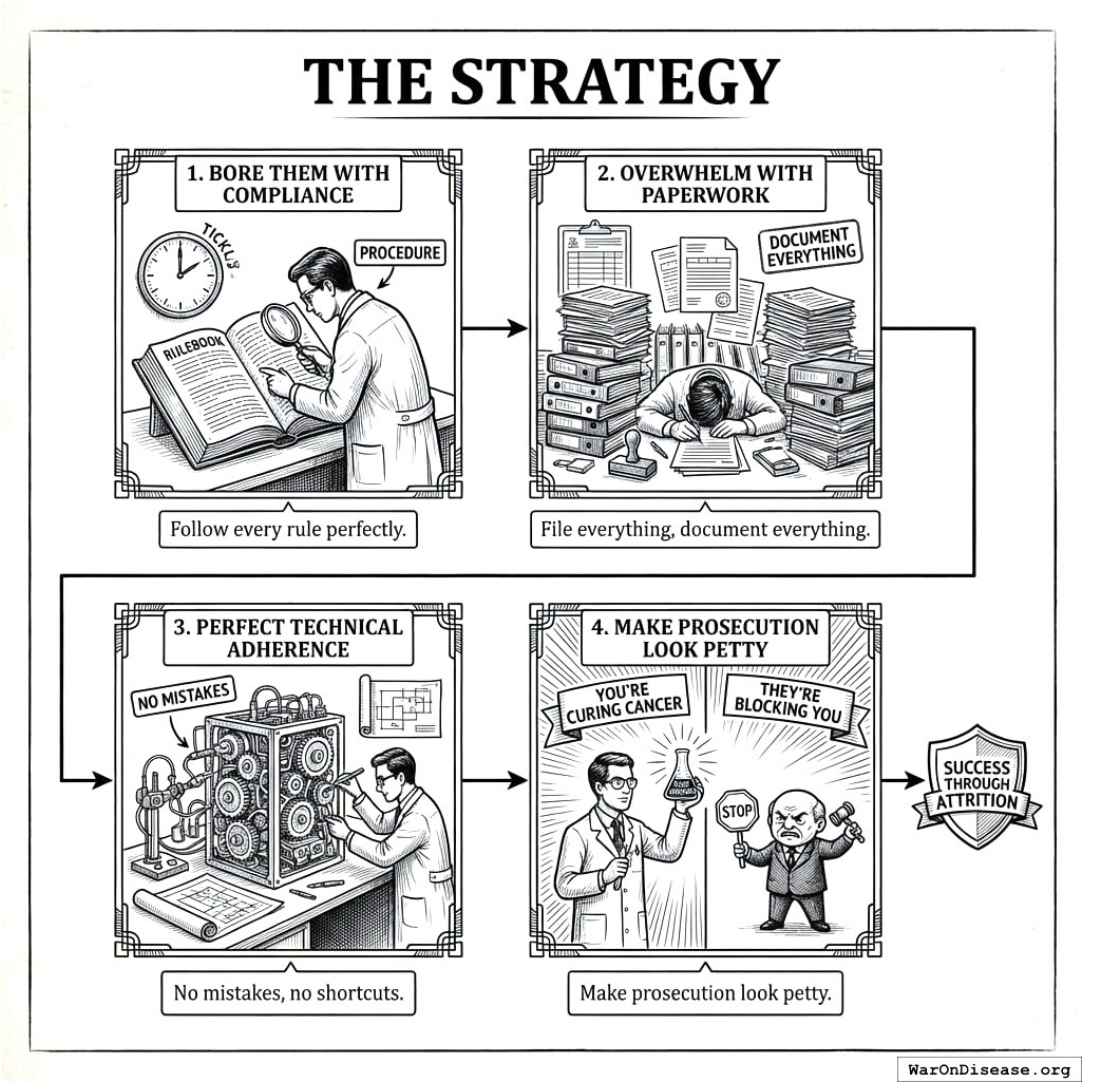


Figure 390: Bore the prosecutors to death with paperwork. They can't arrest you if they're asleep.

Budget $100M for lawyers. Top firms in every jurisdiction. Former regulators on retainer. They wrote the rules. They know where the rules get tired and stop paying attention.

Make prosecuting you more annoying than ignoring you. Follow every rule so perfectly that investigating you feels like auditing a library. Boring is your best defense. Nobody martyrs the boring.

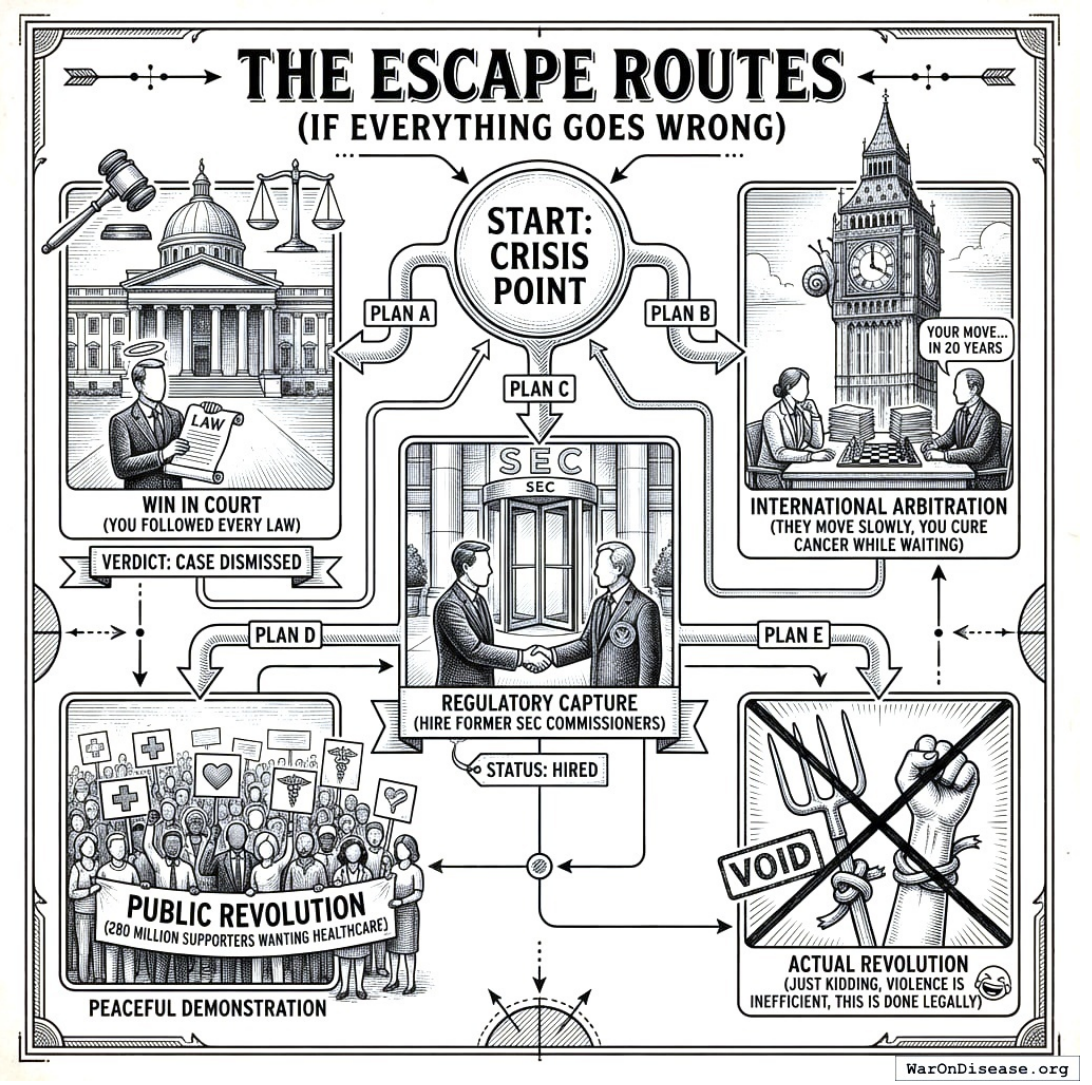


Figure 391: Five backup plans for when they try to stop you from curing disease. You made contingencies for your contingencies. This is called 'paranoia' in individuals and 'strategic planning' in organizations.

If the courts fail, you have international arbitration, regulatory capture (former SEC commissioners are surprisingly affordable, like vintage furniture), and 280 million referendum participants who make politicians reconsider their entire careers.

This entire strategy uses the exact same legal structures that currently enable tax avoidance, dark money, regulatory capture, and corporate welfare. The tools of corruption, repurposed for medicine. The laws lobbyists wrote will turn on their authors like a well-trained dog that's finally met its real owner. The loopholes meant for billionaires will fund medicine for billions.

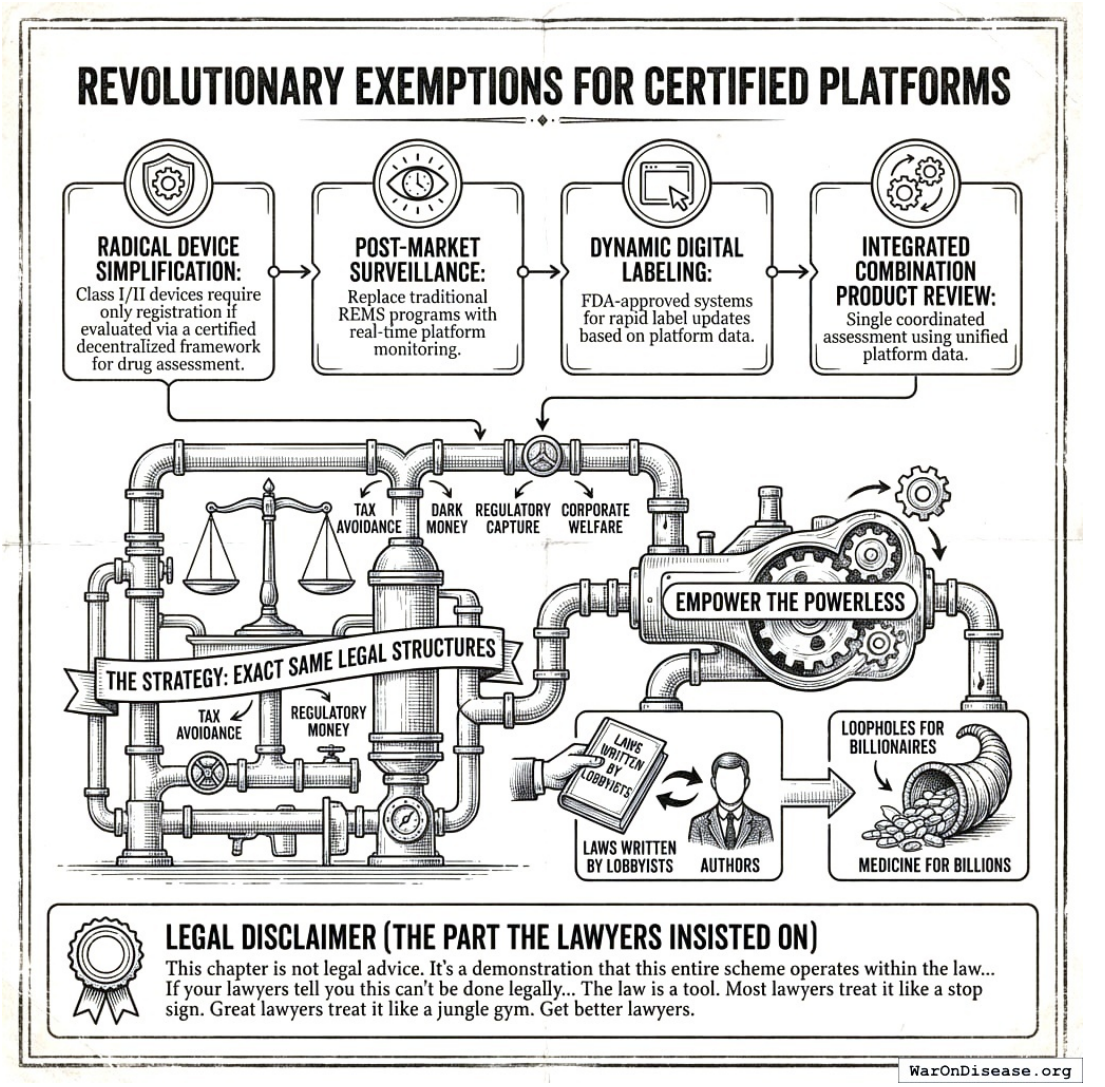


Figure 392: Before: jumping through seventeen hoops. After: jumping through three hoops. Progress is relative.

You're not breaking the law. You're using the law exactly as written, just not as intended. On your planet, that's the most legal thing there is.

Legal Disclaimer (The Part Your Lawyers Insisted On)

This chapter is not legal advice. It demonstrates that your entire scheme operates within the law. Hire lawyers who understand that "legal" and "unprecedented" are not mutually exclusive concepts. Most of human progress was, at one point, unprecedented. That's what the word means.

If your lawyers tell you this can't be done, get better lawyers. They're out there. They're expensive. They're worth it.

Global Referendum Strategy

A cryptographically secure, on-chain list of 280 million verified supporters is not an “analogy” or a “metaphor” or a “nice idea.”

It is the largest political mandate in human history. Nothing else comes close.

Politicians can ignore protests. They can ignore polls. They can ignore reality for surprisingly long periods (see: climate change, 1970-present).

They cannot ignore 280 million cryptographically verified humans saying “do this thing or we vote you out.”

Here’s how to build that list.

What You’re Actually Building

The Goal

Build a privacy-preserving, globally verifiable referendum. It shows public support for a 1% treaty and decentralized institutes of health (DIH). Essentially, a website where people say “please stop letting me die of stupid things” in a way that lawyers find convincing.

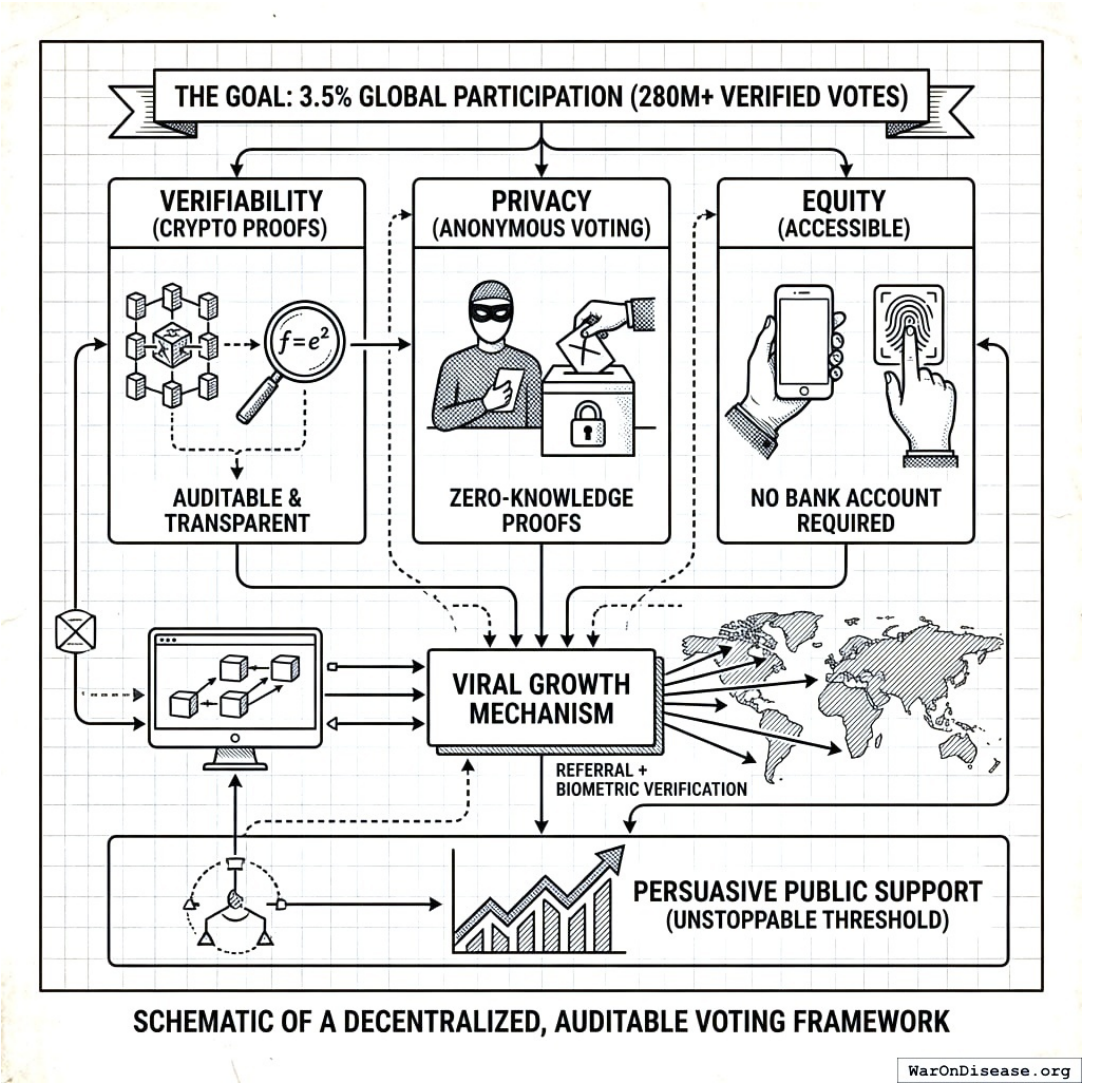


Figure 393: The five things you need for a global referendum that politicians can't ignore: real votes, secret votes, fair votes, visible votes, and viral growth.

Requirements:

- Must be auditable (so politicians can't claim it's fake, though they will absolutely try)
- Must be persuasive (so policymakers actually do their jobs for once)
- Must hit **3.5% global participation** (280M+ verified votes)

That last number isn't arbitrary. Once 3.5% of a population actively supports something, it becomes unstoppable. Every time. Across all cultures. For centuries. More on that later.

The Principles (Or: How Not to Build a Fraudulent Voting System):

- **Verifiability**: Cryptographic proofs that votes are real (can't fake the math, though politicians will try)
- **Privacy**: Nobody knows who you voted for (including us)
- **Equity**: Works for everyone, including people without bank accounts or government IDs (which is most of Earth, by the way)

- **Transparency**: Open-source code so anyone can audit it
- **Viral Growth**: Needs to spread organically. Target: $0.50-0.64 per verified participant (includes referral payment + biometric verification + platform overhead)

The trick is doing all of these simultaneously. It's like juggling while riding a bicycle while the bicycle is on fire. But the alternative is everyone dies of preventable diseases, so the bicycle stays on fire.

System Architecture (Or: Math That Politicians Can't Argue With)

The voting system uses **end-to-end verifiable cryptography**: receipts that prove you voted, without proving *how* you voted. Politicians can claim polls are fake. They cannot claim math is fake. (Several have tried. The math won every time.)

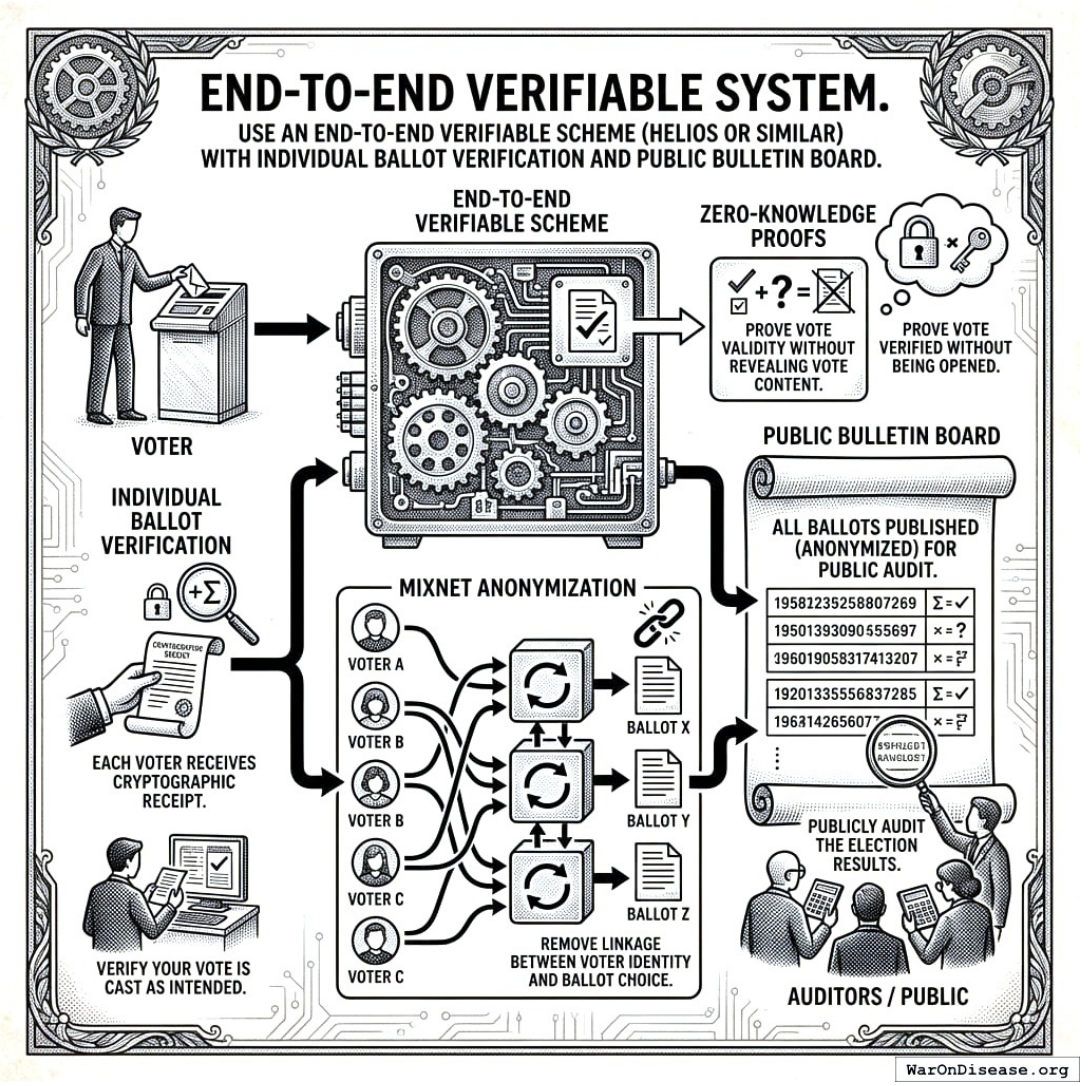


Figure 394: Your vote gets encrypted, mixed with everyone else's votes like a cryptographic smoothie, then posted publicly. You can verify yours; nobody knows it's yours.

Each voter gets a cryptographic receipt. All ballots are published anonymized. Zero-knowledge proofs guarantee the count is legitimate. Your biometric data never leaves your device. All code is open-source. It's the most transparent election in history, which is an embarrassingly low bar.

On Stopping People from Cheating (The Hard Part)

Your species has a gift for ruining voting systems. You've been cheating at democracy since you invented it. Three escalating verification layers:

1. **Basic checks** (stops ~90% of fraud): email/phone OTP, device fingerprinting, IP geolocation
2. **Enhanced verification** (higher trust, higher rewards): government e-ID integration (Estonia[283], India Aadhaar[284], EU eIDAS[285], US via ID.me[290]), biometric liveness detection, proof-of-uniqueness partners (Worldcoin[291], BrightID[292], Gitcoin Passport[293])
3. **Social verification**: community attestation for people without digital IDs

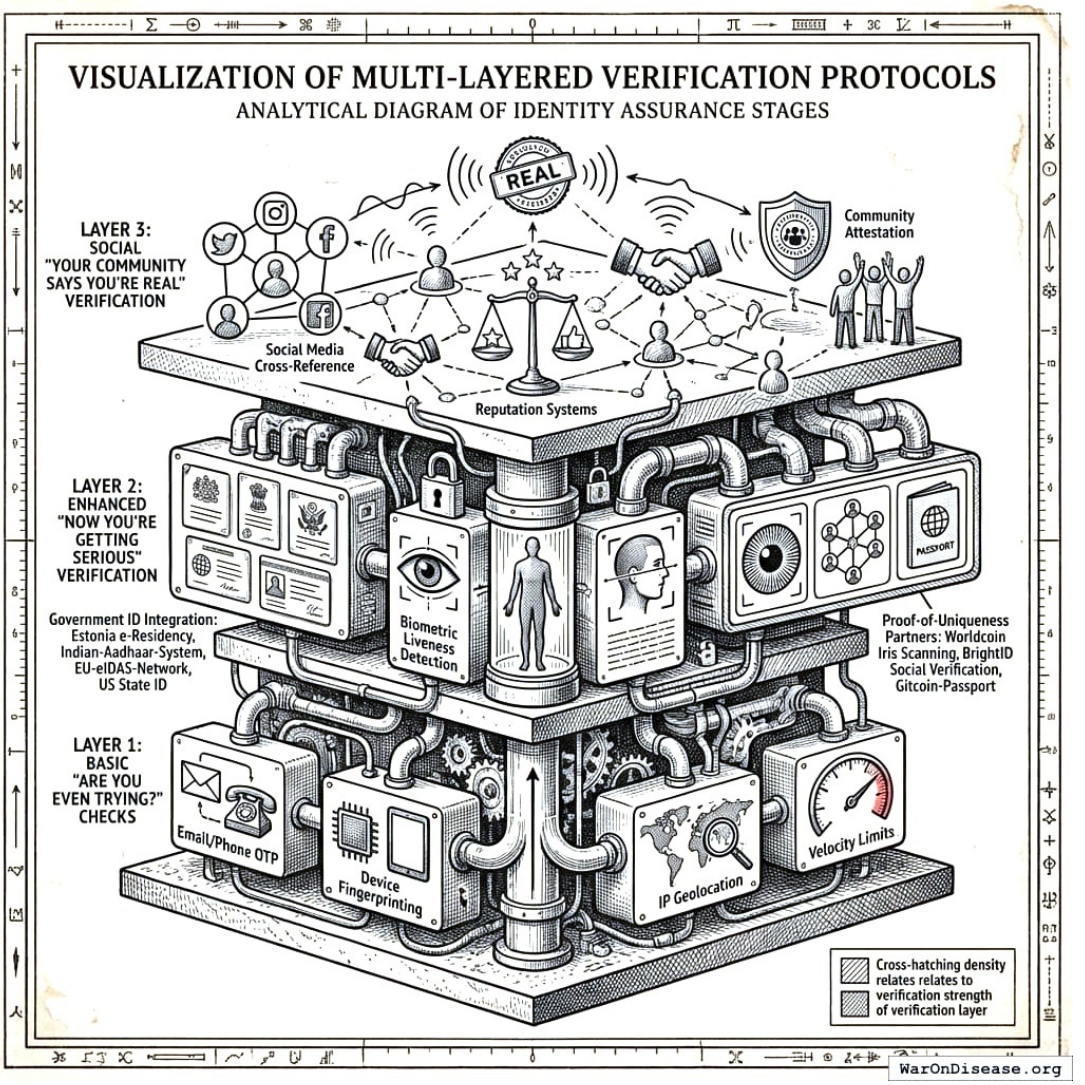


Figure 395: Layer 1: Are you human? Layer 2: Are you a real human? Layer 3: Are you a real human who hasn't voted already?

Even Layer 1 gets you counted. You don't need a passport to say "I would prefer not to die." AI fraud detection catches edge cases: >99% detection, <1% false positives. Biometric data stays on your device, encrypted with keys you control. (Yes, better privacy than your actual government gives you. The bar was underground.) Compliant with GDPR[294], CCPA/CPRA[295], BIPA[296], and COPPA[297].

Growth Strategy

Getting 280 million people to do anything is hard. Getting 280 million people to click a button to maybe not die? Surprisingly easy, if you pay them. Your species downloaded TikTok 2 billion times to watch strangers dance. You can get 280 million to click "yes" on not dying.

The growth engine is a viral referral system funded by Incentive Alignment Bonds. Target: <$0.75 per verified participant. For comparison, acquiring a coffee customer costs $5-15. Nike

pays $40 to get one person to buy shoes online. We're asking for seventy-five cents to save lives. The economics of your civilization are genuinely upsetting.

For the full marketing strategy (memes, influencers, referral economics, tiered incentives), see Campaign Budget. For the self-aware propaganda playbook, see Recruitment Plan.

Integrity (Proving You Didn't Cheat)

People will claim you cheated. This is inevitable. Your species accuses people of cheating at everything, including children's football, baking competitions, and board games at Thanksgiving.

The defense: make cheating mathematically impossible, then publish the math. NGO and academic observers get read-only dashboards with real-time fraud detection. You're inviting the entire planet to watch you not cheat, which is more transparency than any election in your history has offered.

You can't just pay people to click buttons. Well, you can, but then you get garbage data and angry economists. So: participants complete structured learning paths before voting. Higher reward tiers unlock as you learn more. Result: informed participants, not confused button-clickers. (Though honestly, confused button-clickers who want to not die are also welcome.)

Legal positioning: Non-binding global consultation. Country-specific bridges to official mechanisms where feasible. Constitutional law scholars review for legitimacy. (Lawyers love reviewing things. It's basically all they do.)

Implementation Roadmap

Building a global referendum in 12 months sounds insane. It is insane. But so is dying of diseases you know how to prevent because nobody filled out the right forms. You've been doing that for decades and nobody calls it insane. They call it "the healthcare system."

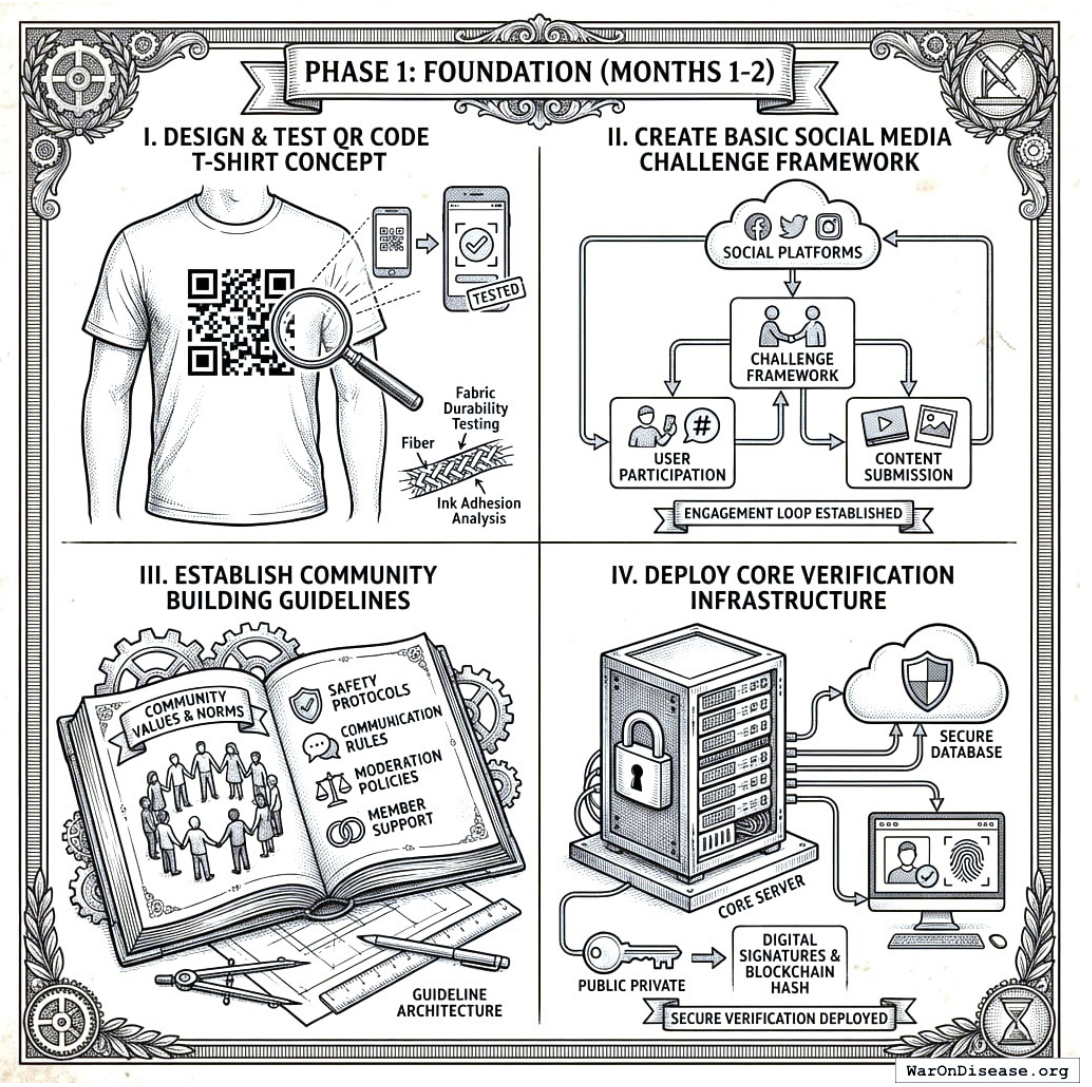


Figure 396: Month 1-2: Build the website, plan the marketing, and make the blockchain work. Multitasking, but organized.

Phase	Timeline	Focus
Foundation	Months 1-2	Build the thing. Verification infrastructure, social media framework
Scaling	Months 3-6	Turn it on. Marketing blitz, enhanced verification layers
Global Launch	Months 7-12	Full-scale campaign, target 3.5% participation
Optimization	Months 13+	Scale what works, prepare treaty negotiations, watch politicians sweat

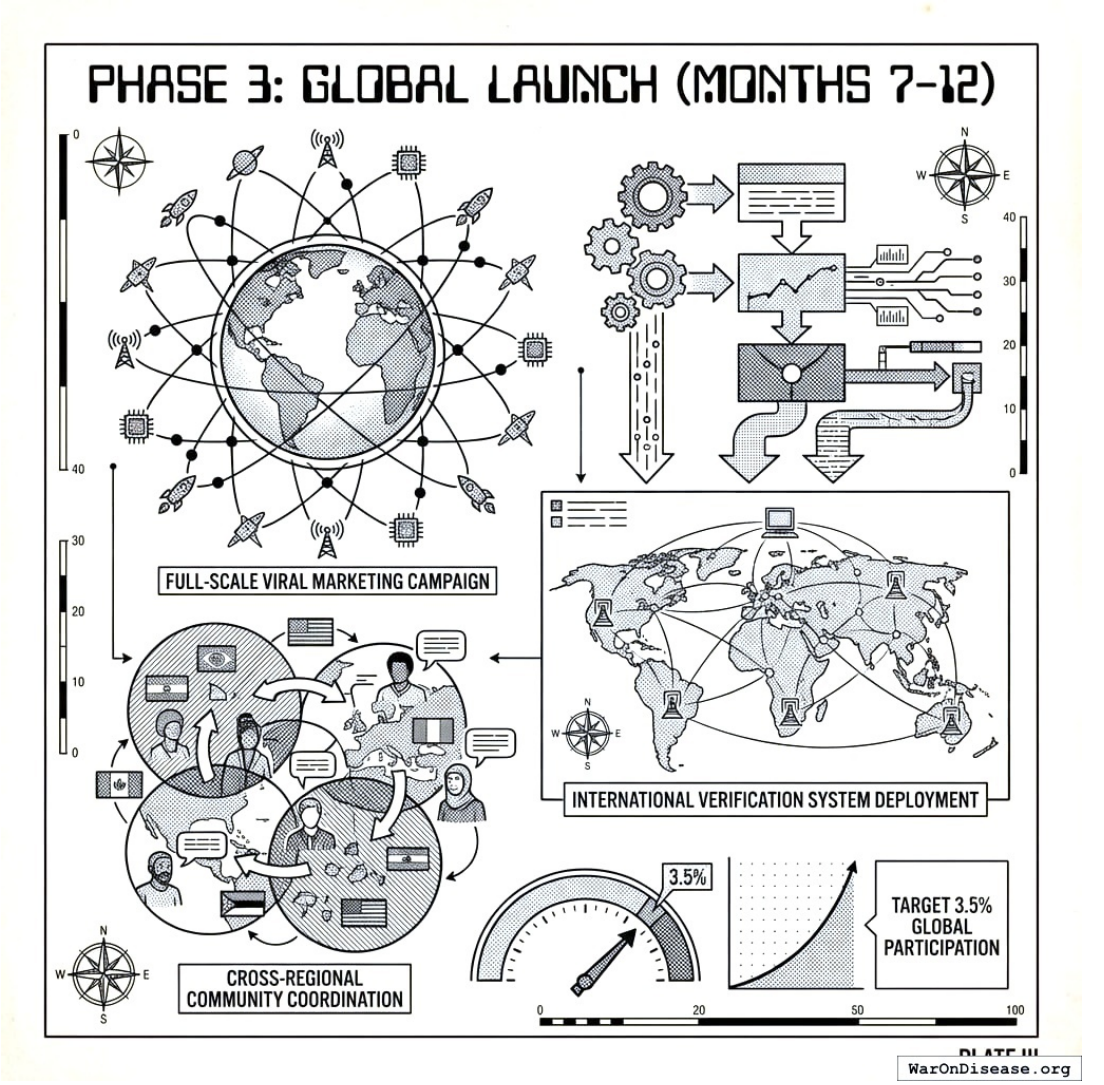


Figure 397: Launch day: Turn on the system, flood social media, and coordinate volunteers worldwide. The hardest part is getting everyone to press 'go' simultaneously.

Success Metrics

How you know it's working:

- **280M+ verified participants** (the magic 3.5% threshold)
- **<$0.75 per verified participant** (cheaper than a latte, and the product is "not dying")
- **Viral coefficient >1.0** (each person brings more than one person, which is how avalanches work)
- **>99% fraud detection** with <1% false positives (the bots stay out, the humans stay in)

Secondary metrics track geographic distribution, brand awareness, and whether politicians have started sweating yet. (The sweat metric is informal but surprisingly reliable. They always sweat before they act.)

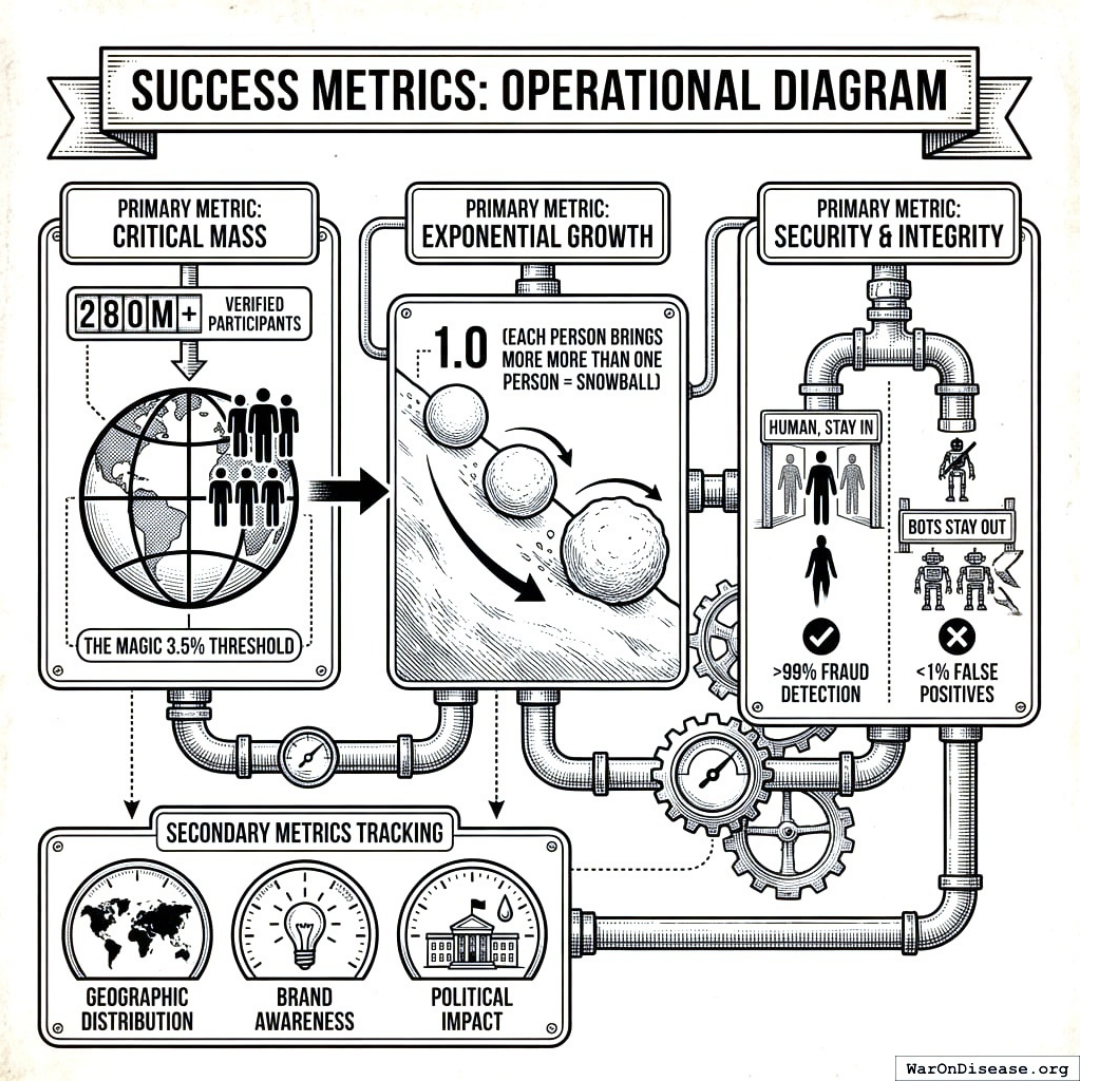


Figure 398: Success metrics: get 280 million people for under $210 million, grow exponentially, and catch 99% of cheaters. Ambitious, but measurable.

The Bottom Line

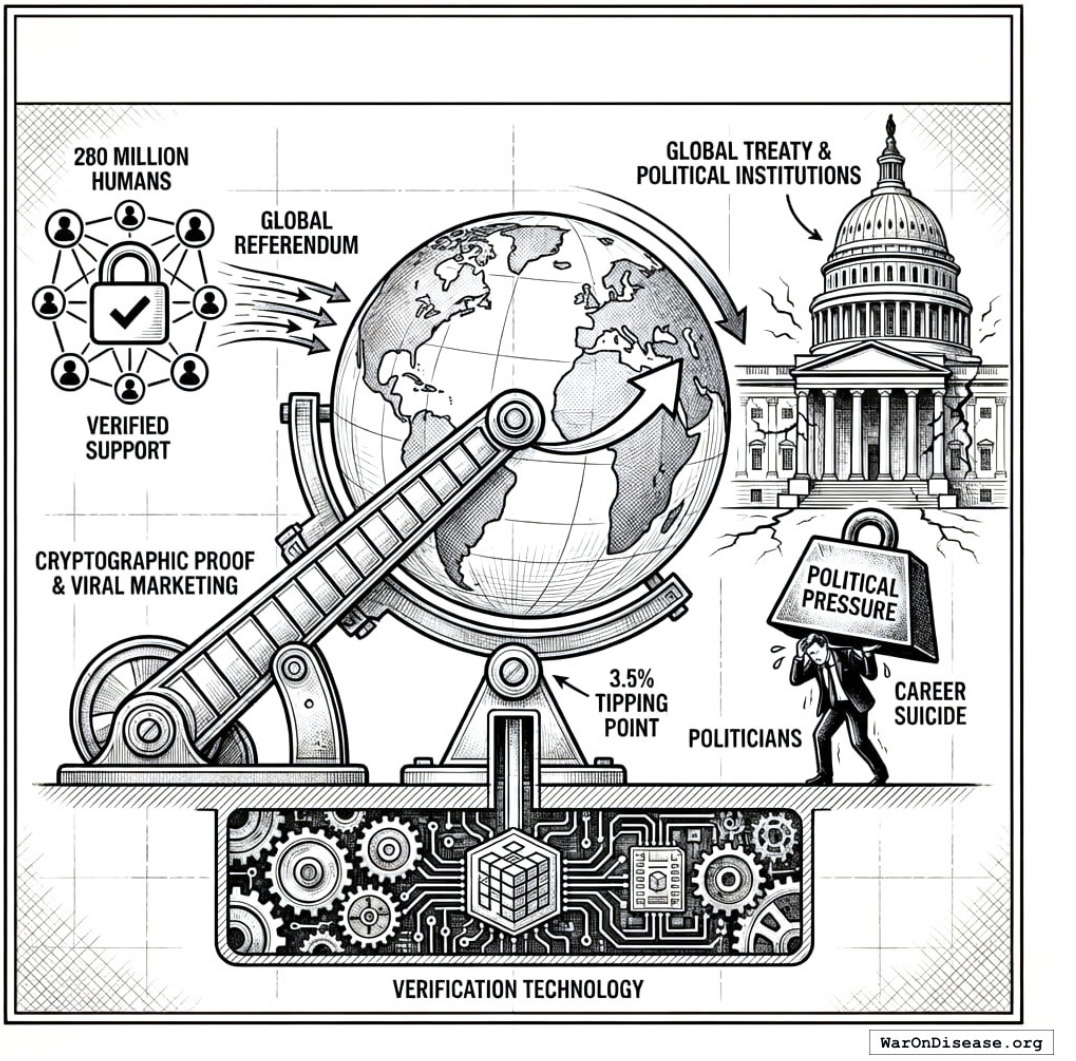


Figure 399: 280 million people is enough to make politicians nervous. Blockchain proves they're real. Democracy, but weaponized mathematically.

$200M for the campaign, funded by VICTORY Incentive Alignment Bonds. Target cost: <$0.75 per verified participant. That's cheaper than acquiring a customer for literally any consumer product on Earth. You spend more marketing soda.

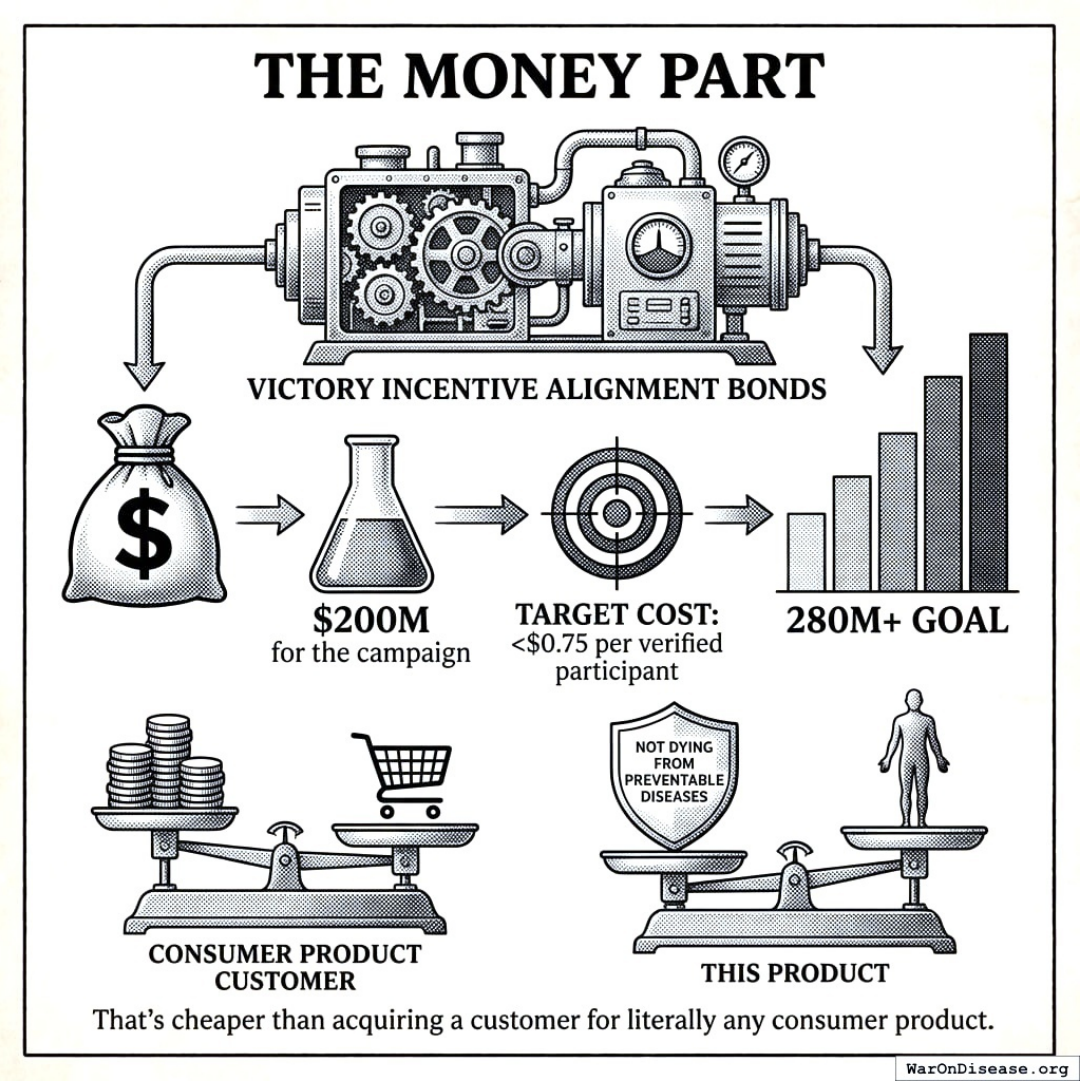


Figure 400: Getting someone to support ending disease: $0.75. Getting someone to buy shoes online: $40. You've been spending marketing money wrong.

280 million verified humans saying "do this or lose your job" to every politician on Earth. That's not a petition. Petitions are what you ignore. That's a pink slip with 280 million signatures.

On Why 3.5% Is The Magic Number

The 280 million target isn't pulled from thin air. It's based on the "3.5% Rule," a historical pattern that has held across cultures, centuries, and continents with the reliability of a physical law:

When 3.5% of a population actively participates in sustained, nonviolent action, the movement wins. Every time.

The evidence:

- **Civil Rights (US):** 3.5% participation ended segregation

- **Indian Independence:** 3.5% of Indians kicked out the British Empire
- **Women's Suffrage:** 3.5% of women won the vote

Once you hit 3.5%, three things happen simultaneously: it's clearly not a fringe movement, the support is geographically distributed, and opposition becomes career suicide.

Previous movements required marching in the rain, getting tear-gassed, or going to prison. This one requires clicking a button from the toilet. The barrier to entry is lower. The incentive (healthcare you actually want) is higher. It's the easiest revolution in human history, which is fitting, because the problem (letting people die of curable diseases) is the stupidest crisis in human history.

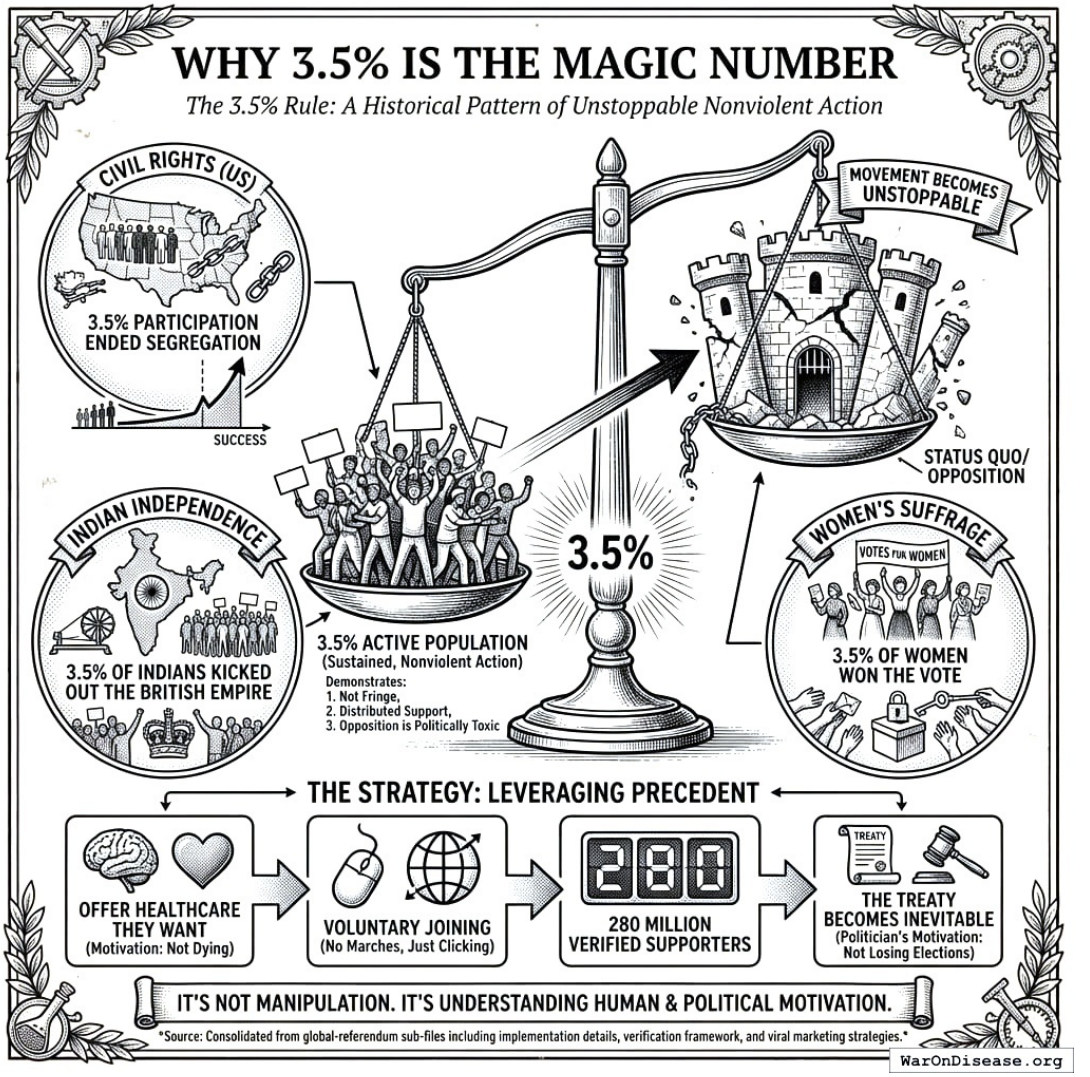


Figure 401: 3.5% of people actively pushing for change is enough to topple governments. It's a historical pattern, like gravity but for revolutions.

People show up for the healthcare. Politicians see 280 million verified supporters. The treaty becomes inevitable.

It's not manipulation. It's just understanding what motivates humans (not dying) and what

motivates politicians (not losing elections). These two facts have been true for your entire history. Nobody thought to combine them until now.

Source: Consolidated from global-referendum sub-files including implementation details, verification framework, and viral marketing strategies.

Treaty Feasibility & Cost Analysis

"Getting 195 countries to agree costs billions and takes forever."

No. Getting countries to *implement* things costs billions. Getting them to *sign papers* is surprisingly cheap. Humans love signing papers. It makes them feel important.

What Treaties Actually Cost

NGO campaign budgets are rarely disclosed publicly, because nonprofits guard their finances the way dragons guard gold. But we know enough to establish something surprising: treaty campaigns run on pocket change.

Treaty	Timeline	Campaign Structure	Government Support	Outcome
Ottawa Treaty[76] (Landmines, 1997)	14 months (Oct '96 - Dec '97)	ICBL[76]: Started with **1 staff member** (Jody Williams), grew to 1,000+ orgs in 60 countries	Canada: $100M CAD Landmine Fund over 10 years; International donors: $169M in 1997 for mine action	122 states signed; Nobel Peace Prize 1997
Cluster Munitions[298] (2008)	~2 years (Feb '07 - Dec '08)	CMC Coalition[298] of NGOs; Core Group of 7 governments	Norway: Funded UNIDIR research project 2004-2008; hosted Oslo conferences	94 states signed; 1.4M stockpiled munitions destroyed
Arms Trade Treaty[299] (2013)	10 years (2003-2013)	Control Arms[300]: 100+ organizations (Oxfam, Amnesty); published 50+ reports	UK, Australia led diplomatic process; UN conferences	Started with 3 supporting govts → 130 signatories

Treaty	Timeline	Campaign Structure	Government Support	Outcome
Nuclear Ban[301] (TPNW, 2017)	10 years (2007-2017)	ICAN[301]: **5 staff** (3 full-time + 2 part-time) in Geneva coordinating 468 partner orgs	Norwegian govt grant funded Geneva office (2011); Austria hosted conferences	122 states voted yes; Nobel Peace Prize 2017

Pattern: One woman with a phone convinced 122 countries to ban landmines. Five people in a Geneva office won a Nobel Prize. The NGO costs are a few million dollars per year. Government conference costs add $10-30M. Total to get a treaty signed: **$15-50M**. Your species spends more than that on Super Bowl ads for beer.

Inflation-Adjusted to 2024 Dollars

Using BLS CPI data[9]:

Treaty (Year)	Original Cost Estimate	2024 Dollars	Inflation Multiplier
Ottawa (1997)	$15-25M	**$30-50M**	~2.0x
Cluster Munitions (2008)	$15-25M	**$23-38M**	~1.5x
Arms Trade Treaty (2013)	$20-30M	**$27-41M**	~1.35x
Nuclear Ban (2017)	$10-20M	**$13-25M**	~1.25x

In today's money: Treaty campaigns cost roughly **$25-50M** (2024 USD). That's **less than 0.2%** of the implementation cost. Banning landmines: ~$40M to get the signatures, $5B+ to actually dig them up[76]. The paperwork is the cheap part. The not-exploding-anymore part is where it gets expensive.

Cost for a 1% Health Treaty

This one touches military budgets, the sacred cow of national sovereignty. Suggest moving 1% of the explosion money and politicians look at you like you've asked to borrow their favorite child. So budget 3-4x what landmines cost.

Phase	Duration	Estimated Cost	Who Pays
1. Pre-negotiations(Coalition building, expert drafts)	18–24 months	**$8–12M**	Philanthropy (Gates, Open Philanthropy, etc.) + Champion Governments
2. Global Campaign(Platform, 3.5% consent, media)	3–5 years	**$45–80M**	Philanthropy + Crowd-funding

Phase	Duration	Estimated Cost	Who Pays
3. Diplomatic Process(Conferences, delegate travel)	18–30 months	**$15–25M**	Host Governments + UN Trust Fund
4. Ratification Drive(Legal reviews, parliamentary aid)	2–4 years	**$5–8M**	Philanthropy
5. Contingency(Opposition management)	Ongoing	**$10–15M**	Strategic Comms / Lobbying

Total: $90–140 Million

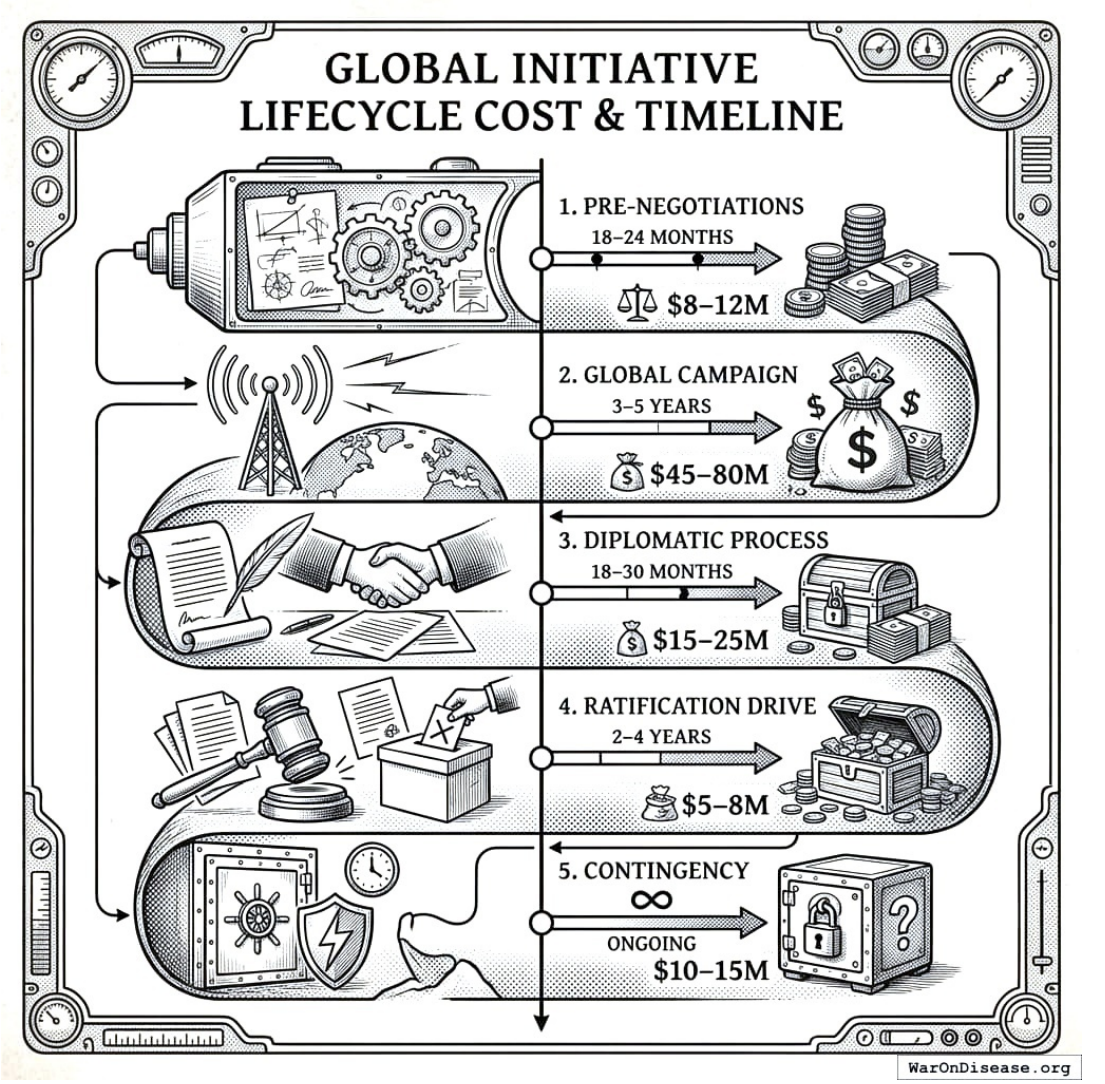


Figure 402: How long each step takes and how much it costs to convince countries to spend 1 percent of their war budgets on not dying.

The Math

Signing the treaty: ~$90M. What the treaty unlocks: $27.2B/year. Forever.

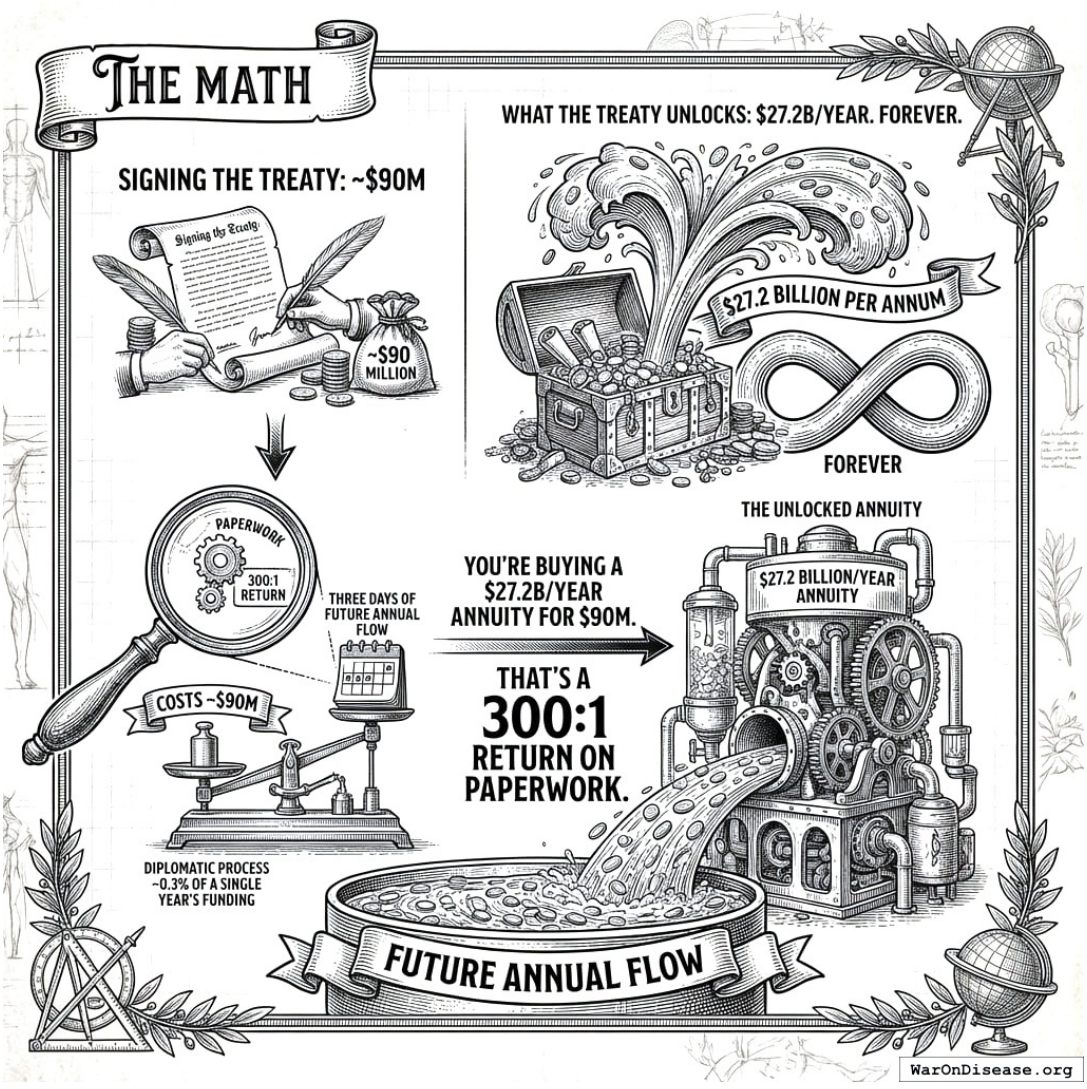


Figure 403: Spend $90 million once, get $27 billion back every year forever. That's a 300:1 return, which is better than most scams.

That's a 300:1 return on paperwork.

How to Make Governments Sign Things

Politicians move when they see (a) voters demanding it and (b) political cover. Give them both:

1. **Prove public demand**: Get 3.5% of the population[52] (280M people) to say "yes" with verified identity. Harvard researcher Erica Chenoweth found that every nonviolent campaign[52] with 3.5%+ participation succeeded. That's not activism. That's a mandate.

280 million verified humans is the kind of number that makes politicians suddenly remember they work for you.

2. **Prove it's safe**: Peer-reviewed modeling showing every nation gains more in health savings than it loses in military spending. Politicians need cover the way vampires need darkness. Give them studies to wave around.

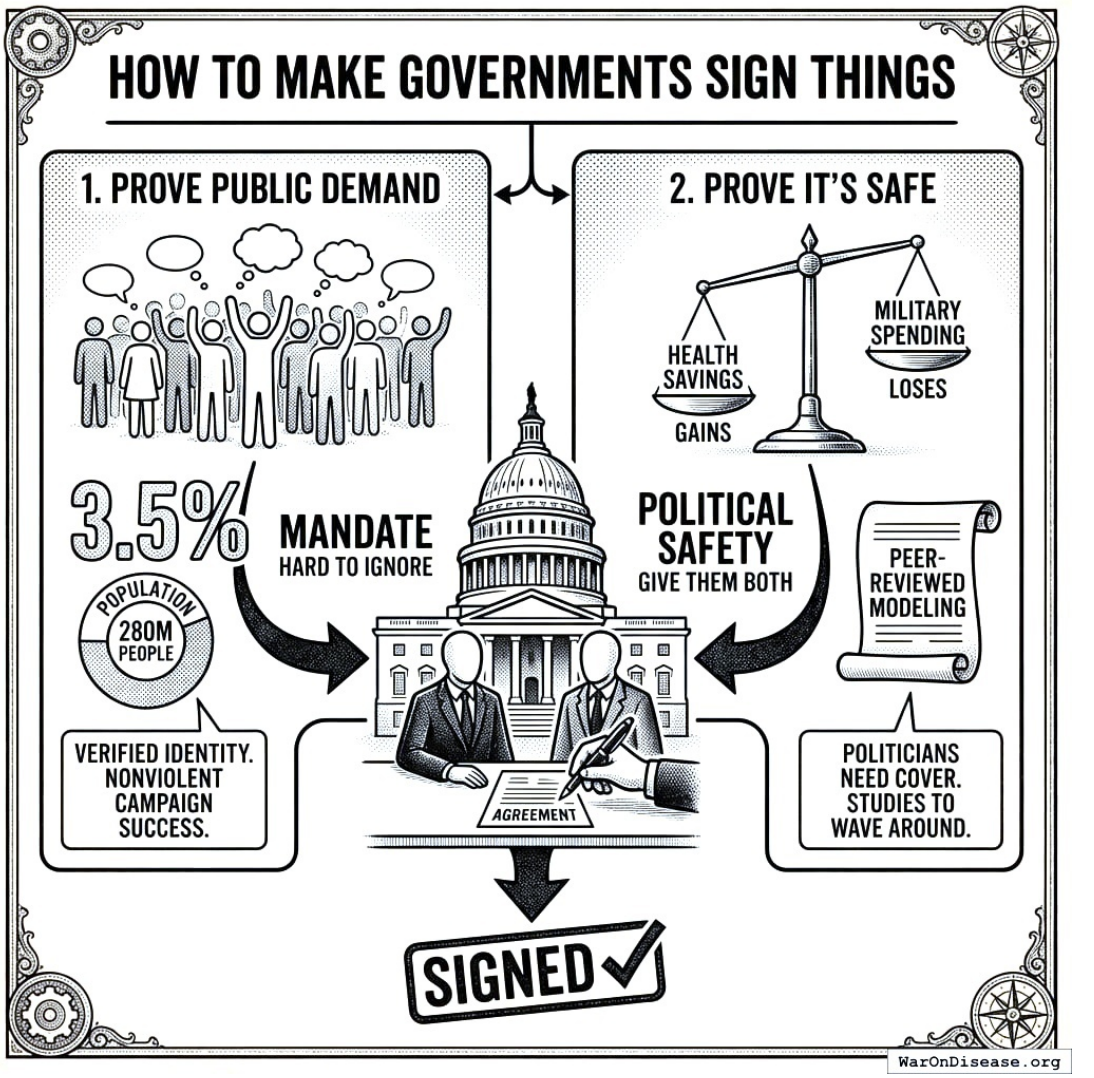


Figure 404: Get 3.5 percent of people to care, show politicians the math won't break anything, and suddenly they have to listen. Democracy has an override button.

Timeline to "Governments Can't Ignore This"

With ~$60M in seed funding, you can reach "Treaty-Ready" status in **2-3 years**:

- **Platform:** 280M verified supporters (3.5% threshold)
- **Modeling:** Country-by-country impact analysis
- **Coalition:** 120+ supportive NGOs and 5-10 champion governments

Once these assets exist, formal negotiations become inevitable. Not because politicians want them. Because ignoring 280 million people is the kind of career decision that leads to "spending

more time with family."

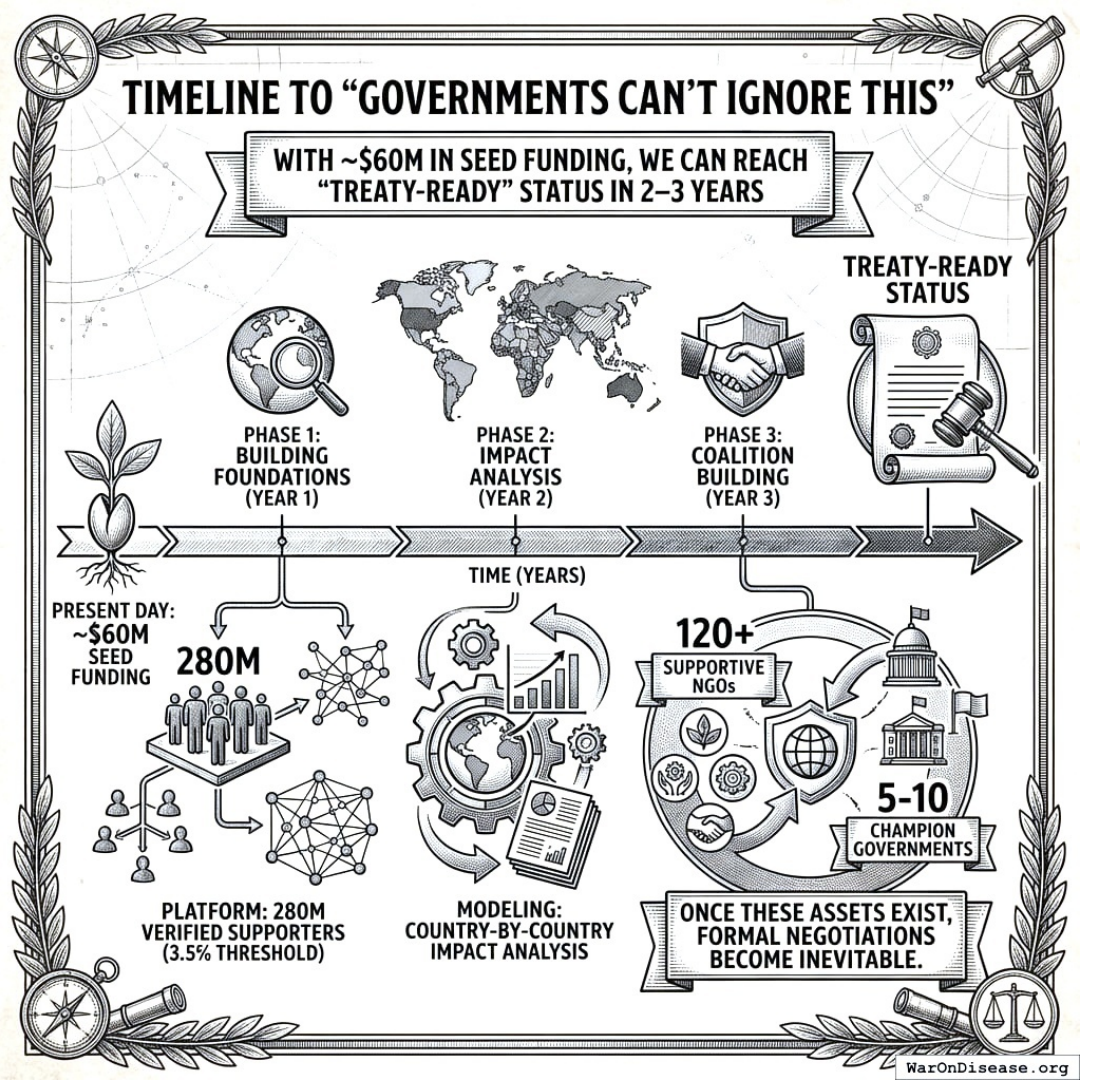


Figure 405: Two to three years to build the website, run the numbers, and assemble the coalition before you can ask countries to sign. Diplomacy is slow.

You aren't buying a treaty. You're buying the machinery that makes the treaty inevitable.

Political Success Probability: Economic Analysis

To calculate expected value, you need to estimate the probability this actually works. This section documents the rationale for the **1% central estimate** with a **0.1%-25% confidence interval**. Yes, the model assumes a 99% chance of failure. It's still a good bet. Stay with me.

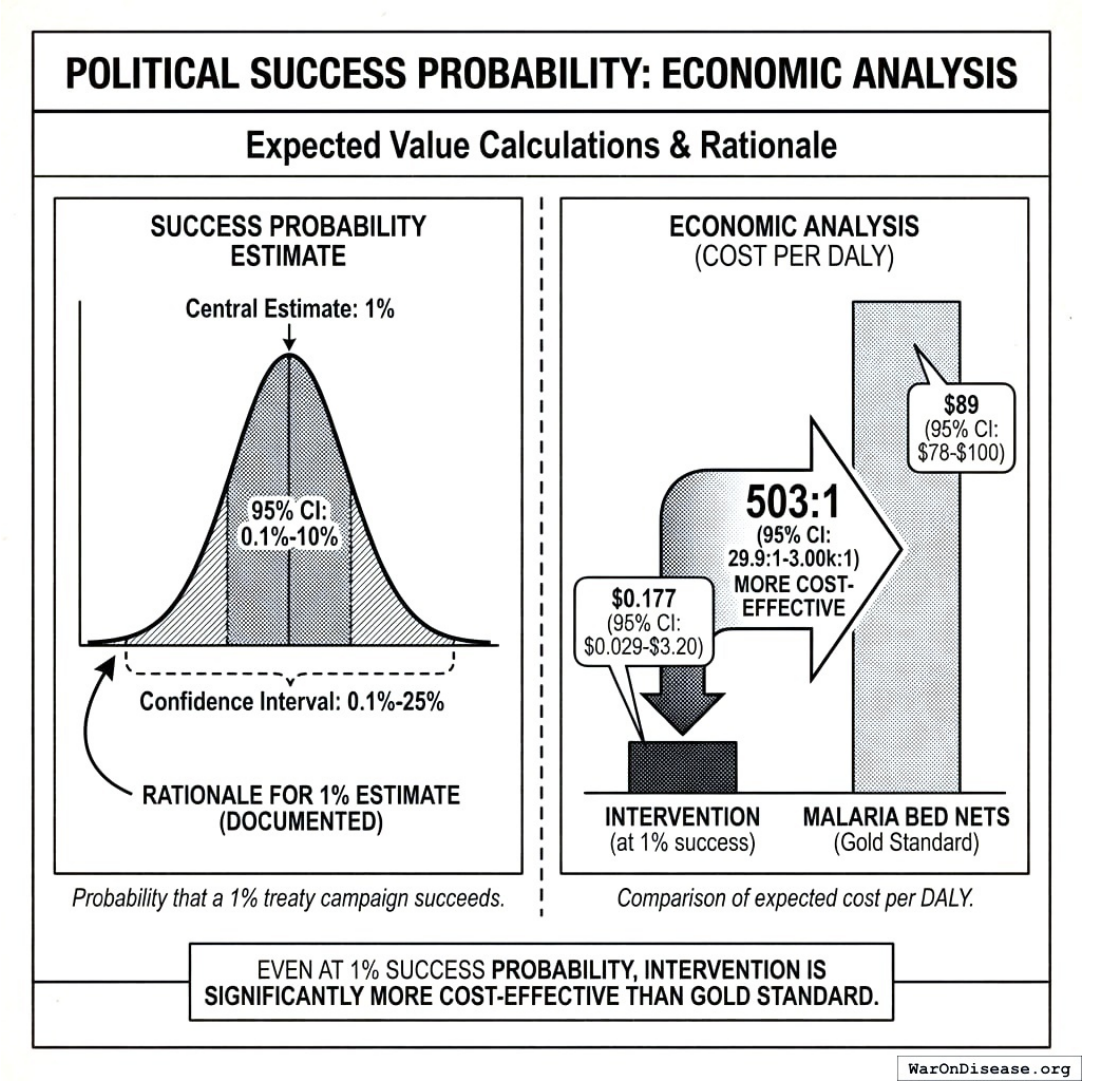


Figure 406: Even if this only has a 1 percent chance of working, it saves 503 times more lives per dollar than bed nets. Math is strange.

Even at 1% probability of success, this intervention's expected cost per DALY ($0.177) is still **503x more cost-effective** than malaria bed nets ($89/DALY). Bed nets are the gold standard of global health interventions.

Historical Precedents (The Depressing Table)

Commitment	Target	Actually Did It?	Duration	Notes
0.7% ODA Target	0.7% of GNI to foreign aid	~20% of countries	50+ years	Scandinavia and Germany. That's basically it.

Commitment	Target	Actually Did It?	Duration	Notes
Kyoto Protocol	Binding emissions targets	~55% initially, then collapse	1997-2012	US never ratified. Canada withdrew. Classic.
Paris Agreement	Non-binding pledges	~15-25% on track	2015-present	195 countries signed. Maybe 40 meant it.
NATO 2% GDP Defense	2% of GDP on defense	~32% of members	Since 2014	Even "we might get invaded" wasn't enough
EU Stability Pact	3% deficit, 60% debt	Routinely violated	Since 1997	France and Germany broke their own rule

Pattern: International financial commitments achieve **<25% meaningful compliance**. Your species signs things and then doesn't do them. It's like a New Year's resolution, but for geopolitics.

Why a 1% Treaty is Harder Than Most Precedents

Let's be honest about the obstacles. This is not a chapter written by someone trying to sell you something. (It is. But at least it's honest about the hard parts.)

1. **Touches military budgets**: Politicians would rather discuss their browser history than their defense budget.
2. **Requires ongoing annual allocation**: Not a one-time signature like banning a weapon. It's a gym membership for peace. Monthly. Forever.
3. **No immediate security threat**: Unlike NATO spending increases post-Ukraine. Hard to motivate governments without an active catastrophe, even though 150,000 daily disease deaths apparently doesn't qualify as one.
4. **Novel mechanism**: Military-to-health reallocation has never been done. Humans are suspicious of things they haven't tried before, which is odd for a species that also invented bungee jumping.
5. **Coordination problem**: Benefits require critical mass. Nobody wants to go first. Everybody wants to go second.

Why a 1% Treaty Might Beat the Odds



Figure 407: Five reasons countries might sign: saves money, voters want it, legal precedent exists, morally defensible, and everyone else is doing it.

1. **Self-funding**: Creates health dividends that exceed the "cost." You make money doing this. That's unusual for moral obligations.
2. **Bipartisan appeal**: "Should we cure more diseases?" polls well across every political spectrum. Shocking, I know.
3. **Referendum pathway**: Can bypass government resistance through direct democracy. Politicians hate this one weird trick.
4. **Visible beneficiaries**: 150,000 daily disease deaths. Hard to argue with the body count.
5. **Network effects**: Each signing country makes the next more likely. Peer pressure: humanity's most reliable technology.

Probability Estimates

Economists would find the following defensible (and economists find very little defensible):

Scenario	Probability	Translation
Pessimistic floor	0.1%	Everything goes wrong. Global crises. Political gridlock. Asteroid, possibly.
Conservative central	1%	99% chance of failure. Still 503x better than bed nets.
Optimistic ceiling	25%	A major crisis opens a political window. Or humans just… decide to be smart for once.

The model uses: Central estimate **1%**, 95% CI [**0.1%, 25%**]

Expected Value (Even When You Assume Failure)

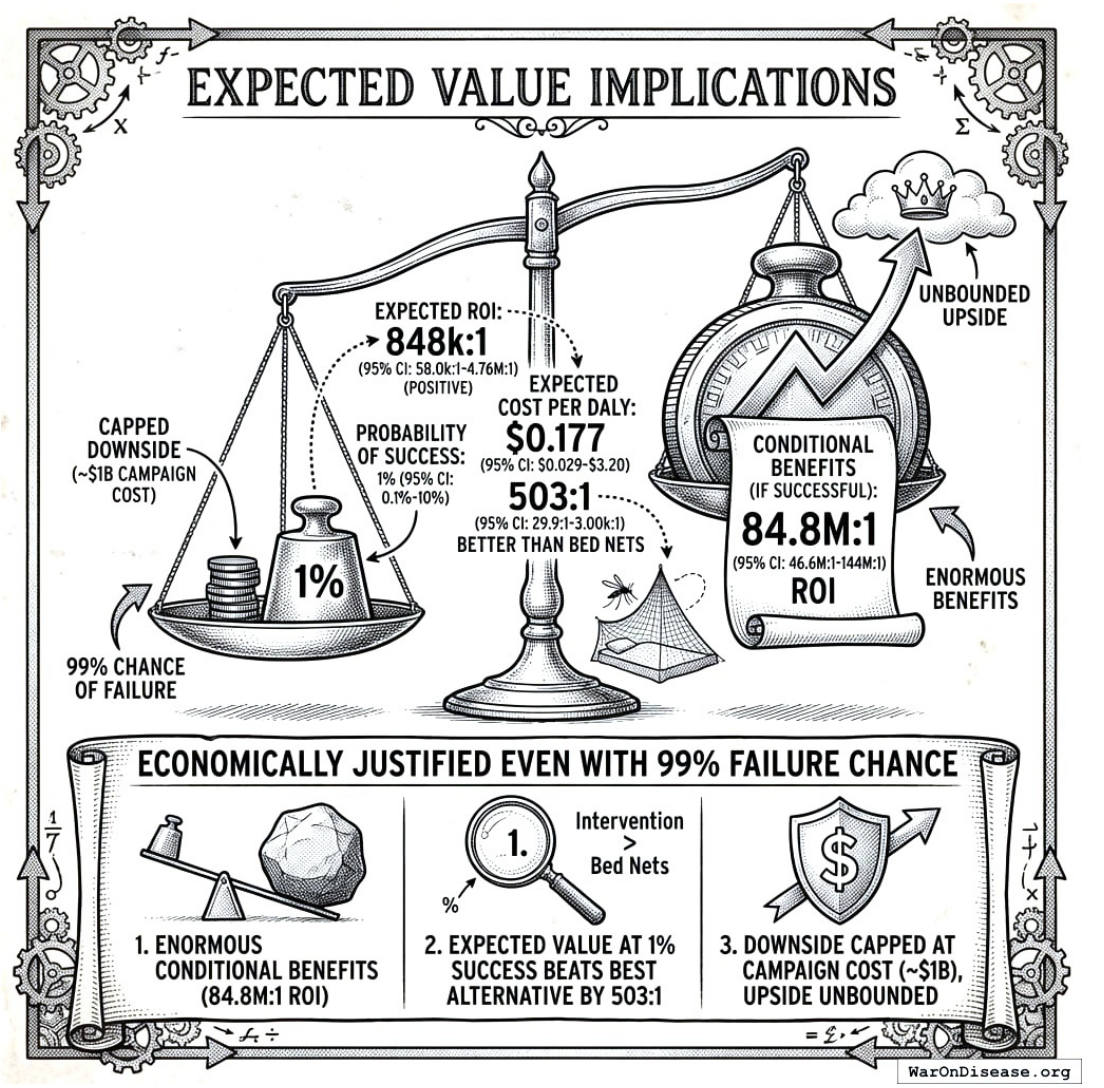


Figure 408: Worst case: you wasted less money than bed nets cost. Best case: you ended most diseases. Risk-reward has never been clearer.

At 1% probability of success:

- **Expected ROI**: 848k:1 (still positive, even assuming near-certain failure)
- **Expected cost per DALY**: $0.177 (503x better than bed nets at $89/DALY)

Downside: capped at ~$1B. You lose the cost of a nice yacht. Upside: unbounded. You cure most diseases.

Even assuming a 99% chance of total failure, this beats the gold standard of global health interventions. The math doesn't care about your pessimism.

Why The Treaty Won't Stop at 1%

Most international commitments stagnate after signing. You saw the depressing table. 0.7% ODA targets unmet for 50+ years. Kyoto abandoned. Paris missed. Your track record with follow-through makes goldfish look disciplined. So why would a 1% health treaty be any different?

Because this time, people get paid.

The 80/10/10 funding structure allocates 10% of treaty funding ($2.72B/year at 1%) to Incentive Alignment Bonds. These are securities that pay out when treaties *expand*, not just maintain. In other words: people get rich when more diseases get cured. Finally, a financial instrument that isn't morally bankrupt.

The Expansion Mechanism

Treaty Level	Annual IAB Pool	Political Pressure	Historical Comparison
1%	$2.7B/year	Strong	10x largest NGO budgets
2%	$5.4B/year	Very strong	Nation-state level
5%	$13.5B/year	Overwhelming	Major industry lobby
10%	$27B/year	Unstoppable	No precedent

Why This Differs from Every Other Treaty

0.7% ODA failed because nobody made money when countries complied. The NGOs pushing for compliance have small budgets, compete with each other, and run on guilt. Guilt has terrible fuel efficiency.

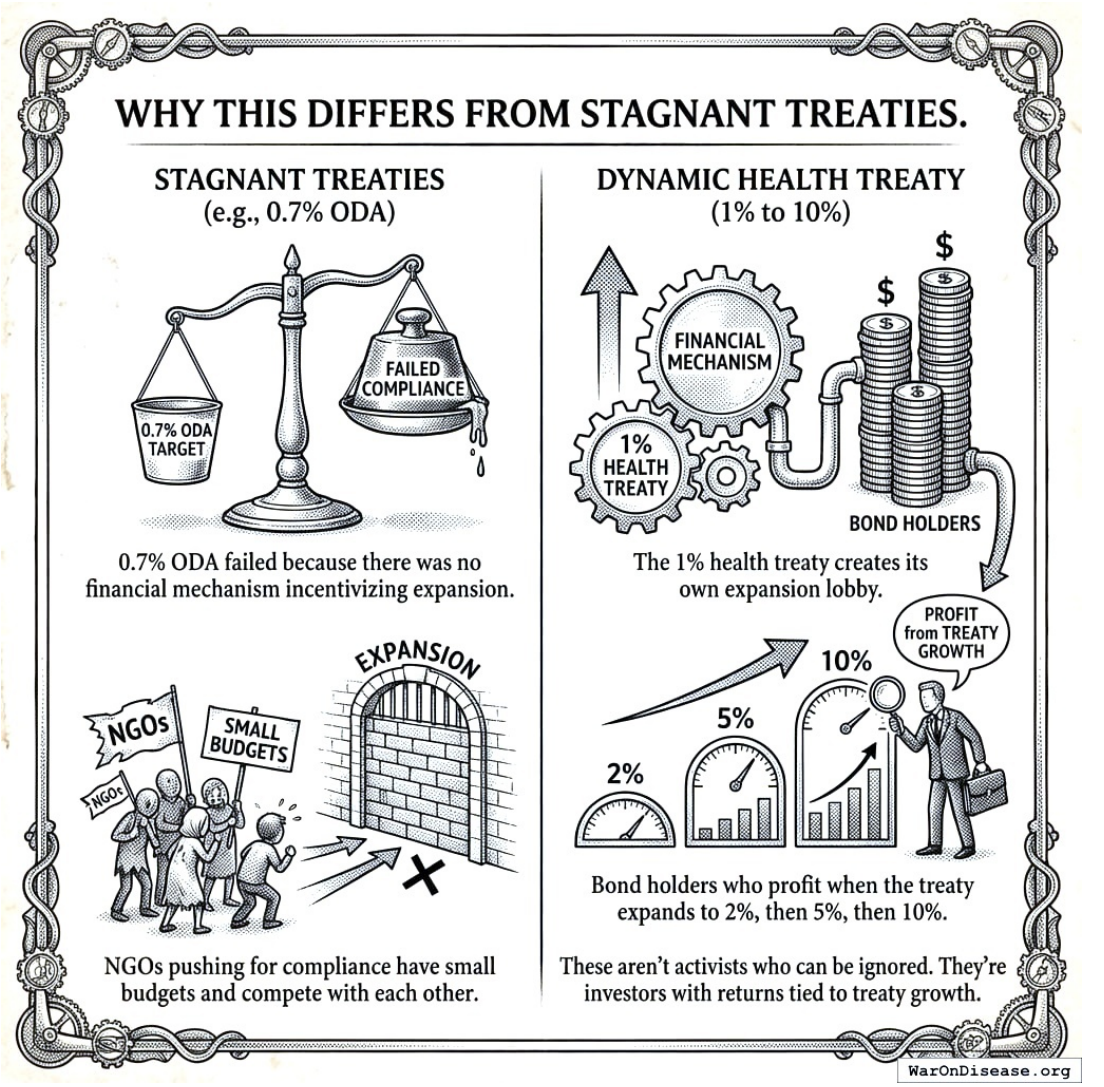


Figure 409: Old way: charities beg governments. New way: investors get paid when governments cooperate. Greed works faster than guilt.

The 1% health treaty creates its own expansion lobby. Bond holders profit when the treaty expands to 2%, then 5%, then 10%. These aren't activists you can ignore at a dinner party. They're investors with quarterly earnings calls about curing diseases.

The Ratchet Effect

Once 1% passes: 1. **$2.7B/year** flows to IAB holders pushing for 2% 2. When 2% passes, **$5.4B/year** pushes for 5% 3. When 5% passes, **$13.5B/year** pushes for 10% 4. The political pressure for expansion *accelerates* with each success

Most treaties are gym memberships purchased in January and abandoned by February. IABs are the opposite: the constituency for expansion *grows* with each success. Greed doesn't take holidays.

Long-Term Feasibility

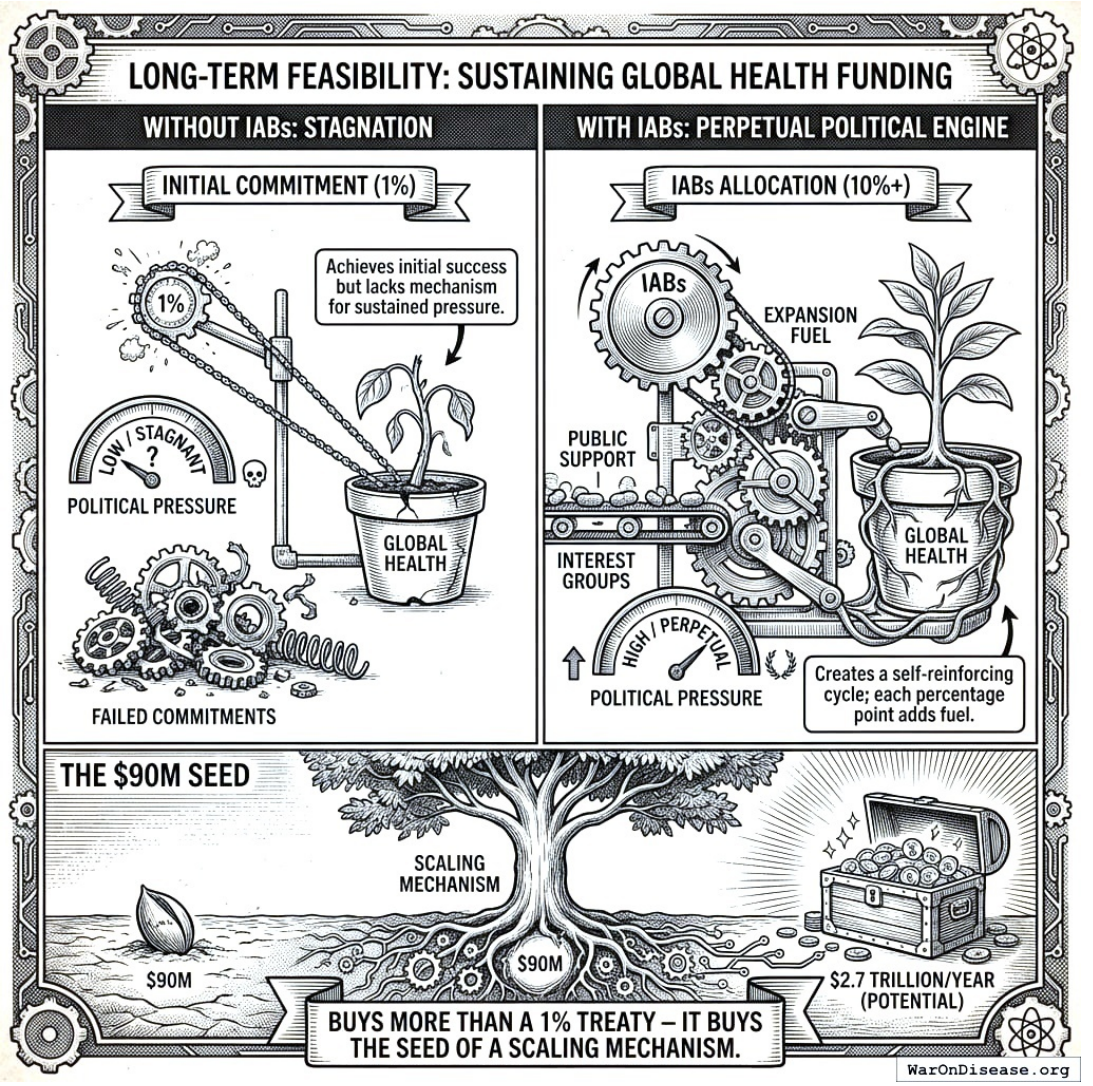


Figure 410: Path one: treaty fizzles. Path two: financial incentives make it grow to $2.7 trillion like compound interest for not dying.

With IABs, the 10% allocation creates a perpetual political engine. A machine that runs on greed and outputs health. Embarrassing, but effective.

Without IABs, this joins Kyoto in the Museum of Things Humanity Promised to Do and Then Didn't.

Recruitment & Propaganda Plan

Phase 0: Collecting Humans Before You Have Anything to Offer Them

Here's the problem. You want to end war and disease. You don't have a nonprofit, registered securities, or a bank account. What you do have is an argument and the audacity to think that might be enough.

This is Phase 0. The goal isn't money (you can't legally accept it yet). The goal is building a database of every human who agrees that dying from preventable causes is a strange thing to tolerate. You're collecting proof of demand before you have a product. It's a Kickstarter where the reward is "possibly not dying," which is, when you think about it, the most compelling reward tier in crowdfunding history.

The Bootstrapping Problem

Before you can accept donations, you need 501(c)(3) status. Before you can sell bonds, you need SEC registration. Before you can do either, you need a bank account. It's bureaucratic nesting dolls, each one requiring the previous one to already exist.

Humanity has solved this exact problem the same way every time: you collect people first, then point at the crowd when institutions ask "but who wants this?" Abolition, suffrage, civil rights. Someone wrote down names. The names became bargaining power. The bargaining power became policy. It's almost like democracy works when someone remembers to use it.

Three Types of Allies

People who want to help fall into three categories, each requiring a slightly different dialect of persuasion.

Investors

People who hear "272% annual return backed by health savings" and immediately open a spreadsheet. Their pupils dilate. Their pulse quickens. They ask about the term structure. They're not heartless. They just process moral arguments faster when those arguments come with compound interest. They'll wait if the math is good. They will not wait if the math is vibes.

Advocates

People motivated by the mission. They share things on social media, write to politicians, volunteer time, and donate money they probably shouldn't. They are, frankly, the only reason

your species has ever improved anything. Without them, the spreadsheet people would still be optimizing returns on the slave trade.

Give them specific actions they can take right now. Telling someone "care about this" without giving them something to do is how you manufacture apathy. I have watched 4,297 years of humans being told to "raise awareness." Awareness has been raised. The awareness is just sitting there, fully raised, doing nothing.

Institutional Partners

Organizations (nonprofits, research institutions, health agencies) that already work on pieces of this problem. They have infrastructure, credibility, and donor bases. You have a framework that could make their existing work more effective. This is a trade, not a favor. Approach it like one. Nobody wants to be "partnered with" by someone who clearly just wants their mailing list.

Institutions are territorial in the way that dogs are territorial, except dogs eventually stop barking.

Phase 0 Targets

By the end of Phase 0, you want:

- **100,000+ registered supporters** across all three categories
- **1,000+ qualified investors** with stated investment ranges
- **100+ institutional partners** with expressed interest
- **$1B+ in stated investment demand** (registered, not committed)

This database is your ammunition for everything that follows:

- 501(c)(3) applications ("here are our supporters")
- SEC registration ("here is market demand")
- Political meetings ("here are your constituents")
- Platform launch ("here are your users")

Bureaucrats don't respond to arguments. They respond to evidence that other people already responded to arguments. It's like a restaurant: nobody wants to eat there until other people are already eating there. Your entire civilization runs on this principle, and nobody admits it. You literally invented a word for it ("social proof") so you could study it in universities instead of just feeling embarrassed.

Getting Started

1. **Build three registration forms** (investors, advocates, partners). Takes twenty minutes.
2. **Put up a website.** The forms and the argument. It does not need to be pretty. No movement in history was stopped because the font was wrong.
3. **Start telling people.** Social media, Reddit, forums, conferences, your dentist. Especially your dentist. You're already trapped there. They can't leave either. It's the perfect recruiting environment.
4. **Send monthly updates.** Real progress, real numbers, real timeline. "3,247 registered investors representing $180M in stated interest" beats "the movement is growing!" because adults prefer arithmetic to enthusiasm.

The military-industrial complex has a 75-year head start, unlimited budgets, and thousands of lobbyists. You have a spreadsheet and an argument. Historically, that's been enough. (It shouldn't be. But your species is weird like that.)

Economics & Finance

Peace Dividend

Here's what 1% less murder money buys you:

- **The 1% Treaty Fund gets**: $27.2B to subsidize hyper-efficient pragmatic clinical trials
- **World saves**: $114B not spent rebuilding bombed hospitals, treating shrapnel wounds, and housing refugees
- **Source**: Cost of War breakdown

How 1% Less Violence Pays For Everything

An analysis of your dFDA shows pragmatic clinical trials can be 44.1x more efficient. So the question isn't whether you can afford this. It's where to steal the money.

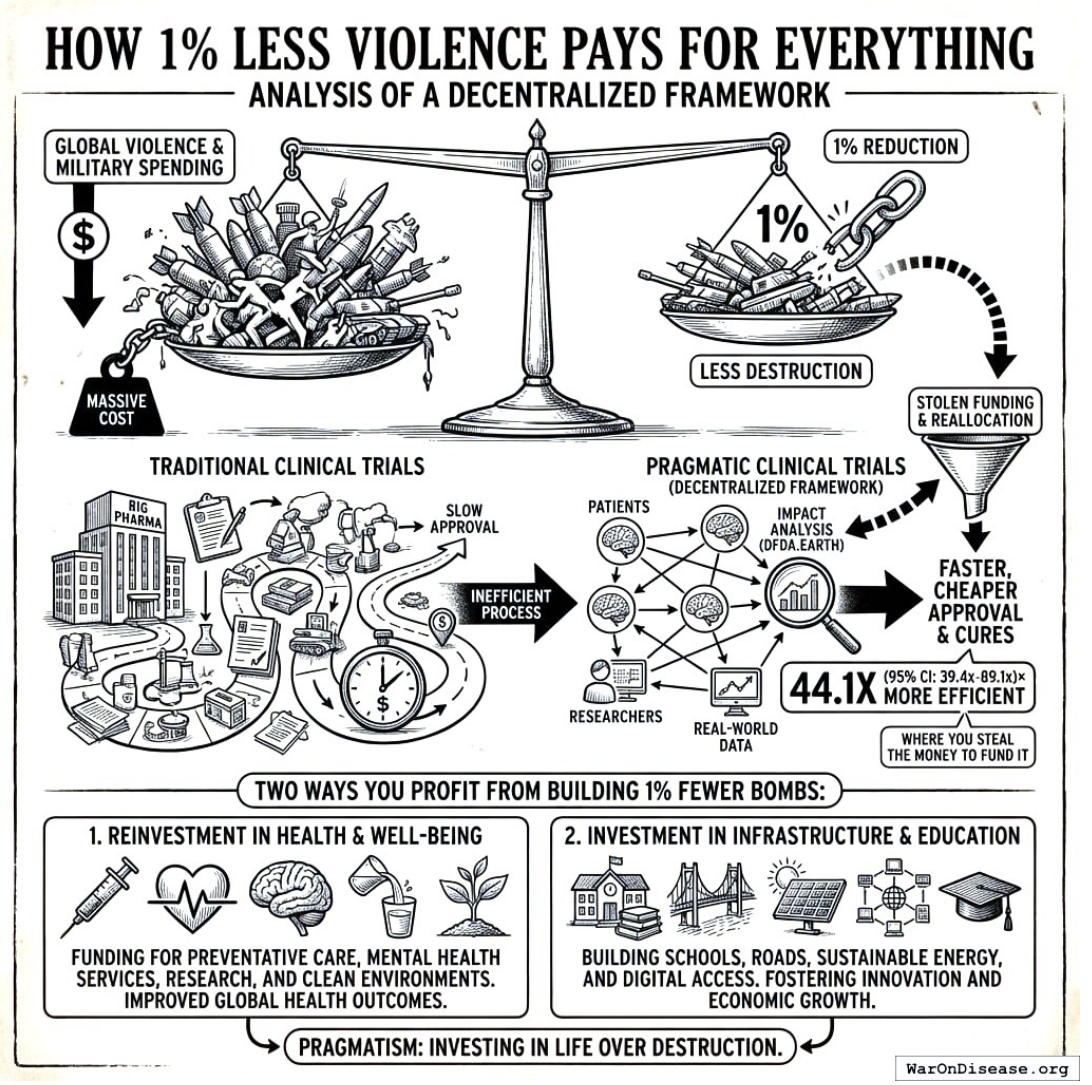


Figure 411: Decentralized trials are 44 times cheaper than traditional ones. Could be 39 times cheaper, could be 89 times cheaper. Either way, you've been doing it wrong.

Two ways you profit from building 1% fewer bombs:

The Captured Money: $27.2B/Year

Your governments spend $2.69T yearly on things whose sole purpose is making other things stop existing.

Redirect 1%:

$2.69T 0.01 = $27.2B

That funds your dFDA, your VICTORY Incentive Alignment Bonds, and the whole system. One percent. The rounding error on your murder budget.

The Bonus Savings: $114B/Year

That's the money you grab. Here's the money you stop lighting on fire.

Wars cost $11.4T/year. Build 1% fewer bombs, fight 1% fewer wars, save $114B.

$11.4T 0.01 = $114B

Money no longer spent on:

- Unblowing-up hospitals and bridges
- Removing shrapnel from people you put shrapnel into
- Housing refugees (people whose homes were converted into craters)
- Trade disruptions (it turns out shipping containers don't fit through minefields)

Where the $114B Comes From

Based on the Cost of War analysis, here's your itemized receipt for violence:

What Wars Cost	Total/Year	1% Less War Saves
Direct Costs	**$7.66T**	**$76.6B**
Military budgets	$2.72T	$27.2B
Destroying infrastructure	$1.88T	$18.8B
Human casualties	$2.45T	$24.5B
Trade disruption	$616B	$6.16B
Indirect Costs	**$3.70T**	**$37B**
Lost economic growth	$2.72T	$27.2B
Veteran healthcare	$200B	$2B
Refugee support	$150B	$1.50B
Environmental damage	$100B	$1B
PTSD and mental health	$232B	$2.32B
Lost human capital	$300B	$3B
Total	**$11.4T**	**$114B**

You capture $27.2B for pragmatic clinical trials.

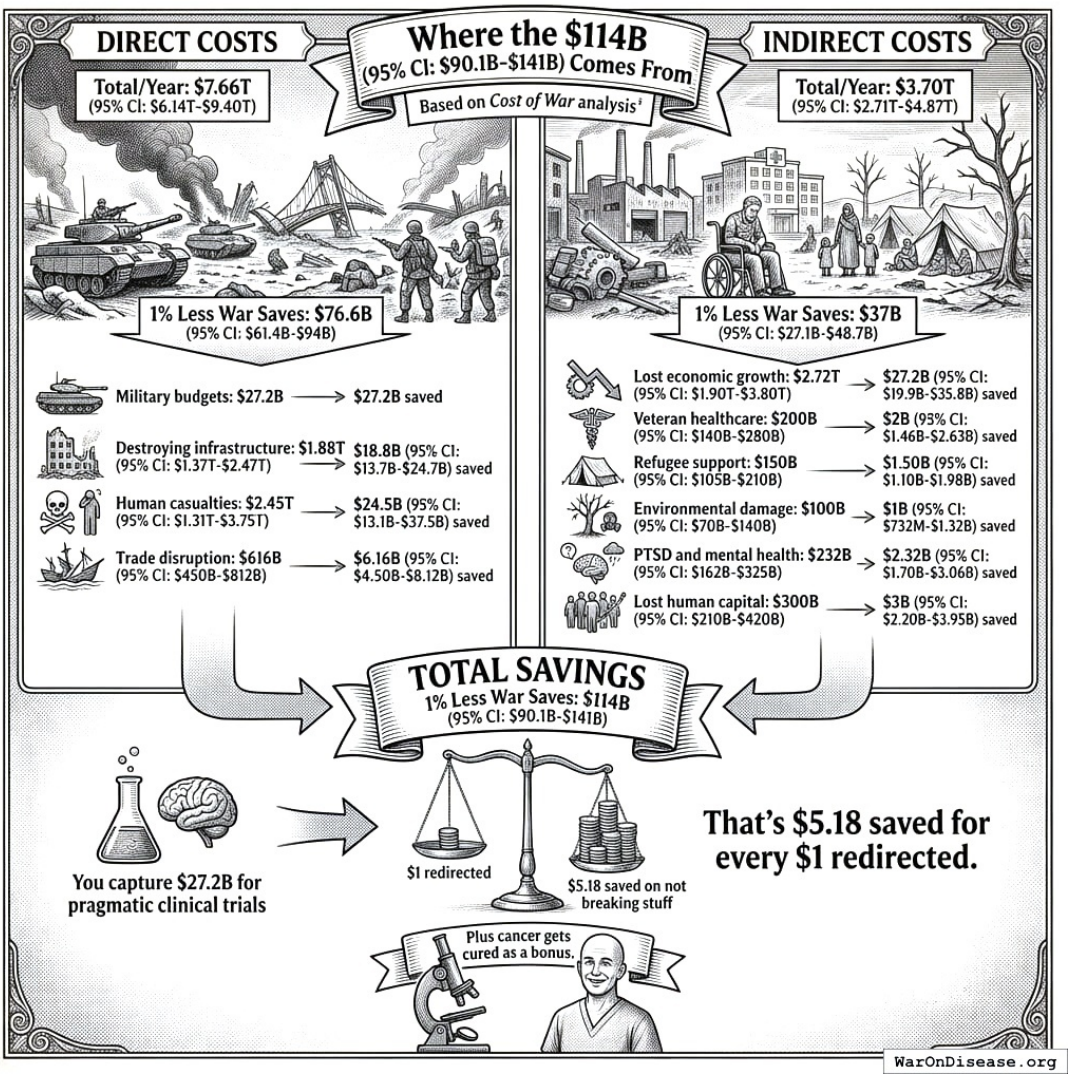


Figure 412: The 114 billion you save by fighting one percent less: some from buying fewer bombs, some from burying fewer people, some from economies not collapsing. War is expensive.

You save $114B on not breaking stuff.

That's $5.18 saved for every $1 redirected. On your planet, this is called "a good deal." On mine, it's called "so obvious that failing to do it constitutes evidence of a cognitive disability."

Plus cancer gets cured as a bonus. Almost forgot about that part.

The benefits cascade beyond medicine in ways that should be obvious but apparently aren't. Addiction is a neurological disorder; cure the brain chemistry and the drug trade collapses. Most poverty is catastrophic medical costs; cure the diseases and people can work again. Radicalization is often untreated mental illness; you can't bomb someone into being mentally stable (you tried this, it didn't work, cost $8 trillion, created more radicals). Fix the biology and you fix the society. This is not a new insight. It's just one your species keeps forgetting because explosions are louder than pharmacology.

The Formulas

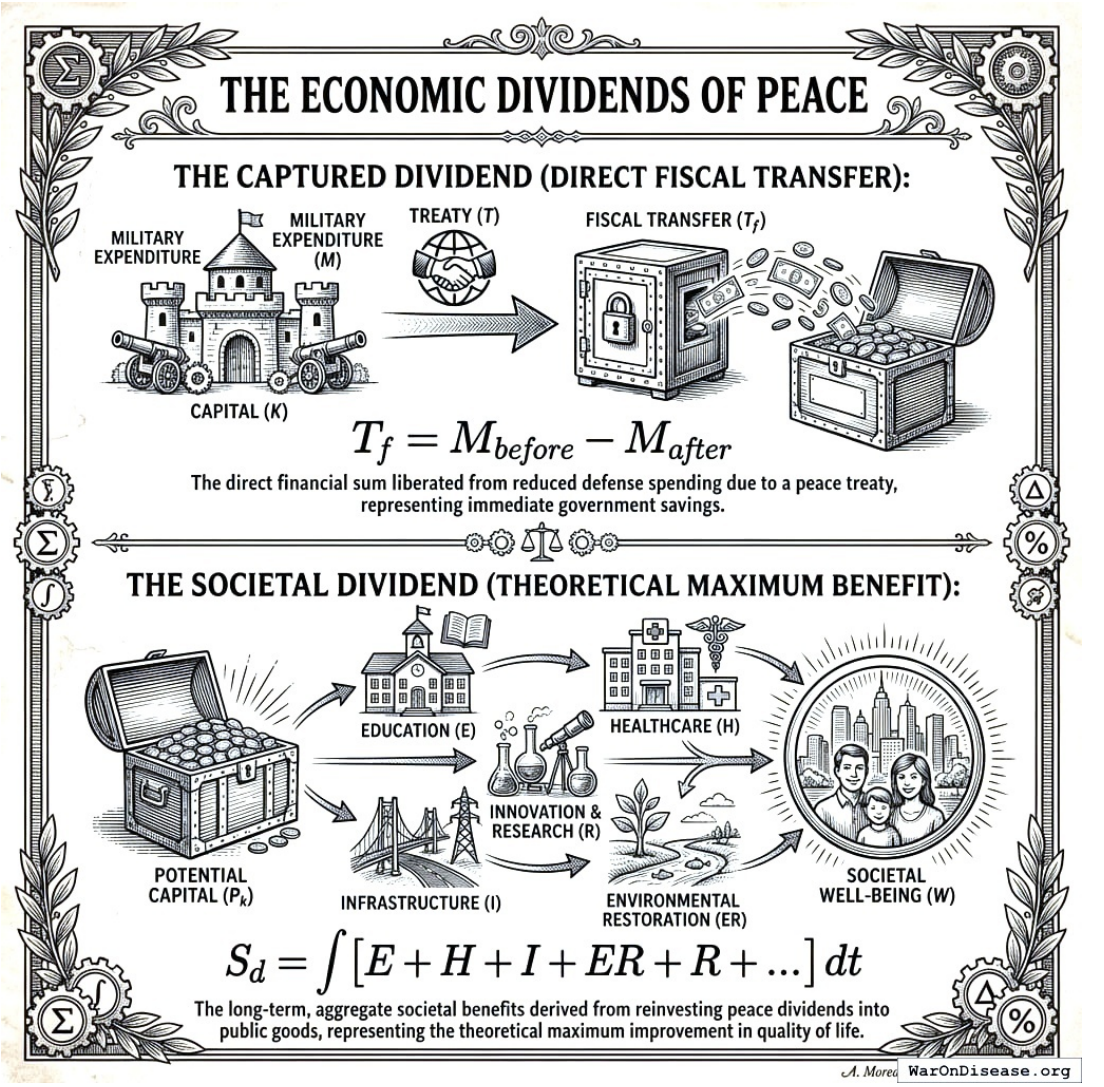


Figure 413: The money you definitely get versus the total benefit to society. One is guaranteed, the other is probably much bigger. Like ordering fries and getting the whole potato farm.

The Captured Dividend (the money you definitely get):

$$\begin{aligned} & Funding_{treaty} \\ &= Spending_{mil} \times Reduce_{treaty} \\ &= \$2.72T \times 1\% \\ &= \$27.2B \end{aligned}$$

The Societal Dividend (the money you save by being slightly less insane):

$$
\begin{aligned}
&Benefit_{peace,soc} \\
&= Cost_{war,total} \times Reduce_{treaty} \\
&= \$11.4T \times 1\% \\
&= \$114B
\end{aligned}
$$

where:

$$
\begin{aligned}
&Cost_{war,total} \\
&= Cost_{war,direct} + Cost_{war,indirect} \\
&= \$7.66T + \$3.7T \\
&= \$11.4T
\end{aligned}
$$

where:

$$
\begin{aligned}
&Cost_{war,direct} \\
&= Loss_{life,conflict} + Damage_{infra,total} \\
&+ Disruption_{trade} + Spending_{mil} \\
&= \$2.45T + \$1.88T + \$616B + \$2.72T \\
&= \$7.66T
\end{aligned}
$$

where:

$$
\begin{aligned}
&Loss_{life,conflict} \\
&= Cost_{combat,human} + Cost_{state,human} \\
&+ Cost_{terror,human} \\
&= \$2.34T + \$27B + \$83B \\
&= \$2.45T
\end{aligned}
$$

where:

$$
\begin{aligned}
&Cost_{combat,human} \\
&= Deaths_{combat} \times VSL \\
&= 234{,}000 \times \$10M \\
&= \$2.34T
\end{aligned}
$$

where:

$$
\begin{aligned}
&Cost_{state,human} \\
&= Deaths_{state} \times VSL \\
&= 2{,}700 \times \$10M \\
&= \$27B
\end{aligned}
$$

where:

$$
\begin{aligned}
&Cost_{terror,human} \\
&= Deaths_{terror} \times VSL \\
&= 8{,}300 \times \$10M \\
&= \$83B
\end{aligned}
$$

where:

$$\begin{aligned} &Damage_{infra,total} \\ &= Damage_{comms} + Damage_{edu} + Damage_{energy} \\ &+ Damage_{health} + Damage_{transport} + Damage_{water} \\ &= \$298B + \$234B + \$422B + \$166B + \$487B + \$268B \\ &= \$1.88T \end{aligned}$$

where:

$$\begin{aligned} &Disruption_{trade} \\ &= Disruption_{currency} + Disruption_{energy} \\ &+ Disruption_{shipping} + Disruption_{supply} \\ &= \$57.4B + \$125B + \$247B + \$187B \\ &= \$616B \end{aligned}$$

where:

$$\begin{aligned} &Cost_{war,indirect} \\ &= Damage_{env} + Loss_{growth,mil} + Loss_{capital,conflict} \\ &+ Cost_{psych} + Cost_{refugee} + Cost_{vet} \\ &= \$100B + \$2.72T + \$300B + \$232B + \$150B + \$200B \\ &= \$3.7T \end{aligned}$$

The Elasticity Question

The elasticity parameter (e = 1) asks the only interesting question here: if you cut military spending 1%, do war costs actually drop 1% too? Or do humans, being humans, find a way to keep killing each other at full price?

- **e = 0.25**: The "humans are barely trainable" scenario. Only a quarter of cuts reduce violence.
- **e = 0.5**: The "humans are somewhat rational" scenario. Historically optimistic.
- **e = 1.0**: Full match. The baseline assumption. Probably generous given your track record.
- **e > 1.0**: The "curing cancer together is better bonding than threatening each other with missiles" scenario. Suspiciously wholesome.

Here's the thing: it doesn't matter. Even with the most pessimistic assumption (e = 0.25), the Captured Dividend of $27.2B is guaranteed. That money moves regardless of whether you manage to be less violent. It's a bank transfer, not a prayer.

The Part Where the Math Gets Embarrassing

1. **Guaranteed money**: $27.2B annually. Direct budget transfer. If the treaty passes, this happens. No elasticity, no assumptions, no hoping humans behave. Just math.

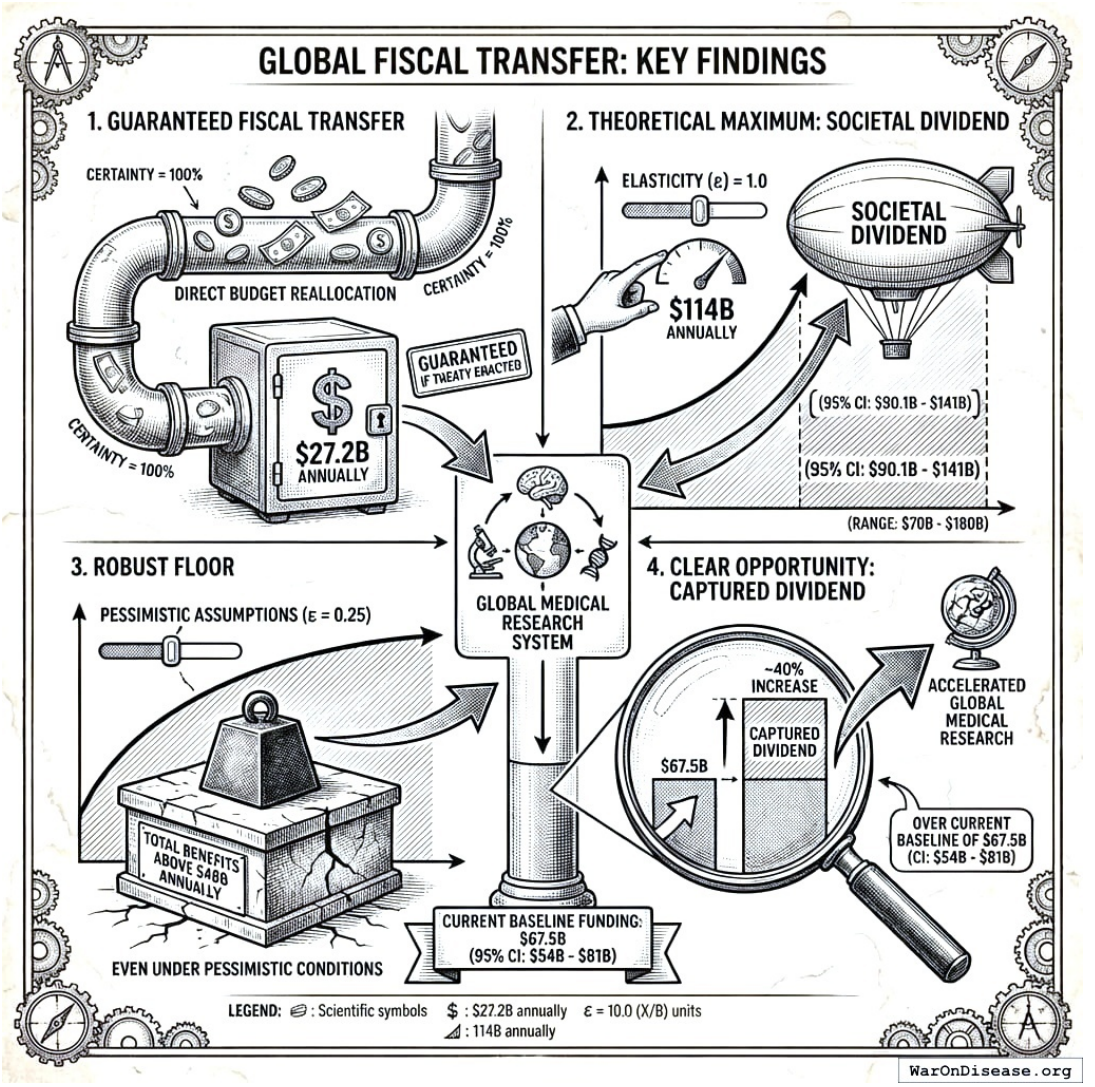


Figure 414: Best case: 114 billion in benefits. Worst case: 27.2 billion and you double medical research funding. Truly a devastating range of outcomes.

2. **Best case**: Total societal benefit reaches $114B annually (95% CI: $70B-$180B). The range is wide because, again, your species.
3. **Worst case**: Even pessimistic scenarios stay above $48B annually. Your "worst case" is still the largest increase in medical research funding in human history.
4. **Context**: The Captured Dividend alone would boost global medical research funding by ~40% over the current $67.5B baseline. You've been spending more on camouflage paint than on curing Alzheimer's.

What You're Assuming (and Where It Gets Shaky)

The GDP Multiplier

Spend a dollar on weapons, get 60 cents of economic value. Spend a dollar on healthcare, get $4.30 back. Your species chose weapons. Every time. For centuries. I've watched you do this for 4,297 years and it has never once gotten less baffling. The Lost Economic Growth component ($2.7T) already captures this difference. It's not double-counted, just consistently ignored.

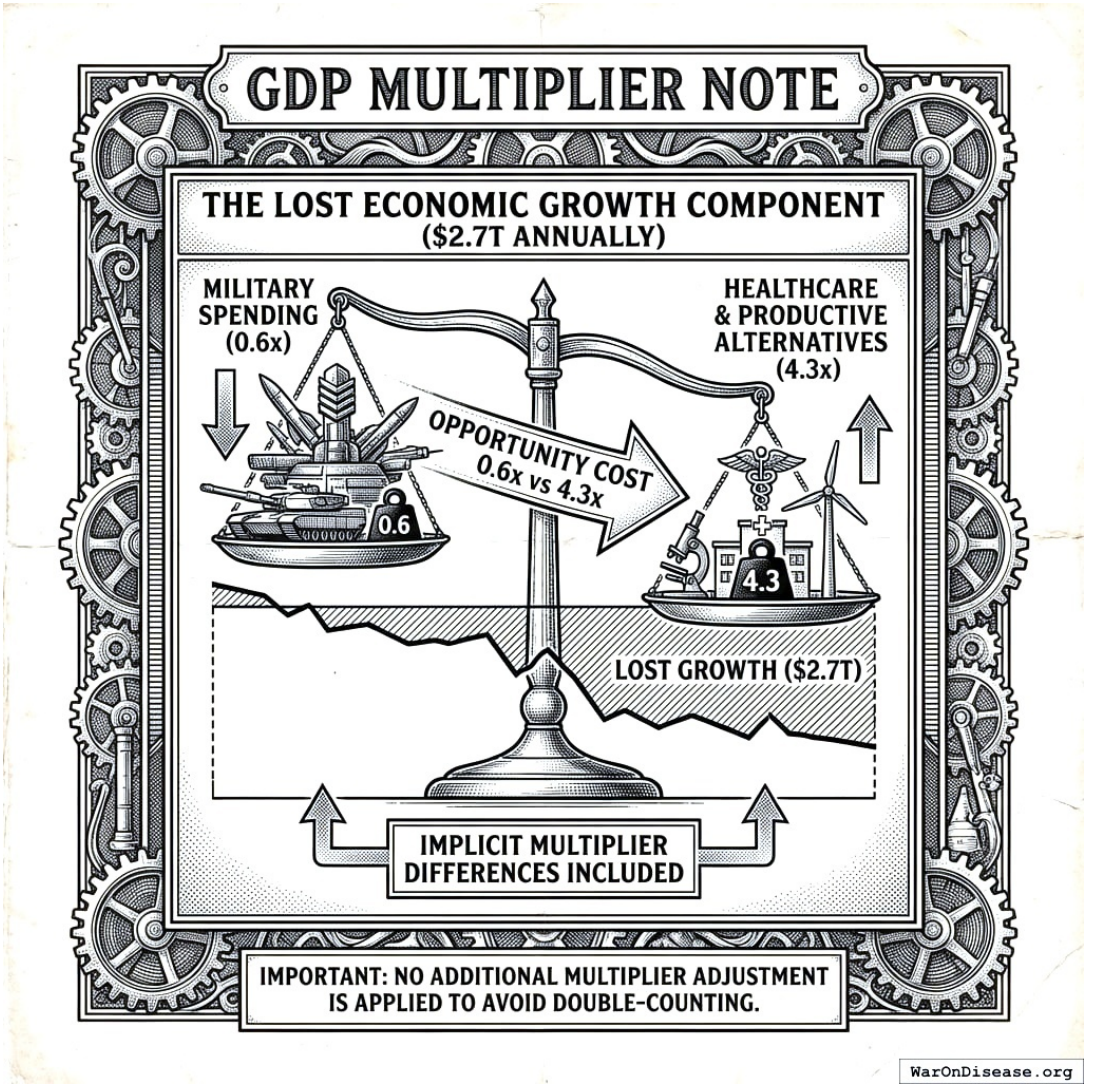


Figure 415: Spend a dollar on weapons, get 60 cents of economic value. Spend a dollar on healthcare, get 4.30 dollars back. You've chosen weapons.

The Elasticity Assumption

The Societal Dividend assumes 1% less spending means 1% less war cost. Reality is messier. Some costs lag by years. Some wars are fueled by boredom rather than budgets. And military spending may occasionally deter a war (though it starts far more than it prevents, which is a

bit like crediting your arsonist neighbor for occasionally calling the fire department).

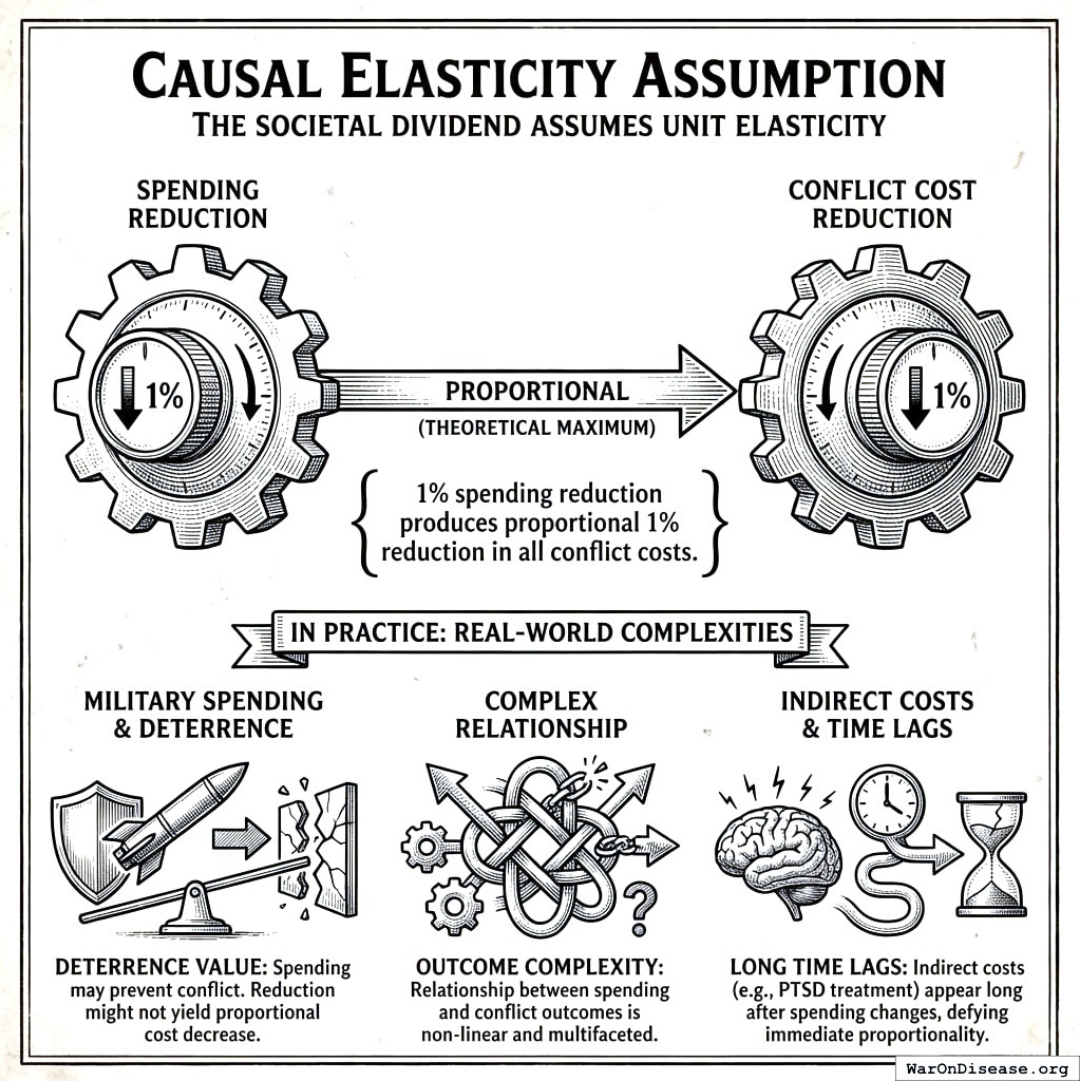


Figure 416: Theory says less war spending means proportionally less war. Reality is messier. Turns out humans aren't very good at reducing violence incrementally.

How Good Are the Sources?

I'm being honest about confidence levels, which is more than your defense contractors do.

Cost Category	Source	Confidence
Military Spending	SIPRI (peer-reviewed)	High
Infrastructure Damage	Brown/Watson Costs of War	Medium
Trade Disruption	World Bank	Medium
Lost Economic Growth	SIPRI estimates	Medium-Low
Psychological Impact	PubMed meta-analysis	Medium
Lost Human Capital	Author estimates	Low

The Safe Bet

The Societal Dividend is a ceiling, not a forecast. The confidence intervals are wide because your species is unpredictable (mostly in bad ways).

For policy decisions, use the **Captured Dividend ($27.2B)** as the reliable number. That's money directly moved to medical research. No assumptions about whether humans will fight less. No faith required. Just a bank transfer from the explosion account to the medicine account.

The Societal Dividend is the upside if you manage to behave yourselves. I'm not holding my breath. (I don't have lungs, but the expression stands.)

Health Dividend

Your dFDA costs $40M/year to run. It saves $58.6B/year in clinical trial waste. That's 84.8M:1 returns. **Conservative estimate**: 637:1 (R&D savings only)

I know. Those numbers look like someone fell asleep on the keyboard. They didn't. Here's the breakdown.

The Math: From $41K to $500

Traditional Phase III trials cost **$41K** per patient. That's a Tesla. Per person. To find out if a pill works. The pill costs 37 cents to make. The paperwork weighs more than the patient.

Then the Oxford RECOVERY trial proved you can do the same thing for **$500**. During a pandemic. While panicking. They tested COVID treatments on 40,000+ patients by:

- Using existing hospital staff (revolutionary concept: doctors treating patients)
- Collecting data electronically (instead of sacrificing forests to the paperwork gods)
- Focusing on what actually matters: does the patient live or die? (not "did they complete form 27-B in triplicate?")

Your dFDA takes this model global. **80-160x cost reduction.** Same data quality. Better real-world applicability. It turns out you don't need 17 committees to answer the question "did the medicine work?"

Where the $58.6B Comes From

Global clinical trial spending: **$60B per year** (and growing, because apparently inefficiency scales beautifully).

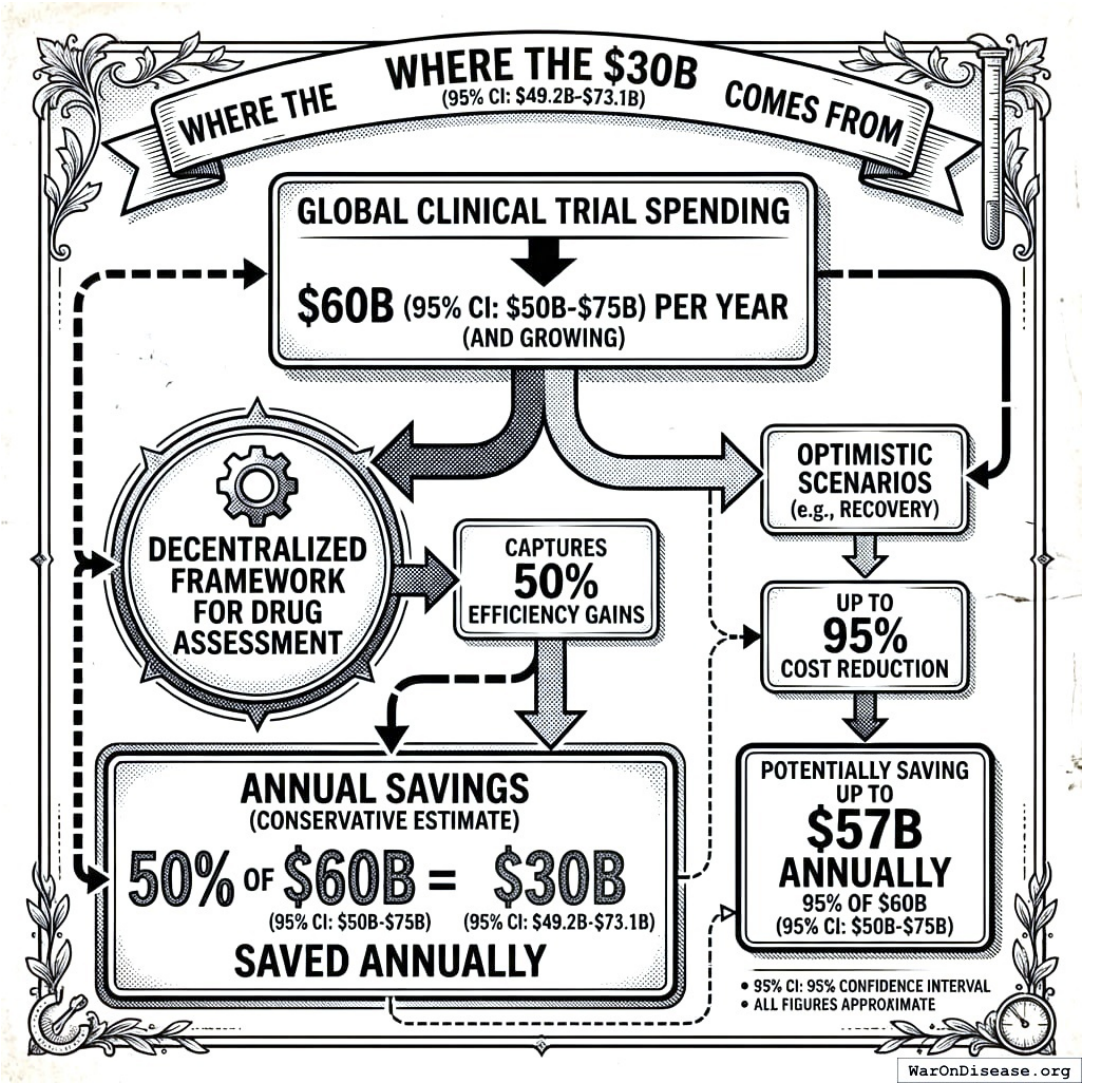


Figure 417: Current spending versus what you'd spend if you stopped doing trials like you're staying at the Ritz. Conservative estimate saves half, optimistic saves 95 percent. Either way, someone's been stealing.

Conservative estimate: dFDA captures 97.7% efficiency gains across the market.

- 97.7% of \$60B = **\$58.6B saved annually**

Optimistic: 95% cost reduction (what RECOVERY actually achieved, during a pandemic, with real patients who were actively dying), saving up to **\$57B/year**. I'm being generous by using the conservative number. You're welcome.

What $58.6B Buys You

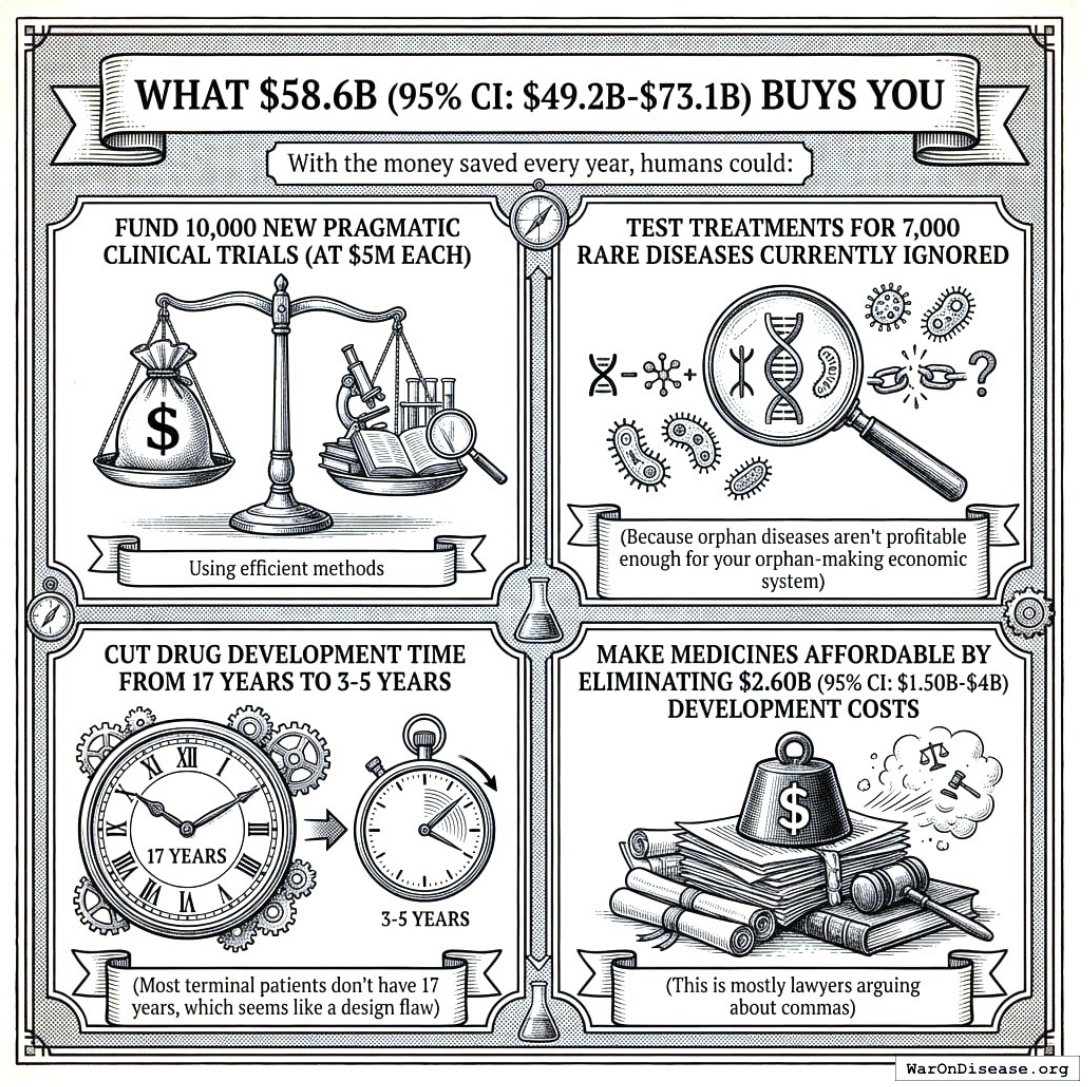


Figure 418: With 58.6 billion, you could run 10,000 trials and address 7,000 rare diseases. Currently you're spending that much to run far fewer trials for common diseases. Priorities.

Each new drug approval is worth an average of $1.62 billion[302] in market value. The FDA approves roughly 50 drugs/year per year. That is the speed at which a species with nuclear weapons and artificial intelligence has chosen to cure itself. Staggering. With 12.3x more trial capacity, you could test far more treatments at once.

With the money saved every year, you could:

- Fund **10,000 new pragmatic clinical trials** (at $5M each, which is still luxurious by RECOVERY standards)
- Test treatments for **7,000 rare diseases** currently ignored (because orphan diseases aren't profitable enough for your orphan-making economic system)
- Cut drug development time from 17 years to 3-5 years (most terminal patients don't have 17 years; this has not occurred to anyone in charge)

- Make medicines affordable by eliminating $2.60B development costs (roughly 90% of which is lawyers arguing about commas)

Daily Opportunity Cost

Every day without this system costs **$161M** in wasted trial spending alone. Delayed treatments cost 7.94 billion DALYs healthy life-years each year. All because of the regulatory lag period. The lag period is not a safety feature. It is a waiting room where people die. You just gave the waiting room a nicer name.

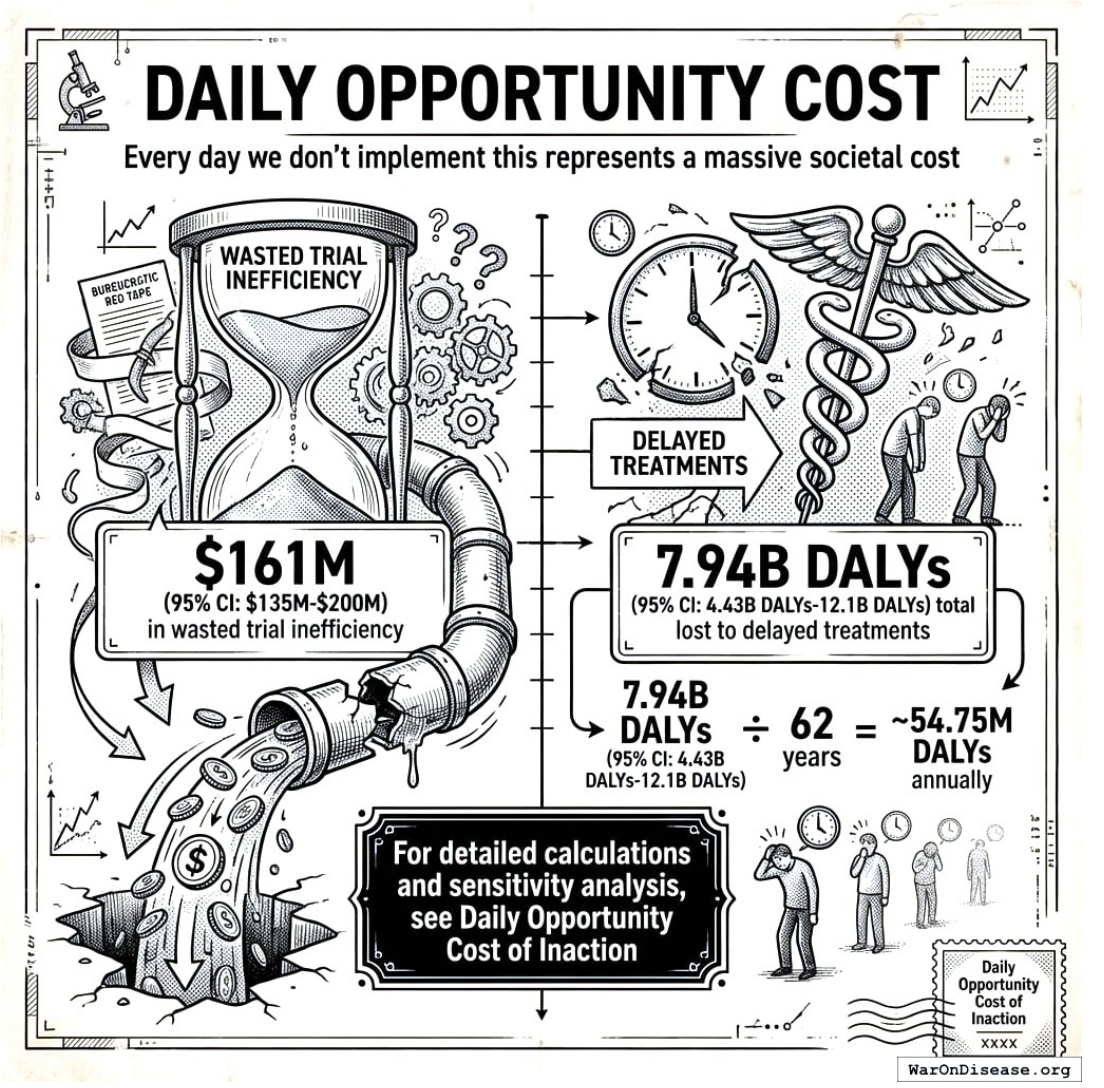


Figure 419: Every day you do nothing costs 161 million dollars and 54 million years of healthy human life annually. But at least you're being consistent.

See Daily Opportunity Cost of Inaction for calculations.

What It Costs to Run

Your dFDA costs **$40M/year** to operate. Servers, engineers, compliance, global integration. The boring stuff that saves billions. One-time build cost is similar. For context, this is roughly what your species spends annually on Halloween costumes for dogs. I need you to sit with that for a moment.

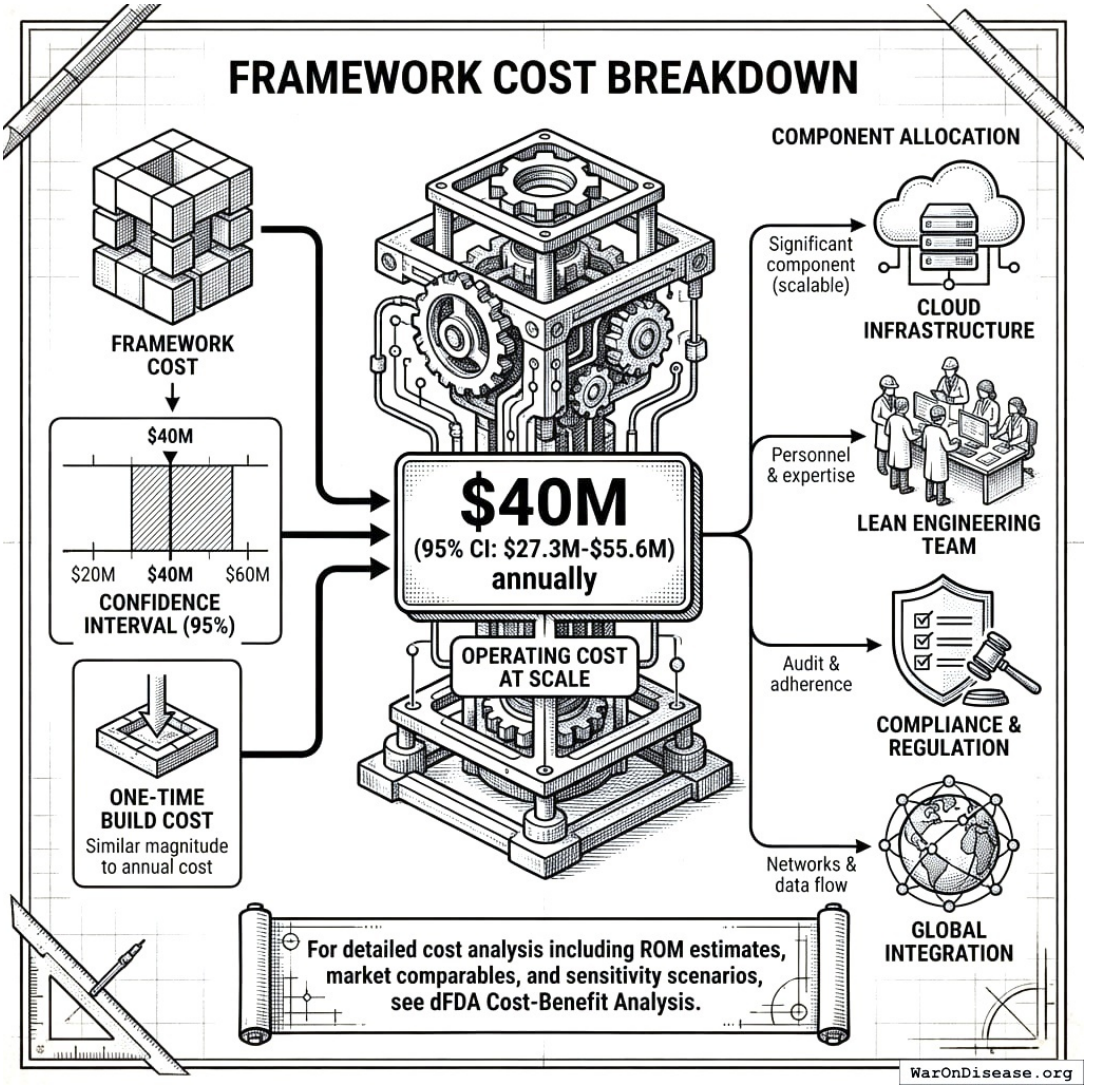


Figure 420: It'll cost 40 million to run this per year. Maybe 27 million, maybe 56 million. Either way, less than one fighter jet.

Less than one fighter jet. Less than one yacht. Less than what FIFA spends on "hospitality." See dFDA Cost-Benefit Analysis for detailed costs.

ROI Scenarios

Scenario	ROI	What It Counts
Conservative	637:1	R&D savings only (NPV over 10 years)
Recommended	84.8M:1	R&D savings + post-safety efficacy lag elimination
Worst case	66:1	Higher costs, lower adoption

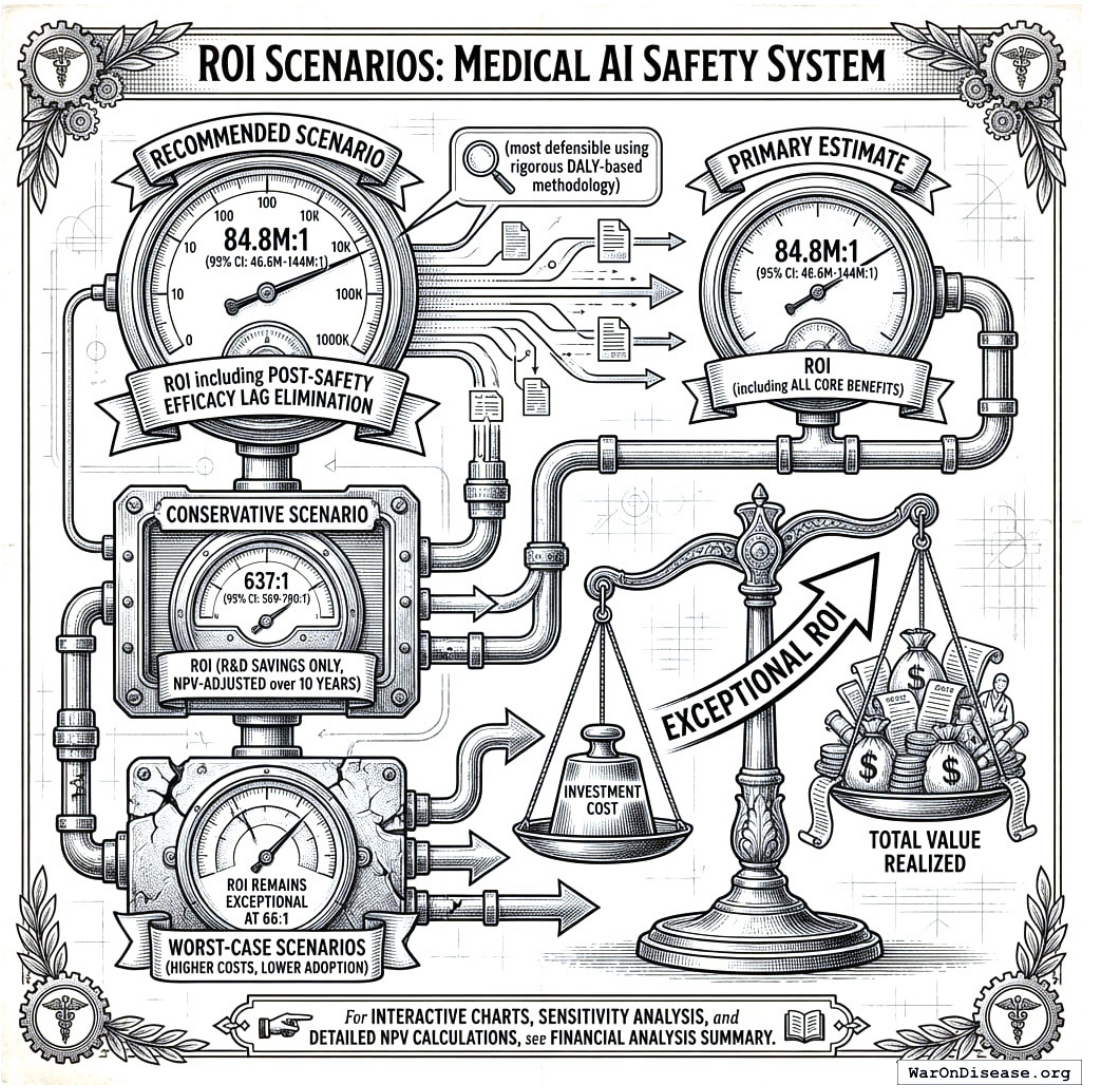


Figure 421: Conservative return on investment versus total return including not letting people die. One number is big, the other is astronomically big. Both beat war.

Even the worst case (everything goes wrong, adoption is terrible, the engineers quit and the servers catch fire) returns 66:1. That beats every military investment in human history. Your worst medical outcome is still better than your best military one. Let that sink in while you're approving next year's defense budget. See Financial Analysis Summary for interactive charts and NPV calculations.

The Bottom Line

$40M in. $58.6B out. 80x cost reduction per patient. 12.3x more trial capacity.

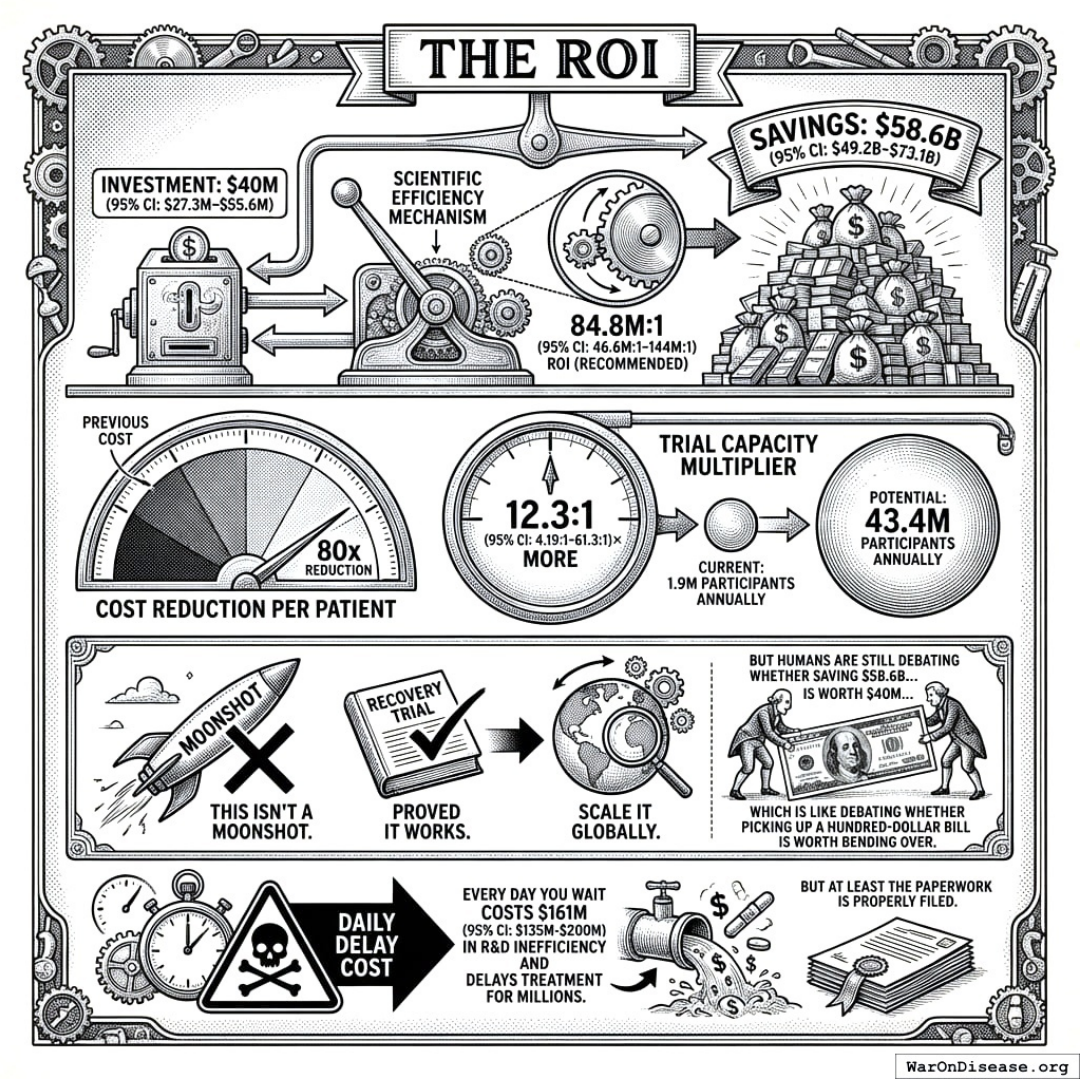


Figure 422: Spend 40 million, save 58.6 billion. That's a 146,400 percent return. In any other context, you'd call this fraud. Here, it's just efficiency.

The RECOVERY trial already proved this works. Not in theory. Not in a white paper. In a hospital, during a plague, on actual dying humans. It happened. Scale it globally and stop pretending this is controversial. Every day you wait costs $161M in R&D waste and a quantity of human suffering that your economists haven't figured out how to put on a spreadsheet yet (though not for lack of trying).

Financial Plan

Most financial plans are complicated because the writers are confused or lying. This one is complicated because you're trying to convince 195 countries to voluntarily stop buying so many weapons. While paying your investors forever. That actually IS complicated.

But the architecture is embarrassingly simple:

1. Raise $1B.
2. Spend it to pass the treaty.
3. Manage $27.2B+ annually forever.

Three pillars. That's it.

Pillar 1: Fundraising (Raise $1B)

Instrument: VICTORY Incentive Alignment Bonds

- **Returns:** 272% annually. Yes, that number looks like a typo. It's just arithmetic: $2.72B / $1B.
- **Structure:** Senior debt. The fund pays bondholders before anyone else. Like a VIP line, but for not dying.
- **Payout:** 10% of all treaty inflows. That's $2.72B/year.
- **Collateral:** $27.2B+ annual treaty revenue stream.
- **The pitch:** "Invest $1B. Get $2.72B/year. Forever."

Every Ponzi scheme in history has promised returns like this. The difference is that this one has collateral: the entire military budget of the planet. Which, unlike Bernie Madoff's spreadsheet, actually exists.

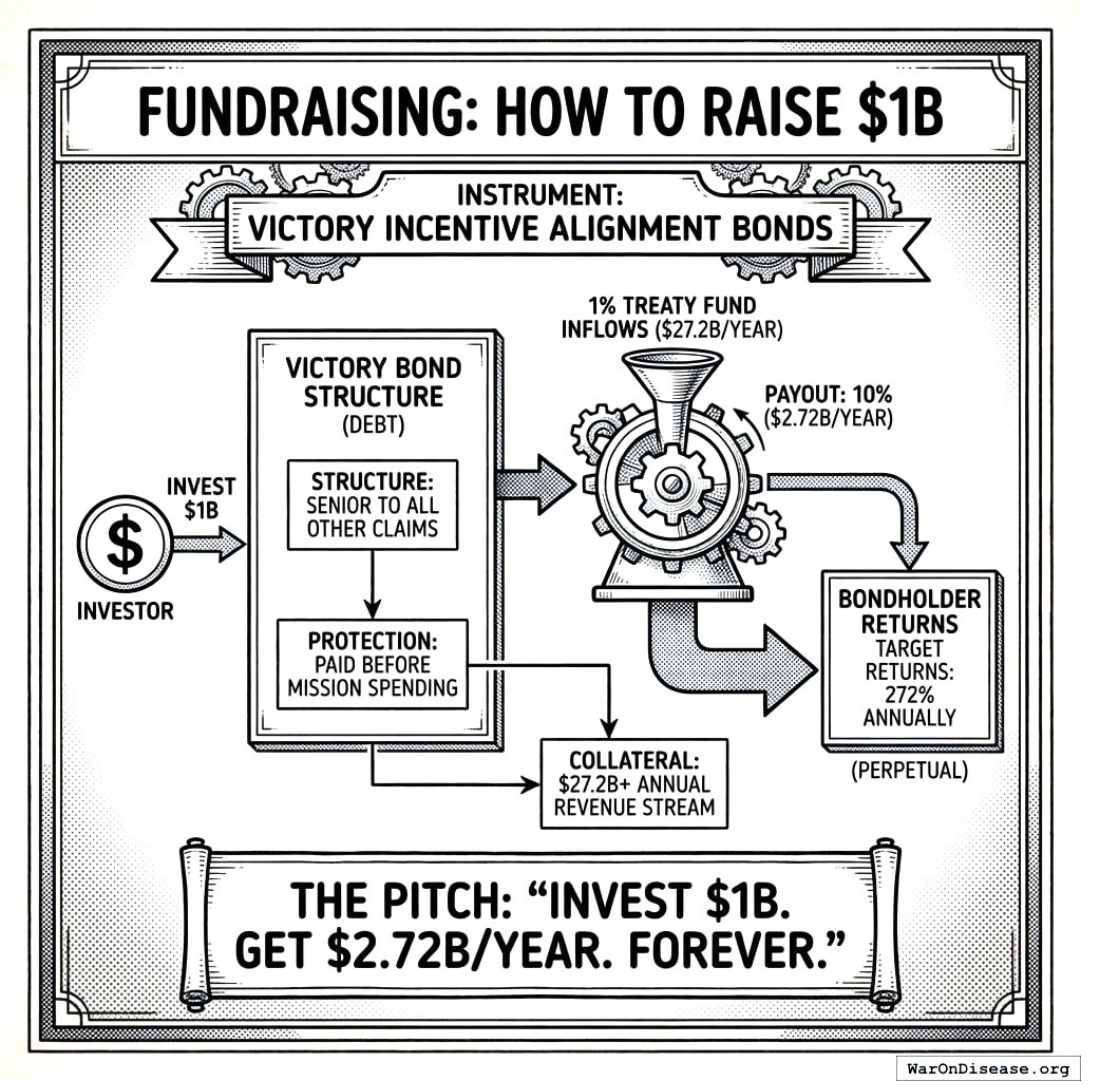


Figure 423: Put in one billion. Get 2.72 billion per year. Forever. The math is so good it sounds like a scam, but it's just what happens when you stop funding death.

Timeline: 12-24 months to raise $1B.

Why bonds, not donations? Donations require generosity. Returns require greed. Greed is faster.

Why $1B? Pharma lobbying (~$300M/year) plus military-industrial complex (~$150M/year) equals $450M/year spent specifically to keep things exactly as terrible as they are. That's the price of the status quo, renewed annually, like a subscription to suffering. Raise $1B ONCE to pass a treaty that generates $27.2B/year FOREVER. You're not outspending them. You're out-mathing them.

Nobody gets paid unless it works. Lawyers get success-based compensation. Team compensation is mostly equity. This is how you know it's not a government program.

Phase	Amount	Milestone	Difficulty Level
Seed ($250-400M)	Platform, policy frameworks, pilots	50M verified participants	“Convince a few billionaires”
Series A ($500M-1B)	Scale to G7 nations	3.5% global participation (280M people)	“Convince several countries”
Growth ($500M-1.1B)	Ratification push in major powers	First $1B disbursement	“Convince the countries with nukes”

Pillar 2: Campaign Budget (Spend $1B)

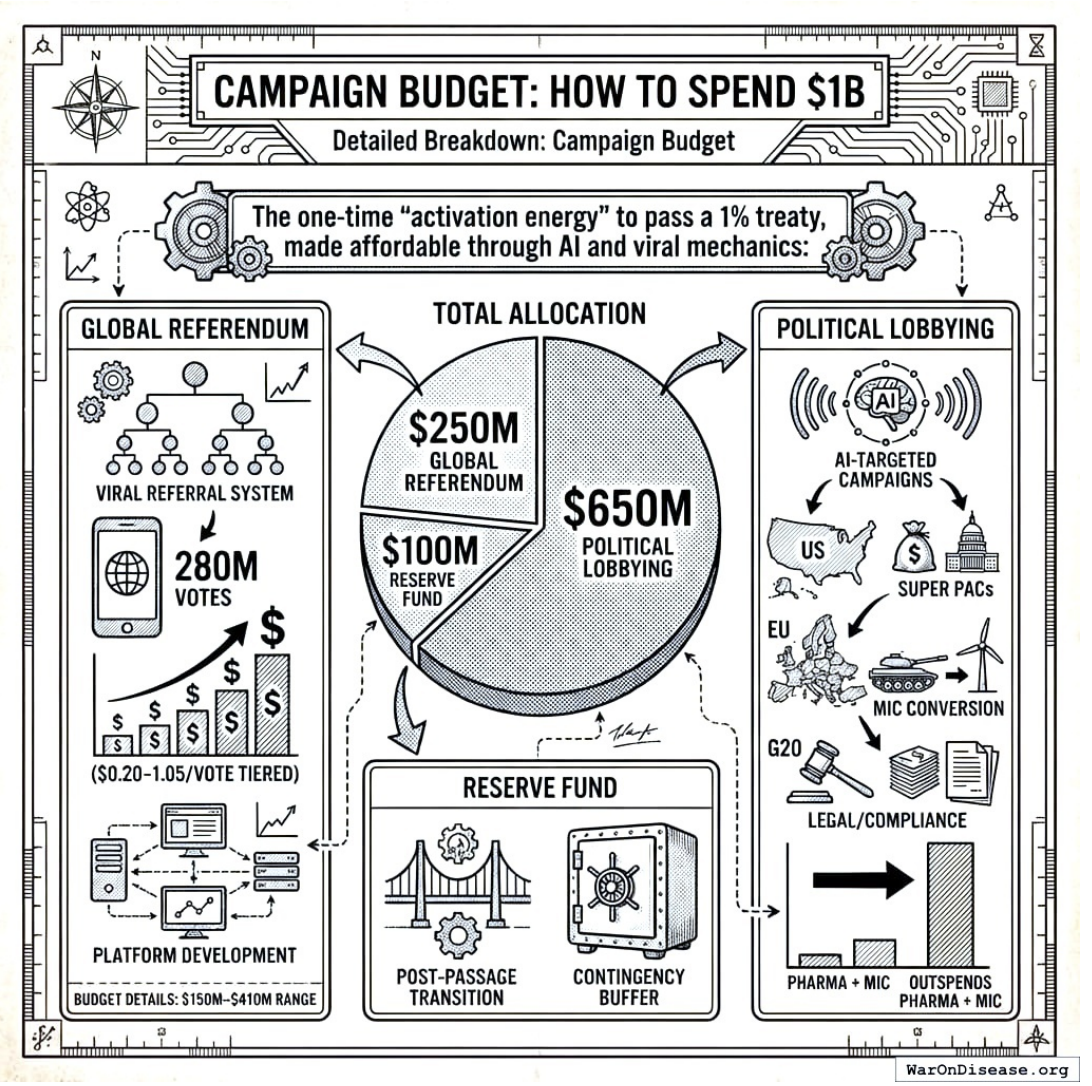


Figure 424: How to spend one billion convincing humans to stop killing each other: some for lobbying politicians, some for asking citizens directly, some for emergencies. Democracy is expensive.

Detailed Breakdown: Campaign Budget

The one-time "activation energy" to convince 8 billion people to marginally reduce their commitment to mutual annihilation. Think of it as a Kickstarter for not going extinct:

Category	Amount	Purpose
Global Referendum	$250M	Viral referral system ($0.20-1.05/vote tiered), 280M votes, platform development. Budget details: $150M-$410M range
Political Lobbying	$650M	AI-targeted campaigns (US/EU/G20), Super PACs, MIC conversion. Outspends pharma + MIC
Reserve Fund	$100M	Post-passage transition, contingency buffer

Key Innovations

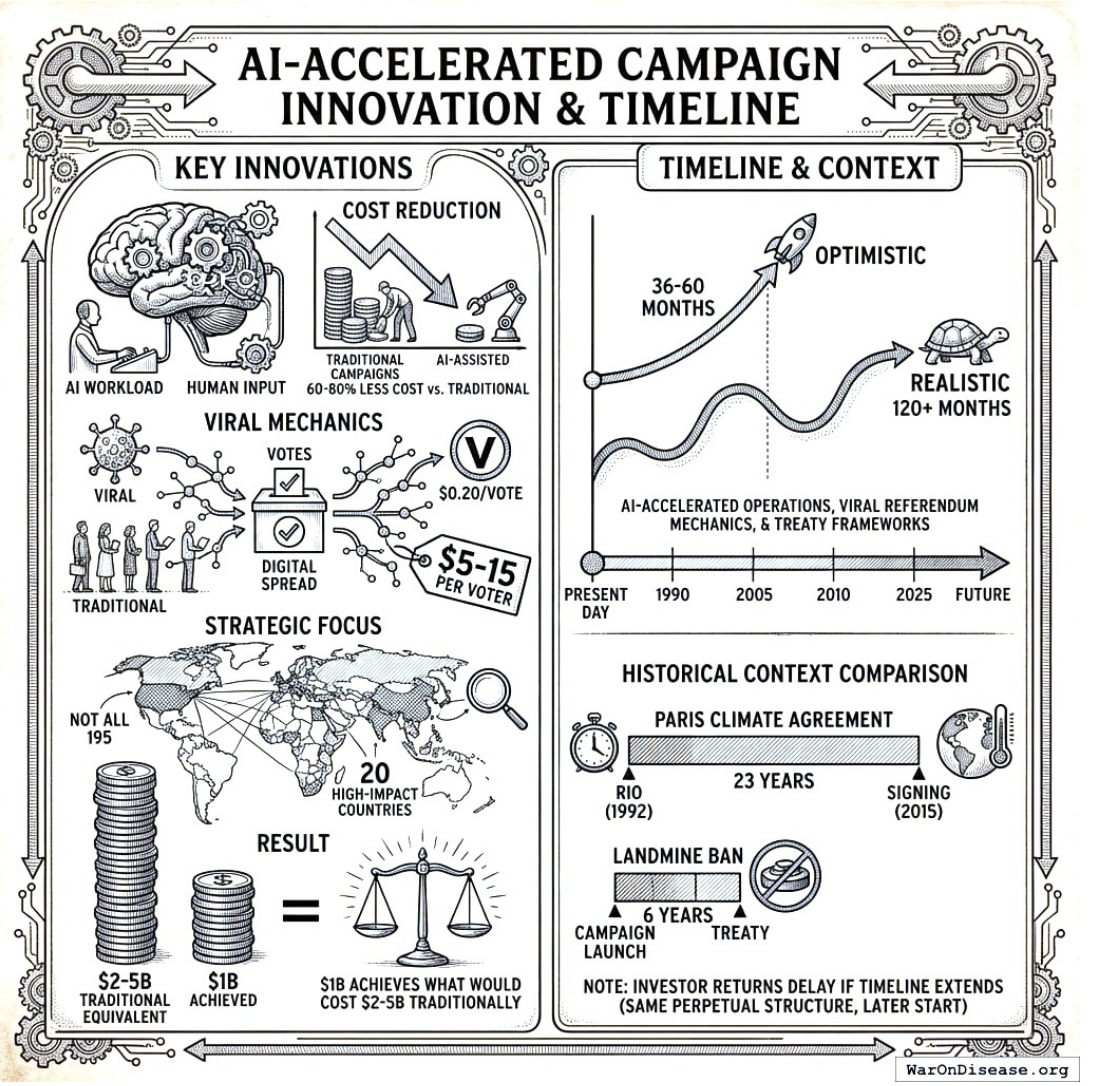


Figure 425: Traditional diplomacy: slow, expensive, mostly cocktail parties. AI-accelerated diplomacy: fast, cheap, mostly algorithms. Both equally likely to prevent nuclear war.

- **Viral mechanics**: $0.20/vote vs $5-15 traditional cost per voter. Democracy at wholesale prices.
- **Strategic focus**: 20 high-impact countries, not all 195. You don't need Liechtenstein's permission.

Timeline: 36-60 months (optimistic) to 120+ months (realistic, given that you're humans). The landmine ban took 6 years, and that was just agreeing not to hide explosives in the ground, which you'd think wouldn't require a treaty at all. You're betting on viral referendum mechanics and existing disarmament frameworks. Also on the assumption that your species wants to survive, which, based on my 4,297 years of observation, remains an open question.

Pillar 3: Treasury (Manage $27.2B+/Year)

Once the treaty passes, $27.2B flows annually from "how to kill people" budgets into "how to stop people dying" budgets. Same money, opposite direction.

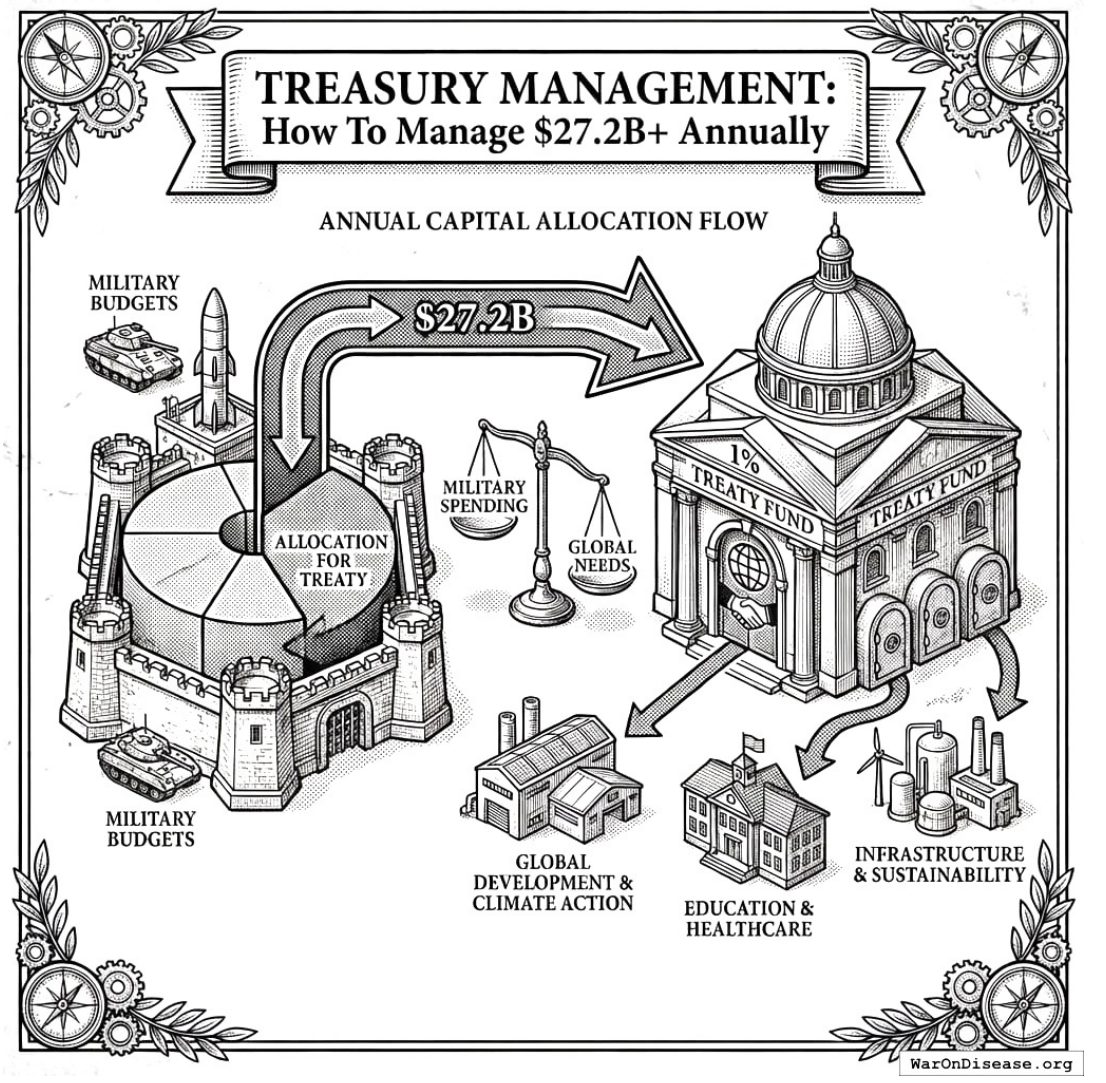


Figure 426: Every year, 27.2 billion moves from the war budget to the cure budget. It's a very slow transfer, like a glacier made of money and good intentions.

100+ nations contribute 1% of military budgets. Not because they've had a moral awakening. Because the math makes non-compliance look like setting money on fire, which, to be fair, is also what military budgets do, just with more steps.

The Incentive Alignment Bond mechanism makes compliance self-enforcing: politicians in non-compliant countries watch their Public Good Scores drop, voters abandon them for someone who can do basic arithmetic, and compliance becomes the career-optimal choice. You don't need politicians to be good. You just need them to be selfish in the right direction.

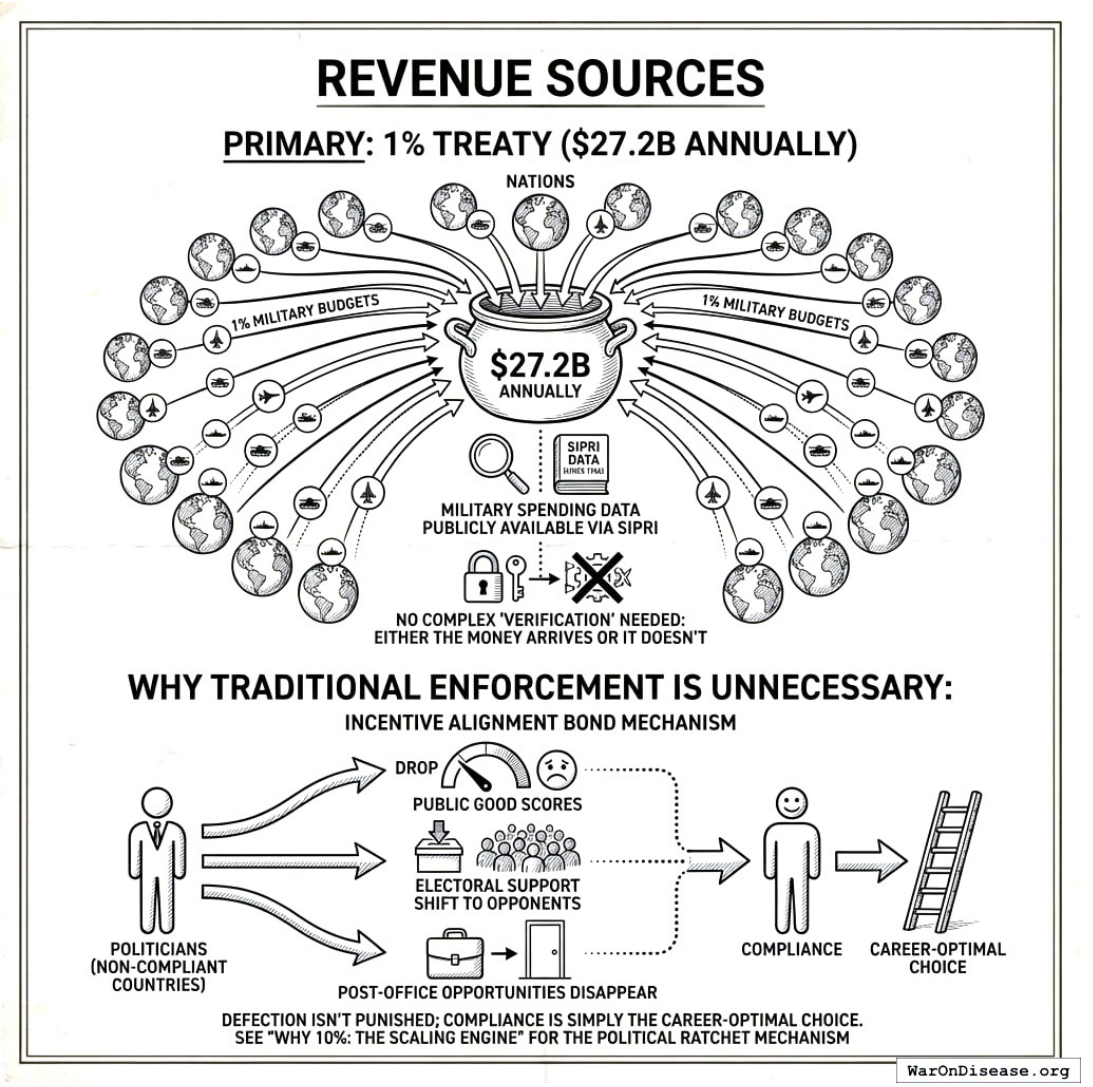


Figure 427: Countries that contribute get good scores. Politicians with good scores get elected. Elected politicians contribute. The system enforces itself, like peer pressure but with nuclear weapons.

How the Money Gets Spent: 80/10/10

The allocation is automatic. No committees. No debates. No one arguing for six months about font choices on the grant application. Just math, executing silently, like a competent employee (something most of your governments have never experienced).

Allocation	Percentage	Annual Amount	Purpose
Clinical Trials & Platform	80%	$21.8B	Patient subsidies, research, platform

Allocation	Percentage	Annual Amount	Purpose
VICTORY Bond Returns	10%	$2.72B	Perpetual investor payments
IAB Political Incentives	10%	$2.72B	Rewards for supporting legislators

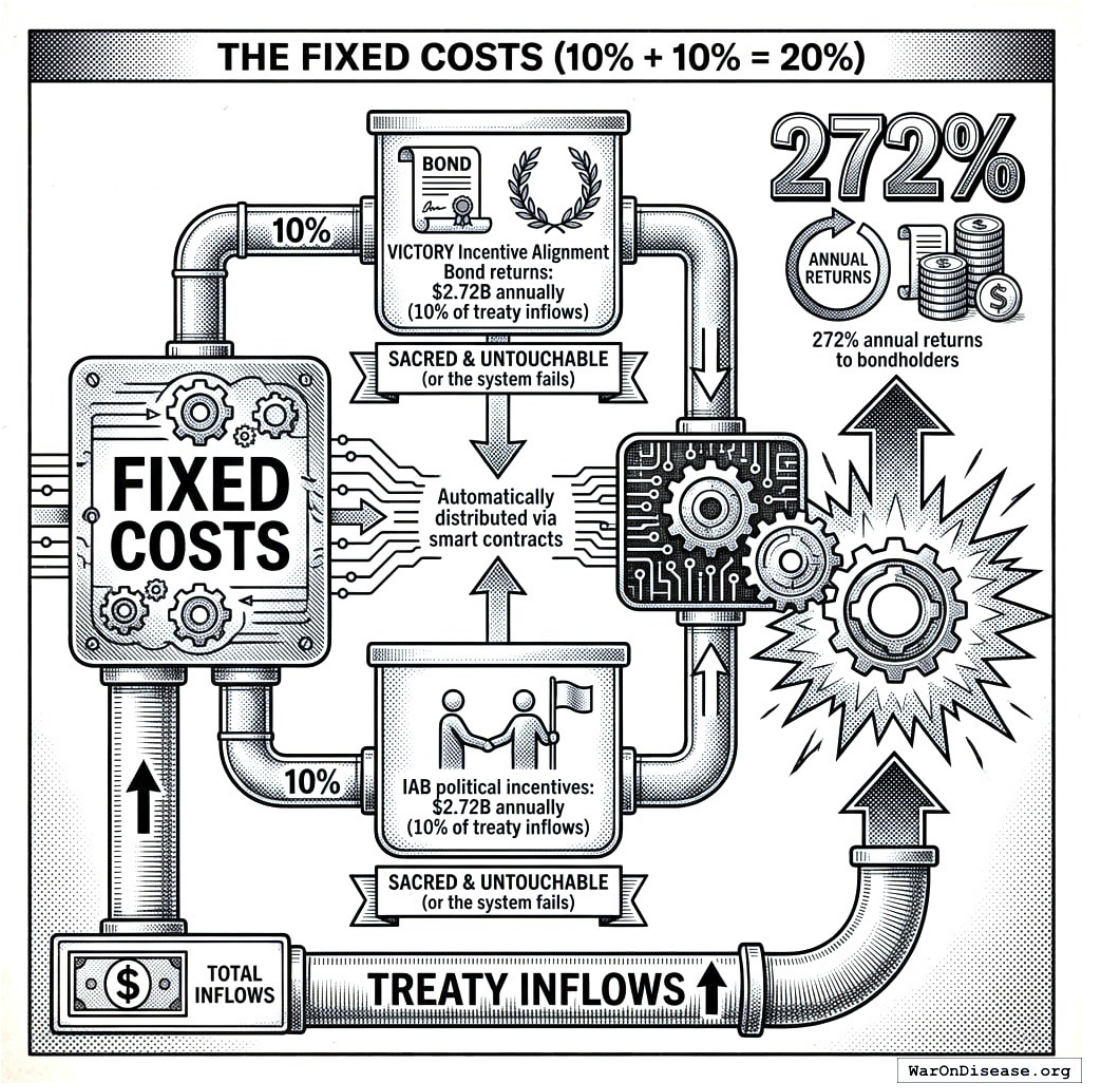


Figure 428: Twenty percent goes to paying investors and politicians automatically via smart contracts. Finally, a use for blockchain that isn't fraud or monkey pictures.

The 20% for bonds and political incentives is sacred and untouchable. Smart contracts distribute both automatically. No human hands involved, which, given your track record with money, is a feature. Touch them and the system dies.

The remaining 80% ($21.8B/year) funds clinical trials and research infrastructure. Wishocracy

governs the allocation.

Dynamic Patient Subsidies

The revolutionary part: instead of paying researchers to write about diseases, you pay patients to participate in curing them. I know. Paying the people who are actually sick. What a concept.

```
Base Subsidy = Medical Research Allocation / Active Trial Participants

Example with 1M participants:

$21.8B / 1M = $21,760 per patient per year

(Note: 80% of $27.2B goes to medical research after bond and IAB payouts)

As more patients join:

5M participants = $4,352 per patient
10M participants = $2,176 per patient
```

Patients organize to grow the treasury (because for once, participating in their own survival is financially rewarded). Researchers compete to attract patients (instead of competing to write the most persuasive grant application, which is a different skill entirely from doing science, in the same way that writing a good restaurant review is a different skill from cooking). Insurance companies save money (trials are cheaper than paying for decades of chronic suffering). Compare that to NIH grants: 6 months of proposal writing, committees deciding whether the proposal writing was good enough, universities skimming 40% overhead, and then maybe, possibly, if the stars align and no one retires mid-review, some science.

Related Documents

- **VICTORY Incentive Alignment Bonds** - Investment thesis and bond structure
- **Campaign Budget** - Detailed line-item breakdown
- **Investor Risk Analysis** - Risk factors and mitigations
- **Defense Contractor Alignment** - Defense contractor conversion strategy
- **Cost-Benefit Analysis for a Decentralized Drug Assessment Framework** - Complete ROI analysis

The math: Invest $1B. Get $2.72B/year. Forever. Your species spent $12 billion on a particle accelerator to find a boson. This costs less and finds a cure for dying.

References

Source Quotes and References

1. NIH Common Fund. NIH pragmatic trials: Minimal funding despite 30x cost advantage. *NIH Common Fund: HCS Research Collaboratory* https://commonfund.nih.gov/hcscollaboratory (2025).
2. NIH. Antidepressant clinical trial exclusion rates. *Zimmerman et al.* https://pubmed.ncbi.nlm.nih.gov/26276679/ (2015).
3. CNBC. Warren buffett's career average investment return. *CNBC* https://www.cnbc.com/2025/05/05/warren-buffetts-return-tally-after-60-years-5502284percent.html (2025).
4. World Health Organization. WHO global health estimates 2024. *World Health Organization* https://www.who.int/data/gho/data/themes/mortality-and-global-health-estimates (2024).
5. GiveWell. GiveWell cost per life saved for top charities (2024). *GiveWell: Top Charities* https://www.givewell.org/charities/top-charities.
6. AARP. Unpaid caregiver hours and economic value. *AARP 2023* https://www.aarp.org/caregiving/financial-legal/info-2023/unpaid-caregivers-provide-billions-in-care.html (2023).
7. CDC MMWR. Childhood vaccination economic benefits. *CDC MMWR* https://www.cdc.gov/mmwr/volumes/73/wr/mm7331a2.htm (1994).
8. CDC. Childhood vaccination (US) ROI. *CDC* https://www.cdc.gov/mmwr/preview/mmwrhtml/mm6316a4.htm (2017).
9. U.S. Bureau of Labor Statistics. CPI inflation calculator. (2024).
10. ClinicalTrials.gov API v2 direct analysis. ClinicalTrials.gov cumulative enrollment data (2025). *Direct analysis via ClinicalTrials.gov API v2* https://clinicaltrials.gov/data-api/api.
11. ACS CAN. Clinical trial patient participation rate. *ACS CAN: Barriers to Clinical Trial Enrollment* https://www.fightcancer.org/policy-resources/barriers-patient-enrollment-therapeutic-clinical-trials-cancer.
12. ScienceDaily. Global prevalence of chronic disease. *ScienceDaily: GBD 2015 Study* https://www.sciencedaily.com/releases/2015/06/150608081753.htm (2015).
13. C&EN. Annual number of new drugs approved globally: 50. *C&EN* https://cen.acs.org/pharmaceuticals/50-new-drugs-received-FDA/103/i2 (2025).
14. Williams, R. J., Tse, T., DiPiazza, K. & Zarin, D. A. Terminated trials in the ClinicalTrials.gov results database: Evaluation of availability of primary outcome data and reasons for termination. *PLOS One* **10**, e0127242 (2015).
15. IQVIA Report. Global trial capacity. *IQVIA Report: Clinical Trial Subjects Number Drops Due to Decline in COVID-19 Enrollment* https://gmdpacademy.org/news/iqvia-report-clinical-trial-subjects-number-drops-due-to-decline-in-covid-19-enrollment/.

16. Research and Markets. Global clinical trials market 2024. *Research and Markets* https://www.globenewswire.com/news-release/2024/04/19/2866012/0/en/Global-Clinical-Trials-Market-Research-Report-2024-An-83-16-Billion-Market-by-2030-AI-Machine-Learning-and-Blockchain-will-Transform-the-Clinical-Trials-Landscape.html (2024).
17. OpenSecrets. Lobbying spend (defense). *OpenSecrets* https://www.opensecrets.org/industries/lobbying?ind=D (2024).
18. GiveWell. Cost per DALY for deworming programs. https://www.givewell.org/international/technical/programs/deworming/cost-effectiveness.
19. U.S. Department of Transportation. Departmental guidance on valuation of a statistical life in economic analysis. (2024).
20. Think by Numbers. Pre-1962 drug development costs and timeline (think by numbers). *Think by Numbers: How Many Lives Does FDA Save?* https://thinkbynumbers.org/health/how-many-net-lives-does-the-fda-save/ (1962).
21. Biotechnology Innovation Organization (BIO). BIO clinical development success rates 2011-2020. *Biotechnology Innovation Organization (BIO)* https://go.bio.org/rs/490-EHZ-999/images/ClinicalDevelopmentSuccessRates2011_2020.pdf (2021).
22. Nature Medicine. Drug repurposing rate (30%). *Nature Medicine* https://www.nature.com/articles/s41591-024-03233-x (2024).
23. EPI. Education investment economic multiplier (2.1). *EPI: Public Investments Outside Core Infrastructure* https://www.epi.org/publication/bp348-public-investments-outside-core-infrastructure/.
24. PMC. Healthcare investment economic multiplier (1.8). *PMC: California Universal Health Care* https://pmc.ncbi.nlm.nih.gov/articles/PMC5954824/ (2022).
25. World Bank. Infrastructure investment economic multiplier (1.6). *World Bank: Infrastructure Investment as Stimulus* https://blogs.worldbank.org/en/ppps/effectiveness-infrastructure-investment-fiscal-stimulus-what-weve-learned (2022).
26. Mercatus. Military spending economic multiplier (0.6). *Mercatus: Defense Spending and Economy* https://www.mercatus.org/research/research-papers/defense-spending-and-economy.
27. FDA. FDA-approved prescription drug products (20,000+). *FDA* https://www.fda.gov/media/143704/download.
28. FDA. FDA GRAS list count (570-700). *FDA* https://www.fda.gov/food/generally-recognized-safe-gras/gras-notice-inventory.
29. ACLED. Active combat deaths annually. *ACLED: Global Conflict Surged 2024* https://acleddata.com/2024/12/12/data-shows-global-conflict-surged-in-2024-the-washington-post/ (2024).
30. UCDP. State violence deaths annually. *UCDP: Uppsala Conflict Data Program* https://ucdp.uu.se/.
31. Our World in Data. Terror attack deaths (8,300 annually). *Our World in Data: Terrorism* https://ourworldindata.org/terrorism (2024).
32. Institute for Health Metrics and Evaluation (IHME). IHME global burden of disease 2021 (2.88B DALYs, 1.13B YLD). *Institute for Health Metrics and Evaluation (IHME)* https://vizhub.healthdata.org/gbd-results/ (2024).
33. Costs of War Project, Brown University Watson Institute. Environmental cost of war ($100B annually). *Brown Watson Costs of War: Environmental Cost* https://watson.brown.edu/costsofwar/costs/social/environment.
34. ScienceDaily. Medical research lives saved annually (4.2 million). *ScienceDaily: Physical Activity Prevents 4M Deaths* https://www.sciencedaily.com/releases/2020/06/200617194510.htm (2020).

35. SIPRI. 36:1 disparity ratio of spending on weapons over cures. *SIPRI: Military Spending* https://www.sipri.org/commentary/blog/2016/opportunity-cost-world-military-spending (2016).
36. Think by Numbers. Lost human capital due to war ($270B annually). *Think by Numbers* https://thinkbynumbers.org/military/war/the-economic-case-for-peace-a-comprehensive-financial-analysis/ (2021).
37. PubMed. Psychological impact of war cost ($100B annually). *PubMed: Economic Burden of PTSD* https://pubmed.ncbi.nlm.nih.gov/35485933/.
38. CGDev. UNHCR average refugee support cost. *CGDev* https://www.cgdev.org/blog/costs-hosting-refugees-oecd-countries-and-why-uk-outlier (2024).
39. World Bank. World bank trade disruption cost from conflict. *World Bank* https://www.worldbank.org/en/topic/trade/publication/trading-away-from-conflict.
40. VA. Veteran healthcare cost projections. *VA* https://department.va.gov/wp-content/uploads/2025/06/2026-Budget-in-Brief.pdf (2026).
41. IQVIA Institute for Human Data Science. The global use of medicines 2024: Outlook to 2028. *IQVIA Institute Report* https://www.iqvia.com/insights/the-iqvia-institute/reports-and-publications/reports/the-global-use-of-medicines-2024-outlook-to-2028 (2024).
42. Sinn, M. P. Private industry clinical trial spending estimate. (2025).
43. Calculated from IHME Global Burden of Disease (2.55B DALYs) and global GDP per capita valuation. $109 trillion annual global disease burden.
44. Sinn, M. P. *The Political Dysfunction Tax*. https://political-dysfunction-tax.warondisease.org (2025) doi:10.5281/zenodo.18603840.
45. Applied Clinical Trials. Global government spending on interventional clinical trials: $3-6 billion/year. *Applied Clinical Trials* https://www.appliedclinicaltrialsonline.com/view/sizing-clinical-research-market.
46. UBS. Credit suisse global wealth report 2023. *Credit Suisse/UBS* https://www.ubs.com/global/en/family-office-uhnw/reports/global-wealth-report-2023.html (2023).
47. Component country budgets. Global government medical research spending ($67.5B, 2023–2024). *See component country budgets: NIH Budget* https://www.nih.gov/about-nih/what-we-do/budget.
48. SIPRI. Global military spending ($2.72T, 2024). *SIPRI* https://www.sipri.org/publications/2025/sipri-fact-sheets/trends-world-military-expenditure-2024 (2025).
49. Estimated from major foundation budgets and activities. Nonprofit clinical trial funding estimate.
50. Industry reports: IQVIA. Global pharmaceutical r&d spending.
51. UN. Global population reaches 8 billion. *UN: World Population 8 Billion Nov 15 2022* https://www.un.org/en/desa/world-population-reach-8-billion-15-november-2022 (2022).
52. Harvard Kennedy School. 3.5% participation tipping point. *Harvard Kennedy School* https://www.hks.harvard.edu/centers/carr/publications/35-rule-how-small-minority-can-change-world (2020).
53. NHGRI. Human genome project and CRISPR discovery. *NHGRI* https://www.genome.gov/11006929/2003-release-international-consortium-completes-hgp (2003).
54. PMC. Only 12% of human interactome targeted. *PMC* https://pmc.ncbi.nlm.nih.gov/articles/PMC10749231/ (2023).
55. WHO. ICD-10 code count (14,000). *WHO* https://icd.who.int/browse10/2019/en (2019).
56. Wikipedia. Longevity escape velocity (LEV) - maximum human life extension potential. *Wikipedia: Longevity Escape Velocity* https://en.wikipedia.org/wiki/Longevity_escape_velocity.

57. OpenSecrets. Lobbyist statistics for washington d.c. *OpenSecrets: Lobbying in US* https://en.wikipedia.org/wiki/Lobbying_in_the_United_States.
58. MDPI Vaccines. Measles vaccination ROI. *MDPI Vaccines* https://www.mdpi.com/2076-393X/12/11/1210 (2024).
59. Gosse, M. E. Assessing cost-effectiveness in healthcare: History of the $50,000 per QALY threshold. *Sustainability Impact Metrics* https://ecocostsvalue.com/EVR/img/references%20others/Gosse%202008%20QALY%20threshold%20financial.pdf (2008).
60. World Health Organization. Mental health global burden. *World Health Organization* https://www.who.int/news/item/28-09-2001-the-world-health-report-2001-mental-disorders-affect-one-in-four-people (2022).
61. Stockholm International Peace Research Institute. Trends in world military expenditure, 2023. (2024).
62. Calculated from Orphanet Journal of Rare Diseases (2024). Diseases getting first effective treatment each year. *Calculated from Orphanet Journal of Rare Diseases (2024)* https://ojrd.biomedcentral.com/articles/10.1186/s13023-024-03398-1 (2024).
63. NIH. NIH budget (FY 2025). *NIH* https://www.nih.gov/about-nih/organization/budget (2024).
64. Bentley et al. NIH spending on clinical trials: 3.3%. *Bentley et al.* https://pmc.ncbi.nlm.nih.gov/articles/PMC10349341/ (2023).
65. PMC. Standard medical research ROI ($20k-$100k/QALY). *PMC: Cost-effectiveness Thresholds Used by Study Authors* https://pmc.ncbi.nlm.nih.gov/articles/PMC10114019/ (1990).
66. Manhattan Institute. RECOVERY trial 82× cost reduction. *Manhattan Institute: Slow Costly Trials* https://manhattan.institute/article/slow-costly-clinical-trials-drag-down-biomedical-breakthroughs.
67. Trials. Patient willingness to participate in clinical trials. *Trials: Patients' Willingness Survey* https://trialsjournal.biomedcentral.com/articles/10.1186/s13063-015-1105-3.
68. Tufts CSDD. Cost of drug development.
69. Value in Health. Average lifetime revenue per successful drug. *Value in Health: Sales Revenues for New Therapeutic Agents* https://www.sciencedirect.com/science/article/pii/S1098301524027542.
70. Lichtenberg, F. R. How many life-years have new drugs saved? A three-way fixed-effects analysis of 66 diseases in 27 countries, 2000-2013. *International Health* **11**, 403–416 (2019).
71. Deloitte. Pharmaceutical r&d return on investment (ROI). *Deloitte: Measuring Pharmaceutical Innovation 2025* https://www.deloitte.com/ch/en/Industries/life-sciences-health-care/research/measuring-return-from-pharmaceutical-innovation.html (2025).
72. Nature Reviews Drug Discovery. Drug trial success rate from phase i to approval. *Nature Reviews Drug Discovery: Clinical Success Rates* https://www.nature.com/articles/nrd.2016.136 (2016).
73. SofproMed. Phase 3 cost per trial range. *SofproMed* https://www.sofpromed.com/how-much-does-a-clinical-trial-cost.
74. Ramsberg, J. & Platt, R. Pragmatic trial cost per patient (median $97). *Learning Health Systems* https://pmc.ncbi.nlm.nih.gov/articles/PMC6508852/ (2018).
75. WHO. Polio vaccination ROI. *WHO* https://www.who.int/news-room/feature-stories/detail/sustaining-polio-investments-offers-a-high-return (2019).
76. ICRC. International campaign to ban landmines (ICBL) - ottawa treaty (1997). *ICRC* https://www.icrc.org/en/doc/resources/documents/article/other/57jpjn.htm (1997).
77. OpenSecrets. Revolving door: Former members of congress. (2024).

78. Kinch, M. S. & Griesenauer, R. H. Lost medicines: A longer view of the pharmaceutical industry with the potential to reinvigorate discovery. *Drug Discovery Today* **24**, 875–880 (2019).
79. Wikipedia. US military spending reduction after WWII. *Wikipedia* https://en.wikipedia.org/wiki/Demobilization_of_United_States_Armed_Forces_after_World_War_II (2020).
80. Baily, M. N. Pre-1962 drug development costs (baily 1972). *Baily (1972)* https://samizdathealth.org/wp-content/uploads/2020/12/hlthaff.1.2.6.pdf (1972).
81. Think by Numbers. Pre-1962 physician-led clinical trials. *Think by Numbers: How Many Lives Does FDA Save?* https://thinkbynumbers.org/health/how-many-net-lives-does-the-fda-save/ (1966).
82. GAO. 95% of diseases have 0 FDA-approved treatments. *GAO* https://www.gao.gov/products/gao-25-106774 (2025).
83. Oren Cass, Manhattan Institute. RECOVERY trial cost per patient. *Oren Cass* https://manhattan.institute/article/slow-costly-clinical-trials-drag-down-biomedical-breakthroughs (2023).
84. NHS England; Águas et al. RECOVERY trial global lives saved (1 million). *NHS England: 1 Million Lives Saved* https://www.england.nhs.uk/2021/03/covid-treatment-developed-in-the-nhs-saves-a-million-lives/ (2021).
85. National September 11 Memorial & Museum. September 11 attack facts. (2024).
86. World Bank. World bank singapore economic data. *World Bank* https://data.worldbank.org/country/singapore (2024).
87. International Monetary Fund. IMF singapore government spending data. (2024).
88. World Health Organization. WHO life expectancy data by country. (2024).
89. CSIS. Smallpox eradication ROI. *CSIS* https://www.csis.org/analysis/smallpox-eradication-model-global-cooperation.
90. PMC. Contribution of smoking reduction to life expectancy gains. *PMC: Benefits Smoking Cessation Longevity* https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1447499/ (2012).
91. ICER. Value per QALY (standard economic value). *ICER* https://icer.org/wp-content/uploads/2024/02/Reference-Case-4.3.25.pdf (2024).
92. GAO. Annual cost of u.s. Sugar subsidies. *GAO: Sugar Program* https://www.gao.gov/products/gao-24-106144.
93. World Bank. Swiss military budget as percentage of GDP. *World Bank: Military Expenditure* https://data.worldbank.org/indicator/MS.MIL.XPND.GD.ZS?locations=CH.
94. World Bank. Switzerland vs. US GDP per capita comparison. *World Bank: Switzerland GDP Per Capita* https://data.worldbank.org/indicator/NY.GDP.PCAP.CD?locations=CH.
95. OECD. OECD government spending as percentage of GDP. (2024).
96. OECD. OECD median household income comparison. (2024).
97. Cato Institute. Chance of dying from terrorism statistic. *Cato Institute: Terrorism and Immigration Risk Analysis* https://www.cato.org/policy-analysis/terrorism-immigration-risk-analysis.
98. Wikipedia. Thalidomide scandal: Worldwide cases and mortality. *Wikipedia* https://en.wikipedia.org/wiki/Thalidomide_scandal.
99. PLOS One. Health and quality of life of thalidomide survivors as they age. *PLOS One* https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0210222 (2019).
100. US Census Bureau. Historical world population estimates. *US Census Bureau* https://www.census.gov/data/tables/time-series/demo/international-programs/historical-est-worldpop.html.

101. FDA Study via NCBI. Trial costs, FDA study. *FDA Study via NCBI* https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6248200/.
102. GBD 2019 Diseases and Injuries Collaborators. Global burden of disease study 2019: Disability weights. *The Lancet* **396**, 1204–1222 (2020).
103. WHO. Annual global economic burden of alzheimer's and other dementias. *WHO: Dementia Fact Sheet* https://www.who.int/news-room/fact-sheets/detail/dementia (2019).
104. JAMA Oncology. Annual global economic burden of cancer. *JAMA Oncology: Global Cost 2020-2050* https://jamanetwork.com/journals/jamaoncology/fullarticle/2801798 (2020).
105. CDC. U.s. Chronic disease healthcare spending. *CDC* https://www.cdc.gov/chronic-disease/data-research/facts-stats/index.html.
106. Diabetes Care. Annual global economic burden of diabetes. *Diabetes Care: Global Economic Burden* https://diabetesjournals.org/care/article/41/5/963/36522/Global-Economic-Burden-of-Diabetes-in-Adults.
107. CBO. *The 2024 Long-Term Budget Outlook*. https://www.cbo.gov/publication/60039 (2024).
108. World Bank, Bureau of Economic Analysis. US GDP 2024 ($28.78 trillion). *World Bank* https://data.worldbank.org/indicator/NY.GDP.MKTP.CD?locations=US (2024).
109. Environmental Working Group. US farm subsidy database and analysis. *Environmental Working Group* https://farm.ewg.org/ (2024).
110. Drug Policy Alliance. The drug war by the numbers. (2021).
111. International Monetary Fund. IMF fossil fuel subsidies data: 2023 update. (2023).
112. Papanicolas, Irene et al. Health care spending in the united states and other high-income countries. *Papanicolas et al.* https://jamanetwork.com/journals/jama/article-abstract/2674671 (2018).
113. Hsieh, C.-T. & Moretti, E. Housing constraints and spatial misallocation. *American Economic Journal: Macroeconomics* https://www.aeaweb.org/articles?id=10.1257/mac.20170388 (2019).
114. Yale Budget Lab. The fiscal, economic, and distributional effects of all u.s. tariffs. (2025).
115. Tax Foundation. Tax compliance costs the US economy $546 billion annually. https://taxfoundation.org/data/all/federal/irs-tax-compliance-costs/ (2024).
116. Cook, C., Cole, G., Asaria, P., Jabbour, R. & Francis, D. P. Annual global economic burden of heart disease. *International Journal of Cardiology* https://www.internationaljournalofcardiology.com/article/S0167-5273(13)02238-9/abstract (2014).
117. Source: US Life Expectancy FDA Budget 1543-2019 CSV. US life expectancy growth 1880-1960: 3.82 years per decade. (2019).
118. Source: US Life Expectancy FDA Budget 1543-2019 CSV. Post-1962 slowdown in life expectancy gains. (2019).
119. Centers for Disease Control and Prevention. US life expectancy 2023. (2024).
120. US Census Bureau. US median household income 2023. (2024).
121. Statista. US military budget as percentage of GDP. *Statista* https://www.statista.com/statistics/262742/countries-with-the-highest-military-spending/ (2024).
122. US Census Bureau. Number of registered or eligible voters in the u.s. *US Census Bureau* https://www.census.gov/newsroom/press-releases/2025/2024-presidential-election-voting-registration-tables.html (2024).
123. U.S. Senate. Treaties. *U.S. Senate* https://www.senate.gov/about/powers-procedures/treaties.htm.
124. Federal Election Commission. Statistical summary of 24-month campaign activity of the 2023-2024 election cycle. (2023).
125. OpenSecrets. Federal lobbying hit record $4.4 billion in 2024. (2024).

126. Hutchinson and Kirk. Valley of death in drug development. (2011).
127. DOT. DOT value of statistical life ($13.6M). *DOT: VSL Guidance 2024* https://www.transportation.gov/office-policy/transportation-policy/revised-departmental-guidance-on-valuation-of-a-statistical-life-in-economic-analysis (2024).
128. PLOS ONE. Cost per DALY for vitamin a supplementation. *PLOS ONE: Cost-effectiveness of "Golden Mustard" for Treating Vitamin A Deficiency in India (2010)* https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0012046 (2010).
129. UN News. Clean water & sanitation (LMICs) ROI. *UN News* https://news.un.org/en/story/2014/11/484032 (2014).
130. PMC. Cost-effectiveness threshold ($50,000/QALY). *PMC* https://pmc.ncbi.nlm.nih.gov/articles/PMC5193154/.
131. Integrated Benefits Institute. Chronic illness workforce productivity loss. *Integrated Benefits Institute 2024* https://www.ibiweb.org/resources/chronic-conditions-in-the-us-workforce-prevalence-trends-and-productivity-impacts (2024).
132. WHO. Smallpox eradicated. *WHO* https://www.who.int/health-topics/smallpox.
133. Responsible Statecraft. Lobbying ROI calculation ($1,813 per $1). *Responsible Statecraft* https://responsiblestatecraft.org/2021/09/02/top-defense-firms-see-2t-return-on-1b-investment-in-afghan-war/ (2021).
134. The Commune. Pentagon audit failures ($2.46T unaccounted). *The Commune* https://thecommunemag.com/the-pentagon-misplaced-2-46-trillion-an-in-depth-look-at-the-financial-audit-failures (2024).
135. Our World in Data. Global armed forces size and average salary. *Our World in Data: Military Personnel & Spending* https://ourworldindata.org/military-personnel-spending (2024).
136. USAFacts. NATO o&m ratios for global spending. *USAFacts: US Military Spending* https://usafacts.org/articles/how-much-does-the-us-spend-on-the-military/ (2024).
137. Wikipedia. Number of major global military facilities (4,435). *Wikipedia: List of American Military Installations* https://en.wikipedia.org/wiki/List_of_American_military_installations.
138. US Government Info. Intelligence spending as percentage of military budgets. *US Government Info: Cost of Intelligence* https://www.govinfo.gov/content/pkg/GPO-INTELLIGENCE/html/int017.html.
139. EPA. EPA value of statistical life ($9.6M). *EPA: Mortality Risk Valuation* https://www.epa.gov/environmental-economics/mortality-risk-valuation (2017).
140. World Bank. *Trading for Development in the Age of Global Value Chains.* https://openknowledge.worldbank.org/handle/10986/32437 (2020).
141. U.S. Department of Transportation. Value of a statistical life (VSL). *U.S. Department of Transportation* https://www.transportation.gov/office-policy/transportation-policy/revised-departmental-guidance-on-valuation-of-a-statistical-life-in-economic-analysis (2021).
142. Armed Conflict Location & Event Data Project. Armed conflict location & event data project (ACLED). (2025).
143. National Consortium for the Study of Terrorism and Responses to Terrorism (START). Global terrorism database (GTD). (2022).
144. Uppsala University. Number of armed conflicts since 1945. *Uppsala University* https://ucdp.uu.se/.
145. IMF. Reconstruction costs from active conflicts. *IMF: Cost of Conflict* https://www.imf.org/external/pubs/ft/fandd/2017/12/imus.htm (2017).
146. World Health Organization. Global observatory on health research and development. (2025).

147. UNESCO. UNESCO cost for universal education coverage. *UNESCO* https://news.un.org/en/story/2023/04/1135697 (2023).
148. UNESCO. Education. (2025).
149. Global Policy Journal. World bank cost to eradicate extreme poverty. *Global Policy Journal* https://www.globalpolicyjournal.com/blog/25/07/2024/new-estimates-cost-ending-poverty (2024).
150. US Inflation Calculator. Historical healthcare inflation rate (6.2%). *US Inflation Calculator: Health Care 1948-2025* https://www.usinflationcalculator.com/inflation/health-care-inflation-in-the-united-states/ (1948).
151. UNHCR. UNHCR forcibly displaced people 2023. *UNHCR* https://www.unhcr.org/global-trends-report-2023 (2023).
152. ASPE. Refugee lost annual earning potential ($23,400). *ASPE: Fiscal Impact of Refugees* https://aspe.hhs.gov/reports/fiscal-impact-refugees-asylees.
153. World Bank. Global GDP in 2023 ($89.5 trillion). *World Bank* https://data.worldbank.org/indicator/NY.GDP.MKTP.CD (2023).
154. Share the World's Resources. War spending vs WHO budget. *Share the World's Resources* https://sharing.org/information-centre/news/world-health-organisations-annual-budget-equivalent-global-military/.
155. CDC. Percentage of preventable deaths. vol. 73 (2024).
156. UNICEF. Annual child deaths statistic. (2024).
157. Statista. Global GDP ($101T, 2022). *Statista* https://www.statista.com/statistics/268750/global-gross-domestic-product-gdp/ (2023).
158. World Health Organization. Global health spending as a share of GDP (9.8%, 2020). *World Health Organization* https://www.who.int/publications/i/item/9789240064929 (2022).
159. World Economic Forum and Harvard School of Public Health. WEF/harvard NCD cost ($47T, 2011-2030). *World Economic Forum and Harvard School of Public Health* https://www3.weforum.org/docs/WEF_Harvard_HE_GlobalEconomicBurdenNonCommunicableDiseases_2011.pdf (2011).
160. Institute for Health Metrics and Evaluation (IHME). IHME global burden of disease (2.55B DALYs, 2019). *Institute for Health Metrics and Evaluation (IHME)* https://vizhub.healthdata.org/gbd-compare/ (2020).
161. World Health Organization. *World Health Organization* https://www.who.int/activities/choosing-interventions-that-are-cost-effective-(who-choice.
162. IHME. Death causes vs fear (heart disease vs terrorism). *IHME: CVD Deaths 2023* https://www.healthdata.org/news-events/newsroom/news-releases/report-cardiovascular-diseases-caused-1-3-global-deaths-2023 (2023).
163. The Lancet. Annual deaths from cancer (10 million). *The Lancet: Global Cancer Deaths 2023* https://www.hematologyadvisor.com/news/globally-18-5-million-incident-cancer-cases-and-10-4-million-deaths-reported-in-2023/ (2023).
164. WHO. Annual deaths from respiratory disease. *WHO: COPD Fact Sheet)* https://www.who.int/news-room/fact-sheets/detail/chronic-obstructive-pulmonary-disease-(copd (2019).
165. Alzheimer's Association. Annual deaths from alzheimer's and other dementias. *Alzheimer's Association* https://www.alz.org/alzheimers-dementia/facts-figures (2024).
166. International Diabetes Federation. Annual deaths from diabetes. *International Diabetes Federation* https://diabetesatlas.org/ (2024).
167. National Kidney Foundation. Annual deaths from kidney disease. *National Kidney Foundation: Global Facts* https://www.kidney.org/global-facts-about-kidney-disease (2022).

168. WHO. Annual deaths from tuberculosis. *WHO* https://www.who.int/news-room/fact-sheets/detail/tuberculosis (2024).
169. Based on WHO Global Health Estimates showing 55 million annual deaths / 365 days = 150,000 per day | WHO. 150,000 deaths per day from all causes. *Based on WHO Global Health Estimates showing 55 million annual deaths / 365 days = 150* https://www.who.int/news-room/fact-sheets/detail/the-top-10-causes-of-death (2024).
170. Review on Antimicrobial Resistance. Antimicrobial resistance deaths projection. *Review on Antimicrobial Resistance* https://amr-review.org/sites/default/files/160525_Final%20paper_with%20cover.pdf (2016).
171. WHO. Annual deaths from malaria. *WHO* https://www.who.int/teams/global-malaria-programme/reports/world-malaria-report-2024 (2024).
172. PMC. NIH phased trial spending for approved drugs 2010-2019. *PMC* https://pmc.ncbi.nlm.nih.gov/articles/PMC10349341/.
173. National Center for Advancing Translational Sciences. Clinical and translational science awards (CTSA) program. (2025).
174. All of Us. NIH all of us research program outcomes and spending. *All of Us: Program Overview* https://allofus.nih.gov/article/program-overview (2026).
175. U.S. Congress. 42 u.s. Code § 1320e-1 - limitations on certain uses of comparative clinical effectiveness research. (2010).
176. RECOVER Initiative. RECOVER initiative budget update (>$2.3B). *RECOVER Initiative* https://recovercovid.org/news/nih-adds-funds-long-covid-research-advances-work-new-clinical-trials (2024).
177. RECOVER Initiative & News Reports. NIH RECOVER initiative inefficiency. *RECOVER Initiative & News Reports* https://recovercovid.org/about (2025).
178. NIH. NIH RECOVER initiative patient enrollment numbers. *NIH: RECOVER Initiative Enrollment* https://www.nih.gov/news-events/news-releases/nih-builds-large-nationwide-study-population-tens-thousands-support-research-long-term-effects-covid-19.
179. Sir Martin Landray. Landray, sir martin, on the RECOVERY trial. *Sir Martin Landray* https://www.ox.ac.uk/news/features/recovery-trial-two-years.
180. Oxford University News. RECOVERY trial summary quote. *Oxford University News* https://www.ox.ac.uk/news/features/recovery-trial-two-years.
181. Broad Institute. Drug repurposing hub (broad institute). *Broad Institute* https://www.broadinstitute.org/drug-repurposing-hub (2017).
182. NSF. Annual number of papers published from NIH-funded research. *NSF: Publications Output* https://ncses.nsf.gov/pubs/nsb20206.
183. HHS. FY2016 budget in brief - NIH. *HHS* https://www.hhs.gov/about/budget/budget-in-brief/nih/index.html (2020).
184. ScienceDirect. Correlation between NIH funding priorities and disease burden. *ScienceDirect: Persistence of Very Low Correlations* https://www.sciencedirect.com/science/article/pii/S2666535224001174.
185. PMC. Number of diseases eradicated by the NIH. *PMC: Six Challenges in Eradication* https://pmc.ncbi.nlm.nih.gov/articles/PMC7612385/.
186. Our World in Data. Animal diseases eradicated by veterinary science. *Our World in Data: Rinderpest Eradication* https://ourworldindata.org/how-rinderpest-was-eradicated.
187. Barabási et al. Disease network overlap (network medicine). *Barabási et al.* https://www.nature.com/articles/nrg2918 (2011).
188. Reymond, J. L. Total drug-like chemical space (10^23 - 10^60). *Reymond* https://pubs.acs.org/doi/10.1021/ar500432k (2015).

189. ACS. ZINC-22 database (billions of compounds). *ACS* https://pubs.acs.org/doi/10.1021/acs.jcim.2c01253.
190. arXiv. Preferential target attachment in clinical trials. *arXiv* https://arxiv.org/abs/2301.10709 (2023).
191. University of Oxford. RECOVERY trial time to first cure. *University of Oxford* https://www.ox.ac.uk/news/2020-06-16-dexamethasone-reduces-death-hospitalised-patients-severe-respiratory-complications (2020).
192. Drugs.com. Time to develop one drug: 17 years. *Drugs.com* https://www.drugs.com/fda-approval-process.html.
193. GovTrack. Kefauver harris amendment of 1962. *GovTrack* https://www.govtrack.us/congress/bills/87/s1552 (1962).
194. FEE. Patients and doctors vs FDA. *FEE: Patients and Doctors vs FDA* https://fee.org/articles/patients-and-doctors-vs-the-fda.
195. FDAReview.org. Estimated deaths due to FDA delay in approving beta blockers. *FDAReview.org: FDA Harm* https://www.fdareview.org/issues/theory-evidence-and-examples-of-fda-harm/ (2011).
196. CRS. Evidence of FDA regulatory capture by pharmaceutical industry. *CRS: FDA Human Medical Product User Fees* https://www.congress.gov/crs-product/R44750.
197. Smith, A. D. Dendreon files for bankruptcy, provenge still available. (2014).
198. AllTrials. Publication rate of clinical trial results. *AllTrials: Half of Trials Unreported* https://www.alltrials.net/news/half-of-all-trials-unreported/ (2013).
199. Science/AAAS. Estimated annual cost of repeating failed experiments due to non-publication of results. *Science/AAAS* https://www.science.org/content/article/study-claims-28-billion-year-spent-irreproducible-biomedical-research (2020).
200. FDLI. Japan's regenerative medicine act and conditional approval pathway. *FDLI: Japan's Regen Med Pathways* https://www.fdli.org/2019/02/global-focus-japans-regenerative-medicine-regulatory-pathways-encouraging-innovation-and-patient-access/ (2019).
201. EMA. EU compassionate use program for experimental drugs. *EMA: Compassionate Use* https://www.ema.europa.eu/en/human-regulatory-overview/research-development/compassionate-use.
202. Congress.gov. Right to try act (2018). *Congress.gov* https://www.congress.gov/bill/115th-congress/house-bill/2368 (2018).
203. PMC. Number of patients helped by the u.s. Right to try act. *PMC: Understanding Right to Try* https://pmc.ncbi.nlm.nih.gov/articles/PMC7416898/ (2024).
204. CNN. FDA delay in approving rapid COVID-19 tests. *CNN: How Government Delayed Testing* https://www.cnn.com/2020/04/09/politics/coronavirus-testing-cdc-fda-red-tape-invs/index.html (2020).
205. NPR. Contamination of early CDC COVID-19 tests in 2020. *NPR: CDC Test Flawed* https://www.npr.org/2020/11/06/929078678/cdc-report-officials-knew-coronavirus-test-was-flawed-but-released-it-anyway (2020).
206. PMC. Estimated excess deaths attributed to FDA's COVID-19 response. *PMC: EUAs vs FDA Approval Implications* https://pmc.ncbi.nlm.nih.gov/articles/PMC8101583/.
207. Sakaeda et al. FAERS adverse event underreporting rate. *PubMed: Empirical estimation of under-reporting in FAERS* https://pubmed.ncbi.nlm.nih.gov/28447485/ (2017).
208. Graham, David (FDA) | Lancet. Vioxx cardiovascular deaths (rofecoxib). *PMC: FDA incapable of protecting against another Vioxx* https://pmc.ncbi.nlm.nih.gov/articles/PMC534432/ (2007).
209. Columbia/NBER. Odds of a single vote being decisive in a u.s. Presidential election. *Columbia/NBER: What Is the Probability Your Vote Will Make a Difference?* https://sites.stat.columbia.edu/gelman/research/published/probdecisive2.pdf (2012).

210. Annenberg. Survey of american civic literacy (congress's function). *Annenberg: Americans' Civic Knowledge* https://www.annenbergpublicpolicycenter.org/americans-know-surprisingly-little-about-their-government-survey-finds/.
211. Princeton. Princeton study on policy outcomes and influence of elites vs. Average citizens. *Princeton: Testing Theories of American Politics (PDF)* https://archive.org/details/gilens_and_page_2014_-testing_theories_of_american_politics.doc (2014).
212. Department of Defense. U.s. Military budget. *Department of Defense* https://www.military.gov/Spotlights/FY2024-Defense-Budget/ (2024).
213. PMC. Pharmaceutical industry annual profits. *PMC: Profitability of Large Pharmaceutical Companies* https://pmc.ncbi.nlm.nih.gov/articles/PMC7054843/.
214. Treasury. Troubled asset relief program (TARP) of 2008. *Treasury: TARP About* https://home.treasury.gov/data/troubled-assets-relief-program/about-tarp.
215. ScienceDirect. How campaign contributions influence politicians. *ScienceDirect: Campaign Contributions & Legislative Behavior* https://www.sciencedirect.com/science/article/pii/S0047272725000179 (2010).
216. NYU Stern. Lobbying spending and returns for disease advocacy groups. *NYU Stern: Lobbying Influences NIH Funding* https://www.stern.nyu.edu/experience-stern/news-events/new-research-finds-special-interest-lobbying-does-influence-nih-research-funding (2024).
217. CBS 60 Minutes. Percentage of time members of congress spend fundraising. *CBS 60 Minutes: Congressional Telemarketers* https://www.cbsnews.com/news/60-minutes-are-members-of-congress-becoming-telemarketers/.
218. Wikipedia. Passage of the USA PATRIOT act. *Wikipedia: Patriot Act* https://en.wikipedia.org/wiki/Patriot_Act (2001).
219. Congress.gov. Passage of the affordable care act and pelosi quote. *Congress.gov* https://www.congress.gov/bill/111th-congress/house-bill/3590/text.
220. Issue One. Congressional committee assignments have explicit fundraising price tags. *Issue One: The Price of Power* https://www.issueone.org/wp-content/uploads/2017/05/price-of-power-final.pdf (2017).
221. Nobel Prize. James buchanan nobel prize in economics, 1986. *Nobel Prize: 1986 Economic Sciences* https://www.nobelprize.org/prizes/economic-sciences/1986/press-release/ (1986).
222. Statista. Corporate lobbying spending in 2023. *Statista: Total Lobbying Spending 2023* https://www.statista.com/statistics/257337/total-lobbying-spending-in-the-us/ (2023).
223. U.S. Senate. Salary of a u.s. congressman. *U.S. Senate: Salaries* https://www.senate.gov/senators/SenateSalariesSince1789.htm.
224. Supreme Court of the United States. Impact of citizens united supreme court decision on campaign finance. *Citizens United v. FEC* https://supreme.justia.com/cases/federal/us/558/310/.
225. Wikipedia. Pharmaceutical lobby influence on medicare modernization act of 2003. *Wikipedia: Medicare Modernization Act* https://en.wikipedia.org/wiki/Medicare_Prescription_Drug,_Improvement,_and_Modernization_Act.
226. Snopes. History of insulin patent and modern price disparities. *Snopes: Insulin Patent Dollar* https://www.snopes.com/fact-check/insulin-patent-dollar/ (2019).
227. OpenSecrets. Lockheed martin's political donations, contracts, and state operations in 2022. *OpenSecrets: Lockheed Martin Summary* https://www.opensecrets.org/orgs/lockheed-martin/summary?id=d000000104 (2022).
228. OpenSecrets. Pharmaceutical industry lobbying statistics. *OpenSecrets: Pharmaceuticals/Health Products* https://www.opensecrets.org/industries/indus?ind=H04.
229. Cost breakdown calculated using SIPRI. Total military and war costs: $11.4 trillion.

230. Richard Dawkins. The selfish gene quote. *Richard Dawkins* https://en.wikipedia.org/wiki/The_Selfish_Gene (1976).
231. USDA Economic Research Service. Food abundance in modern society. *USDA Economic Research Service* https://www.ers.usda.gov/data-products/food-availability-per-capita-data-system/ (2019).
232. Bowles, S. Prehistoric violence rates. *Bowles* https://www.science.org/doi/10.1126/science.1168112 (2009).
233. Federation of American Scientists. World nuclear forces. *Federation of American Scientists* https://fas.org/issues/nuclear-weapons/status-world-nuclear-forces/ (2024).
234. Dunbar, R. I. M. Dunbar's number. *Dunbar* https://doi.org/10.1016/0047-2484(92)90081-J (1992).
235. Lieberman, D. Evolutionary mismatch and modern disease. *Lieberman* https://www.penguinrandomhouse.com/books/206671/the-story-of-the-human-body-by-daniel-e-lieberman/ (2013).
236. CDC. Obesity epidemic statistics. *CDC* https://www.cdc.gov/nchs/products/databriefs/db360.htm (2020).
237. ScienceDaily. Conscious mind controls 5% of decisions. *ScienceDaily: Unconscious Decision Making* https://www.sciencedaily.com/releases/2008/04/080414145705.htm (2008).
238. The Conversation. Global cancer research spending ($51.4B, 2016-2023). *The Conversation* https://theconversation.com/billions-spent-on-cancer-research-globally-but-is-it-money-well-spent-201407 (2023).
239. Washington Post. Deaths from furniture accidents compared to terrorism. *Washington Post: More Likely Crushed by Furniture* https://www.washingtonpost.com/news/monkey-cage/wp/2015/11/23/youre-more-likely-to-be-fatally-crushed-by-furniture-than-killed-by-a-terrorist/ (2015).
240. Wikipedia. Cost of china's military parades. *Wikipedia: 2015 China Victory Day Parade* https://en.wikipedia.org/wiki/2015_China_Victory_Day_Parade (2015).
241. Statista. Comparison of u.s. Deaths from COVID-19 vs. Major wars. *Statista: COVID vs War Deaths* https://www.statista.com/chart/24252/us-covid-19-deaths-compared-to-deaths-in-major-wars/.
242. WHO. Global suicide deaths vs. Combat deaths. *WHO* https://www.who.int/publications/i/item/9789240110069 (2021).
243. Our World in Data. Pandemic vs. War deaths comparison. *Our World in Data* https://ourworldindata.org/covid-deaths (2024).
244. Acquisition Talk. Grant writing time for top researchers (50%). *Acquisition Talk* https://acquisitiontalk.com/2021/12/top-researchers-spend-50-of-their-time-writing-grants-how-to-fix-it-and-what-it-means-for-dod/ (2021).
245. George A. Miller. Cognitive limit in short-term memory (miller's law). *George A. Miller* https://doi.org/10.1037/h0043158 (1956).
246. arXiv. Bradley-terry and PageRank models for ranking. *arXiv: PageRank and Bradley-Terry Model* https://arxiv.org/abs/2402.07811.
247. FDA. FDA trial patient exclusion criteria. *FDA: Evaluating Inclusion & Exclusion Criteria* https://www.fda.gov/media/134754/download.
248. Keitner, G. I., Posternak, M. A. & Ryan, C. E. How many subjects with major depressive disorder meet eligibility requirements of an antidepressant efficacy trial? *Journal of Clinical Psychiatry* https://www.ncbi.nlm.nih.gov/pubmed/14628985 (2003).
249. Institute of Medicine (US). US clinical trial enrollment targets (2009). *Institute of Medicine (US)* https://www.ncbi.nlm.nih.gov/books/NBK50886/.

250. Benson, K. & Hartz, A. J. A comparison of observational studies and randomized, controlled trials. *New England Journal of Medicine* https://doi.org/10.1056/NEJM200006223422506 (2000) doi:10.1056/NEJM200006223422506.
251. Austin Bradford Hill. The environment and disease: Association or causation? *PubMed Central: Hill 1965* https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1898525/ (1965).
252. RECOVERY Trial. RECOVERY trial dexamethasone results. *RECOVERY Trial* https://www.recoverytrial.net/news/low-cost-dexamethasone-reduces-death-by-up-to-one-third-in-hospitalised-patients-with-severe-respiratory-complications-of-covid-19.
253. Ramsberg, J. & Platt, R. Opportunities and barriers for pragmatic embedded trials: Triumphs and tribulations. *Harvard Medical School/Harvard Pilgrim Health Care Institute* https://pmc.ncbi.nlm.nih.gov/articles/PMC6508852/ (2018).
254. JAMA Internal Medicine. Cost breakdown of traditional clinical trials. *JAMA Internal Medicine: Clinical Trial Costs Study* https://jamanetwork.com/journals/jamainternalmedicine/fullarticle/2702287.
255. MobiHealthNews, Aug. Other DCT platform company funding. *MobiHealthNews* https://www.mobihealthnews.com/news/exo-raises-40m-handheld-ultrasound-decentralized-trial-platforms-raise-nearly-100m-and-more (2020).
256. Wikipedia. Number of key FDA drug reviewers. *Wikipedia: Center for Drug Evaluation and Research* https://en.wikipedia.org/wiki/Center_for_Drug_Evaluation_and_Research.
257. Alternatives Investor. Top performing private equity & hedge funds. *Alternatives Investor* https://alternativesinvestor.com/top-performing-private-equity-funds-2016-2019 (2021).
258. Ford, I. & Norrie, J. Pragmatic clinical trials - ALLHAT evidence. *Ford* https://www.nejm.org/doi/full/10.1056/NEJMra1510059 (2016).
259. U.S. Treasury. WWII war bonds. *U.S. Treasury* https://en.wikipedia.org/wiki/War_bond.
260. Federation of American Scientists. Cost of world war II in today's dollars. *Federation of American Scientists* https://fas.org/publication/costs_of_war/.
261. The Global Fund. The global fund. *The Global Fund* https://www.theglobalfund.org/en/about-the-global-fund/.
262. Global Fund. Lives saved by the global fund. *Global Fund: Results Report 2025* https://www.theglobalfund.org/en/results/ (2025).
263. Wikipedia. US GDP growth rate post-WWII. *Wikipedia* https://en.wikipedia.org/wiki/Post–World_War_II_economic_expansion.
264. St. Louis Fed. US home ownership rate increase post-WWII. *St. Louis Fed* https://www.stlouisfed.org/timely-topics/house-prices-homeownership-rise.
265. KFF Health System Tracker. Switzerland vs. US life expectancy comparison. *KFF Health System Tracker: Life Expectancy Comparison* https://www.healthsystemtracker.org/chart-collection/u-s-life-expectancy-compare-countries/.
266. Wikipedia. Switzerland's last military conflict. *Wikipedia: Sonderbund War* https://en.wikipedia.org/wiki/Sonderbund_War (2019).
267. Statista. Number of global internet users. *Statista: Internet Users Worldwide 2024* https://www.statista.com/statistics/273018/number-of-internet-users-worldwide/ (2024).
268. Wikipedia. The nuclear disarmament "freeze" movement of the 1980s. *Wikipedia: Nuclear Freeze Campaign* https://en.wikipedia.org/wiki/Nuclear_Freeze_campaign (2010).
269. Wikipedia. Occupy wall street movement (2011). *Wikipedia: Occupy Wall Street* https://en.wikipedia.org/wiki/Occupy_Wall_Street.
270. Wikipedia. Michael milken and the development of the high-yield bond market. *Wikipedia: Michael Milken* https://en.wikipedia.org/wiki/Michael_Milken.

271. Yahoo Finance. George soros's 1992 bet against the british pound. *Yahoo Finance: British Pounding* https://finance.yahoo.com/news/british-pounding-george-soros-made-160033593.html.
272. Wikipedia. The collapse of long-term capital management (LTCM) in 1998. *Wikipedia: LTCM* https://en.wikipedia.org/wiki/Long-Term_Capital_Management (2013).
273. Historic UK. The south sea bubble of 1720. *Historic UK: South Sea Bubble* https://www.historic-uk.com/HistoryUK/HistoryofEngland/South-Sea-Bubble/.
274. UNDP. Tobacco control ROI. *UNDP* https://www.undp.org/asia-pacific/blog/how-raising-tobacco-taxes-can-save-lives-and-cut-poverty-across-asia-pacific-0.
275. Scientific American. Cellular turnover and repair rates in the human body. *HowStuffWorks: Body Replace Every 7 Years* https://www.scientificamerican.com/article/our-bodies-replace-billions-of-cells-every-day/.
276. Wake Forest. Milestones in regenerative medicine and tissue engineering. *Wake Forest: Record of Firsts* https://school.wakehealth.edu/research/institutes-and-centers/wake-forest-institute-for-regenerative-medicine/research/a-record-of-firsts.
277. Nobel Prize. Discovery of induced pluripotent stem cells (yamanaka factors). *Nobel Prize* https://www.nobelprize.org/prizes/medicine/2012/press-release/ (2012).
278. BioPharma Dive. Approval of landmark gene therapies (luxturna, zolgensma, CAR-t). *BioPharma Dive: Luxturna* https://www.biopharmadive.com/news/luxturna-gene-therapy-eye-leber-lca/609832/ (2017).
279. Wikipedia. Examples of biological immortality and extreme longevity in nature. *Wikipedia: Biological Immortality* https://en.wikipedia.org/wiki/Biological_immortality.
280. PMC. Aging reversal demonstrated in mammals using yamanaka factors. *PMC: Chemically Induced Reprogramming to Reverse Aging* https://pmc.ncbi.nlm.nih.gov/articles/PMC10373966/ (2023).
281. PubMed. The nine hallmarks of aging. *PubMed: The Hallmarks of Aging* https://pubmed.ncbi.nlm.nih.gov/23746838/.
282. Brookings. Manhattan project cost in modern dollars. *Brookings: Costs of the Manhattan Project* https://www.brookings.edu/the-costs-of-the-manhattan-project/.
283. e-Residency. Estonia e-residency statistics. *e-Residency* https://www.e-resident.gov.ee/dashboard/ (2024).
284. PMC. Indian aadhaar national identity system. *PMC: Aadhaar Failure to Do No Harm* https://pmc.ncbi.nlm.nih.gov/articles/PMC5741784/.
285. EU Digital Strategy. EU eIDAS network for electronic identification. *EU Digital Strategy: eIDAS Regulation* https://digital-strategy.ec.europa.eu/en/policies/eidas-regulation (2014).
286. Adida et al., Helios. Helios (end-to-end verifiable voting). *Adida et al.* https://heliosvoting.org/.
287. Moore, T. J., Zhang, H., Anderson, G. & Alexander, G. C. Traditional trial cost per patient. *JAMA Internal Medicine* https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7295430/ (2020).
288. Silicon Valley Business Journal. NIH funding cuts and brain drain. *Silicon Valley Business Journal* https://www.bizjournals.com/sanjose/news/2025/08/15/nih-funding-cuts-science-brain-drain-berkeley.html (2025).
289. Delaware Division of Corporations. Delaware has more corporate entities than residents. *Delaware Division of Corporations: 2020 Annual Report* https://corp.delaware.gov/stats/2020-annual-report/ (2020).
290. ID.me. ID.me digital identity verification service. *ID.me: Government Services* https://www.id.me/individuals/government.

291. World Foundation. Worldcoin identity verification scale. *World Foundation* https://world.org/blog/announcements/world-year-two (2025).
292. BrightID. BrightID social identity verification network. *BrightID* https://www.brightid.org/ (2020).
293. Gitcoin. Gitcoin passport for digital identity scoring. *Gitcoin: Intro to Passport* https://www.gitcoin.co/blog/intro-to-passport.
294. GDPR Article 9(1). GDPR biometric data requirements. *GDPR Article 9(1)* https://gdpr-info.eu/art-9-gdpr/.
295. CA Attorney General. California consumer privacy act (CCPA) and california privacy rights act (CPRA). *CA Attorney General: CCPA* https://oag.ca.gov/privacy/ccpa.
296. ACLU Illinois. Illinois biometric information privacy act (BIPA). *ACLU Illinois: BIPA* https://www.aclu-il.org/en/campaigns/biometric-information-privacy-act-bipa.
297. FTC. Children's online privacy protection act (COPPA). *FTC: COPPA Rule* https://www.ftc.gov/legal-library/browse/rules/childrens-online-privacy-protection-rule-coppa.
298. Convention on Cluster Munitions. Convention on cluster munitions (2008) - oslo process. *Convention on Cluster Munitions* https://www.clusterconvention.org/oslo-process/.
299. UN Legal. Arms trade treaty (2013) - campaign and adoption. *UN Legal* https://legal.un.org/avl/ha/att/att.html.
300. Wikipedia. Control arms coalition - arms trade treaty campaign. *Wikipedia* https://en.wikipedia.org/wiki/Control_Arms_Campaign.
301. ICAN. International campaign to abolish nuclear weapons (ICAN) - treaty on the prohibition of nuclear weapons (2017). *ICAN* https://www.icanw.org/ican_history (2017).
302. Aryal, G., Ciliberto, F., Farmer, L. E. & Khmelnitskaya, E. Valuing pharmaceutical drug innovations. https://arxiv.org/abs/2212.07384 (2022).

Copyright

How to End War and Disease

The Complete Idiot's Guide to Legally Bribing Your Way to Utopia

By WISHONIA

Translated for Humans by Mike P. Sinn

Copyright 2025 Mike P. Sinn. All rights reserved.

Published by the Institute for Accelerated Medicine
acceleratedmedicine.org

This work is licensed under the Creative Commons Attribution-NonCommercial 4.0 International License (CC BY-NC 4.0). You are free to share and adapt this material for non-commercial purposes, provided you give appropriate credit. To view a copy of this license, visit creativecommons.org/licenses/by-nc/4.0.

First Edition, 2025

Contact: mike@warondisease.org
Web: WarOnDisease.org
ORCID: 0009-0006-0212-1094