# Personal Responsibility and Inequality

## The Anti-Vaccine Discourse in the United States

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## Introduction

The outbreak of COVID-19, the largest pandemic in most people's lifetime, led to millions of deaths. The advent of vaccinations against the virus that caused the pandemic did not entirely eliminate infection but did a great deal to significantly reduce severity of illness and risk of death. Yet, in the United States and beyond, the introduction of vaccines against SARS-CoV-2, the virus that caused the pandemic, was met with suspicion and often passionate opposition. Although this response was baffling to many, it in fact built upon existing narratives of infection and prevention that pre-date COVID.

Almost two decades ago, I began studying why parents in the U.S. were increasingly opting out of vaccines for their children, rejecting some or all, or creating alternative schedules that do not align with any expert recommendation. I found that vaccine hesitancy and opposition represented the coalescence of individualist notions of health and parenting (Reich 2016). Parents in general, and mothers in particular, saw themselves as experts on their own children and vaccine decisions as one of a multitude of daily consumer choices they make to promote their children's health. Many considered vaccination as largely unnecessary given the range of other decisions and lifestyle choices they perceived to be adequate to protect their children's health.

As concerns about COVID-19 began escalating in Spring 2020, public health agencies increasingly focused on personal responsibility and individual behavior as decisive factors that could increase or mitigate risk of infection but also identified baseline health and underlying conditions as aspects that may increase vulnerability. Age, obesity, immune compromise, and chronic health conditions were all identified as predictive of worse outcomes of infection. As vaccines against SARS-CoV-2 eventually became available in early 2021, arguments about their safety and necessity accelerated, with many younger healthy adults insisting that their overall good health, healthy lifestyle, or lack of underlying risk factors meant that they did

not need the vaccine. Rather than highlighting the unpredictability of infectious disease, COVID amplified the belief that personal behaviors, lifestyle choices, and consumer decisions can mitigate serious illness. In this chapter, I examine narratives created by vaccine opponents, that is, those who speak publicly and work to undermine confidence in vaccines, to show how their efforts rely on the belief that health lies within the individual, and is manageable and controllable through hard work, good consumption choices, and faith in the natural powers of the body.

## Infectious Disease, Vaccines, and Perceptions of Risk

Narratives of health promotion often identify personal responsibility, hard work, lifestyle, and behavior as key to illness avoidance. These frames, which are often commercialized, are persuasive, but ignore the reality that most aspects of health and illness are beyond individual control and reflect complex interactions between genetics, environment, lifestyle, resources, social location, and luck. Yet they are ubiquitous in claims that vaccines are unnecessary when one has good health and health practices.

Individual decisions about whether to receive a vaccine, which is given to healthy people to prevent hypothetical harm, involves weighing a perceived risk of an adverse reaction to a vaccine against a perceived risk of a vaccine preventable disease. Notably, risk has an objective component in the calculation of the probability of a result arising from an action, but it also depends on subjective interpretation to make it socially meaningful (Douglas 1990). Pointing to the socially meaningful interpretations of risk, Horlick-Jones argues that "[a]ny assessment of risk involves, by necessity, a summation over a variety of potential harms posed by a given hazard. Such a summation involves a weighting process that either implicitly or explicitly introduces valuations of the relative importance of each harm" (1998, 80).

To be motivated to seek out health interventions, individuals must perceive they are susceptible to a particular health problem, that this health problem is a serious one, that utilization of a treatment or medication will reduce risk of that condition, and there must not be any serious barriers to accessing the treatment (Rosenstock 1966). Those who would seek out health interventions must also find ways that the prescribed treatments fit their lives and match their own goals and lifestyle as well as their perception of a negative outcome (Conrad 1985). Yet, we live at a cultural moment in which risk is most often framed within the terms of what Lupton calls "lifestyle risk discourse" which she defines as "the responsibility of the individual to avoid health risks for the sake of his or her own health as well as the greater good of society" (Lupton 2009, 463). From this standpoint, risk can be managed and mitigated through lifestyle changes, which promise to ensure good health outcomes.

Immunization is at core a risk containment technology. Unlike other pharmaceutical interventions, vaccines are given to healthy people to avoid risk, rather than to sick people to manage symptoms or cure illness. Immunizations against childhood illnesses are touted as one of the greatest achievements of modern medicine and are credited with drastically reducing, and in many cases virtually eliminating, incidences of measles, mumps, rubella, polio, diphtheria, haemophilus influenzae type b, tetanus, and whooping cough (or pertussis) in the much of the world. Vaccines for adults prior to COVID-19 were less often used, but also held lifesaving possibilities. Estimates are that without vaccines against SARS-CoV-2, there would have been approximately 1.1 million additional COVID-19 deaths and more than 10.3 million additional COVID-19 hospitalizations in the U.S. by November 2021 (Schneider et al. 2021).

## Personalization of Health and the Challenges of Community Intervention

Unlike other medications, vaccines most often do not just protect the person who receives inoculation, but the disabled, the aged, the immune-compromised, those who did not gain immunity from vaccines, and the pregnant women whose fetuses could be devastated by infection. Even vaccines like those against SARS-CoV-2 that do not fully eliminate transmission of the virus do save lives and may reduce transmission (Stokel-Walker 2022). These benefits are often underestimated as potential consumers of vaccines consider the level of personal benefit rather than community benefit (Reich 2016).

Vaccines, a technology most effective as a communal rather than individual strategy, contradict the cultural logic of healthism, in which individuals are personally and morally responsible for their own health outcomes. This ideological position represents, as Crawford (1980) and others have argued, the shifting of responsibility for health from the state to the moral obligation of the individual. Drawing on a neoliberal logic, healthcare decisions, including disease prevention, medication consumption, and elective procedures, are assigned to the individual. Biotechnology has presented opportunities for lifestyle enhancement or "optimization," but also presents a highly prescriptive form of social control (Loe and Cuttino 2008; Conrad and Potter 2004). As Crawford points out,

> [t]he failure of healthist ideology to treat individual behavior, attitudes, and emotions as socially constructed reproduces the disablement fostered by medical ideology and the ideology of individualism in general. Instead of approaching the complex inter-relationship of individual characteristics, choices, and larger social structure, healthism promotes a new moralism (1980, 384–385).

The ideals of healthism are encoded culturally everywhere. In families, women are encouraged to adopt the role of advocate, researcher, and informed consumer as they navigate their family's health and healthcare, nutrition, and consumption of household products (MacKendrick 2014). More broadly, health itself has come to be defined as the outcome of personal choices and behaviors, often through consumption and risk management (Clarke et al. 2003). Individuals must actively manage their lives, work hard, behave morally, and avoid calculable risk through informed decision-making to remain healthy, the imagined state of the body without corruption (Juffer 2003). The individual in a "regime of self" is expected to actively shape her or his life through active health choices, with socially defined good choices becoming the cultural norm against which an individual's morality might be evaluated (Rose and Novas 2004). (The condemnation of smokers or overweight people illustrates this as well).

The regimes of self-governance that center on health promotion through consumer choice resonate with a range of corporate enterprises to promote health or avoid illness. Within and outside of medicine, we see heightened attention on how medical care can be personalized to meet the needs and desires of the individual. Promises of new methods of identifying individual risk of developing certain diseases, genetic tests for predisposition, or calculating risk of health challenges are advertised and sold in ways that promise individualized care and personal control. Although companies are beginning to offer racial and biological analyses of individual genetic material, and pharmaceutical companies promise to create personalized medicine that could eventually match drugs to individual personal genetic profiles, these innovations have yet to hold major practical uses or even hit the market (Hunt and Kreiner 2013). Notably, individualized care, which is often desired, does not necessarily yield better health outcomes, but it may create a more positive experience of health care (Fenton et al. 2012). Nonetheless, narratives of health as personalized, individualized, and commercialized shape perceptions and at core contradict public health logics that require uniform efforts to prevent communicable disease.

Personal responsibility and individual preference shape how individuals think of vaccine decisions. Yet, public health assumes that individuals can absorb a measure of risk to themselves (or their children) or sacrifice some freedoms in order to protect others in the communities in which they live or travel. This sometimes frustrates individuals who often insist they "should be 'empowered' to pursue their own self-interest as a condition of their rights (and obligations) as consumers of public resources," which places their desires for themselves or their children ahead of others (Wilkins 2014).

This commitment to the regime of self represents the simultaneous challenge to the role of the expert and the democratization and contestation of scientific knowledge (Barker 2008). Record profits posted by pharmaceutical companies, direct marketing to physicians, and pharmaceutical advertising have contributed to the ero-

sion of trust in medical institutions and providers (McKinlay and Marceau 2002; Hartley and Coleman 2008). The COVID-19 pandemic, with the tight collaboration between nation-states and for-profit pharmaceutical companies, furthered this distrust. Calls to return control of health to the state after decades of public health agencies' insistence that individuals were responsible for their own health were broadly met with skepticism and likely furthered the delegitimization of expert claims on how to best promote health.

## Sources of Narratives for Analysis

In order to analyze narratives of vaccine opponents during the COVID-19 pandemic, I watched streamed content and then listened to and read transcripts of that content, which were recorded in 168 audio files ranging in length from 20 minutes to three hours. These videos offered information on how to promote health without vaccines, advised on how to challenge or undermine vaccine or mask requirements in work or school environments, or encouraged audiences to view vaccines specifically and medical systems in general with suspicion.

These online videos were produced and distributed by two sources. First, a group hosted two multi-day online conferences they called the Health Freedom Summit during the COVID pandemic and posted interviews and workshops with dozens of different speakers from these virtual events. Combined, these two conferences had 72 different sessions. Some speakers returned for both events while others were only part of one conference. Second, Jonathan Otto, a self-described humanitarian documentary filmmaker, posted three to five hours of content daily for about 40–50 days throughout COVID. These long videos, ranging from one to three hours, were installments in a series that ran for 8–10 consecutive days at a time, with series titles like, "Covid Secrets Exposed," "Vaccine Secrets Reloaded," or "Unbreakable." Each of these videos was edited around a specific theme and included five to eight speakers. The content was posted for free for 24 hours and then reverted to paid subscription to access it.

I cannot provide estimates of the numbers of viewers on either of these platforms, though they often included some of the biggest names in anti-vaccine rhetoric, including Robert Kennedy, Andrew Wakefield, Mary Holland, Naomi Wolf, Joseph Mercola, and Robert Malone. More broadly, it is difficult to overestimate the reach of these narratives that seek to undermine vaccines and public health, a phenomenon the World Health Organization has termed an "infodemic." Estimates suggest that, in the American context, just twelve anti-vaccine advocates are responsible for almost two-thirds of anti-vaccine content circulating on social media platforms. Ten of them participated in these online events.

Although some members of what has been termed "the disinformation dozen" are part of this analysis, there are many self-described experts who are also included. Notably, both content creators have a monetized component to accessing content and also sell or promote products that claim will improve health, "detoxify" the negative effects of vaccination, or cure COVID. The transcripts of these webinars and video presentations were supplemented with emails and website information from the same sources. I analyzed transcripts of these videos to identify patterns in how vaccines, infection, health, and COVID were presented. The quotes provided here offer examples of the kinds of rhetoric that proliferated in these sources.

The views that health is a personal project and that individuals can control through behavior were common before COVID-19. Yet, during the pandemic, these claims were amplified as an explanation why vaccines in general – and against SARS-CoV-2 specifically – were unnecessary. These arguments seem persuasive because they align with larger cultural definitions of personal responsibility, but they ignore the reality that infectious disease is largely beyond individual control. Many were reminded during the COVID-19 pandemic that hard work and precautions alone cannot eliminate all risk of exposure to an infectious agent. Although pre-existing conditions and underlying health issues may place some individuals at greater risk of the worse outcomes of infection, it is a myth that individuals who do not have risk factors will not be significantly affected by infection. In the following sections, I examine the narratives put forward by those who oppose vaccines to show how they rely on a view of the body as naturally perfect and as able to combat infection without pharmaceutical assistance, and of disease as controllable. I then show how they explain COVID-related deaths as the result of personal failings including poor nutrition and pre-existing health conditions, rather than of the unpredictability of infection. Together, these narratives reinforce an ideology of individualism that makes public and community-level interventions more challenging.

## The Body as Naturally Perfect

Much of the narrative of vaccine opposition originates from the belief that the body is naturally perfect and thus, does not require medical or pharmaceutical intervention. Vaccine decisions start somewhere on a continuum that views the body as varyingly vulnerable, at risk, or invincible. Often, those who reject vaccines see their bodies as naturally perfect, often as made by God, and able to handle infection which at times leads them to the conclusion that vaccines undermine the body and can be harmful.

Vaccine opponent and microbiologist Christina Parks explains on one of the videos produced by Otto, how those who promote immunization do not understand that the body is perfectly designed to fight infection without vaccines:

> we are fearfully and wonderfully made, and…we're being told all you know, we need something manmade, that man is the measure of all things. Not God. He didn't design you, right? We've got to fix it. And so there's so much so that we don't know, but what we do know is that what God designed is always superior to what man designs and so we need to bolster the body, build it up.

Parks continues, explaining that illness results from toxic exposure, which the body can also handle, noting,

> [y]ou know, we talked about all the contaminants, right? And so that's what's predisposing us to all this illness. And so yes, we are in a toxic soup, but even still, the fact that any of us are healthy, God has designed us to be able to heal always to be able to heal, and it's the lie that we are dependent on something a man has created in order to heal and move forward or protect ourselves.

Like Parks and others, Daniel Nuzum, a naturopathic physician who sells supplements and offers telehealth consultations, explains on one of Otto's videos how illness only emerges when the body is undermined, noting, "I approach healing from the standpoint that God designed us perfectly. If we're not functioning perfectly, there's just there's something causing that." That "something" is seldomly identified as simply an infection or development of illness but more often as exposure to or failure to consume adequate nutrition.

The body, as it is imagined here, sometimes requires intervention to return it to health through "natural" interventions. Notably, the false dichotomy between natural and artificial is unacknowledged. Much like Bobel found in her research: "When mothers spoke of nature, they spoke of a monolithic and static concept, the one true thing that predates humankind and remains pure and unadulterated. To them, nature is the perfect model for human behavior because it is separate from and unpolluted by human manipulation" (2002, 127).

Mark Sherwood, another naturopathic doctor, who, with his wife, runs a clinic, records a podcast, and sells supplements insists his practice works to "lead people down a pathway of true healing," which includes helping their patients "to eradicate all self-imposed, choice driven disease conditions" (FMI 2023). In his clinic, he follows an approach to care that asks individuals to optimize their health through changes in personal behavior. As stated on his website and on his publicity materials, "[e]ach person will need to make their own decision, and carefully weigh the risks versus benefits. In our clinic, every person that we have dealt with has done very well on natural therapies to optimize function – whole body in general. In our belief, God created the body in His own image. Every system in the body – including the immune system." Substantiating his health views within a religious frame,

Sherwood explained to Otto: "[h]uman beings are the only ones made in his image. Jesus did not spend his time on earth worrying about being sick."

Seeing the body as naturally perfect allows for a narrative that insists that health and illness avoidance are within individual control. Often referenced in terms of intelligent or godly design, vaccine opponents present a narrative of the body as naturally healthy and only sick when undermined through poor lifestyle or poor decision-making. At core, the worst outcomes of infection, they insist, can be combatted by allowing the body to return to a natural, superior state, which may include improved nutrition, better feeding practices, consumption of supplements, or treatments that many of these speakers sell.

## The Healthy Body's Power to Heal Itself

This myth of natural perfection feeds the assumption that the body can heal itself from infection or illness when it is in an ideal state of baseline health. Within these narratives, vaccines are at best an underestimation of the body's abilities and at worse, a chemical exposure that undermines them. Illustrating this, Jenny Crane, a self-described "medical freedom advocate, top network marketing leader, boy mom & chef wife," points to how the pandemic and insistence on vaccines subverts confidence in the body. She explains,

> I always say the pandemic is a pandemic of fear, right. That's the problem. That's the virus. But if you think about it, we're being fed this information and it's all doom and gloom and they want to think that the only way to get healthy is by getting healthy with a needle in a bottle. And that is simply not the case. We know that when the body is working properly. And when it's empowered, the body is the miracle.

The insistence that individuals can control disease hinges on a belief that the body can successfully manage infection so long as it has not been weakened by "harmful" behaviors or lifestyles. Andrew Kaufman, a psychiatrist and COVID denier explains,

> [w]hat really results in us being ill are things that we can actually control 100%. Like what we put in our body, when we put synthetic chemicals and toxins in our body. So once you understand that actually, all the real causes of disease are things that we have the ability to influence and change and allow our bodies to either maintain health or restore to full health, then the fear of a mysterious invader from beyond is not present. And this is something that makes me really sleep well at night not only for my own health and safety, which is really secondary. It's mostly about my children. That I know that if they have an illness is very easy to

> correct and it very seldom occurs because we try to do those things that I described to keep ourselves healthy from the beginning.

This is another example of how the narratives to undermine vaccines rely on the claim that personal behaviors prevent or cause disease. An espoused commitment to natural living – through superior nutrition, and lifestyle – is key to this. Weakness in the body, in immunity, manifests by becoming sick, and therefore reflects individual failures. Once the body is imagined to be self-curing, any inability to recover from illness represents an underlying failure.

This logic underpins how vaccine opponents explain why most people recover from COVID without medical intervention, but a high number of people require medical care and even succumb to infection. Henry Ealy, another naturopathic doctor and founder of the Energetic Health Institute, argues that those who are healthy do not need to worry about COVID infection:

> The data is very clear. The high percentage, the insanely high predictions, insanely, a significantly high percentage – 99 percentile of people recover without really any help or any assistance. Yes, some people have severe symptomatology from infection. Some people require hospitalization. Some people require a lot of intervention and typically those people have, are entering into these situations, these infections, with a severe nutrient deficiency status and a severe number of comorbid pre-existing conditions. The data is very clear on which groups, what age groups in which health groups are succumbing to the infection. And it's very clear it's not a young and it's not the people who are in a good state of health. So, this is where we come in and we say that old adage still holds true. An ounce of prevention is worth a pound of cure.

Jonathan Murphy, an integrative medicine physician, also highlights how the body's perfect design can heal itself when not overwhelmed with toxins or pollutants:

> I think that the body heals and is very well designed, and we have the most perfect design… I think healing – pull a splinter out of the thumb, you know, don't put a splinter in the mouth of the root canal too. Let's try to minimize our exposure to toxins by trying to eliminate as much as possible unneeded pesticides, unneeded plasticizers and other pollutants. But the body can heal if we nourish it and detoxify it.

Rather than seeing infection as sometimes random and unpredictable, these narratives frame lifestyle and personal resolve as key to mastery over disease. The vaccine, they suggest, erroneously and immorally promises illness avoidance without the hard work required to truly be healthy. As Mark Sherwood, who calls vaccines "symptoms of science," explains,

> [t]here's a lot of ignorance around people being manipulated, conned, bribed, scared into taking the vaccine and a lot of people listening right now are right there… We need to understand that the concept of self-governance and self-responsibility must not be eliminated.

These narratives are linked by a shared assumption that vaccines inevitably and unavoidably compromise health. Attendees of the online live forums Otto and his invited "experts" would host understood this, but faced with vaccine requirements for work, school, or travel, would ask for advice on which is the least toxic COVID vaccine to take. For example, one woman asks, "My daughter, 24, is getting the vaccine to take a cruise with her boyfriend's family. Which one does the least damage?" In response, chiropractor and vaccine opponent Bryan Ardis, replies, "We get this a lot. People want to, want us to determine, a lot of us health professionals, they want us to declare which one is safer than the others. None of them are safe. None. None of them are safe. There's not even a discussion about which one's safer than others."

Should someone get a vaccine anyway, Ardis and others typically suggest supplements and self-designed protocols to heal what they insist are inevitable vaccine-caused injuries. Illustrating this, Ardis answers another question with a recommendation for his own concoction, ironically named after the National Institutes of Health, the research arm of the U.S. federal government:

> This is Susan. She says due to mandates I may be forced to get the shots. I'm in Canada. What can I do to protect myself from the spike proteins before and after?… I actually created a list. I called it the disease prevention cocktail for the last 10 months. The boards for the state and the NIH didn't like that so they reached out to me and wanted to try to destroy my rights to create a disease prevention cocktail. So if you go [online] right now, it's actually listed as the NIH cocktail. I abbreviated NIH because if the NIH can put in drugs to kill you and hurt a whole lot of people and cause disease, I decided I can create the NIH cocktail to help reverse it toward their agenda. NIH on my site stands for Natural Immune Health cocktail. There's four primary nutrients that everyone should consider to try to protect against the shedding of vaccines and then if you're going to get the vaccines or gotten the vaccine. Those four are vitamin C at high doses I would say orally 5000 milligrams a day work up to 10,000 a day consistently. And then magnesium at 500 milligrams everyday minimum selenium at 200 micrograms and then apple pectin powder at 700 milligrams twice a day. I hope that answered that for you. That's what I would do.

While some, like Ardis, try to sell their own protocols or products to manage what they insist are the ways the body is undermined by vaccines, others insist the damage is long-lasting. Jonathan Murphy argues that COVID vaccines for children are especially problematic and likely permanently compromise children's health:

> It just seems almost evil to me. It's either idiocracy [sic] or some type of authoritarian evil that were perpetrating on children with this jam. I can't say strongly enough, and yet I realized that because of mass formation psychosis, that there's a lot of parents out there who say, "When can I get my child a vaccine? When can I get the child a vaccine?" But if you put a revolver with a single bullet in it, they wouldn't let their child playing with it. It's a Russian roulette of a vaccine. One of a 1000 is totally disabled the rest of their life… "Oh, but you know, thinking of the people they're saving because of the vaccine." Now it's not saving the children because of the vaccine. There's no proof of that. We haven't seen massive amounts of deaths in children from Corona. It does sometimes complicate asthma. Certainly, it's a complication of obesity and diabesity. But you know, this is not the way to deal with it.

Identifying vaccines as a source of harm lies in relation to the view that illness is remediable or preventable without pharmaceutical intervention. Trust that the body is able to heal itself presents a positive view of the immune system, which indeed is quite often able to fight infection. Yet, this view situates personal behavior as able to shape immune response and draws causal relationships between behavior and disease outcome that are not supported by scientific evidence (Offit 2013). Rather, these claims draw on a class-based logic of wellness that sounds intuitive and is thus believable. Despite ample evidence that toxic exposures and pollutants are beyond individual control (MacKendrick 2014), this rhetoric continues to dangerously prioritize self-regulation and rejection of fear of infection as key to health. It also frames vaccine decisions as a choice between health through self-regulation and faith (vaccine rejection) or cynicism, laziness, and susceptibility to fear (vaccine acceptance).

## Frankenfoods and Immune Harms

As individuals are urged to live healthy and without vaccines, food was most frequently referenced as the best sources of health prevention among vaccine opponents. Michele Sherwood, a doctor of osteopathic medicine and wife of the aforementioned Mark Sherwood with whom she runs a "Functional Medicine Clinic," explains how nutrition is more important to disease prevention than vaccines: "If you think about nutrition being the number one most important medical decision that you make every single day, and you make that three times a day, sometimes three times a day and two snacks over 365 days a year. It's either toxic, nutrient void, or calorie insufficient."

Fast food held a particular place of suspicion in this discourse but lack of nutrients generally – which led to calls for supplements – were also invoked to explain illness. Daniel Nuzum cautions that

> [i]f you're eating the standard American diet, it's only supplying seven essential nutrients you need at very, very bare minimum 73 nutrients. So what that is is…about 20% of 73. If we went to your car and randomly removed 80% of the nuts and bolts from your car, how well would it operate if you went [and] tried to turn it on? It's not going to operate probably won't even operate. Right? So it's [sic] let's say your brain is missing 80% of the nutrients okay? How is it supposed to operate properly?

Although there were frequent recommendations for fasting, coffee enemas, and cleanses, which purportedly could eliminate toxins from the body and return it to a healthier natural state, poor food choices were seen as undermining these interventions. Illustrating this, Jonathan Murphy explains how the benefits he believes exist in taking an anti-parasitic medication like Ivermectin to combat COVID may be less effective with fast food or other inferior nutritional choices:

> Think about the food as a base layer, and that is going to be helpful and critical. For example, someone's taking an anti-parasitic, like Ivermectin, and then they're eating McDonald's. It's going to create some problems for them in getting rid of the toxic waste and you want to keep the bowel movements going while you're doing parasite cleanses. You want to get rid of that junk and you want to have a high fiber diet, which you're going to get the more plant-based you eat. For example, the more greens you have, the more raw food you eat, the more fiber you're going to get. And so that's a great way to approach it.

Of course, excellent nutrition is no guarantee that a person can avoid illness, which at times led to more complicated conversations between vaccine opponents. Jonathan Otto discusses with Daniel Nuzum how those who promote nutrition as the key component sometimes misunderstand the health issues a person is facing. Drawing on an example of a woman with a rheumatoid arthritis and Hashimoto's thyroiditis, two autoimmune diseases, he highlights how supplements are not adequate without understanding the root cause of what he assumes inevitably must be malnutrition. He explains,

> [s]he was a good girl… Do you know how many times this woman ate at McDonalds? I mean she had a lot of conditions. She probably looks like she probably abused herself. It doesn't surprise you to know that she in her whole life has only eaten McDonald's once. This is not somebody that tried to destroy their body. I'm sure you've seen cases like this.

Otto's explanation presumes that illness would be explicable in someone who was not "a good girl," in other words, someone who ate fast food often. He identifies others who have worked hard and still experienced illness:

People get blamed, blame people and assume that it was because they ate bad. I get upset about that because I know that a lot of the people that are even watching this right now feel upset that that has always been the thing, and they've tried so many different diets and they've stuck to it. And then their practitioner often says, I mean this happens often, "Well, you're not sticking to it strong enough" even though they completely stuck to it, or they cheated once, but it doesn't explain why they're not better than when they started.

Rather than using this example as evidence that disease is not individually manageable or that the body's susceptibilities are complex, sometimes unpredictable, or not shaped by food alone, Otto and Nuzum invoke this and other exceptions to reinforce the myth of the naturally healthy body that is undermined by toxins in and beyond food. Nuzum reflected on his own practice, noting, "I've seen people that were, you know, ate pretty clean their whole life, never smoked, never drank. Never, never did all this stuff. And the thing is we are in an environment that is toxic. We have toxins around us." Even when evidence points to the fallacy of assuming that the body is naturally healthy, vaccine opponents blame the environment in ways calculated to confirm their rhetoric of personal choice. In other words, choice remains the cure no matter the cause.

## Counting COVID Deaths and Comorbidities

COVID-19 has killed an estimated 6.9 million people as of June 2023 (Worldometer 2023). By December 2021, unvaccinated Americans had 53 times the risk of death as vaccinated Americans (Johnson et al. 2022). To explain these excess deaths, vaccine critics argue that data have been misreported and that COVID-related deaths are due to pre-existing conditions and comorbidities, not the virus (Reuters Fact Check 2022). Longtime vaccine opponent Robert Kennedy, prior to becoming the U.S. health secretary, insists COVID kills very few without comorbidities, defined as one or more health maladies in addition to COVID infection. Acknowledging that he does not know how many people the disease has killed, he explains,

CDC data showed that it was only 6% of the people who died from COVID-19 that were reported as COVID deaths that had no comorbidities, are the only cause of death. Everybody else, there were other either accidents or comorbidity and those people we don't know whether they died of COVID… COVID clearly kills people. We don't know, we have very very poor data as to how many people are actually being killed.

Henry Ely has repeatedly made similar claims and even filed a lawsuit in an effort to expose what he insists are changes in the reporting of deaths in the U.S. Early claims that the federal government incentivized states to report COVID as the cause of death, even when other health issues existed. For example, he explains that when

someone dies with influenza, the death certificate would "be properly reported and the cause of death would be considered to be chronic obstructive pulmonary disease, COPD, since in this case example this is the oldest comorbidity." However, Ely insists that "if this same 77-year-old person instead of it being influenza H1N1, it was SARS-CoV-2 virus, COVID, what would happen is COVID-19 would be listed as the cause of death. And all the comorbidities that had been going on for 10 years-plus would be listed in part two as contributing and that's how you start manipulating data. Because these roles, this change only applies to COVID. It doesn't apply to any other cause of death. So COVID has its own unique rules."

In claiming that comorbidities account for COVID deaths rather than the infection itself, vaccine opponents argue the disease is not serious unless one has suboptimal personal health. Illustrating this, Ely insists "[b]y and large, the common experience from COVID is not death, is not hospitalization. It's recovery. The numbers don't lie, and this is all again CDC data."

These narratives serve to underscore claims the vaccines are not important, and that underlying health is key. They thus support an ideological commitment to personal responsibility for health that holds individuals accountable for health outcomes and further translates infectious disease into an individual problem with individual solutions.

The focus on "self-responsibility" and "self-governance" ignores that some vulnerabilities require community support and that infectious disease containment relies on widespread prevention. Author Naomi Wolf has become outspoken against the public insistence that vaccines are safe and effective against COVID and require widespread use. Calling claims that vaccines protect others false, she explains how vaccines are entirely a personal choice for possible personal benefit:

> [It's] your decision whether or not to get vaccinated. Really, maybe it's a good decision, maybe it's a bad one. But it only affects you. It doesn't affect anyone else around you. However, one of the kinds of impressively great lies of all time was told at around this time over and over and over again, with sound bites like, "You need to get vaccinated for yourself, your loved ones and your community," or the way President Biden put it that fall, "You will see a winter of severe disease and death. Oh you unvaccinated, for yourselves, your loved ones, and your community." Well, all of that was an outright lie.

In rejecting the logic of community intervention, Wolf and others dismiss the role of governments and agencies in helping those who are most vulnerable to the worst outcomes of infection. Instead, the privileged views of wellness, which transform disability into a personal failure, persists, often with an accompanying marketing strategy for blogs, supplements, consultations, or even trainings on how to undermine public schools or public health.

## Conclusion

Imagining health and illness as manifestations of hard work, nutrition, and self-control ignores the reality that infectious disease often does not choose its victims based on these factors. Yet the claims resonate with larger cultural trends that commercialize and prioritize individualism and promise that health is earned and rewarded.

On the surface, these claims draw on a kind of class privilege that defines health and wellness in expensive terms. The relationship between health and wealth has long been established, with lower mortality, higher life expectancy, and decreased risks of obesity, smoking, hypertension, and asthma consistently appearing for those with resources (Pollack et al. 2007). Yet, the costs associated with high quality, nutrient-dense foods and access to exercise and safe environments remain beyond reach for many. One 2021 poll found that 59% of Americans report that "the high costs get in the way of them maintaining a healthy lifestyle." That number rises to 68% in urban areas (Melore 2021). From the perspective of these narratives, successful performance of commitment to one's health requires resources of money, time, and geography.

The relationship between immunity and lifestyle is less clear. Having a diet that is lower in sugar and higher in nutrient-dense foods is associated with better immune system functioning and lower rates of diabetes and other chronic diseases that can in turn affect the immune system as well as other systems in the body (Kubala 2021). A recent study found that those with the worst diet and highest levels of social deprivation had the worst outcomes of COVID infection (Merino et al. 2021). Rather than finding a dose-response to food and supplements, where the amount consumed would lead to a commensurate improvement in health, the authors caution that "[i]ndividuals who eat healthier diets are likely to share other features that might be associated with lower risk of infection such as the adoption of other risk mitigation behaviours, better household conditions and hygiene, or access to care" (Merino et al. 2021, 2103).

The relationship between supplements and infection is also unclear. Vitamin deficiency can lead to worse outcomes, but there is no evidence that supplements can entirely solve this (Vlieg-Boerstra et al. 2022; Israel et al. 2022). What is clear is that high doses or chronic use of supplements commonly claimed to be COVID cures have been linked with adverse effects, including "vitamin D with muscle pain and loss of bone mass; vitamin A with elevated liver function tests and blurred vision; vitamin E with bleeding risk; plant extracts, magnesium with gastrointestinal effects; and selenium with hair loss and brittle nails" (McGuire 2022).

Despite the lack of scientific evidence, the supplement industry is estimated to have grown by 20–25 percent during COVID, with vitamins C, D, and zinc seeing

the greatest increase in demand. The largely unregulated supplement business is estimated to be a $36 billion industry (Roedel 2022).

These claims take a toll as the narratives of infection that insist that disease is containable, controllable, and unlikely to affect individuals who take personal responsibility for their health are profitable. They also serve to undermine community solutions that protect those who are most vulnerable. This rhetoric ignores social inequality and instead blames those who, despite their best efforts, are significantly impacted by infection due to factors beyond their control. Throughout, vaccines, which have been proven to significantly lower risk of death and serious illness and to reduce the spread of diseases like COVID, are undermined and even framed as harming those they can help.

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