

“Alternative Facts” Aren’t a Reason To Skip Vaccines

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President Donald Trump’s administrations have been notorious for an array of “alternative facts” — ranging from the relatively minor (the size of inaugural crowds) to threats to U.S. democracy, such as who really won the 2020 election.

And over the past six months, the stakes have been life or death: Trump’s health officials have been endorsing alternative facts in science to impose policies that contradict modern medical knowledge.

It is an undeniable fact — true science — that vaccines have been miraculous in preventing terrible diseases from polio to tetanus to measles. Numerous studies have shown they [do not cause autism](#). That is accepted by the scientific community.

Yet Secretary of Health and Human Services Robert F. Kennedy Jr., who has no medical background or scientific training, doesn’t believe all that. The consequences of such misinformation have [already been deadly](#).

For decades, the vast majority Americans willingly got their shots — even if a significant slice of parents had misgivings. A 2015 survey found that 25% of parents believed that the measles, mumps, and rubella (MMR) vaccine could cause autism. (A [1998 study](#) that suggested the connection has been thoroughly discredited.) Despite that concern, just 2% of children entering kindergarten were exempted from vaccinations for religious or philosophical objections. Kids got their shots.

But more recently, poor government science communication and online purveyors of misinformation have tilled the soil for alternative facts to grow like weeds. In the 2024-2025 school year, rates of full vaccination for those entering kindergarten dropped to just over 92%. In more than a dozen states, the rate was under 90%, and in Idaho it was under 80%. And now we have a stream of measles cases, more than 1,300 from a disease declared extinct in the U.S. a quarter-century ago.

It's easy to see how both push and pull factors led to the acceptance of bad science on vaccines.

The number of recommended vaccines [has ballooned](#) this century, overwhelming patients and parents. That is, in large part, because the clinical science of vaccinology has boomed (that's good). And in part because vaccines, which historically sold for pennies, now often sell for hundreds of dollars, becoming a source of big profits for drugmakers.

In 1986, a typical child was recommended to receive 11 vaccine doses — seven injections and four oral. Today, that number [has risen](#) to between 50 and 54 doses by age 18.

The Advisory Committee on Immunization Practices, which renders judgments on vaccines, makes a scientific risk-benefit assessment: that the harm of getting the disease is greater than the risk of side effects. That does not mean that all vaccines are equally effective, and health officials have done a lackluster job of fostering public understanding of that fact.

Older vaccines — think polio and measles — are essentially 100% effective; diseases that parents dreaded were wiped off the map. Many newer vaccines, though recommended and useful (and often heavily advertised), don't carry the same emotional or medical punch.

Parents of the current generation haven't experienced how sick a child could be with measles or whooping cough, also called pertussis. Mothers didn't really worry about hepatitis B, a virus generally transmitted through sex or intravenous drug use, infecting their child.

That lack of understanding spawned skeptics. For example, since 2010, the vaccine for influenza, which had been around for decades, has been recommended annually for [all Americans](#) at least 6 months old. In the 2024-2025 season, the rate of flu vaccination was only between [36% and 54% in adults](#); in other years, it has been lower than that. "I got the flu vaccine, and I still got the flu" has been a common refrain of skeptics.

"Pre-COVID, there were people who took everything but flu," said [Rupali Limaye](#), an associate professor at Johns Hopkins University's Bloomberg School of Public Health, who studies vaccine demand and acceptance. "Then it became everything but COVID. Now it's everything — including MMR and polio."

Even as the first Trump administration's Operation Warp Speed helped develop COVID vaccines, conservative media outlets [created doubts](#) that the shots were needed: doubts that mRNA technology had been sufficiently tested; doubts that COVID-19 was bad enough to merit a shot; concerns that the vaccines could cause infertility or autism.

Trump [did little to correct](#) these dangerous misperceptions and got [booed by supporters](#) when he said that he'd been vaccinated. Once vaccine mandates came into play, Trump strongly opposed them, reframing belief in the vaccine as a question of personal liberty. And if the government couldn't mandate the COVID shot for school, it followed that officials shouldn't — couldn't — mandate others.

Thus 100 years of research proving the virtues of vaccination got dropped into a stew of alternative facts. You were either pro- or anti-vaccine, and that signaled your politics. Suddenly, the anti-vax crowd was not a small fringe of liberal parents, but a much larger group of conservative stalwarts who believed that being forced to vaccinate their kids to enter school violated their individual rights.

Even within the Trump administration, there have been some who (at least partly) decried the trend. While Marty Makary, the Food and Drug Administration commissioner, [defended Kennedy's decision](#) to roll back the recommendation that all Americans get annual COVID boosters — saying the benefits were unproven — he noted it should not be a signal to stop taking other shots.

As “public trust in vaccination in general has declined,” he wrote, the reluctance to vaccinate had harmed “vital immunization programs such as that for measles-mumps-rubella (MMR) vaccination, which has been clearly established as safe and highly effective.”

Nonetheless, Makary's boss, Kennedy, continued to [promote bad science](#) about vaccines broadly, even as he sometimes grudgingly acknowledged their utility in cases like a measles outbreak. He has funded new research on the already disproven link between MMR shots and autism. He has halted [\\$500 million](#) in grants for developing vaccines using mRNA technology, the novel production method used for the first COVID vaccines and a technique scientists believe holds great promise for preventing deaths from other infectious diseases.

In my 10 years practicing as a physician, I never saw a case of measles. Now there are [cases in 40 states](#). More than 150 people have been hospitalized, and three, all unvaccinated, have died.

Alternative facts have formed what David Scales, a physician and sociologist at Weill Cornell Medical College who studies misinformation, calls “an unhealthy information system.” It is an alternative scientific universe in which too many Americans live. And some die.

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