

EDITOR'S PICK

Public Health: Risks and rewards - an argument for vaccinations

AMBER JOHNSON

Oct 29, 2024

The American experiment might never have achieved success were it not for the controversial decision made by Gen. George Washington to mandate smallpox inoculations for the entirety of his army.

According to the United States Library of Congress, an estimated 90% of deaths in the Continental Army were not caused in battle but by disease - primarily smallpox. Fatality was high and enlistment low, due to the contagious spread of the disease in war camps. While many of the British troops from Europe were immune to the virus, the colonists were not. And they were dying en masse.

One of the deadliest human diseases in recorded history, smallpox acted as a leading cause of death for millennia, killing hundreds of millions of people across the world. An endemic virus for thousands of years, smallpox wiped out entire civilizations. In the 18th century, an estimated 400,000 Europeans died each year of smallpox. Be it accidental, intentional or both, it was a biological weapon that decimated Indigenous communities in the western hemisphere,

including the First Nations people of Montana. According to a lesson in Montana's Indian Education for All curriculum, smallpox killed two-thirds of the Blackfeet tribe during the 1837 Great Plains Epidemic.

People are also reading...

- 1 **Are you bready to order? Panera drive-thru open in Helena, dining room to open in coming weeks**
- 2 **Commission recommends AG be suspended, Knudsen vows to appeal**
- 3 **Helena Chick-fil-A's 3rd building review rejected, but approval expected soon**
- 4 **Famed grizzly bear 399, a Grand Teton National Park icon, killed in collision with vehicle**



Amber Johnson
Photo provided

According to the World Health Organization (WHO), the ancient practice of variolation, also known as inoculation, was widely used in Asia and Africa to combat smallpox before making its way to Europe and the American colonies. Variolation consisted of transferring small amounts of material from smallpox sores to healthy people, resulting in milder forms of illness and much lower mortality than natural infection.

After losing his son to smallpox in 1734, Benjamin Franklin became an outspoken advocate for inoculations and would later encourage Gen. Washington to weigh the pros of his very controversial decision. Washington knew that mandatory inoculations might backfire and cause more harm than good. Maybe inoculations would cause more disease? Maybe mandatory inoculations would harm recruitment efforts? Maybe is the land of both fear and possibility. He took the risk and ordered the mass inoculation of Continental Army soldiers.

Twenty years later, in 1796, the first smallpox vaccine was administered to a young boy in England. Fast forward 200 more years, and smallpox disappeared from the earth. The World Health Organization documented the last case of naturally occurring smallpox in Somalia in 1977. It is the only eradicated infectious disease, considered the greatest global public health achievement in world history. All thanks to the creation of vaccines.

Risks and rewards

Tell people they have a 1 in 292.2 million possibility of winning the jackpot lottery and sometimes they will go out and buy a ticket. "So, you're saying there's a chance!" Tell people they have a one in a million chance of having a severe reaction after a vaccination and some will vow never to take "the jab."

As humans, we have incredible imaginations. If used for good, imagination is a tool that inspires incredible art and innovation. If used for bad, imagination is a tool that inspires abject terror and poor decision-making.

According to Dan Field, a therapist specializing in gambling addiction treatment, the purchase of lottery tickets gives people the opportunity to indulge in fantasies about how their lives could change if they win. After all, we cannot live without hope.

The opposite is also true; the imaginary indulgence of terrible “what ifs” is what psychologists call “catastrophic thinking.” When caught up in catastrophic thinking, we fantasize about the worst possible outcomes and can work ourselves into a mental and emotional frenzy.

Vaccines inspire terrible “what if” fears for millions of people.

There is a risk for almost anything in life, vaccines included. Airplanes crash, bridges fail, marriages end in divorce, surgery does not work, houses burn down, hurricanes destroy businesses. Death is the only guarantee in life. We take a chance every time we put the car into drive, particularly during a Montana winter. But that is a risk we take in our lives daily.

Live inoculation of the smallpox virus was far riskier than today’s vaccinations, and they didn’t always work. Gen. Washington took the risk anyway, ordered the mass inoculation of his Continental Army from smallpox, and the risk paid off. The colonies won the war, and the American experiment began. Huzzah.

Severe physical reactions to any vaccine, be it COVID-19 or DTAP, are rare. Validated studies report that life-threatening allergic reaction is a rate of approximately five cases per 1 million vaccine doses administered. And even if a person should go into anaphylactic shock, health care providers can easily and quickly administer treatment for the reaction.

Since December 2020, Lewis and Clark Public Health has administered 47,737 COVID-19 vaccine doses, equal to 33 shots per day, every day in the last four years.

Our nurses at the department have a combined 111 years of nursing experience. Educated, experienced and compassionate professionals, they have collectively administered thousands of immunizations for children and adults alike. Not a single one of our nurses has ever had to administer an EpiPen to a patient for a vaccine-related severe allergy during those 111 years of collective experience.

While mild side effects like sore muscles, headaches and fatigue are common after vaccination, severe side effects other than allergic reaction are rare, but they do happen and vary depending on the type of vaccine administered. When you or your child receive any immunization, you will also receive a handout detailing the risks and potential side effects of that vaccine. This is called a vaccine information statement. Should you be curious or concerned, your health care provider can answer most questions about potential side effects.

In 1990, the Food and Drug Administration and Centers for Disease Control and Prevention together established the Vaccine Adverse Event Reporting System, which is used to “detect possible signals of adverse events associate with vaccine.” Every reported incident is investigated, and vaccines are withdrawn from the market if proven unsafe or problematic.

A recent study published in the Journal of American Medical Association (JAMA), a peer reviewed and highly credible scientific journal, found that no increased risk was identified between mRNA COVID-19 vaccines and Guillain-Barre Syndrome, a neurological and autoimmune condition in which the immune system mistakenly attacks the body. However, Johnson & Johnson/Janssen COVID-19 vaccine was associated with increased risk for GBS-

related reactions. Shortly after JAMA published the study, the J&J/Janssen COVID-19 vaccine became no longer available for use in the United States, replaced entirely with Pfizer-BioNTech, Moderna and Novavax.

We have all heard people (especially on Facebook) proclaim, “My friend got the vaccine and he’s dead now!” Hear me out. If someone with high blood pressure and high cholesterol gets the COVID-19 vaccine and dies from a stroke a year later, it is safe to assume they died of heart disease. Their COVID-19 vaccine simply immunized them from a season of severe respiratory illness; it did nothing to lower their blood pressure or cholesterol.

And if someone does experience awful side effects from a vaccine, my heart goes out to them. It sucks, but it happens. What a dreadful and scary thing; something I would not wish on anyone.

I, the author (Amber), am allergic to penicillin. But I still recognize it as the first wonder drug in human history and champion its use by most others to treat bacterial infections. Just because I experience negative side effects from penicillin does not mean that it doesn’t work perfectly well for almost everyone else. Not to mention that it has saved countless lives.

Yes, vaccines come with risks, albeit rare. But the rewards of the mass immunization of our societies are countless. Today, I can rest my head at night and not fear that I or my loved ones will die painfully or needlessly from communicable diseases that can be prevented or ameliorated with a safe and effective vaccine. I suppose the chance still exists, but it is so much lower than otherwise.

We live together in a society, not alone on an island. If not for yourself, get vaccinated for your neighbor or loved one. We’re all in this together.

Amber Johnson is the communications specialist for Lewis and Clark Public Health.

Popular in the Community



Carrie Sheffield:
Donald Trump will...

Laughing Water

Trump's version of religious liberty seem...

Top Comment 19

The last-minute smear campaign...

John Munding

The inability of the National Republican...

Top Comment 1

Montanans, vote 'no' on CI-128 | Shaun ...

Boots Feist

This is a bizarre stance. Perhaps if this doctor ...

Top Comment 4

AdChoices

Sponsored

Around The Web



Selling Ex's Ring Leads to Surprising Twist at Jewelry Store



Plastic Surgeon Tells: If You Have Wrinkles, Do This Immediately (It's Genius!)

Costco Shoppers Say This Wrinkle Remover is "Absolutely Worth It"



Why Doctors Are Recommending This Nail Clipper for the Elderly?

4 Worst Blood Pressure Drugs



Forget Furosemide, Use This Household Item To Help Drain Edema Fluid



Get Rid of Eye Bags Quickly With Our Bestseller! Try Today



Incredible Bra for Elderly Ladies Gains Popularity Across Montana



Essential Tool for Every Handyman [Learn More]