Vaccination: A Mythical History ~ by Roman Bystrianyk and Suzanne Humphries MD

With the approaching flu season and the enthusiastic calls to use the flu vaccine, you might be wondering where the idea of vaccination got its start. Where did the idea of injecting whole or bits of microbes and other substances into people in an attempt to provide protection against contagious disease begin?

Many medical and history books present a simple tale of the origin of vaccination. Most present the same basic tale of the brilliant observation of a simple country doctor and his courage in attempting to thwart a deadly and frightening disease of that time – smallpox, or as it was often called the speckled monster. In a recent and popular book, The Panic Virus, the author reiterates this classic tale.

In 1796, Jenner enlisted a milkmaid named Sarah Nelmes and an eight-year old boy named James Phipps to test his theory. Jenner transferred pus from Nelmes’s cowpox blisters onto incisions he’d made in Phipps’s hands. The boy came down with a slight fever, but nothing more. Later, Jenner gave Phipps a standard smallpox inoculation – which should have resulted in a full-blown, albeit mild, case of the disease. Nothing happened. Jenner tried inoculating Phipps with smallpox once more; again, nothing. [1]

Edward Jenner’s idea eventually became known as vaccination, which is derived from the Latin word for cow – vacca. It was originally referred to as cowpoxing, but eventually the term vaccination was adopted. As the story goes, with this invention in place, smallpox would be tamed and the world would be freed from the terror of the disease.

Such is the stuff of legends. The story is not unlike the classic Greek legends of Theseus defeating the child-devouring Minotaur, or Perseus beheading the deadly snake-headed Medusa, or many other classic stories of the brave hero defeating a deadly enemy. The Jenner legend has been reduced to a simple and memorable story of a hero defeating the deadly enemy, smallpox. Authors claim that with vaccination in place, “billions of lives” have been saved.[2]

But legendary heroes, particularly those that are used to support a belief, achieve an iconic status while any unsavory aspects about the hero and the story are ignored or forgotten. Mythical tales are designed to evoke a positive emotional response to influence societal thinking.

The tale of defeating smallpox begins well before the story of our hero. It begins with the concept of using small amounts of smallpox pus and scratching it into the arms of healthy people. This idea was introduced to the Western world by Lady Mary Wortley Montagu in 1717. She had returned from the Ottoman Empire with knowledge of the practice of inoculation against smallpox, known as variolation. This type of inoculation was simply a matter of infecting a person with smallpox at a time and in a setting of his choosing. The idea behind inoculation was that, in a controlled setting, people would do better against the disease than if they contracted it at some possibly less desirable time and place in the future.
The idea was embraced by the medical profession and enthusiastically practiced. But because of the complexity and danger involved, inoculation remained an operation that could only be afforded by the wealthy.[3] The procedure did often help protect the individual that was inoculated, but there was still an estimated 2-5% that died as a result.[4,5] Still, this was an improvement compared to a 20-25% mortality rate in those that had naturally contracted smallpox during an epidemic.[6] But, was the difference in mortality due to inoculation alone? Or could it have had something to do with the fact that the wealthy had better access to more nutritious food and a cleaner environment than the majority of society?

There was one major and generally unacknowledged drawback to variolation – those inoculated could and did spread smallpox creating more deaths than there would have been naturally. In a 1764 article the author recognized that smallpox was a contagious disease and that the practice of variolation would create new vectors to spread it. He compared the smallpox deaths in the 38 years before the introduction of variolation to the 38 years after, and found that smallpox deaths had increased—not decreased. He was forced to conclude that variolation on the whole, led to worse problems, because it caused more deaths than lives saved.

*It is incontestably like the plague a contagious disease, what tends to stop the progress of the infection tends to lessen the danger that attends it; what tends to spread the contagion, tends to increase that danger; the practice of Inoculation manifestly tends to spread the contagion, for a contagious disease is produced by Inoculation where it would not otherwise have been produced; the place where it is thus produced becomes a center of contagion, whence it spreads not less fatally or widely than it would spread from a center where the disease should happen in a natural way; these centers of contagion are manifestly multiplied very greatly by Inoculation . . .[7]*

However, while the popularity of variolation varied, the problem of it spreading smallpox, was largely unrecognized. Because variolation had become a very lucrative procedure it was enthusiastically continued by most of the medical profession through the 1700s and into the early 1800s. Smallpox continued to be spread by this medically-sanctioned procedure.

Now enters the hero of our legend. It was rumored among milkmaids that infection with cowpox would protect one from smallpox. In 1796, believing these stories, Edward Jenner performed an experiment on an 8-year-old boy named James Phipps. He took disease matter that he believed to be cowpox from lesions on a dairymaid, Sarah Nelmes, and vaccinated James Phipps with it. He later deliberately exposed the child to smallpox as a test to see if he was protected by the cowpox inoculation. When the boy did not contract clinical smallpox, it was assumed that the technique of vaccination was successful.

In 1798 Jenner published his results claiming lifelong protection against smallpox using his discovery with only rumors to support his contention. While he promoted the use of his technique based on the tale that someone infected with cowpox would be immune to smallpox, there were doctors of the time who challenged this myth, because they had seen smallpox follow cowpox. At a meeting of the Medico-Convivial Society, Jenner was ridiculed over his practice.

*But he [Jenner] no sooner mentioned it than they laughed at it. The cow doctors could have told him of hundreds of cases where small-pox had followed cow-pox . . .[8]*

From the beginning there were problems with Jenner’s procedure. In 1799, Mr. Drake vaccinated a number of children with cowpox matter obtained from Edward Jenner. The children were then tested by being inoculated with smallpox to see if the cowpox procedure had been effective. All of them developed smallpox, and vaccination failed to protect any of them. Jenner received the report but decided to ignore the results because they were not in support of his theory.[9]
Vaccination was quickly embraced by many in the medical profession as the answer to combating smallpox. By 1801, an estimated 100,000 people had already been vaccinated in England with the belief that the procedure would produce lifelong protection. The medical community continued to embrace Jenner’s ideas amidst numerous accounts that refuted the theory of vaccination. Early reports indicated that there were cases of people who had cowpox, or were vaccinated, and were still dying of smallpox. Specific cases of cowpox and vaccine failure were reported in the 1809 *Medical Observer*.

**A Child was vaccinated by Mr. Robinson, surgeon and apothecary, at Rotherham, towards the end of the year 1799. A month later it was inoculated with small-pox matter without effect, and a few months subsequently took confluent small-pox and died. 2. A woman-servant to Mr. Gamble, of Bungay, in Suffolk, had cow-pox in the casual way from milking. Seven years afterwards she became nurse to Yarmouth Hospital, where she caught small-pox, and died. 3 and 4. Elizabeth and John Nicholson, three years of age, were vaccinated at Battersea in the summer of 1804. Both contracted small-pox in May, 1805 and died . . . 13. The child of Mr. R died of small-pox in October 1805. The patient had been vaccinated, and the parents were assured of its security. The vaccinator’s name was concealed. 14. The child of Mr. Hindsley at Mr. Adam's office . . . died of small-pox a year after vaccination.[10]**

Reports through the early 1800s began to accumulate showing vaccination was not living up to its promise to protect from smallpox. A report in 1810 from the *Medical Observer* noted 535 cases of small-pox after vaccination, 97 fatal cases, and 150 cases of vaccine injuries.[11] Note that 97 deaths out of 535 cases is an 18% fatality rate and is essentially the same fatality rate as smallpox before vaccination was introduced. This high fatality rate along with 150 vaccine-related injuries was a direct challenge to this new and highly lauded medical procedure.

Another article in 1817 reflected the reality of vaccination failure.

> . . . the number of all ranks suffering under Small Pox, who have previously undergone Vaccination by the most skillful practitioners, is at present alarmingly great.[12]

In 1818 Thomas Brown, a surgeon with 30 years of experience in Musselburgh, Scotland, published an article discussing his experience with vaccination. He stated that he was originally extremely positive in promoting vaccination and that no one in the medical profession “could outstrip me in zeal for promoting vaccine practice.” But after vaccinating 1,200 persons, he became disappointed in the promise of vaccination. His experience was that, after vaccination, people still could contract and even die from smallpox, and that he could no longer support the practice.[13]

Like today, surgeons and doctors of the time were handsomely compensated for performing vaccination and thus had a tendency to embrace it as a new form of income. It is therefore quite significant for a doctor to have spoken out against it as Dr. Brown did.

Continued observations showed that smallpox could still infect those who previously had smallpox and that those who were vaccinated could also be infected.

> . . . during the years 1820, 1, and, 2 [1820-1822] there was a great hubbub about the small-pox. It broke out with the great epidemic to the north . . . It pressed close to home to Dr. Jenner himself . . . It attacked many who had had small-pox before, and often severely; almost to death; and of those who had been vaccinated, it left some alone, but fell upon great numbers.[14]

William Cobbett was a farmer, journalist, and English pamphleteer. In 1829 he wrote about the failure of vaccination to protect people from smallpox. Cobbett considered vaccination to be an unproven and fraudulent medical practice. He noted that:

> . . . hundreds of instances, persons cow-poxed by JENNER HIMSELF, have taken the real small-pox
Afterwards, and have either died from the disorder, or narrowly escaped with their lives!

During this time vaccine material was the “humanized” form, which meant that material was taken from the arm of a previously vaccinated person to vaccinate the next person. Arm-to-arm vaccination continued for decades, but as failures increased there was a belief that the vaccine had lost its original supposed potency, and there were calls to obtain fresh material directly from cows.

While the legend maintained that the vaccine material came from cows, Jenner actually believed the material originated from an infectious condition of horses called the “grease.” From this and other beliefs, there were many attempts to recreate an original cow-based vaccine. All these attempts failed.

Some believed that cowpox was simply smallpox that was passed through cows and somehow made into a new disease. This faulty belief would result in the creation of more smallpox epidemics.

In 1836 in Attenborough, Massachusetts, Dr. John C. Martin took fluid from the pock of a man who died from smallpox and inoculated it onto a cow’s udder. He then took pus from that cow and used it to vaccinate people. A large smallpox epidemic ensued causing panic and sickness in many people over the subsequent months. A later inquiry determined that this was nothing more than the old practice of smallpox inoculation.

Not only was vaccination failing and causing smallpox epidemics, but there were also reports of deaths from other causes shortly after vaccination. For example, a skin condition called erysipelas was a particularly prolonged and painful way to die.

. . . a boy from Somers-town, aged 5 years, “small-pox confluent, unmodified (9 days).” He had been vaccinated at the age of 4 months; one cicatrix . . . the wife of a labourer, from Lambeth, aged 22 years, “small-pox confluent, unmodified (8 days).” Vaccinated in infancy in Suffolk; two good cicatrices . . . the son of a mariner, aged 10 weeks, and the son of a sugar baker, aged 13 weeks, died of “general erysipelas after vaccination, effusion of the brain.”

Because arm-to-arm vaccination was being used, other diseases could be spread causing various epidemics. Infectious diseases attributed to vaccination included tuberculosis and syphilis. In 1863 Dr. Ricord spoke before the Academy at Paris.

First I rejected the idea that syphilis could be transplanted by vaccination. But facts accumulated more and more, and now I must concede the possibility of the transfer of syphilis by means of the vaccine. I do this very reluctantly. At present I do not hesitate longer to acknowledge and proclaim the reality of the fact.

As it became increasingly clear throughout the 1800s to more doctors and citizens that vaccination was not what it was promised to be, refusals increased. In order to deal with this, the judicial system intervened. In 1855, Massachusetts created a set of comprehensive laws providing for widespread vaccination.

These laws and compulsory vaccination did nothing to curb the problem of smallpox. Data from Boston that begins in 1811 shows that, starting around 1837, there were periodic smallpox epidemics that culminated in the great 1872 epidemic. After 1855, there were further smallpox epidemics in 1859-60, 1864-65, and 1867 and the infamous epidemic in 1872-73. This was the most severe smallpox epidemic since the introduction of vaccination. These repeat smallpox epidemics showed that the strict vaccination laws instituted by Massachusetts in 1855 had no effect at all (Graph 1). In fact, more people died in the 20 years after the strict Massachusetts vaccination compulsory laws than in the 20 years before.
By this point, the medical profession no longer claimed lifelong protection against smallpox from a single vaccination. Instead, claims were made that vaccination made smallpox less likely to kill or that smallpox would be milder. Calls were then made for revaccination. Claims were made that revaccination had to be performed anywhere from yearly to every 10 years.[25]

While the majority of the medical profession supported vaccination, there were those that spoke out against the procedure. Dr. Longstaffe, a prominent physician of Edinburgh England noted that huge profits were being made by vaccinators. Immense financial gain combined with the force of law created the perfect environment that would impose vaccination upon the citizens of the Western world.

The public vaccinators have received immense sums from Parliament . . . In 1850 alone they amounted to £54,727, and in the present year they will get nearly a quarter million. Other sums, also, which I cannot name, have been granted for the purpose of sustaining this monstrous fraud. Has ever a quack remedy produced so much gain?[26]

In England, governmental control strengthened over the years, with progressively stricter laws designed to enforce vaccination. Laws previously passed in 1840 and 1853 were consolidated into oppressive compulsory laws in 1867 that included fines for parents who did not vaccinate their children. However, through the 1800s, periodic smallpox epidemics continued to occur. A great pandemic struck in 1872 and took the lives of thousands, even those who were vaccinated.

Every recruit that enters the French army is vaccinated. During the Franco-Prussian war there were twenty-three thousand four hundred and sixty-nine cases of small-pox in that army. The London Lancet of July 15, 1871 said: Of nine thousand three hundred and ninety-two small-pox patients in London hospitals, six thousand eight hundred and fifty-four had been vaccinated. Seventeen and one-half per cent of those attacked died. In the whole country more than one hundred and twenty-two thousand vaccinated persons have suffered from small-pox . . . Official returns from Germany show that between 1870 and 1885 one million vaccinated persons died from small-pox.[27]

Concerns over vaccine safety, effectiveness, and governmental infringement on personal liberty and freedom through compulsory vaccination stoked the fires of the anti-vaccine movement. People began to resist the government and chose to pay fines. Some even accepted imprisonment rather than allowing vaccination for themselves or their children. The public backlash culminated in the great demonstration in Leicester England, in 1885. That same year Leicester’s government, which had pushed for vaccination through the use of fines and jail time, was replaced with a new government that was opposed to compulsory vaccination. By 1887, the vaccination coverage rates had dropped to 10%.[28]

Instead of relying on vaccination, people began to rely on proper sanitation, quarantine of smallpox patients and thorough disinfection of their homes. They believed this technique was a cheap and effective means that eliminated the need for vaccination. However, there were dire predictions from the majority of the medical community that strongly endorsed vaccination and believed the low vaccination rate would result in a terrible “massacre,” especially in the “unprotected” children.[29]
Despite such prophesies of doom from the medical profession, the majority of the town’s residents were steadfast in their belief that vaccination was not necessary to control smallpox. The prophecy that the Leicester residents would eventually be plagued with disaster never did come to pass. Low vaccination rates resulted in lower smallpox rates and deaths, than in well-vaccinated towns.[30] In fact, the lower vaccination rates correlated to an overall decrease in smallpox deaths (Graph 2). Leicester showed that by abandoning vaccination in favor of what became termed as the “Leicester Method,” deaths from smallpox were far lower than when vaccination rates were high.

The experience of unvaccinated Leicester is an eye-opener to the people and an eye-sore to the pro-vaccinists the world over. Here is a great manufacturing town having a population of nearly a quarter of a million, which has demonstrated by a crucial test of an experience extending over a period of more than a quarter of a century, that an unvaccinated population has been far less susceptible to small-pox and far less afflicted by that disease since it abandoned vaccination than it was at a time when ninety-five per cent of its births were vaccinated and its adult population well re-vaccinated.[31]

While vaccination was often promoted as a safe procedure, it often caused sickness or even death. From 1859 to 1922 official deaths related to vaccination were more than 1,600 in England (Graph 3). In fact, from 1906 to 1922 the number of deaths recorded from smallpox vaccination and smallpox were approximately the same (Graph 4).

At the end of the 1800s, smallpox changed its character. After the summer of 1897, the severe type of smallpox with its high death rate, with rare exception, had entirely disappeared from the United States. Smallpox turned from a disease that killed 1 in 5 of its victims to one that only killed anywhere from 1 in 50 and later to as low as 1 in 380. The disease could still kill, but having become so much milder, it was frequently mistaken for various other pox infections or skin eruptions.

During 1896 a very mild type of smallpox began to prevail in the South and later gradually spread over the country. The mortality was very low and it [smallpox] was usually at first mistaken for chicken pox. . . [32]

The author of a 1913 article in The Journal of Infectious Diseases presented a table showing that in 1895 and 1896 the smallpox death rate was around 20%, as it had been historically. The table also showed that after 1896 the death rate fell off rapidly, starting with 6% in 1897 to as low as 0.26% by 1908. As the mild form of smallpox replaced the classic type, smallpox could be difficult to tell from chickenpox, which was, by this time, considered a mild disease of childhood.

. . . chickenpox, is a minor communicable disease of childhood, and is chiefly important because it frequently gives rise to difficulty in diagnosis in cases of
By the 1920s it was recognized that the new form of smallpox produced little in the way of symptoms, even though few had been vaccinated.

Individual cases, or even epidemics, occur in which, although there has been no protection by vaccination, the course of the disease is extremely mild. The lesions are few in number or entirely absent, and the constitutional symptoms mild or insignificant.[34]

Despite this extremely low vaccine coverage rate, there was never a resurgence of smallpox. Even though smallpox was not a major issue, the practice of smallpox vaccination continued from the time of the last smallpox death in the United States in 1948 up until 1963. This resulted in an estimated 5,000 unnecessary vaccine-related hospitalizations from generalized rash, secondary infections, and encephalitis.

A 1958 study detailed the cases of 9 children in which 2 died of a skin condition due to vaccination, now being termed eczema vaccinatum. The occurrence of this disease was estimated by the authors to be between 1 in 20,000 to 1 in 100,000 with a fatality rate of 4 to 40%.[35] However, they acknowledged that most cases were not reported and there was no accurate accounting on this consequence of vaccination. There were also an estimated 200 to 300 deaths as the result of smallpox vaccination, while during the same time there had only been 1 smallpox death in 1948.[36]

Eczema vaccinatum is still occurring today, as recently noted in the news. A toddler was infected by his military father after the father was vaccinated. After a prolonged admission, and a week of experimental treatments including immune globulin from donor blood and antiviral medication, the toddler recovered. The mother also required treatment and virus was found all over the house.[38]

Because of poor surveillance and vaccine reaction underreporting, the authors of a 1970 study thought that the number of smallpox vaccine-related deaths could actually have been even higher. This study only examined deaths from 1959 to 1968 in the United States. If the deaths were this high in a country with a modern healthcare system, what was the total number of deaths from smallpox vaccination from 1800 to the present across the entire world?

There were those in the medical community who were relieved that the failure of compulsory vaccination never gained much public scrutiny. Instead, the focus was shifted to new types of vaccinations.

Compulsory vaccination which once had the suffrage of the nation has now hardly a serious supporter. We are ashamed to jettison the idea completely and perhaps afraid that if we did the accident of some future epidemic might put us in the wrong. We prefer to let compulsory vaccination die a natural death and are relieved that the general public is not curious enough to demand an inquest. In the meantime our attention is diverted to other and newer forms of immunisation.[39]
During this time with vaccination as virtually the only medically promoted way to deal with disease, there were doctors finding amazing successes with smallpox using other methods. Vinegar is a common food product that is made through fermentation of a variety of sources. An 1877 article described the success that Dr. Roth had using vinegar for smallpox prophylaxis.

D. G. Oliphant, M.D., of Toronto, Canada, having read the article on the use of Acetic acid in scarlet fever, writes of a “vinegar cure” as applied to smallpox. Dr. Roth first claimed wonderful success in treatment regarding vinegar more reliable as a prophylactic in small-pox than Belladonna in scarlet fever. Dr. Roth gave both to the sick and to the exposed two table-spoonfuls of vinegar, after breakfast and at evening, for fourteen days. Few persons thus treated took the disease at all. None who adopted the prophylactic treatment died, while among those under ordinary treatment the mortality was as usual.[40]

In 1899 Dr. Howe also demonstrated vinegar’s ability to protect a person from acquiring smallpox. Those who used the vinegar protocol were able to take care of other people with smallpox without fear of contracting the disease. The author notes that despite several hundred exposures, vinegar was protective against smallpox and was considered an “established fact.”[41]

Again, in 1901 professor MacLean promoted the idea of vinegar as a real preventative of smallpox. Dr. MacLean claimed that apple cider vinegar and no other type of vinegar should be used three or four times a day to protect a person from contracting smallpox.

J.P. MacLean Ph. D., the renowned “anti” Secretary of the Western Reserve Historical Society, having readily overthrown the conclusions of all the great men who for a century past have been convinced of the efficacy of vaccination for the prevention of smallpox, now comes to the front in the newspapers with the real preventative. “Any person who has been exposed need have no fear of smallpox if he will take two or three tablespoonfuls of pure cider vinegar three or four times a day.” The discussion may now be regarded as closed, and smallpox at last is conquered![42]

Apple cider vinegar might seem silly, but only because most people have been conditioned to accept the age-old prophylaxis for smallpox: raw, disease-laden, contaminated pus scrapings from an infected animal’s (usually a cow) belly, diluted in glycerin, and scratched into the human arm with a metal prong until the arm was raw and bleeding. What seems sillier now?

Scurvy is a disease that results from a deficiency of vitamin C due to starvation or just an extremely poor or unbalanced diet. Vitamin C is essential for the formation of healthy collagen. Collagen is the protein that forms connective tissue in skin, bones, and blood vessels and also gives support to internal organs. In scurvy, the body is not able to generate adequate collagen or extracellular matrix proteins that serve as mortar holding cells together and, as a result, literally comes unglued and falls apart.

William A. Guy, dean of the Medical Department of King’s College, described the poor diet of gold miners in California in the 1850s. Thousands of miners subsisted on meat, fat, coffee, and alcohol while working long, hard days under the unrelenting California sun. The vitamin C-deficient diet led many to develop scurvy.

Scurvy has been very prevalent among the gold miners of California . . . the emigrants upon the overland journeys and at the mines, as living almost entirely upon fried bacon or fat pork and flour made into batter-cakes, and fried in the fat, which completely saturates it. This is washed down with copious librations of strong coffee, and large quantities of brandy or whiskey are taken in the intervals of the meals . . . this has been the diet of thousands for months, under a scorching sun, when the temperature was over a hundred in the shade, the men being at the same time subjected to the most intense labour.[43]

Although many died of cholera during the California Gold Rush of the mid-1800s, an estimated 10,000 men died from scurvy.
During the American Civil War twice as many died from nutritional deficiency related diseases as those killed in battle.[44] For instance, the causes of death listed for Indiana soldiers buried at the National Cemetery in Andersonville, Georgia, shows that diarrhea and scurvy directly accounted for at least two-thirds.[45] Dysentery was the next common cause of death, with the infamous diseases such as smallpox, typhus, pneumonia, and gangrene responsible for only a small fraction. Those who were killed in actual battle or who died as a result of their wounds accounted only for 1 percent of the total deaths.

Other big infectious killers such as scarlet fever, measles, diphtheria, and whooping cough (also known as pertussis) all greatly declined during this time to where they were either completely eliminated or considered mild childhood illnesses by the mid-1900s. This massive decline of 99% of deaths in whooping cough and measles occurred before vaccines or antibiotics were available (Graph 5 & 6).

The fairytale legend of a country doctor making a discovery that saved the world from the devastation of smallpox is a fundamental medical belief that continues to be echoed by indoctrinated and naïve doctors whenever vaccines are challenged. Smallpox vaccine, in the minds of medical professionals remains a pillar of their vaccine faith. But the true history shows us a different reality.

The brand name of vaccination was indoctrinated into the world psyche as something to protect someone from an illness. This belief spawned off numerous other ideas using the same notion of injecting whole or parts of disease matter into living beings in attempts to protect them from a specific disease. The reality of vaccination is nothing close to the myth.

Other extremely effective alternative methods of sanitation, nutrition, apple cider vinegar, and other solutions were ignored and have since vanished from societal collective memory. Instead we were left with the mythical history of Jenner’s great discovery and the continued onslaught of dangerous vaccines to newborn infants. Vaccines are now a regular thing from cradle to grave, all in the name of supposedly healthier people. Now that the curtain has been pulled back on the origins of vaccination, do more and more vaccines seem like a good idea to you?

More information on the history of vaccination including polio, measles, whooping cough, and lost remedies can be found in Dr Humphries’ and Roman Bystrianyk’s book “Dissolving Illusions” which can be found on amazon.com
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