

## A Brief History of Ethics in the Presence of a Pandemic

Curt Anderson

Department of Biological Sciences, Idaho State University, Pocatello, ID 83209



\*Corresponding author email: [curtanderson@isu.edu](mailto:curtanderson@isu.edu)

Received: 27 June 2021 / Revised: 31 October 2021 / Accepted: 12 November 2021 / Published: 05 December 2021

### ABSTRACT

The current COVID-19 pandemic has had a strong effect on individual liberty versus a consequentialist ideal of the greater good for societal norms. Rather than arguing for the current situation, I have chosen to take a historical approach to address the ethics of dealing with these health situations in the past. Ultimately, I conclude that, while at risk of individual liberty, a rule utilitarian approach, as backed up by epidemiological data suggests that a mandate for the greater good is more ethical than a simple approach to individual liberty.

**Keywords:** COVID-19, Pandemic, Medical Ethics.

### 1 Introduction

The first principle of medical ethics from the AMA (2020) states “A physician shall be dedicated to providing competent medical care, with compassion and respect for human dignity and rights”. Considering the treatment of a pandemic, some individuals argue for separating categories of individuals based on a situational bias. Should confined, often forced labor humans (e.g., incarcerated individuals) be given similar equanimity as (sometimes) forced incarcerated humans (e.g., nursing homes)? Should age (however we define it) be a concern? Should comorbidities be considered to determine treatment? One could posit that non-pharmaceutical interventions (NPIs) such as complete lock-downs, school closings and societal efforts have increased our Quality Adjusted Life Years (QALYs), but at what cost? Should economics play a role for adjusting QALYs? Many of these questions go beyond not just the physician but to societal norms including, but not limited to, political, socioeconomic and religious ideals.

To address the policies involving health concerns, including those indirectly or directly involved with socioeconomic activities is complicated (UN.org, 2020). Early in the COVID pandemic, many NPIs (such as mandatory mask wearing or widespread testing) were implemented in some countries. Because of the naivete of some countries the decision was made to open back up, Italy went into another lockdown because of a surge, Duke University has now issued a stay-in-place order because of a surge in cases.

Dr Anthony Fauci (Director of the National Institute of Allergy and Infectious Diseases – NIAID) has warned that a plateau of cases is not necessarily a successful goal because it is not declining, but that at the current rate of vaccinations the guidelines could become more liberal soon. However, he also reported that in Italy, they backed off on mask mandates, opened the country up to social gathering and then completely shut down again in a few short weeks.

Thus, I think we can agree that it is very difficult to approach this from an ethical, scientific approach entirely. It is unpredictable to forecast. David DeCosse, the director of the Markkula Center for Applied Ethics at Santa Clara University has posited 5 approaches to analyzing this problem (scu.edu, 2021)

- **It’s not only about you**

It is medically and ethically correct to practice restrictions as a societal norm

- **In a pandemic, ethics takes a long view**

The benefit of our actions may not be immediate

- **Don't fear everything but fear the right things**  
Fear mixed with common science and common good for all is ethical
- **In a pandemic, ethics stay the same – and ethics also change**  
'Our usual ethical assumptions about who should get treated can give way in the face of scarce medical resources and the threat of disorder.'
- **Beware the bias in blaming**  
Do not blame whole groups of people based on socioeconomic situations or geography for which they have no control.

So, this is an ethical difficulty, as it is almost impossible to define because the data arrives daily and changes daily. This will address the current situation (as fluid as it is) by something that isn't fluid. *History*. I'll begin with the 1901 pandemic to the current COVID-19 with examples of how medical and governing bodies dealt with health crises historically and ethically in the United States.

## 2 Discussion

I will begin with a discussion of the major pandemics over the course of the past century. A discussion will entail how the pandemic was dealt with from a medical, legal and ethical perspective and conclude with applying this history to our recent COVID-19 pandemic.

### 2.1 1901 – Smallpox

In early May, 1901, there was an outbreak of smallpox, characterized by a high fever and skin lesions, often resulting in blindness, infections of the heart and crosses the blood barrier often causing death. The origin is not completely known, likely as early as the 6<sup>th</sup> century, but in the Northeast of the United States, it affected 3 cases per 1000 individuals with a nearly 33% mortality (CDC, 2021). 7 percent of African-Americans (2% of the population at the time) and 60 percent in males (Albert *et al.*, 2001) were affected. The Boston Board of Health attempted to control the epidemic. Additional hospital beds, additional temporary hospitals and contact tracing was attempted. A vaccine existed. Voluntary vaccinations were encouraged, and eventually legally required, but there were risks involved from the quality. Many objected and refused. Persons who refused were subjected to a \$5 dollar fine or a 15-day jail sentence (Boston Globe, 1902). Interestingly, the homeless were often blamed for spreading, not unlike the coronavirus.

'Virus squads' were sent out to vaccinate the homeless. An article was published in the Boston Globe in 1907, "*from the standpoint of free citizenship no government should forcibly inflict on any individual enjoying all other rights of the nation, a disease [vaccine] loathsome in its origin, and not free from danger to life, and with, at all events, impairment of bodily health, at least of a temporary nature*". (cited in Albert *et al.*, 2001). This led to a landmark case that ended in the Supreme Court. A pastor named Henning Jacobson fought the vaccination in court. One anti-vaccination group claimed this was '*the greatest crime of the age*' and it would '*slaughter tens of thousands of innocent children*' (Roos, 2020). It climbed to the Supreme Court who ruled that it did not violate the 14<sup>th</sup> amendment and thus was viewed as an ethical and moral activity in the legal system.

An egalitarian perspective believes in the concept that all people are equal and deserve equal rights. But at what costs to individual liberty? This is the view a consequentialist (or utilitarian) would take. That is, we list our possible courses of action and describe the outcomes from each. If they choose an option with the best overall outcome for all requires that we kill someone, then that killing is ethically justified. It can be justified that rightness (eliminating smallpox) is better than an improper motive (forced isolation). Therefore, if we choose the approach of vaccination over civil liberty it is ethically justified. The last case of smallpox in Boston was in 1932 and the last case in the United States in 1949. Vaccines for smallpox were stopped in the United States in 1971 (Archivist, 2001).

## 2.2 1918 – H1N1A

Also referred to as the ‘Spanish Flu’, the 1918 pandemic was estimated to have affected approximately 1/3 of the world’s population and the deaths were estimated to be approximately 50 million worldwide and 675,000 in the United States. (CDC, 2019). There was an estimated 15-33% morbidity and, in three weeks, it killed more people than all affected by the AIDS virus to date. At that moment, a vaccine wasn’t available and so NPI intervention was the only available option (quarantine, personal hygiene, disinfectants and limited public gatherings). It became the *‘the worst-case planning scenario for public health officials’* (Jester *et al.*, 2018). In a very Nostradamus quote from the CDC in 2019: *“This perhaps begs the question of whether a high severity pandemic on the scale of 1918 could occur in modern times.”*

To quote the singer, songwriter Greg Brown, *“it could and it did”*. At the time antibiotics were not available (penicillin wasn’t discovered – by the modern world, it’d been around for centuries -- until 1928). Schools closed, public gatherings were shuttered and quarantine orders were put in place. To put this in context, though, we were at war (in some ways not that different from COVID), and soldiers quarantined by nature, were highly susceptible. It became politicized.

*“there is nothing to fear.....this so called Spanish influenza is nothing more or less than old fashioned Grippe”* (a Chicago health official that sounds more than eerily like today’s pronouncements in late January of 2020). Since there was no vaccine, no cure,

*“False reassurance is the worst thing you can do. Don’t withhold information, because people will think you know more. Tell the truth— don’t manage the truth. If you don’t know something, say why you don’t know, and say what you need to do to know. **Drown people with the truth, rather than withhold it.**”* (CDC, 2006)

Masks were mandated, and there was a large rebellion despite a penalty of \$5-10 dollars or 10 days in jail (interesting, despite the Supreme Court ruling in 1906 that it was NOT a violation of one’s 14<sup>th</sup> amendment rights). There were even situations where individuals were shot for not complying, saloons were raided and churches were ordered to keep their windows opened during services. (Hauser, 2020)

In sum, the 1918 pandemic situation was dealt with by largely an ignorance of health care (nearly 25% of the medical staff were situated in the armed forces at the time), and the best efforts were education. Dr. Richard Hatchett, the Associate Director at the NIAID in 2006 expounded on what to learn from 1918:

- “a poorly mitigated pandemic will overwhelm medical resources;
- In the absence of prior planning and agreed up plan of action, conflicts may emerge that may retard the emergency response;
- Figuring out ways of gathering information in a timely fashion during difficult circumstances will be crucial;
- It is better for political leaders to be truthful rather than minimize what is happening; and
- Public health officials need to realize that you can’t make everyone happy in a pandemic”

The above quote was from 18 years before COVID. It is unfortunate we didn’t take it to heart until it was relearned. Or to quote former President Donald Trump in a January 22, 2020 interview by CNBC *“We have it totally under control. It’s one person coming in from China, and we have it under control. It’s going to be just fine”*. In 1919, President Wilson remained remarkably quiet (admittedly he was also dealing with WWI). *“There was no leadership or guidance of any kind directly from the white house...any negative was viewed as hurting morale and hurting the war effort”* (CNBC, 2020)

By 1919, most large cities mandated masks. Enforcement was extraordinarily problematic. *“It is the most unpopular law ever placed on the Pasadena records,”* W.S. McIntyre, the chief of police of Pasadena, CA, told the paper. *“We are cursed from all sides.”*

The world believed the spread of the 1918 pandemic eventually declined and functionally stopped by spring of 1919, the world was re-opened and the flu spiked again in 1920 post-reopening, but by the middle of 1920 (there is anecdotal evidence that post winter, simply getting out of closed places contributed

to its demise) the flu “*does tend to go quiet when the cold weather regresses, but no one knows why*” (Markle, accessed 2021). So, what do we conclude?

- Individual liberty was certainly affected.
- H1N1A was never eradicated, variations exist to this day.
- If we consider that ethics in action are evaluated on the basis of their consequences and adopt a utilitarian approach that discomfort (in this case, jail or fine) is in the greater good for all, it is more ethical than an egoism approach, but forced incarceration cannot be concluded to be a proper either medical or ethical approach because it was not identified to be a correct answer to the problem.
- Mask mandates could be argued to have had a strong determination for the reduction of a highly contagious and highly dangerous situation, but the science simply was not available at that time.
- Mandates without knowledge are fraught with social danger.
- If you accept that, it can be justified that rightness (eliminating H1N1A by the best properly developed education) is better than an improper motive (forced incarceration), but it takes strong leadership and education.

### 2.3 1950s – Poliomyelitis (Polio)

Poliomyelitis is a virulent virus that is highly contagious and affects the spinal cord primarily. It may, but is not limited to, conditions of parathesis (changing the perception of the appendages), meningitis (affecting the meninges of the brain and spinal cord) and in some cases paralysis. According to the CDC (2018), approximately 1 out of 200 exhibit paralysis following poliovirus infection. Paralysis is particularly a morbidity concern because if the virus gets to the diaphragm, breathing can cease. The use of an ‘iron lung’, or forced ventilators became the normal treatment.

The origins of the virus are intriguing. Daniel and Robbins (1997) describe Egyptian carvings depicting young people with limited sized limbs and requiring a cane. It is surmised that the Roman Emperor Claudius suffered from polio throughout his life (Shell, 2005). It remained rather unreported until the mid 19<sup>th</sup> century and was recognized as an epidemic in the United State in the early 20<sup>th</sup> century. Treatments became a fishing expedition. Quoting from Emerson (1916), Gould (1995) illustrated just how unusual it became:

*“Give oxygen through the lower extremities, by positive electricity. Frequent baths using almond meal, or oxidising the water. Applications of poultices of Roman chamomile, slippery elm, arnica, mustard, cantharis, amygdalae dulcis oil, and of special merit, spikenard oil and Xanthoxolinum. Internally use caffeine, Fl. Kola, dry muriate of quinine, elixir of cinchone, radium water, chloride of gold, liquor calcis and wine of pepsin.”*

From an ethical perspective, rather than to define a specific category, lets refer to the Hippocratic Oath. It is an oath to uphold professional ethical standards in treating patients. If one goes to the original Greek translation, a portion says:

*“I will impart a knowledge of the Art **to my own sons**, and those of my teachers, and to disciples bound by a stipulation and oath according to the law of medicine, **but to none others**. I will follow that system of regimen which, according to my ability and judgment, I consider for the benefit of my patients, and abstain from whatever is deleterious and mischievous. I will give no deadly medicine to any one if asked, nor suggest any such counsel; and in like manner **I will not give to a woman a pessary to produce abortion**.”* (emphases mine).

Who are the ‘none others’? In current medicine a pessary is a very different medical device used to treat certain conditions of the uterus and certainly taken literally from the original brings up some interesting ethical dilemmas. So, how seriously should we take the Hippocratic Oath given it was translated in 1849 from an estimated Greek writing in c. 400BC? The Oath was rewritten in 1964 to state:

---

*"I will respect the hard-won scientific gains of those physicians in whose steps I walk, and gladly share such knowledge as is mine with those who are to follow. I will apply, for the benefit of the sick, all measures [that] are required, avoiding those twin traps of overtreatment and therapeutic nihilism. I will remember that there is art to medicine as well as science, and that warmth, sympathy, and understanding may outweigh the surgeon's knife or the chemist's drug. **I will not be ashamed to say "I know not," nor will I fail to call in my colleagues when the skills of another are needed for a patient's recovery.....Above all, I must not play at God.**"* (emphases mine).

We are changing our ethical consideration in the mind of modern knowledge, but those ethics weren't the same as in 1916 when Emerson described his treatments. Were those treatments for the greater good; was Emerson 'playing God'? It is difficult to make an argument that he was, but was naïve by today's medicine not known at the time. Giving positive electricity to the lower limbs sounds absurd, but we do have hyperbaric chambers and TENS devices that are doing much the same thing (and the exact function of hyperbarics is still not well understood). At least he used 'chloride of gold' and not lead.

To put this in a modern perspective, the State of Utah purchased \$800,000 dollars in hydroxychloroquine and issued guidelines for its administration and prescription for treating COVID-19. ([https://dopl.utah.gov/docs/Hydroxychloroquine\\_Chloroquine\\_Guidance.pdf](https://dopl.utah.gov/docs/Hydroxychloroquine_Chloroquine_Guidance.pdf), 2020). The FDA rather quickly rejected the idea. Was the Division of Occupational and Professional Licensing of the state of Utah 'playing God'? I believe they were much more susceptible to improper medical ethics violations because of the volume of medical information available at the time.

In the early 1890s, the human life span was increasing dramatically, and polio was becoming more than an 'infant disease'. According to the CDC about 95% of all polio cases were asymptomatic. However, paralytic polio began with a loss of reflexes and spasms. These conditions are ubiquitous for many other conditions that had not been identified before that we now know as ALS, Parkinson's Disease, or Guillain-Barre syndrome. This was likely not the case in most conditions because polio was marked as a virus highly virulent in the infant and the above are more late onset. One of the most famous cases was President Franklin D. Roosevelt. Interestingly, there is very strong evidence that he did NOT have polio, but rather Guillain-Barre syndrome (Goldman *et al.*, 2016), however, Ditunno *et al.* (2016) vigorously tried to put to rest that he did in fact have polio. Regardless of which is factual, FDR founded the March of Dimes, which grew to a global phenomenon and, after nearly eradicating polio, then took on new missions of birth defects and healthy child birth (March of Dimes Archives, 2010).

Vaccines were attempted several times. By the 1950s, polio was considered an epidemic. In in 1955, Cutter Laboratories released a vaccine that was given to more than 200,000 children. Within months, 40,000 of those vaccinations had caused cases of polio, killing 10. This was described as "*Second only to the atomic bomb*", and [polio] was *'the thing that Americans feared the most'* (Fitzpatrick, 2006).

It was immediately withdrawn. Albert Sabin and Jonas Salk both developed novel vaccines, and eventually Salk's 'modified Salk' vaccine proved the most efficacious. Vaccination became mandated (all 50 states currently require it in children). In the United States, an enormous educational campaign was released to educate on the vaccine mandate, and according to the CDC, the last reported case of polio to originate in the United States was in 1979. From a purely utilitarian perspective, a vaccination mandate could be argued as ethical.

What is referred to as the 'Cutter Incident', led to two rather interesting ramifications for COVID-19. The federal government instituted regulation of vaccine production to ensure an increased oversight of vaccine testing and production. The National Vaccine Injury Compensation Program was developed as well to protect vaccine manufacturers from litigation that, at the time, nearly stopped vaccine research and production because manufactures couldn't afford litigation.

In sum, the polio epidemic produced some interesting ethical conundrums. Historically, this had been a long running viral condition. Medical science was in its infancy up through the late 1800s. Thus, one cannot look to early treatments as being unethical, because naivete is not necessarily part of ethics and 'do no harm' should be considered ethical as long as we consider it as 'do no harm either willingly or with

---



prior knowledge'. In addition, there is a continual trend of growing medical knowledge being transmitted through education.

#### **2.4 1950-2000+ – Measles, Mumps, Rubella (MMR)**

These three are joined together because there is currently a single vaccine for the three collectively.

**Measles** is a viral agent that invokes high fevers (104°+), rashes, heavy coughing, and a runny nose. It can be especially dangerous in infants. Like polio, it has a rich history of stability. The first written account was in 9<sup>th</sup> century Persia, but it wasn't until Francis Homes from Scotland identified it as an air borne, infectious blood disease. A vaccine was initially developed in 1963, but did not become heavily distributed until 1968. The CDC set out a plan to eliminate measles by 1982. It was considered eradicated in 2000, although the CDC has data that shows measles spikes annually, including 1282 confirmed cases in 2019. These tended to be confined primarily to communities with a higher prevalence of unvaccinated individuals (CDC, 2020).

**Mumps** is a viral disease within a similar family of viruses as that of measles. Once acquired, there is no treatment, but fortunately the majority of the conditions are not considered fatal. Usually attacking the salivary glands first, it often spreads quickly to the parotids and can cause significant swelling and discomfort, especially in infants. Other complications include meningitis, testicular inflammation and occasional atrophy, and ovarian and breast swelling in females. (Plotkin *et al.* 2008). A live, attenuated mumps vaccine was developed in 1967 and was immediately recommended for infants beginning at 12-15 months of age.

**Rubella** (also known as the 'German Measles' or the 'three-day measles') is a viral disease similar to measles, but a different family of virus. It is characterized by a generally low-grade fever, sore throat and rashes throughout body. Rubella is considered relatively benign, however during pregnancy the virus can be passed to the fetus and cause what is referred to as congenital rubella syndrome (CRS). CRS may cause teratogenic (e.g., developmental) malformations such as, but not limited to, spontaneous abortion, cardiac septal defects, microcephaly, congenital heart disease and hepatosplenomegaly (Yazigi *et al.* 2017). It is an aerosolized virus.

From 1964-1965 a severe epidemic occurred in the United States with roughly 12.5 million cases. "There were 2,100 neonatal deaths and more than 11,000 abortions – some a spontaneous result of rubella infection in the mother, and others performed surgically after women were informed of the serious risks of rubella exposure during their pregnancy." (CDCP, 2015)

The isolation of the virus began in the early 1960s and by 1969 was licensed in the United States and much of Europe. The development of the vaccine came from studies of rabbit, duck, dog serum and human fibroblast cell lines. (Plotkin, 2006). Interestingly, many of the different host cells caused slightly different side effects and one author claimed the American cell line based on the human diploid cell line (strain RA 27/3) was not approved because of a 'hypothetical contaminating' factor (Sabin, 1969). However, the European version of 23/7 showed a positive efficacy and in 1969 was licensed by the FDA and became the standard treatment.

**The MMR vaccine.** In 1971, the FDA licensed Merck's version of the measles-mumps-rubella as a stand-alone vaccine with a suggested immunity to measles (96%), mumps (95%) and rubella (94%). Interestingly, the first patient to receive the vaccine was the developer of the vaccine himself, Dr. Maurice Hilleman (Hilleman, 1998).

The vaccine, however was eventually fraught with controversy. A report published in 1998 in the *Lancet* suggested that the MMR vaccine caused autism. Beginning with a study of inflammatory bowel disease, the authors eventually concluded that "*Viral encephalitis can give rise to autistic disorders, particularly when it occurs early in life. Rubella virus is associated with autism and the combined measles, mumps, and rubella vaccine (rather than monovalent measles vaccine) has also been implicated*" (Wakefield, *et al.*, 1998). After being able to not provide further support and completely discounted by the scientific community (reviewed in Destano and

Shimabukuro, 2019), the Lancet retracted the article and Wakefield was removed from the UK Medical Registry.

**MMR vaccination recommendations and mandates.** The CDC recommends two doses of the vaccines starting at 12-15 months and the second dose at age four-six prior to entering school. A massive educational campaign began and the Public US Health Service, and its branch the CDC (originally known as the Communicable Disease Center) strongly recommended and urged all parents to vaccinate their infants. Every state in the United States has mandated the MMR vaccines for Child Care and K-12 school systems.

Exemptions can be made based on medical reasons (e.g. severely immunocompromised, or significant allergies), religious reasons (primarily Christian Scientists and some faith based healing groups) or personal or philosophical reasons. Originally with smallpox, many felt it was both an affront to individual liberty and on religious grounds, but more so recently it falls on individual liberty and a lack of education.

A recent series of outbreaks in mumps led to several studies revisiting the efficacy of the MMR vaccine (Forsey, 1994) and Connell *et al.* (2020) suggest “*a change of perspective regarding the impact of a vaccine in a highly vaccinated population from a clinical, diagnostic and public perspective, highlighting a need for a paradigm shift on what is considered vaccine immunity.*”

Thus, as Connell suggests, there are four primary causes for an outbreak. Primary vaccine failure, vaccine efficacy and impact, secondary vaccine failure and individual perception and actions (Connell *et al.*, 2020).

**Ethical considerations of a MMR mandate.** The only mandates that clearly exist for the public (non-healthcare, non-military, etc.) are primarily the public school system. These are clearly spelled out guidelines yet vary between states. In the US, 14 states have philosophical exemptions and five do not require MMR vaccinations based on religious or philosophical bases. Prior to COVID, the World Health Organization considered ‘vaccine hesitancy’ to be one of the ten threats to global health, as one in eight children in the USA are currently non vaccinated because of parental choice.

The legal definition of a mandate was clearly spelled out as demonstrating a reduction in individual rights. An egalitarian perspective believes in the concept that all people are equal and deserve equal rights. But at what costs to individual liberty? This is the view a consequentialist (or utilitarian) would take. That is, they list possible courses of action and describe the outcomes from each to decide upon if a vaccine mandate is appropriate. In this case, a consequentialist based ideal can account for, or accommodate, individual rights based ideals. John Mill in ‘On Liberty’ (1859) argues that the state can ethically be given permission to prescribe its power to prevent from harming others: “*the sole end for which mankind are warranted, individually or collectively, in interfering with the liberty of action of any of their number, is self-protection*”.

If, as Mill points out, power may be rightfully exercised to others against their will to prevent harm to others, does a parent have the right to not choose the generally considered healthy path (vaccines) for his or her child? If the children are homeschooled, yet plays with neighbors after school who are, does this affect public health? It is unethical to make a decision for your child not to be vaccinated, not only for that child’s health but also at the risk of infection causing a surge in health care costs (loss of others personal liberty) and it is certainly not ethical in this case if the parent has had vaccine hesitancy and then decides to carry a child and the risks are greatly increased for birth defects.

## 2.5 COVID-19

Mask mandates have been debated vigorously, but the data is existing for the better good for all, and there is definitive data that it is effective and a face masks effectively combined with social distancing provides substantial reduction in transmission (Chen, S., 2020). Lyu and Wehby (2020) showed a decline of 16-19 percent of infections with a mask mandate. Socially distanced individuals including, but not limited, to schools, restaurants and bars decreased 6.8 percentage points after six days up to 9.1 percent after day sixteen. It was taken into account stores that were only requiring the workers to wear masks, but not the customers, and that showed no significant difference in a reduction of the virus exposure

(Courtemanche *et al.*, 2020). They additionally estimate, using an event model regression and 7 variables (time of implementation, duration, etc.) that the incident of COVID expression would have increased by 10,000 million cases. This would have had the effect of furthering limitations on one's ability to work (e.g. restaurants would be less likely to re-open) and restarting economic activities would be further reduced.

Mandatory vaccinations are a little less clear in the current case, as they have been around for a comparably brief period of time, but we can look to history to see a very clear and remarkable impact on public health by mass vaccinations whether mandated or recommended. Smallpox was eradicated in the world by 1975. Polio had its last documented case in the US in 1979, and with the MMR vaccine since the widespread use of the vaccine has led to a *"greater than 99% reduction in measles compared to prior vaccination"* (CDC, 2018).

An egalitarian position is that all humans are equal and deserve equal rights. If one is entitled to equal rights a pure consequentialist approach is defined by the normative properties that are a result of one's actions. In this case, a consequentialist based ideal can account for, or accommodate, individual rights based ideals. More specifically, in the COVID situation, we have arrived at a classic case of utilitarianism. It is ethically, morally (and medically) correct to regulate normative values in a social situation.

With COVID, the immediate benefits of non-mandates has often been perceived as more socially and socioeconomically valuable than the long term effects of the virus. Actual consequentialism accepts actual consequences. In this case, the actual consequences are difficult to immediately discern. With smallpox, it took nearly 100 years to see the actual consequences and thus fines, jail time and mandated masks were fraught with social outrage. In the polio epidemic, there was a social agreement that it must be dealt because it was recognized as an enormous societal fear. Polio turned a corner in terms of justice and rights as there appears to a bipartisan agreement for the greater good. With the Cutter Incident, the process of creating the virus was ethically correct because the outcome was unpredicted and with no malfeasance of doing so.

Choosing to not wear a mask or to not get vaccinated is socially and ethically incorrect. Rule Utilitarianism suggests the moral right depends on the consequences (Singer, 1985), but Gert (2005) also suggests that these moral rules be 'publicly known'. Thus, a consequence of this approach is to publicly make known the 'rules' and, by default it is ethical to create the rules (e.g. mandates). But history has taught that the acceptance of the 'rules' is dependent strongly and urgently upon education, done quickly and take viral variants into account:

*"In the majority of individuals, a vaccine can prevent serious clinical sequelae and associated complications following wild type infections, but also significantly reduce onwards transmission in particular to the cohorts who are not vaccinated due to a contraindication to vaccination.*

*This is the positive and realistic view of vaccination which should be presented rather than the current flawed message of "get the vaccine and be protected from infection." The public deserves, and will appreciate, a more accurate and informed message."* (Connell *et al.*, 2020)

### **3 Conclusion**

As we have just passed the 40<sup>th</sup> anniversary of the eradication of smallpox, have we learned anything? Throughout history, multiple approaches have been tried, from forced vaccinations to forced jail time and or fines and mandated quarantines. Initially was a rather rule based, deontological approach that built upon a universal moral code. These were challenged legally, upheld in the court and became rather contentious. Individual liberty is the common theme throughout the past 120 years of epidemics. In almost all cases, the legal definition was clearly spelled out as demonstrating a reduction in individual liberty. An egalitarian perspective believes in the concept that all people are equal and deserve equal rights. But at what costs to individual liberty if communal rules are established? This is the view a consequentialist (or utilitarian) would take. That is, there is a created list of possible courses of action and describe the outcomes from each to decide upon these health decisions for the greatest good. I conclude that individual liberty is not absolute, yet should be protected at all times except in potential situation of harm to others.



## 4 Declarations

### 4.1 Acknowledgments

The author would like to thank Dr. Ralph Baergen for intellectual discussions during the formation of this manuscript.

### 4.2 Competing Interests

The author declares no current or potential competing interests.

### How to Cite this Article:

Anderson, C. (2021). A Brief History of Ethics in the Presence of a Pandemic. *Advanced Journal of Social Science*, 9(1), 27–35. <https://doi.org/10.21467/ajss.9.1.27-35>

### References

- Albert *et al.*, (2001) The last smallpox epidemic in Boston and the vaccination controversy, 1901-1903. *N Engl J Med*. 344(5):375-9.
- AMA Code of Medical Ethics (2020) <https://www.ama-assn.org/delivering-care/ethics/ama-code-medical-ethics-guidance-pandemic> (retrieved 3/27/21)
- Archivist, (2001) Smallpox in Boston a hundred years ago. *Arch Dis Child*. 84(4):301
- August, (2020) The 1918 Flu Pandemic Killed Hundreds of Thousands of Americans. The White House Never Said a Word About It. <https://time.com/5877129/1918-pandemic-white-house/> (retrieved 3/21/21)
- Center for Disease Control (2018) <https://www.cdc.gov/polio/what-is-polio/polio-us.html>
- Center for Disease Control (2020) <https://www.cdc.gov/flu/pandemic-resources/1918-pandemic-h1n1.html>
- Center for Disease Control (2021) <https://www.cdc.gov/smallpox/>
- Centers for Disease Control and Prevention (2015). *Epidemiology and Prevention of Vaccine-Preventable Diseases*. Atkinson, W., Wolfe, S., Hamborsky, J. eds. 13th ed. Washington DC: Public Health Foundation.
- Chen, X (2020) Reviewing and Reflecting on Nursing During the COVID-19 Pandemic. *Hu Li Za Zhi* 67(6):4-5
- Connell *et al.*, (2020) Mumps Outbreaks in Vaccinated Populations—Is It Time to Re-assess the Clinical Efficacy of Vaccines? *Front. Immunol*. 11:2080
- Daniel and Robbins (eds). *Polio*. ISBN 9781878822901.
- Ditunno *et al.*, (2016) Franklin Delano Roosevelt: The Diagnosis of Poliomyelitis Revisited. *PM R*. 8(9):883-93
- Fitzpatrick, (2006) The Cutter incident: How America's First Polio Vaccine Led to a Growing Vaccine crisis., *J. Roy Soc. of Med*. 99:156
- Ferguson *et al.* (2005). Strategies for containing an emerging influenza pandemic in Southeast Asi. *Nature* 437:209-214
- Forsey (1994). Mumps vaccine – current status. *J Med Micro*. (41) 1-2
- Goldman *et al.* (2016) Franklin Delano Roosevelt's (FDR's) (1882-1945) 1921 neurological disease revisited; the most likely diagnosis remains Guillain-Barré syndrome. *J Med Biogr* 24(4):452-459
- Gould (1995) *A Summer Plague: polio and its survivors*. Yale University Press
- Gert (2005) *Moral Arrogance and Moral Theories*. Accessed 3/23/21 from Wiley Online Library <https://onlinelibrary.wiley.com/doi/full/10.1111/j.1533-6077.2005.00072.x>
- Jester *et al.* (2018) Readiness for Responding to a Severe Pandemic 100 Years After 1918. *Am J Epidemiol*. 187(12): 2596–2602.
- Lyu and Wehby (2020) Community Use of Face Masks and COVID-19: Evidence from A Natural Experiment of State Mandates in the US. *Health Affairs*. 39:8
- Markle, H. (retrieved 2021) *Influenza Encyclopedia*. <http://www.influenzaarchive.org/>. Univ Mich Center for the History of Med.
- Plotkin, S.A., *et al.*, eds. (2008) *Vaccines*, 5th ed. Philadelphia: Saunders
- Sabin A. (1969) Vaccine-associated poliomyelitis cases. *Bull World Health Organ*.40(6):947-9.
- Singer, (1985) *Ethics*. *Encyclopedia Britannica*. 627-628.
- UN.org (2020) <https://unsdg.un.org/sites/default/files/2020-04/UN-framework-for-the-immediate-socio-economic-response-to-COVID-19.pdf>
- Wakefield *et al.* (1998) Ileal-lymphoid-nodular hyperplasia, non-specific colitis and pervasive developmental disorder in children. *Lancet*. (9103):637-641.
- Yazigi *et al.*, (2017) Fetal and neonatal abnormalities due to congenital rubella syndrome: a review of literature. *Matern Fetal Neonatal Med*. 30(3):274-278.

#### Publish your research article in AJJR journals-

- Online Submission and Tracking
- Peer-Reviewed
- Rapid decision
- Immediate Publication after acceptance
- Articles freely available online
- Retain full copyright of your article.

Submit your article at [journals.ajjr.org](http://journals.ajjr.org)

#### Publish your books with AJJR publisher-

- Publish with ISBN and DOI.
- Publish Thesis/Dissertation as Monograph.
- Publish Book Monograph.
- Publish Edited Volume/ Book.
- Publish Conference Proceedings
- Retain full copyright of your books.

Submit your manuscript at [books.ajjr.org](http://books.ajjr.org)