# Vaccines Aff

## Framing:

#### The standard is maximizing expected wellbeing.

#### 1] Actor specificity: util is the best for governments, which is the actor in the rez. Governments must aggregate since every policy benefits some and harms others, which also means side constraints freeze action. Aspec comes first since different agents have different ethical standings. Takes out util calc indicts since they’re empirically denied and link turns them because the alt would be no action.

#### 2] Only consequentialism explains degrees of wrongness—if I break a promise to meet up for lunch, that is not as bad as breaking a promise to take a dying person to the hospital. Only the consequences of breaking the promise explain why the second one is much worse than the first. Intuitions outweigh—they’re the foundational basis for any argument and theories that contradict our intuitions are most likely false even if we can’t deductively determine why.

#### 3] Extinction first – a) Forecloses future improvement – we can never improve society because our impact is irreversible, b) Moral uncertainty – if we’re unsure about which interpretation of the world is true – we ought to preserve the world to keep debating about it, c) Moral obligation – allowing people to die is unethical and should be prevented because it creates ethics towards other people, d) Objectivity – body count is the most objective way to calculate impacts because comparing suffering is unethical, e) Turns suffering – mass death causes suffering because people can’t get access to resources and basic necessities

## Plan:

#### Plan Text - Resolved: The member nations of the World Trade Organization ought to reduce intellectual property protections for vaccines and injections.

#### To Clarify: I will be defending that the patents for vaccines will be reduced to 9 months, so essentially it is a waiver for most of the current COVID vaccines.

#### IP rights reduction solves Pandemics, Erfani et al., 21

Published 03 August 2021, Parsa Erfani, Fogarty global health scholar, Agnes Binagwaho, vice chancellor, Mohamed Juldeh Jalloh, vice president, Muhammad Yunus, chair, Paul Farmer, professor5, Vanessa Kerry, asscoiate professor, “Intellectual property waiver for covid-19 vaccines will advance global health equity” BMJ 2021; 374 :n1837 doi:10.1136/bmj.n1837, <https://www.bmj.com/content/374/bmj.n1837> [Lynbrook MD]

By late June 2021, 46% of people in high income countries had received at least one dose of the covid-19 vaccine compared with 20% in middle income countries and only 0.9% in low income countries.1 This inequity has been driven by a global political economy that has permitted some countries to purchase more vaccine than they require while others have very limited supplies. Canada, for example, with a gross domestic product (GDP) of $46 000 (£32 000; €39 000) per head has vaccines for 434% of its population, whereas Jordan, which has twice the incidence of covid-19 and a GDP of $4400 per head, has secured doses for only 6% of its people.2 As covid-19 variants are already showing some ability to evade the current vaccines, it is evident that without global vaccine equity and immunity, our efforts against covid-19 are in jeopardy. Equitable vaccine distribution to the world’s highest risk populations requires a multipronged approach that includes vaccine development and approval; scaling manufacturing; streamlining shipment, storage, and distribution; and building vaccine confidence. International collaborations have helped tackle several of these fundamentals. However, the global community remains deeply divided on how to overcome the scarcity of supply. Pharmaceutical trade associations claim that supply is not a problem as manufacturers can supposedly provide 10 billion doses by the end of 2021.3 But as suppliers consistently fall short in achieving manufacturing targets, production is clearly a bottleneck to global vaccination.3 Indeed, at the current global vaccination rate, it will take years to achieve the needed level of global immunity.4 The barrier to adequate vaccine supply today is not lack of vaccine options, nor even theoretical production capacity; the problem is the intellectual property (IP) protection governing production and access to vaccines—and ultimately, the political and moral will to waive these protections in a time of global crisis. Without such liberty, there will not be enough vaccine fast enough to prevent the spread of variants, the avoidable deaths, and the continued choking of low and middle income countries (LMICs) through poor health. As covid-19 became a pandemic, global efforts emerged to help ensure vaccines would be delivered across the globe to the highest risk populations. One of the first was Covax, a risk sharing mechanism in which countries, tiered by means, contribute to collectively source and equitably distribute vaccines globally. The effort, however laudable in intent, has been undercut by vaccine scarcity and underfunding. Covax aims to vaccinate 20% of the population in 92 low and middle income countries by the end of 2021. At the end of April, however, it had shipped only one fifth of its projected estimates and lacked critical resources for distribution.3 LMICs are wary about participating in well worn dynamics of global health aid. Instead, they are mobilising to overcome the fundamental paucity of available vaccines by challenging established global IP rules. At issue is the 1995 Trade Related Aspects of Intellectual Property Rights (TRIPS) Agreement, which established minimum protection standards for IP—including patents, industrial designs, trade secrets, and copyright—that all 164 members of the World Trade Organization (WTO) must respect.5 Subsequent rulings (such as the Doha declaration) have strived to clarify safeguards on patents, including compulsory licensing, which allows governments to license patents to a third party without consent (table 1).6 Today, these rules provide strong IP protection for vaccine technologies and affect the quantity and location of vaccine production and availability. In October 2020, South Africa and India submitted a proposal to the WTO to temporarily waive certain provisions of the TRIPS agreement for covid-19 health products and technologies. The waiver would prevent companies that hold the IP for covid-19 vaccines from blocking vaccine production elsewhere on the grounds of IP and allow countries to produce covid-19 medical goods locally and import or export them expeditiously (table 1). Although the proposed IP waiver is supported by over 100 countries, WTO has not reached a consensus on the proposal because of opposition and filibustering by several high income countries, including the UK, Germany, and Japan.7 Waiver opponents argue that the limited capacity of LMICs to produce complex covid-19 vaccines safely is the true barrier to global production, not IP. They suggest that the TRIPS waiver would penalise drug companies, stifle biomedical innovation, and deter future investments in research and development—in sum, that it would reduce returns on investment and dismantle an IP system that provided the goods needed to end the pandemic. Others are concerned that an IP waiver would fuel supply chain bottlenecks for raw materials and undermine ongoing production. Moreover, policy makers argue that a waiver is unnecessary as company driven voluntary licensing—in which companies decide when and how to license their technologies—and existing TRIPS flexibilities (such as country determined compulsory licensing) should suffice in establishing production in LMICs (table 1). They suggest that waiving IP for covid-19 vaccines would provide no meaningful progress, but the data do not support this. Contrary to detractors’ concerns about the possible effect of a temporary TRIPS waiver, global health analyses suggest that it will be vital to equitable and effective action against covid-19. LMIC’s manufacturing capabilities have been underestimated, even though several LMICs have the scientific and manufacturing capacity to produce complex covid-19 vaccines. India, Egypt, and Thailand are already manufacturing viral vector or mRNA-based covid-19 vaccines,8910 and vaccine production lines could be established within months in some other LMICs,11 offering substantial benefit in a pandemic that will last years.11 Companies in India and China have already developed complex pneumococcal and hepatitis B recombinant vaccines, challenging existing vaccine monopolies.12 The World Health Organization launched an mRNA technology transfer hub in April 2021 to provide the logistical, training, and know-how support needed for manufacturers in LMICs to repurpose or expand existing manufacturing capacity to produce covid-19 vaccines and to help navigate accessing IP rights for the technology.13 Twenty five respondents from LMICs expressed interest, and South Africa was selected as the first hub, with plans to start producing the vaccine through the Biovac Institute in the coming months.14 Removing IP barriers through the waiver will facilitate these efforts, more rapidly enable future hubs, engage a greater number of manufacturers, and ultimately yield more doses faster. Moreover, as the waiver facilitates vaccine production, demand for raw materials and active ingredients will increase. Coupled with pre-emptive planning to anticipate and expand raw material production, the waiver—which encompasses the IP of all covid-19 vaccine-related technology— can offer a path to overcome bottlenecks and expand production of necessary vaccine materials. Voluntary licences have not and will not keep pace with public health demand. Since companies determine the terms of voluntary licences, they are often granted to LMICs that can afford them, leaving out poorer regions.10 For example, in South Asia, AstraZeneca has voluntarily licensed its vaccine to the Serum Institute of India, even though the region has multiple capable vaccine manufacturers.9 Many covid-19 vaccine developers have not taken steps towards licensing their technologies, simply because there is limited financial incentive to do so.11 To date, none have shared IP protected vaccine information with the WHO Covid-19 Technology Access Pool (C-TAP) established last year.15 Relying on the moral compass of companies that answer to shareholders to voluntarily license their technologies will have limited effect on vaccine equity. Their market is driven by profit margins, not public health. Compulsory licensing by LMICs will also be insufficient in rapidly expanding vaccine production, as each patent licence must be negotiated separately by each country and for each product based on its own merit. From 1995 to 2016, 108 compulsory licences were attempted and only 53 were approved.6 The case-by-case approach is slow and not suitable for a global crisis that requires swift action. In addition, TRIPS requires compulsory licences to be used predominantly for domestic supply, limiting exports of the licensed goods to nearby low income countries without production capacity.5 Although a “special” compulsory licence system was agreed in the Doha declaration to allow for expeditious exportation and importation (formalised as the article 31bis amendment to TRIPS in 2017), the provision is limited by cumbersome logistical procedures and has been rarely used.16 Governments may also be hesitant to pursue compulsory licences as high income countries have previously bullied them for doing so. Since India first used compulsory licensing for sorafenib tosylate in 2012 (reducing the cancer drug’s price by 97%), the US has consistently pressured the country not to use further compulsory licences.17 During this pandemic, Gilead sued the Russian government for issuing a compulsory licence for remdesivir.18 Furthermore, while compulsory licences are primarily for patents, covid-19 vaccines often have other types of IP, including trade secrets, that are integral for production.19 The emergency TRIPS waiver removes all IP as a barrier to starting production (not just patents) and negates the prolonged time, inconsistency, frequent failure, and political pressure that accompany voluntary licensing and compulsory licensing efforts. It also provides an expeditious path for new suppliers to import and export vaccines to countries in need without bureaucratic limitations. Finally, there is no compelling evidence that the proposed TRIPS waiver would dismantle the IP system and its innovation incentives. The waiver is restricted to covid-19 related goods and is time limited, helping to protect future innovation. It would, however, reduce profit margins on current covid-19 vaccines. With substantial earnings in the first quarter of 2021, many drug companies have already recouped their research and development costs for covid-19 vaccines.20 However, they have not been the sole investors in vaccine development, and they should not be the only ones to profit. Most vaccines received a substantial portion of their direct funding from governments and not-for-profit organisations—and for some, such as Moderna and Novavax, nearly all.21 Decades of publicly funded research have laid the groundwork for current innovations in the background technologies used for vaccines.22 Given that companies were granted upfront risk protection for covid-19 vaccine research and development, a waiver that advances global public health but reduces vaccine profits in a global crisis is reasonable. An IP waiver for covid-19 vaccines is integral to boosting vaccine supply, breaking vaccine monopolies, and making vaccines more affordable in LMICs. It is, however, only a first, but necessary, step. Originator companies must transfer vaccine technology and share know-how with C-TAP, transfer hubs, or individual manufacturers to help suppliers begin production.23 In addition, governments must leverage domestic law, private sector incentives, and contract terms with pharmaceutical companies to compel companies to cooperate with such transfers.24 If necessary, governments can require technology transfers in exchange for continuing enterprise in a country or avoiding penalties. Politicians and leaders are at a critical juncture: they will either take the necessary steps to make vaccine technology available to scale production, stimulate global collaboration, and create a path to equity or they will protect a hierarchical system based on an economic bottom line. The former will not only build a vaccination trajectory that puts equal value on the lives of the rich and the poor, but will also help stem the pandemic’s relentless momentum and quell the emergence of variants. We are in the middle of one of the largest vaccination efforts in human history. We cannot rely on companies to thread the needle of corporate social and moral responsibility with shareholder and stock value returns nor expect impacted governments to endure lengthy bureaucratic licensing processes in this time of crisis. It will be a legacy of apathy and unnecessary death. As the human impact of the proposed IP waiver becomes clear, consensus behind it is growing. Countries that previously opposed the waiver—such as the US and Brazil—now support written text based negotiations.7 Opposing countries must stop blocking the waiver, engage in transparent text negotiations, and commit to reaching consensus swiftly. The longer states stall, the more people die needlessly. Covid-19 has repeatedly shown that people without access to resources such as strong health systems, health workers, medicines, and vaccines will preferentially fall ill and die. For too long, this cycle has been “other people’s” problem. It is not. It is our problem.

## Advantages:

#### Advantage 1:

#### Poorer Countries need COVID vaccines, only patent waivers can make it possible, Goodman et al., 21

 (Peter S. Goodman, Apoorva Mandavilli, Rebecca Robbins, and Matina Stevis-Gridneff, Peter S. Goodman is a London-based global economic correspondent. He was previously a national economic correspondent in New York during the Great Recession. He has also worked at The Washington Post as Shanghai bureau chief. , Apoorva Mandavilli is a reporter focusing on science and global health. She is the 2019 winner of the Victor Cohn Prize for Excellence in Medical Science Reporting., Rebecca Robbins joined The Times in 2020 as a business reporter focused on covering Covid-19 vaccines. She has been reporting on health and medicine since 2015., Matina Stevis-Gridneff is the Brussels correspondent for The New York Times, covering the European Union. She joined The Times after covering East Africa for The Wall Street Journal for five years., 5-15-2021, accessed on 7-27-2021, The New York Times, "Why Vaccinating the World Against Covid-19 Will Be Hard", https://www.nytimes.com/2021/05/15/world/americas/covid-vaccine-patent-biden.html) [Lynbrook MD]

In delivering vaccines, pharmaceutical companies aided by monumental government investments have given humanity a miraculous shot at liberation from the worst pandemic in a century. But wealthy countries have captured an overwhelming share of the benefit. Only 0.3 percent of the vaccine doses administered globally have been given in the 29 poorest countries, home to about 9 percent of the world’s population. Vaccine manufacturers assert that a fix is already at hand as they aggressively expand production lines and contract with counterparts around the world to yield billions of additional doses. Each month, 400 million to 500 million doses of the vaccines from Moderna, Pfizer and Johnson & Johnson are now being produced, according to an American official with knowledge of global supply. But the world is nowhere close to having enough. About 11 billion shots are needed to vaccinate 70 percent of the world’s population, the rough threshold needed for herd immunity, researchers at Duke University estimate. Yet, so far, only a small fraction of that has been produced. While global production is difficult to measure, the analytics firm Airfinity estimates the total so far at 1.7 billion doses. The problem is that many raw materials and key equipment remain in short supply. And the global need for vaccines might prove far greater than currently estimated, given that the coronavirus presents a moving target: If dangerous new variants emerge, requiring booster shots and reformulated vaccines, demand could dramatically increase, intensifying the imperative for every country to lock up supply for its own people. The only way around the zero-sum competition for doses is to greatly expand the global supply of vaccines. On that point, nearly everyone agrees. But what is the fastest way to make that happen? On that question, divisions remain stark, undermining collective efforts to end the pandemic. Some health experts argue that the only way to avert catastrophe is to force drug giants to relax their grip on their secrets and enlist many more manufacturers in making vaccines. In place of the existing arrangement — in which drug companies set up partnerships on their terms, while setting the prices of their vaccines — world leaders could compel or persuade the industry to cooperate with more companies to yield additional doses at rates affordable to poor countries. Those advocating such intervention have focused on two primary approaches: waiving patents to allow many more manufacturers to copy existing vaccines, and requiring the pharmaceutical companies to transfer their technology — that is, help other manufacturers learn to replicate their products. The World Trade Organization — the de facto referee in international trade disputes — is the venue for negotiations on how to proceed. But the institution operates by consensus, and so far, there is none. The Biden administration recently joined more than 100 countries in asking the W.T.O. to partially set aside vaccine patents. In this fractious atmosphere, the W.T.O.’s leaders are crafting their proceedings less as a push to formally change the rules than as a negotiation that will persuade national governments and the global pharmaceutical industry to agree on a unified plan — ideally in the next few months. The Europeans are banking on the notion that the vaccine makers, fearing patent waivers, will eventually agree to the transfers, especially if the world’s richest countries throw money their way to make sharing know-how more palatable. Many public health experts say that patent waivers will have no meaningful effect unless vaccine makers also share their manufacturing methods. Waivers are akin to publishing a complex recipe; tech transfer is like sending a master chef to someone’s kitchen to teach them how to cook the dish. “If you’re to manufacture vaccines, you need several things to work at the same time,” the W.T.O. director-general, Ngozi Okonjo-Iweala, told journalists recently. “If there is no transfer of technology, it won’t work.” Even with waivers, technology transfers and expanded access to raw materials, experts say it would take about six months for more drug makers to start churning out vaccines. The only short-term fix, they and European leaders say, is for wealthy countries — especially the United States — to donate and export more of their stock to the rest of the world. The European Union allowed the export of hundreds of millions of doses, as many as it kept at home, while the United States held fast to its supply. But boosting donations and exports entails risk. India shipped out more than 60 million doses this year, including donations, before halting vaccine exports a month ago. Now, as a wave of death ravages the largely unvaccinated Indian population, the government is drawing fire at home for having let go of doses. The details of any plan to boost vaccinations worldwide may matter less than revamping the incentives that have produced the status quo. Wealthy countries, especially in the West, have monopolized most of the supply of vaccines not through happenstance, but as a result of economic and political realities. Companies like Pfizer and Moderna have logged billions of dollars in revenue by selling most of their doses to deep-pocketed governments in North America and Europe. The deals left too few doses available for Covax, a multilateral partnership created to funnel vaccines to low- and middle-income nations at relatively low prices. While the partnership has been hampered by multiple problems — most recently India’s blocking exports amid its own crisis — the snapping up of doses by rich countries was a crucial blow. “We as high-income countries made sure the market was lopsided,” said Mark Eccleston-Turner, an expert on international law and infectious diseases at Keele University in England. “The fundamental problem is that the system is broken, but it’s broken in our favor.” Changing that calculus may depend on persuading wealthy countries that allowing the pandemic to rage on in much of the world poses universal risks by allowing variants to take hold, forcing the world into an endless cycle of pharmaceutical catch-up. “It needs to be global leaders functioning as a unit, to say that vaccine is a form of global security,” said Dr. Rebecca Weintraub, a global health expert at Harvard Medical School. She suggested that the G7, the group of leading economies, could lead such a campaign and finance it when the members convene in England next month. The argument over Covid vaccines harkens back to the debate over access to antiretroviral drugs for H.I.V. in the 1990s. The U.S. Food and Drug Administration approved the first powerful H.I.V. drug therapy in 1995, resulting in a plunge in deaths in the United States and Europe, where people could afford the therapy. But deaths in sub-Saharan Africa and Asia continued to climb. In 2001, the W.T.O. ruled that countries could allow local companies to break patents for domestic use given an urgent need. The ruling is still in place. But without technology transfers, few local drug makers would be able to quickly replicate vaccines. In 2003, the W.T.O. took a crucial further step for H.I.V. drugs, waiving patents and allowing low-income countries to import generic versions manufactured in Thailand, South Africa and India, helping contain the epidemic. With Covid, the request for a patent waiver has come from the South African and Indian governments, which are seeking to engineer a repeat of that history. History also challenges industry claims that blanket global patent rights are a requirement for the creation of new medicines. Until the mid-1990s, drug makers could patent their products only in the wealthiest markets, while negotiating licenses that allowed companies in other parts of the world to make generic versions. Even in that era, drug companies continued to innovate. And they continued to prosper even with the later waivers on H.I.V. drugs. “At the time, it rattled a lot of people, like ‘How could you do that? It’s going to destroy the pharmaceutical industry,’” recalled Dr. Anthony S. Fauci, President Biden’s chief medical adviser for the pandemic. “It didn’t destroy them at all. They continue to make billions of dollars.” Leaders in the wealthiest Western nations have endorsed more equitable distribution of vaccines for this latest scourge. But the imperative to ensure ample supplies for their own nations has won out as the virus killed hundreds of thousands of their own people, devastated economies, and sowed despair. The drug companies have also promised more support for poorer nations. AstraZeneca’s vaccine has been the primary supply for Covax, and the company says it has sold its doses at a nonprofit price. In January, Pfizer announced that it was joining Covax, agreeing to contribute 40 million doses at a not-for-profit price. So far only 1.25 million of those doses have been shipped out, less than what Pfizer produces in a single day. Whether the world possesses enough underused and suitable factories to quickly boost supply and bridge the inequities is a fiercely debated question. During a vaccine summit convened by the W.T.O. last month, the body heard testimony that manufacturers in Pakistan, Bangladesh, South Africa, Senegal and Indonesia all have capacity that could be quickly deployed to produce Covid vaccines. One Canadian company, Biolyse Pharma, which focuses on cancer drugs, has already agreed to supply 15 million doses of the Johnson & Johnson vaccine to Bolivia — if it gains legal permission and technological know-how from Johnson & Johnson.

#### Failure to Vaccinate the World means Deadly Variants

**Gammon, 21** (Katharine Gammon, Katharine Gammon is a freelance science writer based in Santa Monica, California, and writes for a wide range of magazines covering technology, society, and animal science. 2-13-2021, accessed on 7-29-2021, MIT Technology Review, "Why a failure to vaccinate the world will put us all at risk", https://www.technologyreview.com/2021/02/13/1018259/why-a-failure-to-vaccinate-the-world-will-put-us-all-at-risk/) [Lynbrook MD]

Even if the developed world gets its citizens vaccinated in a year, virus mutations and economic instability will roil unvaccinated countries for years—and end up costing everyone. Isabel Rodriguez-Barraquer currently works remotely from Colombia. As an epidemiologist, she has been watching from afar as her colleagues back at the University of California, San Francisco, have started receiving vaccines available to lab workers. The situation is very different where she now lives. Colombia is suffering a massive covid-19 outbreak and is still waiting to see the first doses of vaccine arrive this month: 50,000 doses of the Pfizer and AstraZeneca vaccines are expected in February, and a couple hundred thousand in March. The country has been cutting deals directly with drug makers, including China’s Sinovac, and working through international partnerships to obtain more. But Rodriguez-Barraquer fears it will be too late. The coronavirus vaccination programs for the world's richest countries are now in full swing. Almost one-quarter of the UK's adult population has now had a first dose. The US, while not quite at that pace, has now given at least one dose to more than 35 million people. But for low-income countries around the globe, the picture is very different—and may be for some time. Many of the world’s poorest are still waiting for the first doses to reach them. Estimates by the Economist Intelligence Unit suggest that some 85 countries in the developing world may not be fully vaccinated until 2023 at the earliest. For example, in January, the World Health Organization warned that the West African nation of Guinea was the only low-income country on the continent to have started vaccinating: but only 25 people (all senior government officials, the AP reported) out of the country's population of almost 13 million had received a dose at that point. One of the big problems is there isn’t yet any global rollout, only talk of it, says Chris Dickey, who directs the global and environmental public health program at New York University’s Global Health School. Rodriguez-Barraquer agrees. "The burden of illness and death could be prevented if there was more global coordination in vaccine supply," she says. This imbalance won't just lead to more deaths. It will cause a raft of economic, social, and health effects—not just in the nations affected, but throughout the rest of the world. The supply to poorer countries is low mostly because the majority of the available vaccines have been purchased or promised to richer countries in North America and Europe. To address this vaccine inequity, a coalition of international organizations, including the World Health Organization and governments, created a nonprofit called Covax in April 2020. The idea was to create a global supply of vaccines for 92 low- and middle-income countries. In December, the nonprofit announced that it had secured access to some 2 billion doses for 2021 through donations and commitments from some manufacturers, but it is unclear how many of those will actually be delivered this year. The problem becomes more complicated because many countries are both working through Covax and trying to secure deals with drug makers themselves—making it more challenging for Covax to make deals with those manufacturers at the same time. The group aims to vaccinate about 20% of the people in the world, focusing on hard-to-reach populations in Africa, Latin America, and Asia. To do so, it needs another $4.9 billion in addition to the $2.1 billion it has already raised. But there are other problems. The cheaper and easier-to-transport vaccines like the ones pledged by AstraZeneca have been slower to gain regulatory approval. Meanwhile, other companies seem less interested in pitching in: Doctors Without Borders found that only 2% of Pfizer’s global supply had been granted to Covax, and Moderna is still “in talks” with the organization. “Covax is a critical starting point that—without a commitment from President Biden—had a high probability of failure. It’s looking better now, but could still fail if it doesn’t get money and vaccines,” says Barry Bloom, a global health researcher at the Harvard T.H. Chan School of Public Health. Biden officially directed the US government to join Covax in late January. If it can succeed, the international program has many upsides. It establishes a mechanism of fairness that doesn’t depend on colonial mentalities of quid pro quo, says Bloom. It also absolves individual rich countries from having to determine which countries get what percentage of the vaccines. “This is a way of saying somebody else will take the rap, especially for the delivery time,” he says. The motive for getting the vaccine to poorer countries more quickly is not just altruism: evolution will punish any delays. SARS-CoV-2 [COVID] has already mutated into several worrying new variants, and this process will continue. If countries with large populations wait to be vaccinated for years, the virus will keep mutating—potentially to the point that the first available vaccines lose effectiveness. That will be bad for everyone, but poorer countries, with less access to updated vaccines, will again feel more of the impact. “We get more mutants and they get more deaths,” says Bloom. Judd Walson, a global health researcher at the University of Washington, worries more about the indirect effects of the pandemic in the developing world, where in many places covid-19 doesn’t even rank in the top 20 causes of death. Health systems have directed a lot of personnel and resources to dealing with the pandemic—setting up quarantine centers, doing surveillance, and more. In addition, funders and ministries have been diverted away from diarrhea, malaria, and other killers. As a result, those other programs are suffering: rates of immunization for diseases such as measles, diphtheria, tetanus, and whooping cough are declining, both for lack of supplies and personnel and because people fear going to health centers. “All those other things that are killing people are being neglected, so not providing a covid vaccine stops governments from shifting back to their priorities before the pandemic,” says Walson. And while virus variants can travel fast in a highly connected world, so can economic instability. That’s one takeaway from a recent paper published by the nonprofit National Bureau of Economic Research. Sebnem Kalemli-Özcan, an economist at the University of Maryland, and colleagues analyzed how delays in global vaccine distribution would affect the economies in countries whose populations had already been vaccinated. They found that a world where poorer countries have to wait to be vaccinated would see a global economic loss of about $9 trillion this year, with wealthy countries absorbing nearly half of those losses in declining trade and fractured supply lines. Ensuring equitable distribution is actually in the best interests of advanced economies. “Their hit will come back and hit you,” says Kalemli-Özcan. Yes, when the majority of the population in richer countries is vaccinated, restaurants and gyms may bounce back to life. But there are many sectors of the economy that buy from emerging markets—for example, retail, automotive, textiles, and construction. All will all be hurt by a slowdown in those markets. Also, those countries are often customers. “If the US improves and Europe improves and they want to sell goods, if those countries they want to sell to are still sick, they are not going to buy those goods,” says Kalemli-Özcan. “No economy is an island, and no economy recovers until every economy recovers.” Even though globalization amplified the pandemic, it is also the only solution to the pandemic, Kalemli-Özcan argues. Rich countries cannot prevent economic pain by hoarding vaccines; rather, they must invest in initiatives to increase the supply and reinforce distribution. Canada, for example, has placed an order for five times more doses than its population needs. The country is considering donating the excess to Covax, but it’s not clear how those vaccines will be given back if unused. The research assumed that wealthy countries would be vaccinated in 2021 and others would wait until 2022—but if the gap grows to several years, the economic pain will be much greater. Vaccine nationalism, as hoarding doses for one country is known, would be likely to backfire politically as well as economically. People around the world are watching to see when vaccines are available. And what that means for the political perception of the US in the world is really important, says Walson: “Vaccine nationalism is going to fuel a tremendous sense that we are only out for ourselves, and that only adds fuel to the already-burning fire by some against the West," he says. "I think there will be long-standing consequences to not addressing these inequities.” Funding Covax is the most immediate solution. There are also opportunities to license vaccine tech or ease intellectual-property rights so emerging countries can develop the capacity to either produce their own vaccines or complete the final steps of production, known as “finish and fill.” “I don’t see why South Africa and Kenya can’t produce vaccines and why Ethiopia and Botswana can’t finish and fill,” says Bloom. He says that early in the pandemic, there were only two places on the African continent that had the capacity to do covid-19 testing—and within a month, there were 11. African countries even joined forces to create a center for disease control for the whole continent, sharing information and best practices on covid-19 in a way that isn’t even done across all 50 US states. But time is of the essence. At the current rate of transmission, probably 50% of Colombia will be infected by the time mass vaccinations start. Rodriguez-Barraquer fears what that means for the country where she grew up: “The worry is that it will be too little, too late, and the epidemic is running its course.”

#### More Variants + Disease = Extinction, Yu 9

(Victoria Yu, Dartmouth Journal of Undergraduate Science, “Human Extinction: The Uncertainty of Our Fate”, 5-22-09 <http://dujs.dartmouth.edu/spring-2009/human-extinction-the-uncertainty-of-our-fate>) [Lynbrook MD]

A pandemic will kill off all humans. In the past, humans have indeed fallen victim to viruses. Perhaps the best-known case was the bubonic plague that killed up to one third of the European population in the mid-14th century (7). While vaccines have been developed for the plague and some other infectious diseases, new viral strains are constantly emerging — a process that maintains the possibility of a pandemic-facilitated human extinction. Some surveyed students mentioned AIDS as a potential pandemic-causing virus. It is true that scientists have been unable thus far to find a sustainable cure for AIDS, mainly due to HIV’s rapid and constant evolution. Specifically, two factors account for the virus’s abnormally high mutation rate: 1. HIV’s use of reverse transcriptase, which does not have a proof-reading mechanism, and 2. the lack of an error-correction mechanism in HIV DNA polymerase (8). Luckily, though, there are certain characteristics of HIV that make it a poor candidate for a large-scale global infection: HIV can lie dormant in the human body for years without manifesting itself, and AIDS itself does not kill directly, but rather through the weakening of the immune system. However, for more easily transmitted viruses such as influenza, the evolution of new strains could prove far more consequential. The simultaneous occurrence of antigenic drift (point mutations that lead to new strains) and antigenic shift (the inter-species transfer of disease) in the influenza virus could produce a new version of influenza for which scientists may not immediately find a cure. Since influenza can spread quickly, this lag time could potentially lead to a “global influenza pandemic,” according to the Centers for Disease Control and Prevention (9). The most recent scare of this variety came in 1918 when bird flu managed to kill over 50 million people around the world in what is sometimes referred to as the Spanish flu pandemic. Perhaps even more frightening is the fact that only 25 mutations were required to convert the original viral strain — which could only infect birds — into a human-viable strain (10).

#### Advantage 2:

#### The WTO is on the brink, the TRIPS waiver is the critical factor determining the survival of multilateral trade AND creates momentum for structural reforms, Meyer 21

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The World Trade Organization knows all about crises. Former U.S. President Donald Trump threw a wrench into its core function of resolving trade disputes—a blocker that President Joe Biden has not yet removed—and there is widespread dissatisfaction over the fairness of the global trade rulebook. The 164-country organization, under the fresh leadership of Nigeria’s Ngozi Okonjo-Iweala, has a lot to fix. However, one crisis is more pressing than the others: the battle over COVID-19 vaccines, and whether the protection of their patents and other intellectual property should be temporarily lifted to boost production and end the pandemic sooner rather than later. According to some of those pushing for the waiver—which was originally proposed last year by India and South Africa—the WTO’s future rests on what happens next. “The credibility of the WTO will depend on its ability to find a meaningful outcome on this issue that truly ramps-up and diversifies production,” says Xolelwa Mlumbi-Peter, South Africa’s ambassador to the WTO. “Final nail in the coffin” The Geneva-based WTO isn’t an organization with power, as such—it’s a framework within which countries make big decisions about trade, generally by consensus. It’s supposed to be the forum where disputes get settled, because all its members have signed up to the same rules. And one of its most important rulebooks is the Agreement on Trade-Related Aspects of Intellectual Property Rights, or TRIPS, which sprang to life alongside the WTO in 1995. The WTO’s founding agreement allows for rules to be waived in exceptional circumstances, and indeed this has happened before: its members agreed in 2003 to waive TRIPS obligations that were blocking the importation of cheap, generic drugs into developing countries that lack manufacturing capacity. (That waiver was effectively made permanent in 2017.) Consensus is the key here. Although the failure to reach consensus on a waiver could be overcome with a 75% supermajority vote by the WTO’s membership, this would be an unprecedented and seismic event. In the case of the COVID-19 vaccine IP waiver, it would mean standing up to the European Union, and Germany in particular, as well as countries such as Canada and the U.K.—the U.S. recently flipped from opposing the idea of a waiver to supporting it, as did France. It’s a dispute between countries, but the result will be on the WTO as a whole, say waiver advocates. “If, in the face of one of humanity’s greatest challenges in a century, the WTO functionally becomes an obstacle as in contrast to part of the solution, I think it could be the final nail in the coffin” for the organization, says Lori Wallach, the founder of Public Citizen’s Global Trade Watch, a U.S. campaigning group that focuses on the WTO and trade agreements. “If the TRIPS waiver is successful, and people see the WTO as being part of the solution—saving lives and livelihoods—it could create goodwill and momentum to address what are still daunting structural problems.” Those problems are legion.

#### HIV/AIDS prove legitimacy damage from patent controversy---every bit of delay saps credibility

Bacchus 20 James Bacchus [member of the Herbert A. Stiefel Center for Trade Policy Studies, the Distinguished University Professor of Global Affairs and director of the Center for Global Economic and Environmental Opportunity at the University of Central Florida. He was a founding judge and was twice the chairman—the chief judge—of the highest court of world trade, the Appellate Body of the World Trade Organization in Geneva, Switzerland. ], 12-16-2020, "An Unnecessary Proposal: A WTO Waiver of Intellectual Property Rights for COVID-19 Vaccines," Cato Institute, https://www.cato.org/free-trade-bulletin/unnecessary-proposal-wto-waiver-intellectual-property-rights-covid-19-vaccines accessed 7/20/2021 EH

Balancing IP Rights and Access to Medicines Not New to WTOThis waiver controversy comes nearly two decades after the end of the long battle in the multilateral trading system over access to HIV/AIDS drugs. At the height of the HIV/AIDS crisis at the turn of the century, numerous countries, including especially those from sub‐​Saharan Africa, could not afford the high‐​priced HIV/AIDS drugs patented by pharmaceutical companies in developed countries. Having spent billions of dollars on developing the drugs, the patent holders resisted lowering their prices. The credibility of the companies, the countries that supported them, and the WTO itselfwere all damaged byanextended controversy over whether patent rights should take precedence over providing affordable medicines for people afflicted by a lethal disease.

#### Perception alone solves, regardless of success, issuing the waiver is a sign of goodwill that shores up legitimacy

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Fourth, the U.S. government supporting a limited TRIPS waiver is a massive step toward rebuilding the perceived legitimacy of the WTO. The perception that the WTO was slowing the global response to the coronavirus, however oversimplified and unfair, would have been a potentially devastating blow to an institution that has already been under attack. A TRIPS waiver buys considerable goodwill from developing countries. It also buys goodwill from Democrats. That could help the whole party take a more trade-friendly stance on everything from an Environmental Goods Agreement to an e-commerce trade deal, to say nothing of the broader benefit of convincing Democrats to like trade even more than they already do—79 percent of Democrats view trade as more of an opportunity than a threat versus only 44 percent of Republicans who say the same.

#### WTO cred solves wars that go nuclear.

Hamann 09 [Georgia; 2009; J.D. Candidate, Vanderbilt University Law School; “Replacing Slingshots with Swords: Implications of the Antigua-Gambling 22.6 Panel Report for Developing Countries and the World Trading System,” VANDERBILT JOURNAL OF TRANSNATIONAL LAW, http://www.jogoremoto.pt/docs/extra/duqJ53.pdf] Justin

Both Antigua and the U.S. claimed the resolution of the arbitration as a victory.99 In reality, the decision reached a midpoint between the respective countries’ positions, establishing a victory for the evolution of the international trading system itself. Voluntary compliance with WTO rules and procedures is of the utmost importance to the international trading system.100 Given the increasingly globalized market, the coming years will see an increase in the importance of the WTO as a cohesive force and arbiter of disputes that likely will become more frequent and injurious.101 The work of the WTO cannot be overstated in a nuclear-armed world, as the body continues to promote respect and even amity among nations with opposing philosophical goals or modes of governance.102 Demagogues in the Unites States may decry the rise of China as a geopolitical threat,103 and extremists in Russia may play dangerous games of brinksmanship with other great powers, but trade keeps politicians’ fingers off “the button.”104 The WTO offers an astounding rate of compliance for an organization with no standing army and no real power to enforce its decisions, suggesting that governments recognize the value of maintaining the international construct of the WTO.105 In order to promote voluntary compliance, the WTO must maintain a high level of credibility.106 Nations must perceive the WTO as the most reasonable option for dispute resolution or fear that the WTO wields enough influence to enforce sanctions.107 The arbitrators charged with performing the substantive work of the WTO by negotiating, compromising, and issuing judgments are keenly aware of the responsibility they have to uphold the organization’s credibility.108

#### Nuke war = extinction, Baum 17

(Stephen Baum, Executive director of the Global Catastrophic Risk Institute a think tank on existential risk, “Winter Safe Deterrent: The Risk of Nuclear Winter and its Challenge to Deterrent,” <http://dx.doi.org/10.1080/13523260.2015.1012346>, 2-23-2017, Accessed 7-26-2017, BMC)

The most heavily studied nuclear winter scenario involves war between India and Pakistan in which each country uses 50 nuclear weapons, each with a 15 kiloton yield, comparable to the Little Boy weapon dropped on Hiroshima. The studies assume that the weapons are dropped on each country’s major cities, and not on, for example, remote military targets, producing 5 teragrams of smoke.11In this scenario, ozone loss would range from 20 per cent to 70 per cent from low to high latitudes.12Temp-eratures would fall about 1.258C within the first year. Even ten years after, temperatures would still be about 0.58C below normal.13Crop yields in China and the Midwestern United States are projected to decline by around 10–30 per cent.14One analysis estimates that at least two billion people would be at risk of starvation.15A core point is that even a ‘limited’ regional nuclear war could have catastrophic global consequences. It should be emphasized that what drives nuclear winter is the quantity of smoke entering the stratosphere, not where the nuclear war occurs. Thus, a comparably large nuclear war between other countries would have similar global climatic and humanitarian effects. The India–Pakistan scenario offers an illustrative and relatively probable case, but any nuclear weapon state except North Korea could produce similar effects. A larger nuclear exchange involving American and Russian arsenals would cause further disruption. An exchange of about 1,200 weapons could produce about 50 teragrams of smoke, causing temperatures to fall by about 48C. For 4,000 weapons –around what New START prescribes – there could be 150 teragrams of smoke, with a temperature fall of about 88C. Agriculture failure would be so severe and wide-spread that it becomes easier to count the survivors than the fatalities.16Climatescientist Alan Robock, who has led many of the recent nuclear winter studies, expects some survivors ‘especially in Australia and New Zealand’.17While this is hardly a cheerful evaluation, even this may be too optimistic. Hopefully some people somewhere would find some way to survive. But the conditions would be harsh enough that survival is no guarantee.

## Underview

#### [1] Theory:

#### [a] 1AR theory is DTD because 4 minutes is too short to call out an abusive NC and go for substance – 1AR time skew proves that affirming is already harder

#### [b] No neg RVIs because they can collapse to a 6 minute voter in the 2NR which aff can’t do

#### [c] Neg can only get DTA on bidirectional shells since the aff speaks in the dark in the 1AC, violating countless unpredictable interps

#### [d] All theory spikes violations are DTD, prevents moot of the 1AC offense and helps account for 1ar time skew

#### [e] No new 2n responses to u/v, destroys AC theory leverage and skews aff strategy, they have cross to know implications of my underview.

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