### Future Pandemics – Short NC Shell

#### COVID has kept patents and innovation strong, but continued protection is key to innovation by incentivizing biomedical research – it’s also crucial to preventing counterfeit medicines, economic collapse, and fatal diseases, which independently turns case. Macdole and Ezell 4-29:

Jaci Mcdole and Stephen Ezell {Jaci McDole is a senior policy analyst covering intellectual property (IP) and innovation policy at the Information Technology and Innovation Foundation (ITIF). She focuses on IP and its correlations to global innovation and trade. McDole holds a double BA in Music Business and Radio-Television with a minor in Marketing, an MS in Education, and a JD with a specialization in intellectual property (Southern Illinois University Carbondale). McDole comes to ITIF from the Institute for Intellectual Property Research, an organization she co-founded to study and further robust global IP policies. Stephen Ezell is vice president, global innovation policy, at the Information Technology and Innovation Foundation (ITIF). He comes to ITIF from Peer Insight, an innovation research and consulting firm he cofounded in 2003 to study the practice of innovation in service industries. At Peer Insight, Ezell led the Global Service Innovation Consortium, published multiple research papers on service innovation, and researched national service innovation policies being implemented by governments worldwide. Prior to forming Peer Insight, Ezell worked in the New Service Development group at the NASDAQ Stock Market, where he spearheaded the creation of the NASDAQ Market Intelligence Desk and the NASDAQ Corporate Services Network, services for NASDAQ-listed corporations. Previously, Ezell cofounded two successful innovation ventures, the high-tech services firm Brivo Systems and Lynx Capital, a boutique investment bank. Ezell holds a B.S. from the School of Foreign Service at Georgetown University, with an honors certificate from Georgetown’s Landegger International Business Diplomacy program.}, 21 - ("Ten Ways Ip Has Enabled Innovations That Have Helped Sustain The World Through The Pandemic," Information Technology & Innovation Foundation, 4-29-2021, https://itif.org/publications/2021/04/29/ten-ways-ip-has-enabled-innovations-have-helped-sustain-world-through)//marlborough-wr/

To better understand the role of IP in enabling solutions related to COVID-19 challenges, this report relies on 10 case studies drawn from a variety of nations, technical fields, and firm sizes. This is but a handful of the thousands of IP-enabled innovations that have sprung forth over the past year in an effort to meet the tremendous challenges brought on by COVID-19 globally. From a paramedic in Mexico to a veteran vaccine manufacturing company in India and a tech start-up in Estonia to a U.S.-based company offering workplace Internet of Things (IoT) services, small and large organizations alike are working to combat the pandemic. Some have adapted existing innovations, while others have developed novel solutions. All are working to take the world out of the pandemic and into the future. The case studies are: Bharat Biotech: Covaxin Gilead: Remdesivir LumiraDX: SARS-COV-2 Antigen POC Test Teal Bio: Teal Bio Respirator XE Ingeniería Médica: CápsulaXE Surgical Theater: Precision VR Tombot: Jennie Starship Technologies: Autonomous Delivery Robots Triax Technologies: Proximity Trace Zoom: Video Conferencing As the case studies show, IP is critical to enabling innovation. Policymakers around the world need to ensure robust IP protections are—and remain—in place if they wish their citizens to have safe and innovative solutions to health care, workplace, and societal challenges in the future. THE ROLE OF INTELLECTUAL PROPERTY IN R&D-INTENSIVE INDUSTRIES Intangible assets, such as IP rights, comprised approximately 84 percent of the corporate value of S&P 500 companies in 2018.4 For start-ups, this means much of the capital needed to operate is directly related to IP (see Teal Bio case study for more on this). IP also plays an especially important role for R&D-intensive industries.5 To take the example of the biopharmaceutical industry, it is characterized by high-risk, time-consuming, and expensive processes including basic research, drug discovery, pre-clinical trials, three stages of human clinical trials, regulatory review, and post-approval research and safety monitoring. The drug development process spans an average of 11.5 to 15 years.6 For every 5,000 to 10,000 compounds screened on average during the basic research and drug discovery phases, approximately 250 molecular compounds, or 2.5 to 5 percent, make it to preclinical testing. Out of those 250 molecular compounds, approximately 5 make it to clinical testing. That is, 0.05 to 0.1 percent of drugs make it from basic research into clinical trials. Of those rare few which make it to clinical testing, less than 12 percent are ultimately approved for use by the U.S. Food and Drug Administration (FDA).7 In addition to high risks, drug development is costly, and the expenses associated with it are increasing. A 2019 report by the Deloitte Center for Health Solutions concluded that since 2010 the average cost of bringing a new drug to market increased by 67 percent.8 Numerous studies have examined the substantial cost of biopharmaceutical R&D, and most confirm investing in new drug development requires $1.7 billion to $3.2 billion up front on average.9 A 2018 study by the Coalition for Epidemic Preparedness found similar risks and figures for vaccines, stating, “In general, vaccine development from discovery to licensure can cost billions of dollars, can take over 10 years to complete, and has an average 94 percent chance of failure.”10 Yet, a 2010 study found that 80 percent of new drugs—that is, the less than 12 percent ultimately approved by the FDA—made less than their capitalized R&D costs.11 Another study found that only 1 percent (maybe three new drugs each year) of the most successful 10 percent of FDA approved drugs generate half of the profits of the entire drug industry.12 To say the least, biopharmaceutical R&D represents a high-stakes, long-term endeavor with precarious returns. Without IP protection, biopharmaceutical manufacturers have little incentive to take the risks necessary to engage in the R&D process because they would be unable to recoup even a fraction of the costs incurred. Diminished revenues also result in reduced investments in R&D which means less research into cancer drugs, Alzheimer cures, vaccines, and more. IP rights give life-sciences enterprises the confidence needed to undertake the difficult, risky, and expensive process of life-sciences innovation secure in the knowledge they can capture a share of the gains from their innovations, which is indispensable not only to recouping the up-front R&D costs of a given drug, but which can generate sufficient profits to enable investment in future generations of biomedical innovation and thus perpetuate the enterprises into the future.13 THE IMPORTANCE OF INTELLECTUAL PROPERTY TO INNOVATION Although anti-IP proponents have attacked biopharmaceutical manufacturers particularly hard, the reality is all IP-protected innovations are at risk if these rights are ignored, or vitiated. Certain arguments have shown a desire for the term “COVID-19 innovations” to include everything from vaccines, therapeutics, diagnostics, and PPE to biotechnology, AI-related data, and educational materials.14 This could potentially open the floodgates to invalidate IP protection on many of the innovations highlighted in this report. However, much of the current discussion concerning IP focuses almost entirely on litigation fears or R&D incentives. Although R&D is an important aspect of IP, as previously mentioned, these discussions ignore the fact that IP protection can be—and often is—used for other purposes, including generating initial capital to create a company and begin manufacturing and, more importantly, using licensing agreements and IP to track the supply chain and ensure quality control of products. This report highlights but a handful of the thousands of IP-enabled innovations that have sprung forth over the past year in an effort to meet the tremendous challenges brought on by COVID-19 globally. In 2018, Forbes identified counterfeiting as the largest criminal enterprise in the world.15 The global struggle against counterfeit and non-regulated products, which has hit Latin America particularly hard during the pandemic, proves the need for safety and quality assurance in supply chains.16 Some communities already ravaged by COVID-19 are seeing higher mortality rates related to counterfeit vaccines, therapeutics, PPE, and cleaning and sanitizing products.17 Polish authorities discovered vials of antiwrinkle treatment labeled as COVID-19 vaccines. 18 In Mexico, fake vaccines sold for approximately $1,000 per dose.19 Chinese and South African police seized thousands of counterfeit vaccine doses from warehouses and manufacturing plants.20 Meanwhile, dozens of websites worldwide claiming to sell vaccines or be affiliated with vaccine manufacturers have been taken down.21 But the problem is not limited to biopharmaceuticals. The National Intellectual Property Rights Coordination Center has recovered $48 million worth of counterfeit PPE and other products.22 Collaborative efforts between law enforcement and manufacturers have kept numerous counterfeits from reaching the population. In countries with strong IP protection, the chances of counterfeit products reaching the market are significantly lower. This is largely because counterfeiting tends to be an IP-related issue, and these countries generally provide superior means of tracking the supply chain through trademarks, trade secrets, and licensing agreements. This enables greater quality control and helps manufacturers maintain a level of public confidence in their products. By controlling the flow of knowledge associated with IP, voluntary licensing agreements provide innovators with opportunities to collaborate, while ensuring their partners are properly equipped and capable of producing quality products. Throughout this difficult time, the world has seen unexpected collaborations, especially between biopharmaceutical companies worldwide such as Gilead and Eva Pharma or Bharat Biotech and Ocugen, Inc. Throughout history, and most significantly in the nineteenth century through the widespread development of patent systems and the ensuing Industrial Revolution, IP has contributed toward greater economic growth.23 This is promising news as the world struggles for economic recovery. A 2021 joint study by the EU Intellectual Property Office (EUIPO) and European Patent Office (EPO) shows a strong, positive correlation between IP rights and economic performance.24 It states that “IP-owning firms represent a significantly larger proportion of economic activity and employment across Europe,” with IP-intensive industries contributing to 45 percent of gross domestic product (GDP) (€6.6 trillion; US$7.9 trillion).25 The study also shows 38.9 percent of employment is directly or indirectly attributed to IP-intensive industries, and IP generates higher wages and greater revenue per employee, especially for small-to-medium-sized enterprises.26 That concords with the United States, where the Department of Commerce estimated that IP-intensive industries support at least 45 million jobs and contribute more than $6 trillion dollars to, or 38.2 percent of, GDP.27 In 2020, global patent filings through the World Intellectual Property Organization’s (WIPO) Patent Cooperation Treaty (PCT) system reached a record 275,900 filings amidst the pandemic, growing 4 percent from 2019.28 The top-four nations, which accounted for 180,530 of the patent applications, were China, the United States, Japan, and Korea, respectively.29 While several countries saw an increase in patent filings, Saudi Arabia and Malaysia both saw significant increases in the number of annual applications, with the top two filing growths of 73 percent and 26 percent, respectively.30 The COVID-19 pandemic slowed a lot of things, but it certainly couldn’t stop innovation. There are at least five principal benefits strong IP rights can generate, for both developing and developed countries alike.31 First, stronger IP protection spurs the virtuous cycle of innovation by increasing the appropriability of returns, enabling economic gain and catalyzing economic growth. Second, through patents—which require innovators to disclose certain knowledge as a condition of protection—knowledge spillovers build a platform of knowledge that enables other innovators. For instance, studies have found that the rate of return to society from corporate R&D and innovation activities is at least twice the estimated returns that each company itself receives.32 Third, countries with robust IP can operate more efficiently and productively by using IP to determine product quality and reduce transaction costs. Fourth, trade and foreign direct investment enabled and encouraged by strong IP protection offered to enterprises from foreign countries facilitates an accumulation of knowledge capital within the destination economy. That matters when foreign sources of technology account for over 90 percent of productivity growth in most countries.33 There’s also evidence suggesting that developing nations with stronger IP protections enjoy the earlier introduction of innovative new medicines.34 And fifth, strong IP boosts exports, including in developing countries.35 Research shows a positive correlation between stronger IP protection and exports from developing countries as well as faster growth rates of certain industries.36 The following case studies illustrate these benefits of IP and how they’ve enabled innovative solutions to help global society navigate the COVID-19 pandemic.

#### This sets a precedent that spills over to all future diseases – Hopkins 21:

Jared S. Hopkins {Jared S. Hopkins is a New York-based reporter for The Wall Street Journal covering the pharmaceutical industry, including companies such as Pfizer Inc. and Merck & Co. He previously was a health-care reporter at Bloomberg News and an investigative reporter at the Chicago Tribune. Jared started his career at The Times-News in Twin Falls, Idaho covering politics. In 2014, he was a finalist for the Livingston Award For Young Journalists for an investigation into charities founded by professional athletes. In 2011, he was a finalist for the Pulitzer Prize in Investigative Reporting for a series about neglect at a residential facility for disabled kids. Jared graduated from the Merrill College of Journalism at the University of Maryland-College Park with a bachelor's degree in journalism}, 21 - ("U.S. Support for Patent Waiver Unlikely to Cost Covid-19 Vaccine Makers in Short Term ," WSJ, 5-7-2021, https://www.wsj.com/articles/u-s-support-for-patent-waiver-unlikely-to-cost-covid-19-vaccine-makers-in-short-term-11620414260)//marlborough-wr/

The Biden administration’s unexpected support for [temporarily waiving Covid-19 vaccine patents](https://www.wsj.com/articles/u-s-backs-waiver-of-intellectual-property-protection-for-covid-19-vaccines-11620243518?mod=article_inline) won’t have an immediate financial impact on the companies making the shots, industry officials and analysts said. Yet the decision could mark a shift in Washington’s longstanding support of the industry’s valuable intellectual property, patent-law experts said. A waiver, if it does go into effect, may pose long-term risks to the vaccine makers, analysts said. [Moderna](https://www.wsj.com/market-data/quotes/MRNA) Inc., [MRNA -4.12%](https://www.wsj.com/market-data/quotes/MRNA?mod=chiclets) [Pfizer](https://www.wsj.com/market-data/quotes/PFE) Inc. [PFE -3.10%](https://www.wsj.com/market-data/quotes/PFE?mod=chiclets) and other vaccine makers weren’t counting on sales from the developing countries that would gain access to the vaccine technology, analysts said. If patents and other crucial product information behind the technology is made available, it would take at least several months before shots were produced, industry officials said. Yet long-term Covid-19 sales could take a hit if other companies and countries gained access to the technologies and figured out how to use it. Western drugmakers could also confront competition sooner for other medicines they are hoping to make using the technologies. A World Trade Organization waiver could also set a precedent for waiving patents for other medicines, a long-sought goal of some developing countries, patient groups and others to try to reduce the costs of prescription drugs. “It sets a tremendous precedent of waiving IP rights that’s likely going to come up in future pandemics or in other serious diseases,” said David Silverstein, a patent lawyer at Axinn, Veltrop & Harkrider LLP who advises drugmakers. “Other than that, this is largely symbolic.”

#### The DA outweighs on time-frame and magnitude: Need to sustain effective research now to avoid future pandemics

Lander 8/4/21 [Eric Lander, President Biden’s Science Advisory and Director of the White House Office of Science and Technology Policy) “Opinion: As bad as Covid-19 has been, a future pandemic could be even worse—unless we act now” 8/4/21, The Washington Post] RM

[Coronavirus](https://www.washingtonpost.com/coronavirus/?itid=lk_inline_manual_3) vaccines can end the current pandemic if enough people choose to protect themselves and their loved ones by getting vaccinated. But in the years to come, we will still need to defend against a pandemic side effect: collective amnesia. As public health emergencies recede, societies often quickly forget their experiences — and **fail to prepare for future challenges**. For pandemics, such a course would be disastrous. **New infectious diseases have been emerging at an accelerating pace,** and they are spreading faster. Our federal government is responsible for defending the United States against future threats. That’s why President Biden has asked Congress to fund his plan to build on current scientific progress to keep new infectious-disease threats from turning into pandemics like covid-19. As the president’s science adviser, I know what’s becoming possible. For the first time in our history, we have an opportunity not just to refill our stockpiles but also to transform our capabilities. However, **if we don’t start preparing now for future pandemics, the window for action will close.** Covid-19 has been a catastrophe: The toll in the United States alone is [more than 614,000 lives](https://www.washingtonpost.com/graphics/2020/national/coronavirus-us-cases-deaths/?itid=lk_inline_manual_11) and has been estimated to exceed [$16 trillion](https://jamanetwork.com/journals/jama/fullarticle/2771764), with disproportionate impact on vulnerable and marginalized communities. But a future pandemic could be even worse — unless we take steps now. It’s important to remember that the virus behind covid-19 is far less deadly than the 1918 influenza. The virus also belongs to a well-understood family, coronaviruses. It was possible to design vaccines within days of knowing the virus’s genetic code because 20 years of [basic scientific research](https://science.sciencemag.org/content/372/6538/109.full) had revealed which protein to target and how to stabilize it. And while the current virus spins off variants, its mutation rate is slower than that of most viruses. **Unfortunately, most of the 26 families of viruses that infect humans are less well understood or harder to control**. We have a great deal of work still ahead. The development of [mRNA vaccine technology](https://www.washingtonpost.com/health/2020/12/06/covid-vaccine-messenger-rna/?itid=lk_inline_manual_17) — thanks to more than a decade of foresighted basic research — was a game-changer. It shortened the time needed to design and test vaccines to less than a year — far faster than for any previous vaccine. And it’s been surprisingly effective against covid-19. Still, there’s much more to do. We don’t yet know how mRNA vaccines will perform against other viruses down the road. And **when the next pandemic breaks out, we’ll want to be able to respond even faster.** Fortunately, the scientific community has been developing a bold plan to keep future viruses from becoming pandemics. Here are a few of the goals we should shoot for: The capability to design, test and approve safe and effective vaccines within 100 days of detecting a pandemic threat (for covid-19, that would have meant May 2020); manufacture enough doses to supply the world within 200 days; and speed vaccination campaigns by replacing sterile injections with skin patches. Diagnostics simple and cheap enough for daily home testing to limit spread and target medical care. Early-warning systems to spot new biological threats anywhere in the world soon after they emerge and monitor them thereafter. We desperately need to strengthen our public health system — from expanding the workforce to modernizing labs and data systems — including to ensure that vulnerable populations are protected. And we need to coordinate actions with our international partners, because pandemics know no borders. These goals are ambitious, but they’re feasible — provided the work is managed with the seriousness, focus and accountability of NASA’s Apollo Program, which sent humans to the moon. Importantly, these capabilities won’t just prepare us for future pandemics; they’ll also improve public health and medical care for infectious diseases today. Preparing for threats is a core national responsibility. That’s why our government invests heavily in missile defense and counterterrorism. We need to similarly protect the nation against biological threats, which range from the ongoing risk of pandemics to the possibility of deliberate use of bioweapons. Pandemics cause massive death and disruption. From a financial standpoint, they’re also astronomically expensive. If, as might be expected from [history](https://www.cfr.org/timeline/major-epidemics-modern-era) and current trends, we suffered a pandemic of the current scale every two decades, the annualized cost would exceed $500 billion per year. Investing a much smaller amount to avert this toll is an economic and moral imperative. The White House will put forward a detailed plan this month to ensure that the United States can fully prepare before the next outbreak. It’s hard to imagine a higher economic or human return on national investment.

### Advantage CP

#### Counterplan text: States should increase Covax support, prioritise trade facilitation, commit to aid for trade, and invest in preparedness.

Gonzalez 21 [Violeta Gonzalez Behar is head of partnerships, communications, and resource mobilization at the Enhanced Integrated Framework, a sustainable trade multilateral partnership at the World Trade Organization. In this capacity, she leads a global team in helping EIF build strategic partnerships, communicate results, and secure financing for operations in 51 developing economies. “Opinion: 4 ways to promote vaccine equity through trade”. 8-1-2021. Devex. https://www.devex.com/news/opinion-4-ways-to-promote-vaccine-equity-through-trade-100457. Accessed 8-12-2021; MJen]

Vaccine inequity is one of the most striking — but solvable — challenges of the [COVID-19](https://www.devex.com/focus/covid-19) pandemic. It also provides a wake-up call for what can happen when so-called least-developed countries, or LDCs, are not able to participate fully in global trading systems. By supporting programs such as COVAX, advancing trade facilitation efforts, and directing more aid toward trade initiatives such as [Aid for Trade](https://www.wto.org/english/tratop_e/devel_e/a4t_e/aid4trade_e.htm), the global community can help right this imbalance. As of Monday, only [1.1 % of people in low-income countries](https://ourworldindata.org/covid-vaccinations) had received at least one COVID-19 vaccine dose. This is making it harder to battle a third wave of infections, as the highly transmissible [delta variant](https://news.un.org/en/story/2021/07/1095152) spreads across many nations. In the [World Health Organization](https://www.devex.com/organizations/world-health-organization-who-30562)’s Africa region — where a [high number](https://www.uneca.org/sites/default/files/com/2021/E2100045-English-CoM21-Progress-in-the-implementation-of-the-priority-areas-of-the-Programme-of-Action-for-the-Least-Developed-Countries-for-the-Decade-2011-2020_Istanbul-Programme-of-Action.pdf) of LDCs are located — COVID-19 fatalities [surged 44.2%](https://apps.who.int/iris/bitstream/handle/10665/342715/OEW28-0511072021.pdf) over one week in July. The coronavirus is [devastating](https://www.un.org/development/desa/dpad/2021/major-study-on-covid-19-impact-on-ldcs-released/) many LDCs’ already fragile economies and causing poverty and inequality to rise. Without equitable access to vaccines, [global economic recovery cannot be sustained](https://www.wto.org/english/news_e/news21_e/gc_05may21_e.htm) and progress toward the Sustainable Development Goals will be derailed. While trade alone cannot eradicate vaccine unequity or its negative consequences for the [economy](https://news.un.org/en/story/2021/05/1091732) and [vulnerable groups](https://observatoryihr.org/news/covid-19-vaccine-distribution-highlights-social-inequality/), it has a powerful contribution to make. Here are four actions that would make an impact:

1. Increase COVAX support

Vaccine equity can only be achieved if the global community eschews vaccine nationalism. High-resource countries should [ramp up donations](https://www.devex.com/news/wto-chief-to-g-20-donate-2-3b-more-covid-19-vaccine-doses-100306) through the vaccine-sharing initiative COVAX and commit to securing a swift, workable resolution to ongoing debates around [technology transfers and intellectual property waivers](https://www.devex.com/news/wto-council-offers-hope-for-trips-vaccine-proposal-100125). While countries in the G-7 group of nations have [pledged to increase their support](https://www.who.int/news/item/13-06-2021-g7-announces-pledges-of-870-million-covid-19-vaccine-doses-of-which-at-least-half-to-be-delivered-by-the-end-of-2021) for COVAX, the initiative has faced hurdles in the form of [supply bottlenecks](https://www.devex.com/news/india-crisis-puts-covax-150-million-doses-behind-schedule-99860), [export restrictions](https://unctad.org/news/export-restrictions-do-not-help-fight-covid-19), and [logistical weaknesses](https://www.devex.com/news/the-cold-chain-storage-challenge-99869). Many currently available COVID-19 vaccines have short shelf lives and must be stored at low temperatures. LDCs can only benefit from donated doses if they have fast and efficient processing at their borders, modern transportation systems, and access to cold chain infrastructure.

2. Prioritize trade facilitation

Accelerating implementation of the [World Trade Organization](https://www.devex.com/organizations/world-trade-organization-wto-44694)’s 2017 [Trade Facilitation Agreement](https://www.wto.org/english/tratop_e/tradfa_e/tradfa_e.htm) is critical for helping LDCs overcome these challenges. A total of [154 WTO members](https://www.tfafacility.org/ratifications) now support the agreement, which pledges investment in the simplification and modernization of the movement, release, and customs clearance of goods globally. It also aims to help low-income countries overcome these same barriers through technical assistance and capacity building. The [Global Alliance for Trade Facilitation](https://www.devex.com/organizations/global-alliance-for-trade-facilitation-102992) has made good progress in identifying barriers to vaccine equity and introducing solutions. In [Mozambique](https://www.tradefacilitation.org/article/two-new-mozambique-projects-aim-to-ease-access-to-vaccines-medical-products/), for example, the alliance is working to digitalize pre-shipment authorization for vaccine imports — a process that can take as long as two weeks, during which vaccine doses must be kept in storage. This digitalization should help Mozambique decrease wait times, improve shipment traceability, and reduce storage and inventory management costs. Yet more work remains to help governments overcome [challenges associated with implementing](https://www.wto-ilibrary.org/trade-facilitation-and-customs-valuation/world-trade-report-2015_f2985d96-en) the Trade Facilitation Agreement, such as changing domestic legislation and involving the private sector. Lower-income countries and LDCs have flagged a need around human resources and training, legal assistance, and the acquisition of information and communication technologies.

3. Commit to Aid for Trade

For LDCs to participate fairly in global vaccine supply chains — as importers or exporters of inputs and finished products — they need financial and technical assistance to strengthen their [productive capacity](https://www.devex.com/news/cepi-ceo-concerted-effort-needed-to-build-lmic-vaccine-manufacturing-100013), streamline their cross-border standards and processes, and improve their logistics infrastructure and [technological know-how](https://www.wto.org/english/news_e/news21_e/dgno_21may21_e.htm). The Aid for Trade initiative exists to provide that support — but can only deliver if donor countries maintain or increase their official development assistance, or ODA. Preliminary figures from the [Organisation for Economic Co-operation and Development](https://www.devex.com/organizations/organisation-for-economic-co-operation-and-development-oecd-29872) show that [Development Assistance Committee](https://www.devex.com/organizations/development-assistance-committee-dac-100607) members [expanded their ODA by $10 billion](https://www.devex.com/news/what-to-make-of-the-2020-dac-stats-99641) between 2019 and 2020, mostly as part of their COVID-19 response. However, with several government donors having reprogrammed their aid budgets to focus on immediate health priorities, [fears are growing](https://www.weforum.org/agenda/2021/01/helping-small-businesses-build-resilience/) that their overall ODA may also be slashed — and, with this, their support for Aid for Trade. The generosity of some countries provides hope. Norway, for example, recently stepped up to help plug such gaps with [45 million Norwegian kroner](https://www.wto.org/english/news_e/news21_e/if_22jun21_e.htm) of additional funding for the WTO-backed [Enhanced Integrated Framework](https://www.devex.com/organizations/enhanced-integrated-framework-eif-78046), a global Aid for Trade program that aims to reduce poverty.

4. Invest in preparedness

In 2019, only [$374 million](http://www.healthdata.org/sites/default/files/files/policy_report/FGH/2020/FGH_2019_Interior_Final_Online_2020.09.18.pdf) — or less than 1% — of the world’s total development assistance for health was spent on pandemic preparedness. Within months, the consequences of that underinvestment became clear. Integrating lower-income countries and LDCs into global and regional [pharmaceutical value chains](https://unctad.org/news/unctad-report-says-least-developed-countries-position-improve-access-medicines-through-local-0) is vital for ensuring the world is better prepared next time. Directing increased aid to help these countries become [producers and exporters](https://www.bloomberg.com/news/articles/2021-07-26/africa-must-build-vaccine-production-capacity-wto-chief-says) of medical equipment and vaccines has never been more needed. LDCs would not only receive more of the [vaccines and therapeutics they need now](https://trade4devnews.enhancedif.org/en/op-ed/access-denied-ensuring-vaccines-worlds-poorest-countries) but could actively contribute to the global response when the next pandemic inevitably hits.

#### And it competes off the net benefit: the perm wouldn’t solve because it would still link to the Innovation DA.