

Establishing New Preparedness Protocols and Rules of the Road for
Upcoming Major Epidemics and Plagues.

WHO/G20 Disaster Risk Reduction Working Group or Joint Finance and
Health Taskforce (JFHTF)

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Introduction:

In recent decades, the global health landscape has been rocked by health crises and worldwide health disasters. The success with which these crises are handled is characterized by a dynamic interplay of international collaboration, the overcoming of developmental hurdles in pharmaceutical implementation, and a continual push toward biomedical innovation in the treatment and prevention of future major epidemics and plagues. As the world continues to become increasingly interconnected, growing factors such as urbanization, climate change, and international travel present a heightened risk of rapid disease spread on a global scale. Recent regional and global outbreaks, such as the Ebola epidemic beginning in 2014 and the COVID-19 pandemic beginning in 2020, have underscored the urgency with which proactive measures must be taken to mitigate the potential global devastation caused by such events.

To provide a comprehensive and complete dissection of the complex path toward adequate preparedness and development of rules of the road for future major health threats and plagues, five facets must be examined: current challenges and considerations, the role of international pharmaceutical companies, financial considerations and funding, addressing vaccine hesitancy, and building networks of international cooperation. Within these sections, multiple subsections are to be addressed to provide the most thorough opportunity for analysis of the challenges presented in the journey to global pandemic and plague readiness. Current challenges and considerations faced by proactive international health efforts are the escalating costs of vaccine development and distribution, increasing vaccine hesitancy and its impact on pandemic control, vaccine nationalism both in developmental and distributive mechanisms, and a necessity for innovative approaches that reach beyond vaccine development. The role of international pharmaceutical companies in the race to global public health preparedness is

characterized by the construction of collaborative partnerships between pharmaceutical companies and international bodies, the balancing of profit motives and public health priorities, and the maintenance of intellectual property rights alongside access to treatments in low-income nations. Financial considerations and funding developments will be underscored by the importance of the allocation of funding resources for research and development while maintaining access to treatments and preventative measures, the establishment of global emergency funding mechanisms, and the development of incentives for pharmaceutical companies to invest in epidemic preparedness. The challenge of vaccine hesitancy will be examined through the lens of public awareness campaigns to combat misinformation and earn trust, the promotion of vaccine education and the building of confidence, and the establishment and examination of regulatory frameworks to ensure vaccine safety and efficacy. Finally, the importance of building networks of international cooperation will be analyzed by discussion of the necessity of strengthening partnerships between governments, NGOs, and the private sector, and the benefits of sharing good practices and learning lessons from past epidemics and health threats, the role of the World Health Organization (WHO) in facilitating global collaboration.

International Organizations such as the World Health Organization (WHO), the G20 Disaster Risk Reduction Working Group (DRRWG), and the Joint Finance and Health Taskforce (JFHTF) play a pivotal role in the formation of prevention protocols for future pandemics and plagues. The WHO drives efforts toward global health coordination in research and response, while the JFHTF and the G20 Disaster Risk Reduction Working Group facilitate international collaboration focused on addressing the overlap in healthcare, financial concern, and disaster risk reduction during times of crisis. Effectively tackling health challenges requires intense focus on health-centric approaches, as well as emphasis on social, financial, and cross-sectoral strategies

to minimize vulnerability and maximize resilience in the face of potential tragedy. Through international collaboration, both governmentally and organizationally, actionable frameworks, guidelines, and preparedness protocols may be developed to enhance global readiness in combatting major health crises. As population attitudes toward preparedness standards such as vaccine regimentation continue to change, the global health landscape must continue to evolve to emphasize cooperation, innovation, and the importance of preparedness as mechanisms of safeguarding humanity from the devastating consequences of future major worldwide health disasters.

I. Current Challenges and Considerations

1.1 Escalating Costs of Vaccine Development and Distribution

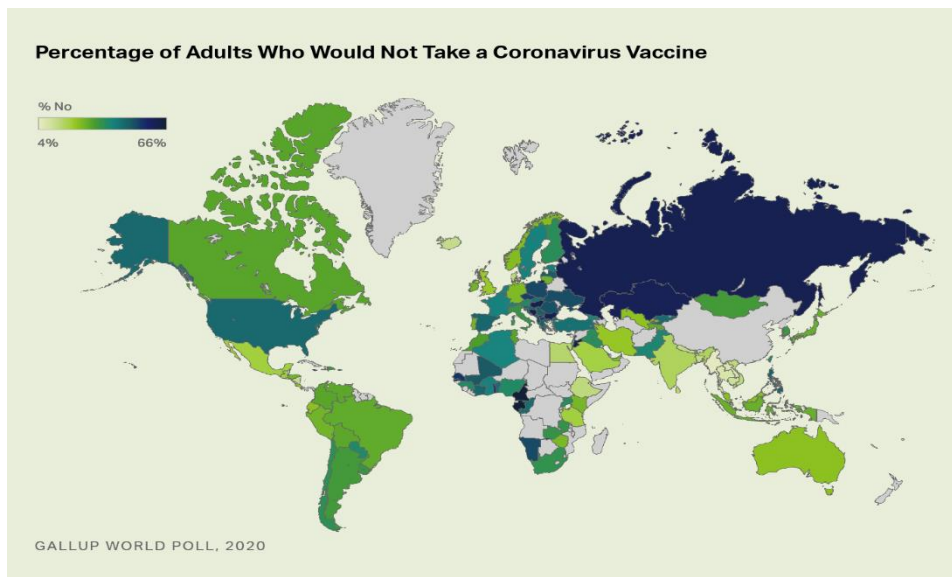
The current international global health landscape is confronted with a series of challenges that demand collaboration to produce effective strategic solutions for all. Historically, the development and distribution of vaccines have been the paramount factor in protecting public health against infectious diseases; however, rising costs in vaccine research, development, and distribution have sparked widespread debate about whether or not the results of such endeavors justify their costs. According to a comprehensive analysis titled “Demythologizing the High Costs of Pharmaceutical Research”, published by Donald Light and Rebecca Warburton in the *BioSocieties* journal, the high costs of pharmaceutical research and development greatly influence research decisions and policy implementation regarding preparedness protocols by region and socioeconomic status. “High research and development (R&D) costs influence many decisions and policy discussions about how to reduce global health disparities, how much companies can afford to discount prices for lower- and middle-income countries, and how to

design innovative incentives to advance research on diseases of the poor” (Light, 2011). This challenge raises questions about the justification of high research and development costs, given that those costs result in lessened accessibility to prevention and treatment options in the absence of a price-reducing government contract and subsequently a heightened risk of disease-spread and increased health disparities in the low-income communities neglected due to the high costs in R&D. This challenge, one of many, demonstrates a delicate balance between ensuring fair access to life-saving vaccines and acknowledging the effects of the financial burden of vaccine research, development, and distribution on both manufacturers and consumers alike.

1.2 Increasing Vaccine Hesitancy and its Impact on Epidemic Control

The emergence of vaccine hesitancy as a global phenomenon presents a multifaceted challenge to the success of vaccination campaigns in controlling present and future outbreaks of epidemics. Addressing the challenges of vaccine hesitancy requires a nuanced understanding of both its causes and consequences. "Vaccine Hesitancy: Causes, Consequences, and a Call to Action," a work authored by Daniel A. Salmon et al., emphasizes the urgency of addressing and mitigating vaccine hesitancy as a way to safeguard the health of the masses. Overcoming the unique challenge of vaccine hesitancy mandates the development of strategies that target the spread of misinformation about vaccines, building trust in the efficacy of vaccines, and promoting health literacy for the general public. “The multifactorial and complex causes of vaccine hesitancy require a broad range of approaches, interventions, and system changes on the individual, provider, health system, and national levels. An improved understanding of issues of trust in healthcare providers, the healthcare system, and public health authorities and how these factors vary among different subpopulations would help inform these efforts” (Salmon et al., 2015).

As vaccine hesitancy rises, the proportion of the population that receives vaccines in preparation and prevention of infectious diseases decreases thus reducing the efficacy of such vaccines against the rapid spread of such diseases. The spread of misinformation about vaccines and the safeguards involved in their development, specifically against the negative effects of vaccines, has continued to degrade the confidence of the public in international health institutions and pharmaceutical companies. As reported by a poll conducted by the Henry J. Kaiser Family Foundation (KFF), an independent source for health policy, research, polling, and news, an average of 27% of Americans would refuse the COVID-19 vaccine with certain social groups reporting much higher hesitancy, such as the members of the Republican Party reporting 42% hesitancy. On a global scale, according to research conducted by Gallup, an American analytics and advisory company, over 1 billion people worldwide reported that they would refuse the COVID-19 vaccine even if it were deemed completely safe by scientists and offered to the public free of charge.

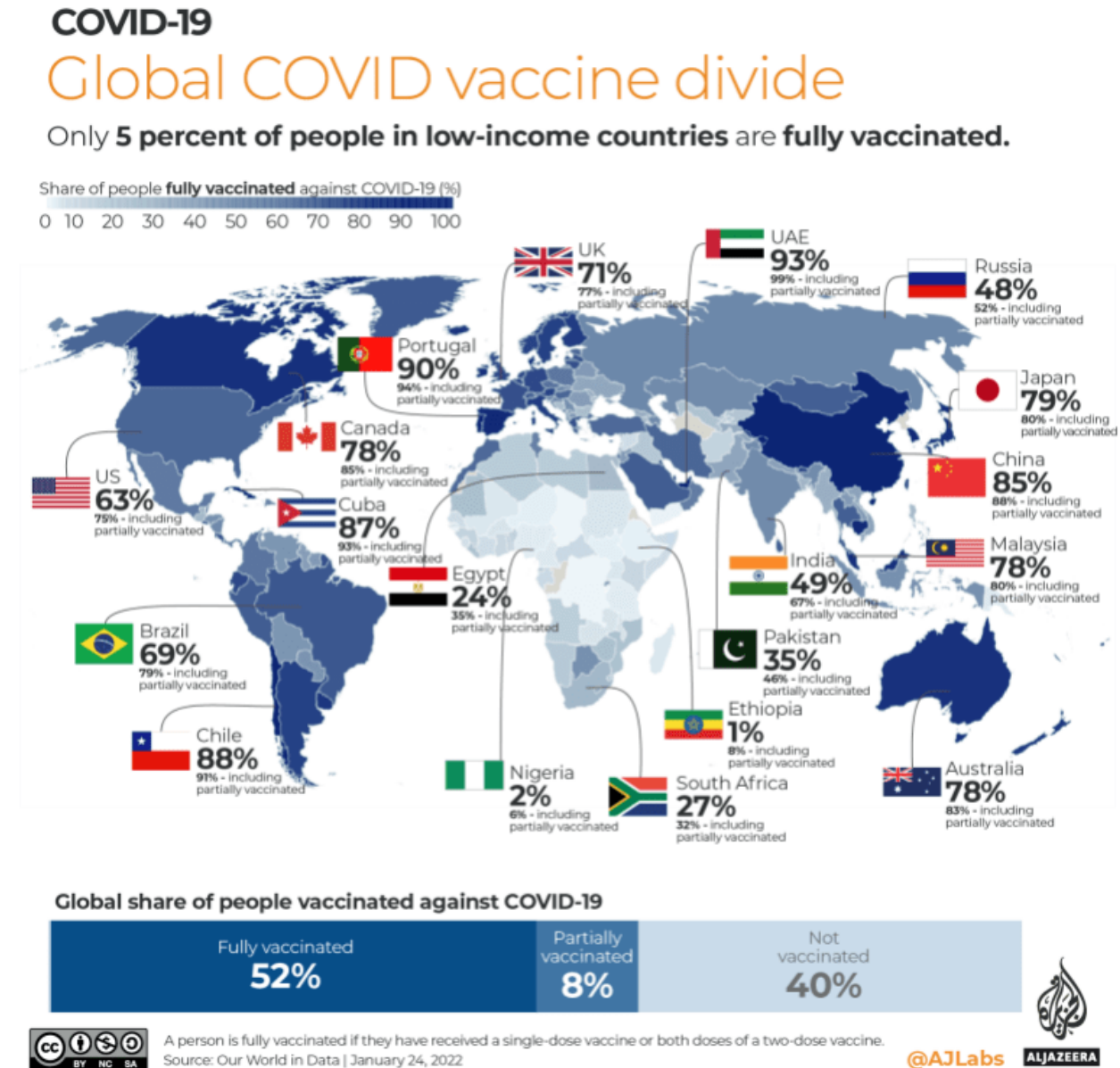


1.3 Vaccine Nationalism

When working to address major global health threats and infectious disease spread, one of the most pressing challenges facing the international community is vaccine nationalism. Vaccine nationalism is defined by *Global Citizen* as “wealthy countries scrambling to sign deals with pharmaceutical companies directly, to secure vaccines for their populations — limiting the stock available for others” (Lock, 2021). The prioritization of individual national interests in allocating and distributing vaccines during emergent global health events threatens the very bedrock of global equitable health access. Tedros Adhanom Ghebreyesus, the Director-General of the World Health Organization decries vaccine nationalism as morally indefensible in the international relations journal, *Foreign Policy*, saying, “Vaccine allocation must not become a zero-sum game. Vaccine nationalism is not just morally indefensible. It is epidemiologically self-defeating and clinically counterproductive” (Ghebreyesus, 2021). Vaccine nationalism was a major challenge during the COVID-19 pandemic, with the global health community seeing prejudice directed toward vaccine origin and the majority of vaccines snatched up by developed and higher-income nations, leaving minimal resources for developing and lower-income nations and even less opportunity to procure access to them in the future. The threat of vaccine nationalism presents a formidable challenge to the establishment of effective preparedness protocols for addressing future global health crises.

Inequitable access has historically been a challenge to the global health landscape, with vaccine nationalism exacerbating those inequities to access to life-saving vaccines. While nations with greater financial resources can secure access to large quantities of vaccines using advanced purchase agreements and development pledges, low-income regions often struggle to procure access to even the most basic supplies and treatments. There is a large disparity in vaccine access and distribution that undermines the efficacy of global pandemic response and perpetuates a

variety of challenges on an international scale, such as an erosion of international cooperation, impeding “herd immunity”, and prolonging the global social and economic ramifications of international health crises.



The achievement of widespread “herd immunity” is essential for effective long-term prevention of global disease spread. When vaccines are disproportionately concentrated in a

limited number of countries, infectious diseases are more likely to mutate, increasing the rate of infection and decreasing the effectiveness of vaccine technology. Through increased spread and decreased prevention, entropy rises on a global scale, eroding the networks of international collaboration that are essential to effectively addressing major health threats. International mistrust not only hampers immediate pandemic responses but also hinders the development of future preparedness protocols by creating wide-reaching economic and social ramifications. The prolonged pandemic conditions created by vaccine nationalism impede global travel, silence international communication, and upend global supply chains, increasing the risk of economic instability and therefore social hardship for everyday citizens. Addressing the issue of vaccine nationalism is not only a public health imperative, but also necessary for the maintenance of global economic stability. The establishment of new preparedness protocols and rules for the road for upcoming major epidemics and plagues must mandate equitable vaccine access and distribution, support global initiatives such as COVAX (WHO, n.d.), foster global solidarity, and strengthen the vaccine production and distribution capacities of developing nations to ensure that no nation is left behind in the global fight against future major health threats and crises.

1.4 Necessity for Innovative Approaches Beyond Vaccine Development

While vaccines remain a cornerstone of disease prevention, vaccine hesitancy and the dynamic nature of threats to the global health landscape demand a broader outlook in terms of prevention and increased pursuit of innovative approaches that look beyond vaccine development. In an article published by the *New England Journal of Medicine*, "Innovation for Pandemics," author Bill Gates emphasizes the importance of embracing novel detection strategies and global collaboration in bolstering global health security. The challenge of vaccine hesitancy and rising research and development costs encourage nations to collaborate on

research, share technology, and work toward capacity-building initiatives aimed at enhancing readiness protocols to fight against emerging health crises. “What the world needs is a coordinated global approach to pandemics that will work regardless of whether the next pandemic is a product of humans or nature. Specifically, we need better tools, an early detection system, and a global response system” (Gates, 2018). Innovative approaches beyond vaccine development include the implementation of standards for early detection and the deployment of a framework to dictate international corroboration in response to major international health threats. The cost of pandemic prevention is a fraction of the cost of addressing an active pandemic, thus innovative prevention is the key to balancing both cost and efficacy in pandemic and plague management. “We estimate the present value of prevention costs for 10 years to be only about 2% of the costs of the COVID-19 pandemic” (Dobson et al., 2020). As the landscape of international health security continues to present new challenges, the global community must rise to the occasion through innovation and collaboration to meet these challenges head-on.

To address the challenges to health security and development brought forth by an evolving world, the delegates of this committee are urged to thoroughly deliberate upon the aforementioned sources and discuss the insights therewithin. Through collaboration and interconnectedness in the international community, a course can be charted toward equitable vaccine access, appeasement of vaccine hesitancy, and the development of integrative, innovative solutions that extend beyond the traditional paradigms of prevention and treatment to effectively and wholly address the challenges presented to pandemic and plague preparedness in the modern global health landscape.

II. The Role of International Pharmaceutical Companies

2.1 Collaborative Partnerships between Pharmaceutical Companies and International Bodies

International pharmaceutical companies play a central role in shaping the trajectory of future pandemic preparedness and response. One of the key aspects that define the complex relationship between pharmaceutical companies and the global health community is cooperation and collaboration between these companies and international bodies. The establishment of collaborative partnerships has emerged as a cornerstone of preparedness protocols for future pandemics, offering assistance in research, prevention, and treatment of pandemics and plague. The World Economic Forum underscores the significance of alliances between public and private entities in enhancing research, development, and distribution of solutions during times of present and future major health disasters, in their article, "Public-Private Partnerships for Pandemic Preparedness," saying, "Public-Private-Partnerships (PPPs) have proven highly effective not only in healthcare, as with the Global Alliance for Vaccines and Immunization (Gavi), but in other infrastructure categories such as public utilities and transport. However, their potential as a means of delivering better, more accessible healthcare has been underused" (Andreae et al., 4). PPPs are an underutilized method of addressing the risks and devastation presented during pandemics and plagues; however, they present a comprehensive solution to challenges that arise on the logistical side of pharmaceutical research and development. Delegates are encouraged to explore mechanisms by which cooperation may be fostered between public and private sectors, and examine ways in which the interests of private corporations may be balanced alongside public health imperatives in international pandemic preparedness.

2.2 Balancing Profit Motives and Public Health Priorities

A critical consideration to weigh while evaluating the role of pharmaceutical companies in global health crises is the inherent tension between profit motives and public health priorities. It is important to consider wherein lays an acceptable estuary between profit margins and accessibility for prevention and treatment measures when constructing a cost-benefit analysis of public-private partnerships in the global health landscape. The article, “Determining the Obligations of the Pharmaceutical Industry during the Pandemic,” authored by Adam La Caze, probes the ethical dimensions of industrial obligation during pandemic times, specifically during the COVID-19 pandemic. “A fair distribution of vaccines that appropriately optimizes health and economic outcomes is a good outcome. Meeting such a social goal, however, is not typically an ethical *obligation* of the pharmaceutical industry. It is ethically praiseworthy when pharmaceutical companies contribute meaningfully to such a goal, and ethically blameworthy when the actions of a pharmaceutical company actively undermine this goal, but to define the obligations of pharmaceutical companies in terms of this goal goes a step further and requires an explicit argument” (La Caze, 2022). Is there a way to strike an equilibrium between the maintenance of profitability for private pharmaceutical companies, and the insurance of collective wellbeing for global citizens?

2.3 Intellectual Property Rights and Access to Treatments in Low-Income Countries

Within the realm of public-private partnerships, maintaining intellectual property rights alongside accessibility of treatments in low-income nations is a constant concern in the global health discourse. The obligation to keep purchase costs low for emerging innovations in prevention and treatment may sometimes infringe upon the intellectual property rights of pharmaceutical companies, an impedance which is discussed in the UN Universal Declaration of Human Rights (UDHR) of 1948 and the UN International Covenant on Economic, Social and

Cultural Rights (ICESCR) of 1966, with a broad statement of the human right to health contained in the Universal Declaration: “Everyone has the right to a standard of living adequate for the health and well-being of himself and of his family, including food, clothing, housing and medical care and necessary social services, and the right to security in the event of unemployment, sickness, disability, widowhood, old age or other lack of livelihood in circumstances beyond his control.” Every human being has the right to health and well-being, including adequate medical care and social services such as vaccine distribution during pandemic times; however, the debate therein lies whether or not that right extends the responsibility to mainstream pharma to make their medication accessible for all, or if the responsibility for access rests on public agencies to address root issues such as poverty and lack of public infrastructure.

In the article "Intellectual Property and Global Health: From Corporate Social Responsibility to the Access to Knowledge Movement," published in the *Liverpool Law Review* by Cristian Timmermann and Henk van den Belt, the complexities of intellectual property and health equity are examined in the context of balancing blame and solution in preserving patent integrity while maintaining accessibility to pharmaceutical prevention and treatment in a pandemic. “In debates on access to medicines, representatives of the non-generic pharmaceutical industry constantly reiterate their mantra that the big problem is not patents but poverty. Yet there is something disingenuous about this way of framing the problem. By blaming lack of access on the root cause of poverty and arguing that an effective solution should address the “real factors” underlying the problem, the proponents of Big Pharma turn the critical spotlight away from their intellectual property rights” (Timmermann, 2013). While it can be easy to shift the blame to inaccessibility, both public and private sectors must shoulder some responsibility in

making pharmaceutical innovations equitably accessible to the general public while also respecting the intellectual property rights of pharmaceutical developers.

The rocky terrain of intellectual property law in the context of international public health equity can be difficult to navigate, but delegates are encouraged to seek new avenues to ensure equitable access to preventative measures and treatments while maintaining the integrity of pharmaceutical intellectual property rights. It is important to consider diverse perspectives in this debate and embrace a collaborative approach that members of both the public international community and private corporations alike can embrace to effectively safeguard global health equity while addressing each facet of the challenges of pandemic preparedness.

III. Financial Considerations and Funding

3.1 Allocating Resources for Research and Development while Maintaining Access

The formation of an effective response to major global health threats requires the construction of a robust framework of financial support that benefits research, development, and the insurance of a rapid response to outbreaking crises. Resource allocation for research and development is the bedrock of innovation in the global health field, ensuring that emerging health solutions remain funded and able to continue until their fruition. The main issue with high costs of R&D is that developers are forced to earn back those costs in pricing, making life-saving innovations unaffordable and inaccessible. Variable economic factors and evolving international relations can also play a role in the high pricing of innovative treatments, wherein reliance on a single funding source opens research and development processes to financial vulnerability.

In their report, “Research and Development to Meet Health Needs in Developing Countries: Strengthening Global Financing and Coordination”, the World Health Organization

discusses the context in which research and development funding may impact the accessibility and affordability of medical innovations. “The context for our report is the critical situation affecting the global economy, particularly developed countries which have traditionally been the largest funders of biomedical research (in the private and public sectors),” says the WHO. “This threatens to bring to an end a decade in which the international commitment to development has resulted in large increases in development assistance for health, including for health-related R&D (37). That situation makes particularly relevant our mandate to consider further new innovative sources of financing. It also highlights the danger of overreliance on one source of funding such as development assistance which is vulnerable to changes in economic or political circumstances” (WHO, 2012b). The changing environment of the global health landscape necessitates a delinkage of R&D development costs from medical pricing, an increase in internationally collaborative efforts to increase equitable access to treatments of all prices, and the establishment of a global emergency funding mechanism to support research and development in the absence of reliable support through traditional channels.

3.2 Establishing Global Emergency Funding Mechanisms

Regardless of steps that may be taken for financial preparation in active times of pandemic or plague, emergencies or unforeseen circumstances are always liable to occur. The establishment of a global emergency fund is central to enabling a swift response to health threats and emergencies alike. “Ebola: Toward an International Health Systems Fund”, an article penned by Lawrence Gostin for *The Lancet*, discusses how a flexible international health systems emergency fund would be beneficial to the response time and efficiency during emerging health crises. “A dedicated International Health Systems Fund would build national capacities not only to respond rapidly to public health emergencies but also to enable low-income and some middle-

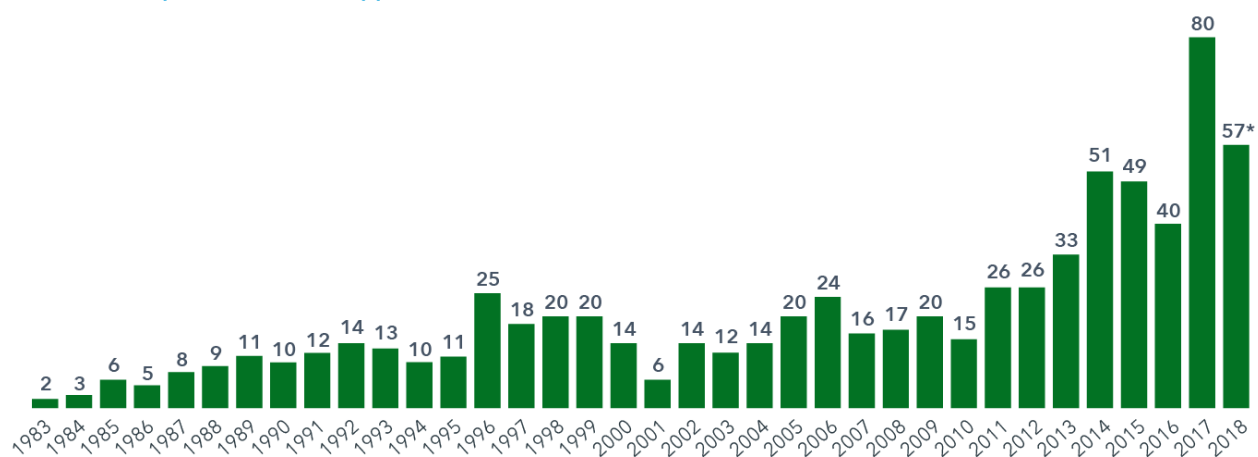
income countries to deliver comprehensive health services” (Gostin, 2014). The article, which was published in 2014, underscored lessons learned during the Ebola crisis which highlighted the importance of an emergency preparedness fund. In 2011, the WHO Review Committee on the Functioning of IHR proposed the establishment of a Global Health Emergency Workforce; however, the WHO did not act on the Review Committee's recommendations until May of 2015 when the Contingency Fund for Emergencies (CFE) was formed.

According to the WHO in their “Contingency Fund for Emergencies 2022 Annual Report”, the CFE was instrumental in aiding in flexible, rapid responses to emerging outbreaks and threats to the global health landscape. “Fast, flexible resources from the WHO Contingency Fund for Emergencies (CFE) enabled us to respond quickly and effectively to these and many other health emergencies in 2022. In total, nearly US\$ 88 million was released from the Fund for some 35 emergencies in 40 countries and territories, and one global response” (WHO, 2023). While the CFE can be an incredibly helpful resource in combatting international health threats and emerging pandemics and plagues, it has historically fallen short in its internal funding. According to the Council on Foreign Relations in their article titled “The World Can Prevent Future Pandemics: Here’s How to Fund it,” the CFE fell far short in its funding needs while addressing the COVID-19 Pandemic. “One of the biggest challenges remains financing pandemic preparedness and responses. For example, the WHO’s Contingency Fund for Emergencies and 2021 Strategic Preparedness and Response Plan were funded at only about \$2 billion, almost \$1 billion short of what was needed to help address COVID-19” (Council on Foreign Relations, 2022). Delegates are encouraged to consider how these internal funding hurdles may be addressed to best ensure adequate emergency funding in the event of future pandemics and plagues.

3.3 Incentives for Pharmaceutical Companies to Invest in Epidemic Preparedness

Corporate pharmaceutical engagement in global health preparedness efforts is a key element in international readiness, but it is contingent upon the establishment of compelling incentives for involvement. One such example of incentive driving pharmaceutical innovation can be found in the Orphan Drug Act of 1983. The Orphan Drug Act was a law that provided financial incentives to develop a drug approved to treat an orphan disease (a drug that is underdeveloped due to limited profit potential, for diseases that affect fewer than 200,000 people in the United States per year), even if it were not under patent, and tax credits of up to 50 percent for research and development expenses (FDA, 2018). In addition, it granted pharmaceutical companies a seven-year period of exclusivity for their drug, gaining industry attention due to the profitability of exclusivity. The Orphan Drug Act of 1983 greatly increased the number of developed drugs available to treat rare diseases, exemplifying the efficacy of financial incentives for commercial pharmaceutical and medical innovation. “Since the passage of the Orphan Drug Act, the number of drugs for rare diseases has increased substantially. Many researchers and policymakers have credited the Orphan Drug Act—in particular, its guarantee of seven years of market exclusivity—with this success, citing the surge in drugs for rare diseases as evidence that legislative grants of market exclusivity work to generate pharmaceutical innovation” (Sarpatwari et al., 2018). Using Orphan Drugs as a microcosm of broader pharmaceutical development, it is evident that providing economic incentives to pharmaceutical companies serves to greatly increase the frequency and efficiency with which companies produce novel solutions to both chronic and emerging health crises.

Number of Orphan Indications Approved in the United States 1983-2018



Source: FDA. Search Orphan Drug Designations and Approvals. 2018 Sep. Available from: <https://www.accessdata.fda.gov/scripts/opdlisting/ood/>
 Note: * Reflects drug approvals through Aug 2018. Exhibit displays designated and marketing approved indications by marketing approval date.
 Report: Orphan Drugs in the United States Growth Trends in Rare Disease Treatments. IQVIA Institute for Human Data Science, Oct 2018

However, incentives for pharmaceutical development have a few shortcomings in terms of providing equitable access to funding and patent incentives. Margaret Kyle, writing for the *International Journal of Industrial Organization*, offers a critical critique of the pharmaceutical incentive system. “Because the NIH depends on the elected US Congress to allocate its budget, it is not surprising that there is a relationship between the needs of American voters and the direction of research funding. However, this suggests that research efforts financed by push incentives are likely to be tilted towards the needs of relatively rich, developed countries – that is, it is subject to a common criticism of the patent system” (Kyle, 2022). Economic incentives through both public and private channels, as well as the patent system for pharmaceutical incentives, present challenges to global accessibility, particularly for developing nations. Delegates are urged to consider ways in which the incentive system may be expanded or evolved to increase equitability and access to funding and patent opportunities.

IV. Addressing Vaccine Hesitancy

4.1 Public Awareness Campaigns to Combat Misinformation and Earn Trust

Vaccine hesitancy poses a formidable challenge to global health efforts. When confidence is eroded in the safety of vaccines, it severely undermines the efficacy of vaccination campaigns and their role in protecting communities and preventing the spread of infectious diseases. Appeasing vaccine hesitancy requires proactive efforts to combat misinformation in popular media and provide alternative sources containing accurate information to the public. Particularly, it is integral to formulate informational campaigns that are tailored to the specific sociocultural contexts within which vaccine hesitancy is found at the highest frequency. “Vaccine acceptance sits on a spectrum, from those who strongly refuse all vaccines to those who are strong vaccine advocates, with influences that are unique to each parent or individual. As such, vaccine communication should be evidence-based, context-specific, culturally appropriate, and tailored to the individual’s position on the vaccine hesitancy continuum. By engaging with specific groups based on their concerns, discussions can be focused and are more likely to be productive and less confrontational” (Tuckerman et al., 2022).

4.2 Promoting Vaccine Education and Building Confidence

Promoting education about vaccines and building trust in immunization programs are central elements in the fight against dangerous misinformation campaigns and their effects. The committee is urged to deliberate on the design of and implementation of public awareness campaigns, including the amplification of science-rooted information aimed at combatting false narratives about the safety and efficacy of vaccines and their role in preventing the spread of major global health threats, pandemics, and plagues. Some ways in which education and trust

can be built in vaccination regimens are described in an article from the *United Nations Foundation*, titled “A United Front: Building Vaccine Confidence during a Pandemic”. “Studies have found that one of the best ways to build trust in health interventions like vaccines is not by websites of facts and statistics, but by conversations with trusted members of a local community. This tends to vary based on the country and community” (UNF, 2020). The committee is encouraged to explore ways in which vaccine literacy can be expanded to ensure that communities have access to accurate information about immunizations to empower informed decision-making in the face of future global health threats.

4.3 Regulatory Frameworks: Ensuring Vaccine Safety and Efficacy

Regulatory frameworks play a big role in fostering and maintaining public confidence and trust in vaccines. Considering that vaccinations are a central preventative factor for pandemics and plagues, constructing regulatory frameworks helps to ensure that vaccines remain safe and effective in both development and distribution. The World Health Organization constructed a global framework for vaccine safety called the Global Vaccine Safety Initiative, which began in 2011 as the Global Vaccine Safety Blueprint. The blueprint was aimed at formulating a strategic plan for strengthening vaccine safety activities globally and mandating that all countries have at least a minimal capacity to ensure vaccine safety. “The Global Vaccine Safety Initiative, or GVSI, was set up to implement the Blueprint strategy. This comprises a framework of eight strategic objectives aimed at enhancing global vaccine safety activities. The strategic objectives focus on building and supporting a systemic approach to vaccine pharmacovigilance in all low- and middle-income countries” (WHO, 2012a). By addressing common concerns about the safety of vaccines and enhancing transparency surrounding the

safeguards that are in place during the vaccine development and approval processes, public trust in vaccine regimens may be improved.

Delegates are encouraged to deliberate on mechanisms of further enhancing transparency in the process of researching, developing, approving, and distributing immunizations during expedited timelines, such as during times of plague or pandemic including the COVID-19 pandemic, and examine ways in which to ensure public safety and the reliability of vaccinations as a method of prevention and preparedness for future threats or health crises. By building comprehensive guidelines addressing risk communication, education, trust-building, and regulation in vaccination campaigns, the global health community may effectively work towards alleviating vaccine hesitancy and emphasizing the cruciality of immunizations as a mechanism for safeguarding international public health against future pandemics and plagues.

V. Building Networks of International Cooperation

5.1 Strengthening Partnerships Between Governments, NGOs, and the Private Sector

As the global landscape continues to become increasingly interconnected, it is imperative to foster international cooperation to best address global health challenges. The efficacy of global health initiatives demands active participation from members of governments, non-governmental organizations (NGOs), and actors in the private sector alike. *The Bulletin of the World Health Organization* examines the contributions that intersectoral partnerships have to offer in their article, titled "Public-Private Partnerships for Health: Their Main Targets, Their Diversity, and Their Future Directions," explaining that "Partnerships between public/governmental entities, private/commercial entities, and civil society have a contribution to make in improving the health of the poor by combining the different skills and resources of various organizations in innovative ways. Public agencies benefit from working in collaboration with the private sector in areas

where the public sector lacks expertise and experience, e.g. in product development, production process development, manufacturing, marketing, and distribution” (Widdus, 2001). The committee is encouraged to explore strategies that harness the strengths of each sector, governmental, non-governmental, and private sectors, and leverage the resources and expertise of each sector to foster innovation to advance global health objectives.

5.2 The Role of the World Health Organization in Facilitating Global Collaboration

The World Health Organization (WHO) is a central actor in the facilitation of international collaboration and response to emerging health threats. The WHO has established a global network of regulations dictating health safety guidelines, coordination of engagement in global health initiatives, increasing equitable access to treatments and preventative measures, and preparing for future crises affecting the global health landscape. According to the World Health Organization itself, “WHO’s role in global health governance is a practical expression of the Constitutional function to act as “the directing and coordinating authority on international health work” (Chan, 2013). The document “WHO’s Role in Global Health,” a report penned by Margaret Chan, the Director-General of the World Health Organization during the 132nd session, highlights the functions and responsibilities of the WHO in the capacity of a global health governance body. While some may argue in favor of the benefits of organizational changes within the World Health Organization to increase international collaboration and information sharing, it is important to note that states weakened the WHO during the COVID-19 pandemic. This resulted in the garnering of a lot of criticism for the WHO, much of which was unjustified. In the *Foreign Affairs* journal in their issue about Global Governance at the Council on Foreign Relations, Stewart Patrick discusses the global health factor of international isolationism as a governmental choice and the detriments of a disregard for WHO regulation during global health

threats. “Amid the current pandemic [COVID-19], however, governments have repeatedly forsaken opportunities for consultation, joint planning, and collaboration, opting instead to adopt nationalist stances that have put them at odds with one another and with the WHO. The result has been a near-total lack of global policy coherence” (Patrick, 2020). Delegates are encouraged to deliberate on ways in which the capacity of the WHO may be bolstered (while not infringing on its organizational stability and strength), as well as ways in which international actors may be encouraged to act in cohesion instead of opposition, to facilitate greater international cooperation in the sharing of information and coordination of responses during emerging health threats, and thereby enhance the efficacy of global health governance practices.

5.3 Sharing Good Practices and Lessons Learned from Past Epidemics and Threats

In all endeavors, learning from past experiences is one of the best ways to ensure that past failures become present and future successes. In the context of global health and preparedness for future epidemics and outbreaks, learning from the shortcomings in past action in order to inform future policymaking and health decisions is one of the most effective ways to bridge the gaps in preparedness and best strengthen response for future global threats. Margaret Chan, former Director-General of the World Health Organization, examines a few of the lessons learned from the Ebola epidemic, and how those lessons may be applied in future crises. “The Ebola outbreak has taught us many lessons, among them that the response to outbreaks and emergencies must start and end at ground level – which means that certain key capacities have to be in place before launching a response, including leadership and coordination, technical support, logistics, management of human resources and communications” (Chan, 2015). When tasked with building international networks of cooperation, the committee is encouraged to consider diverse perspectives and foster knowledge exchange to bolster global resilience when confronting potential major

epidemics and plagues. Delegates are called to share best practices, identify areas for improvement, embrace a culture of shared learning to unite the international community, and forge a united front against global health challenges to construct a healthier and more secure world for all nations, big and small.

Conclusion :

The global health landscape is always changing, evolving to adapt to new and unique challenges and threats. While working to strategize and establish new preparedness protocols and rules of the road for upcoming major epidemics and plagues, it is evident that the global community stands at the crux of the fight against future global health challenges and crises. The discussions taking place within this committee underscore the challenges faced in the journey to a healthier and more secure world, as well as the efforts required to overcome those challenges. The overlap between policymaking, technological and pharmaceutical innovation, economic factors, and public health cannot be underestimated. The urgency that these issues demand goes beyond political boundaries or national borders; as the global community navigates the rocky path of continually increasing vaccine costs, escalating vaccine hesitancy, and the ever-evolving landscape of the pharmaceutical industry, it becomes clear that a holistic approach is necessary to bridge the gap between intention and action in preparing for the next global health crisis.

The Role of organizations such as the G20 Disaster Risk Reduction Working Group (DRRWG), the Joint Finance and Health Taskforce (JFHTF), and the World Health Organization (WHO) is pivotal in preparing for future health crises. It is only through the sharing of information, strategic development of international networks and guidelines, and the fostering of global collaboration that these entities may shape a future that is best equipped to prepare and respond to disease outbreaks, epidemics, and plagues. When drafting new preparedness protocols

and rules of the road for upcoming major health crises and threats, it is crucial to weigh the needs of all relevant entities. From governments to pharmaceutical companies, from healthcare workers to vulnerable communities, perspectival influence is key in striking a balance between innovation and accessibility. The endeavor to establish stronger foundations for preparedness is not just a responsibility, but also a moral imperative. Lessons learned from past epidemics and plagues serve as a reminder that complacency is not an option as the world moves into the future. The discussions and resolutions that have taken place within this committee mark an important step forward in building a safer and more resilient health landscape around the globe. Let us move forward with determination, recognizing that our actions today will shape the trajectory of health and preparedness for future generations, and help to ensure the formation of a world better equipped to face the health challenges that lie ahead.

Delegate Preparation:

Some themes that delegates may focus on as they consider different strategies for their position and working papers are as follows:

1. Delegates are encouraged to explore mechanisms by which international cooperation may be fostered between public and private sectors in the global health community.
2. Delegates are urged to examine ways in which the interests of private corporations may be balanced alongside public health imperatives in international pandemic preparedness.
3. Delegates are encouraged to seek new avenues to ensure equitable access to preventative measures and treatments for global health threats and crises while maintaining the integrity of pharmaceutical intellectual property rights.
4. Delegates are encouraged to consider ways to address internal funding hurdles faced by governmental and pharmaceutical entities during research and development of vaccines and treatments for major world health threats.
5. Delegates should discuss how best to ensure adequate emergency funding for governmental organizations in the event of future pandemics and plagues.
6. Delegates are urged to consider ways in which the incentive system for patent development may be expanded or evolved to increase equitability and access to funding and future patent opportunities.
7. Delegates are encouraged to deliberate on mechanisms of further enhancement to transparency in the R&D process.
8. Delegates should examine the best methods by which to optimize immunization distribution during expedited timelines, such as during times of plague or pandemic including the COVID-19 pandemic.

9. Delegates are urged to examine ways in which to ensure public safety and mandate the reliability of vaccinations as a method of prevention and preparedness for future threats or health crises.
10. Delegates are encouraged to deliberate on ways in which to facilitate greater international cooperation and the sharing of information during outbreaking global health crises.
11. Delegates are encouraged to consider the most effective ways to standardize the coordination of responses during emerging health threats and discuss the best methods by which to enhance the efficacy of global health governance practices.
12. Delegates are called upon to share best practices for pandemic prevention and preparedness, identify areas for improvement, embrace a culture of shared learning to unite the international community, and forge a united front against global health challenges to construct a healthier and more secure world for all nations.

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