



The Architecture of Compulsory Licensing: Historical Evolution and Structural Limits

Shaily Navadia ^{a*}, Priyasha Mishra ^b

^a National Law Institute University, Kerwa Dam Road, Bhopal 462044, India

^b National Law Institute University, Kerwa Dam Road, Bhopal 462044, India

ABSTRACT

Compulsory licensing under TRIPS Article 31 and the Doha Declaration is a reactive, product-specific remedy that has proved procedurally cumbersome and underused, as COVID-19 demonstrated. This paper examines whether the 2025 WHO Pandemic Agreement can operate as a “Compulsory Licensing 2.0” for future threats such as “Disease X”. It finds that, despite genuine advances in the One Health principle and the PABS system, the Agreement depends on voluntary, “willingly undertaken” technology transfer, is silent on trade secrets, and cannot enter into force until the PABS annex is finalised. Because Disease X demands proactive rather than reactive architecture, the paper proposes automatic PHEIC-triggered licensing, pre-committed licences for platform technologies, a TRIPS Article 31ter, a binding technology transfer provision in the PABS annex, and model domestic legislation.

Keywords: Compulsory licensing; TRIPS Article 31; Doha Declaration; WHO Pandemic Agreement; PABS annex; Disease X

Origins and Foundations: From the Paris Convention to TRIPS

The concept of compulsory licensing in intellectual property law is neither novel nor a creature of public health crises. Its origins can be traced to the Venetian Patent Statute of 1474, which empowered the Venetian state to use inventions to which it had granted patents. More formally, the Paris Convention for the Protection of Industrial Property of 1883 implicitly recognised the legitimacy of compulsory licensing as a tool to prevent abuses of patent rights, a principle later elaborated in the 1925 revision.

However, the modern international architecture of compulsory licensing was crystallised by the Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS), adopted as Annex 1C to the Agreement Establishing the World Trade Organization in 1994. TRIPS Article 31 established a conditional right of WTO Members to authorise the use of a patent without the consent of the patent holder — the formal legal definition of a compulsory licence. The conditions imposed were substantial: the proposed user must ordinarily have made prior efforts to obtain authorisation from the right holder on reasonable commercial terms and those efforts must have not been successful within a reasonable period of time; adequate remuneration must be paid to the patent holder; the scope and duration of the licence must be limited to its authorised purpose; and crucially, the licence must be granted predominantly for the supply of the domestic market of the authorising Member.

The last of these conditions — the domestic market limitation in Article 31(f) — would prove the most consequential and the most criticised. It meant that a country with pharmaceutical manufacturing capacity could not use compulsory licensing primarily to produce medicines for export to nations that lacked such capacity. In practice, this made the flexibility virtually unusable for least-developed countries (LDCs), which were simultaneously the most affected by communicable disease burdens and the least equipped to manufacture their own generic medicines.

Doha Declaration (2001): Clarification and Its Limits

The mounting HIV/AIDS crisis of the late 1990s, and in particular the controversy generated when the United States threatened trade sanctions against South Africa in 1997 for proposing amendments to its Medicines Control Act to permit parallel importing and compulsory licensing, made the political pressure for TRIPS reform irresistible. At the Fourth WTO Ministerial Conference at Doha in November 2001, Members adopted the Declaration on the TRIPS Agreement and Public Health.

The Doha Declaration was a landmark achievement. Its paragraph 4 declared unequivocally that “the TRIPS Agreement does not and should not prevent Members from taking measures to protect public health” and affirmed the right to use the Agreement’s flexibilities to this end. Its paragraph 5 clarified several specific flexibilities: that Members could determine the grounds for granting compulsory licences at their own discretion; that each Member had the right to determine what constituted a national emergency or other circumstances of extreme urgency; and that each Member could establish its own regime for exhaustion of intellectual property rights without challenge under the dispute settlement system.

Paragraph 6, however, acknowledged an unresolved structural problem: WTO Members with insufficient or no manufacturing capacity in the pharmaceutical sector faced particular difficulties in making effective use of compulsory licensing. The TRIPS Council was directed to find an expeditious solution by the end of 2002. This deadline was missed; consensus was not reached until the General Council Decision of 30 August 2003, which created a waiver mechanism permitting the grant of compulsory licences for export to countries lacking manufacturing capacity. The waiver was eventually codified as Article 31bis, which entered into force in 2017 following acceptance by two-thirds of WTO Members.

Despite its importance, the Doha Declaration's legacy is one of considerable underperformance. The Article 31bis system has been used only once in two decades — the 2007 Canada–Rwanda transaction — despite the enormous unmet pharmaceutical needs of LDCs. Scholars have attributed this underutilisation variously to the procedural complexity of the system, the lack of technical expertise in implementing domestic legislation, the prohibitive costs of navigating international licensing procedures, and the persistent pressure exerted by developed-country governments and pharmaceutical lobbies on LMICs that attempt to invoke these flexibilities.

COVID-19 and the Exhaustion of the Existing Framework

The COVID-19 pandemic subjected the Doha framework to its most strenuous stress test and it failed. The October 2020 India–South Africa TRIPS waiver proposal sought a comprehensive suspension of relevant TRIPS obligations for the duration of the pandemic. The scope of the proposal — covering patents, trade secrets, industrial designs, and undisclosed clinical data — reflected the hard lesson learned from COVID-19: that the IP barriers to equitable vaccine access were not limited to patents alone, but extended to the know-how, technical specifications, and regulatory data without which a compulsory licence was, as Hollis and Pogge had earlier observed, a licence to make something that the licensee did not actually know how to make.

After nearly two years of negotiation — during which millions in LMICs died waiting for vaccines — WTO Members at the 12th Ministerial Conference in June 2022 adopted a Decision that was widely described as disappointing. The Decision primarily reaffirmed existing rights under Article 31 and created a streamlined (though still complex) mechanism for export compulsory licences for COVID-19 vaccines specifically. It excluded COVID-19 therapeutics, for which voluntary licensing through the Medicines Patent Pool had proven more practically useful. Critically, it did not address technology transfer or the sharing of know-how.

The voluntary mechanisms that high-income countries promoted as an alternative — including C-TAP and bilateral licensing agreements — produced mixed results. Pfizer and Moderna agreed not to enforce patent rights in LMICs, but this was insufficient without technology transfer. Both companies refused to join C-TAP. The Medicines Patent Pool, while more successful for therapeutics such as nirmatrelvir/ritonavir (Paxlovid), demonstrated that voluntary licensing, while useful, was constrained by commercial calculations incompatible with equitable access at pandemic speed.

The 2025 WHO Pandemic Agreement: innovation and insufficiency

Structure and Scope of the Agreement

Adopted on 20 May 2025 by the 78th World Health Assembly by consensus, the WHO Pandemic Agreement is the second legally binding treaty negotiated under Article 19 of the WHO Constitution, following only the 2003 Framework Convention on Tobacco Control. The Agreement consists of 37 articles structured in three chapters, addressing pandemic prevention (including a pioneering “One Health” framework), preparedness, and response. The Agreement will enter into force after 60 ratifications, but crucially it is not yet open for signature: ratification is conditional on the finalisation and adoption of the PABS annex, currently under negotiation by the Intergovernmental Working Group (IGWG) with a target deadline of the 80th World Health Assembly in May 2027 (or an earlier special session of the Assembly), following the extension of its mandate by the 79th World Health Assembly in May 2026.

The Agreement represents a genuine innovation in global health governance. For the first time, an international treaty enshrines the “One Health” principle — the recognition that the health of humans, animals, and the environment are interdependent pandemic risk factors. It creates a new Conference of the Parties structure to monitor implementation. It establishes, through the PABS system, a mechanism designed to link pathogen access by pharmaceutical manufacturers to corresponding benefit-sharing obligations including the commitment to make available to WHO 20 per cent of real-time production of vaccines, therapeutics, and diagnostics during a pandemic emergency.

IP Provisions: Articles 9, 11, 12, and 14

The Agreement's IP-related provisions are spread across several articles. Article 9, dealing with Research and Development, contains a potentially significant commitment: parties undertake to develop policies with regard to publicly financed innovations to ensure access to such innovations, which may include licensing and access to technologies for R&D and local production. The use of the phrase “access to technologies” rather than “transfer of technologies” is deliberately carefully calibrated: it is not subject to the footnote requiring “willingly undertaken” consent, and creates at least a political expectation that public R&D should result in accessible licensing terms.

Article 11 is titled “Transfer of technology and cooperation on related know-how for the production of pandemic-related health products” and represents the most directly IP-relevant provision. States “shall” undertake six measures “as appropriate” to enable sustainable and geographically diversified production. However, a critical footnote defines the transfer of technology as action that must be “willingly undertaken and on mutually agreed terms”.

This qualification was described by Medicines Law and Policy as a “hard-fought compromise” between developing countries seeking binding technology-transfer obligations and developed countries insisting on voluntariness to protect the innovation ecosystem. It effectively transforms a structurally important obligation into a politically aspirational one.

Article 12 establishes the framework for the PABS System, linking pharmaceutical manufacturers’ access to pathogen samples and genetic sequence data to benefit-sharing obligations including, as a benefit-sharing option, the granting of non-exclusive licences and other forms of technology transfer. Article 14 addresses supply chain resilience and includes provisions encouraging states to include access-promoting clauses such as donation and licensing requirements in publicly funded advance purchase agreements.

Evaluating the Agreement Against the “Compulsory Licensing 2.0” Standard

The Agreement introduces significant normative advances over the Doha framework. The PABS system, when finalised, will for the first time create a treaty-level link between pathogen sharing and equitable benefit access — a principle that the Pandemic Influenza Preparedness (PIP) Framework had pioneered for influenza pathogens but which had never been extended to the full spectrum of pandemic threats. The 20 per cent production allocation mechanism is a genuine structural innovation, though its operationalisation remains entirely dependent on PABS annex negotiations that have, as of mid-2026, not yet produced consensus.

Against these innovations must be set the Agreement’s significant limitations. First, its IP provisions are characterised by what Jain aptly describes as “vague and diplomatic language” — obligations that “shall” be undertaken “as appropriate” and technology transfer that must be “willingly” provided are not enforceable commitments. High-income countries successfully resisted any mandatory IP waivers or binding pre-committed licensing obligations, relying instead on voluntary mechanisms that COVID-19 demonstrated to be inadequate. Second, the voluntary technology transfer framework fails to address the know-how problem: a compulsory licence for a vaccine whose manufacturing process is not also shared remains practically inoperable for LMICs lacking the technical infrastructure. Third, the Agreement is silent on trade secrets, despite advocacy by some delegations and the precedent set by the EU’s proposed compulsory licensing regulation for crisis situations, which would require the sharing of trade secrets for licensed patents during emergencies. Fourth, the PABS annex — which contains the Agreement’s most potentially transformative provisions — remains unfinished, creating a paradox in which the Agreement exists but cannot enter into force.

Disease X and the limits of reactive IP architecture

The Concept of Disease X in International Health Law

The term “Disease X” was formally introduced by WHO in 2018 as a placeholder designation on the R&D Blueprint list of priority diseases, representing the “serious international epidemic [that] could be caused by a pathogen currently unknown to cause human disease”. It was added to acknowledge that preparedness planning must account for biological threats that cannot yet be named or described. Disease X is, by definition, a pathogen whose genomic sequence, mechanism of transmission, clinical manifestations, and potential countermeasures are entirely unknown at the time preparedness frameworks are designed.

This definitional radicalism poses a profound challenge for compulsory licensing doctrine. The standard TRIPS Article 31 framework presupposes a known product (a specific pharmaceutical invention), a known patent (owned by an identifiable right holder), and a known need (a public health emergency requiring that specific product). Disease X disrupts each of these presuppositions simultaneously. There is no patent to license because there is no product. There is no right holder to remunerate because the invention does not yet exist. The need cannot be assessed because the threat is unspecified.

Structural Gaps in the 2025 Agreement for Disease X

The 2025 WHO Pandemic Agreement makes only limited progress in addressing Disease X preparedness from an IP perspective. The PABS system, while theoretically applicable to pathogens with pandemic potential more broadly, has been designed primarily around identified or identifiable pathogens — it operates by linking access to specific pathogen samples and sequence information to benefit-sharing obligations. As Moon observes in the Governing Pandemics Snapshot, Disease X presents a particular difficulty because many pathogens of pandemic potential “occur sporadically or have not yet even been detected”, making the PABS commercial logic — which assumes some level of interpandemic revenue from stockpiles — difficult to sustain.

The Agreement’s Article 9 provisions on publicly financed R&D are potentially the most relevant to Disease X preparedness, since countermeasures for an unknown pathogen will necessarily depend on platform technologies — mRNA platforms, broad-spectrum antivirals, vaccine scaffolds — whose development is predominantly publicly funded. Article 9.5’s commitment to develop access policies for publicly financed innovations could theoretically provide a basis for pre-committed licensing of platform technologies to LMICs, but this provision lacks the binding character necessary to guarantee equitable access when a Disease X emergency emerges.

The deeper structural problem is architectural. Compulsory licensing as currently conceived is reactive: it is triggered by an identified need for a specific product. Disease X demands proactive architecture: pre-committed licensing of platform technologies, pre-established manufacturing transfer agreements, and pre-negotiated benefit-sharing mechanisms that activate automatically upon a WHO Director-General’s declaration of a Public Health Emergency of International Concern (PHEIC). The 2025 Agreement does not contain such architecture, and neither does the TRIPS framework.

The North–South Divide and Disease X Equity

Disease X preparedness also exposes the structural inequity embedded in the current framework with particular sharpness. As Eccleston-Turner, Rourke and Switzer note, under the PABS system as currently envisioned, companies from Europe and North America disproportionately withdraw biological samples and data for development into lucrative medical products. The Georgetown Journal of International Affairs analysis finds that this pattern mirrors the inequities of the PIP Framework and the International Treaty on Plant Genetic Resources. When the pathogen is unknown — as with Disease X — this asymmetry is even more pronounced: wealthy nations and their pharmaceutical industries will be best positioned to identify the pathogen first, conduct the R&D, and develop the commercial product, leaving LMICs with neither the product nor the legal mechanisms to access it rapidly.

The Global South negotiating bloc has consistently demanded mandatory benefit-sharing — including guaranteed LMIC access to vaccines, therapeutics, and diagnostics — as the price of their rapid sharing of information on novel pathogens. High-income countries have resisted these demands, focusing instead on protecting the innovation ecosystem and ensuring open pharmaceutical access to pathogen sequence data. This impasse, if not resolved in the PABS annex negotiations, will mean that Disease X produces the same inequitable distribution of vaccine access as COVID-19 despite three additional years of international legal negotiation.

Findings: towards Compulsory Licensing 2.0: the case for structural reform

Beyond Voluntarism: The Need for Binding Pre-Commitment

The most fundamental reform required is the replacement of voluntary IP-sharing mechanisms with binding pre-commitment obligations anchored in international law. The voluntary approach exemplified by Moderna's non-enforcement pledge and Pfizer and Merck's Medicines Patent Pool licences during COVID-19 while valuable, is contingent on commercial and reputational calculations that cannot be relied upon in the next, potentially more severe, pandemic. As advocates have argued in the context of the pandemic treaty negotiations, the lesson of COVID-19 is not that voluntary mechanisms are insufficient substitutes for binding ones — it is that voluntary mechanisms are insufficient substitutes.

A reformed framework genuinely deserving the designation “Compulsory Licensing 2.0” would require, at minimum, the following elements. First, automatic trigger provisions: a PHEIC declaration by the WHO Director-General should activate pre-negotiated licensing obligations for relevant platform technologies and prototype vaccines without the need for domestic compulsory licensing legislation in each jurisdiction. This would resolve the Article 31bis problem of procedural complexity and delay. Second, expanded subject matter: licences should extend automatically to patents, trade secrets, regulatory data, and manufacturing know-how — the full spectrum of IP that constitutes the actual barrier to production, rather than merely the formal patent. Third, pre-established manufacturing transfer agreements between technology holders and LMIC generic manufacturers, maintained on a standing basis during interpandemic periods and activatable on short notice.

Reforming the TRIPS Framework

Reform at the TRIPS level remains essential because the WHO Pandemic Agreement, as a *lex specialis* instrument, must operate within the general international IP framework that TRIPS represents. Several targeted amendments would significantly strengthen the compulsory licensing architecture. The domestic market limitation in Article 31(f), while technically amended by Article 31bis, remains cumbersome in its current form: a further amendment creating a simplified, streamlined “pandemic notification” mechanism triggered by a PHEIC declaration that permits export compulsory licences without the bilateral notification and verification requirements currently required, would eliminate the principal procedural barrier to the Article 31bis system.

More ambitiously, a new TRIPS Article 31ter could establish a framework for “pre-pandemic licensing” — a mechanism whereby parties to the TRIPS Agreement commit in advance to licensing obligations for specified platform technologies (mRNA delivery systems, viral vector platforms, broad-spectrum antiviral scaffolds) that are contingent on, but automatically activated by, a qualifying WHO pandemic declaration. This would not undermine the innovation incentive, because the licences would be limited in duration to the emergency period, adequate remuneration would still be paid, and the obligation would be reciprocal — pharmaceutical companies would receive in return guaranteed access to pathogen samples from PABS-participating countries.

The PABS Annex: Recommendations for the May 2027 Deadline

The most immediate and actionable site for reform is the PABS annex, which the IGWG must complete by May 2027. The current negotiations — as of mid-2026 still marked by deep divergences between developing and developed country blocs — offer a window of opportunity that must not be foreclosed. The following recommendations are directed at the PABS annex negotiations.

First, the annex should incorporate a clear and binding technology transfer provision, separate from the voluntary footnote in Article 11, specifically for platform technologies developed using publicly funded R&D. The Georgetown Journal of International Affairs analysis suggests a mechanism whereby any OECD-based company withdrawing PABS material would be required to donate resulting diagnostics, therapeutics, or vaccines to WHO during a public health emergency. This principle of conditionality — access to global biological commons in exchange for equitable benefit-sharing — is legally sound and precedented in the PIP Framework.

Second, the annex should address the “Disease X gap” explicitly by establishing a category of pre-committed licences for platform technologies not yet associated with any specific pathogen. These would function as option contracts: a legal commitment to license under predetermined terms upon the emergence of a qualifying pathogen, without the need for further negotiation at the crisis moment.

Third, the annex should establish an independent compliance mechanism with real enforcement teeth. The PIP Framework’s weakness in securing payments from companies demonstrates that political expectation is an insufficient enforcement mechanism in the absence of formal legal obligations.

Domestic Legislative Reform

International reform must be matched by domestic legislative action. Many LMICs still lack domestic legislation implementing TRIPS compulsory licensing flexibilities, despite the passage of over thirty years since the TRIPS Agreement entered into force. A model act developed by WIPO or WHO in consultation with the TRIPS Council providing a template for domestic compulsory licensing legislation incorporating Disease X triggers, automatic PHEIC-activation mechanisms, and trade secret sharing provisions, would substantially lower the legal and technical barriers that prevent LMICs from utilising existing TRIPS flexibilities. The EU’s proposed compulsory licensing regulation for crisis situations, while a regional instrument, demonstrates that this kind of legislative innovation is achievable and provides a useful model.

Conclusion

The existing TRIPS framework is reactively and procedurally flawed, rendering compulsory licensing underutilized. While the 2025 WHO Pandemic Agreement offers historic normative advances, it fails as a “Compulsory Licensing 2.0” for Disease X due to its voluntary IP and technology transfer provisions, with the critical PABS annex still pending.

To bridge this North-South divide, global IP architecture must shift from reactive to proactive governance. Reforms require pre-activated licensing triggers for platform technologies upon any WHO PHEIC declaration, mandatory technology transfers for publicly funded R&D, standardized domestic Disease X legislation, and standing inter-pandemic mandates for the Medicines Patent Pool.

References

- Abbott, F. M. (2002). The TRIPS Agreement, access to medicines, and the WTO Doha Ministerial Conference. *Journal of World Intellectual Property*, 5, 15.
- Agreement on Trade-Related Aspects of Intellectual Property Rights. (1994). 15 April 1994, 1869 UNTS 299.
- Baker, B. K., & Thrasher, R. (2023). From business as usual to health for the future: Challenging the intellectual property regime to address COVID-19 and future pandemics. *Boston University International Law Journal*, 23, 1.
- Braimoh, T., et al. (2024). Intellectual property licensing of therapeutics during the COVID-19 crisis: Lessons learnt for pandemic preparedness and response. *Globalization and Health*, 20, 52.
- Convention on Biological Diversity. (1992). 5 June 1992, 1760 UNTS 79.
- Council of the EU. (2025). Crisis preparedness: Council approves framework for compulsory licensing in crisis situations. 27 October 2025. Retrieved 10 March 2026, from <https://www.consilium.europa.eu/en/press/press-releases/2025/10/27/crisis-preparedness-council-approves-framework-for-compulsory-licensing-in-crisis-situations/>
- Drahoš, P., & Braithwaite, J. (2000). *Global business regulation*. Cambridge University Press.
- Eccleston-Turner, M., & Harris, J. (2025). The new WHO Pandemic Treaty and global health governance: Incorporating common but differentiated responsibilities into PABS. *Georgetown Journal of International Affairs*.
- Eccleston-Turner, M., Rourke, M., & Switzer, S. (2025). Fate unknown: The Pandemic Agreement’s pathogen access and benefit sharing. *Think Global Health*, 20 May 2025. Retrieved 10 March 2026, from <https://www.thinkglobalhealth.org/article/fate-unknown-pandemic-agreements-pathogen-access-and-benefit-sharing>
- Governing Pandemics Initiative. (2025). *Governing Pandemics Snapshot*. Graduate Institute Geneva. Retrieved 10 March 2026, from <https://www.governingpandemics.org/gp-snapshot>
- Gurgula, O. (2021). Compulsory licensing v the IP waiver: What is the best way to end the COVID-19 pandemic? *SSRN Working Paper*. doi: 10.2139/ssrn.3944192
- Hollis, A., & Pogge, T. (2008). *The Health Impact Fund: Making new medicines accessible for all*. Incentives for Global Health.
- Huang, L., & Jiang, G. (2025). Compulsory licensing of pharmaceuticals during public health crisis: A TRIPS framework analysis. *Frontiers in Public Health*, 13, 1630586.

- Inside EU Life Sciences. (2025). What companies should know about the WHO Pandemic Agreement. 18 April 2025. Retrieved 10 March 2026, from <https://www.insideeulifesciences.com/2025/04/18/what-companies-should-know-about-the-who-pandemic-agreement/>
- IPI Global Observatory. (2025). How the landmark Pandemic Agreement addresses technology transfer and access to pandemic response products. 23 May 2025. Retrieved 10 March 2026, from <https://theglobalobservatory.org/2025/05/how-the-landmark-pandemic-agreement-addresses-technology-transfer-and-access-to-pandemic-response-products/>
- Jain, S. (2025). The WHO Pandemic Agreement: A contested step beyond Doha. *SpicyIP*, 17 July 2025. Retrieved 10 March 2026, from <https://spicyip.com/2025/07/the-who-pandemic-agreement-a-contested-step-beyond-doha.html>
- Katz, A., & Reichman, J. H. (2022). Fulfilling the promise of TRIPS Article 31bis. *University of Pennsylvania Law Review*, 170, 1.
- Kinyon, B. (2022). IP waivers in a pandemic: Great in theory, wrong in practice. *Minnesota Journal of Law, Science and Technology*, 23, 485.
- Matthews, D. (2004). WTO Decision on implementation of paragraph 6 of the Doha Declaration on the TRIPS Agreement and public health: A solution to the access to essential medicines problem? *Journal of International Economic Law*, 7, 73.
- Musungu, S. F., & Oh, C. (2006). *The use of flexibilities in TRIPS by developing countries: Can they promote access to medicines?* South Centre.
- Paris Convention for the Protection of Industrial Property. (1883). 20 March 1883, 828 UNTS 305.
- 't Hoen, E. (2009). *The global politics of pharmaceutical monopoly power: Drug patents, access, innovation and the application of the WTO Doha Declaration on TRIPS and public health*. AMB Publishers.
- 't Hoen, E. (2025a). Transfer of technology and know-how for the production of pandemic-related health products in the WHO Pandemic Agreement: The proverbial half glass. *Medicines Law and Policy*, June 2025. Retrieved 10 March 2026, from <https://medicineslawandpolicy.org/2025/06/transfer-of-technology-and-know-how>
- 't Hoen, E. (2025b). WHO members meet to finalise the pathogen access and benefit sharing instrument. *Medicines Law and Policy*, September 2025. Retrieved 10 March 2026, from <https://medicineslawandpolicy.org/2025/09/who-members-meet-to-finalise-the-pathogen-access-and-benefit-sharing-instrument/>
- WHO Framework Convention on Tobacco Control. (2003). 21 May 2003, 2302 UNTS 166.
- WHO Pandemic Agreement. (2025). 20 May 2025, WHA78 Res.
- World Health Organization. (2018). *Managing epidemics: Key facts about major deadly diseases*. WHO.
- World Health Organization. (2025a). Countries make progress on WHO Pandemic Agreement annex on pathogen access and benefit sharing system. 7 November 2025. Retrieved 10 March 2026, from <https://www.who.int/news/item/07-11-2025-countries-make-progress-on-who-pandemic-agreement-annex>
- World Health Organization. (2025b). World Health Assembly adopts historic Pandemic Agreement to make the world more equitable and safer from future pandemics. 20 May 2025. Retrieved 10 March 2026, from <https://www.who.int/news/item/20-05-2025-world-health-assembly-adopts-historic-pandemic-agreement>
- World Health Organization. (2026a). Seventy-ninth World Health Assembly – Daily update: 19 May 2026. 19 May 2026. Retrieved 12 October 2026, from <https://www.who.int/news/item/19-05-2026-seventy-ninth-world-health-assembly---daily-update--19-may-2026>
- World Health Organization. (2026b). WHO Member States agree to extend negotiations on Pathogen Access and Benefit Sharing annex. 1 May 2026. Retrieved 12 October 2026, from <https://www.who.int/news/item/01-05-2026-who-member-states-agree-to-extend-negotiations-on-pathogen-access-and-benefit-sharing-annex>
- World Trade Organization. (n.d.). TRIPS and public health: Compulsory licensing of pharmaceuticals and TRIPS. WTO. Retrieved 10 March 2026, from https://www.wto.org/english/tratop_e/trips_e/pharmpatent_e.htm
- WTO General Council. (2003). Implementation of paragraph 6 of the Doha Declaration on the TRIPS Agreement and public health (WT/L/540). 30 August 2003.
- WTO Ministerial Conference. (2001). Declaration on the TRIPS Agreement and public health (WT/MIN(01)/DEC/2). 20 November 2001.
- WTO Ministerial Conference. (2022). Ministerial Decision on the TRIPS Agreement (WT/MIN(22)/30). 17 June 2022.