

Overview

INTRODUCTION

The COVID-19 pandemic has exposed the upsides and downsides of international trade in medical goods and services. Open trade can increase global access to medical services and goods (and to the critical inputs needed to manufacture them), improve quality, and reduce costs. Better global access to medical goods and services, in turn, contributes to global health security, which the World Health Organization (WHO) defines as “the activities required, both proactive and reactive, to minimize the danger and impact of acute public health events that endanger people’s health across geographical regions and international boundaries.”¹ But excessive concentration of production, restrictive trade policies, supply chain disruptions, and regulatory divergence can jeopardize the ability of public health systems to prepare for and respond to pandemics and other health crises—for instance, by limiting universal access to essential goods and services.

This report studies how to leverage trade to support global health security. It provides new data on the role of trade in medical goods and services and of medical value chains in the past decade; surveys the evolving policy landscape affecting trade in medical goods and services before and after the COVID-19 pandemic; and proposes an action plan to improve trade policies and deepen international cooperation to deal with future pandemics.

TRADE FLOWS IN MEDICAL GOODS AND SERVICES

Despite the contributions of these trade flows to global health security, the medical goods and services sectors also pose challenges and risks. Trade increases global access to medical services and goods (and to the critical inputs needed to manufacture them), improves quality, and reduces costs. Open trade allows countries across geographical regions and international boundaries to access these essential goods and services and

promotes innovation through research and development (R&D) in both normal times and times of need. But several challenges are specific to the health care industry:

- For medical goods, economies of scale and high R&D and skill intensity lead to concentration in production that can be excessive and economically inefficient in emergencies.
- For both medical goods and services, complex and divergent regulation may fragment markets and impair an efficient supply response during an emergency.
- Access to medical goods and services may be unequal, and markets may neglect diseases specific to poorer countries.
- Finally, the risks of illicit trade have consequences for health security.

Trade in medical goods and services soared in the decade before the pandemic but remained highly concentrated despite the growing role of new players. Between 2010 and 2019, world trade in medical goods grew at an annual average rate of 4.7 percent (reaching US\$1.3 trillion in 2019), compared with 2.8 percent growth for overall merchandise trade.² Trade in medical services showed a similar pattern, growing by an average 7 percent per year (to US\$78.6 billion in 2019), compared with an average growth rate of 4 percent for overall services.³

The increasing roles of new players (such as China and India) notwithstanding, trade in medical goods and services remains highly concentrated, with high-income economies representing the bulk of exports and imports. Even for less sophisticated medical goods, such as personal protective equipment (PPE), concentration is high, with East Asian economies accounting for over 60 percent of world exports.⁴ High-income economies are the largest importers of both medical goods and services. Low- and middle-income economies with poor domestic health systems substantially increased their imports of health services between 2010 and 2019, though the value of these imports remained low.

Since WHO declared a global pandemic in March 2020, trade in medical goods and services has had a mixed record, mostly because of unequal access across countries. International trade in medical goods was essential in the response to the pandemic, increasing by 13.2 percent in 2020, with critical COVID-19 products such as face masks registering a 481 percent *monthly* growth rate in April 2020.⁵ Open trade, combined with government support, also spurred the innovation that led to rapid vaccine development. But supplies of these products were distributed unequally, with high-income areas initially having a larger share of imports. In contrast to the rapid trade growth in medical goods, trade in medical services fell by 9 percent in 2020, mainly because of travel and border restrictions.⁶ This decline was partly offset by a surge in cross-border medical services (including telehealth), also mainly benefiting high-income countries.

Open trade in medical goods and services will remain key to ensuring global health security. Three trends suggest that health spending will increase as a share of gross domestic product: emergent infectious diseases, income convergence, and increasing

life expectancy. Open trade will be essential to meeting the surge in global demand for medical goods and services, improving the efficiency and innovation of health systems and containing costs. Technological improvements and digitalization will make the delivery of medical products even more international, and increasingly complex global value chains will be crucial to innovation.

POLICIES AFFECTING TRADE IN MEDICAL GOODS AND SERVICES

The trade policy landscape before COVID-19

Although trade in medical goods and services is increasingly open, several impediments still limit the efficiency of these markets.

Tariff and regulatory gaps. Impediments to trade in medical goods have decreased but remain high in low- and middle-income economies. Trade restrictions imply higher prices for medical goods, which weigh on health care systems. These impediments take the form of tariffs—averaging 2.4 percent in high-income economies and more than double that rate in low- and middle-income economies⁷—or quantitative restrictions on medical goods, which typically consist of nonautomatic licensing requirements and full prohibitions on both imports and exports.

Trade facilitation bottlenecks and restrictions of trade in transport, logistics, and distribution services have further impeded trade in medical goods. Finally, divergent regulatory systems have hindered the global development, approval, and marketing of innovative vaccines, therapeutics, and diagnostics.

Trade restrictiveness in medical services. The medical services sector is gradually becoming more open to foreign competition, but major impediments remain. To ensure access to health care services and guarantee their quality, there is a need for a regulatory framework that efficiently uses existing resources and attracts new ones while controlling for risks associated with liberalization (for example, overall cost increases for the health financing system and health workforce shortages in sending countries).

It is in this context that a growing number of countries are liberalizing trade in medical services, albeit with significant restrictions remaining through quantitative and discriminatory measures. Furthermore, service suppliers' capacity to trade is affected by measures related to qualification requirements and procedures, technical standards, and licensing requirements. Although these domestic regulatory measures fulfill legitimate policy objectives, they may in certain cases unduly restrict trade in medical services.

Competition policies and government procurement. Government procurement and competition policies can make medicines, medical technologies, and services more accessible and affordable. Open, transparent, and competitive procurement procedures can save money for governments and citizens by providing access to the best products

and services and the most cost-efficient suppliers globally. Competition law and policies have important roles to play in enhancing access to health technologies and fostering innovation.

Governments' trade policy responses to the COVID-19 pandemic

Since the start of the COVID-19 pandemic, governments have used a wide range of trade and trade-related policies to bolster domestic availability of critical medical goods and services. Some measures detracted from global health security—restrictions on exports of critical products being the leading example. Other measures have had positive effects on the countries implementing them and their trade partners, thus constituting a sort of public good.

Import and export controls. Governments imposed policies to influence cross-border shipments of medical goods during the pandemic. More than two-thirds of countries resorted to policy interventions to ensure domestic accessibility of medical goods. Both import reforms and export curbs surged in the first two quarters of 2020, reaching a total of 200 and 134, respectively, in May 2020 and stabilizing after that.⁸ Less than 5 percent of border-related policy interventions remained in place for less than three months, casting doubt on their “temporary” nature.⁹

These policies disrupted trade flows and medical supply chains and increased consumer prices, with negative effects on global welfare. Analysis conducted for this report estimates that these measures were responsible for increases of up to 60 percent in the average trade costs of medical goods during the COVID-19 pandemic (Egger et al. 2022).

Regulatory easing. Governments also adopted emergency measures to facilitate trade, ease regulatory bottlenecks, and promote the diffusion of health technologies. Many countries expedited a transition from paper-based to electronic documents requested at the border to reduce the interaction between traders and border authorities. These changes increased trade efficiency. Countries also simplified trade procedures to facilitate the flow of critical supplies.

Many national regulatory authorities activated emergency use authorizations (EUAs) to fast-track the approval of key medical goods such as vaccines. Finally, to respond to concerns about vaccine equity, governments relaxed intellectual property (IP) rights, including through legislative amendments, easing of procedural requirements, and the use of policy options.

Easing telehealth and the movement of health professionals. Limitations on the movement of people had both negative and positive consequences for medical services trade. For example, patients were prevented from receiving treatment abroad, but governments implemented some liberalizing measures in areas such as telehealth services (whether supplied as cross-border services or through the establishment of commercial presence) or the movement of health professionals (by streamlining procedures for granting visa and work permits or easing the recognition of qualifications). Although many measures were initially taken temporarily as a response to the crisis, some were subsequently extended—particularly for telehealth services.

Government support measures. The use of subsidies, public procurement, and localization measures in the medical sector accelerated during the pandemic. Subsidies to medical goods firms were the most common measure, representing 88 percent of the total.¹⁰ Governments provided financial grants, loan guarantees, and production subsidies, particularly for firms involved in discovering or producing vaccines and medicines that had significant positive spillovers to other countries.

DEEPENING COOPERATION ON MEDICAL GOODS AND SERVICES TRADE

This report offers an action plan that governments can implement to strengthen trade's contribution to global health security. The system of stable and predictable rules embedded in the World Trade Organization (WTO) Agreements and in regional trade agreements supported the expansion of trade before and during the pandemic, helped to boost capacity to scale up production of critical products, and offered a forum to cooperate and address evolving challenges. But the pandemic also uncovered certain gaps in international cooperation, including (a) a lack of information on the stocks and availability of critical inputs; (b) a lack of multilateral mechanisms to mobilize financing for development of vaccines and therapeutics; (c) weaknesses in systems to facilitate the rapid cross-border movement of certified medical products; and (d) lack of market access framework and necessary flexibilities to deal with health workforce shortages (mobility of health personnel and telehealth).

These gaps contributed to scarcity and inequitable access to essential medical goods and services. Some of these gaps can be addressed through existing trade cooperation mechanisms. Others call for new forms of cooperation between states, nonstate actors, and the private sector.

Cooperation through existing trade mechanisms

New commitments and disciplines in WTO and regional trade agreements can help countries better prepare for and respond to future pandemics in several ways:

- *An agreement to lower barriers to trade in medical goods and supporting services* would improve the efficiency of health care systems and increase preparedness. Empirical analysis produced for this report finds that lowering tariffs on medical products and reducing import costs for information and communication technology and business services in the health sector would increase income by more than US\$6 billion annually, with more than half of that accruing to low- and middle-income countries.¹¹
- *Commitments on import and export policy* could help avoid extreme market outcomes in a crisis. An agreement on trade and health could include commitments to limit the duration of restrictions on exports of critical goods during

a pandemic; improve trade policy transparency; ensure that trade is not interrupted for countries in need; and consult with other economies to assess the adverse impact of measures on partners.

- *Regulatory cooperation* can improve the resilience and functioning of supply chains and reduce the risks of illicit trade. Broadening and deepening this cooperation can help streamline regulatory frameworks, make them more coherent, and provide a playbook of regulatory flexibilities for smoother and faster approval of medical goods in the event of a pandemic. To this end, governments can pursue mutual recognition and equivalence regimes for critical medical goods and support the development of international standards.
- *A balanced global IP system*, including through the full implementation and use of flexibilities, will establish a solid basis for sharing technology and know-how to jointly develop the capacity to respond to health crises and geographically diversify manufacturing capacity. In addition, other measures could encourage rights holders to (a) adopt open and humanitarian licensing models for pandemic-related technologies; (b) contribute to international technology sharing platforms, such as WHO's COVID-19 Technology Access Pool (C-TAP); and (c) include equitable access considerations in their R&D planning. Agreement among WTO members on an IP response to COVID-19 could serve as a blueprint in future emergencies.
- *Reduction of services trade barriers and improvement of regulatory systems* could expand access to medical services and enhance their quality in normal times while also bolstering pandemic preparedness. Initiatives on services trade could include
 - Adopting frameworks to narrow the gaps in national health systems through foreign investment in the medical services sector (for example, health establishments and telehealth firms);
 - Enhancing health workers' mobility according to identified needs (also taking into account, through dialogue, the needs of the countries of origin);
 - Recognizing foreign qualifications of medical-services suppliers; and
 - Cooperating to ensure cross-border liability of foreign-based medical services suppliers.
- *Rules in trade agreements on subsidies, public procurement, and competition* can form the basis for governments to react efficiently to health emergencies. The COVID-19 pandemic showed the need for (a) subsidies in helping to scale up capacity across medical supply chains, and (b) public procurement systems and competition authorities to work efficiently and in coordination. Much of this cooperation is bound to take place outside of trade agreements. Still, trade rules could envision ways to coordinate subsidies for crisis-related medical goods, develop joint purchasing tools to aggregate demand between countries in a crisis, and identify good practices for competition law in a pandemic.

Cooperation beyond trade agreements

Leveraging trade to strengthen pandemic defenses requires cooperation beyond trade agreements. The Multilateral Leaders Task Force on COVID-19 Vaccines, Therapeutics, and Diagnostics—set up by the International Monetary Fund (IMF), the World Bank, WHO, and the WTO—has called on the international community to step up its response to the current pandemic (WHO 2021). These efforts call for enhanced cooperation between states, nonstate actors, and international organizations.

Cooperation between states and nonstate actors. The first goal should be to create mechanisms to finance access to essential products such as vaccines in low-income countries and to expand supply and distribution capacity during a crisis and ensure that these facilities do not disappear when demand declines. This effort would include cooperation to build manufacturing facilities in low- and middle-income countries with a latent comparative advantage whose relatively small populations reduce the risk that the host-country governments will intervene to meet domestic needs and the impact of a potential intervention.

A second goal is to create mechanisms for sharing information on the operation of supply chains. A priority should be to establish a global clearinghouse to support production of critical medical products (ideally according to an internationally agreed-upon list; see chapter 4) and serve as a platform for companies to report bottlenecks, improve visibility on production capacity and distribution, and identify measures to respond to the pandemic.

Cooperation among international organizations. Efforts to strengthen collaboration should center on addressing the information and coordination gaps revealed by the pandemic, such as by

- Strengthening international standardization;
- Bolstering the capacity of national regulatory agencies;
- Developing good-practice policy frameworks for public procurement during crises; and
- Working with the private sector to encourage technology transfer and expand global emergency response capacity.

Multilateral organizations should continue cooperative efforts to provide transparency and achieve truly global health security. Building on the Multilateral Leaders Task Force, a jointly managed platform could ensure that information systems at the firm and supply chain levels are in place so data are available to all governments in an emergency.

NOTES

1. “Health Security: Overview” (n.d.), WHO website: https://www.who.int/health-topics/health-security#tab=tab_1.
2. Data on trade in medical goods are from the World Trade Organization (WTO) Integrated Database and the United Nations (UN) COMTRADE database.

3. Data on trade in medical services are from WTO estimates based on its Trade in Services Data by Mode of Supply (TISMOS) dataset.
4. Data on PPE trade volume, by region and country income group, are from the WTO Integrated Database and the UN COMTRADE database.
5. Data on medical goods trade during the pandemic are from the WTO Integrated Database and the UN COMTRADE database. Data on PPE export rates in 2020, including exports of face masks, are from Trade Data Monitor (<http://tradedatamonitor.com>).
6. Data on medical services trade during the pandemic are from WTO estimates based on its TISMOS dataset.
7. Data on most-favored-nation (MFN) applied tariffs on medical goods, by country income group, are from the WTO Integrated Database.
8. Data on liberalizing export reforms and import restrictions are from World Bank calculations using the Essential Goods Initiative (EGI) database. The EGI was launched in 2020 by the World Bank in cooperation with the St.Gallen Endowment for Prosperity through Trade and the European University Institute.
9. Data on the duration of active COVID-19 policy interventions affecting medical goods trade are from the Global Trade Alert database (https://www.globaltradealert.org/data_extraction).
10. Data on government support measures in the medical sector, including subsidies, are from the Global Trade Alert (GTA) database (https://www.globaltradealert.org/data_extraction).
11. For more about the empirical analysis of links between local health care costs, trade, and the potential benefits of tariff reductions in the health care sector, see chapter 2, box. 2.1.

REFERENCES

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- WHO (World Health Organization). 2021. “From Vaccines to Vaccinations: Seventh Meeting of the Multilateral Leaders Task Force on COVID-19 Vaccines, Therapeutics and Diagnostics.” News release, December 22.

The COVID-19 pandemic has exposed the upsides and downsides of international trade in medical goods and services. Open trade can increase access to medical services and goods—and the critical inputs needed to manufacture them—, improve quality and variety, and reduce costs. However, excessive concentration of production, restrictive trade policies, supply chain disruptions, and regulatory divergence can jeopardize the ability of public health systems to respond to pandemics and other health crises. *Trade Therapy: Deepening Cooperation to Strengthen Pandemic Defenses*, coordinated by Nadia Rocha and Michele Ruta at the World Bank and Marc Bacchetta and Joscelyn Magdeleine at the World Trade Organization, provides new data on trade in medical goods and services and medical value chains; surveys the evolving policy landscape before and during the pandemic; and proposes an action plan to improve trade policies and deepen international cooperation to deal with future pandemics.

As the COVID-19 pandemic lingers, the focus of policy action is on the response. This includes actions aimed at removing bottlenecks and providing government support to promote equitable access to vaccines. As the emergency subsides, the focus should shift to prevention and preparedness. Steps to close information gaps, building on the Multilateral Leaders Task Force on COVID-19, and open markets, for example, by negotiating tariff reductions on medical goods and greater market access in services, should take priority. Also important are measures to improve the efficiency of markets, which include harmonizing regulation through mutual recognition or equivalence of standards and creating international standards for essential medical goods, inputs, and production processes. Agreeing on a crisis rulebook to be deployed during an emergency—including clear and agreed limits on export policy flexibility and shared rules on intellectual property flexibilities—would provide a more solid policy foundation to address future challenges.

