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Building India's Global Health Strategy: Beyond the Role of 'Pharmacist of the World'

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ABSTRACT

As the Covid-19 pandemic began to unfold in February, India's dependence on Chinese inputs for the production of pharmaceutical products was debated intensely. This special report argues that the narrow discussion has fallen short in capturing India's crucial role in global health as a provider of health-related goods to many developing countries. The report analyses trade data on over 200 categories of health-related goods, and provides quantitative evidence for the extent of many countries' health-related import dependence on India. Given this de facto position of India, this report concludes that the current health crisis calls for a comprehensive Indian global health strategy that will allow the country to expand on the existing multilateral system.

INTRODUCTION

On 23 January 2020, the central government of China imposed a lockdown in Huawei and other cities in the Hubei province to contain the spread of the novel coronavirus that causes the infectious disease, COVID-19. A few days later, major Indian pharmaceutical companies expressed concerns that if the crisis continued, the country will face shortages in the supply of important production inputs.¹ After all, Hubei province alone is host to some 42 pharma manufacturing facilities, of which a large number produce inputs for medicaments or so-called Active Pharmaceutical Ingredients (APIs). The whole of China provides 70 percent of the raw materials that Indian companies use for the manufacture of pharmaceutical products.² In early February, the CEO of Cipla was quoted in the *Financial Times* as saying that there could be "huge unavailability across the chain" if the shutdown in China extended beyond February.³

Indeed, India's pharmaceutical industry has relied significantly on inputs from China for many years. In 2018, a report by the Standing Committee on Commerce on the 'Impact of Chinese Goods on Indian Industry' observed that "in some cases, such as for life-saving drugs, the dependence on Chinese imports is 90%." ^{4,5}

India's pharmaceutical industry was not alone with such worries.^{6,7,8,9,10} In many parts of the world, health officials raised concerns about shortages in essential inputs to medicine production.

As a reaction to the pandemic, the Directorate General of Foreign Trade under the Ministry of Commerce and Industry released an export ban on

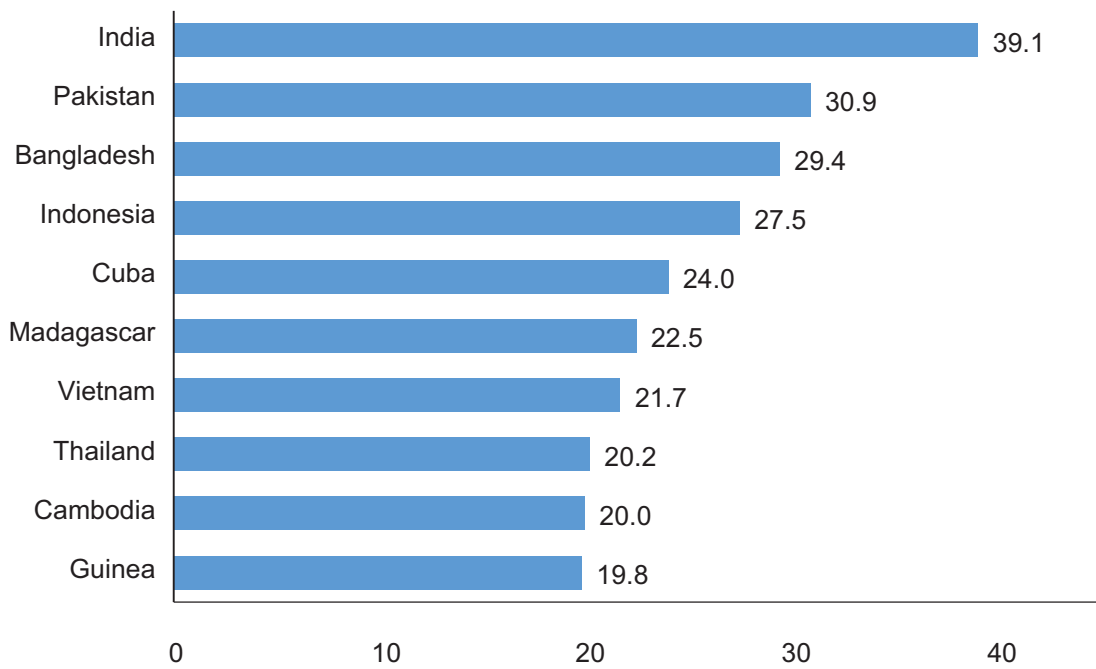
3 March 2020 banning the export of APIs (including Paracetamol) and formulations made from them.¹¹ Another notice on 4 April 2020 banned the export of hydroxychloroquine used for treating malaria.¹² Not too long after, these notifications were rolled back on April 6 and 7 respectively, due to the intense pressure prompted by the United States (US) and the concerns expressed by India's pharmaceutical industry. The Indian Pharmaceutical Alliance (IPA), which represents the country's biggest drug makers, and the Indian Drug Manufacturers Association (IDMA) wrote to the government seeking withdrawal of the notification that banned the export of the APIs as, according to them, the availability was in surplus to meet the global demand and such a restriction would adversely affect their image.^{13,14,15, 16}

However, the policy response to limit trade on goods deemed essential to the fight against Covid-19 goes beyond pharmaceuticals. The Ministry of Commerce and Industry had also prohibited the export of medical equipment such as ventilators, surgical masks, and textiles used to produce masks and coveralls.¹⁷ Other countries have also implemented similar measures (some of which have been eased since).^{18,19,20,21,22}

'DEPENDENCY' ON FOREIGN HEALTH-RELATED GOODS

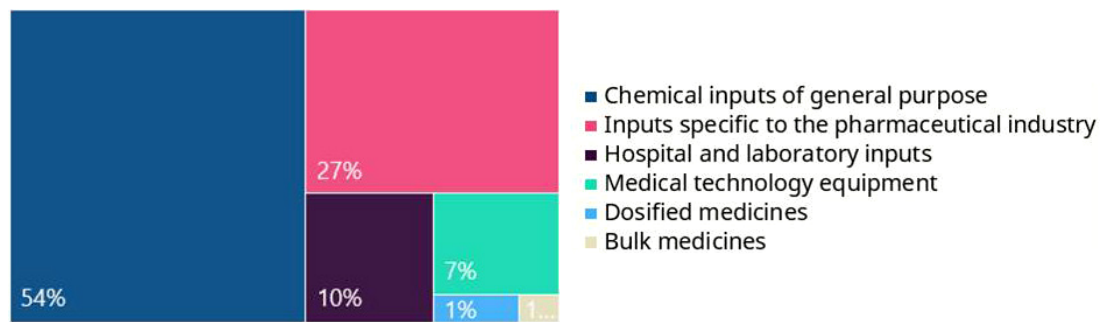
This report analyses trade statistics for six health-related product groups: Dosified medicines, bulk medicines, inputs specific to the pharmaceutical industry, chemical inputs of general purpose, hospital and laboratory inputs, and medical technology. Overall, India's dependency on China is the highest in the world. In 2017, India imported health-related goods worth US\$ 10.3 billion from various countries; of these, more than one-third (39 percent) came from China. The second and third countries in rates of dependency—Pakistan and Bangladesh—have less than 30-percent import dependency (See Figure 1).

Figure 1: Health-related imports from China in % of total health-related imports



Note for figure 1: Top 10 excludes countries with a population of less than 10 million people. Source: UN COMTRADE data extracted from Observatory of Economic Complexity. Analysis: CPC Analytics.

Figure 2: Health-related imports from China by product category (% out of total US\$4.04 billion)



Note: The group of health-related goods includes 207 product categories of the 6-digit HS6 REV. 2007 (see Box 1 for more details). Source: UN COMTRADE data extracted from Observatory of Economic Complexity. Analysis: CPC Analytics.

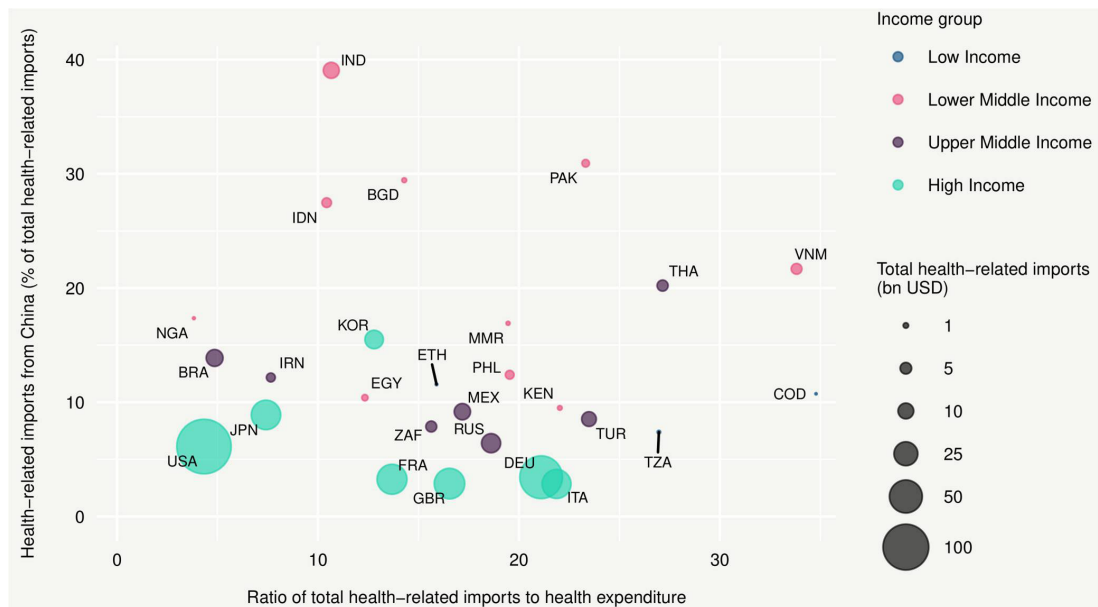
Even as it is important to examine India's dependency on imported health-related goods from China, such discussion would be insufficient in understanding India's larger role in the world. Two other aspects about India have to be considered to give a more complete picture.

1. Overall dependency on imports of Indian health economy is limited

To begin with, India's health system is generally far less dependent on health-related imports than the focus on Chinese imports might suggest. To get an indication of the extent of Indian health economy's dependence on foreign supply, it would be useful to frame it in the context of domestic health expenditures. Indeed, the total value of health-related imports is less than 10 percent of the country's total health expenditures. Compared with other large economies, this share is in the lower range (See Figure 3). Germany's health economy, for instance, is far more dependent on foreign goods than India's; this is also linked to the German economy's deep integration into the EU single market. At the same time, Germany's reliance on China is less pronounced than India's.

Figure 3: Dependency on imported health-related goods and reliance on China

Reading example: India (IND) imports health-related goods worth about 3.4% of its total health expenditures in 2017. At the same time, about 39% of all health-related imports came from China.



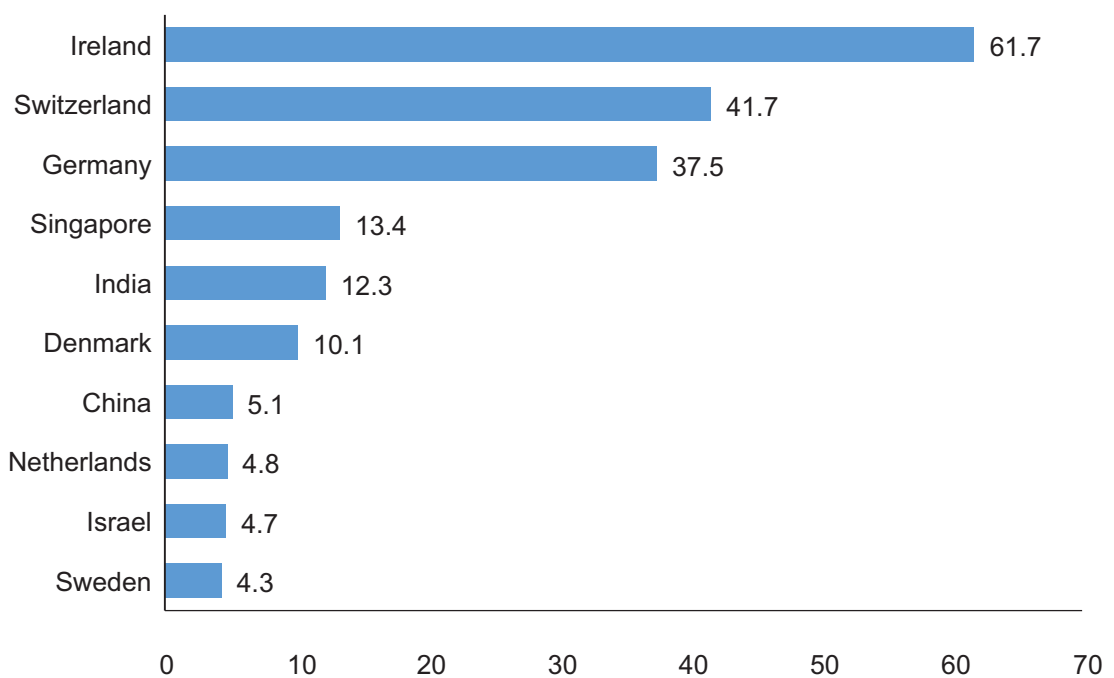
Note: The figure includes only countries with a population of more than 50 million people. Sources: The group of health-related goods includes 207 product categories of the 6-digit HS6 REV. 2007 (see Box 1 for more details). Sources: UN COMTRADE data extracted from Observatory of Economic Complexity, World Development Indicator Data. Analysis: CPC Analytics.

2. India is itself a net-exporter of health-related goods

The second aspect that should inform any discussion on import dependencies is even more important: while India may be a major importer of health-related goods, it is also amongst the countries with the largest export surpluses of such goods. Data for 2017 shows that India had an export surplus in health-related goods of over US\$ 12 billion, which is more than double China's export surplus. Furthermore, India is the only lower middle-income country amongst the top ten countries with the highest export surplus (See Figure 4). Besides India and China, the rest of the top 10 export-surplus countries are high-income.

Figure 4: Countries with the highest export surplus in health-related goods

In billion USD, 2017



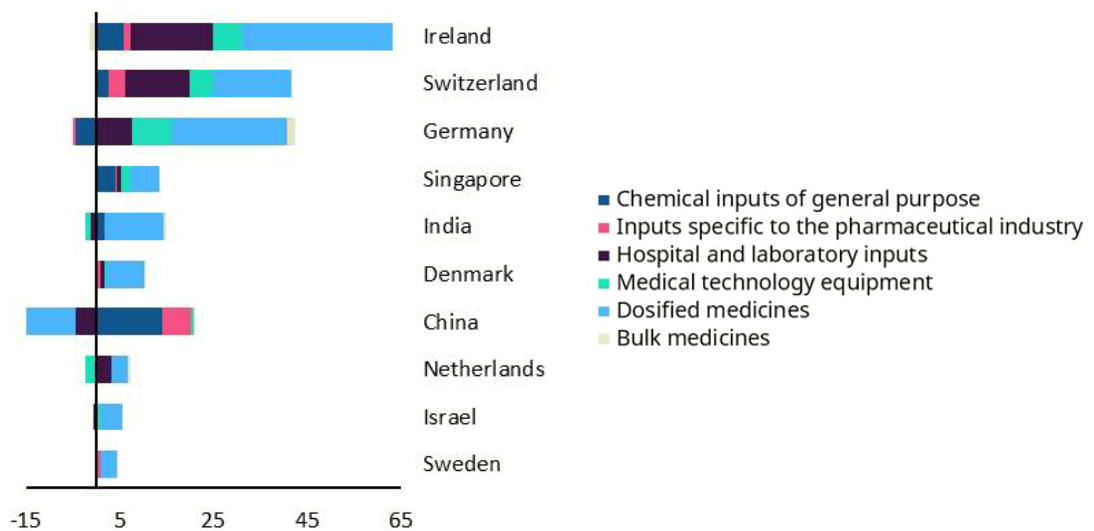
The group of health-related goods includes 207 product categories of the 6-digit HS6 REV (see Box 1 for more details). 2007. Source: UN COMTRADE data extracted from Observatory of Economic Complexity. Source: Analysis: CPC Analytics.

Ireland, for instance, has a health economy that has benefited from the relocation of multiple companies to the country in the past 25 years. Low corporate tax rates and proximity to the rest of the EU market have made the country an attractive option for multinational corporations. The health economies of Germany and Switzerland, for their part, have traditionally been bolstered by a large pharmaceutical industry as well as a large medical

technology industry. Further, while China is a big exporter of input substances, it imports much more dosified medicine than it exports (See Figure 5). Figure 5 also shows that India is a net importer of hospital and laboratory equipment, as well as med-tech supplies. The trade deficit in inputs specific to the pharmaceutical industry of about US\$ 136 million is relatively marginal.

Figure 5: Export surpluses disaggregated by category of health-related goods

In billion USD, 2017



The group of health-related goods includes 207 product categories of the 6-digit HS6 REV (see Box 1 for more details). 2007. Source: UN COMTRADE data extracted from Observatory of Economic Complexity. Source: Analysis: CPC Analytics.

INDIA AS EXPORTER TO GLOBAL SOUTH

Given India's traditional export surplus in health-related goods, it is useful to understand which countries are particularly dependent on India for these goods. An analysis of bilateral trade statistics allows a reverse to the premise laid out in the beginning of this special report about India's dependence for raw pharma materials on China. Figure 6 illustrates the dependence across three groups of countries: low income, lower middle income, and upper middle income.

Overall, it is apparent that the dependence on Indian health-related imports is related to the income levels of the countries. India's pharmaceutical industry has been growing with the large-scale production of low-cost medicines. Over 90 percent of the donor-funded antiretroviral medicine used to treat HIV between 2003 and 2015 were supplied by Indian manufacturers.²³

Across all categories of health-related goods analysed for this report, low-income countries have an average India-dependency of 27.2 percent. The group averages for lower middle-income countries and upper middle-income countries are significantly lower, at 13.4 percent and 6.5 percent, respectively.

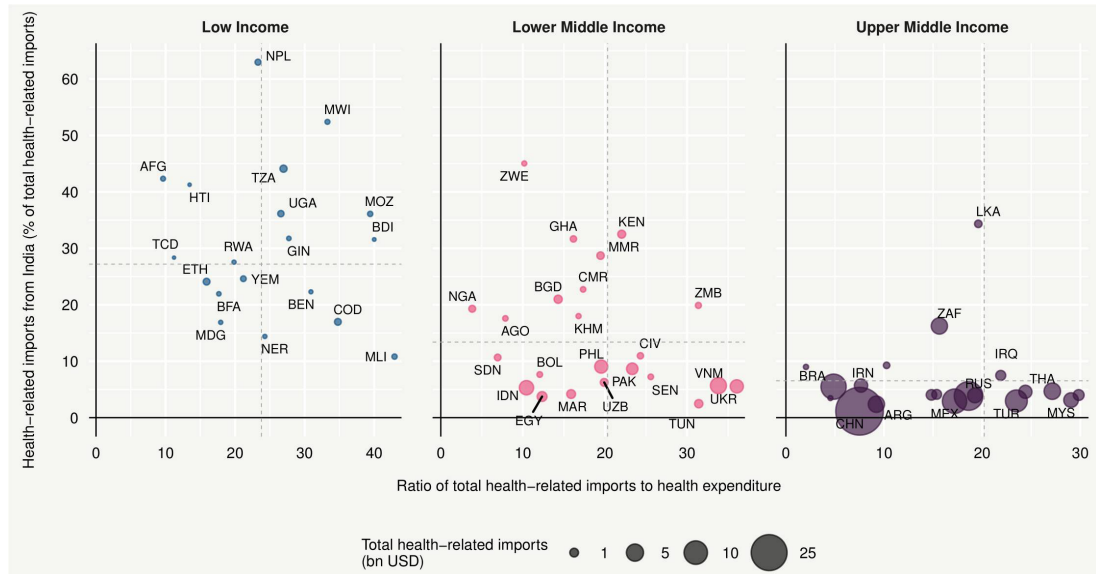
To be sure, there are large variations between countries, too. There are countries with extremely high dependence on Indian health-related goods: For Nepal, for instance, more than 60 percent of all health-related imports come from India; Malawi, meanwhile, gets more than half of such goods from India.

By relating the India-dependence to the ratio of health-related imports and total health expenditure, this analysis also allows for a differentiation of the extent to which countries are dependent on external sources. Countries like the aforementioned Malawi—as well as Burundi, Mozambique, Tanzania, Uganda, and Guinea—are not only recording an above-average dependence on India (note the horizontal dashed line in Figure 6) but also an above-average dependence on foreign goods in general (the dashed vertical line). All these countries spend more than 25 percent of their total health expenditure on imports. Qualitatively, it needs to be noted that most of the countries where Indian health-related goods play a significant role are also countries that are considered to be in “fragile” contexts.²⁴

While documenting the global competitiveness of India's pharmaceutical industry in these markets, these findings also serve as evidence of India's importance as a global actor in health. It would be safe to say that many millions of people in different parts of the world have benefited from India's ability to produce medicine at relatively low prices. The flipside of the coin is that India's position implies significant responsibility to uphold an international system that gives these countries sufficient access to essential medicines.

Figure 6: Countries dependent on Indian health-related goods, and imports in general

Reading example: Nepal's ratio of the value of imported health-related goods lies at around 22%. More than 60% of its total health-related imports come from India.



Note: The figure includes only countries with a population of more than 10 million people. Dashed lines indicate the unweighted average of the income group. Only selected labels for upper middle-income countries. Sources: The group of health-related goods includes 207 product categories of the 6-digit HS6 REV (see Box 1 for more details). 2007. Source: UN COMTRADE data extracted from Observatory of Economic Complexity. Analysis: CPC Analytics.

COVID-19 IS INDIA'S MOMENT FOR A GLOBAL HEALTH STRATEGY

This analysis makes it clear that health-related trade dependencies are a two-way street. Focusing the debate on India's heavy reliance on Chinese goods to produce pharma products falls short of acknowledging the immense role of Indian health-related exports, particularly to developing countries.

Considering these interdependencies arising from India's importance in the global supply of pharmaceuticals, it is a welcome sign that Prime Minister Narendra Modi has led the shifting of the narrative towards that of India willing to help other nations amidst the global pandemic.²⁵ While the prohibitions on export of other essential medical equipment are still in place, initial export bans on anti-malarial drug hydroxychloroquine and other drugs and APIs have been lifted by the Indian government.

Furthermore, the government has refrained from engaging in the criticisms against the World Health Organization (WHO) provoked largely by US President Donald Trump's announcement that his country will halt

payments to WHO.^a India has chosen instead to show support to WHO, and sent a representation in the Alliance for Multilateralism convened on April 16 by the German foreign minister.

Nevertheless, in what has been called “medical diplomacy” or “drug diplomacy” by some observers,²⁶ a comprehensive approach to global health has yet to be visible.

The Covid-19 pandemic presents a window of opportunity for India to not only build on its export strength in globally needed health-related goods, but also develop its own global health strategy. Such a strategy should go beyond narrow “medical diplomacy” and incorporate major policy fields that matter to Indian domestic policy and tie into existing policy initiatives of the country. The following paragraphs describe those elements.

- India should move beyond the role of a “pharmacy of the world”. As the global governance and power structures are re-shaping,²⁷ India's voice as an actor in global health needs to become more prominent. While working through and ensuring financing of the multilateral system is one crucial aspect, global health is not only about financial resources. Political leadership from India is needed to strengthen old alliances and shape new ones on fighting global inequalities, boosting the expansion of universal healthcare (UHC), and strengthening domestic health systems worldwide and increase pandemic preparedness. On all these fronts, India's domestic policies have improved substantially over the past several years (e.g. WASH initiatives such as Swachh Bharat Abhiyan or UHC initiatives such as Ayushman Bharat). Although there is immense scope for progress,²⁸ the gravity of a comprehensive Indian global health strategy cannot be underestimated.
- India should step up its international engagement on the area of digital health. In 2019, India successfully introduced a Resolution on Digital Health which was unanimously adopted by the 71st World Health Assembly in Geneva.²⁹ India has plenty to offer in this policy field: With the idea of a National Health Stack in 2018 by NITI Aayog, the government has outlined a plan for a digital infrastructure in the sector, building on earlier digitisation successes of *India Stack*.³⁰ With the National Digital Health Blueprint (NDHB), the Ministry of Health and Family Welfare

a According to Mr. Trump, the organization was “severely mismanaging and covering up the spread of the coronavirus”. See press release of the White House.

of India (MoHFW) has outlined an architectural framework as well as infrastructure requirements to integrate health data across the public and private sectors.³¹ Many countries in the world – from low-income to high-income – would benefit from India's experience.

- India should become a more proactive voice in the discussions on pandemic preparedness on the multilateral level. Domestically, India has implemented some of the most drastic social distancing measures in the world. While it remains to be seen how the situation will develop in the coming weeks, the learnings from the wide variety of states' responses can support policy learnings for other countries around the world.³² Internationally, India's voice through its strong pharmaceutical value chain should be used to support a regime where no country is left behind in the supply of medicines during a pandemic. Similarly, India should proactively contribute to, and co-shape solutions for making a vaccine (once developed) accessible to every country.

Certainly, these three components do not represent a full global health strategy. Experiences from other countries and regions that go through similar "deliberation" processes on their global health positioning show that as important as the policy priorities of such a strategy are, equally crucial are the answers to the questions, "How is a global health strategy developed?" and, eventually, "Who is responsible for global health?"

Germany, for example, has undergone a year and a half-long participatory process with stakeholders from research, industry, and civil society to update the country's first global health strategy from 2013. To account for the cross-cutting nature of the SDGs and global health, the German government introduced a cross-ministry committee at the sub-ministerial level in 2017. Simultaneously, a sub-committee on global health in the German parliament ensures connection to the legislative branch. On a regional level, the German presidency of the EU in the second half of 2020 will also support an update of the EU's stance on global health. Of course, this domestic global health policy landscape of Germany is only one approach. In other countries, global health has stronger links to the foreign ministry (e.g. Japan, US, UK). The important step is to acknowledge global health as a topic that needs to be addressed from multiple perspectives. Amidst a global pandemic, it becomes more important than ever to ask how health is accounted for in all policies.

The Covid-19 pandemic has shown the need for extensive coordination amongst different government branches, ranging from health and trade to

foreign and economic policy. Even a step towards a coordinated strategy formulation process by the Indian government would be a productive step into the right direction.

Box 1: Understanding health-related goods

The analysis of health-related goods relies on the classification of a Staff Working Paper by the World Trade Organization (WTO) applied to bilateral trade data.³³ To make trade data comparable across countries, the World Customs Organization has introduced the Harmonized System Classification (HS) which categorises trade flows into 97 distinguishable chapters and almost 6,000 subheadings.

Health-related goods analysed in this paper comprise of 207 subheadings which contain products directly linked to a health purpose. The full list of HS-Codes can be found on pages 28-35 of the WTO paper cited above. These can further be regrouped into six sub-categories outlined in the table below.

Sub-category	Examples	Main use
Dosified Medicines	Vaccines, antibiotics, insulin, including medicaments with ingredients such as Propfol, ...	Pharmaceutical industry
Bulk Medicines	Medicaments containing antibiotics, not in measured doses or put up for retail sale, ...	
Inputs specific to the pharmaceutical industry	Vitamins, Cortisone, hormone, ...	
Chemical inputs of general purpose	Glucuronic acid, amino-acids, ...	Other industries
Hospital and laboratory inputs	Diagnostic or laboratory reagents, Hygienic or pharmaceutical articles, ...	
Medical technology equipment	Medical, surgical or laboratory sterilizers, MRI-equipment, ...	

Source: Economic Research and Statistics Division, World Trade Organisation. Analysis: CPC Analytics.

CONCLUSION

While India's pharmaceutical industry relies heavily on Chinese imports, overall health-related imports in India represent a relatively small share of total health expenditures (around 10 percent). This is in the lower range as compared to other big economies. Furthermore, India ranks amongst the largest net exporters of health-related goods in the world. In fact, it is the only lower middle-income country in the top 10 countries with the highest export surpluses.

Many countries import a large amount of health-related goods from India. Overall, low-income countries import health-related goods worth some 25 percent of their total health expenditure from India. Thus, the data shows India's key role in the global supply of health-related goods especially for the developing countries.

Despite this position, however, India is yet to define a comprehensive global health policy. India should move beyond mere 'medical diplomacy'. Instead, it should build on the existing experiences from its domestic health policies (e.g. UHC, digital health), show political leadership to strengthen existing multilateral bodies, and build political alliances to fight global inequalities in health. India's voice through its strong pharmaceutical value chain should be used to support a regime where no country is left behind in the supply of medicines, especially during a pandemic. Amidst the current health crisis, India should proactively contribute to ensuring the accessibility of a Covid-19 vaccine to every country.

The ongoing pandemic has made global interdependencies visible once more. India should take its place amongst other global health leaders to ensure a coordinated global response to the crisis and build a global health system that gives particular attention to the needs of low- and lower middle income countries.

About the Authors

Sahil Deo and **Christian Franz** are co-founders of CPC Analytics, a data-driven policy consulting firm with offices in Pune & Berlin.

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