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The Covid-19 Vaccination Agenda in Bangladesh: Increase Supply, Reduce Hesitancy

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Introduction

From the time Bangladesh recorded its first case of Covid-19 on 8 March 2020, the pandemic has spread rapidly and today, there are 1,573,214 active cases in the country at the time of writing this report.[1] The severity in terms of both infections and deaths had reduced beginning in January 2021 after peaking in June 2020. Bangladesh experienced the worst of the present wave in June 2021, as the Delta variant of the virus spread rapidly. Before that, a second wave—primarily because of the spread of the African variant of the novel coronavirus—reached its peak in the first week of April 2021. Figures 1 and 2 offer snapshots of the cases and deaths in Bangladesh in the past 16 months of the pandemic.

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Figure 1:
New cases per day[2]

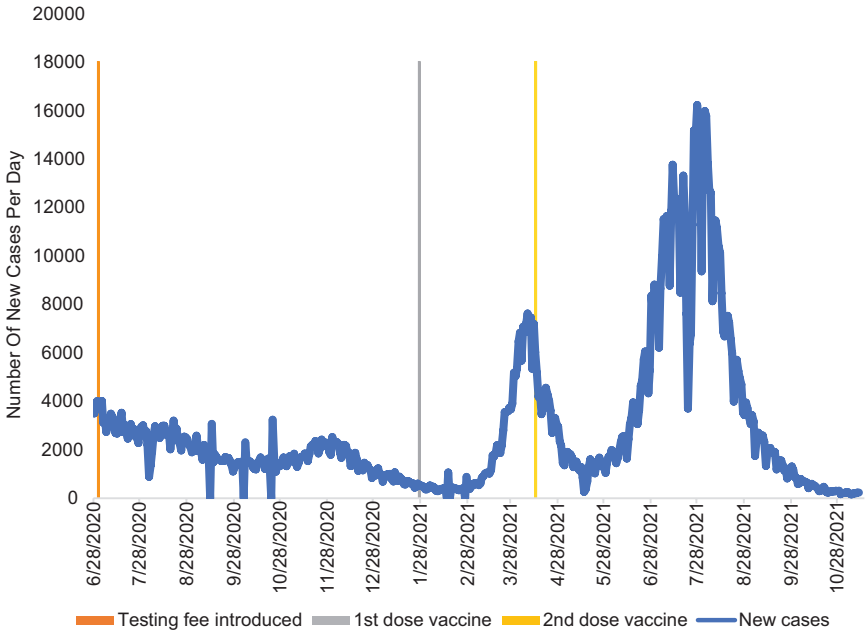
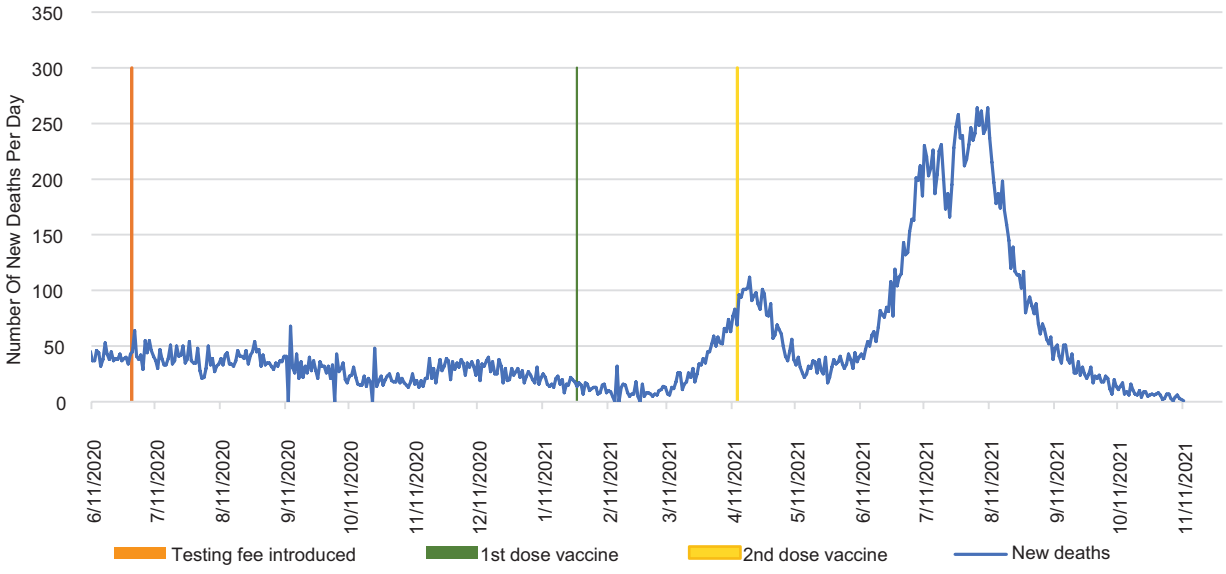


Figure 2:
Deaths per day[3]



Progress in Vaccination Coverage

Like in any outbreak of infectious disease, the current global imperative is to control the spread of Covid-19 and reduce deaths. There is scientific consensus that key to this effort is vaccination.

Bangladesh rolled out its vaccination drive for the frontline health workers on 27 January 2021, and for the public, on 7 February 2021. As of 11 November, 19 percent of the country's target population have been fully vaccinated.[4] The target for vaccination is 138,247,508 or 80 percent of the country's population. Efforts need to be expedited. Indeed, Bangladesh—like many other developing countries—will likely take longer to control the pandemic as both availability of vaccines, and the speed of vaccination, are slower compared to the wealthier countries (see Table 1). It is a pattern that is not unique to Bangladesh. Indeed, the disparities between developed and developing economies are stark. The share of vaccinated people is 67 percent in the United Kingdom (UK) as of 10 November 2021, and 57 percent in the United States (US).[5] In the South Asian region, Sri Lanka has the largest coverage, with almost 63 percent of the population already vaccinated as of 11 November 2021. Vaccination rates in other South Asian countries are slightly higher than in Bangladesh. In South East Asia, Singapore has covered 86 percent of its population.

Table 1:
COVID-19 Vaccination in South Asia and South East Asia[6]

Country	% of total vaccinated in total population (latest period)	Date of Vaccination rollout
Bangladesh	19	27 January 2021
India	26	16 January 2021
Singapore	86	27 January 2021
Hong Kong	59	3 March 2021
Indonesia	30	28 January 2021
Sri Lanka	63	29 April 20 21
Pakistan	21	20 May 2021
Nepal	25	7 May 2021
UK	67	13 December 2020
USA	57	20 December 2020
Global total	40	

Raising public awareness on Covid-19 vaccination

An online survey covering 1,520 respondents in Bangladesh (911 rural and 609 urban) between 15 March and 15 April 2020 found that compared to urban residents, people in the rural areas have significantly lower levels of knowledge about Covid-19 and pandemic-appropriate behaviour.[7] There is a notable degree of hesitancy towards vaccination, which is found to be more pronounced among the populations with less formal education. A study conducted just before the rollout of the vaccination drive found that hesitancy was high among the people in the rural districts and slum households.[8]

The analysis found various reasons for the widespread sentiment, among them low literacy level and lack of confidence in the healthcare system. Indeed, media reports indicate that the number of registrations from rural populations is much lower than the urban regions.[9] The same study, conducted among 3,646 respondents in eight districts of Bangladesh from 12 December 2020 to 7 January 2021, found that more than seven of every 10 (74.6 percent) expressed willingness to be vaccinated against Covid-19 if a safe and effective vaccine was made available for free. Only 8.5 percent of those surveyed expressed reluctance.

The vaccine refusal rate varies according to age, location, profession, education level, and trust on the country's health system. The elderly, rural, semi-urban, and slum populations, farmers, day labourers, homemakers, with less schooling, and those who had a low level of trust in the country's health system, were more hesitant towards vaccination.[10] These are not small in numbers. The population of slum households alone, is around four million people, majority of them in the capital city of Dhaka.[11] They are poor and with scant resources, and whatever information is being disseminated about the pandemic hardly reaches their knowledge.[12]

Slum households also have a low level of interest in vaccination due to lack of mobile phones with internet connectivity. This means that they are unable to utilise the online platform for registering themselves and their families for vaccination. This could be a reason behind their negative attitudes towards vaccines and their unwillingness to receive them.

The hesitation was seen in the low numbers of registration when the government initially launched the online vaccination app, "Shurokkha".[13] The government then made a decision to reduce the number of doses to be administered: initially, the plan was to provide a first dose to 6 million people in the first month, i.e. in February 2021; the target was later reduced to 3.5 million doses. The qualifying age for vaccination was also reduced to 40 years, from the earlier 55; priority groups remained the frontline workers and those over 40. Eventually, in July 2021, the minimum age was changed to 30; later further brought down to 25 on 29 July 2021, and to 18 in October 2021.[14]

There is a notable gender-based variance in vaccination rates. As of 10 November 2021, the share of first dose taken by males was 52 percent, and by females, 48 percent. For the second dose, the share was 53 percent for males, and 47 percent for females.[15]

What Has Worked for Bangladesh

Increased registrations

After an initial lag in the registrations, the numbers picked up within a few days. The government allowed "spot registration" to help those who are unable to register online. However, the hospitals soon had to stop this practice as they could not handle the surge of crowds. What eventually worked is that more people turned to the app, "Shurokkha". The waiting time to receive notification varies across vaccination centres. In the early days, it was somewhere around a few hours up to seven days. Today with the increase in applicants, it can often take upto two weeks for a registrant to receive confirmation.

Special arrangements for students

In order to give particular attention to students—who had already suffered massive losses in their schooling because of the closures, and lack of access to online schooling—the government launched a vaccination programmed called *"Univac"* in September 2021.[16] Accordingly, the University Grants Commission launched the vaccine registration weblink for university students in the same month.[17] Beginning on 1 November 2021, vaccination of school and college students between 12 and 17 years of age, started in eight schools in the capital, Dhaka. A total of three million students in this cohort will be vaccinated.[18] While this initiative is welcome, this number comprises only 30 percent of all of the country's students between 12 and 17 years.[19] Moreover, there is no clear plan yet for inoculating the rest of the country's students who are outside of Dhaka.

Positive response to walk-in vaccination campaign

So far, the vaccines have been distributed primarily through tertiary healthcare facilities in Dhaka. Vaccines were also sent to district hospitals and *Upazila* (sub-district) health facilities, although access to those hospitals is limited. The government began a walk-in vaccination campaign on 7 August 2021, where anybody above the age of 18 years, carrying their national IDs, can queue for their jabs at the vaccination centres. These walk-in vaccination facilities have received huge response; people gather in the thousands. This has been helpful particularly to those who do not have access to a smartphone nor internet connection and therefore are unable to register online for inoculation.

At the same time, however, the system of walk-in vaccinations presents its own challenges. For one, it is crucial to keep accurate track of those who are vaccinated in these walk-in vaccination facilities. It is important for the inoculators to track those who have been given a first dose and catch them for their second dose; otherwise, their one jab is ineffective. It is also important to monitor people for any potential side-effects of the vaccine.

> “Separate arrangements for students have helped increase the pace of inoculation; however, the reach has been limited to the capital city of Dhaka.”

The Question of Vaccine Supply

Bangladesh procures its vaccines from a number of sources. During the period January to April 2021, only the Oxford–AstraZeneca vaccine was authorised for use in the inoculation drive. The country then ordered doses of the vaccine produced by the Serum Institute of India, called Covishield. However, as India experienced a devastating wave of the pandemic in March and April 2021, it had to stop supplying vaccines to other countries, and Bangladesh was forced to suspend its vaccination programme beginning on 26 April 2021. As April ended, Bangladesh approved three more vaccines for emergency use—the Russian Sputnik V, China's BBIBP-CorV, and the Pfizer–BioNTech vaccine which was to be distributed as part of COVAX. The government later approved the Moderna vaccine on 29 June 2021.

Bangladesh has received doses of Pfizer, AstraZeneca, and Moderna through COVAX. A number of countries have sent donations of vaccines to Bangladesh: China sent 600,000 Sinopharm doses; the US government sent Moderna; and Japan, Astra-Zeneca.

Local production through collaboration

On 17 August 2021, a tripartite Memorandum of Understanding (MoU) was signed between the government of Bangladesh, China National Pharmaceutical Group Company Limited (or Sinopharm), and Bangladeshi pharmaceutical company, Incepta Pharmaceuticals Limited.[20]

Under the MoU, the parties agreed to produce locally, 5 million doses of Sinopharm, which is developed by Sinopharm/Beijing Bio-Institute of Biological Products Company Limited. Incepta will supply the materials for the vaccine, and will also be responsible for the other parts of the production chain such as bottling, labelling, and finishing. The government will purchase these vaccines and administer them to the people free of cost, as these are considered as public goods in Bangladesh. However, the MoU does not make clear the issue of technology transfer from China. Nevertheless, it is expected that the local production of Sinopharm will help meet the vaccine needs of Bangladesh. Such collaboration will also reduce the overall cost of vaccines.

> “Bangladesh has received doses of different Covid-19 vaccines through COVAX; a number of countries have also sent donations.”

The Case for Patent Waiver for Covid-19 Vaccines

In order to increase supply and reduce inequity globally, there have been proposals to allow developing countries to manufacture their own, generic versions of Covid-19 vaccines. This would require waivers of certain provisions of the agreement on Trade Related Aspects of Intellectual Property Rights (TRIPS)–a proposal that was originally submitted to the World Trade Organization (WTO) by India and South Africa in October 2020.[21] The two countries requested for a temporary "waiver from certain provisions of the TRIPS Agreement for the prevention, containment and treatment of COVID-19." They urged the WTO members "to work together to ensure that intellectual property rights such as patents, industrial designs, copyright and protection of undisclosed information do not create barriers to the timely access to affordable medical products including vaccines and medicines or to scaling-up of research, development, manufacturing and supply of medical products essential to combat COVID-19."[22] On 25 May 2021, 62 co-sponsors including India, South Africa and Indonesia, submitted a revised proposal requesting waiver for three years "in relation to health products and technologies including diagnostics, therapeutics, vaccines, medical devices, personal protective equipment, their materials or components, and their methods and means of manufacture for the prevention, treatment or containment of COVID-19."[23]

Pharmaceutical companies, however, argue that since they invest on the research and development of the vaccines, they have the exclusive right to put a price on these pharmaceutical products. Many opponents of the waiver proposal have also raised the issue of quality and safety of the vaccines to be manufactured in other countries.[24]

The proposal by India and South Africa has received support from about 120 countries. The US is agreeable to waive patent rights, only for Covid-19 vaccines. Several countries including Australia, Japan, the European Union, the UK, Singapore, Brazil and South Korea are unwilling to discuss the revised proposal. On 9 June 2021, the WTO members agreed to begin text-based negotiations on the proposal. By the end of July 2021, the WTO members were expected to reach an agreed text for negotiation. On 13-14 October 2021, at the meeting of the TRIPS Council, WTO members noted that there were encouraging discussions and bilateral meetings. The chair of the TRIPS Council announced that he would continue to consult with members on how to move towards a consensus before the WTO's 12th Ministerial Conference to be held from 30 November to 3 December 2021. However, the TRIPS Council was still not yet in a position to agree on a concrete resolution.[25]

While patent waivers will be critical in the efforts to manufacture generic and cheaper versions of the Covid-19 vaccines, this is only the initial step. Most important is the transfer of know-how and technology. Article 66.2 of the TRIPS agreement refers to promotion and encouragement of technology transfer by developed countries to LDC members. The 2003 and 2005 decisions on TRIPS and Public Health have emphasised the need to seriously implement Article 66.2. However, there is a reluctance on the part of the developed countries and pharmaceutical companies to share technology with LDCs.

Bangladesh, which is a lower middle-income country as well as an LDC has active interest in the proposal on patent waivers for Covid-19 vaccines and medicines. Bangladesh has better capacity to manufacture pharmaceuticals compared to other LDCs. It has a number of world-class pharmaceutical manufacturing companies that have been supplying low-cost medicines to other countries, particularly to the poor. As an LDC, Bangladesh can export its pharmaceutical products under compulsory licensing. With increased technological capacity, Bangladesh can improve its production capacity and manufacture Covid-19 vaccines for meeting both domestic and international demand. It can therefore lead the voices of developing countries to successfully negotiate for patent waivers in order to deal with the ongoing Covid-19 crisis.

Conclusion

Although Bangladesh has faced challenges in procuring vaccines, the government has been proactive in securing doses from various sources. However, the requirements remain high. Given that a pandemic like Covid-19 can only be controlled through herd immunity, which will significantly depend on a successful vaccination programme, countries across the world had long started a race to procure vaccines. Being a least developed country, Bangladesh was not part of such a race that requires both money and clout. The world needs about 11 billion doses of Covid-19 vaccines if 70 percent of the global population have to be vaccinated with two doses per person. As of 12 November 2021, 51.5 percent of the world's population have received at least one dose of a Covid-19 vaccine, but only 4.5 percent of people in low-income countries have received at least one dose.

A total of 7.41 billion doses have been administered globally.[26] However, the high- and upper-middle-income countries have only one-fifth of the global population, and low- and lower-middle-income countries are home to four-fifths.

The unequal access to vaccines for Covid-19, makes it difficult for countries such as Bangladesh to vaccinate its population at the same pace as the wealthier countries. However, without inoculating all eligible people, the world cannot recover from the pandemic fully.

Therefore, it is critical to rapidly scale up vaccine manufacturing and distribution. The Bangladeshi government aims to vaccinate 80 percent of the population by 2022 through an accelerated inoculation campaign.[27] Achieving this target will depend on the availability of vaccines on time.

For countries like Bangladesh, two issues have to be pursued simultaneously. The country must ramp up its vaccine procurement, and rapidly roll out the doses throughout the country. This will require better delivery capacity and an efficient distribution system. The concern over vaccine inequality is not only a global issue, but a national one. Faster and equitable vaccination will be key to better recovery from the massive fallout of the pandemic.

> "As of mid-November, 51.5% of the world's population have received one dose of a vaccine, but only 4.5 percent of people in low-income countries have received at least one dose."

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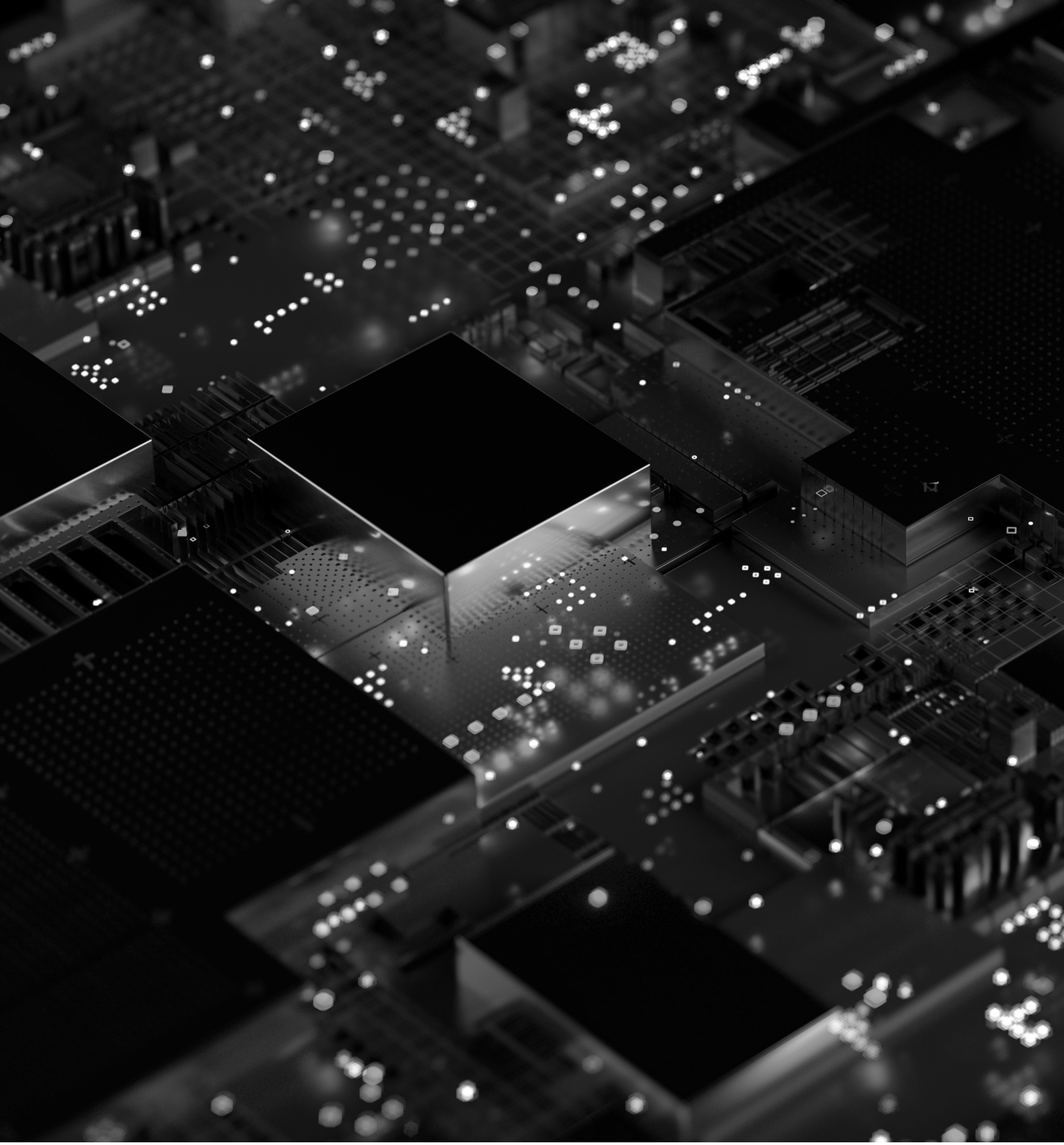

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