

## EMERGING MARKETS: Covid-19 Vaccination Strategies and Challenges

Our Covid-19 vaccination table includes updated information on the immunization strategies selected EMs are pursuing and the challenges they face.

Below are some of this week's key developments. Please do not hesitate to contact us if you want to discuss any of the countries mentioned in more detail.

Click on 'View PDF' to see the table.

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### HIGHLIGHTS

#### Vaccine rollout

- In **Brazil**, most states have started to vaccinate people in their 30s. The health minister promised to vaccinate all adults with one dose by September 2021. However, the current daily rate of administered doses is not high enough to hit this target.
- Results from **Chile's** clinical study of the Sinovac vaccine show that only 45 out of 2,300 subjects tested positive for Covid-19 after receiving a double dose of the Sinovac vaccine; three of these required hospital treatment. However, the study suggests that a third booster shot could be necessary given the vaccine's declining efficacy.
- **Colombia** expects the first delivery of the Moderna vaccine to arrive by the end of July; the government has signed an agreement with Moderna for 10mn doses.
- In **Hungary**, vaccine rollout remains slow with only around 30,000 first doses administered over the past week. Nearly 55% of the population have been fully immunized to date. In August, the country will start offering third vaccine doses to everyone inoculated four months ago or earlier. Covid-19 vaccines will become mandatory for healthcare employees.
- The outlook for **Kenya's** vaccine rollout, which had plateaued at a vaccination rate of 1.93% of the population due to COVAX delays, is improving very slightly as Western donations increase, with 1.7mn US-donated Pfizer-BioNTech doses expected shortly.
- While serious unrest disrupted **South Africa's** vaccine rollout last week, by 19 July daily inoculation rates had reached 223,969 shots – close to officials' daily target of 250,000 doses – and the inoculation campaign looks set to accelerate.
- **Peru** is currently offering vaccines to people in their 40s; vaccination for people in their 30s should start in August and for those in their 20s in September. The 20-39 age group represents 33% of the total population, making it the largest group to vaccinate.

#### Vaccine procurement

- **Argentina** has reached two new vaccine supply agreements with CanSino (5.4mn doses to start arriving by August at the latest) and Moderna (20mn doses to arrive Q1 2022 though US government donations could arrive earlier).
- In **Mexico**, 17.5% of the total number of vaccine doses that the country has received have been produced and/or bottled locally; Mexican laboratories are involved in producing two vaccines – CanSino and AstraZeneca (AZ).
- **Israel** reached a deal with Pfizer-BioNTech for fresh provision of immunizations by early August if authorities decide to expand their administration of booster shots to a wider segment of the population than those with health conditions.
- **Nigeria** expects the first major vaccine deliveries since March by late July or early August, including 3.9mn doses of the Pfizer-BioNTech vaccine donated by the US government via COVAX and 3.9mn AZ shots via the regular COVAX channel. Another 3.6mn Pfizer-BioNTech doses are expected, again through COVAX, in Q3.
- Due to delays in the delivery of vaccines to certain regions, **Russia** will conduct an inventory of vaccine volumes across the country by 21 July. The country's authorities rule out imports of foreign vaccines.
- A leaked letter reveals that **Thailand** had substantially under-ordered its official supplies from the domestic licensee of AZ, resulting in domestic criticism and Bangkok needing to secure new supplies.

### Infections and new variants

- In **Brazil**, the Delta variant started to spread. Until 19 June, 96 cases were identified, but this figure is expected to increase in the upcoming weeks as the genetic processing of new Covid cases is carried out.
- The Delta variant accounts for 47% of all new infections in **Poland**. However, the overall caseload in the country remains very low.
- In the **Czech Republic**, the Delta variant accounts for around 70-80% of all new infections. This week, the country has also reported the first case of the Delta plus strain.
- Following the discovery of the first Delta variant cases, **Nigeria** has put six states on a 'red alert' list allowing authorities to restrict celebrations and gatherings to a minimum.
- In **Russia**, the nationwide caseload is stabilizing at around 24,500 per day. However, daily deaths are still rising and are now about 800. The virus is now spreading rapidly across many regions, while the capital Moscow has started to ease restrictions due to falling cases and rapid vaccination rates.

### Vaccine diplomacy

- Due to sluggish vaccination rates at home and approaching vaccine expiration dates, **Poland** plans to sell several million vaccine doses to non-EU member states in eastern and Southern Europe.
- China is set to supply **Myanmar** with a total of six million doses in July and August, with 4mn to be purchased and another 2mn to be donated by Beijing.
- The **US** government, in partnership with the African Union and COVAX, has donated 25mn of Covid-19 vaccines to 49 African countries. **Burkina Faso**, **Djibouti** and **Ethiopia** will be the first countries to receive their share of Johnson & Johnson's Covid-19 vaccines. The doses will be delivered through COVAX, the WHO-backed vaccine distribution initiative.

Macro Research  
+44 20 7186 8894  
Macro@teneo.com

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## Emerging Markets Covid-19 Vaccination Strategies and Challenges

### Rating of countries' vaccine rollout (as of 21 July 2021):

|  |  |
|--|--|
|  | Between 0% and 10% of the total population have received at least one Covid-19 vaccine dose  |
|  | Between 10% and 30% of the total population have received at least one Covid-19 vaccine dose |
|  | More than 30% of the total population have received at least one Covid-19 vaccine dose       |

|           | Vaccination strategy   | Current state of vaccine roll-out  | Procurement  |
|-----------|--|--|--|
| Israel    | Majority of all adults vaccinated. Children over 12 are eligible for the vaccine. Israel has begun to offer booster shots of Pfizer for adults with compromised immune systems, but authorities still weighing whether the general public needs boosters.  | Israel has vaccinated over 61% of its 9.3mn citizens with at least one dose, and 56% with two doses (majority have received Pfizer). Israel struck a deal with Pfizer to receive a fresh batch of vaccines in Aug to help with the campaign to vaccinate teenagers. Around 30% of eligible Palestinians in the West Bank and Gaza (home to 5.2mn people) have received at least one vaccine dose, but vaccine hesitancy remains. | <b>Pfizer-BioNTech</b> – Israel is administering the Pfizer vaccine, in exchange for giving Pfizer extensive patient data.<br><b>Moderna</b> – Israel plans to vaccinate about 100,000 Palestinian workers with the Moderna vaccine.<br>The Palestinian Authority has received more than 390,000 doses: 100,000 <b>Sinopharm</b> , 97,000 <b>AZ SK Bio</b> , 90,000 <b>Sputnik V</b> , 140,000 <b>Pfizer-BioNTech</b> and 2,000 <b>Moderna</b> , 25,000 <b>AZ SII</b> , and 48,000 <b>AZ R-Pharm</b> .         |
| UAE       | Vaccines are available free of charge for medically eligible citizens and residents with priority given to UAE nationals and their household workers, senior citizens, and those with other comorbidities. Booster doses are being administered to those who have completed 6 months since second Sinopharm dose. Pfizer approved for emergency use for children 12-15.        | As of 20 Jul, 16.4mn doses have been administered. Around 77% of the UAE population has received a first dose, and 68.4% are fully vaccinated according to the National Emergency Crisis and Disasters Management Authority (NCEMA).   | <b>Sinopharm</b> , <b>Pfizer-BioNTech</b> , and <b>Sputnik V</b> are the approved vaccines. UAE signed an agreement to produce Sinopharm domestically.   |
| Chile     | Target to vaccinate 80% of population over 16 years of age has been met. Medical workers were the first to receive vaccinations, followed by elderly in care homes; over 65s; key workers in public bureaucracy; people with other comorbidities. Vaccinations (Pfizer-BioNTech vaccine) are currently being administered to 16-17-year-olds.                                  | Pfizer vaccinations started in late Dec but mass campaign using China's Sinovac vaccine started 3 Feb. As of 12 Jul, 13.29mn people (69.53% of population) have received at least one vaccine dose and 11.44mn (59.83% of population) have received a double dose or a single-shot vaccine.  | <b>Pfizer-BioNTech</b> – agreement for 10mn doses; <b>Sinovac</b> – agreement for 60mn doses over three years; <b>AZ</b> – agreement for 14.4mn doses.<br><b>COVAX</b> – agreement for 8mn doses.<br><b>CanSino</b> – agreement for 1.8mn doses.<br><b>J&amp;J</b> – regulatory clearance in early June. Local regulatory approval for <b>Sputnik V</b> vaccine pending.   |
| Hungary   | Vaccination is available to all citizens as well as foreigners living in Hungary. Vaccinations of adolescents (12-15-year-olds) started in Jun. In Jul, the country started vaccinating its citizens abroad. There is no official vaccination target. Government will start rolling out third vaccine doses in August. Vaccination will be mandatory for healthcare employees. | Vaccination started on 26 Dec. As of 20 Jul, 5.57mn people (57.2% of population) have received at least one jab and 5.31mn (54.6%) have been fully immunized. Daily vaccination rate dropped to just 11,000 in mid-Jul.  | Procurement contracts and deliveries as of 20 Jul via the EU's joint mechanism:<br><b>AZ</b> – 6.5mn doses (2.4mn delivered)<br><b>Moderna</b> – 1.7mn doses (1mn). <b>Pfizer-BioNTech</b> – 10.9mn doses (6.6mn delivered). <b>J&amp;J</b> – 4.3mn doses (502,800 delivered). <b>CureVac</b> – 500,000 doses.<br>National-level procurement:<br><b>Sputnik V</b> – 2mn doses (delivered).<br><b>Sinopharm</b> – 5mn doses (5.2mn delivered). The government is donating vaccines to other European countries. |
| Singapore | Seniors, healthcare and frontline workers nominated by their employers were the first eligible groups. Starting in July, all residents 12 years and older are eligible to be vaccinated. Sinovac has been imported and allowed for distribution by some private clinics but is not being counted in the official vaccination count.  | As of 19 Jul, 2.79mn (49% of the population) have been fully vaccinated and 1.37mn (24%) have received a first dose. The goal is to have 75% of the population vaccinated by Oct to allow a reopening of its borders and to complete all immunizations by the end of the year.   | Government has concluded agreements with three suppliers, with undisclosed quantities: <b>Pfizer-BioNTech</b> , <b>Moderna</b> and <b>Arcturus</b> . It has received <b>CoronaVac</b> and has allowed private purchases of hte vaccine. It is looking for additional supplies in anticipation of possible shortfalls.  |

|                | Vaccination strategy   | Current state of vaccine roll-out  | Procurement  |
|----------------|--|--|--|
| Poland         | Adults of all age groups are allowed to register for a Covid-19 jab. Vaccination is also available for adolescents over 12 years old. To facilitate vaccinations during the summer holiday period, residents may receive second doses at a different vaccination site than the first one. Starting 1 Jul, vaccinated residents can participate in a state-run lottery. No mandatory vaccination planned for any groups of population.  | Vaccinations started on 27 Dec. As of 20 Jul, 17.8mn residents (46.6% of population) received a first jab and 15.1mn (39.6%) are fully vaccinated. The number of new vaccinations has dropped to around 220,000 per week in mid-Jul (down from the peak of 1.2mn in early May).  | Procurement exclusively via the EU. Overall, around 100mn doses contracted. As of 20 Jul, 40.8mn vaccine doses delivered: 27.5mn <b>Pfizer-BioNTech</b> , 7.4mn <b>AZ</b> , 3.9mn <b>Moderna</b> , 2.0mn <b>J&amp;J</b> . Due to sluggish vaccination and approaching expiration dates, government plans to start reselling vaccines to other countries. |
| Greece         | Currently offering the full range of vaccines to everyone over 18. The authorities would like to have 70-75% of the adult population vaccinated by the end of the summer. PM Kyriakos Mitsotakis said this week that the 12-15 age group would be eligible for the vaccination when the national committee issues the necessary approval.  | As of 19 Jul, Greece had administered almost 10mn vaccines, resulting in 51% of the total population having received at least one jab and 43.3% being fully vaccinated. Daily vaccination rates continue to be lower than in Jun.  | Greece is using the <b>Pfizer-BioNTech</b> , <b>AZ</b> , <b>Moderna</b> and <b>J&amp;J</b> vaccines, adhering to the EU's procurement process. It expects to receive another 1.5mn <b>Pfizer-BioNTech</b> jabs in July and 1.1mn in August. Next day appointments for vaccines are available in most parts of the country.                               |
| China          | Goal of fully vaccinating 560mn people, or 40% of the population, by end-Jun appears to have been met, though government has not disclosed exact figures. The Chinese Centre for Disease Control and Prevention (CDC) said 80-85% vaccination is required to reach herd immunity and that this level could be reached by end-2021. The CDC is also studying booster shots to increase effectiveness against variants.  | As of 21 Jul, China had administered 1.48bn doses (equal to 102% of population but includes second doses) at an average daily pace of 16mn doses over previous week. Recent outbreaks in Anhui, Liaoning, and Guangzhou provinces have contributed to a decline in vaccine hesitancy.  | Regulators have approved five domestic vaccines; <b>Sinopharm Beijing</b> , <b>Sinopharm Wuhan</b> , <b>CanSino Biologics</b> , <b>Sinovac Biotech</b> , and <b>Anhui Zhifei Longcom Biopharmaceuticals</b> .<br><br>Fosun Pharmaceutical reached a deal with BioNTech to build a factory in Shanghai to produce <b>Pfizer-BioNTech</b> vaccines.        |
| Saudi Arabia   | 587 vaccine centers established across the country, and Kingdom approved use of two different vaccines for the first and second dose to speed up the program. Proof of vaccination required for many public events and activities from 1 Aug, and full vaccination required from 9 Aug to travel abroad. Those entering the country who have received two doses of Sinopharm or Sinovac will be required to receive a booster of a Saudi-approved vaccine to enter the Kingdom.  | The vaccination program began on 17 Dec. As of 19 Jul, the Kingdom has administered over 22mn vaccine doses; 54% of the population has received at least one dose and 12% fully vaccinated. Pfizer has been approved for 12-18-year-olds.  | <b>Pfizer-BioNTech</b> , <b>Moderna</b> , <b>J&amp;J</b> , and <b>AZ</b> approved for administration. Government has secured an unknown number of <b>Sputnik V</b> doses.  |
| Czech Republic | Since 1 Jul, all residents over 12 years old are eligible for vaccination. The government has set up vaccination centers that allow residents to show up without pre-registering. Starting 1 Sep, the government plans to stop subsidizing Covid-19 tests for unvaccinated residents.  | Vaccinations started on 27 Dec. As of 20 Jul, 5.3mn residents (49.6% of population) have received a first jab and 4.2mn (39.2%) were fully immunized. 82% of immunizations carried out with Pfizer-BioNTech vaccine; 8.5% with AZ; 8.5% with Moderna and 1% with J&J.  | Procurement has been conducted exclusively via the EU. As of 20 Jul, a total of 10.2mn doses of vaccines delivered: <b>Pfizer-BioNTech</b> – 8.38mn; <b>Moderna</b> – 852,400; <b>AZ</b> – 845,900; <b>J&amp;J</b> – 158,350.  |
| Turkey         | Vaccination program divided into four stages, starting with medical personnel, pharmacy workers and those over 65, followed by security forces personnel, teachers, workers in food industry and transportation, and then Stages 2 and 3, the 50-64 and 18-49 age groups, respectively. On 25 Jun, Turkey began vaccinating segment B6, the 18-24 age group, of Stage 3. Government aims to vaccinate all adult residents by Sep. On 1 Jul, it began offering third doses to those in high-risk groups amid concerns over the Sinovac vaccine's effectiveness against the Delta variant. | Vaccine rollout started on 13 Jan with Sinovac. On 2 Apr, vaccinations also began with Pfizer-BioNTech vaccine. As of 20 Jul, 63.82 mn doses had been administered, with 39.03 mn (46.7% of population) people having received a first dose and 21.13mn (25.3% of population) at least two doses. Fresh Pfizer-BioNTech deliveries resulted in a rapid vaccine acceleration in Jun, which has continued through Jul. | <b>Sinovac</b> – agreement for 100mn doses, of which 34.5mn delivered by 20 Jul.<br><b>Pfizer-BioNTech</b> – agreement for 120mn doses, with 35mn delivered by 20 Jul.<br><b>Sputnik V</b> – agreement for 50mn doses. 0.4mn doses arrived in late Jun but none had been administered as of 20 Jul. Turkey has not joined <b>COVAX</b> .                 |

|             | Vaccination strategy   | Current state of vaccine roll-out   | Procurement  |
|-------------|--|---|--|
| Brazil      | <p>Phase 1: health workers; indigenous communities in demarcated territories; over 60s in care institutions; over 75s.</p> <p>Phase 2: 60-74s seniors.</p> <p>Phase 3: persons with comorbidities.</p> <p>Phase 4: education workers, homeless population, security and rescue forces, others.</p> <p>Phase 5: 59-18 gradually.</p>  | <p>As of 19 Jul, 89mn first doses have been administered (representing 42% of the population) while 30.6mn people (16% of population) have received two doses.</p>  | <p><b>AZ</b> – 100.4mn doses to be delivered in Jul, 210mn by year-end.</p> <p><b>CoronaVac</b> – 10mn doses expected in Jul. Another 130mn doses by year-end.</p> <p><b>Pfizer</b> – 15mn doses expected in Jul; 100mn by year-end.</p> <p><b>J&amp;J</b> – 38mn doses expected in Q4.</p> <p><b>Sputnik V</b> – On 4 Jun, ANVISA (health regulator) approved conditional import for 9 states. 10mn doses expected by year-end.</p> <p><b>Covaxin</b> – Contract suspended.</p> <p><b>COVAX</b> – minimum 10% of population quota (42mn) doses. WHO to provide 10-14mn doses for distribution from mid-Feb to Jun. 2mn AZ expected in Jul.</p> <p><b>ButanVac</b> – currently in trial; 100mn expected by year-end.</p>                         |
| Argentina   | <p>Health sector personnel first in line for vaccine, followed in descending order by over 70s; over 60s; security personnel; vulnerable and at-risk in 18-59 age range; education sector; and strategic or vulnerable groups.</p>   | <p>Sputnik V vaccinations started on 29 Dec. As of 15 Jul, 20.99mn first doses have been administered (representing 46.43% of population) while 5.15mn people (11.39% of population) have received two doses.</p>   | <p><b>Sputnik V</b> – agreement for 30mn doses; local production set for imminent start.</p> <p><b>AZ</b> – contract for 23.6mn doses, though most to be produced locally in conjunction with Mexico.</p> <p><b>Sinopharm</b> – agreement for 24mn doses.</p> <p><b>CanSino</b> – 5.4mn doses ordered; arrival expected over Jul.</p> <p><b>COVAX</b> – approx. 1.9mn doses delivered; government has been criticized for ordering only 20% of its entitlement.</p>  |
| South Korea | <p>Vaccination campaign started on 26 Feb. Goal to vaccinate 70% of the population with two doses by Nov 2021. Vaccinations of high schools, kindergartens, and elementary schools began on 13 July, 15 days earlier than originally planned. First inoculation of high school students and faculty with Pfizer-BioNTech vaccine to begin from 19-30 Jul.</p> <p>Cluster infections continue, with more than 1,500 daily new cases this week – the highest figures since Jan 2020. Delta variant accounted for 30.7% of new cases. Seoul accounts for over 70% of new clusters.</p>  | <p>As of 21 Jul, 12.9% of population have been fully vaccinated; 18.88% of the population have received at least one dose. AZ jabs are administered only to the 50yrs+ age group. The military has begun providing 2nd Pfizer-BioNTech jabs to personnel aged under 30, supported by a US donation of 1mn vaccines delivered in Jun. Samsung and other large companies will launch in-house vaccination programs in Aug.</p>  | <p>The government has signed agreements to procure vaccines to inoculate the entire population twice, but many deliveries are delayed until Q3 or Q4, creating a summer shortfall. A swap-deal with Israel will result in delivery of 700,000 soon-to-expire Pfizer-BioNTech doses in early Jul, in exchange for the same amount being returned in Sep/Oct. South Korea will strengthen support for phase 3 clinical trials of homegrown Covid-19 vaccines by the end of the year. The government has signed a letter intent to develop and produce vaccines with Denmark.</p> <p>35mn Covid vaccine doses to be supplied through COVAX and pharma companies from 16 July to end-August. (<b>AZ, Pfizer-BioNTech, Moderna, and Janssen</b>).</p> |
| India       | <p>From 1 May, everyone above 18 became eligible for vaccination. From 21 Jun, all vaccines from government health facilities have been declared free of cost. The federal government, now alone now in charge of vaccinations, is allocating vaccine supplies to states according to demand assessments. All import curbs on foreign vaccines have been lifted and import duties have been waived. While the target to vaccinate everybody above 45 without comorbidities has yet to be met, the vaccination process has picked up pace. However, private hospitals say that their administrative charges are not met by the INR150 (USD 2) cap on the fee they are allowed to charge. They claim that vaccination has slowed down as a result.</p> | <p>Vaccine rollout began 16 Jan. As of 17 Jul, India had administered 404.93mn vaccine doses in total (23.3% of population). 83mn people are fully vaccinated (6% of population). The rate of new Covid-19 infections remains stable after a significant decline between May and Jun. India has halted AZ vaccine exports to cater to domestic demand. Exports of Remdesivir and diversion of oxygen to non-medical uses have been banned. Some taxes on inputs in vaccine manufacture have been lowered.</p> | <p>All vaccines now free to be used in India, whether Indian or foreign, as long as they have been certified as safe in the country of origin. Import duties have been waived. However, <b>Pfizer</b> is negotiating an assurance of indemnity before it supplies vaccines to India. Russia's <b>Sputnik V</b> is available since Jun. Both <b>Pfizer-BioNTech</b> and <b>Moderna</b> have announced that they will supply vaccines only to federal government rather than state governments directly. Vaccine supplies have improved dramatically after the federal government took charge. However, some states are noticing supply chain glitches.</p>  |

|           | Vaccination strategy   | Current state of vaccine roll-out   | Procurement   |
|-----------|--|---|---|
| Mexico    | Frontline medical workers first in line followed by the over 60s age cohort and then in descending order by age. Government wants all adults to have been offered at least one dose by Oct.  | Vaccinations started 24 Dec. Rollout stalled mid-Jan to mid-Feb but subsequently resumed with new vaccines from wider array of suppliers. As of 14 Jul, 36.79mn people (28.53% of population) have received at least one vaccine dose, with 21.27mn people (16.50% of population) fully inoculated.   | <b>AZ</b> – agreement for 77.4mn doses. US has supplied Mexico with 2.7mn additional AZ doses.<br><b>Pfizer</b> – 34mn doses ordered; 22mn delivered as of 4 Jul.<br><b>CanSino</b> – 35mn doses agreed.<br><b>Sputnik V</b> – agreement for 24mn doses, with local production expected soon.<br><b>COVAX</b> – 51.5mn doses agreed; <b>Sinovac</b> – agreement for 20mn doses.<br><b>J&amp;J</b> – 1.35mn doses delivered.<br><b>Sinopharm</b> – agreement for 12mn doses though local regulatory clearance pending. |
| Colombia  | Plan is to vaccinate 70% of the population (35mn people) by end-2021. Medical personnel first in line, followed by elderly and clinically vulnerable. Jun target of administering 17mn doses was exceeded; latest target is to apply 25mn jabs by end-Jul.   | Vaccination campaign started on 17 Feb with Pfizer vaccine. As of 14 Jul, 14.32mn people (28.15% of population) have received at least one vaccine dose, with 9.63mn (18.93%) fully inoculated.   | <b>Pfizer-BioNTech</b> – agreement for 15mn doses.<br><b>AZ</b> – 10mn doses agreed.<br><b>J&amp;J</b> – agreement for 9mn doses; local regulatory clearance granted.<br><b>Sinovac</b> – agreement for 10mn doses.<br><b>Moderna</b> – agreement for 10mn doses.<br><b>COVAX</b> – agreement for 20mn doses.   |
| Russia    | Vaccination available to all citizens 18+. Immunization of adolescents aged 12-17 is expected to be launched in Sep. Government plans to vaccinate 60% of population by the end of 2021. Overall target is to immunize 80-90% of population. 30+ regions have announced compulsory vaccination for certain occupational groups (employees in state institutions and companies, workers in services sector etc.). Some regions are starting to revaccinate residents inoculated six months ago or more. | Vaccinations started in early Dec. As of 20 Jul, an estimated 33mn residents (22.6% of population) had received at least one jab and 21.5mn (14.7% of population) were fully vaccinated. Compulsory vaccination is speeding up the process, but 54% of population is still reluctant to get vaccinated.   | Russia relies solely on domestically developed vaccines: <b>Sputnik V</b> , <b>EpiVac</b> , <b>CoviVac</b> and <b>Sputnik Light</b> .<br><br>Amid vaccine shortages in regions, PM Mikhail Mishutin ordered to carry out the audit of vaccine stock across the country by 21 Jul.<br><br>Authorities rule out imports of foreign vaccines.  |
| Indonesia | Frontline healthcare workers estimated at 1.3mn have been vaccinated first, followed by security personnel and 17mn teachers; working age 15-59 are also now being vaccinated, simultaneously with the elderly. Vaccines procured by central government; distributed for free but not mandatory. Government is allowing the private sector to purchase vaccines for their employees, and such vaccination has started.   | Second vaccination phase has started, focusing on the elderly and active workforce. As of 20 Jul, 16.43mn (6.1% of the population) have been fully vaccinated and another 25.9mn (6.75%) are on their first jab. Pace could accelerate starting in Sep as more supplies are expected.   | <b>Sinovac</b> – 125mn doses;<br><b>Pfizer-BioNTech</b> – 100mn doses;<br><b>Novavax</b> – 100mn doses;<br><b>COVAX</b> initiative – 100mn doses;<br><b>AZ</b> – 100mn doses; private sector importation unknown.   |
| Peru      | Phase 1 focused on medical and other frontline emergency personnel, including election staff. Phase 2 focused on over 60s, those with co-morbidities, and indigenous population. Caretaker government has revised down its original goal and now wants 4.65mn people vaccinated by 28 Jul, when handover to new government is scheduled; government also says it will leave sizeable stock of vaccines for incoming government.  | Nov 2020 political crisis interrupted procurement process, but caretaker government accelerated efforts from early 2021. Vaccinations using Sinopharm vaccine started 9 Feb. Pfizer-BioNTech vaccines now also being administered. As of 14 Jul, 6.21mn first doses have been administered (representing 18.83% of population). 3.75mn people (11.36% of population) have received two doses. | <b>Sinopharm</b> – contract for 38mn doses.<br><b>AZ</b> – agreement for 14.4mn doses to arrive from Sep.<br><b>Pfizer-BioNTech</b> – original agreement for 20mn doses expanded to 32mn doses.<br><b>COVAX</b> – agreement for 13.2mn doses. Ongoing talks with <b>J&amp;J</b> (5mn doses), <b>Russia's Gamaleya Institute</b> (for 10mn Sputnik V doses), <b>Moderna</b> (12mn doses), <b>Sinovac</b> (7mn doses), and <b>CureVac</b> .   |
| Malaysia  | Frontline medical workers, police, and army officials are being prioritized in phase one of the vaccine rollout. Phase two, which started 19 Apr and will run through Aug, will target senior citizens, high-risk groups with co-morbidities and the disabled. Third phase that started in May included all adults above 18. Sinovac's CoronaVac is being phased out from the program once supplies run out.   | As of 20 Jul, 4.77mn (14.9% of population) have been fully vaccinated and another 5.53mn (17.31%) are still on their first shot.  | <b>Pfizer-BioNTech</b> – 32mn doses;<br><b>Sinovac</b> – 12mn doses;<br><b>AZ</b> – 6.4mn doses via <b>COVAX</b> facility and another 6.4mn contracted directly;<br><b>Sputnik V</b> – 6.4mn doses;<br><b>CanSino Biologics</b> – 3.5mn doses   |

|              | Vaccination strategy   | Current state of vaccine roll-out   | Procurement  |
|--------------|--|---|--|
| Thailand     | Phase one prioritizes the elderly, frontline healthcare and social workers, and those with co-morbidities. Phase two will focus on provinces with highest Covid-19 incidence. However, there are two special cases – companies will be allowed to import and distribute vaccines, and tourism areas such as Phuket are being prioritized.  | Uneven supplies of locally-produced AZ vaccines sometimes slow down vaccine rollout. Sinovac and Sinopharm vaccines are now being imported. As of 20 Jul, 3.51mn (5.04%) have been fully vaccinated and 7.78mn (11.17%) are on their first jab.   | <b>Sinovac</b> – 2mn, but Thailand is negotiating for an additional 6mn doses. <b>AZ</b> – 61mn (imported and local joint venture).  |
| Philippines  | Vaccine rollout started in Mar with high-risk groups such as healthcare workers; workers in education, social welfare agencies; law enforcement and military personnel; the poor; senior citizens; other vulnerable populations. Private sector allowed to import vaccines, though some are required to make counterpart donations. Private sector importation may make up the bulk of Q2 and Q3 vaccinations. In Manila, citizens whose work requires them to leave their homes are now being vaccinated. | As of 19 Jul, 4.71mn (4.36%) of the population have been fully vaccinated and 5.68mn (5.52%) are still on their first shot. Shortages in supply are being felt as of July and may take several weeks to resolve.  | The Philippine government has ordered 113mn doses from five vaccine manufacturers: <b>Sinovac</b> – 26mn doses, <b>Sputnik V</b> – 10mn, <b>Moderna</b> – 20mn, <b>AZ</b> – 17mn, <b>Pfizer</b> – 40mn. Several million <b>Novavax</b> doses imported by the private sector are expected in the Q4.  |
| Kenya        | Kenya plans to inoculate 10mn citizens by end-2021 and entire adult population (26mn) by end-2022. Priority given to frontline medical workers, elderly, essential workers (police, teachers, students, immigration officials), workers in hospitality sector, people with comorbidities, people in informal settlements.  | First 1.02mn AZ/COVAX vaccine doses arrived 2 Mar. Rollout began 5 Mar, but supplies ran out by Jun as India's export restrictions delayed further AZ/COVAX deliveries. Momentum picking up in July via US, EU donations to COVAX. As of 18 Jul, Kenya has administered 1.04mn doses; only 1.93% of the population has received a first dose, 1.08% have been fully vaccinated. | Kenya is reliant on <b>COVAX</b> (24mn doses). <b>AZ</b> vaccine donations from India (100,000), Denmark (358,700), France (182,400). Kenya now expects to receive 1.7mn US-donated Pfizer doses plus 271,000 Pfizer doses via COVAX. Amid COVAX delays, government has ordered 13mn <b>J&amp;J</b> vaccines (to start arriving from Aug). Additional orders planned, with IFC financing, under the African Vaccine Acquisition Task Team ( <b>AVATT</b> ) initiative. |
| Egypt        | Vaccine registration opened to the general public on 6 Mar before millions of at-risk citizens had been vaccinated. The rollout has been criticized for lack of clear strategy and transparency, which has created delays, and failed to reach certain priority groups and address vaccine hesitancy concerns. Egypt has received >1.7mn AZ doses and 500,000 Sinopharm vaccines bringing supply to over 5mn. Another 40mn doses to be delivered via COVAX initiatives.                                    | As of 19 Jul, Egypt had administered 4.9mn doses; 3.6% of the population have received a first dose, while only 1.2% of the population have been fully vaccinated. Egypt aims to vaccinate 40% of its 100mn population by end-2021. Egypt has been charging patients for vaccinations, in contravention of global trends.   | <b>COVAX</b> – agreement for 20mn doses of <b>AZ</b> vaccine. <b>Sinopharm</b> – agreement for 40mn doses; 350,000 reportedly received. <b>Pfizer-BioNTech</b> – contracts reportedly signed for 20mn. <b>AZ</b> – agreement for 30mn doses <b>Sputnik V</b> – 25mn have been secured. Egypt has also signed agreements to manufacture <b>Sputnik V</b> and <b>Sinovac</b> vaccines domestically; production of 60mn Sinovac doses was due to start in Jun.            |
| Taiwan       | Priority groups (868,000 people): health care personnel; essential workers; nursing home staff; military personnel; social welfare workers. Outside priority groups, individuals can obtain a limited supply of vaccinations through a self-paid program if they intend to travel abroad (excluding tourism).  | As of 5 Jul, 2.53mn first doses administered (10.6% of population) and 48,000 second doses (0.2% of population). Daily pace of 102,000 over the last week.  | 20mn doses ordered; 5.3mn doses received through early Jul, mostly donations from the US on 20 Jun (2.5mn <b>Moderna</b> ) and Japan on 4 Jun (1.24mn <b>AZ</b> ). <b>COVAX</b> provided an additional 609,000 <b>AZ</b> doses. Two large tech companies, Hon Hai and TSMC, are reportedly negotiating to purchase 5mn <b>BioNTech</b> doses from Shanghai Fosun Pharmaceutical.   |
| South Africa | Plans to vaccinate 40mn people by Feb 2022. Rollout slow but has been accelerating since Jun. Phase 1: ca. 1.25mn frontline medical workers; Phase 2: people over 60; vaccination of teachers and police expedited, while originally planned vaccination of those with comorbidities delayed; Phase 3: remaining adult population; registration for 35-49 age group opened 15 Jul.   | Trial-based phase 1 rollout of J&J vaccine started on 18 Feb. Phase 2 started on 17 May, reliant on J&J and Pfizer vaccines, which are now arriving in large quantities. As of 15 Jul, 7.3% of population had received at least one shot. While July unrest disrupted rollout, shots administered reached 223,969 on 19 Jul, close to official 250,000 daily target.            | Initially relying on COVAX/AZ vaccines, South Africa pivoted to two manufacturers, J&J and Pfizer. Deliveries ramped up from May but largest volumes due in Q3/4. <b>J&amp;J</b> – 31mn doses <b>Pfizer-BioNTech</b> – 30mn doses Authorities now reconsidering acquiring <b>AZ</b> vaccines; health regulator SAHPRA has authorized <b>Sinovac's CoronaVac</b> vaccine and is reviewing <b>Sinopharm</b> and <b>Sputnik V</b> vaccines.                               |

|          | Vaccination strategy   | Current state of vaccine roll-out   | Procurement  |
|----------|--|---|--|
| Pakistan | Vaccination of 18-year-olds and above commenced on 3 Jun. Vaccine registration for over-40s opened on 27 Apr. Meanwhile, walk-in vaccination is available for those above 50. Those above 65 and frontline workers are still being vaccinated. Positivity rates and new infections have been rising for a month. Govt aims to vaccinate 70mn people by Dec 2021. | As of 17Jul, 22.74mn doses have been administered and 4.55mn people are fully vaccinated (2.1% of the population). 9.31mn have received at least one dose.  | Emergency use permission given to <b>AZ</b> , <b>Sinopharm</b> and <b>CanSino</b> . Both Chinese vaccines are undergoing clinical trials. Four more vaccines in the pipeline. First <b>COVAX</b> vaccines have been received. Pakistan is working on developing a new nasal vaccine with <b>CanSino</b> , a Chinese manufacturer. On 4 Jun, it announced the successful manufacture of <b>CanSinoBio</b> , a single-dose vaccine produced with Chinese technology. On 21 Jun, <b>Pfizer-BioNTech</b> announced it will provide 13mn doses over the course of 2021. |
| Nigeria  | Vaccination targets: 40% of population in 2021, 70% by end-2022. Healthcare personnel; people over 50; people with underlying health conditions to be prioritized. Most heavily affected states will be prioritized in allocation of doses.  | First batch (3.9mn doses) of AZ vaccine supplied by COVAX arrived 2 Mar; two more batches of similar volume expected by early Aug. As of 5 Jul, 3.94mn people (1.23% of population) had received their first jab. | 20% of vaccines supposed to be supplied through the <b>COVAX</b> initiative. Government expects total of 58mn vaccine doses from COVAX (16mn) and the AVATT (42mn). Government also expressed interest in procuring <b>Sputnik V</b> and/or <b>Sinovac/Sinopharm</b> vaccines.   |

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