

# **EMERGING MARKETS:** Covid-19 Vaccinations 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 the latest 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.

## **HIGHLIGHTS**

#### Vaccine rollout

- Since October, **Argentina** has ramped up the vaccination of under 18s; in the first three weeks of administering doses to 3-11 year olds over October, 32.9% of this age cohort received a first dose.
- Nigeria's vaccination rate continues to lag behind that of regional peers such as Kenya. Both countries have received
  large vaccine deliveries since August. However, Nigeria's vaccination rate per 100,000 people merely increased from 1.88
  to 4.19 between 9 August and 4 November, while Kenya's respective rates jumped from 3.28 to 10.09.
- To reinvigorate its sluggish immunization campaign, **Hungary** is moving towards mandatory vaccination in workplaces. Employers will be allowed to suspend unvaccinated employees without pay for up to one year starting 15 December.
- In Russia, an extremely challenging epidemiological situation as well as mandatory vaccination for certain population groups has increased the rolling seven-day average of administered doses per 100,000 people nearly fourfold in early November, as compared to early October.
- **Peru** expects to receive 13mn vaccine doses (made up of Pfizer, Sinopharm, and AZ) during November, which will help maintain enough supply as the vaccination campaign extends to under 18s.
- In **Poland**, the government is planning to adopt new legislation which would allow employers to legally check the vaccination status of their employees, which is currently protected by privacy laws. This could increase pressure on employees to get vaccinated.
- **South Korea** now tops the G20 table with 77% fully vaccinated and 81% partially inoculated, though daily vaccination rates have slowed from 800,000 to 200,000, with the focus now on reaching pregnant women and minors aged 12+.
- South Africa's vaccine rollout is now open to all adults and teenagers aged 12-17 (without parental consent). As the
  government's rollout concerns have shifted markedly from vaccine supply shortages to lacklustre public demand, debates
  over vaccine mandates are intensifying.

Teneo Macro 1

- **Brazil** is currently registering the lowest number of cases and deaths since April 2020, as vaccines help curb the Delta variant. Booster shots are expected to become available for everyone over 18 by January.
- Singapore will stop providing free Covid-19 treatment to those who remain unvaccinated by choice.

## **Vaccine procurement**

- Chinese pharmaceutical company Sinovac has signed an agreement with Chile's Catholic University to establish a "fill and finish" vaccine plant, which both parties hope to have up and running in H1/2022; the University of Chile has also signed an agreement to produce the GRAd-COV2 vaccine being developed by Italy's ReiThera.
- Between August and mid-October, **Nigeria** received about 9mn doses of Moderna, J&J, AstraZeneca and Pfizer-BioNTech vaccines, mostly (7.6mn) as donations from the US government, compared to just 4mn earlier in the year.
- South Korea will purchase an additional 90mn mRNA vaccine doses next year and intends to source 10mn from forthcoming domestic vaccines, bringing its total stockpile to around 170mn.
- Indonesia has become the first country to grant emergency use authorization for the Novavax vaccine.

#### Infections and new variants

- In line with the regional trend in Central and Eastern Europe, new infections are expected to continue rising sharply in the Czech Republic, Hungary and Poland in the coming weeks.
- India has so far avoided an infection surge despite the festival season; new cases are down to a historic low, but the threat of a case rise remains with increased social gatherings until December.
- Russia is monitoring the spread of a new strain (AY.4.2) of the Delta variant in the country.

# Vaccine diplomacy

- **Colombia** is to receive a donation of 2.2mn Pfizer doses from Germany in the coming weeks; the US has been Colombia's largest vaccine donor, supplying around 6mn Moderna and J&J doses. Spain has also donated AZ vaccines to Colombia.
- Mexico has been lobbying the G20 and the World Health Organization (WHO) to authorize the Sputnik and CanSino
  vaccines to eliminate what it has labeled as vaccine "discrimination"; Mexico has received around 20mn Sputnik and 12mn
  CanSino doses but people who have received these vaccines cannot travel to the US under current rules.
- The **United States** donated 1.5mn additional Moderna vaccine doses to **Taiwan** in early November, bringing total US donations to the island to 4mn. Taiwanese President Tsai Ing-wen said the donation showed that the US support for Taiwan was "rock-solid."
- Africa's status at the back of the queue in the global vaccine race has galvanized efforts to boost regional production
  capacity, with Covid-19 "fill and finish" facilities manufacturing plants in Egypt, Morocco, South Africa and Rwanda. The
  WHO has also contracted South Africa's Afrigen Biologics and Vaccines to reverse engineer an mRNA vaccine based on
  the Moderna vaccine.

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Teneo Macro 2



# **Emerging Markets Covid-19 Vaccination Strategies and Challenges**

# Rating of countries' vaccine rollout (as of 10 November 2021):

Under 20% of the total population are considered fully vaccinated with at least two Covid-19 vaccines or a single-jab vaccine.

Between 20% and 50% of the total population are considered fully vaccinated with at least two Covid-19 vaccines or a single-jab vaccine.

Between 50% and 70% of the total population are considered fully vaccinated with at least two Covid-19 vaccines or a single-jab vaccine.

More than 70% of the total population are considered fully vaccinated with at least two Covid-19 vaccine doses or a single-jab vaccine.

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	Vaccination strategy & state of rollout	Procurement & local production	RISK factors on the norizon
Nigeria	Vaccination targets: 40% of population in 2021, 70% by end-2022.  First vaccine deliveries since Mar arrived in Aug, including 4mn doses of Moderna and 700,000 AZ vaccines from respective US and UK stockpiles via COVAX. Delivery of 7.7mn Sinopharm vaccines via COVAX expected, date tbc. First small batch (178,000) of the J&J vaccine procured via AVATT arrived in Aug, monthly deliveries via AVATT expected to follow until 29.8mn doses have been supplied. Another 500,000 AZ vaccines from French stockpiles and 3.6mn shots of Pfizer-BioNTech donated by the US arrived in Oct.  As of 9 Nov, 2.72% of population had received at least one jab and 1.5% were fully vaccinated. On average, 40,138 shots were administered over the past seven days.	20% of vaccines supposed to be supplied through the COVAX initiative. Government expects total of 58mn vaccine doses from COVAX (16mn) and the AVATT (42mn). Government also expressed interest in procuring Sputnik V and/or Sinovac/Sinopharm vaccines.	Government announced the introduction of mandatory vaccination or daily testing for civil servants as a requirement to enter workplaces starting 1 Dec. Amid widespread vaccine hesistancy and weak enforcement mechanisms, the order may be largely ignored in practice.
Kenya	Kenya now plans to vaccinate 10mn adults by Dec, and all adults by Jun 2022.  Rollout began 5 Mar with first 1mn AZ/COVAX doses, but supplies ran out by Jun amid India's export restrictions. Deliveries picked up in Jul via COVAX deliveries and donations (mainly from the US and EU). As of 6 Nov, 3.8mn people (6.9% of population) had received at least one dose, while 1.8mn people (3.4% of population) were fully vaccinated.	Kenya relies on COVAX for 24mn doses but recently budgeted for additional vaccine purchases. AZ, Pfizer and Moderna donations arriving from various countries; Sinopharm vaccines also expected. 13mn J&J vaccines ordered under the African Vaccine Acquisition Task Team (AVATT) initiative are being delivered gradually.	Following the lifting of a nationwide curfew in place between March 2020 and October 2021, any U-turn on this measure to curb a potential future wave of infections would likely meet resistance. In the run-up to the Aug 2022 presidential election, any tightening of social distancing measures would be politically costly. Comparatively strict lockdown requirements introduced at the start of the pandemic triggered violent protests in major cities.
Egypt	As of 8 Nov, the rolling 7-day average of vaccine doses administered was 44,760.  Egypt aims to vaccinate 30 35% of the population by Dec, an adjustment from the previous target of 40% by year-end; 70% by 2022. Egypt has been falling behind on targets due to supply delays and vaccine hesitancy. Vaccination now open to individuals ages 15-18 – will be offered Pfizer doses.  As of 6 Nov, 19.5mn (19% of population) have received one dose, while 11.8mn (11% of population) are fully vaccinated.  As of 8 Nov, the rolling 7-day average of doses administered was 337,590 (0.33% of population).	COVAX – Egypt has received 72mn doses to date and expects to receive another 26mn.  J&J – contract to buy 20mn doses  Pfizer-BioNTech – contracts reportedly signed for 20mn. 8.25mn doses of Pfizer arrived since Sept.  Moderna – Egypt received 3.5mn doses on 5 Nov, another 780,000 delivered by Canada through COVAX.  AZ – 12.5mn doses delivered to date; agreement for 30mn doses  Sputnik V – 25mn have been secured. 525,000 delivered on 15 Oct  Sinopharm – agreement for 40mn doses.  Egypt signed agreements to manufacture Sputnik V and Sinovac domestically; agreement of 40mn doses/year produced by Minapharm.	More than 13,000 doses were found dumped in a canal in the southern province of Minya after officials discovered the doses had gone missing from the city of Beni Mazar. Three individuals have been detained in relation to this event.  Egyptian govt will require all civil servants to show proof of vaccination or proof of weekly testing prior to entering workplaces – these measures will apply starting 15 Nov for military employees and 1 Dec for general public entering govt buildings.  Starting 1 Nov, university students must also show proof of at least 1 dose. Students will not have an alternative testing option.



	Vaccination strategy & state of rollout	Procurement & local production	Risk factors on the horizon
Pakistan	Target is to fully vaccinate 70mn people by end-2021. Vaccinations are now permitted for 12-year olds and above.  As of 9 Nov, 76.14mn people (33.8% of population) had received at least one dose of a vaccine, while 46mn (20.4% of population) were fully vaccinated.  As of 8 Nov, the rolling 7-day average of doses administered was 1.1mn.	Pfizer-BioNTech, SII-AstraZeneca (COVISHIELD) vaccine, Moderna and Sinopharm are in use via the UN-administered COVAX network. The country has a target of vaccinating 70mn people by the end of 2021.The Anhui Zhifei Longcom and Cansino vaccines are currently under testing.	The government relaxed Covid restrictions in four cities, including Islamabad, from 1 Nov after 60% vaccination rate was achieved. However. There is mounting worry as refugees from Afghanistan continue to enter Pakistan having received little or no vaccination. Pakistan's department of Immigration has been ordered to keep a strict vigil.
India	As of 9 Nov, 744mn people (53.4% of population) has received at least one jab, while 348.2mn people (25% of population) are fully vaccinated.  As of 9 Nov, the rolling 7-day average of doses administered daily was 3.2mn (0.23% of population). The strategy is to speed up vaccinations to meet the target the govt has given the Supreme Court of fully vaccinating the entire adult population by end-21. All vaccinations in government facilities are free of cost and children above 12 are also being vaccinated. Most public areas across India – schools, places of worship, sports facilities, theatres, and cinemas and eating places – are now open with only social distancing and mask restrictions	With WHO clearing emergency use of Indian made Covaxin, this vaccine has now been put on the list of those acceptable to most countries in the world, which means it is a matter of time before the ban on international flights (currently on till 30 Nov) is lifted and reciprocal travel is permitted. Export ban lifted for vaccine exports to many neighboring countries. India is export ingto Bangladesh, Nepal, Myanmar and Iran. Covishield vaccines also to be exported to the UK. All vaccines certified safe in country of origin allowed for import duty free. Currently, Covishield, Covaxin and Sputnik are in use. A new Covid-19 vaccine that uses circular strands of DNA to prime the immune system against the virus SARS-CoV-2 has been approved. A needle-less vaccine is in the testing phase.	Both death rates and infections rates are declining. However, amid the three-month festival season that started in Oct, the govt is taking no chances: new oxygen plants have already been readied and hospitals have special mandates to quickly process and admit infected patients. "Mission 100 Days" underway to contain and prevent infection until Christmas. Govt is closely watching international developments and has not ruled out booster doses.  The biggest threat now is other infections that have symptoms similar to Covid-19 spreading all over India as monsoon waters recede and mosquito borne-infections like Dengue and Zika attack vulnerable sections of the population. Firefighting on that front could lead to govt taking the eye off the Covid-19 ball.  For the first time, govt is noticing vaccine hesitancy among parents of children below 10, leading to doubts whether the vaccination program for children will succeed once it starts.
Philippines	Over the past few months, the capital and major urban areas have been the priority for vaccine supplies, resulting in high vaccination rates in these locales relative to the rest of the country. But with slowing uptake in these areas, the focus is now turning to urban and rural areas.  As of 8 Nov, 29.81 mn (27.6%) of the population are fully vaccinated. Shortages in supply early in the third quarter have been addressed but the vaccination rate dropped during October while the vaccination focus shifted from urban centers to less-prepared rural areas This has made more uncertain the government's goal of reaching 80% of the target population by mid-2022.	The Philippine government has ordered 113mn doses from five vaccine manufacturers: Sinovac – 26mn doses, Sputnik V – 10mn, Moderna – 20mn, AZ – 17mn, Pfizer – 40mn. Several million Novavax doses imported by the private sector are expected in Q4/2021.	Vaccine hesitancy appears to be declining, likely due to the demonstration effect as well as rumors that the government may withhold cash aid to those unwilling to be vaccinated. Vaccination infrastructure could be the major challenge over the next six months.  Some large private sector groups are advocating for vaccine mandates and the government has been pushing for preferences for the vaccinated, such as faster release of cash aid, but with general elections looming next year, the political pushback of exclusionary policies may be strong.



	Vaccination strategy & state of rollout	Procurement & local production	Risk factors on the horizon
Indonesia	All adults and children above 12 are eligible for vaccination. Vaccines procured by central government; distributed for free but not mandatory. Government is allowing the private sector to purchase vaccines for their employees, but the program has had limited success. Boosters are being given to healthcare workers but not yet the general population. Boosters for the general population will start once 50% vaccination level has been reached.  As of 8 Nov, 79mn (29% of the population) have been fully vaccinated. Vaccine supplies are sufficient, but the immunization program has been uneven due to what appears to be vaccine hesitation in pockets of the population as well as gaps in the vaccine administration infrastructure at the local level.	Sinovac – 125mn doses; Pfizer-BioNTech – 100mn doses; Novavax – 100mn doses; COVAX initiative – 100mn doses; AZ – 100mn doses; private sector importation unknown.	The Ministry of Health has capped the price of privately purchased PCR tests at roughly 2/3 of the current market price, which could lead to a shortage.
South Africa	Plans to vaccinate 35mn people by end-2021 and 40mn by Mar 2022. Rollout started late (18 Feb) but is advancing amid vastly improved vaccine supply of J&J and Pfizer vaccines. Vaccination open to all adults since 20 Aug and now to teenagers (12-17, without parental consent). Shots administered have declined to 120,000 per day, way below a peak of 200,000 and the official target of 300,000.  As of 8 Nov, 32.2% of adults had been fully and 7.2% partially vaccinated.	Initially reliant on COVAX/AZ vaccines, South Africa pivoted to two manufacturers, J&J and Pfizer. Large-scale deliveries began in May.  J&J – 31mn doses  Pfizer-BioNTech – 30mn doses Authorities now reconsidering acquiring other vaccines. South Africa is also setting itself up as a production hub of J&J (and soon Pfizer) vaccines.	Concerns over vaccine rollout have shifted from supply shortages to lacklustre demand driven by disinformation, hesitancy and high transport costs. Government has begun to provide incentives, but vaccine mandates are politically sensitive. The private sector is pushing workplace vaccinations and awaiting the outcome of an Oct court application to confirm the legality and constitutionality of workplace vaccine mandates.
Russia	Target is to vaccinate 80% of population without a specific target date (multiple previous deadlines were missed).  Vaccinations started in early Dec (2020) with Sputnik V vaccine. As of 9 Nov, an estimated 58.7mn residents (40.2% of population) had received at least one jab and 49.9mn (34.2% of population) were fully vaccinated. Booster doses were administered to 2.1mn (1.4% of population).  As of 8 Nov, the rolling 7-day average of doses administered daily was 605,120 (0.41% of population). Mandatory vaccination of various population groups will keep inoculation levels elevated in the coming weeks.	Russia relies solely on domestically developed vaccines: Sputnik V, EpiVacCorona, EpiVacConona-N, CoviVac and Sputnik Light.	According to Levada Center poll, 45% of population is still not willing to get vaccinated with domestically developed vaccines. 53% of population support mandatory vaccination for certain population groups.
Taiwan	Vaccines will soon be available at local hospitals without registering through the official online platform, reflecting the increase in supply.  Mandatory waiting periods between the first and second doses will also be reduced.  As of 8 Nov, 38% of the population was fully vaccinated and a further or 36% had received one dose. Average daily pace (7-day moving average) was 194,000 doses on 8 Nov (0.8% of population), down from peak of 398,000 (1.7% of population) on 28 Oct.	31.7mn doses received by 9 Nov, of which 26.5mn were already administered. Further 49mn doses ordered but not yet delivered. AZ is largest supplier, followed by Pfizer-BioNTech and Moderna.  Taiwan-developed Medigen vaccine was approved for emergency use in July, and 1.4mn doses have been administered.	As in mainland China, Taiwan's zero-covid strategy is growing increasingly costly. Tourism has cratered, and border restrictions are also affecting trade and supply chains. Some Taiwan-based companies are reportedly considering relocation. Bearing that a new outbreak would hurt them in local elections in 2022, the ruling DPP party may keep restrictions in place.



	Vaccination strategy & state of rollout	Procurement & local production	Risk factors on the horizon
Colombia	Target is to fully vaccinate at least 70% of the population (35mn people) by end-2021. Booster shot campaign started in Oct for over-70s and expected to be applied to all age groups in 2022. Regulatory clearance for vaccinations for 3-11 year olds obtained in Nov.  Vaccination campaign started in Feb with Pfizer vaccine. As of 6 Nov, 31.4mn people (61.2% of the population) have received at least one dose, while 22mn people (43% of the population) are fully vaccinated (4.3mn of these received a single dose J&J vaccine).  As of 6 Nov, the rolling 7-day average of doses administered daily was 262,000.	Pfizer-BioNTech – agreement for 15mn doses. AZ – 10mn doses agreed. J&J – agreement for 9mn doses. Sinovac – agreement for 10mn doses. Moderna – agreement for 10mn doses. COVAX – agreement for 20mn doses. Discussions underway with govt over future local production of Inovio vaccine.	Hesitancy towards vaccines is low at only 6% of the population. However, according to the latest <i>Pulso Social</i> poll, 12.6% of the population say they would not accept a booster jab should it become available.
Peru	Target to fully vaccinate 80% of the population by end-2021. On supply side, government has contracts for 55mn doses in place for 2022. Booster jabs for medical personnel and over-65s started in Oct.  Vaccinations using Sinopharm vaccine started 9 Feb. Pfizer-and AZ vaccines also being administered. As of 6 Nov, 20mn people (representing 60% of the population) have received at least one dose. 15.8mn people (47.5% of population) have received two doses.  As of 6 Nov, the rolling 7-day average of doses administered daily was 183,000.	Sinopharm – contract for 38mn doses.  AZ – agreement for 14.4mn doses.  Pfizer-BioNTech – original agreement for 20mn doses expanded to 35mn doses.  COVAX – agreement for 13.2mn doses  Moderna – 20mn doses agreed to be delivered in 2022.  Sputnik – agreement for 20mn doses but deliveries not expected until 2022.	As of 9 Nov, 14.3% of people over the age of 80 (275,000 people) were still not fully vaccinated.
Mexico	Government missed its target of providing at least one dose to all adults by end-Oct; 74.4mn people (83% of target group) were reached.  Vaccinations started 24 Dec. Rollout stalled mid-Jan to mid-Feb but subsequently resumed with new vaccines from wider array of suppliers. As of 8 Nov, 74.9mmn people (57.5% of population) have received at least one vaccine dose, with 62.3mn people (47.8% of population) fully inoculated.  As of 8 Nov, the rolling 7-day average of doses administered daily was 275,000; campaign has reached 1mn daily shots in previous months.	AZ – agreement for 77.4mn doses. US has supplied Mexico with 2.7mn additional AZ doses.  Pfizer – 34mn doses ordered; 22mn delivered as of 4 Jul.  CanSino – 35mn doses agreed.  Sputnik V – agreement for 24mn doses, with local production expected soon. COVAX – 51.5mn doses agreed; Sinovac – agreement for 20mn doses.  J&J – 1.35mn doses delivered.  Sinopharm – agreement for 12mn doses though local regulatory clearance pending.  Moderna – local regulatory clearance given in Aug.	As of 8 Nov, the US-Mexico border has reopened to non-essential travel after a 20-month closure. Travelers must show proof of vaccination to cross the border though transmission could rise.  The government is appealing an Oct court order requiring the vaccination campaign to be opened to 12-17 year olds; currently, only those with co-morbidities are being vaccinated. With 15mn people in this age bracket, the government continues to resist calls to extend the vaccination program.
Thailand	All adults and children above 12 are eligible for vaccination. However, there are two special cases – companies will be allowed to import and distribute vaccines, and tourism areas ranging from the capital Bangkok to large cities such as Chiang Mai 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 8 Nov, 33.9mn (49%) of population have been fully vaccinated.	Sinovac – 2mn, but Thailand is negotiating for an additional 6mn doses.  AZ – 61mn (imported and local joint venture).  Sinopharm - 6mn doses through private sector importation	Thailand has removed quarantine requirements for vaccinated visitors from 63 countries. But the expected rise in economic activity in the tourism service sector could also draw in migrants from neighboring countries, and while the government wants to allow labor migration to improve worker availability, many workers could enter illegally and thus raise the risk of cross-border transmission.



	Vaccination strategy & state of rollout	Procurement & local production	Risk factors on the horizon
Brazil	The Ministry of Health aims to vaccinate all eligible people by year-end. The vaccination campaign started on 17 Jan for health professionals, and the vaccines are now available for everyone above 12. Booster shots are available for everyone above 60 and health professionals.  The regulatory agency, ANVISA, is studying the whether to approve the vaccination of children above 5 with Pfizer's vaccine and above 3 with CoronaVac.  As of 9 Nov, 156.06mn (73.2% of the population) received the first dose, and 115.98mn (56.5%) are fully immunized. The 7-day average of daily administered doses reached over 560,000 people.	AZ – agreement for 179mn by year-end.  CoronaVac – 110mn doses by year-end.  Pfizer – 200mn by year-end. J&J – 41mn doses expected by year-end.  Sputnik V – Contract suspended.  Covaxin – Contract suspended.  COVAX – minimum 10% of population quota (42mn) doses. WHO provided 14mn doses for distribution until Sept.  ButanVac – currently on trial.	Discrepancies between regions remain a concern as possible clusters may occur. The low vaccination among children has also had an impact as the return of faceto-face schooling has increased the number of infections.
Poland	No official vaccination target. The government aims to vaccinate as much of population as possible.  As of 9 Nov, 20.4mn people (53.9% of population) have received at least one dose and 20.1mn (52.6%) have been fully vaccinated. Booster vaccine doses are available to everyone vaccinated six months ago or earlier. To date, 1.3mn people (3.4%) have been administered a booster dose.  As of 7 Nov, the rolling 7-day average of doses administered daily was 57,660 (0.15% of population).	Procurement exclusively via the EU. As of 9 Nov, 70.2mn vaccine doses delivered: 46.4mn Pfizer-BioNTech, 12.3mn AZ, 7.3mn Moderna, 4.2mn J&J.  One Polish company is set to start producing components for Novavax vaccine in late 2021.	Government is working on new legislation that would allow employers to legally check the vaccination status of their employees. This could increase pressure on employees to get vaccinated.
Czech Republic	Target is to vaccinate at least 75% of population without a clear deadline.  Vaccination campaign started in late Dec. As of 9 Nov, 6mn residents (57.4% of population) have received a first jab and 5.8mn (54.5%) were fully immunized. Third (booster) vaccine dose is available to persons who have received their second/last dose six months ago or earlier. To date, 3.6% of population has received booster doses.  As of 8 Nov, the rolling 7-day average of doses	Procurement is conducted exclusively via the EU. As of 9 Nov, nearly 16.5mn doses of vaccines delivered:  Pfizer-BioNTech – 12.8mn;  Moderna – 2.2mn;  AZ – 1.1mn;  J&J – 350,000.  The country is set to produce  Novavax vaccine once it receives necessary regulatory approvals.	Only around 71% of patients in long-term care facilities have been vaccinated.  Surging infections could strengthen government's push for vaccinations.  The expected arrival of a new five-party coalition government could bring changes to the country's vaccination strategy.
Turkey	administered was 37,200 (0.35% of population).  Turkey originally aimed to vaccinate all adult residents by end-Sept but only 79.5% had been vaccinated by 9 Nov. On 1 Jul, it began offering an additional dose of Pfizer-BioNTech to those who had received two doses of Sinovac, amid concerns about the latter's effectiveness. On 3 Nov, Turkey began providing a third booster dose of Pfizer-BioNTech to those who had received two doses of the vaccine.  Vaccine rollout started on 13 Jan with Sinovac. On 2 Apr, vaccinations also began with Pfizer-BioNTech vaccine. As of 9 Nov, 117.74mn doses had been administered, with 55.70mn (66.6% of population) people having received a first dose, 46.24mn (59% of population) at least two doses and 11.61mn (13.9% of population) three doses.  The daily average number of vaccinations over the previous seven days stood at 149,000 (0.18% of population) on 9 Nov.	Sinovac – agreement for 100mn doses, of which 34.5mn delivered by 9 Nov.  Pfizer-BioNTech – agreement for 120mn doses, all of which had been delivered by 9 Nov.  Sputnik V – agreement for 50mn doses. 0.4mn doses arrived in late Jun but none had been administered as of 9 Nov.  Turkovac - On 1 Nov the government announced that Phase 3 trials were underway for Turkey's domestlically produced vaccine, Turkovac.  Turkey has not joined COVAX.	In response to continuing vaccine hesitancy, on 9 Nov the government issued a statement implicitly threatening to introduce vaccine mandates.  Although the government was continuing to offer a choice of Sinovac or Pfizer-BioNTech, by Nov 9 a large majority of Turks were opting for the latter.  As of 9 Nov, the wearing of masks remained theoretically mandatory at all times outside the home. In practice the requirement had become neither rigorously observed nor enforced and mass events had resumed.



	Vaccination strategy & state of rollout	Procurement & local production	Risk factors on the horizon
Hungary	There is no official vaccination target. Vaccination is available to all citizens aged 12+ as well as foreigners living in Hungary. Booster doses are available to citizens vaccinated four months ago or earlier.  As of 9 Nov, 5.1mn people (61.4% of population) have received at least one jab and 5.7mn (59.1%) have been fully immunized. 1.4mn (14.3% of population) has received a booster dose. Vaccination progress has been extremely slow since mid-summer and there are no signs of recovery.  As of 8 Nov, the rolling 7-day average of administered doses was 26,800 (0.28% of population).	In total, 25.9mn vaccine doses delivered as of 9 Nov. Procurement contracts and deliveries via the EU's joint mechanism: AZ – 6.5mn doses (4.6mn delivered). Moderna – 1.7mn doses (1.7mn delivered). Pfizer-BioNTech – 10.9mn doses (10.2mn delivered). J&J – 4.3mn doses (2.2mn delivered). National-level procurement: Sputnik V – 2mn doses (2mn delivered). Sinopharm – 5mn doses (5.2mn delivered).	The government is seeking to reinvigorate the sluggish vaccination campaign. Employers will be allowed to suspend unvaccinated employees without pay for up to one year starting 15 December.
Argentina	Target to have provided at least one dose to population over 12 years old by end-2021. As of Nov, third vaccine doses are being administered to people over 50 who previously received the Sinopharm dose. Vaccination of 3-11 year olds also underway from Oct. Booster shot campaign to start in Dec.  Sputnik V vaccinations started in Dec 2020. As of 9 Nov, 35.3mn people (representing 77.7% of population) have received at least one dose, while 26.9mn people (59.2% of population) are fully vaccinated.  As of 8 Nov, the rolling 7-day average of doses administered daily was 231,000.	Sputnik V – agreement for 30mn doses; local production accounts for around one-third of Sputnik doses received.  AZ – contract for 23.6mn doses, though most to be produced locally in conjunction with Mexico.  Sinopharm – agreement for 30mn doses.  CanSino – agreement for 5.4mn doses.  Pfizer – agreement for 20mn doses.  Moderna – 3.5mn doses made available from US government.  COVAX – approx. 1.9mn AZ doses delivered; government has been criticized for ordering only 20% of its entitlement.	Evidence of Sinopharm's less durable immune protection could undermine public confidence in this vaccine, especially as Sinopharm vaccine is currently being used on 3-11 year olds and when health minister incorrectly claimed that Sinopharm was being used on this age cohort in China (though the vaccine has subsequently been rolled out to children in China).
Greece	Currently offering vaccines to everyone over the age of 12.  As of 9 Nov, 62.9% of the total population had received at least one jab and 60% (almost 6.5 million) are fully vaccinated. The rollout of booster jabs began on 30 Sept and almost 500,000 people had come forward for their third vaccine by 9 Nov.	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. Next-day appointments for vaccines are readily available. A total of 12.9 million vaccines had been administered by 9 Nov.	Stricter restrictions for the unvaccinated were adopted from 6 Nov, restricting access to cafes, restaurants, state services and banks, to address rising Covid cases but also to encourage more Greeks to get the jab as the uptake has slowed considerably since the summer.
Israel	Israel set target to reach herd immunity but is now struggling to keep vaccination rates up despite aggressive vaccination campaigns. A lower dosage of Pfizer has been authorized for vulnerable children between 5-11 years old. Third booster jab required to receive vaccination certificate.  As of 8 Nov, 6.25mn (67.3% of population) have received at least one shot, while 5.75mn (62% of population) are fully vaccinated.  As of 8 Nov, the rolling 7-day average of doses administered was 8,343 (.09% of population).  Vaccination rates in the West Bank and Gaza have reached an average of 50% vaccinated out	Moderna – 500,000 doses arrived in West Bank and Gaza from the US (via COVAX).  The Palestinian Authority has received more than 390,000 doses: 100,000 Sinopharm, 97,000 AZ SK Bio, 90,000 Sputnik V, 140,000 Pfizer-BioNTech and 2,000 Moderna, 25,000 AZ SII, and 48,000 AZ R-Pharm.	Despite intense vaccination campaigns, Israel continues to struggle with Delta variant infections and stagnating vaccination rates. Hesitancy has been more pronounced among younger Arab and ultraorthodox Israelis.  Vaccine supply to West Bank and Gaza is making slow progress.



	Vaccination strategy & state of rollout	Procurement & local production	Risk factors on the horizon
Saudi Arabia	Target to vaccinate at least 70% of population and reach herd immunity by Oct fell just short. 587+ vaccine centers across the country. As of 8 Nov, Health Ministry to begin vaccinating children ages 5-12 with Pfizer.  The vaccination program began on 17 Dec 2020. As of 6 Nov, 24.3mn people (68.7% of population) have received at least one dose and 27.7mn people (61.5% of population) are fully vaccinated.  As of 6 Nov, the rolling 7-day average of doses administered was 90,516 (0.26% of population).	Pfizer-BioNTech, Moderna, J&J, and AZ approved for administration.  Sputnik V is not accepted or approved by Saudi Arabia for travelers visiting the Kingdom. Travelers with Sinovac or Sinopharm doses can enter the country after receiving a booster dose of one of the approved vaccines.  KSA signed MoUs with AZ and Pfizer to manufacture vaccines locally.	Some vaccine hesitancy in youth especially with strict govt mandates in place. Refusal to get vaccinated can block residents from grocery stores, attending school, traveling, and may lead to job loss.  Digital app for vaccine tracking linked to complications for immigrant workers who lack digital literacy skills and access to network connection.  Riyadh Season, large scale event hosted by the General Entertainment Authority, began late Oct and will run up to 5 months.
Malaysia	Malaysia is in the third phase of its vaccination program, where anyone above 12 years old is eligible to receive a shot.  As of 8 Nov, 24.5mn (76% of population) have been fully vaccinated.	Pfizer-BioNTech – 32mn doses; Sinovac – 12mn doses; AZ – 6.4mn doses via COVAX facility and another 6.4mn contracted directly; Sputnik V – 6.4mn doses; CanSino Biologics – 3.5mn doses	Local elections are scheduled for the state of Malacca later this month and possibly Sarawak, the country's largest state, early next year. A state election in September 2020 was blamed for triggering the country's first major wave of the pandemic but the government is hopeful that high vaccination rates will prevent a similar outcome.
China	The Chinese Centre for Disease Control and Prevention (CDC) said vaccinating 80-85% of the population, or 1.1bn people, is required to reach herd immunity and that this level could be reached by end-2021.  76% of the population fully vaccinated by 24 October (latest figure available by 9 November).  The National Health Commission has approved booster shots for vulnerable groups and for children ages 3 to 11.	Regulators have approved five domestic vaccines; Sinopharm Beijing, Sinopharm Wuhan, CanSino Biologics, Sinovac Biotech, and Anhui Zhifei Longcom Biopharmaceuticals.  Fosun Pharmaceutical has contract to distribute and produce Pfizer-BioNTech vaccine and is waiting for mainland regulators to approve.	The government's commitment to a zero- tolerance policy is leading to international isolation as expats leave and business travellers avoid the country. For Chinese citizens, targeted lockdowns, travel restrictions, and mass testing drives cause persistent economic disruption, especially for consumer services.  But official statements indicate no shift in policy is likely at least until after the Beijing Winter Olympics in February and possibly not until after the Party Congress in late 2022.
South Korea	With 39.6mn people or 77% of the population now fully vaccinated, the 70% by Nov target has been exceeded. 41.6mn (81.1%) have received at least one shot.  Daily doses administered have fallen to around 200,000 in early November, down from 800,000 in early October. Focus now is on reaching pregnant women and children aged 12+.	Government will purchase another 90mn mRNA vaccine doses next year, including 10mn sourced domestically, with SK Bioscience's vaccine now in phase 3 clinical trials. Total stockpile is expected to reach 170mn next year. Government has also budgeted for 400,000 doses of oral antivirals, with 270,000 already secured from Merck and Pfizer, and rollout due in Jan or Feb 2022.	Daily infection rates now below 2,000. Stage 1 of "Living with Covid-19" reopening plan saw restaurants, cafes etc return to normal on 1 Nov. Stage 2 due mid-Dec, with concerns that cases may trend up again.  Breakthrough cases are rising; almost 50% of cases in the second half of Oct were breakthroughs, and 8 in 10 in the 70-79 cohort. Even so, SK now has highest share of vaccinated population and lowest death rate in the G20, though the latter has ticked up from 0.15% in summer to around 1% now.
Chile	Target to vaccinate 80% of population over 16 years of age has been met. Booster jab campaign began in Aug. Vaccinations for 6-11 age cohort began in late-Sep.  Pfizer vaccinations started in late Dec 2020 but mass campaign using China's Sinovac vaccine started 3 Feb. As of 4 Nov, 16.6mn people (86.2% of population) have received at least one dose, while 15.4mn people (80% of the population) have been fully vaccinated. 6.3mn people have received a booster jab since Aug.  As of 4 Nov, the rolling 7-day average of doses administered daily was 153,000.	Pfizer-BioNTech – agreement for 10mn doses.  Sinovac – agreement for 60mn doses over three years;  AZ – agreement for 14.4mn doses.  COVAX – agreement for 8mn doses.  CanSino – agreement for 1.8mn doses. J&J – regulatory clearance in early June.  Sputnik V - local regulatory clearance obtained late-Jul.	As of 8 Nov, 1.1mn people have yet to join the vaccination program; 820,000 of these reside in the Santiago Metropolitan Region (RM), which is where cases are rising fastest.



	Vaccination strategy & state of rollout	Procurement & local production	Risk factors on the horizon
Singapore	Seniors, healthcare, and frontline workers nominated by their employers were the first eligible groups. Starting in Jul, 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. Boosters are now available for those above 30.  As of 8 Nov, 4.8mn (85% of population) have been fully vaccinated. Having reached its vaccination targets, Singapore has shifted its strategy to "living with Covid." Government has also announced that those unvaccinated by choice will no longer be entitled to free Covid-19 treatment.	Government has concluded agreements with three suppliers, with undisclosed quantities: Pfizer-BioNTech, Moderna and Arcturus. It has received CoronaVac and has allowed private purchases of the vaccine. It is looking for additional supplies in anticipation of possible shortfalls.	Singapore is gradually lifting travel restrictions and allowing some inbound tourism in Q4/2021, especially for vaccinated travelers from selected countries.
UAE	UAE has surpassed its vaccination targets and continues to lead globally with a near complete vaccination of its population.  As of 8 Nov, 9.75mn (97.6% of population) have received at least one dose, and 8.75mn (87.6% of population) are fully vaccinated. UAE has surpassed its vaccination targets of 70% to reach herd immunity.  As of 8 Nov, the rolling 7-day average of doses administered was 28,700 (.29% of population).	Sinopharm, Sinovac, AZ, Covishield, J&J, Moderna and Pfizer-BioNTech are the WHO- approved vaccines that are accepted. UAE signed an agreement to produce Sinopharm domestically. Abu Dhabi houses vaccine storage facility for global vaccine delivery.	Booster jabs for individuals who received the Sinopharm vaccine required six months after second shot.

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