

## 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 the latest developments. Please do not hesitate to contact us if you would like to discuss any of the countries mentioned in more detail.

Click on 'View PDF' to see the table.

### HIGHLIGHTS

#### Vaccine rollout

- In **Brazil**, the government is considering authorizing a second booster shot for every eligible person over 18 years old. Since December, the Ministry of Health had recommended a second booster shot exclusively for immuno-suppressed individuals.
- The **Czech Republic** on 9 February removed the requirement to present vaccine or recovery certificates to access various public and private services as well as events. A further easing of restrictions and testing is expected in the coming weeks.
- The **Philippines, Thailand, and Malaysia** in February started to vaccinate 5-11 year-olds.
- **Poland's** government has indicated that the vaccine mandate for teachers, healthcare professionals, and uniformed services initially planned by 1 March could be postponed.
- While around 48% of **Russia's** population has been fully vaccinated to date, only around 35% have been immunized during the past six months.
- While **South Africa's** government has not yet decided whether to impose a vaccine mandate, mandates imposed at private companies are increasingly being upheld in court.
- **Turkey's** domestically produced vaccine Turkovac went into production in December and has been offered to the public, though no data is available on the number of doses produced. The government has been criticized by Turkish health professionals for failing to publish figures on Turkovac's efficacy.

#### Vaccine procurement

- **Argentina** in January reached an agreement to buy 18.5mn doses of the Pfizer vaccine (additional to an initial contract for 20mn Pfizer doses) to be delivered over 2022. In addition, 20mn doses of the Moderna vaccine will be delivered by end-2022.
- **Colombia** will receive 10.8mn doses of the Moderna vaccine over the course of 2022 (6mn of these in Q2); these are in addition to the 13mn Moderna doses delivered over 2021.

- **Mexico's** Cofepris regulator in January approved two new antiviral oral treatments for Covid-19 (Merck's Molnupiravir and Pfizer's Paxlovid); both drugs will only be available with a prescription.
- **Peru's** now ex-health minister, Hernando Cevallos, has called on vaccine makers to extend expiry dates beyond three months because of logistical challenges in reaching remote, inaccessible areas.
- **South Africa's** health regulator SAHPRA has authorized Chinese Covid-19 vaccine Sinopharm, in addition to the four other approved vaccine brands: Sinovac, AstraZeneca, J&J and Pfizer-BioNTech. Only the latter two have been administered to date.

### Infections and new variants

- Although **Chile** has one of the highest vaccination rates in the world, the spread of the Omicron variant remains evident. In the week ending 4 February, hospitalizations underwent their biggest weekly rise for 20 months, while deaths attributed to Covid-19 also saw their biggest rise in almost six months. Caseloads are at the highest level of the pandemic so far.
- Three Southeast Asian countries – **Indonesia, Malaysia and Thailand** – may be at the start or in the midst of Omicron-fueled spikes in new case detections. Indonesia is the most concerning because of rising hospital bed utilization, but it is looking at convincing non-serious cases to stay at home instead of seeking hospital confinement.
- In **Russia**, the rolling seven-day average of new infections has tripled during the past two weeks, reaching all-time highs of nearly 164,000. Hospitalization and death rates are also increasing albeit at much a slower rate.

### Vaccine diplomacy

- During January's World Economic Forum, the **WHO** reiterated its call for universal vaccination as the "central strategic pillar" against Covid-19, warning that "huge swathes of the world" are being left behind. While more than half of the world's population has received two Covid-19 vaccine doses, only 7% have been fully vaccinated in Africa. Vaccine alliance COVAX said that more than 1bn shots had been delivered by January; it hopes to deliver the next billion doses faster, within 4-5 months.
- Government officials in **Nigeria** confirmed on 7 February that the country has received an additional 2mn doses of J&J's Covid-19 vaccine from Finland, Greece and Slovenia, with more EU donations set to arrive in the coming weeks.
- In late January, **Kenya** received 1.37mn Pfizer-BioNTech vaccine doses donated by the US and delivered via COVAX.
- **Taiwan** donated 150,000 doses of Medigen, its domestically developed Covid-19 vaccine, to **Somaliland** in late January, marking Taiwan's first entry into vaccine diplomacy, as the island's domestic vaccine supply is now ample.

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## Emerging Markets Covid-19 Vaccination Strategies and Challenges

### Rating of countries' vaccine rollout (as of 9 February 2022):

	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.

	Vaccination strategy & state of rollout	Procurement & local production	Risk factors on the horizon
Nigeria	<p>The government remains significantly off course in meeting its target of vaccinating 70% of its eligible population by the end of 2022. This figure was revised from the earlier target of 40% (or 44mn people) by end-2021.</p> <p>According to official statements, 14% of the eligible population i.e., people who are 18 years old and above (or 15.8mn Nigerians) have received their first vaccine dose, while only about 6mn eligible people have had their full two-dose vaccination course.</p>	<p>Nigeria continues to rely almost exclusively on vaccine donations from EU partners and the US to meet its local needs.</p> <p>Earlier concerns that donations had come in the form of near-expired or expired vaccines appear to be less of a concern in the past few months as government officials recently confirmed the receipt of donations of vaccines from both the EU and US.</p> <p>Meanwhile, despite talk from government officials about a move towards the local production of vaccines, progress remains slow. A bill seeking to establish a center, the Nigeria Centre for Vaccine Research and Development, with the mandate to produce vaccines locally, passed a second reading in the lower chamber of the National Assembly on 8 Feb. However, the legislative process remains lengthy; even if it were to gain approval across both chambers of the legislature, implementation would be far from immediate.</p>	<p>Even as the government continues to make incremental progress on its vaccine rollout plan, it appears to have broadly abandoned any efforts towards ensuring widespread compliance with Covid-19 prevention protocols. While public signs encouraging citizens to be aware of Covid-19 prevention measures are pervasive across both government and private spaces, enforcement is virtually non-existent. This risks further increasing infection rates, as well as the emergence of new variants. The situation could be exacerbated later in the year as election campaigns ahead of the Feb 2023 general elections come into full swing.</p>
Kenya	<p>The government had hoped to inoculate 10mn people by end-2021, and 27mn by end-2022. As of 8 Feb, 13.34% of the population had been vaccinated (11.72% fully and 1.62% partially). Rollout began in March 2021, but vaccine arrivals have been intermittent. Supplies picked up in H2 2021 via COVAX deliveries and donations, but an uncertain supply pipeline, expiring vaccines and county-level distribution issues all present challenges.</p>	<p>Kenya relies on COVAX deliveries but has also budgeted for additional vaccine purchases, including under the African Vaccine Acquisition Task Team (AVATT). Vaccines being administered include <b>AZ, Pfizer, Moderna, Sinopharm, and J&amp;J</b>. Faced with insufficient and unreliable supply, Kenya hopes to begin manufacturing vaccines by April 2022.</p>	<p>Following the lifting of a curfew in place between Mar 2020 and Oct 2021, the government will be reluctant to resort to fresh restrictions, which could meet resistance and be politically costly in the run-up to the Aug 2022 elections. Kenya sought to introduce vaccine mandates for public services as of 21 Dec, but the regulations have been criticized as premature given low vaccination levels and have triggered a legal backlash.</p>

	Vaccination strategy & state of rollout	Procurement & local production	Risk factors on the horizon
Egypt	<p>As of 30 Jan, 11.15mn (10.7% of population) have received their first dose, and another 27.17mn (26.1% of population) are fully vaccinated. The rolling 7-day average of doses administered was 234,600 (0.23% of population). 65.05mn doses administered as of 30 Jan – includes booster shots.</p> <p>Booster shots are administered using an SMS system which sends a message to residents when they are eligible for a third shot.</p> <p>President El-Sisi visited Beijing to discuss vaccine manufacturing (among other topics) with Chinese President Xi.</p>	<p><b>Pfizer-BioNTech, SII-AstraZeneca (Covishield), Moderna</b> all in use. 338,800 <b>AstraZeneca</b> doses delivered by Germany on 6 Feb.</p> <p>Japanese government announced an additional 700,000 Japanese-made <b>AstraZeneca</b> doses to be delivered.</p>	<p>Ministry of Health expects that the current Covid-19 wave will crash by the end of February.</p> <p>Egypt moved to Level 4 “high risk” category for travel by CDC.</p> <p>Beginning 26 Jan, Egyptian and foreign travelers to Egypt (except children under 12) will be required to present proof of vaccination or a negative test result (72 hours prior to arrival).</p>
Pakistan	<p>The vaccination drive has picked up pace as the Omicron variant surges in the country. Urban areas (e.g. Karachi) have been especially badly hit.</p> <p>As of 8 Feb, 112.6mn people (50% of population) had received at least one dose of a vaccine, while 87.9mn (39% of population) were fully vaccinated.</p>	<p><b>Pfizer-BioNTech, SII-AstraZeneca (Covishield), Moderna</b> and <b>Sinopharm</b> are in use via the UN-administered <b>COVAX</b> network. The <b>Anhui Zhifei Longcom</b> and <b>CanSino</b> vaccines are currently under testing. All global vaccines in use anywhere are permitted for use as long as they are declared safe in their country of origin.</p>	<p>Strict restrictions on international travelers in place. Many schools and colleges closed especially in high- density areas like Rawalpindi but no lockdowns under consideration. More than half of Pakistan’s children (below 12) have been vaccinated.</p>
South Africa	<p>Although well ahead of sub-Saharan Africa, South Africa missed its target of vaccinating 70% of its population by end-2021. Significant supply of J&amp;J and Pfizer vaccines since May 2021, but demand has weakened below South Africa’s capacity of administering 300,000 shots per day. Vaccines are available for teenagers (aged 12-17) and adults are eligible for boosters.</p> <p>As of 8 Feb, nearly 33% of total population had been vaccinated (27.92% fully and 4.99% partially).</p>	<p>South Africa is administering <b>J&amp;J</b> and <b>Pfizer</b> vaccines. Initial supply crunch largely resolved; by late 2021, South Africa had over 16mn doses in store. <b>J&amp;J</b> – 31mn doses <b>Pfizer-BioNTech</b> – 30mn doses Health regulator SAHPRA has also approved <b>AstraZeneca, Sinovac</b> and now <b>Sinopharm</b> vaccines. South Africa is emerging as a production hub for J&amp;J (and soon Pfizer) vaccines.</p>	<p>Amid low vaccine demand, Omicron variant has reinforced a push for vaccine mandates, in a bid to avoid economically disruptive lockdowns. Vaccine mandates at private companies are increasingly being upheld in court. In early Feb, a labor court dismissed a trade union application challenging a company’s mandatory vaccine policy, while the Council for Conciliation, Mediation and Arbitration (CCMA) has upheld some dismissals of employees for refusing to get vaccinated without a valid medical reason.</p>
Indonesia	<p>All adults and children 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 free to those above 65 years old or indigent, but the rest of the population has to pay.</p> <p>As of 8 Feb, 132mn (48% of population) have been fully vaccinated. Vaccine supplies are sufficient, but the immunization program has been uneven due to vaccine hesitation in pockets of the population as well as gaps in the vaccine administration infrastructure at the local level.</p>	<p><b>Sinovac</b> – 125mn doses; <b>Pfizer-BioNTech</b> – 100mn doses; <b>Novavax</b> – 100mn doses; <b>COVAX</b> initiative – 100mn doses; <b>AstraZeneca</b> – 100mn doses; private sector importation unknown.</p>	<p>The government’s decision to make most of the population pay for their boosters is generating controversy, in that it may result in more vaccine hesitancy – with prices potentially ranging from USD 3 to USD 23, or even more for in-demand vaccines. With other countries in the region providing boosters for free, the policy could be reversed. Vaccination rates are highly uneven, with Jakarta and Bali almost fully vaccinated while more remote provinces are at the 20% level. Mixed messaging is also a problem, as the government is recommending that people receive boosters of the same brand as their original full vaccination.</p>
Russia	<p>Target is to vaccinate 80% of population without a specific target date (multiple previous deadlines were missed).</p> <p>As of 8 Feb, 77.6mn (53.1% of population) received first dose, 70.7mn (48.3%) were fully vaccinated and 10.5mn (7.2%) had received a booster. Vaccination of adolescents aged 12-17 started in Jan.</p> <p>As of 7 Feb, the rolling 7-day average of doses administered daily was 200,500.</p>	<p>Russia relies solely on domestically developed vaccines: <b>Sputnik V, Sputnik M</b> (for adolescents), <b>Sputnik Light, EpiVacConona-N</b> and <b>CoviVac</b>.</p> <p>Russia is developing a new nasal vaccine against Covid-19.</p>	<p>Only 35% of population have been fully vaccinated during the past six months.</p> <p>Govt has dropped plans to tighten the application of immunity certificates (aka QR codes).</p>

	Vaccination strategy & state of rollout	Procurement & local production	Risk factors on the horizon
India	<p>As of 8 Feb, 952.7mn people (68.4% of population) have received at least one dose while 736.2mn people (52.8% of population) are fully vaccinated.</p> <p>All vaccinations in government facilities are free of cost and children 12+ are being vaccinated. Vaccination of under 12s may begin in Mar. From 10 Jan, booster shot administered to those 60+.</p> <p>Most public areas across India – schools, places of worship, sports facilities, theaters and eating places – are now closed. The Omicron variant engulfed the country and hospitalization is hovering at around 5-10% of those infected. No oxygen shortages reported yet.</p>	<p>No vaccine in use where manufacturers demand indemnification guarantees from govt. <b>Covishield, Covaxin</b> and <b>Sputnik</b> in use. A new Covid-19 vaccine that uses circular strands of DNA to prime the immune system has been approved. A needle-less vaccine is in the testing phase.</p> <p>All vaccines certified safe in country of origin allowed for duty free import.</p>	<p>Death rates are declining but infection rate is up sharply. The Election Commission has restricted in-person election rallies as Omicron lingers.</p>
Philippines	<p>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 non-urban and rural areas.</p> <p>As of 7 Feb, 60.1mn (55% of the population) are fully vaccinated. The government was initially hesitant to implement a broad booster program, but apprehension about the Omicron variant, led to a shift in policy – all aged 18+ are now eligible for a booster. For those 5-11 years old, vaccinations started on 7 Feb.</p>	<p>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. Another 26mn Pfizer doses have been donated. Several million <b>Novavax</b> doses imported by the private sector are expected in Q1 2022.</p>	<p>The Omicron variant took hold in early Jan, and new cases peaked in the third week of Jan. New daily diagnoses are on a steep decline, but there is some concern that the start of election season could fuel additional waves in the countryside, where vaccination rates are lower than in the large cities.</p> <p>Vaccine hesitancy appears to be declining, likely due to the Omicron variant, the demonstration effect as well as rumors that the government may withhold cash aid to those unwilling to be vaccinated. According to one survey, 64% of Filipinos are now willing to be vaccinated, double the rate from May 2021. Vaccination infrastructure could be the major challenge over the next six months.</p>
Mexico	<p>Government missed its target of providing at least one dose to all adults by end-Oct; 74.4mn (83% of target group) were reached. Vaccinations started in Dec 2020. Rollout stalled in early 2021 but subsequently resumed with new vaccines from wider array of suppliers. Vaccination of 15-17 year olds started from late-Nov 2021.</p> <p>As of 7 Feb, 83.9mn (64.4% of population) have received at least one vaccine dose, with 77.6mn (59.6% of population) fully inoculated.</p> <p>As of 6 Feb, the rolling 7-day average of doses administered daily was 583,000 (0.43% of population); the campaign has reached 1mn daily shots in previous months.</p>	<p><b>AstraZeneca</b> – agreement for 77.4mn doses. US supplied Mexico with 2.7mn additional AZ doses.</p> <p><b>Pfizer</b> – 34mn doses ordered; 22mn delivered as of 4 July.</p> <p><b>CanSino</b> – 35mn doses agreed, including bottling locally and eventually full production.</p> <p><b>Sputnik V</b> – agreement for 24mn doses, with local production expected soon. <b>COVAX</b> – 51.5mn doses agreed; <b>Sinovac</b> – agreement for 20mn doses.</p> <p><b>J&amp;J</b> – 1.4mn doses delivered.</p> <p><b>Sinopharm</b> – agreement for 12mn doses though local regulatory clearance pending.</p> <p><b>Moderna</b> – local regulatory clearance given in August.</p>	<p>Govt downplayed threat of the Omicron variant and ruled out travel and other restrictions even as cases rapidly increased, even as caseload now subsides. Testing rates remain very low.</p> <p>Govt has been reluctant to embark on a widespread booster campaign, though boosters being applied more widely since Jan 2022.</p> <p>Authorities have issued warning about counterfeit versions of new oral treatments for Covid-19 that are already circulating.</p>

	Vaccination strategy & state of rollout	Procurement & local production	Risk factors on the horizon
Czech Republic	<p>Target is to vaccinate at least 75% of population without a clear deadline.</p> <p>As of 9 Feb, 6.9mn residents (64.9% of population) have received a first jab and 6.4mn (59.9%) were fully immunized. Booster doses are available to persons who have received their second/last dose six months ago or earlier. To date, 3.9mn (36.2% of population) have received booster doses.</p> <p>As of 8 Feb, the rolling 7-day average of doses administered was 34,930 (0.32% of population).</p>	<p>Procurement is conducted exclusively via the EU. As of 9 Feb, 22.8mn doses of vaccines delivered:  <b>Pfizer-BioNTech</b> – 16.9mn;  <b>Moderna</b> – 2.7mn;  <b>AZ</b> – 1.8mn;  <b>J&amp;J</b> – 1.3mn.</p> <p>The country ordered 370,000 doses of recently approved <b>Novavax</b> vaccine, expected to be delivered in Q1 2022.</p>	<p>As of 9 Feb, the government has cancelled vaccination certificates to access various public and private services as well as events. A further easing of restrictions is expected in the coming few weeks.</p>
Hungary	<p>There is no official vaccination target. Vaccination is available to all citizens aged 12+ as well as foreigners living in Hungary. Vaccination of children aged 5-11 years old started in late Dec. Boosters available to citizens vaccinated four months ago or earlier.</p> <p>As of 9 Feb, 6.4mn (65.8% of population) have received at least one jab and 6.1mn (63.2%) have been fully immunized. 3.7mn (38.6% of population) received a booster dose. Employers allowed to suspend unvaccinated employees without pay for up to one year starting 15 Dec.</p> <p>As of 8 Feb, the rolling 7-day average of administered doses was 58,357 (0.6% of population).</p>	<p>In total, 30.3mn vaccine doses delivered as of 9 Feb.</p> <p>Procurement contracts and deliveries via the EU's joint mechanism:  <b>AstraZeneca</b> – 6.2mn doses.  <b>Moderna</b> – 1.7mn doses.  <b>Pfizer-BioNTech</b> – 11.2mn doses.  <b>J&amp;J</b> – 3.9mn doses.</p> <p>National-level procurement:  <b>Sputnik V</b> – 2mn doses (2mn delivered). <b>Sinopharm</b> – 5.2mn doses.</p>	<p>Government is considering the rollout of fourth vaccine dose, as first booster vaccinations (third dose) were given more than five months ago.</p> <p>A more contagious BA.2 subvariant of Omicron has been detected in the country.</p>
Poland	<p>No official vaccination target. The government aims to vaccinate as many people as possible.</p> <p>As of 8 Feb, 22.4mn (58.7% of population) have received at least one dose and 21.9mn (57.3%) have been fully vaccinated. Booster vaccine doses are available to everyone vaccinated six months ago or earlier. To date, 10.6mn (27.4% of population) have received a booster dose. Mandatory vaccination deadline of teachers, healthcare professionals and uniformed services was planned for 1 Mar, but could be postponed.</p> <p>As of 6 Feb, the rolling 7-day average of doses administered daily was 92,221 (0.24% of population).</p>	<p>Procurement exclusively via the EU. As of 9 Feb, 105.4mn vaccine doses delivered: 59.9mn <b>Pfizer-BioNTech</b>, 20.6mn <b>AstraZeneca</b>, 9.3mn <b>Moderna</b>, 15.5mn <b>J&amp;J</b>.</p> <p>The country has contracted around 4mn doses of the recently approved <b>Novavax</b> vaccine. First deliveries expected in Q1 2022.</p>	<p>Fourth (or second booster) vaccine doses are available for persons with immune system deficiencies. Testing levels in schools will also be reduced starting 18 Feb.</p>
Colombia	<p>Target to vaccinate 90% of the population with at least one dose by end-2021 was not met. Latest target is to vaccinate 70% of population with two doses by mid-Feb 2022. Vaccination campaign started in Feb 2021 with Pfizer vaccine. Booster shot campaign started in Oct 2021.</p> <p>As of 6 Feb, 34.8mn (68.3% of population) have received at least one dose, while 32.2mn (63.4% of population) are fully vaccinated (5.9mn of these received a single-dose J&amp;J vaccine). 6.3mn booster jabs have been administered since Oct.</p> <p>As of 5 Feb, the rolling 7-day average of doses administered daily was 229,000 (0.43% of population)</p>	<p><b>Pfizer-BioNTech</b> – agreement for 15mn doses.  <b>AZ</b> – 10mn doses agreed.  <b>J&amp;J</b> – agreement for 9mn doses.  <b>Sinovac</b> – agreement for 10mn doses.  <b>Moderna</b> – 13mn doses delivered over 2021; 10.8mn additional doses to be delivered over 2022.  <b>COVAX</b> – agreement for 20mn doses.</p> <p>Discussions underway with govt over future local production of <b>Inovio</b> vaccine. Govt also wants Providence Therapeutics (Canada) to produce its vaccine locally.</p>	<p>Health authorities are trying to encourage parents of children aged 3-11 to come forward for their vaccination; 43% of this age cohort remain unvaccinated.</p>

	Vaccination strategy & state of rollout	Procurement & local production	Risk factors on the horizon
Turkey	<p>Turkey aimed to vaccinate all adult residents by end-Sep 2020 but only 84.6% had been vaccinated by 7 Feb 2022. From Nov 2021, Turkey began providing booster doses of Pfizer-BioNTech to those who had received two doses of vaccine. Domestically produced Turkovac added in Dec 2021.</p> <p>As of 7 Feb, 142.6mn doses had been administered, with 57.5mn (67.9% of population) having received a first dose, 52.5mn (62%) two doses and 25.7mn (30.3%) at least three doses.</p> <p>The daily average number of vaccinations over the previous seven days stood at 159,267 (0.2% of population) on 7 Feb.</p>	<p><b>Sinovac</b> – agreement for 100mn doses, 34.5mn delivered to date.</p> <p><b>Pfizer-BioNTech</b> – agreement for 140mn doses, all of which had been delivered to date.</p> <p><b>Sputnik V</b> – agreement for 50mn doses. 0.4mn doses arrived in late June but none administered to date.</p> <p><b>Turkovac</b> – domestically produced vaccine approved for use by the Turkish Health Ministry on 22 Dec. Mass production began same day. On 31 Dec, it was included in vaccination rollout and was offered to the public. No data available on number of doses produced. Govt has been criticized by Turkish health professionals for failing to publish figures on its efficacy.</p>	<p>In response to continuing vaccine hesitancy, on 9 Nov, govt issued a statement implicitly threatening to introduce vaccine mandates but no measures had been taken by 8 Feb. Although the government was continuing to offer a choice of Sinovac, Pfizer-BioNTech or Turkovac, by 7 Feb a large majority of Turks were opting for Pfizer-BioNTech.</p> <p>In the week to 7 Feb, the daily average number of new infections stood at a record 102,162. However, govt remained reluctant to re-introduce stringent anti-Covid-19 measures for fear of the impact on the already struggling Turkish economy.</p>
Peru	<p>Target to fully vaccinate 80% of the population by end-2021 was not met. On supply side, govt has contracts for 55mn doses in place for 2022. Booster jabs for medical personnel and over-65s started in Oct.</p> <p>Vaccinations using Sinopharm vaccine started Feb 2021. Pfizer and AZ vaccines also being administered. As of 5 Feb, 25.1mn (75.3% of population) have received at least one dose. 23mn (68.8% of population) have received two doses. 8.2mn booster jabs applied.</p> <p>As of 8 Jan, the rolling 7-day average of doses administered daily was 203,000 (0.27% of population).</p>	<p><b>Sinopharm</b> – contract for 38mn doses.</p> <p><b>AstraZeneca</b> – agreement for 14.4mn doses.</p> <p><b>Pfizer-BioNTech</b> – original agreement for 20mn doses expanded to 35mn doses.</p> <p><b>COVAX</b> – agreement for 13.2mn doses</p> <p><b>Moderna</b> – 20mn doses agreed to be delivered in 2022.</p> <p><b>Sputnik</b> – agreement for 20mn doses but deliveries not expected until later in 2022.</p>	<p>Health experts continue to urge the govt to do more to reach indigenous communities where vaccine hesitancy remains high.</p> <p>Govt says it has no plans yet to administer fourth doses but is focused on booster jabs.</p> <p>Govt needs to ensure that change of health minister on 8 Feb does not hamper vaccine rollout and procurement.</p>
Thailand	<p>All adults and children 12+ 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.</p> <p>As of 8 Feb, 49mn (70.1% of population) have been fully vaccinated.</p>	<p><b>Sinovac</b> – 2mn, but Thailand is negotiating for an additional 6mn doses.</p> <p><b>AstraZeneca</b> – 61mn (imported and local joint venture).</p> <p><b>Sinopharm</b> - 6mn doses through private sector importation</p>	<p>Thailand is seeing what may be the early stages of an Omicron-driven spike, but the country is still resuming its test and go scheme for vaccinated travelers as well as continuing to ease general mobility and commercial restrictions nationwide. This allows them to enter the country with the requirement of only a test and one night stay in a hotel.</p>
Brazil	<p>The vaccination campaign started in Jan 2021 for health professionals, and vaccines are now available for everyone 12+. Regulatory agency ANVISA authorized vaccination of children ages 5+ in Dec 2021, but rollout started in late Jan. Booster shots are allowed 4 months after the second jab for everyone above 18. Heterologous booster shots have been prioritized.</p> <p>As of 8 Feb, 167.3mn (77.8% of population) received the first dose, and 151.2mn (70.4% of population) are fully immunized. To date, 51.3mn (23.9% of population) received booster doses.</p> <p>The 7-day average of daily administered doses is 1.14mn.</p>	<p><b>AstraZeneca</b> – agreement for 181mn doses, 13mn expected Jan 2022. On 10 Jan, the institute Fiocruz began producing the first domestic doses of AZ. 20mn doses are expected for February 2022.</p> <p><b>CoronaVac</b> – 110mn doses delivered in 2021.</p> <p><b>Pfizer</b> – agreement for 220mn doses, 17mn expected for Jan 2022.</p> <p><b>J&amp;J</b> – 41mn doses delivered in 2021.</p> <p><b>Sputnik V</b> – Contract suspended.</p> <p><b>Covaxin</b> – Contract suspended.</p> <p><b>COVAX</b> – minimum 10% of population quota (42mn) doses. WHO provided all 42 mn doses in 2021.</p> <p><b>ButanVac</b> – currently on trial.</p>	<p>Cases and deaths continue to rise, pressuring ICU occupation rates. Yet, no new measures have been disclosed to curb the infections, as the government expects a natural decrease in the following weeks.</p> <p>As of 8 Feb, 10 out of the 26 states have not started vaccinating children, as approved by the government in Dec 2021. The government worries that the lack of immunization among children will allow future clusters of the virus.</p>

	Vaccination strategy & state of rollout	Procurement & local production	Risk factors on the horizon
Greece	<p>Currently offering vaccines to everyone over the age of five. As of 8 Feb, 72.8% of the total population had received at least one jab and 68.8% were fully vaccinated.</p> <p>Since 16 Jan, anyone over 60 who has not received their first jab receives a EUR 100 monthly fine.</p> <p>Booster jabs being offered to adults three months after their second vaccination. By 8 Feb, 46.6% of the general population had received a booster.</p>	<p>Greece is using the <b>Pfizer-BioNTech</b>, <b>AstraZeneca</b>, <b>Moderna</b> and <b>J&amp;J</b> vaccines, adhering to the EU's procurement process.</p> <p>A total of 19.4mn vaccines had been administered by 8 Feb.</p>	<p>Greece is gradually relaxing some restrictions put in place in Nov and now no longer requires visitors from the EU and Schengen area, along with another 33 countries who have a valid EU digital vaccination certificate, to undergo a Covid test before entering the country.</p> <p>A discussion is also underway about allowing carnival season to go ahead without any significant restrictions.</p> <p>For the last couple of weeks, the number of daily Covid-related deaths has been hovering at the 100-mark, which has led to a pandemic-high 7-day average during this period.</p>
Argentina	<p>Sputnik V vaccinations started in Dec 2020. As of 8 Feb, 39.8mn (87.8% of population) have received at least one dose, while 35.4mn (77.7% of population) are fully vaccinated. Additionally, 3mn third doses have been applied to those who may not have generated a full immune response to the first two doses. 10.9mn booster shots have been administered as of 8 Feb.</p> <p>As of 7 Feb, the rolling 7-day average of doses administered daily was 220,000 (0.48% of population).</p>	<p><b>Sputnik V</b> – agreement for 30mn doses; local production accounts for one-third of Sputnik doses received.</p> <p><b>AstraZeneca</b> – contract for 23.6mn doses, though most to be produced locally in conjunction with Mexico.</p> <p><b>Sinopharm</b> – agreement for 30mn doses.</p> <p><b>CanSino</b> – agreement for 5.4mn doses.</p> <p><b>Pfizer</b> – original agreement for 20mn doses, with additional 18mn doses to be delivered over 2022.</p> <p><b>Moderna</b> – 3.5mn doses received from US govt donation in 2021 + agreement to receive 20mn doses by end-2022.</p> <p><b>COVAX</b> – approx. 1.9mn AZ doses delivered; government criticized for ordering only 20% of its entitlement. Four vaccines under development domestically; <b>ARVAC</b> and <b>Argenvac</b> most advanced vaccine candidates.</p>	<p>Authorities remain worried by vaccine hesitancy affecting children; around 27% of 3-11 year old group remains unvaccinated, while 22% have only had one dose. Schools re-open after Southern Hemisphere summer break in late-Feb/Mar.</p> <p>Since 24 Jan, Buenos Aires province (the most populous area in the country) has restricted tests as demand for swab testing surged during Omicron wave. While caseloads are declining from Jan peaks, testing remains sub-optimal.</p>
Taiwan	<p>73% of the population was fully vaccinated by 7 Feb, while a further 7% had received one dose, and 24% had received a booster dose.</p> <p>In late Jan, the government began requiring proof of vaccination for entry into entertainment venues, in response to a small rise in Omicron cases.</p>	<p>After early shortages, vaccine supply is now ample. <b>AstraZeneca</b> is largest supplier, followed by <b>Pfizer-BioNTech</b> and <b>Moderna</b>.</p> <p>Taiwanese-developed <b>Medigen</b> vaccine approved for emergency use in July, vaccinations began in Aug.</p>	<p>As in mainland China, Taiwan's zero-Covid-19 strategy has grown increasingly costly. Tourism has cratered, and border restrictions are affecting trade and supply chains. Still, the policy is broadly popular in Taiwan, and the ruling DPP party may keep restrictions in place, believing that a new outbreak would hurt them in local elections in late-2022.</p>
Israel	<p>As of 7 Feb, 586,788 (6.3% of population) have received their first dose, and another 6.11mn (66% of population) are fully vaccinated.</p> <p>The rolling 7-day average of doses administered was 82,800 (0.9% of population) – this includes booster shots.</p> <p>As of 25 Jan, an expert panel recommended to the Israeli Health Ministry that fourth shots be made available to ages 18+ whose third shot was 5+ months ago. Israelis no longer have to show their "Green Pass" proof of vaccination at restaurants, theaters, gyms, and hotels.</p> <p>In Palestine as of 10 Jan, 549,141 (11% of population) received first dose, and another 1.53mn (29% of population) are fully vaccinated.</p>	<p>Ministry of Health signed an advance purchase agreement of <b>Novavax's</b> recombinant nanoparticle protein-based vaccine. Israel will receive five million doses initially with option to procure another five million.</p> <p>Israel to donate 1mn doses of <b>AstraZeneca</b> to African countries via COVAX.</p>	<p>As Israel adopt a "living with Covid-19" policy, the country risks burnout in hospitals and care facilities who have soaring caseloads and major staff outages due to high infection rates.</p> <p>Vaccine supply to West Bank and Gaza is making slow progress. The Palestinian Authority announced on that it would close schools for ten days, beginning 3 Feb, amid surging cases.</p>



	Vaccination strategy & state of rollout	Procurement & local production	Risk factors on the horizon
<b>Saudi Arabia</b>	<p>Saudi Arabia is on track to meet WHO 2022 vaccination targets. Saudi Arabia will start vaccination rollout for children. Ages 5-11 will receive Pfizer, ages 12+ given Moderna, and 18+ given other vaccine types.</p> <p>As of 7 Feb, 1.85mn (5.2% of population) received their first dose, while another 23.83mn (67% of population) are fully vaccinated. The rolling 7-day average of doses administered was 198,360 (0.57% of population).</p>	<p><b>Pfizer-BioNTech, Moderna, J&amp;J, and AstraZeneca</b> approved for administration.</p> <p>Saudi Arabia signed an MoU with POP Biotechnologies for their early phase <b>EuCorVac-19</b> vaccine which uses Spontaneous-Nanoliposome Antigen Particle (SNAP) technology.</p> <p>KSA signed MoUs with <b>AZ</b> and <b>Pfizer</b> to manufacture vaccines locally.</p>	<p>Beginning 9 Feb, citizens and foreign nationals traveling to and from Saudi Arabia must have a negative test result to enter. Citizens must get their booster shot before leaving the Kingdom. Citizens who test positive but are fully vaccinated can enter the Kingdom seven days from their positive result without re-testing.</p> <p>Foreign travelers entering Saudi Arabia for pilgrimage must have a negative test result taken within 48 hours of their departure date to the Kingdom.</p>
<b>Malaysia</b>	<p>Malaysia has started to administer the Pfizer-BioNTech vaccine to 5-11 year olds.</p> <p>As of 8 Feb, 25.7mn (79.5% of population) have been fully vaccinated. 38% of the population has received a booster shot.</p>	<p><b>Pfizer-BioNTech</b> – 32mn doses;  <b>Sinovac</b> – 12mn doses;  <b>AstraZeneca</b> – 6.4mn doses via <b>COVAX</b> facility and another 6.4mn contracted directly;  <b>Sputnik V</b> – 6.4mn doses;  <b>CanSino Biologics</b> – 3.5mn doses</p>	<p>Although the country may be in the early stages of an Omicron-driven spike, it has resumed its vaccinated travel lane (VTL) with Singapore. The policymaking National Recovery Council has also agreed to reopen the country's borders to all travelers, with no quarantine required, starting in March.</p>
<b>China</b>	<p>85% of population was fully vaccinated by 7 Feb, but the efficacy of Chinese-made inactivated virus vaccines against the Omicron variant appears to be low. 32% of population has received received boosters.</p> <p>Approval of <b>Pfizer-BioNTech</b> or other foreign vaccines for domestic use appears to be delayed for political reasons.</p>	<p><b>Suzhou Abogen Biosciences</b> and partner <b>Walvax Biotechnology</b> have jointly developed an mRNA vaccine, <b>ARCoV</b>, and have recruited around 28,000 people in China, Mexico, and Indonesia for a Phase 3 trial.</p> <p><b>Sinopharm</b> is testing a protein-based booster, which initial results indicate elicits a stronger antibody response than a third dose of either of Sinopharm's or Sinovac's original inactivated virus vaccines.</p>	<p>China's Zero-Covid policy has so far proven resilient against Omicron. But even if this strategy remains effective, China may find itself locked in a bubble indefinitely, given the lack of herd immunity that other countries may enjoy following their Omicron waves. There is still no sign that Beijing intends to abandon zero-tolerance.</p>
<b>South Korea</b>	<p>South Korea surpassed its 70% vaccination target by Nov. By 8 Feb, 86.1% of population (44.2mn people) had received two doses.</p> <p>Booster rollout began in Oct. As of 8 Feb, 28.6mn people booster jabs have been administered.</p> <p>Government is considering rolling out a fourth vaccine dose for at-risk groups.</p>	<p><b>Moderna</b> revised its supply contract with government, to deliver 15mn doses of the mRNA vaccine or booster in Q3 2022 and a further 5mn in Q4.</p> <p><b>Hanmi Pharm</b> signs licensing agreement with Enzychem Lifesciences to produce up to 80mn doses/year of a new pDNA-based vaccine.</p> <p>Several firms withdraw from Korea's <b>GL Rapha Consortium</b>, contracted to make 500mn doses of <b>Sputnik V</b>, due to changes in production order requested by Russian government.</p>	<p>"Living with Covid" policy introduced in early Nov but daily cases surged to 8,000 in early Dec. Social distancing and night-life restrictions reinstated on 18 Dec, then extended for at least 2 more weeks.</p> <p>Omicron variant surge appeared to be gathering pace in mid-Jan, with daily infections exceeding 4,000 by 12 Jan. Cases identified as coming from overseas also highest number to date, 381.</p> <p>Government seeking to reserve hospital beds to cover 10,000 cases per day.</p>
<b>Singapore</b>	<p>As of 7 Feb, 89% of population been fully vaccinated. Having reached its vaccination targets, Singapore has shifted its strategy to "living with Covid." The government has also announced that those unvaccinated by choice will no longer be entitled to free Covid-19 treatment. Around 61% have received a booster shot.</p>	<p>Government concluded agreements with three suppliers, with undisclosed quantities: <b>Pfizer-BioNTech, Moderna</b> and <b>Arcturus</b>. It has received <b>CoronaVac</b> and has allowed private purchases of the vaccine. It is looking for additional supplies in anticipation of possible shortfalls.</p>	<p>The country has implemented strict rules against the unvaccinated being allowed out in public—including reporting to work and social activities such as dining out or attending gatherings. However, the government is also considering removing more restrictions on public gatherings and the use of public facilities.</p> <p>Singapore is implementing a vaccinated travel lane with several countries.</p>

	Vaccination strategy & state of rollout	Procurement & local production	Risk factors on the horizon
Chile	<p>Original target to vaccinate 80% of population over 16 years of age has been met. Pfizer vaccinations started in late Dec 2020 but mass campaign using China's Sinovac vaccine started in Feb 2021. Booster jab campaign began in Aug and fourth jab campaign began in Jan 2022. Vaccinations for 3-5 age cohort began in Dec 2022.</p> <p>As of 8 Feb, 17.5mn (91.8% of population) have received at least one dose, while 17mn (89% of population) have been fully vaccinated. 12.6mn booster jabs administered since Aug. 328,000 fourth jabs administered since start of new rollout effort commencing 7 Feb.</p> <p>As of 3 Feb, the rolling 7-day average of doses administered daily was 48,000 (0.25% of population).</p>	<p><b>Pfizer-BioNTech</b> – agreement for 10mn doses.</p> <p><b>Sinovac</b> – agreement for 60mn doses over three years;</p> <p><b>AstraZeneca</b> – agreement for 14.4mn doses.</p> <p><b>COVAX</b> – agreement for 8mn doses.</p> <p><b>CanSino</b> – agreement for 1.8mn doses.</p> <p><b>J&amp;J</b> – regulatory clearance in early June.</p> <p><b>Sputnik V</b> - local regulatory clearance obtained late-July.</p>	<p>In the week ending 4 Feb, hospitalizations underwent their biggest weekly rise for 20 months. Deaths attributed to Covid-19 also saw their biggest rise in almost six months. Caseloads are at the highest level of the pandemic so far.</p> <p>As of 7 Feb, 63% of patients in ICU were unvaccinated or only partially vaccinated.</p>
UAE	<p>UAE has surpassed its vaccination targets and continues to lead globally with a near complete vaccination of its population.</p> <p>As of 7 Feb, 534,085 (5.35% of population) had received their first dose, while another 9.36mn (94% of population) are fully vaccinated.</p> <p>The rolling 7-day average of doses administered was 25,714 (0.26% of population)</p> <p>Ministry of Health said that vaccinated adults should consider a fourth dose of Pfizer or Sinopharm.</p>	<p><b>Sinopharm, Sinovac, AstraZeneca, Covishield, J&amp;J, Moderna and Pfizer-BioNTech</b> are the WHO-approved vaccines that are accepted.</p> <p>Booster jabs for individuals who received the <b>Sinopharm</b> vaccine required six months after second shot.</p>	<p>Residents in Abu Dhabi required to have a negative PCR test every two weeks.</p> <p>US CDC elevated UAE to a Level Four highest risk travel category due to rising case numbers.</p>

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