

# How will COVID-19 vaccine rollout differ by country?

Supplementary material

[Read the full report COVID-19 vaccine  
availability and medtech impact](#)

# Analysis and data sources

Forecasts and insights were developed by Clarivate analysts using a diversity of proprietary sources:

- **Clarivate Real World Data™** product provides access to real world data, such as patient volumes by procedure group and site of service.
- **Market Tracking: Medical Supply Distribution** data enables manufacturers to identify opportunities and risks by confidently assessing market share based on real-time insights.
- **Medtech Insights™** provides comprehensive data forecasts and analysis for global and regional medical device markets.
- **Market Assessment Epidemiology™** provides solutions to understand the complete disease landscape and size global markets with real world data.

# Key concepts

## Vaccine efficacy and herd immunity

**The path to herd immunity can be achieved in one of two ways:** through sufficient infection of the population wherein individuals build immunity to the virus after recovery or through vaccination. Two major considerations in the pursuit of herd immunity through vaccination are the effectiveness of vaccinations distributed—based on vaccine efficacy and vaccine acceptance rates—and the rate of vaccination in the population, which is based on government vaccination targets, supply, demand and various epidemiological factors.

**That said, while herd immunity is presumed to be the point at which a sufficient percentage of the population is somehow protected from infection,** it is not necessarily the point at which a country can reduce restrictions and resume normal operations; for instance, in Israel—which has fully vaccinated more than 57% of its population as of April 12, 2021—researchers believe that the country will be able to reopen its economy safely before herd immunity is reached.<sup>1</sup>

1. Israel Vaccinates More Than Half Its Population, but Still Far From COVID-19 Herd Immunity (March 25, 2021). Haaretz, [online], Available at: <https://www.haaretz.com/israel-news/israel-vaccinates-more-than-half-its-population-but-still-far-from-herd-immunity-1.9654358>. (Accessed May 13, 2021).

# Key concepts

## Vaccine acceptance

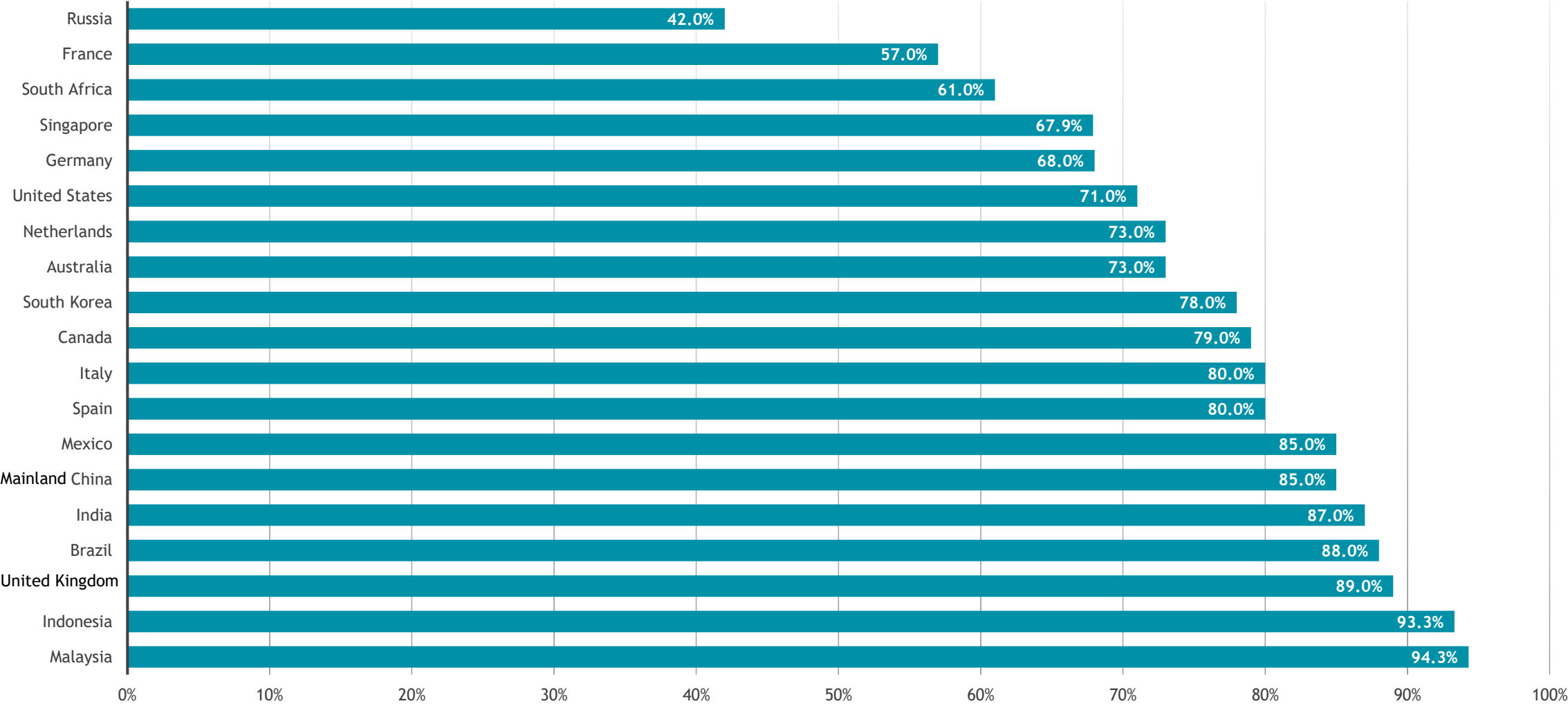
**Vaccine acceptance is defined as the proportion of unvaccinated adults who indicate that they would receive a vaccine if it were available to them.**

A recent study<sup>1</sup> highlighted that countries with high acceptance rates of the COVID-19 vaccine tend to be nations with strong trust in central governments, such as Mainland China and South Korea, and middle-income countries, such as Brazil and India. Surveys have also highlighted the relatively high acceptance rates in Latin American countries, such as Brazil and Mexico.<sup>2</sup> Some of the most concerning trends appear in European countries, where pre-pandemic surveys had previously revealed high levels of skepticism around vaccine safety and importance.

1. Lazarus, J.V., et al. (2021). A global survey of potential acceptance of a COVID-19 vaccine, *Nature Medicine* 27:225-228.

2. Sallam, M. (2021). COVID-19 vaccine hesitancy worldwide: a concise systematic review of vaccine acceptance rates. *Vaccines*, 9(2):160.

# COVID-19 vaccine acceptance



Source: COVID-19 vaccination intent has soared across the world (March 11, 2021). IPSOS, [online], Available at: <https://www.ipsos.com/en/covid-19-vaccination-intent-has-soared-across-world>. (Accessed on May 13, 2021).

# Definitions of supply, distribution and demand

Additional information for Figure 2 in the blog post.

- **Supply:** A challenge faced by many countries has been the initial and ongoing supply of vaccine doses and the consistency and reliability of that supply.
- **Distribution:** Once a country has obtained a sufficient and consistent supply, the government can then begin to focus its efforts into accelerating distribution. For countries in this stage, such as the United States and United Kingdom, building a wide-reaching logistics and distribution system is a bottleneck to accelerating their vaccination program. For example, despite some state-level variation in vaccination campaigns, the United States on a national level has been piloting mass vaccination sites in malls, stadiums and other suitable venues to accelerate its ability to reach a greater proportion of the population, especially in concentrated urban centers.
- **Demand:** Once a country has a consistent supply of vaccines and a consistent framework of physically administering the vaccine to its population, the country will reach a point at which most eligible and willing individuals have been vaccinated. Increasing the vaccination level at this stage will likely require convincing those who are uncertain to receive a vaccine. For countries in this stage, the ability to conduct effective public opinion campaigns to counter hesitance is expected to be the bottleneck to the vaccination program.

# Vaccination rate forecasts

## By geography

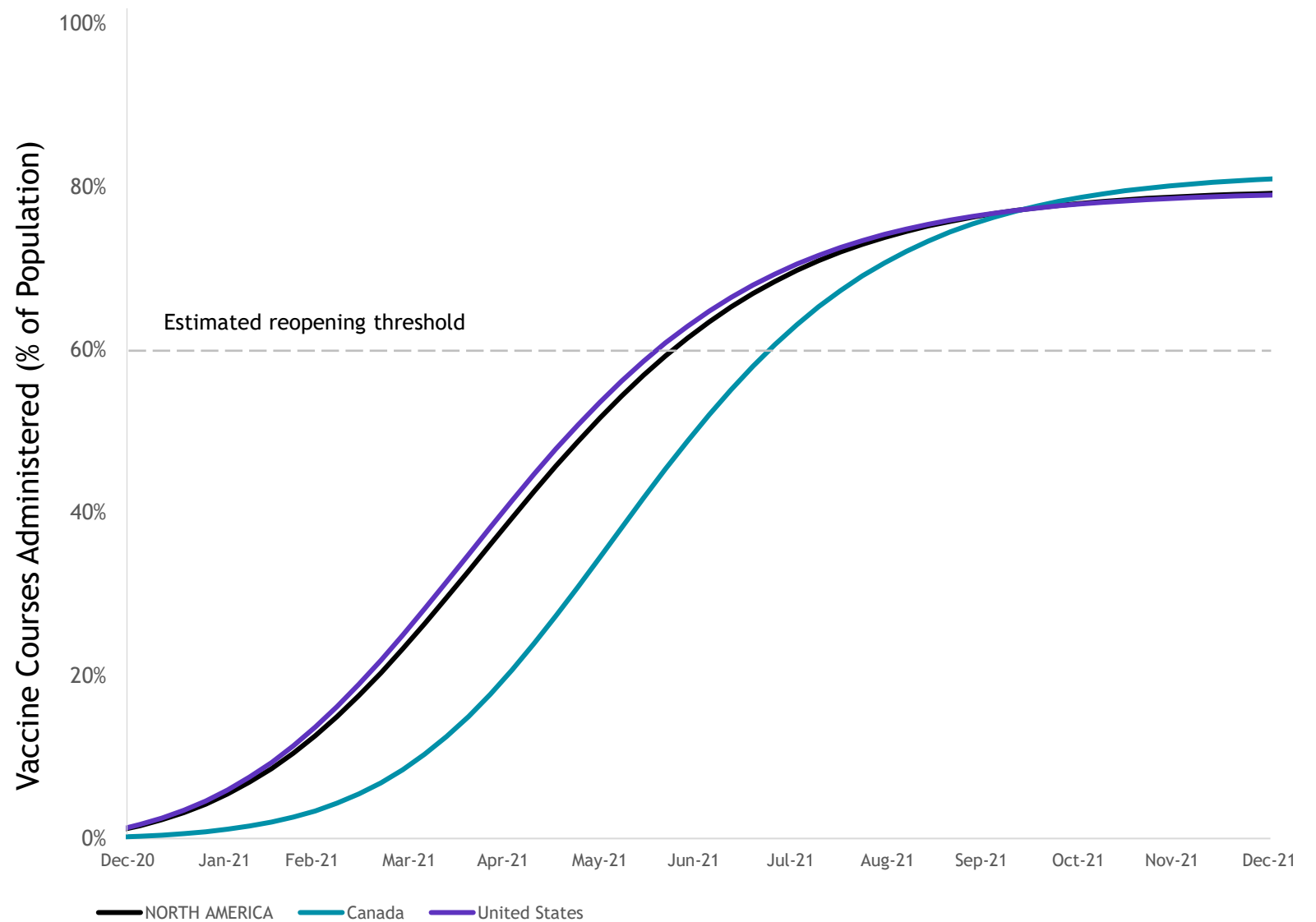
The following 5 slides show the vaccination rate forecast by geography.

**Notes:** Regional estimates represent total of countries covered within each graph only and does not include other countries from the region (e.g., Europe does not include Austria). Estimated reopening threshold based on Israeli model and is intended only as a guideline; in reality, reopening thresholds will vary by country depending on a variety of factors beyond vaccination and immunization rates, such as political considerations and economic circumstances.

Source: Clarivate.

# North America

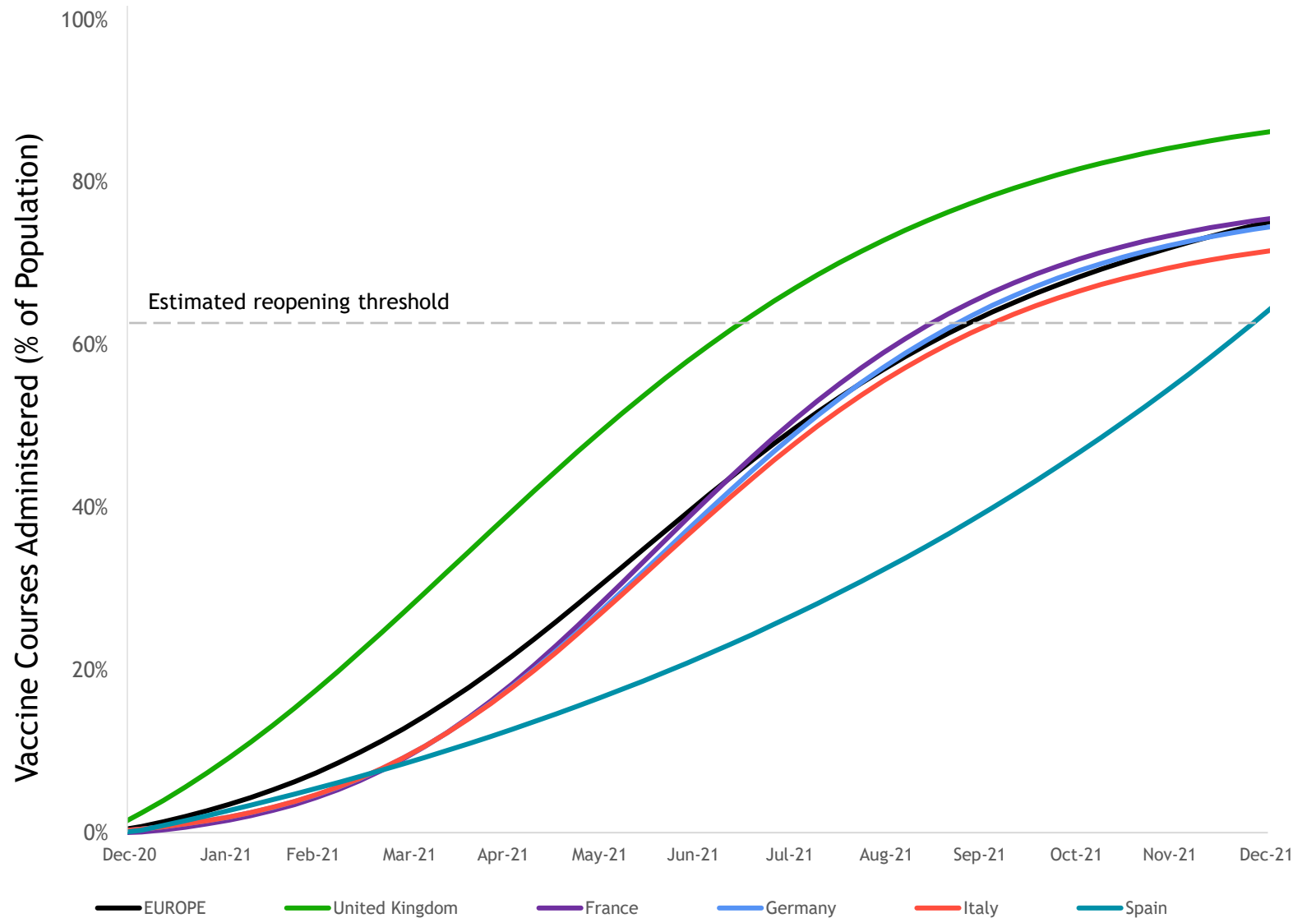
The overall vaccine rollout in North America is heavily weighted by the United States. However, differences between the vaccine rollout in Canada and the United States are attributed primarily due to the supply constraints seen in Canada. The United States' investment in vaccine manufacturing has given it a higher priority allocation of vaccine supply.





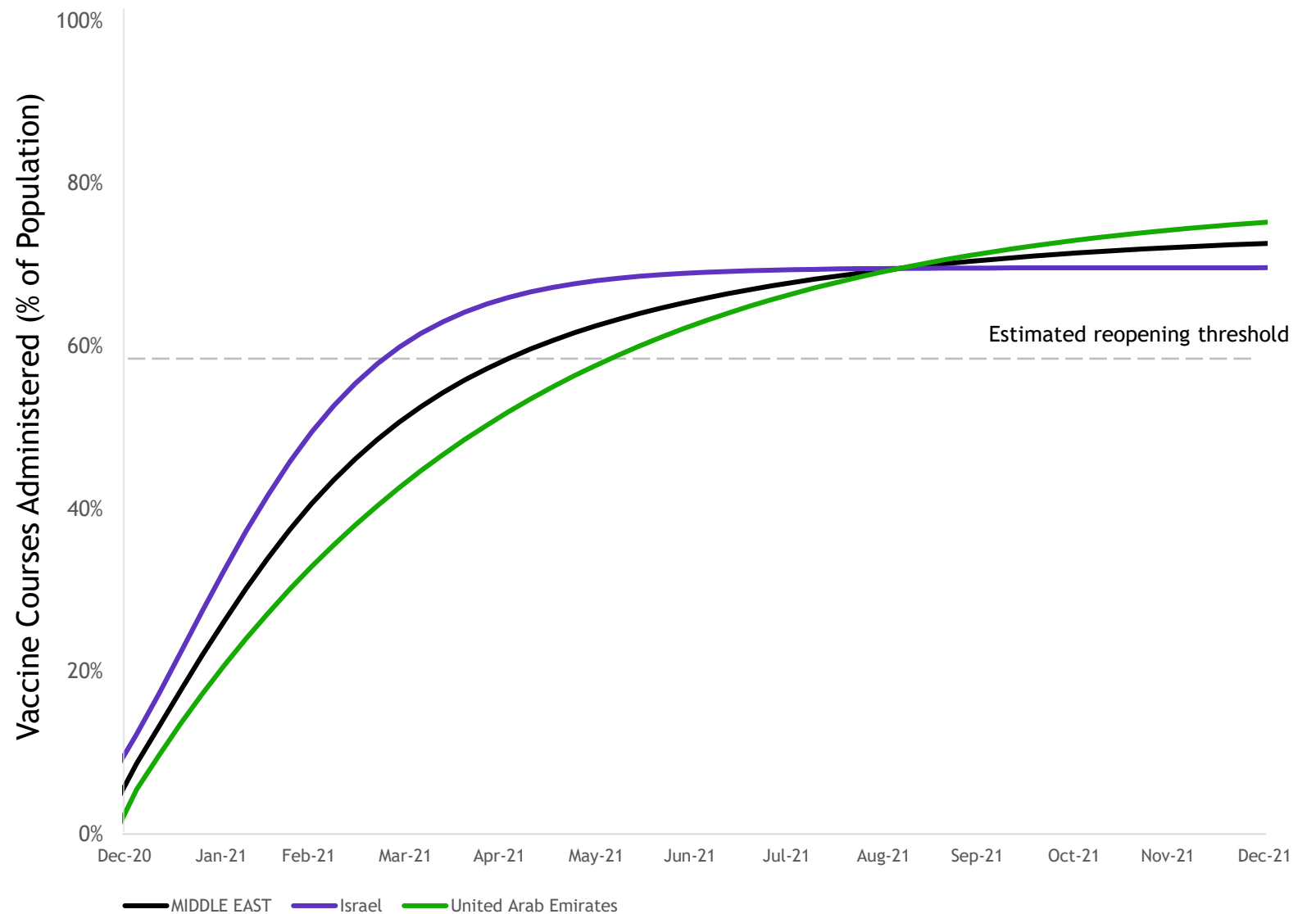
# Europe

In Europe, the core countries (France, Germany, Italy, Spain) procured their vaccine doses through the European Commission. Their similarity in vaccine rollout can be attributed to the interconnected nature of their vaccine supply. The United Kingdom also procured some of its vaccines through the European Commission but had a greater level of independence after Brexit, allowing it to secure an earlier and larger supply of vaccines through direct agreements.



# Middle East

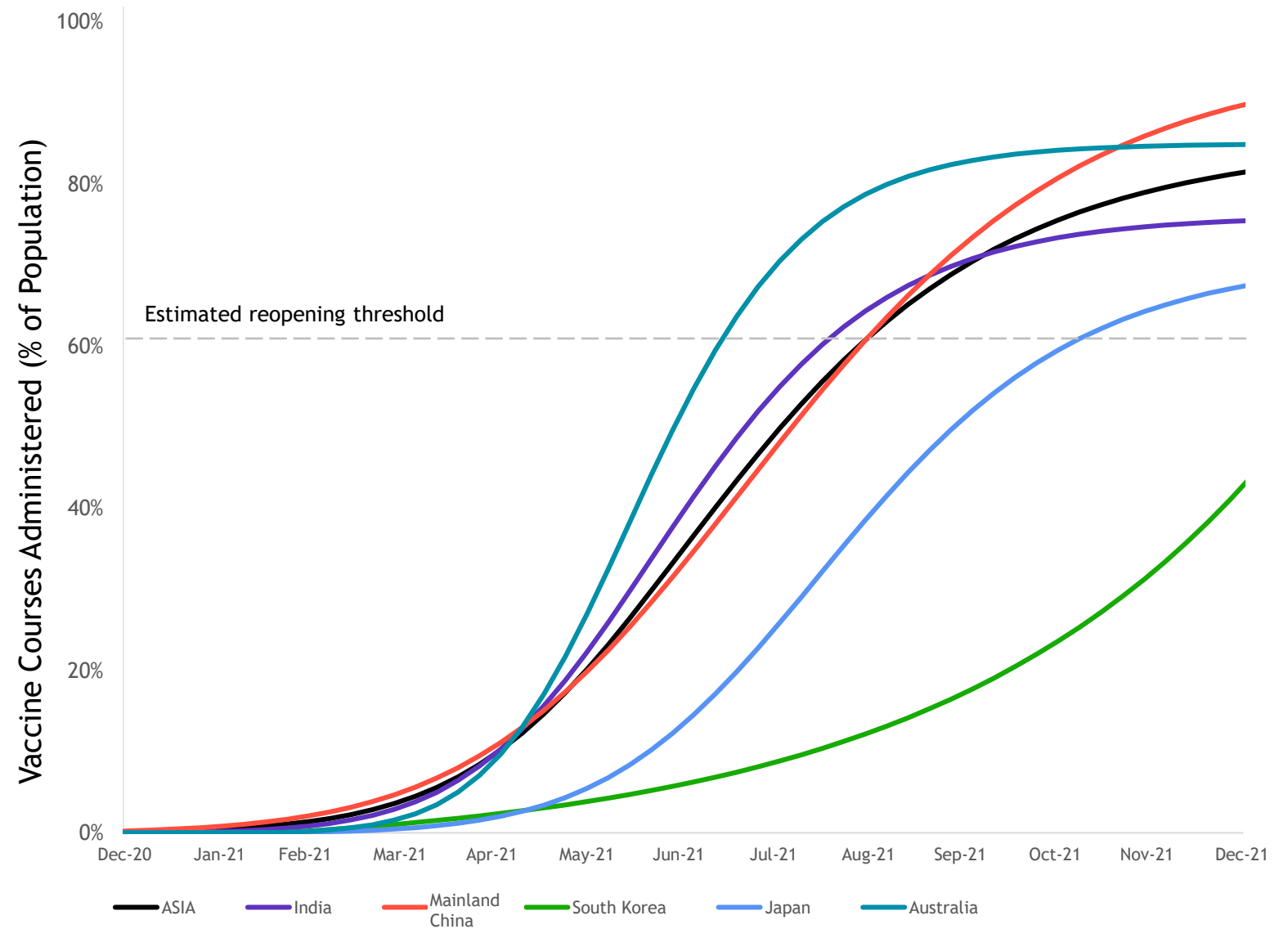
Overall, the Middle East (including only Israel and the UAE) has made the greatest progress in terms of vaccine rollout, carried by Israel's initial success. Israel initiated permanent reopenings towards the end of March 2021, when it had administered enough doses to fully cover approximately 60% of its population.



# Asia Pacific

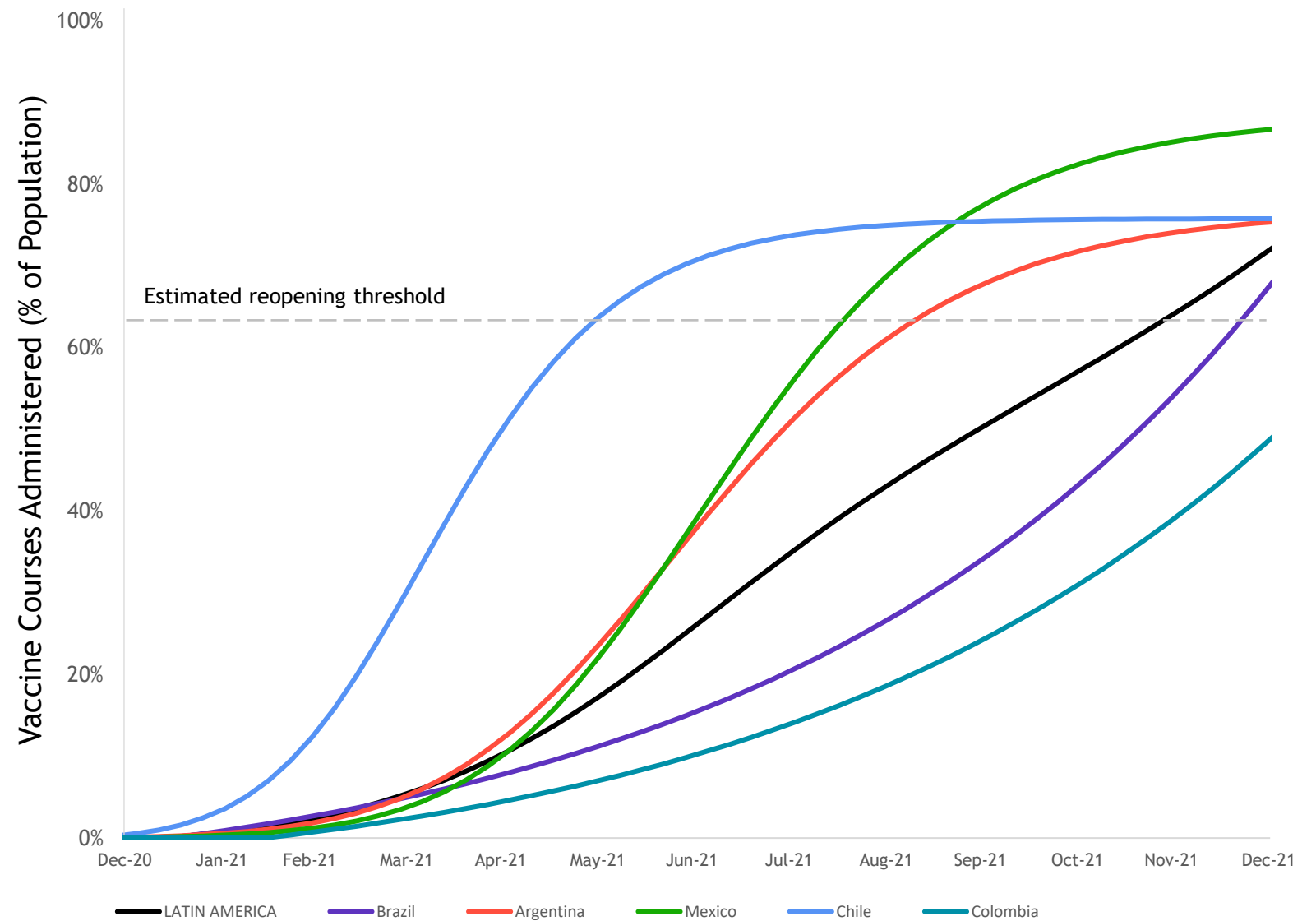
The vaccine rollout in the Asia Pacific region is dominated by Mainland China and India. Differences can be seen with Japan, South Korea, and Australia, which did not start their vaccination programs until the end of March 2021, compared to Mainland China and India, which started in January 2021.

Nonetheless, Australia is expected to be able to initiate reopenings earlier than the other countries covered, due primarily to its relatively small population and an expected ramp up in its vaccination program.



# Latin America

In Latin America, Chile has been able to make a huge leap with its vaccination program. Within 2 months, Chile has been able to achieve a 30% vaccination rate, more than any other Latin America country so far, attributed primarily to the country's extensive public health system, its participation in clinical trials, and its ability to make a broad set of vaccine procurement deals. Chile's vaccination rollout is therefore more similar to the United States than any other Latin American country.



# Full report: COVID-19 vaccine availability and medtech impact

Download the full report [COVID-19 vaccine availability and medtech impact](#) for more findings on:

- 2020 impact and recovery insights
- Current vaccine development status and the various distinctions between different vaccines
- How we believe the vaccination campaigns will roll out globally and how this influences forecasting
- Impact of vaccination availability on health care markets and sectors

