

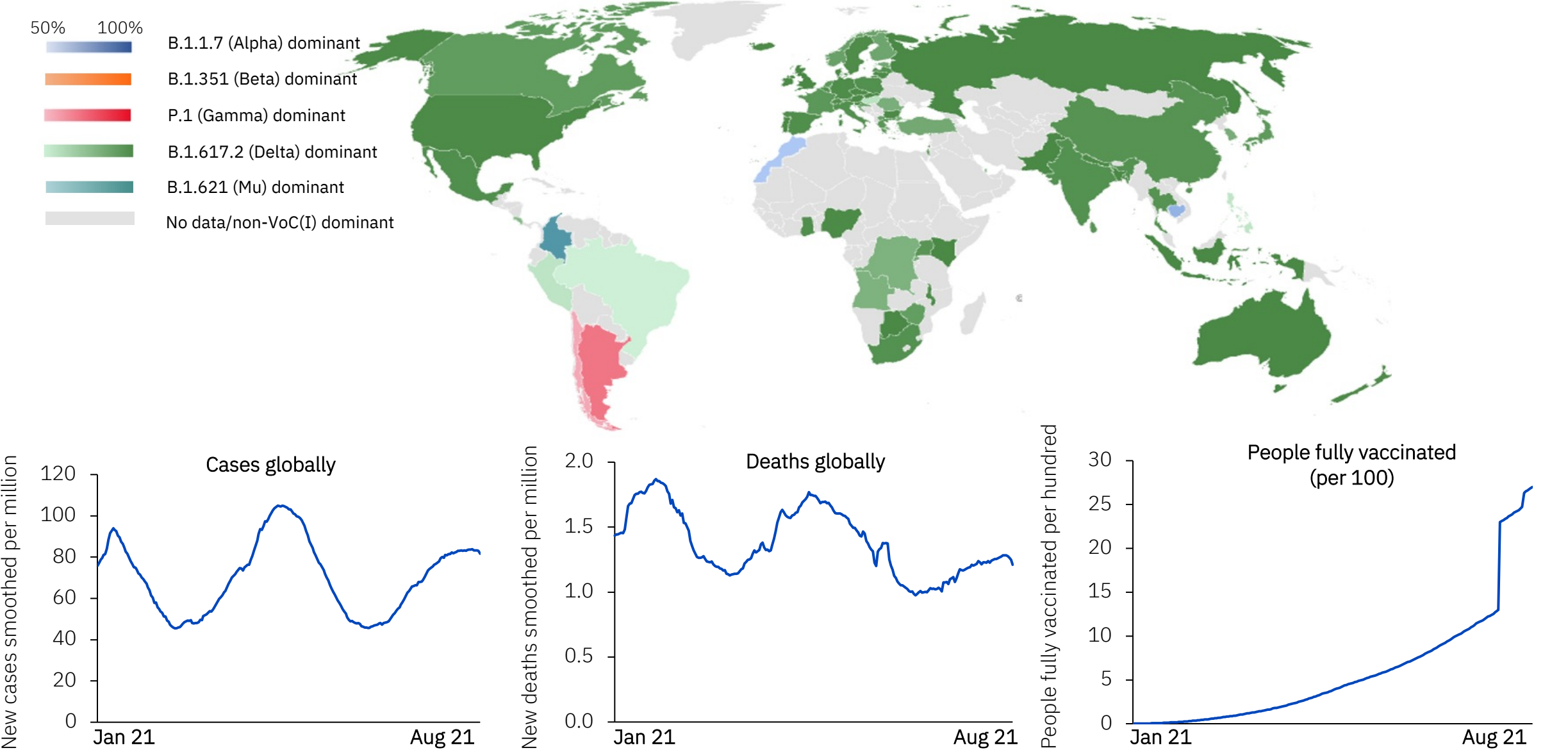
September 2021 snapshot COVID-19 data

Information for these slides is from public sources. IFPMA is not involved in the collection of this data.

7th September 2021

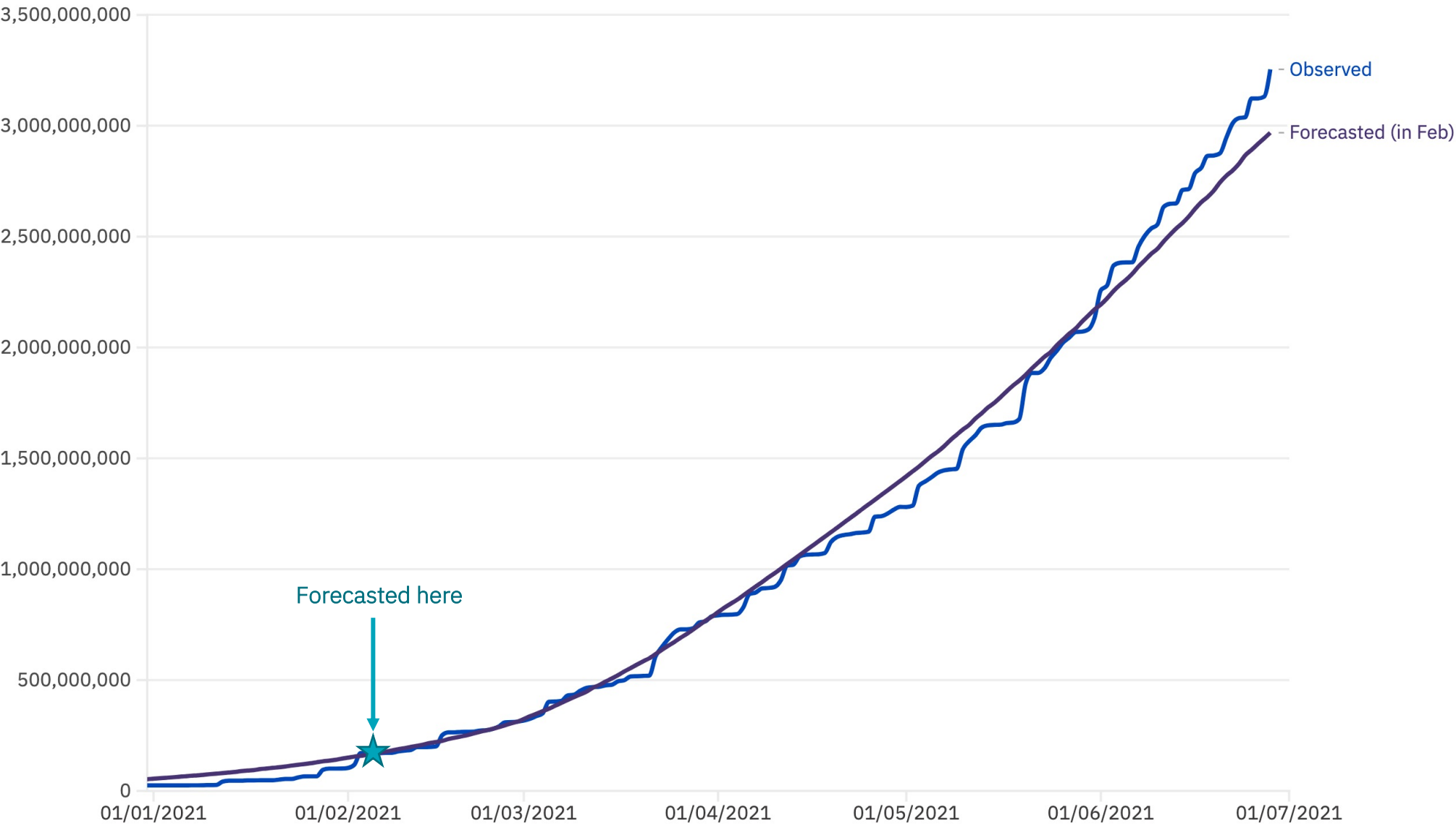
Despite a big increase in vaccination rates, infections are on the rise, deaths appear to be falling

An analysis of the current dominant variant, infections and deaths globally over time



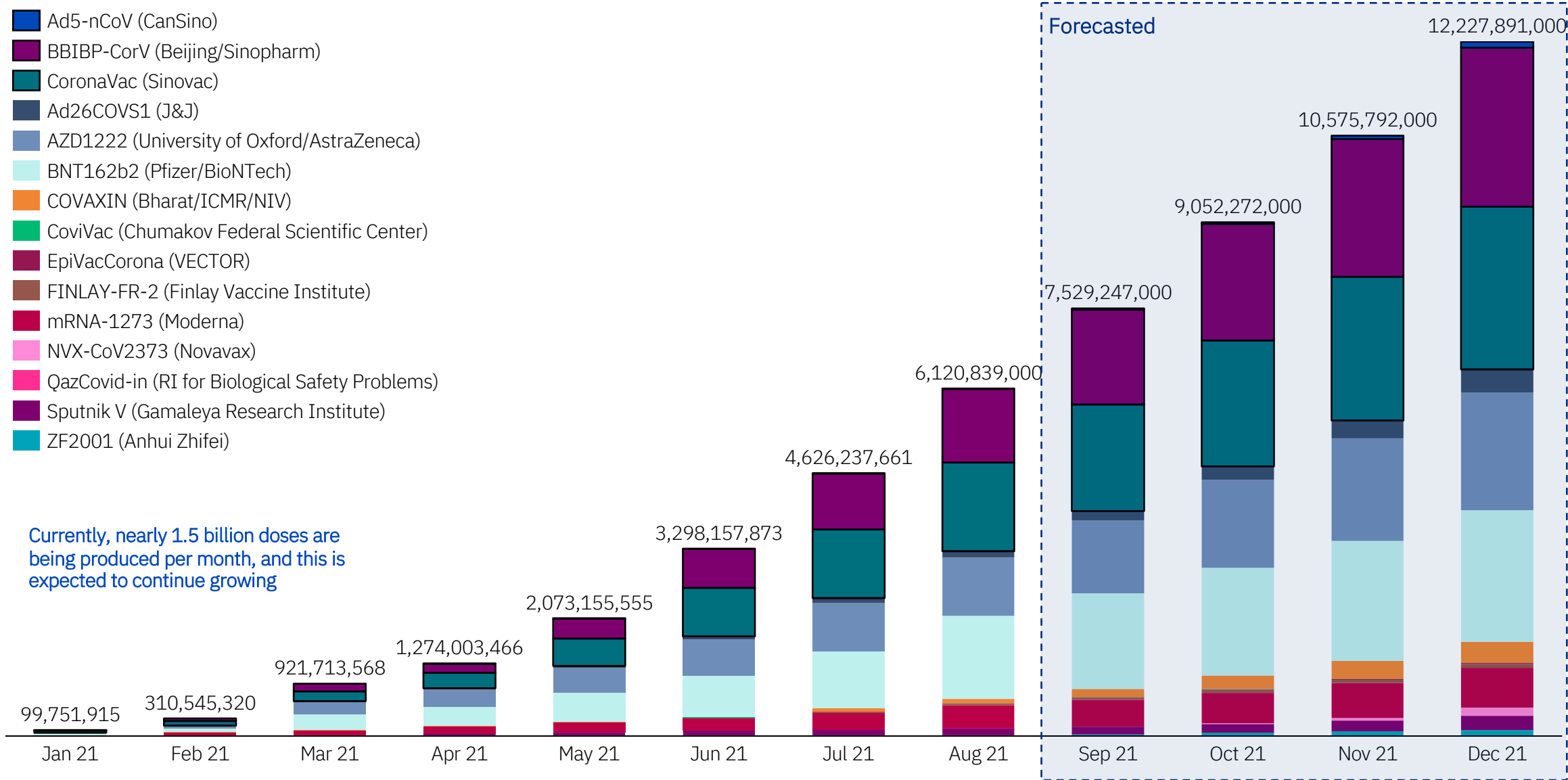
Airfinity forecasts have been realistic to observed production

Comparison of Airfinity forecasts (made in early February) vs observed production up until July



Vaccine production could exceed 12 billion doses in 2021

Vaccine production forecast by dose split by candidate



Forecasted on 24/08/2021

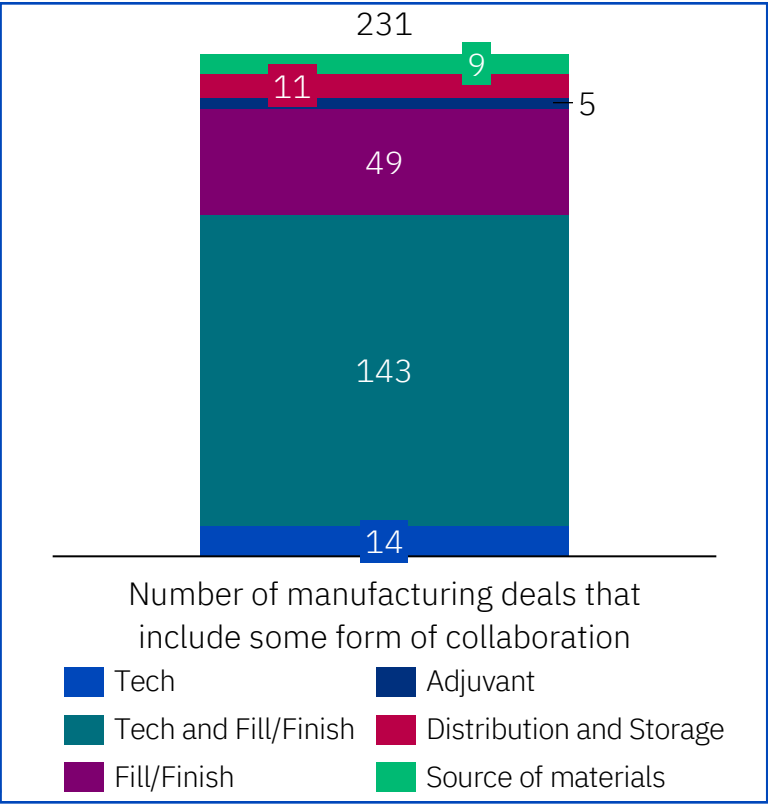
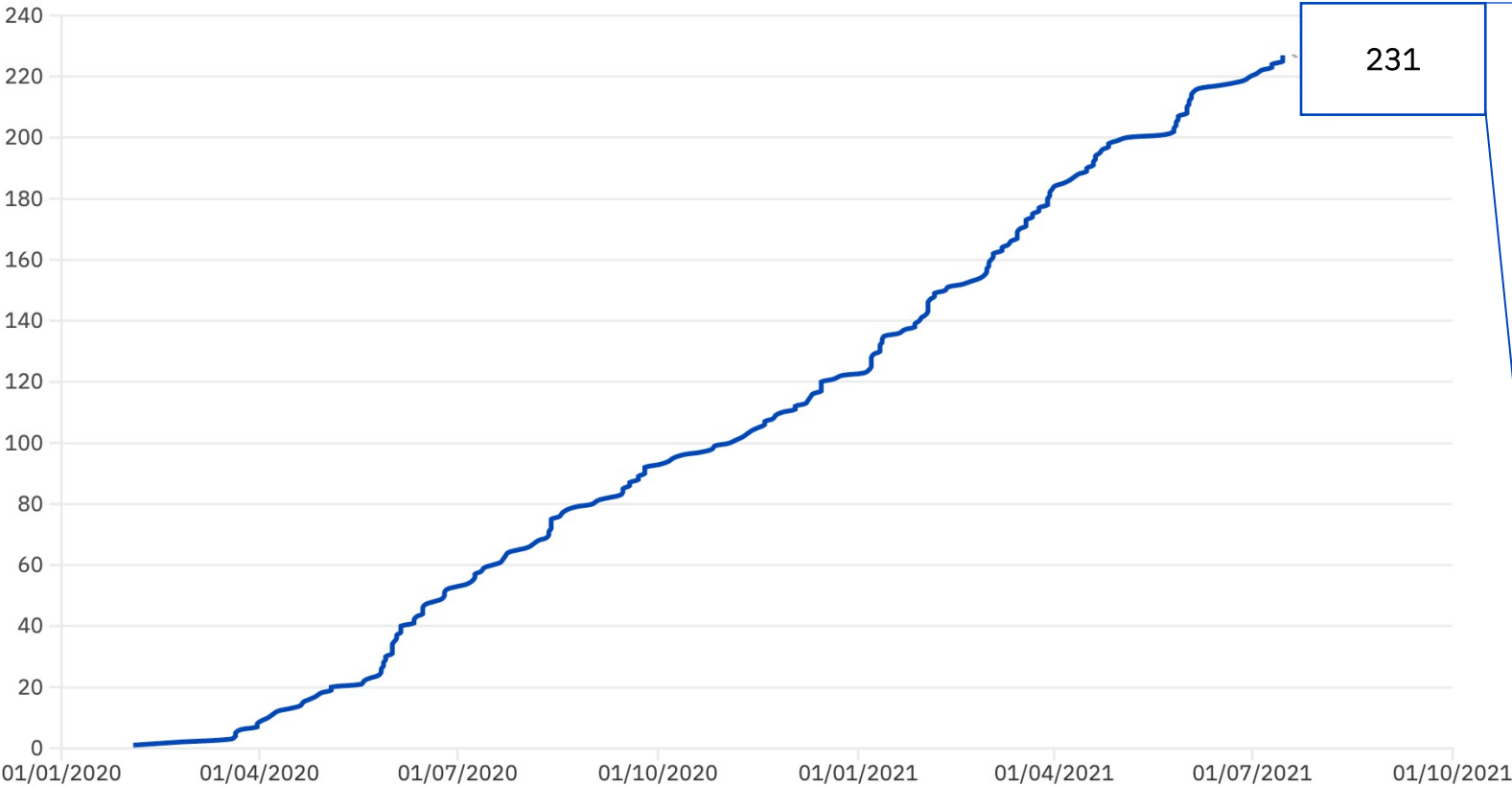
*80% of the population aged 12 and over

Contracted production and supply chain agreements have increased steadily throughout the pandemic

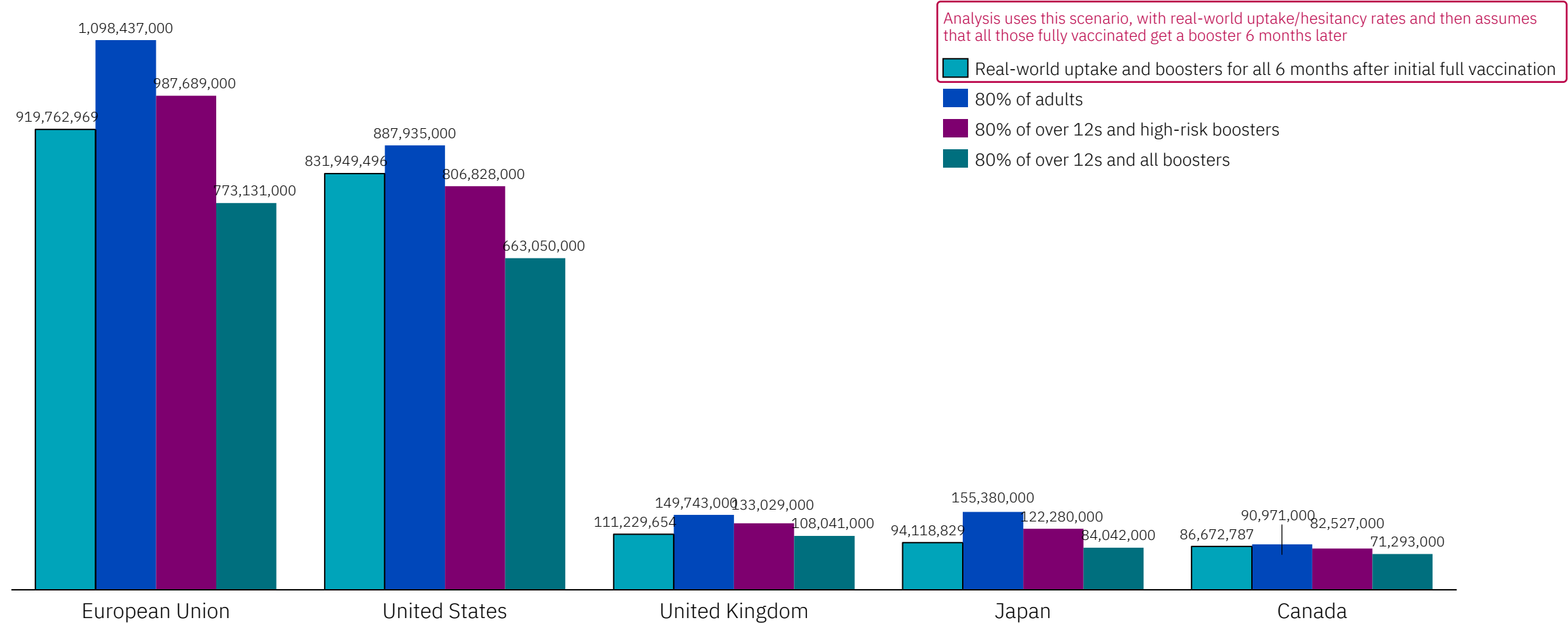
Cumulative number of contracted production and supply chain agreements

Of the 12 billion doses forecast to be produced in 2021, 73% is expected from in house production

Number of contracted production and supply agreements over time

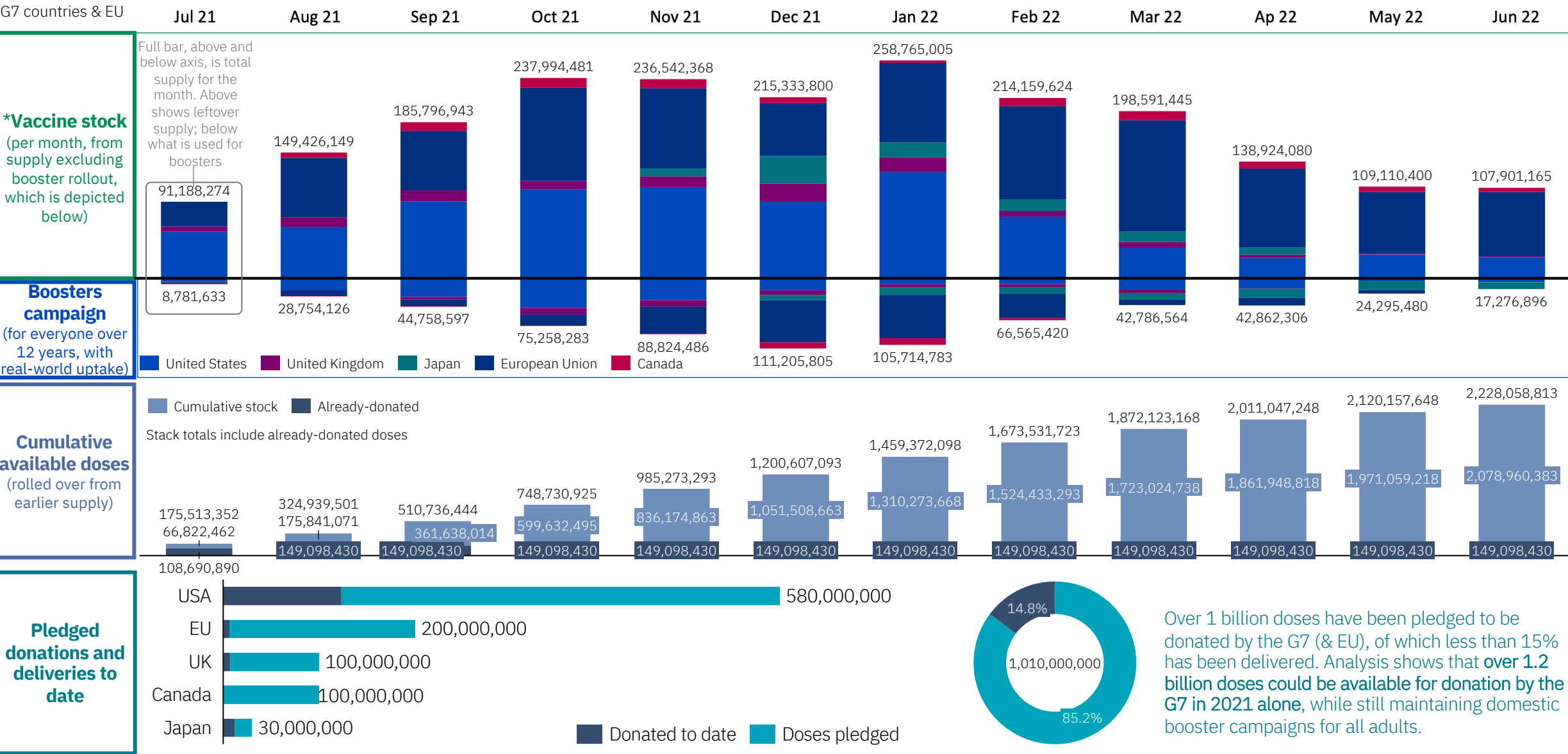


Available dose for redistribution analysis is calculated using Airfinity supply forecasts to each country, which are based on production scale-up forecasts. Surplus doses scenarios firstly account for initial vaccination campaigns – sufficient doses to fully vaccinate all eligible people – before then accruing supply for boosters, with the remaining supply being counted as available for redistribution. The following scenarios are calculated from supply to mid-2022. The scenarios shows the real-world uptake of vaccines and boosters for all (based on current data) and then compares this against an 80% uptake rate under different vaccination and booster scenarios, to show how many doses could be remaining from agreed supply of approved vaccines.



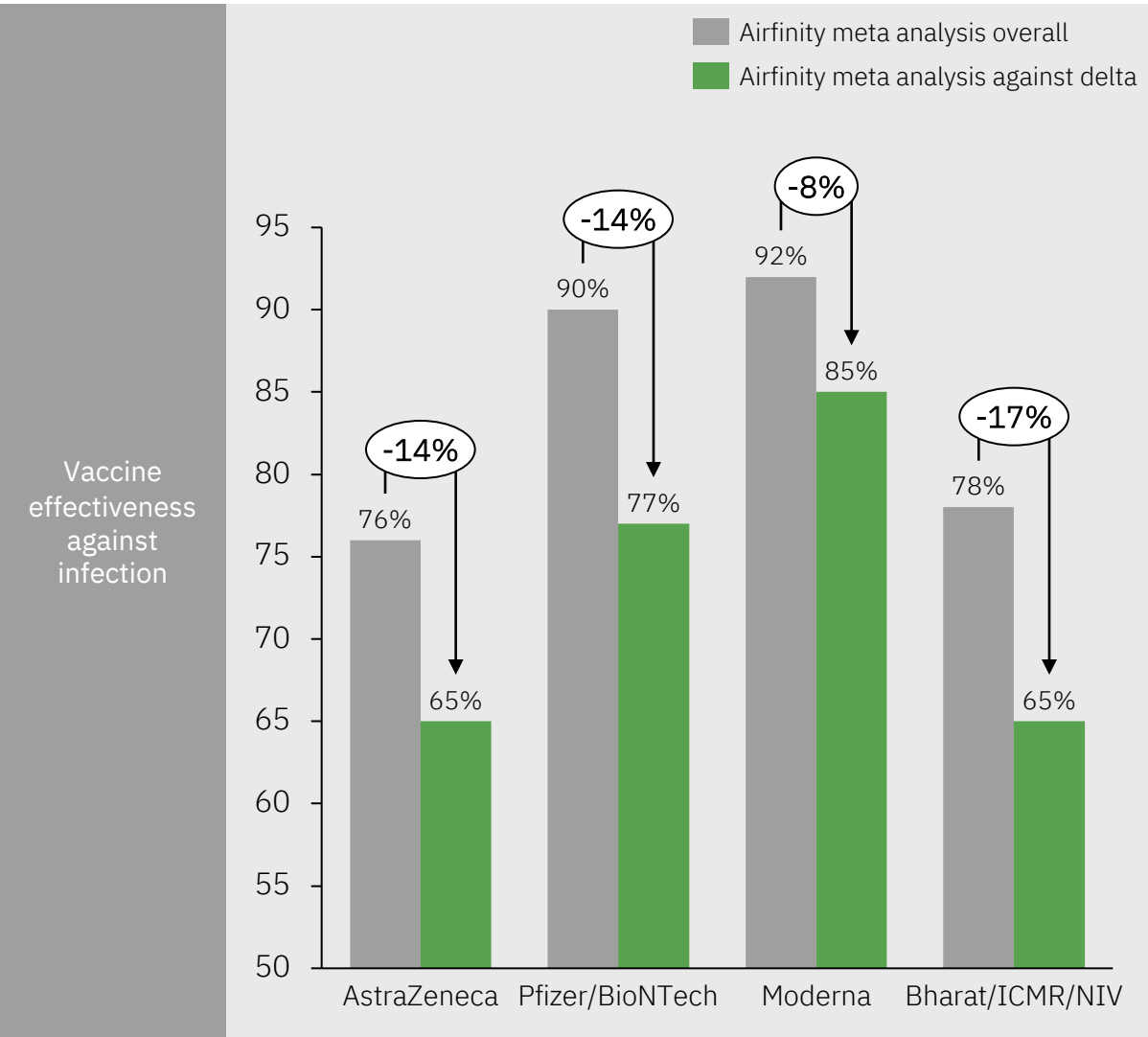
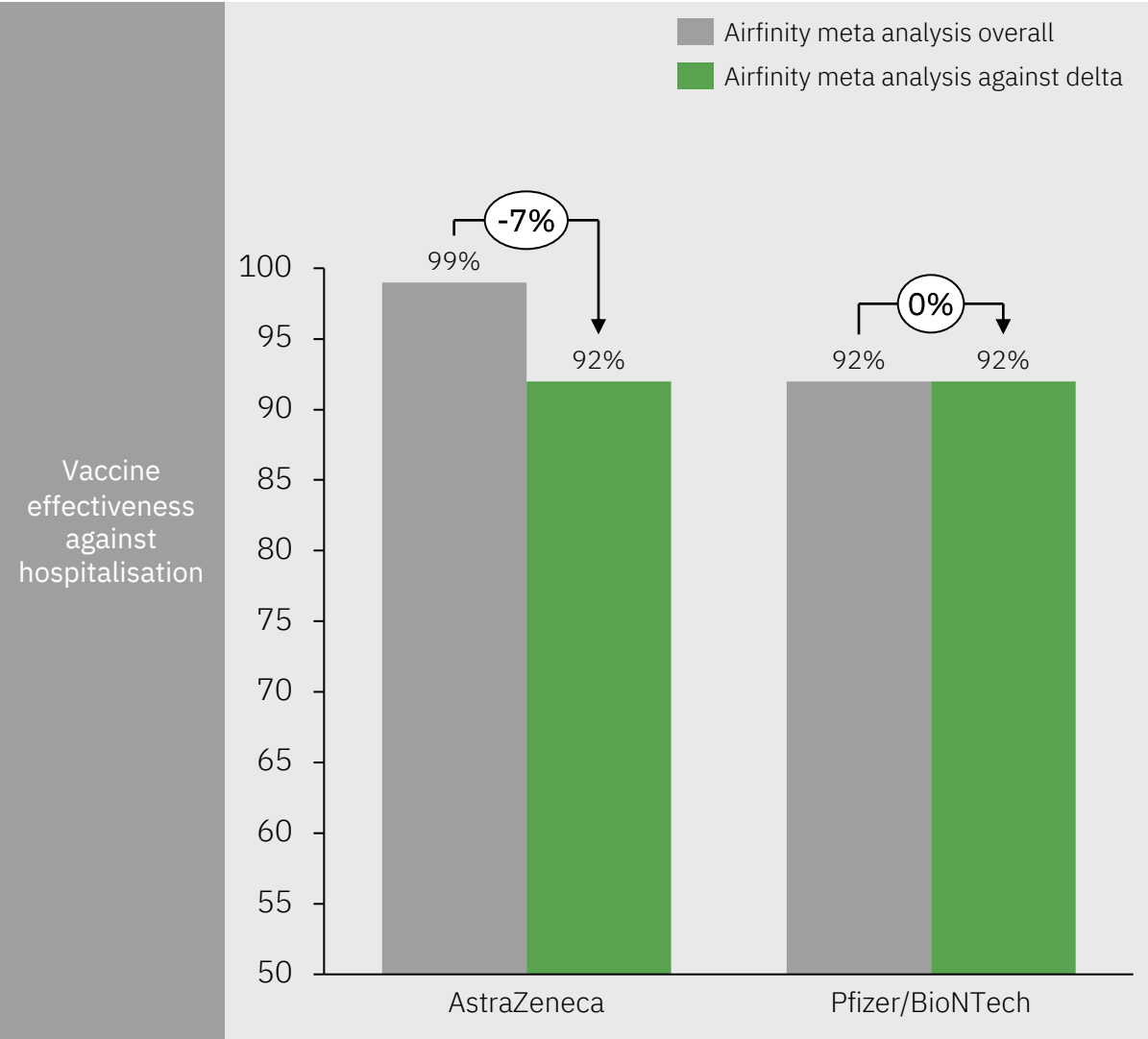
Western countries can provide booster shots and still have more than a 1.2 bn doses in 2021 to redistribute

Available supply per month, split into booster allocation for eligible and willing adults & teens and remaining supply of +SRA authorised vaccines only



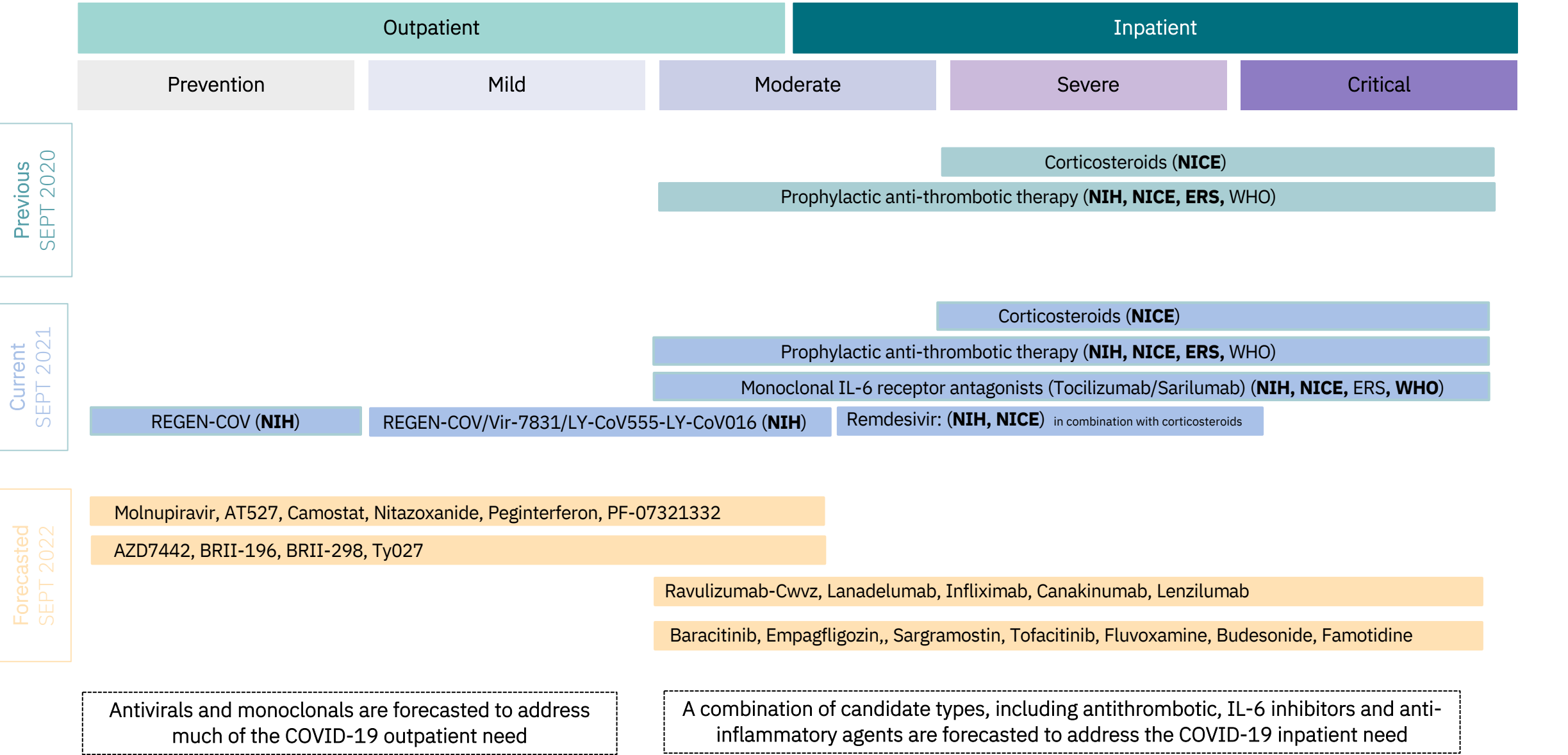
Vaccine effectiveness remains high with delta variant

Vaccines remain effective against highly virulent delta reducing risk of hospitalisation and infection



Oral antivirals and monoclonals forecasted to have a great impact on standard of care in next 12 months

Last 12 months COVID-19 a further 8 treatments have been approved with 5 impacting standard of care



MORE INFORMATION

Press:

Sarah Harper
Media and Communications Manager

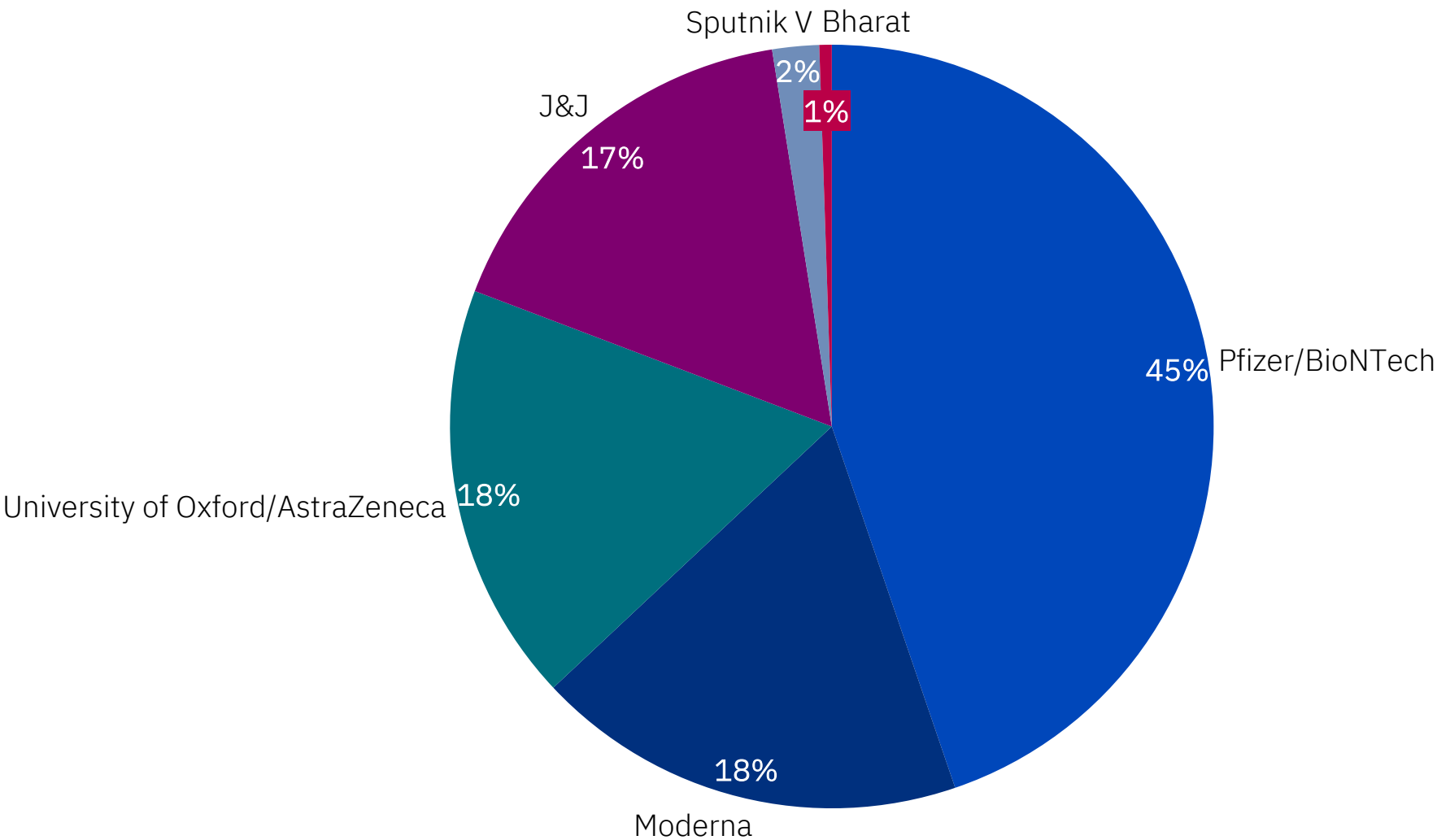
M: +44 (0) 777 365 9099

Sarah@airfinity.com

- ➡ Forecasted supply is calculated from purchased doses only and excludes any call option (i.e. the option to expand the deal)
- ➡ Only approved vaccines have been included (plus Novavax, which is expected to be granted approval soon)
- ➡ The analysis runs to mid-2022, therefore excludes prepurchase agreements due to be delivered to these countries in H2 2022
- ➡ Analysis assumes that no vaccine facility pauses production to reconfiguration of an updated variant-targeting vaccine (that are yet to be approved)
- ➡ Analysis uses scenario where eligible populations (in most cases everyone over 12 years old) are offered a vaccine and are then given a booster at least 6 months after completing initial full vaccination course, with a real-world uptake rate of (ranging from 65-85%) of the eligible population.

The distribution potential mainly consist of mRNA vaccines

Forecast of available doses split by vaccine*



*These are surplus doses calculated from secured supplies from governments, not surplus doses produced by companies in 2021

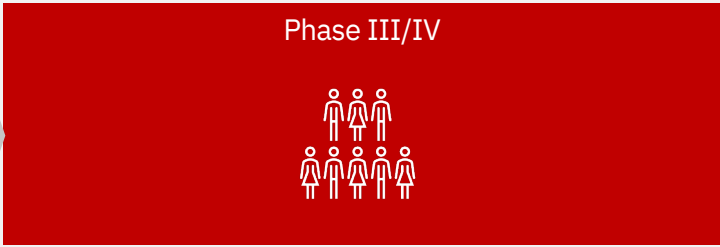
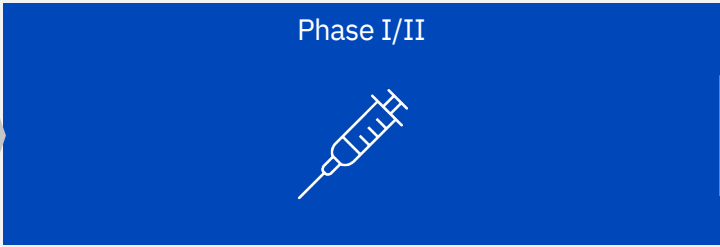
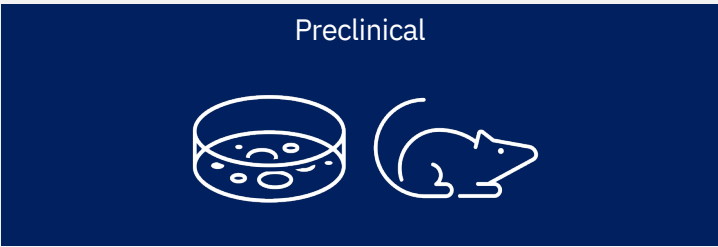
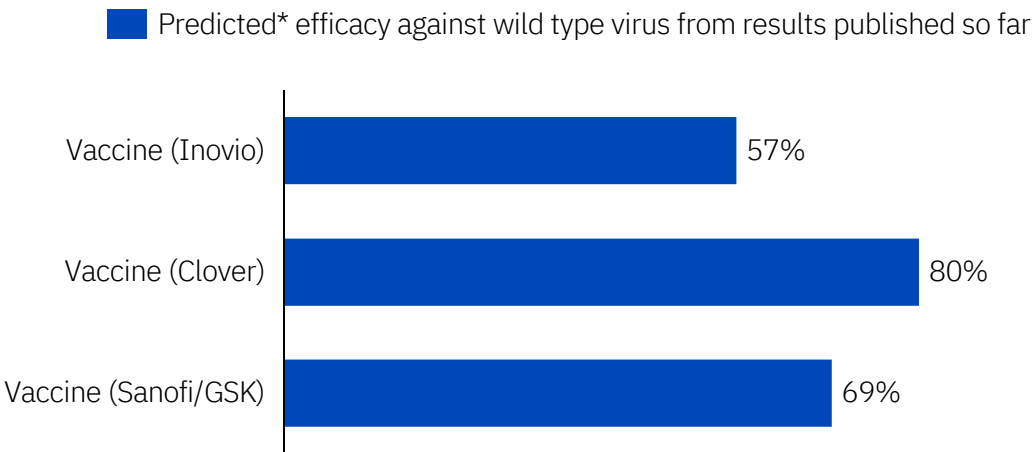
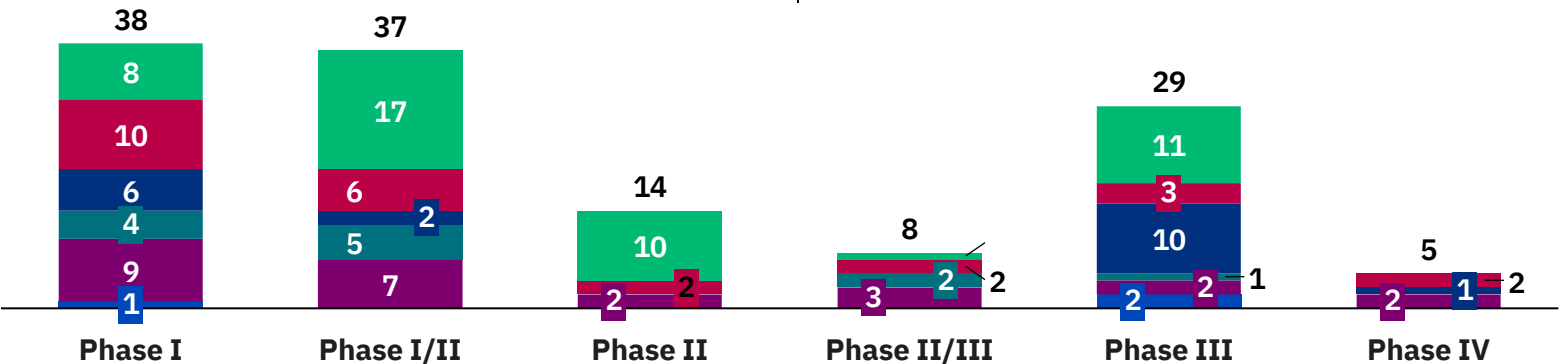
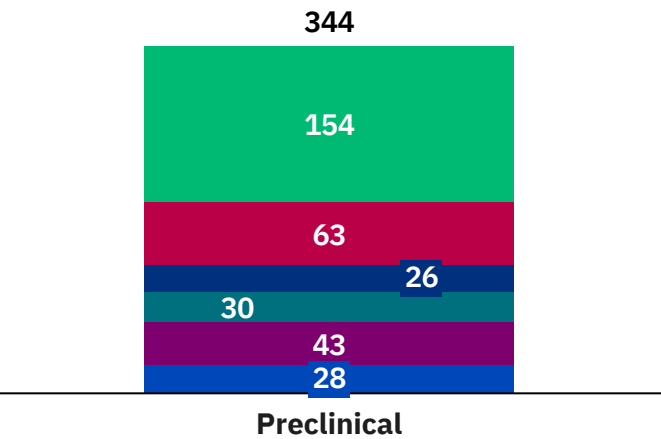
Promising COVID-19 vaccine candidates in the pipeline

Overview of candidates and clinical trial phase

- Protein Subunit
- Genetic Vaccine (DNA)
- Genetic Vaccine (viral vector)
- Genetic Vaccine (mRNA)
- Whole Virus
- Unknown

Number of variant updated vaccines in development: 32

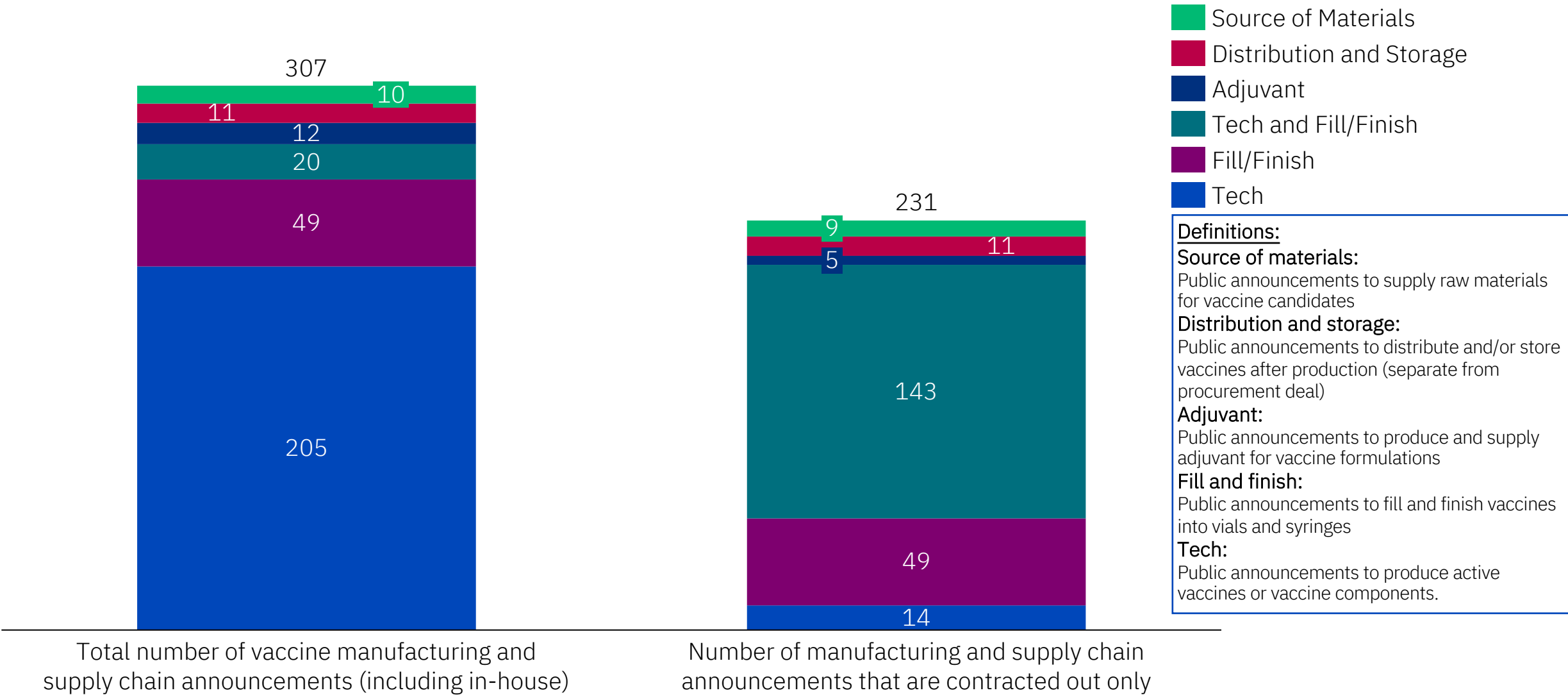
Number of vaccines with an another form of administration other than injection in development: 85



*Using the airfinity model

Vast majority of vaccine manufacturing and supply chain announcements have involved a collaboration

An analysis of the number of collaborations confirmed for vaccine manufacturing



Approved and investigational candidates with promising results

Overview of clinical development for COVID-19 treatment candidates

	Candidate	Type	Company	Route of Administration	Latest Trial Data	Rolling Review	Filing	Approved (Country list)
Outpatient	Molnupiravir (MK-4482)	Antiviral	Merck/Ridgeback Therapeutics	Oral	III	Yes		
	Fluvoxamine	Antidepressant	47 suppliers	Oral	III			
	Budesonide	Corticoids	64 suppliers	Inhaled	III			
	AT-527	Antiviral	Roche/Atea Pharmaceuticals	Oral	II			
	PF07321332	Antiviral	Pfizer	Oral	II/III			
	Vir-7831 (Sotrovimab)	Monoclonal	GSK/Vir Biotechnology	IV/IM	II/III			US, EU, Canada, Australia, UAE, Kuwait
	REGEN-COV (Casirivimab/Indevimab)	Monoclonal	Roche/Regeneron	IV/subQ	III			US, EU, UK, Canada, Japan, Brazil, Bahrain, Panama, Switzerland
	AZD7441	Monoclonal	AstraZeneca	IM	III		Yes	
Inpatient	Baricitinib	Anti-inflammatory	Eli Lilly/Nacto Pharma	Oral	III			US, Russia, Mexico, Japan, India
	Tofacitinib	Anti-inflammatory	Shuoyuan Chemicals	Oral	III			
	Enoxaprin (LMWH)	Antithrombotic	19 suppliers	IV/subQ	IV			Off label
	Apixaban (LMWH)	Antithrombotic	86 suppliers	subQ	IV			Off label
	Tocilizumab	Monoclonal IL-6 blocker	Roche/Genetech	IV/subQ	II/III			US, UK China, Russia, India, Pakistan, Mexico
	Sarilumab	Monoclonal IL-6 blocker	Sanofi/Regeneron	subQ	III			UK
	REGEN-COV (Casirivimab/Indevimab)	Monoclonal	Roche/Regeneron	IV/subQ	III			US, EU, UK, Canada, Japan, Brazil, Bahrain, Panama, Switzerland
	Empagliflozin	Antidiabetic	Boehringer Ingelheim/Eli Lilly	Oral	II/III			

■ Better than SOC
 ■ Moderately better than SOC
 ■ Equal to SOC
 ■ Rejected/worse than SOC
 No/insufficient data

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THE WORLD'S TRUSTED COVID-19 PLATFORM

Airfinity is a life science analytics company. Working with some of the world's largest pharma companies, government agencies, corporates and investors, it has established itself as an authoritative provider of new predictive insights and accurate independent information.

Airfinity has built the world's leading COVID-19 science and market intelligence platform.

The company is headquartered in London and partners with organisations worldwide.

Airfinity's COVID-19 data was seen by more than 2 billion people in 2020.

"Airfinity has been instrumental in our country's COVID response"

Head of Government Vaccine Task Force

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