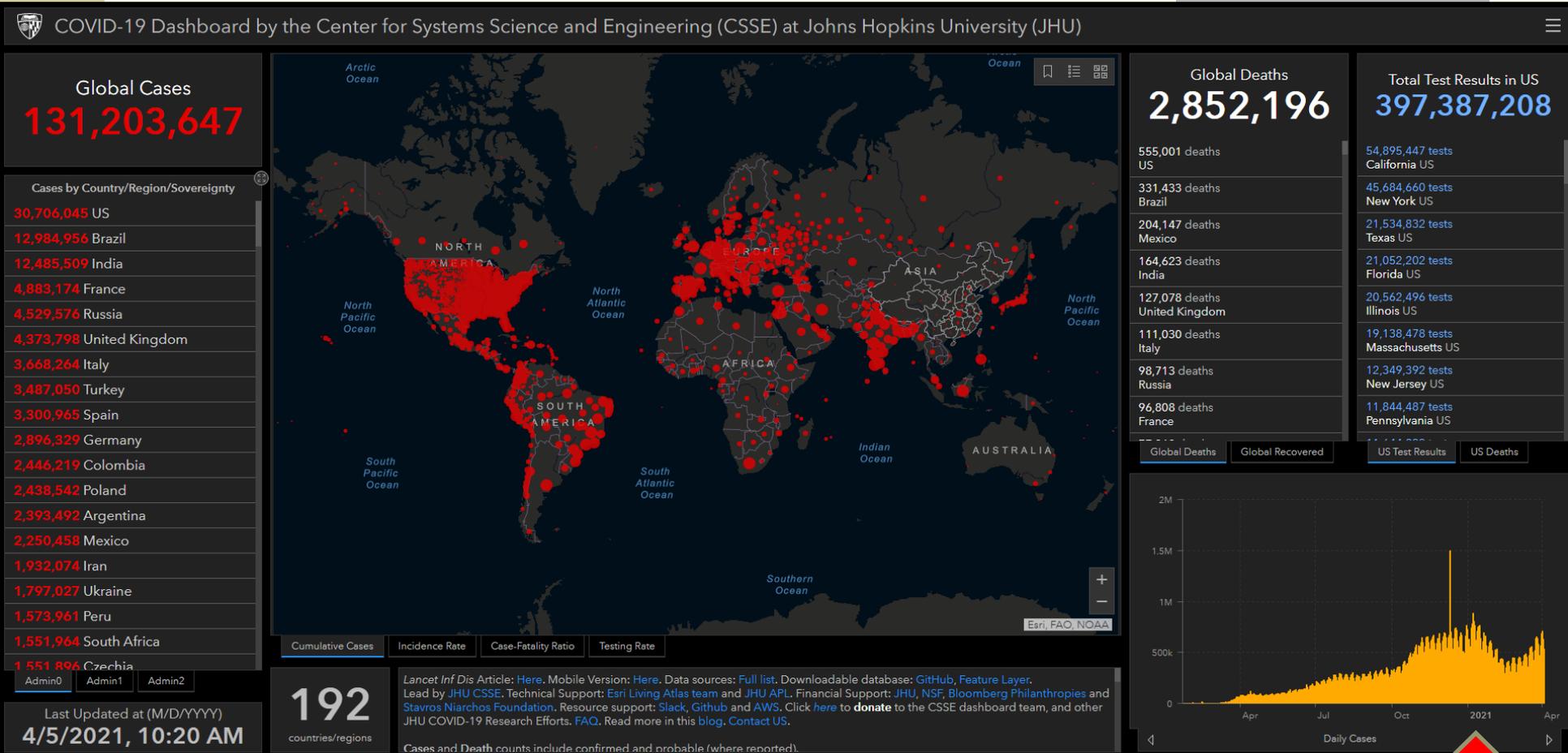


Covid Vaccine Update

9 April, 2021

Piotr Chlebicki
Infectious Diseases Specialist
Mount Alvernia Hospital

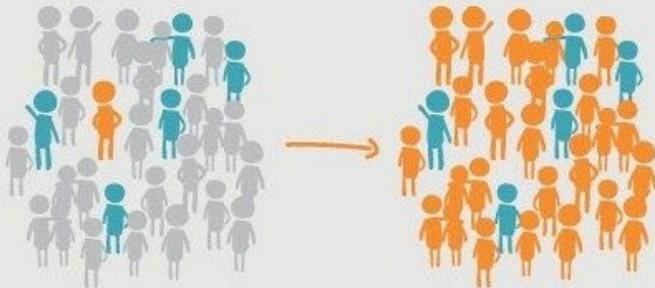
16 months later....



It will only stop when we reach herd immunity

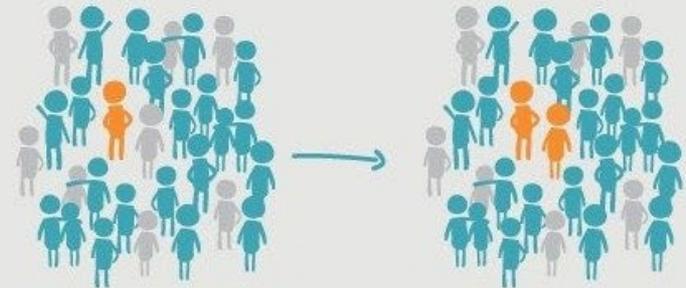
What is 'herd immunity'?

If only a few people are vaccinated ...



...then one person is infected...
the disease spreads very fast

But if lots of people are vaccinated ...



...then the disease can't spread very far,
so the whole community stays safe.
This is 'herd immunity'

In human history herd immunity leading to disease control was only reached through vaccinations....

In the meantime = damage control

“Flatten the curve”

- School closure – online learning
- Workplace closure – work from home
- No public events
- Restrictions on gatherings
- Closing public transport
- Restricting internal movement
- Stay at home requirements
- International travel controls

- **“LOCKDOWN”**

Published on **Let's Talk Development**

Lives or livelihoods? Global estimates of the mortality and poverty costs of COVID-19

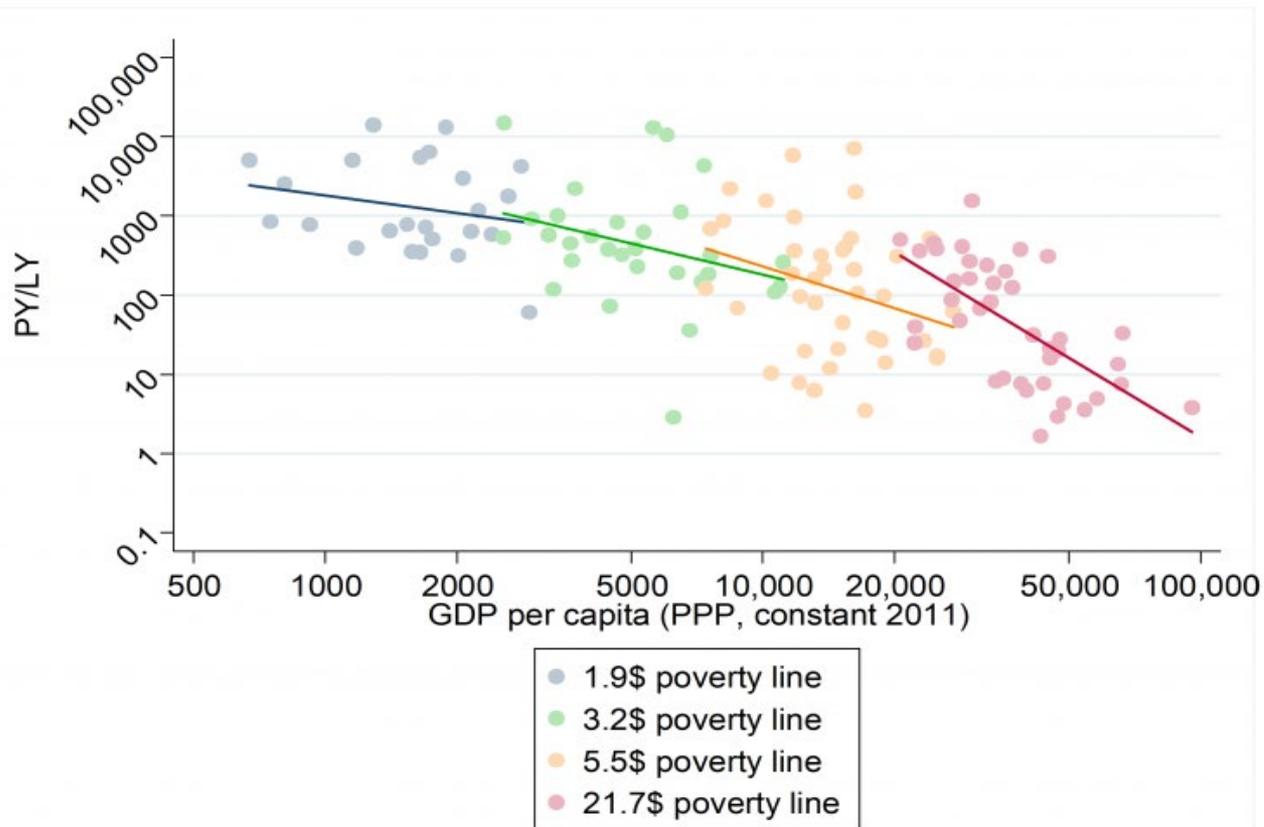
BENOÎT DECERF, FRANCISCO FERREIRA, DANIEL GERSZON MAHLER & OLIVIER STERCK | JUNE 17, 2020

- For each country, they estimate
 - how many years of life have been lost through COVID-19 death? (**“lost years”**)
 - how many additional years are spent in poverty due to the pandemic and the subsequent individual and public policy responses? (**“poverty years”**)
- **How many years of your remaining life would you be willing to spend in poverty in order to increase your lifespan by one year?**

<https://blogs.worldbank.org/developmenttalk/lives-or-livelihoods-global-estimates-mortality-and-poverty-costs-covid-19>

Vaccine is the only viable option for low-income countries

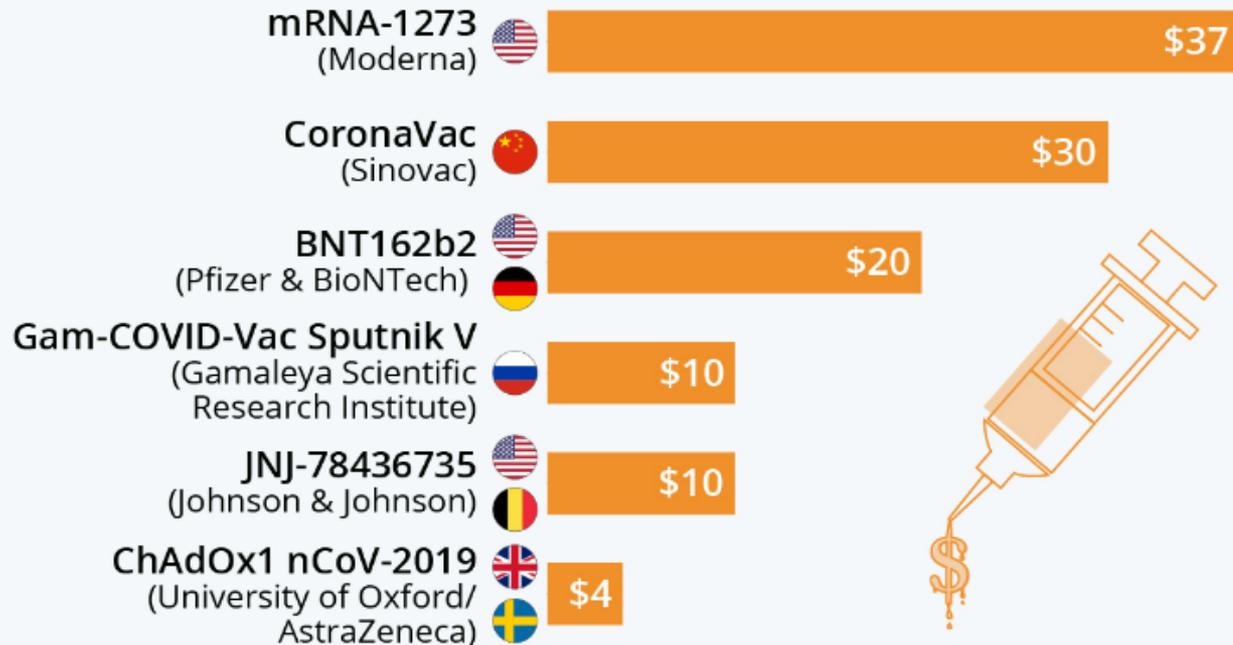
Figure 1: The poverty years/lost years ratios for 150 countries



In low-income countries, thousands of poverty years may be the price too high for one year of life saved.

The Cost Per Jab Of Covid-19 Vaccine Candidates

Reported cost per dose of selected Covid-19 vaccine candidates*



* As of Dec 01, 2020. Some trials are still ongoing. Final prices subject to change.
Sources: Reuters, Financial Times, CNBC, Russian Ministry of Health



statista

Please also factor in “cold chain”

Astra Zeneca dilemma

1 case of clot or 300-500 deaths?

**Covid deaths per million
till April 8, 2021**

- Chechia – 2561/million
- Belgium - 2028/million
- UK – 1895/million
- Italy – 1863/million
- USA – 1696/million
- Brazil 1614/million

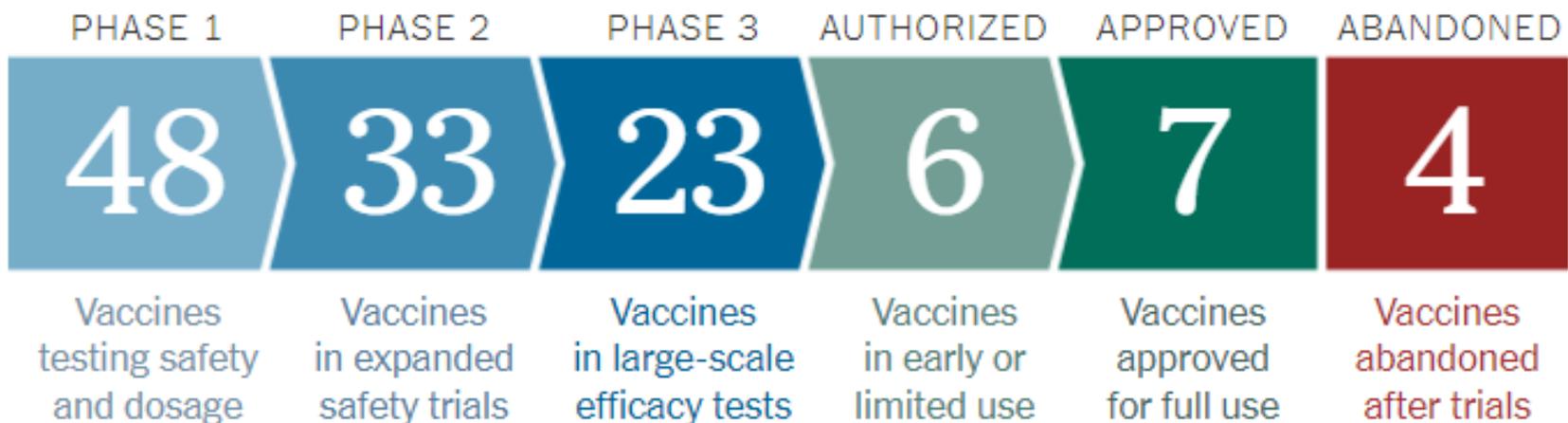
**169 cases after 34 million
doses = 5 cases/million**

EU drug regulator: 169 cases of rare brain blood clot identified in people who received AstraZeneca jabs



Coronavirus Vaccine Tracker

By [Carl Zimmer](#), [Jonathan Corum](#) and [Sui-Lee Wee](#) Updated April 3, 2021



Where each vaccine is being used

Oxford-AstraZeneca

100 COUNTRIES



Pfizer-BioNTech

82 COUNTRIES



Moderna

35 COUNTRIES



Sinopharm-Beijing

23 COUNTRIES



Gamaleya (Sputnik V)

20 COUNTRIES



Sinovac

15 COUNTRIES



Sinopharm-Wuhan

2 COUNTRIES



Johnson&Johnson

2 COUNTRIES



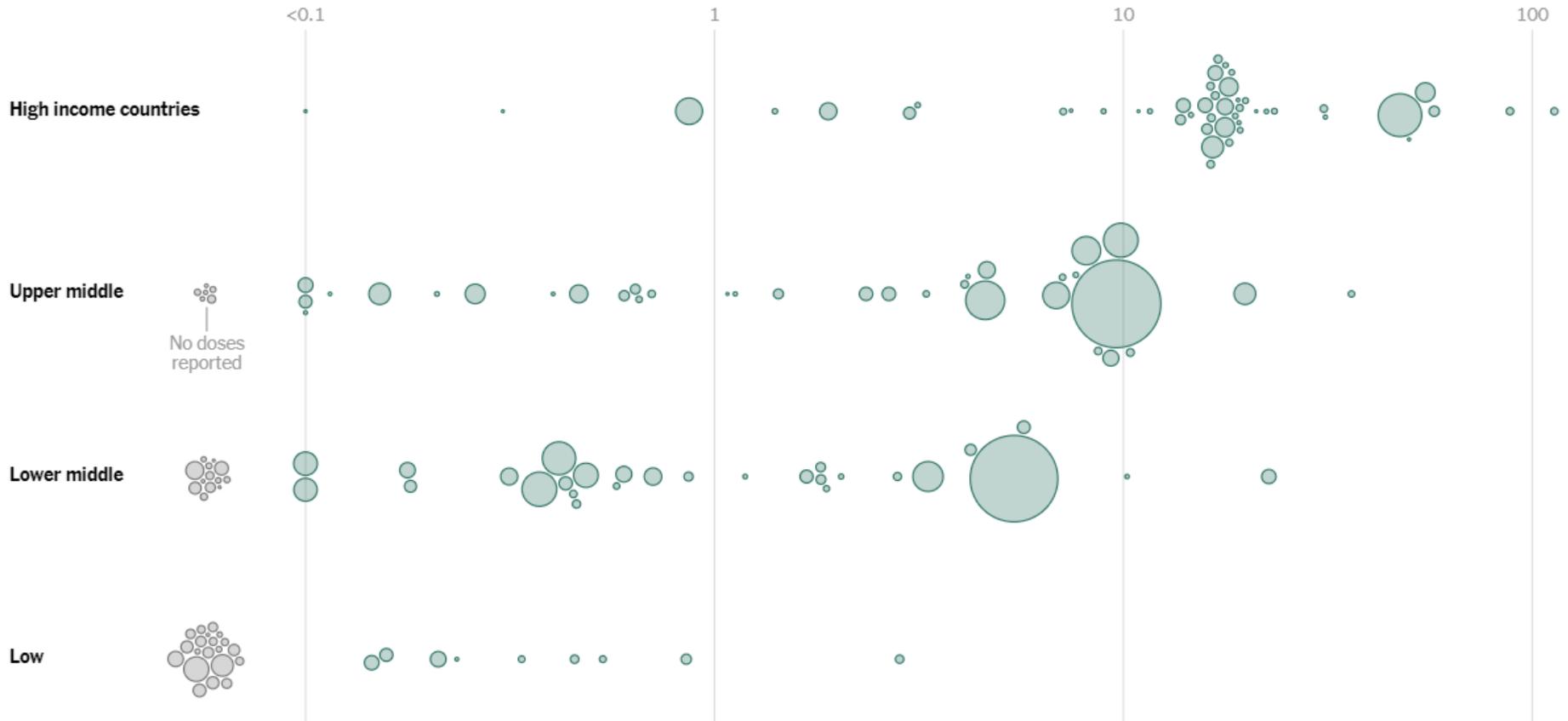
Bharat Biotech (Covaxin)

1 COUNTRY



Vaccination rates by country income level

Doses administered per 100 people. Circles sized by country population. Some countries may have started to administer doses, but have not yet reported data.



Note: Countries with no reported vaccinations either have not started a widespread vaccination campaign or aren't regularly reporting data on the number of doses administered. Doses administered are plotted on a log scale.

Vaccine nationalism

The Economist, 28 January 2021

Waiting game

Covid-19, when will widespread vaccination coverage be achieved?

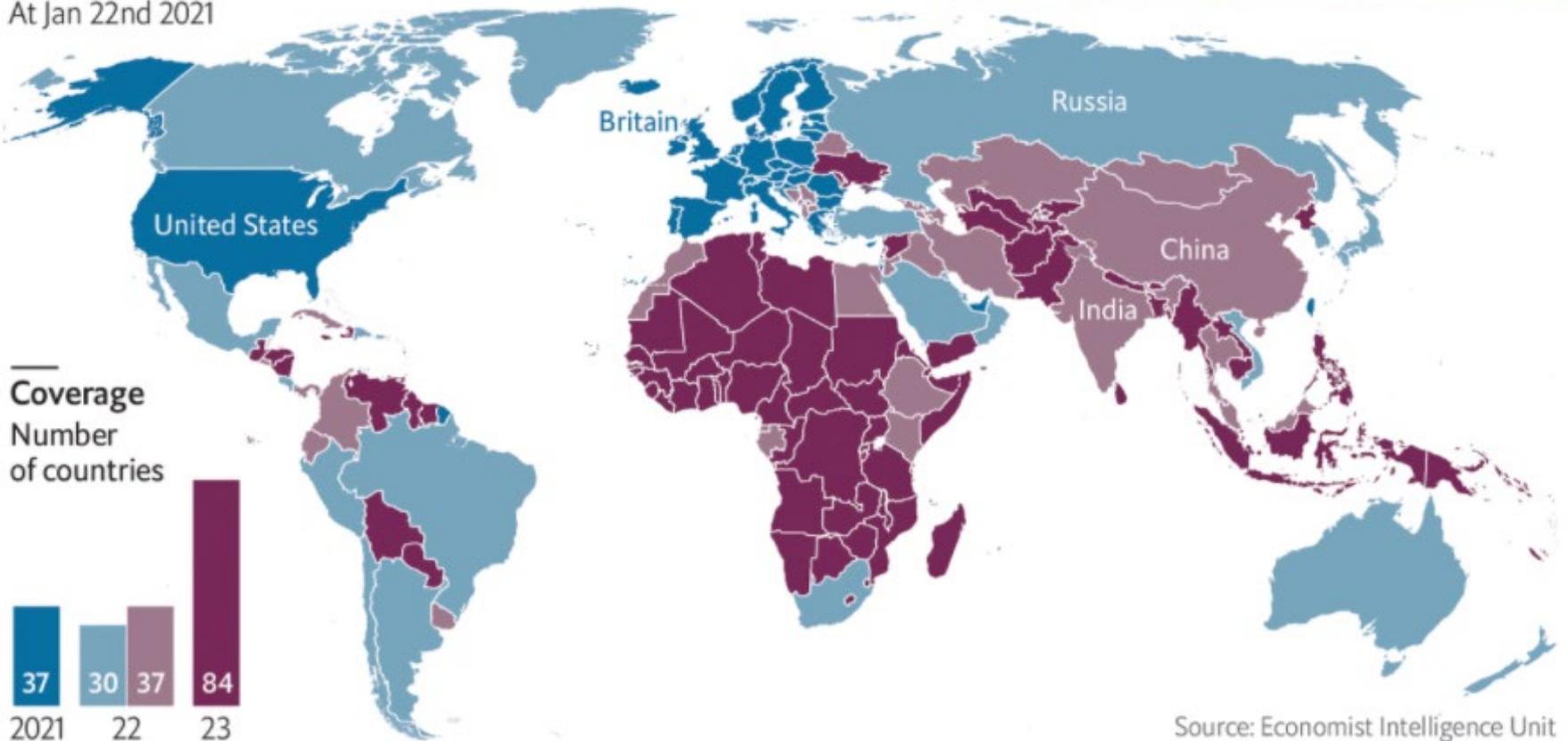
Late 2021

Mid 2022

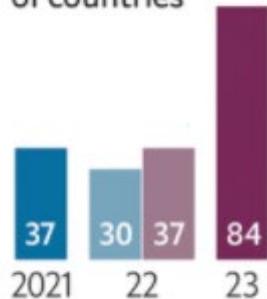
Late 2022

from early 2023

At Jan 22nd 2021



Coverage
Number
of countries



The Economist

Source: Economist Intelligence Unit

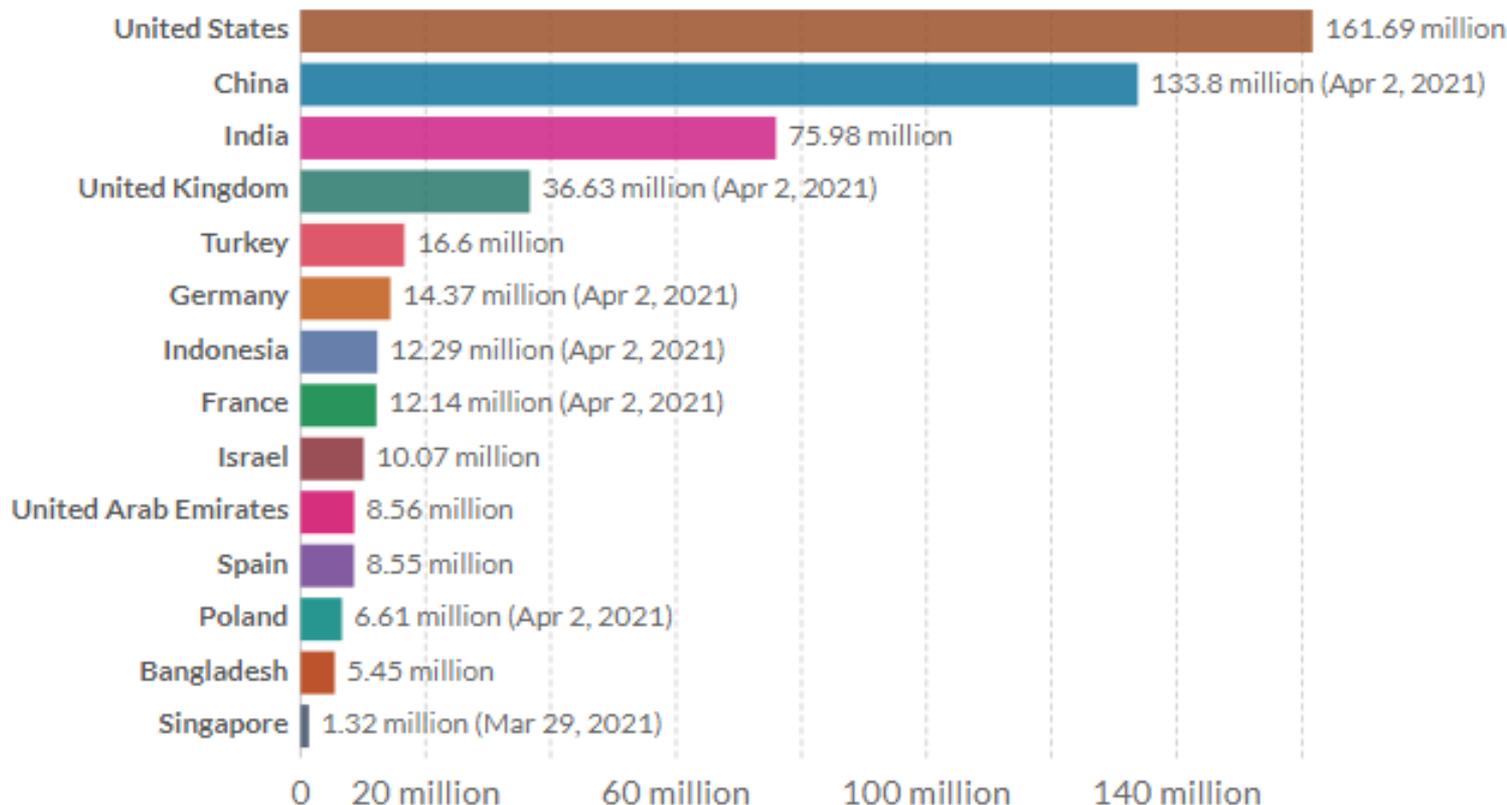
COVID-19 vaccine doses administered, Apr 3, 2021

Total number of vaccination doses administered. This is counted as a single dose, and may not equal the total number of people vaccinated, depending on the specific dose regime (e.g. people receive multiple doses).

LINEAR

LOG

+ Add country



Source: Official data collated by Our World in Data - Last updated 4 April, 08:15 (London time) OurWorldInData.org/coronavirus • CC BY

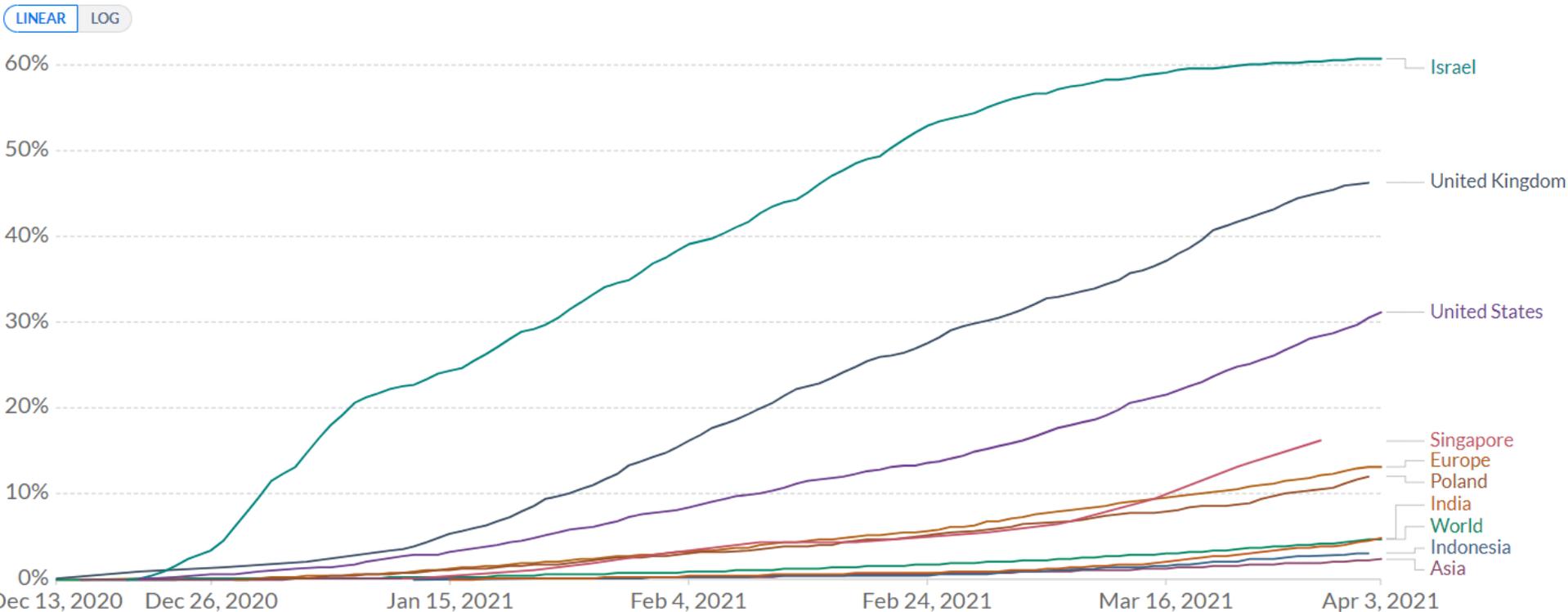
▶ Dec 13, 2020 ○ Apr 3, 2021

What really counts for herd immunity is % of population

Share of people who received at least one dose of COVID-19 vaccine

Our World in Data

Share of the total population that received at least one vaccine dose. This may not equal the share that are fully vaccinated if the vaccine requires two doses.



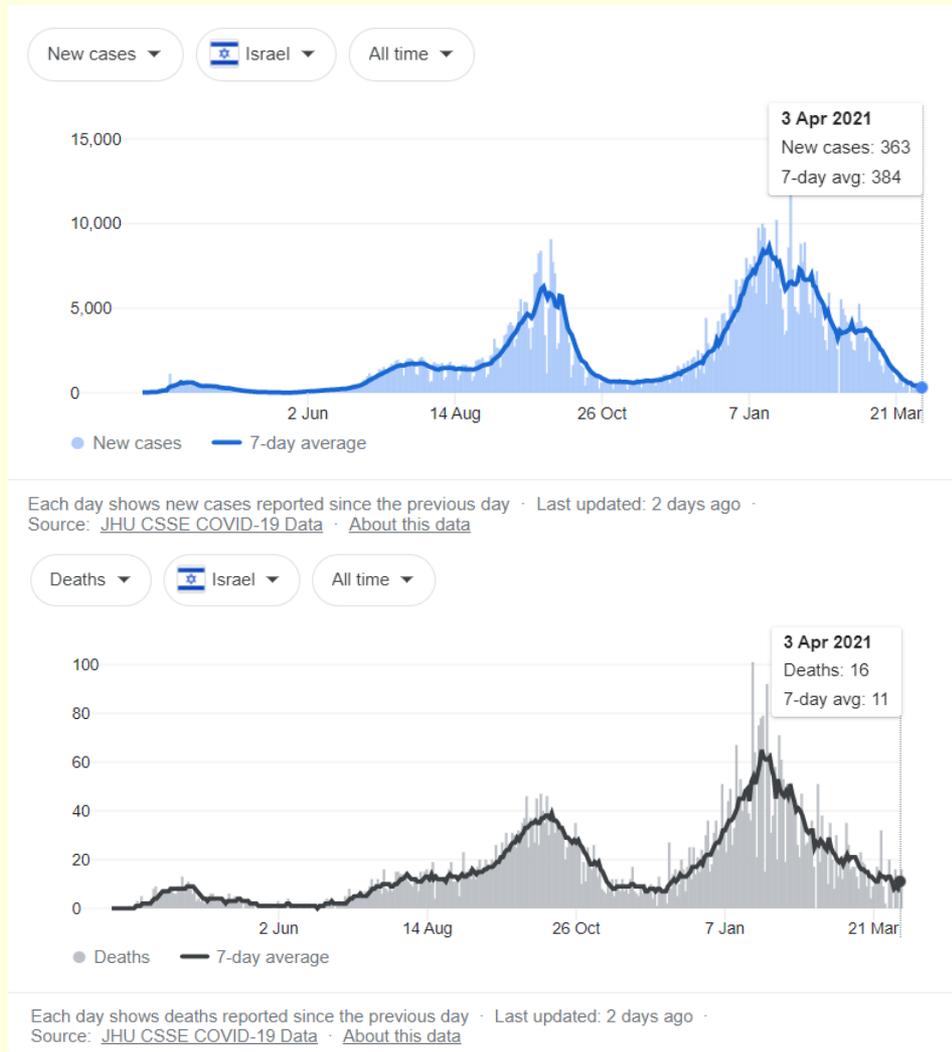
Source: Official data collated by Our World in Data

CC BY

Dec 13, 2020 Apr 3, 2021

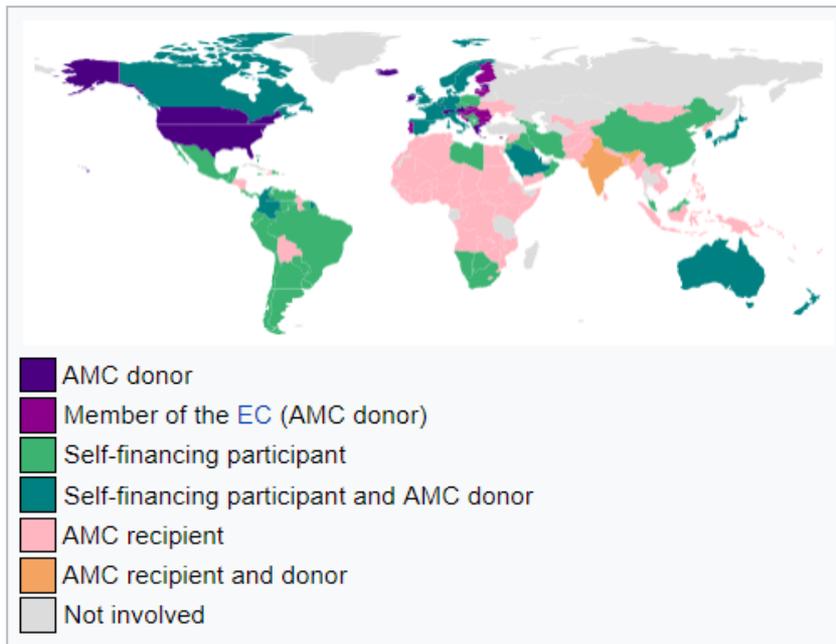
<https://ourworldindata.org/covid-vaccinations>

Israel Statistics, April 3, 2021



COVAX = COVID-19 Vaccines Global Access

Involvement by country



- Global initiative aimed at equitable access to COVID-19 vaccines led by UNICEF, GAVI (Global Alliance for Vaccines and Immunization), WHO etc

AMC = Advance Market Commitment

Interim Distribution Forecast as of 3 February 2021 (doses)^[13]

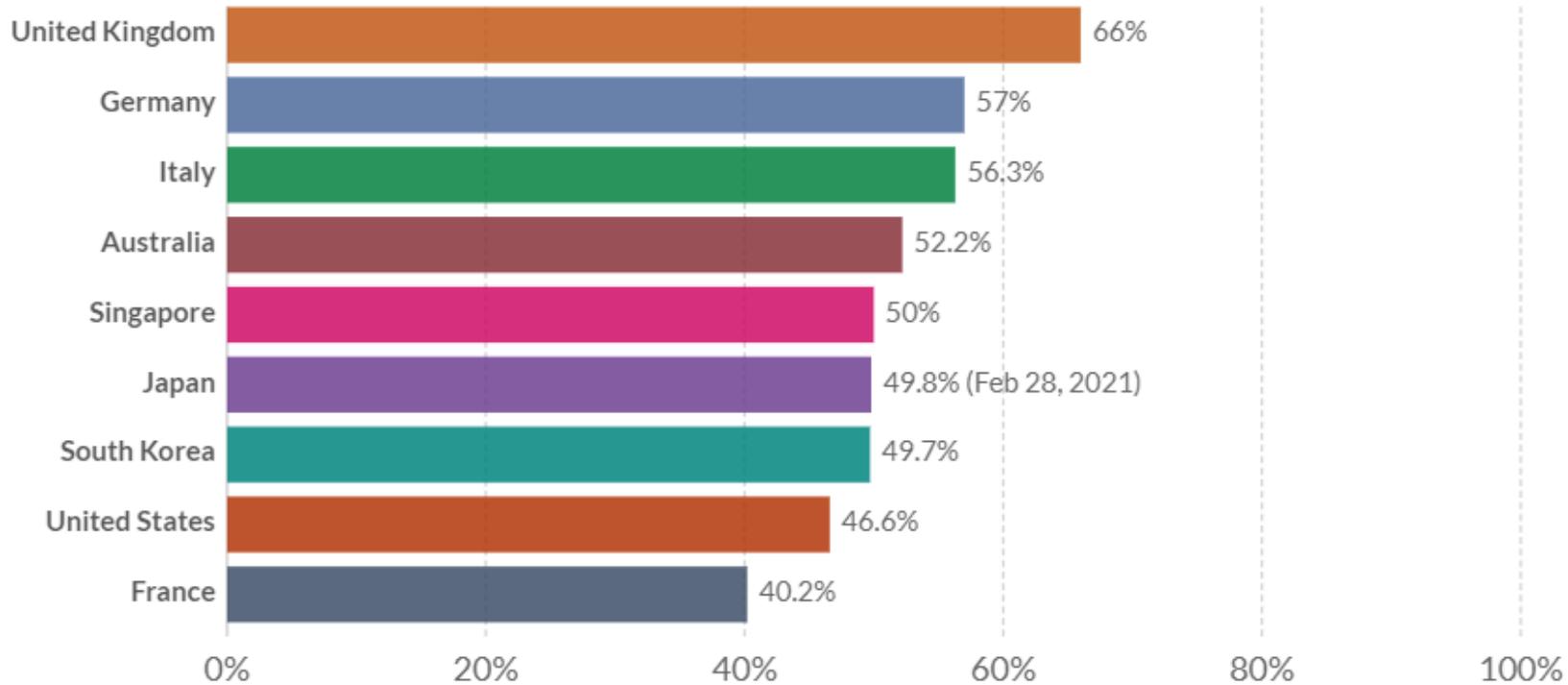
AMC: Advance Market Commitment; SFP: Self-Financing Participants

Participant	SFP/AMC	AstraZeneca SII	AstraZeneca SK Bioscience	Pfizer–BioNTech	Total
 India	AMC	97,164,000	-	-	97,164,000
 Pakistan	AMC	17,160,000	-	-	17,160,000
 Nigeria	AMC	16,008,000	-	-	16,008,000
 Indonesia	AMC	-	13,708,800	-	13,708,800
 Bangladesh	AMC	12,792,000	-	-	12,792,000
 Brazil	SFP	-	10,672,800	-	10,672,800
 Ethiopia	AMC	8,928,000	-	-	8,928,000
 Congo, Dem. Rep.	AMC	6,948,000	-	-	6,948,000
 Mexico	SFP	-	6,472,800	-	6,472,800
 Philippines	AMC	-	5,500,800	117,000	5,617,800
 Egypt	AMC	-	5,138,400	-	5,138,400
 Vietnam	AMC	-	4,886,400	-	4,886,400
 Myanmar	AMC	4,224,000	-	-	4,224,000
 Iran	SFP	-	4,216,800	-	4,216,800
 Kenya	AMC	4,176,000	-	-	4,176,000
 Uganda	AMC	3,552,000	-	-	3,552,000
 Sudan	AMC	3,396,000	-	-	3,396,000
 South Africa	SFP	-	2,976,000	117,000	3,093,000
 Afghanistan	AMC	3,024,000	-	-	3,024,000
 South Korea	SFP	-	2,596,800	117,000	2,713,800
 Colombia	SFP	-	2,553,600	117,000	2,670,600
 Uzbekistan	AMC	2,640,000	-	-	2,640,000
 Angola	AMC	2,544,000	-	-	2,544,000
 Mozambique	AMC	2,424,000	-	-	2,424,000
 Ghana	AMC	2,412,000	-	-	2,412,000
 Ukraine	AMC	-	2,215,200	117,000	2,332,200
 Yemen	AMC	2,316,000	-	-	2,316,000
 Argentina	SFP	-	2,275,200	-	2,275,200
 Nepal	AMC	2,256,000	-	-	2,256,000
 Algeria	AMC	-	2,200,800	-	2,200,800

Share who would get a COVID-19 vaccine if it was available to them this week, Mar 30, 2021

Share of survey respondents who agree with the statement: "If a COVID-19 vaccine were made available to me this week, I would definitely get it."

[+ Add country](#)



Source: Imperial College London YouGov Covid 19 Behaviour Tracker Data Hub - Last updated 30 March 2021, 14:30 (London time)

Note: Months containing fewer than 500 survey respondents are excluded. Respondents were presented with a 1 to 5 scale, ranging from "Strongly agree" (1) to "Strongly disagree" (5). We consider responses of 1 or 2 to be in agreement with the statement.

[OurWorldInData.org/covid-vaccinations](https://ourworldindata.org/covid-vaccinations) • CC BY

▶ Nov 30, 2020

○ Mar 30, 2021

