



COVID VACCINE UPDATE FOR PRIMARY CARE

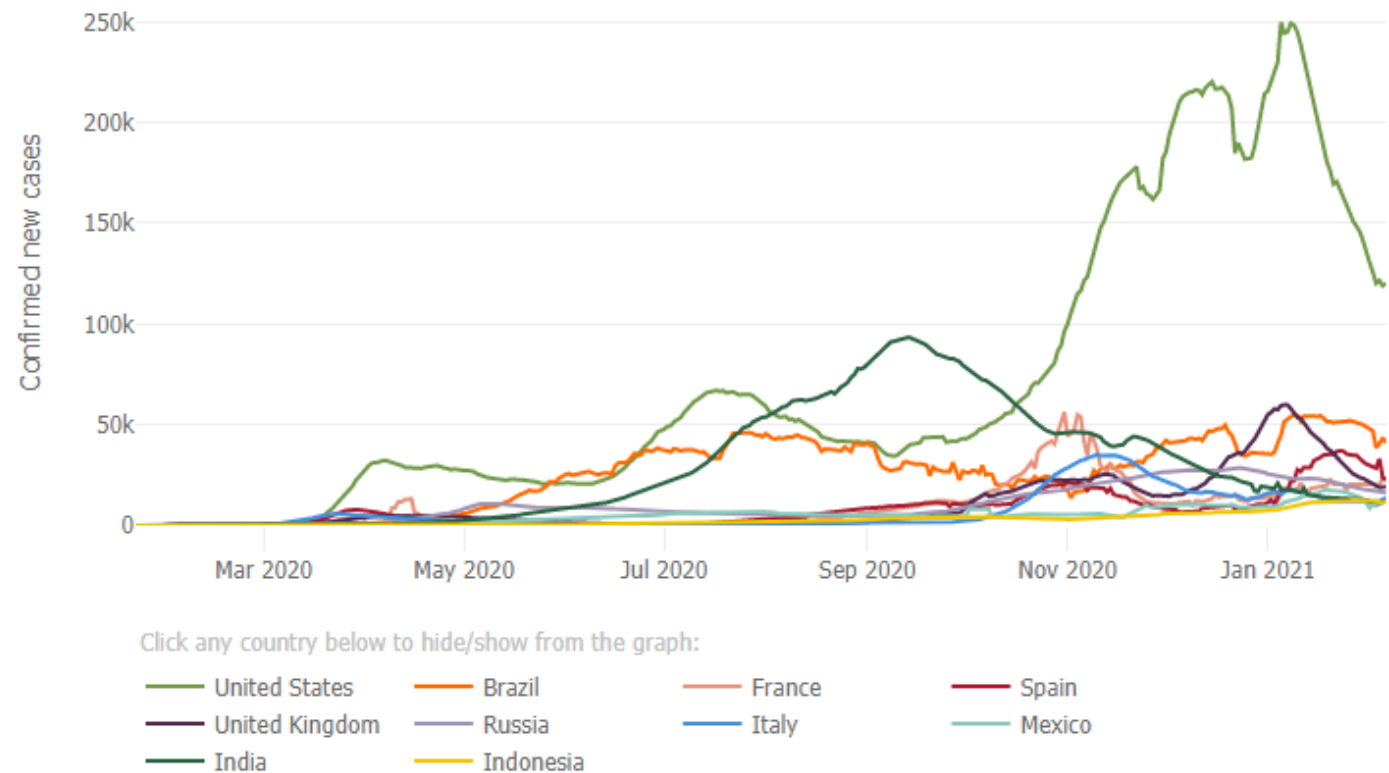
10 FEBRUARY 2021

CURRENT EPIDEMIOLOGY

- Global: 106.8M cases worldwide, >2.3M deaths
- Australia: VIC – Holiday Inn evolving situation
- NSW: Last locally-acquired case 16 January. Sewage negative. Expanded program of returned traveller testing at Day 16

DAILY CONFIRMED NEW CASES (7-DAY MOVING AVERAGE)

Outbreak evolution for the current 10 most affected countries

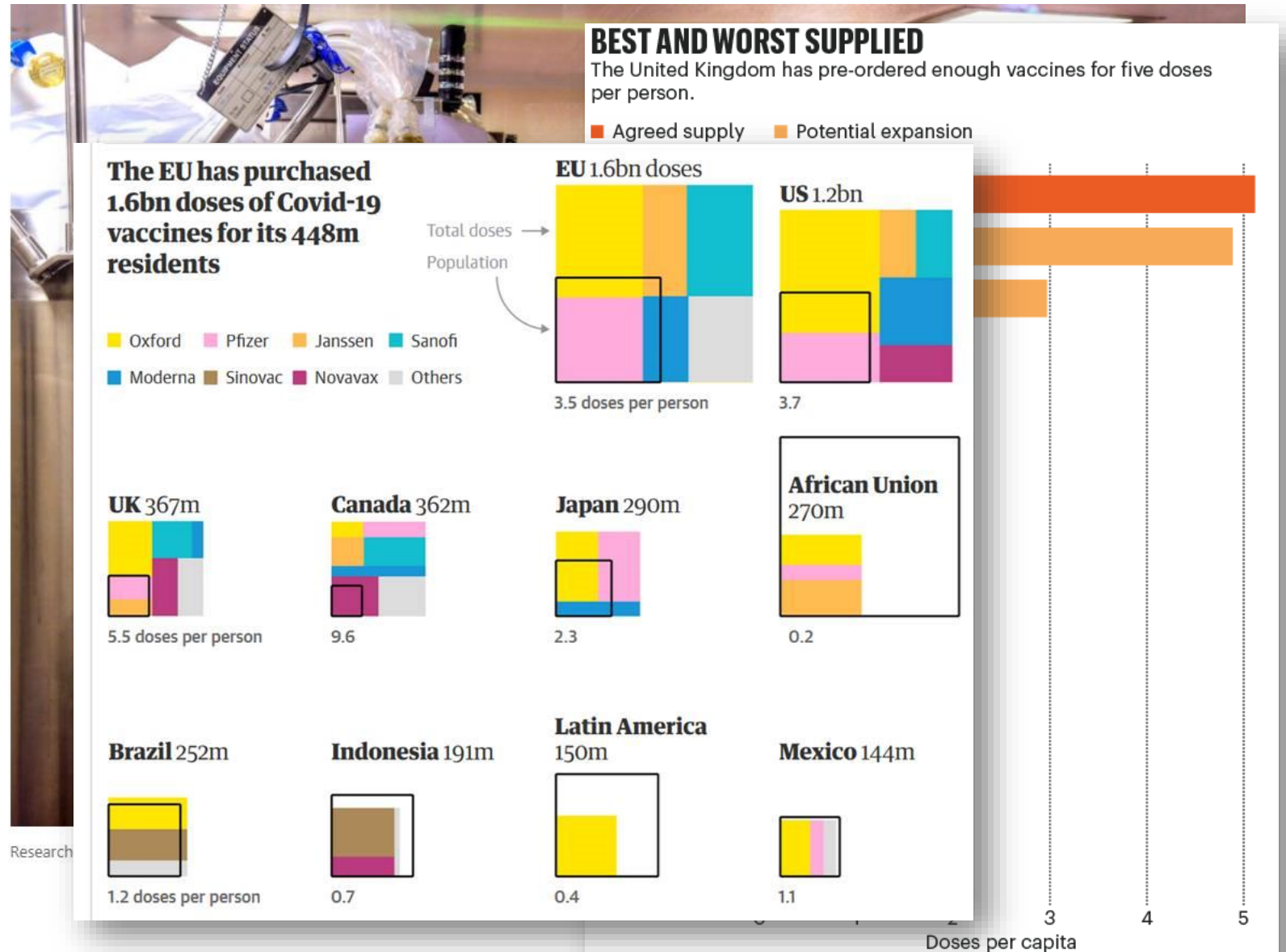


VARIANTS OF CONCERN

Lineage	Countries reporting	Characteristics
B.1.1.7	UK (Sept 2020) and 62 other countries	<ul style="list-style-type: none">• Potential increased transmissibility• Potential increased disease severity• In vitro studies suggest neutralisation by vaccine-induced antibodies may be slightly diminished
B.1.351	S. Africa (Dec 2020) and 25 other countries	<ul style="list-style-type: none">• Potential increased transmissibility• Potential increased disease severity• In vitro studies suggest neutralisation by vaccine-induced antibodies may be moderately diminished• Prelim reports of 'minimal protection' by AZ vaccine against mild-moderate COVID-19
P.1	Brazil (Dec 2020) & 6 other countries	<ul style="list-style-type: none">• In vitro testing pending

VACCINE DEVELOPMENT LANDSCAPE

- Over 200 candidate vaccines in development
- 4 vaccines with Phase 3 trial data published in peer-reviewed literature



*92 low and middle-income countries and economies eligible to receive doses through the COVAX

GLOBAL VACCINE ROLLOUT

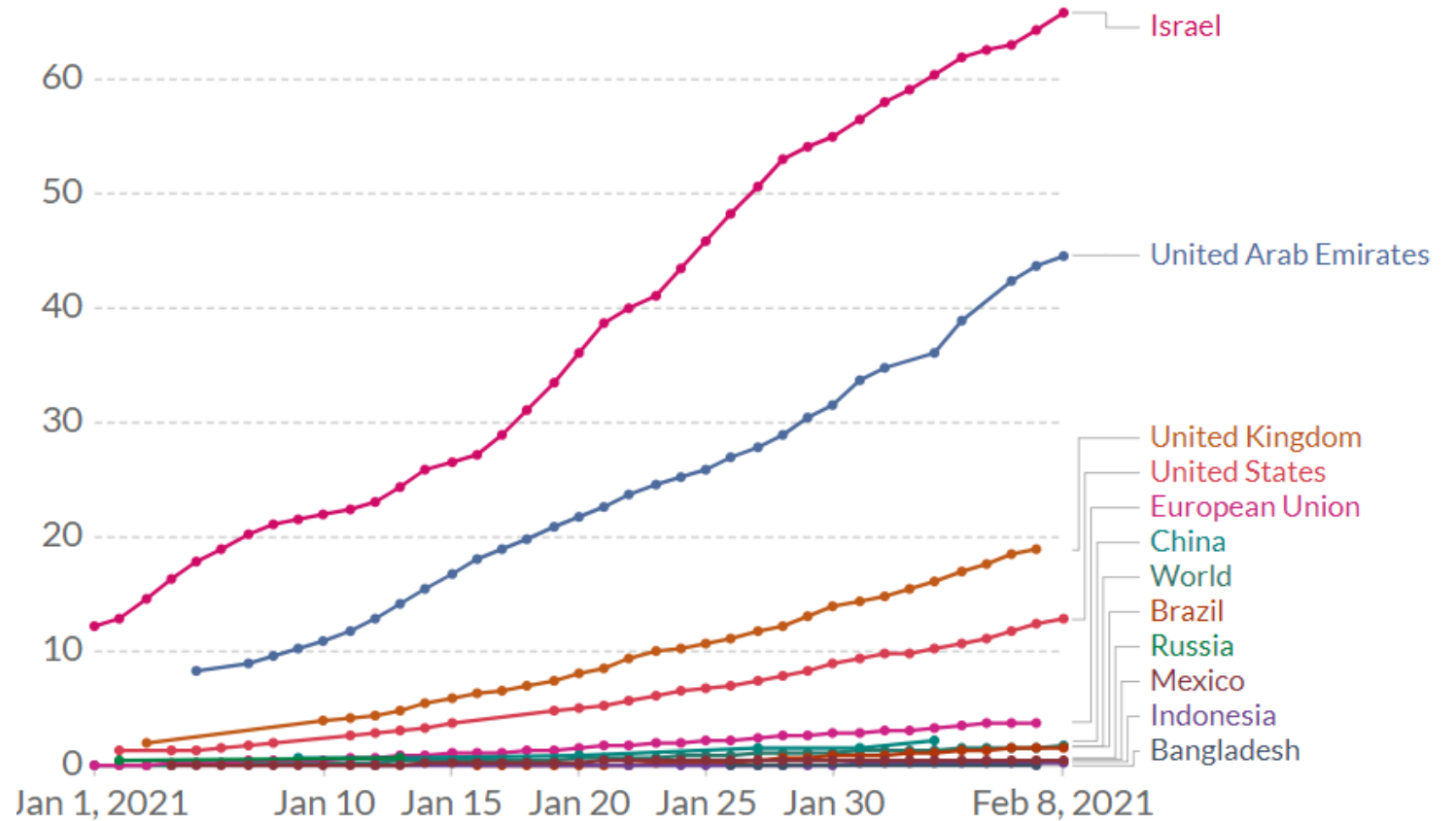
- >128M vaccine doses administered worldwide

Cumulative COVID-19 vaccination doses administered per 100 people

Our World in Data

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



VACCINOLOGY

CONVENTIONAL APPROACHES

PROTEIN SUBUNIT
VACCINES



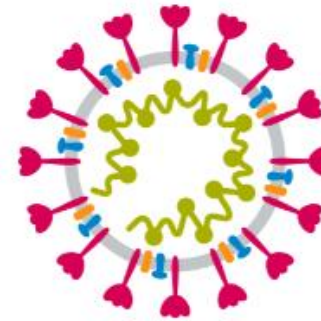
VIRUS-LIKE
PARTICLES



WHOLE VIRUS
VACCINES



SARS-CoV-2



NOVEL APPROACHES



DNA
vaccine



mRNA
vaccine



Non-replicating
viral vector



Replicating
viral vector

NUCLEIC ACID
VACCINES

VIRAL VECTOR
VACCINES

AUSTRALIAN VACCINE CANDIDATE COMPARISON

	Pfizer/BioNTech BNT162b2 (Comirnaty)	Oxford/Astra-Zeneca AZD1222
Type	mRNA	Viral vector
Storage	-80 °C to -60 °C	2 °C to 8 °C
Dosing schedule	2 doses, 21-42 days apart	2 doses, ?28 days- >12 weeks
Efficacy		
Symptomatic COVID-19	95%	70.4% (62.1%-90% depending on schedule)
Severe COVID-19	88.9% after Dose 1	100%
SARS-CoV-2 infection	Unknown	39.5%(Std. Dose)-55.7%(LowD/StdD)**
Adverse effects	Acceptable safety profile. Anaphylaxis 11/million doses, No specific risk to elderly following Norway investigation.	Acceptable safety profile. Less evidence of effectiveness in older age group

COMMONLY-REPORTED ADVERSE EFFECTS FOLLOWING IMMUNISATION

Pfizer/BioNTech BNT162b2

- Pain at injection site (83%) – most mild, resolved 1-2 days
- Fatigue (47%) – most mild, resolved 1-2 days
- Muscle aches (21%)
- Chills (14%)
- Diarrhoea (11%), vomiting (1.2%) – note equivalent in placebo group
- Fever (3.7%)

AEFIs more common following second dose, lower prevalence in over >55s)

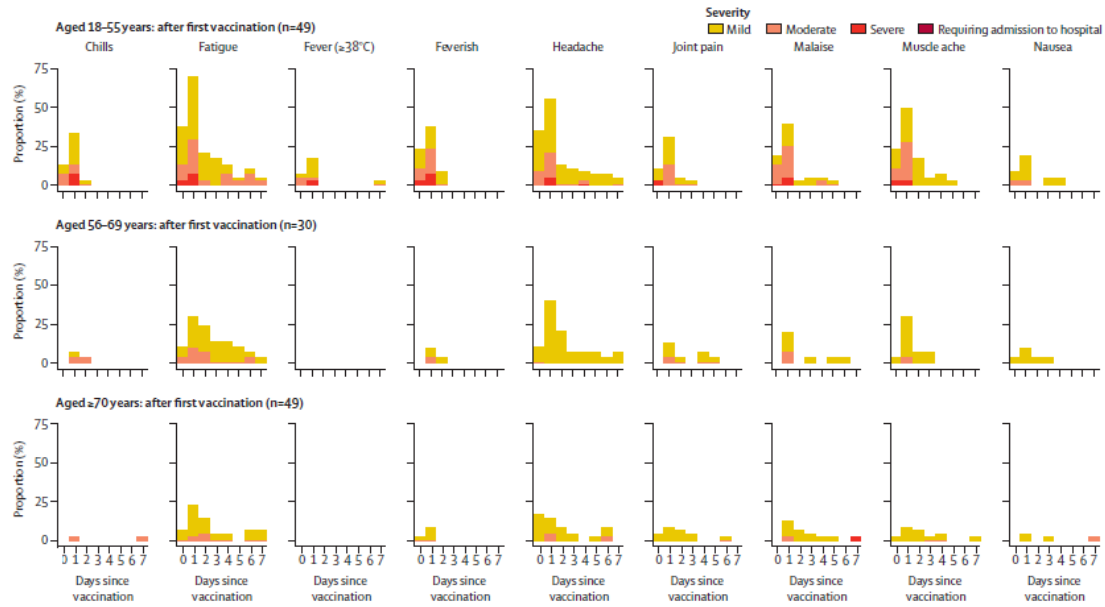
Astra-Zeneca/ChAdOx1/AZD1222

In 18-55 year age group:

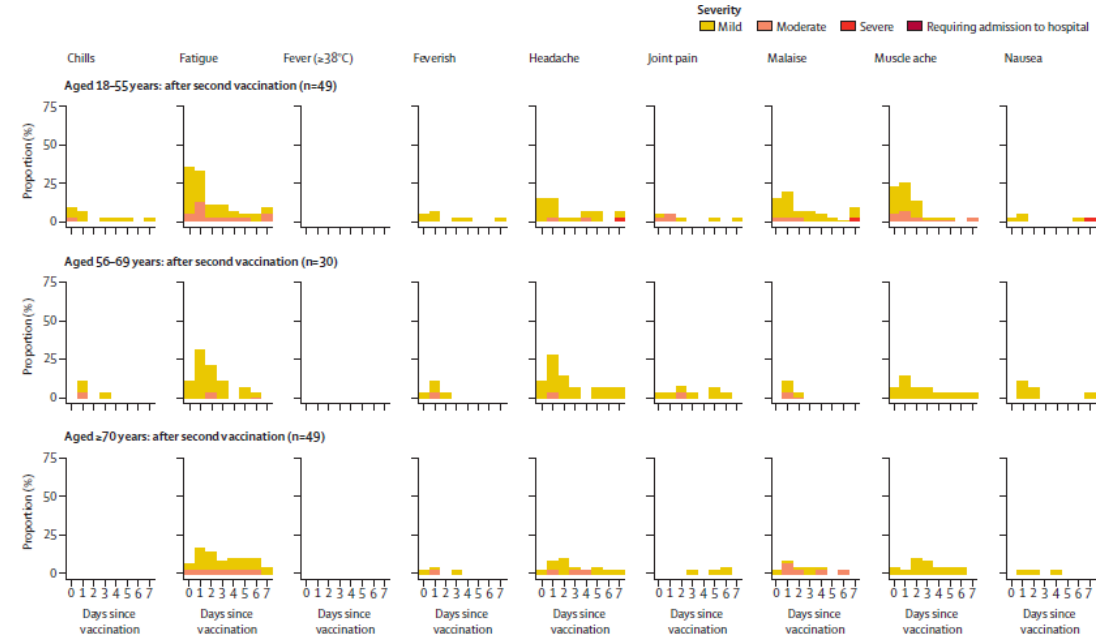
- Pain at injection site (without redness/swelling/induration) (61%)
- Fatigue (76%)
- Headache (65%)
- Muscle aches (53%)
- Feverishness (21%)

AEFIs less common following second dose, lower prevalence in over 55s

First dose



Second dose



ADVERSE EVENTS (CONT'D)

- ChAdOx1 (Astra Zeneca)

VACCINE SAFETY SURVEILLANCE

- Guidance for Clinicians on reporting obligations to come shortly

- Passive systems
 - PAEDS
 - PHREDSS
 - Modified clinician reporting obligations
- Active surveillance platforms
 - Vaxtracker
 - SmartVax
- Expanded expert guidance to be provided
- Guidance for Clinicians on AEFI reporting obligations expected soon

AUSTRALIAN ROLLOUT

Border workers
Frontline HCW in
priority sub-
groups
Aged and
disability care
workers
Aged and
disability care
residents

1a

>70y/o adults
Other HCW
First Nations
(over 55s)
Adults with
underlying
health
conditions
Critical workers

1b

>50y/o adults
First Nations
(18-54years)
Other critical
and high-risk
workers

2a

Balance of adult
population

2b

Under-18
population if
recommended

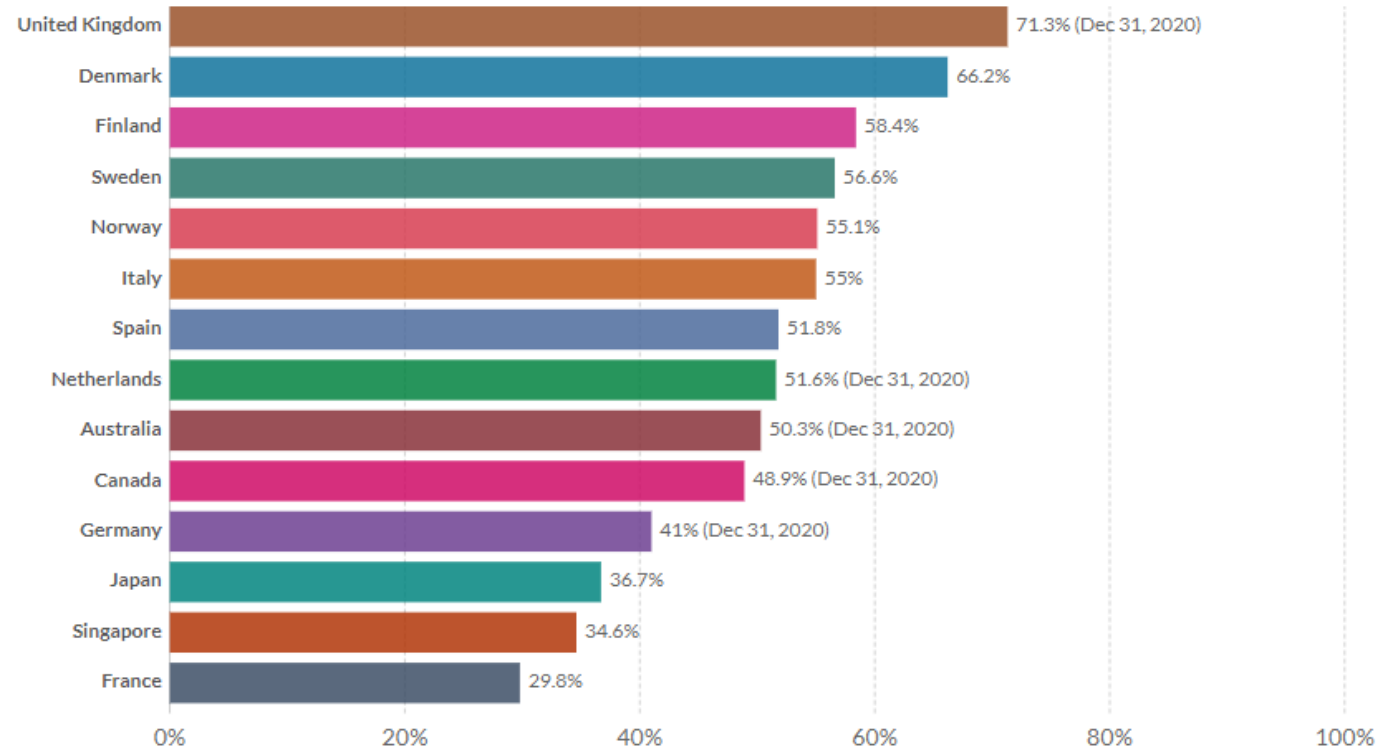
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VACCINE PERCEPTIONS

Share who would get a COVID-19 vaccine if it was available to them this week, Jan 14, 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."

Our World
in Data

+ Add country



Source: Imperial College London YouGov Covid 19 Behaviour Tracker Data Hub - Last updated 18 January 2021, 09:52 (London time) [OurWorldInData.org/covid-vaccinations](https://ourworldindata.org/covid-vaccinations) • CC BY
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.

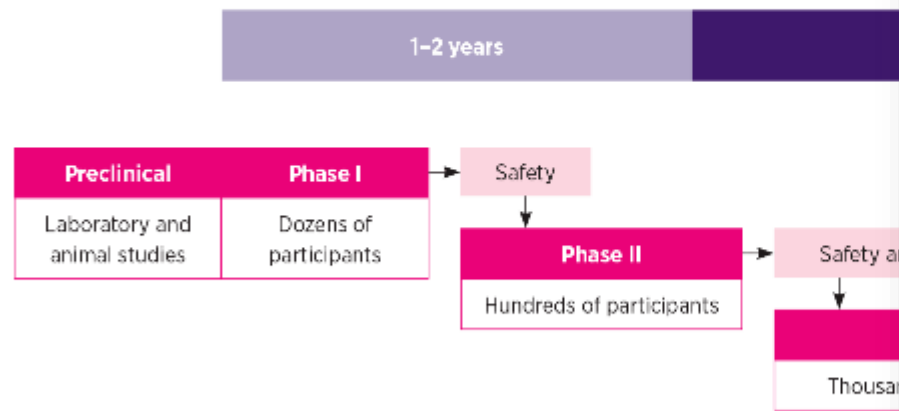
▶ Nov 30, 2020

○ Jan 14, 2021

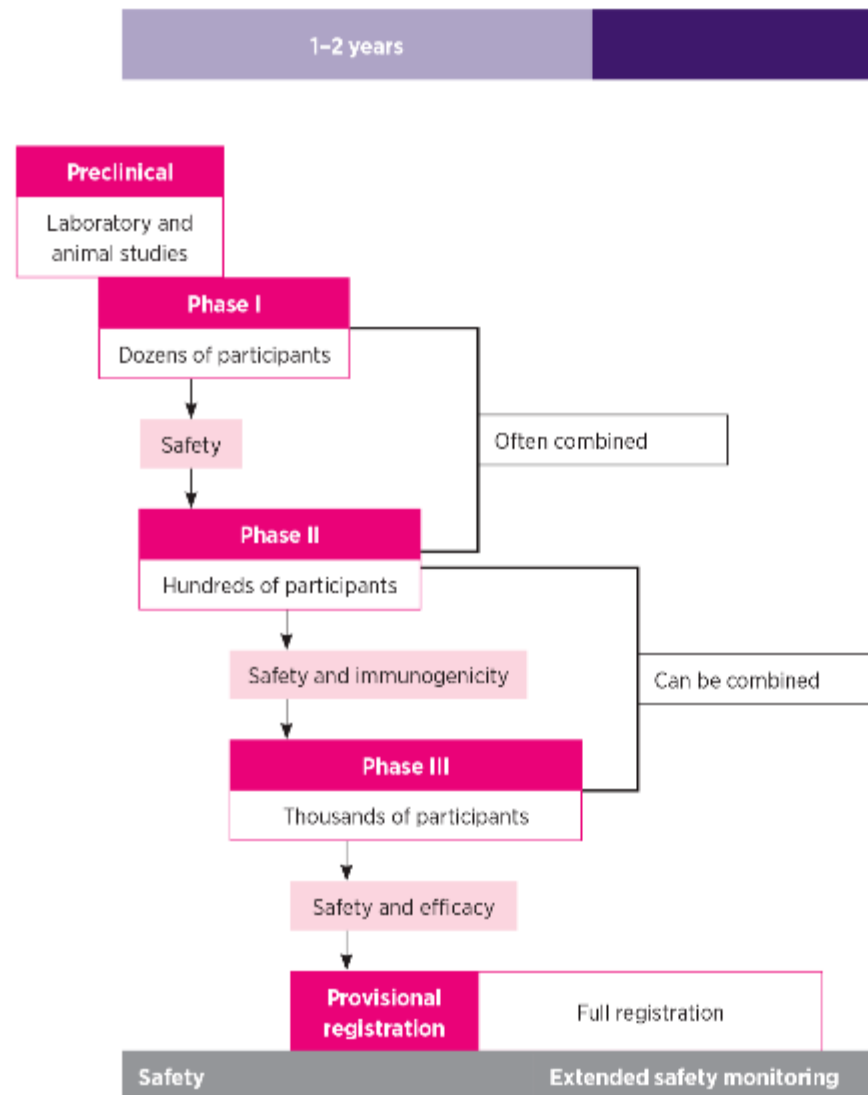
FAQS

Fig. 1 - Timeline of COVID-19 vaccine development compared to conventional vaccine pathway

Conventional pathway of vaccine development



COVID-19 vaccine development at pandemic speed



MIXING VACCINES



VIDEO

LIVE

SHOWS

CORONAVIRUS



UK government to test mixing COVID vaccines in new trial

The trial will combine the AstraZeneca/Oxford and Pfizer/BioNTech vaccines.

By [Zoe Magee](#)

4 February 2021, 11:01 • 7 min read



OTHER CANDIDATES

Novavax NVX-CoV2373 (protein subunit vaccine)

- Over 15,000 participants in UK phase 3 results
- Primary endpoint is COVID-19 symptomatic disease
- The first interim analysis is based on 62 cases and resulted in a point estimate of vaccine efficacy of 89.3%
- Efficacy by strain was calculated to be 95.6% against the original COVID-19 strain and 85.6% against the UK variant strain

Johnson & Johnson JNJ-78436735 (viral vector)

- Single dose vaccine
- 43,783 participants accruing 468 symptomatic cases of COVID-19
- Primary endpoint is moderate to severe COVID-19
- 72% effective in the US and 66% effective overall at preventing moderate to severe COVID-19, 28 days after vaccination
- 85% effective overall in preventing severe disease and demonstrated complete protection against COVID-19 related hospitalization and death as of day 28
- Protection across geographies, ages, and multiple virus variants, including the SARS-CoV-2 variant from the B.1.351 Lineage