



COVID-19 Update

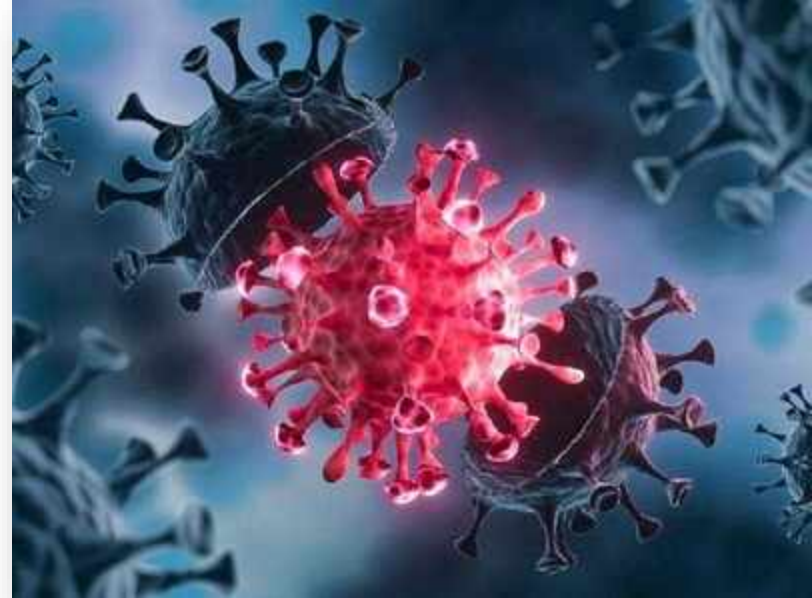
Dr Mark Cunningham-Hill
Medical Director NEBGH

Monday June 28th, 2021

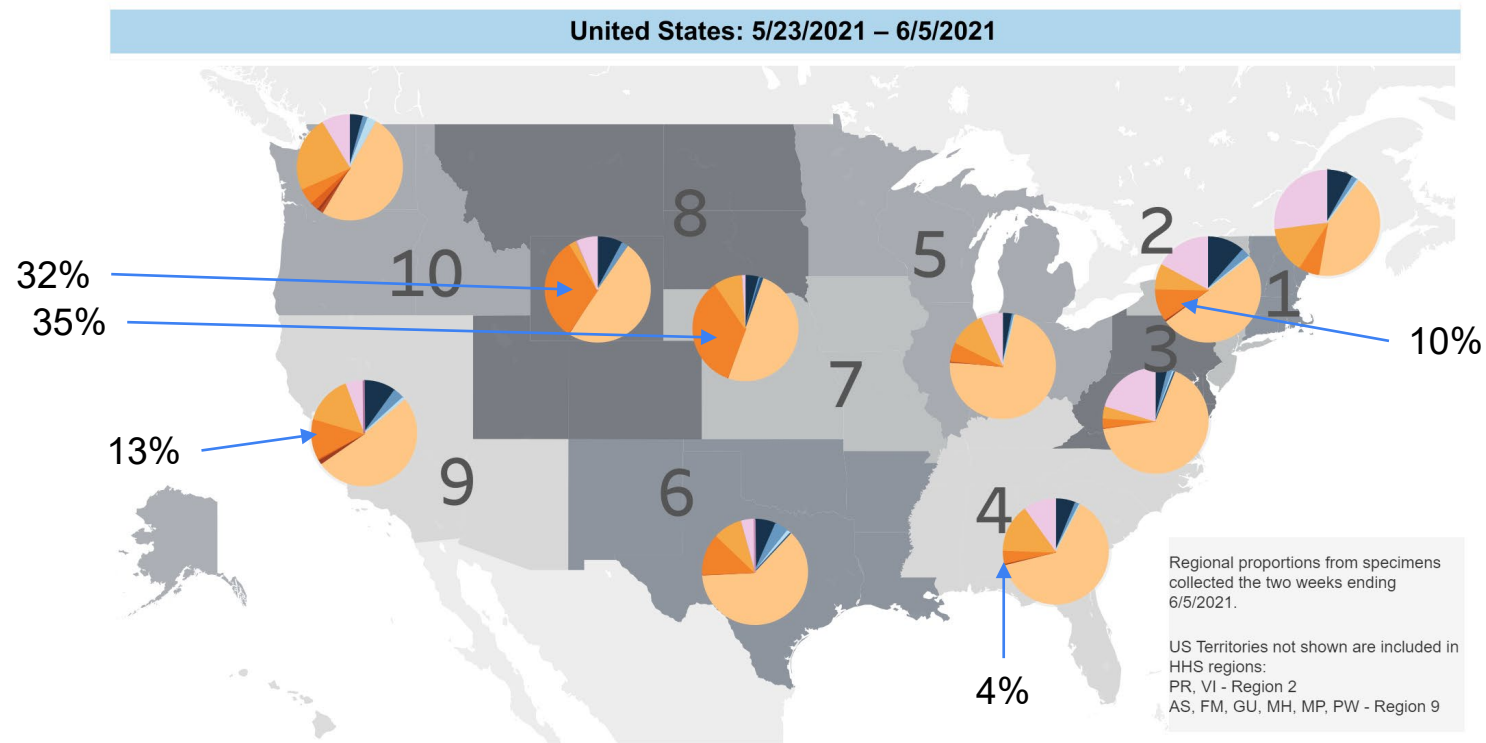
Delta Plus



- Delta variant - B.1.617.2
 - 60% more transmissible than Alpha
 - Alpha 40% more transmissible than original
- Delta Plus - B.1.617.2 variant plus AY.1 - B.1.617.2.1
 - Addition of mutation K417N
 - K417N also seen in Beta (B1.351) variant
 - Exhibits several worrying traits such as increased transmissibility, stronger binding to receptors of lung cells, and a potential reduction in antibody response.
 - Impact on vaccines unknown
 - The Delta Plus variant has been found in the Nepal, US, UK, India, Portugal, Switzerland, Japan, Poland, China and Russia



Delta variant still the variant of concern

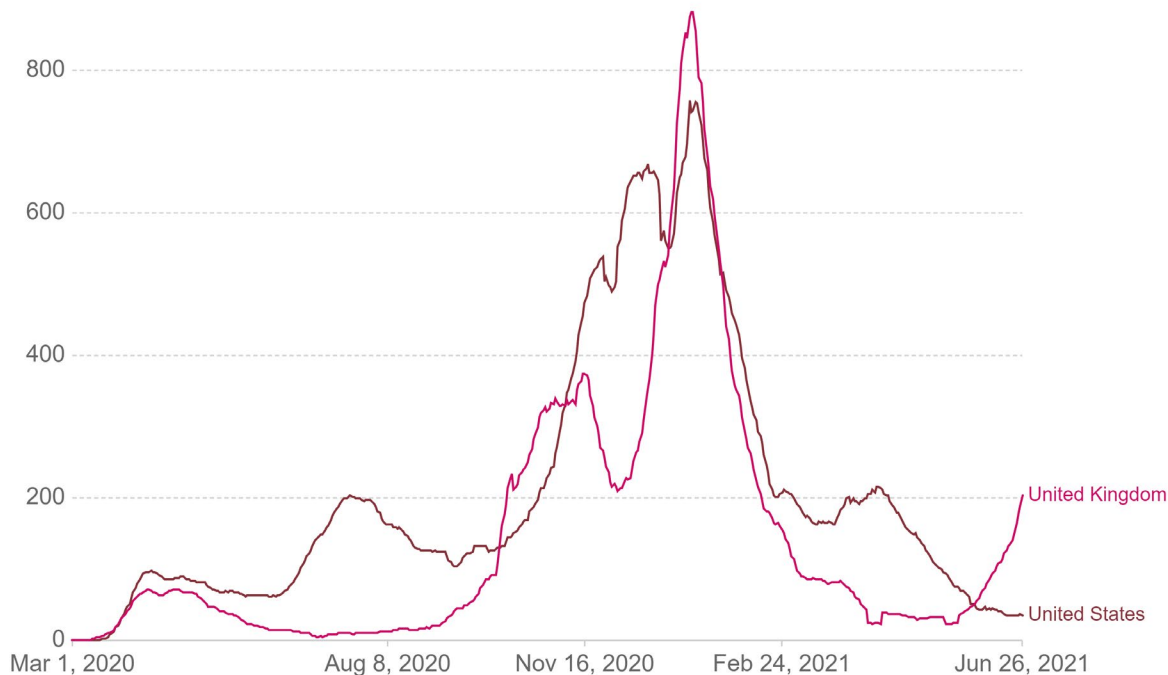


Updated June 22, 2021

Why the Delta Variant is so Concerning

Daily new confirmed COVID-19 cases per million people

Shown is the rolling 7-day average. The number of confirmed cases is lower than the number of actual cases; the main reason for that is limited testing.



Source: Johns Hopkins University CSSE COVID-19 Data

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Figure 16. Age-sex pyramid of confirmed (sequencing) and probable (genotyping) Delta cases as of 14 June 2021
 (Find accessible data used in this graph in [underlying data](#))

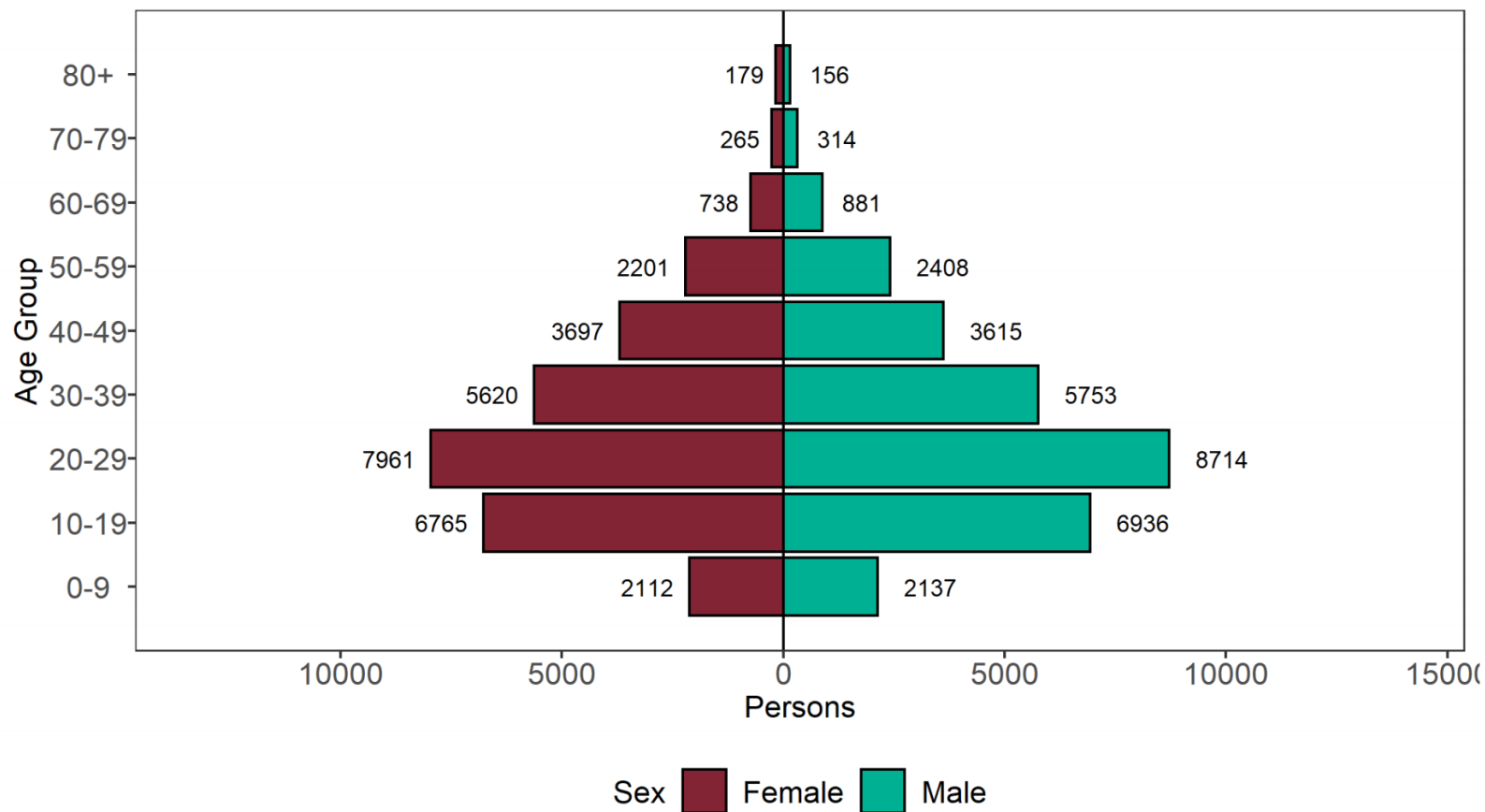
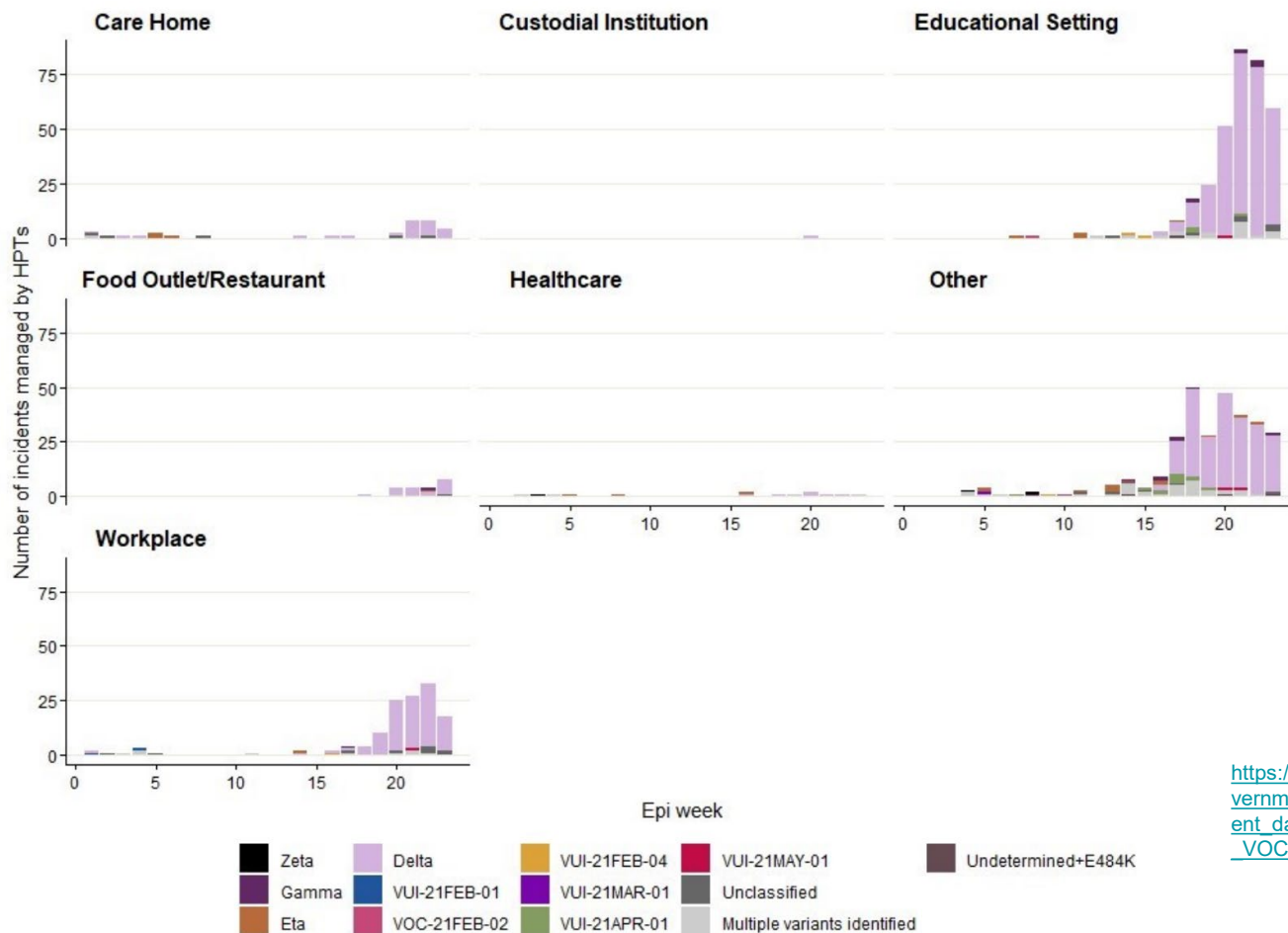


Figure 11. Incidents managed by Health Protection Teams involving SARS-CoV-2 variants by iso-week, by outbreak setting (4 January 2021 up to 13 June 2021) (Find accessible and auxiliary data used in this graph in [underlying data](#)).

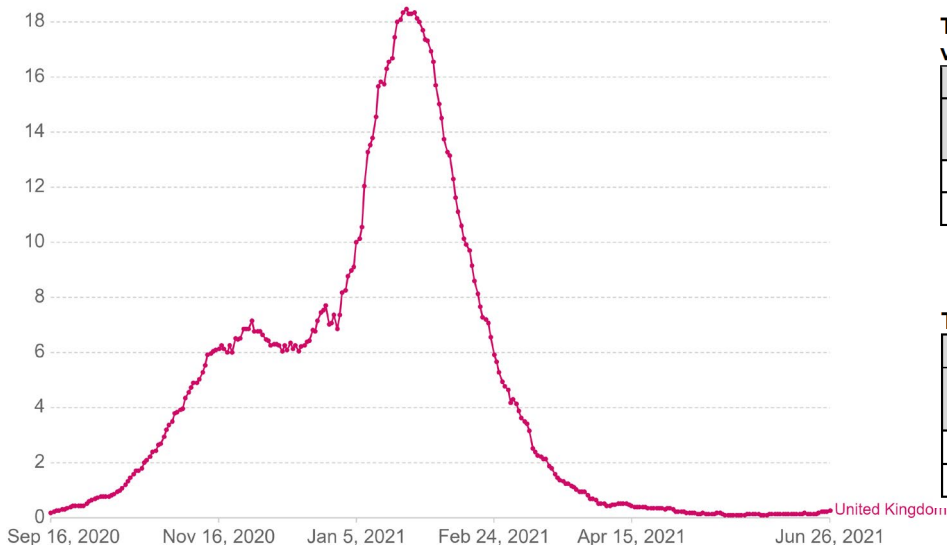


https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/994997/Variants_of_Concern_VOC_Technical_Briefing_16.pdf

UK Data

Daily new confirmed COVID-19 deaths per million people

Shown is the rolling 7-day average. Limited testing and challenges in the attribution of the cause of death means that the number of confirmed deaths may not be an accurate count of the true number of deaths from COVID-19.



Source: Johns Hopkins University CSSE COVID-19 Data

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Table 10. Vaccine effectiveness against symptomatic disease for Alpha and Delta variants

Vaccination status	Vaccine Effectiveness (%)	
	Alpha	Delta
Dose 1	49 (46 to 52)	31 (25 to 36)
Dose 2	88 (85 to 90)	80 (77 to 82)

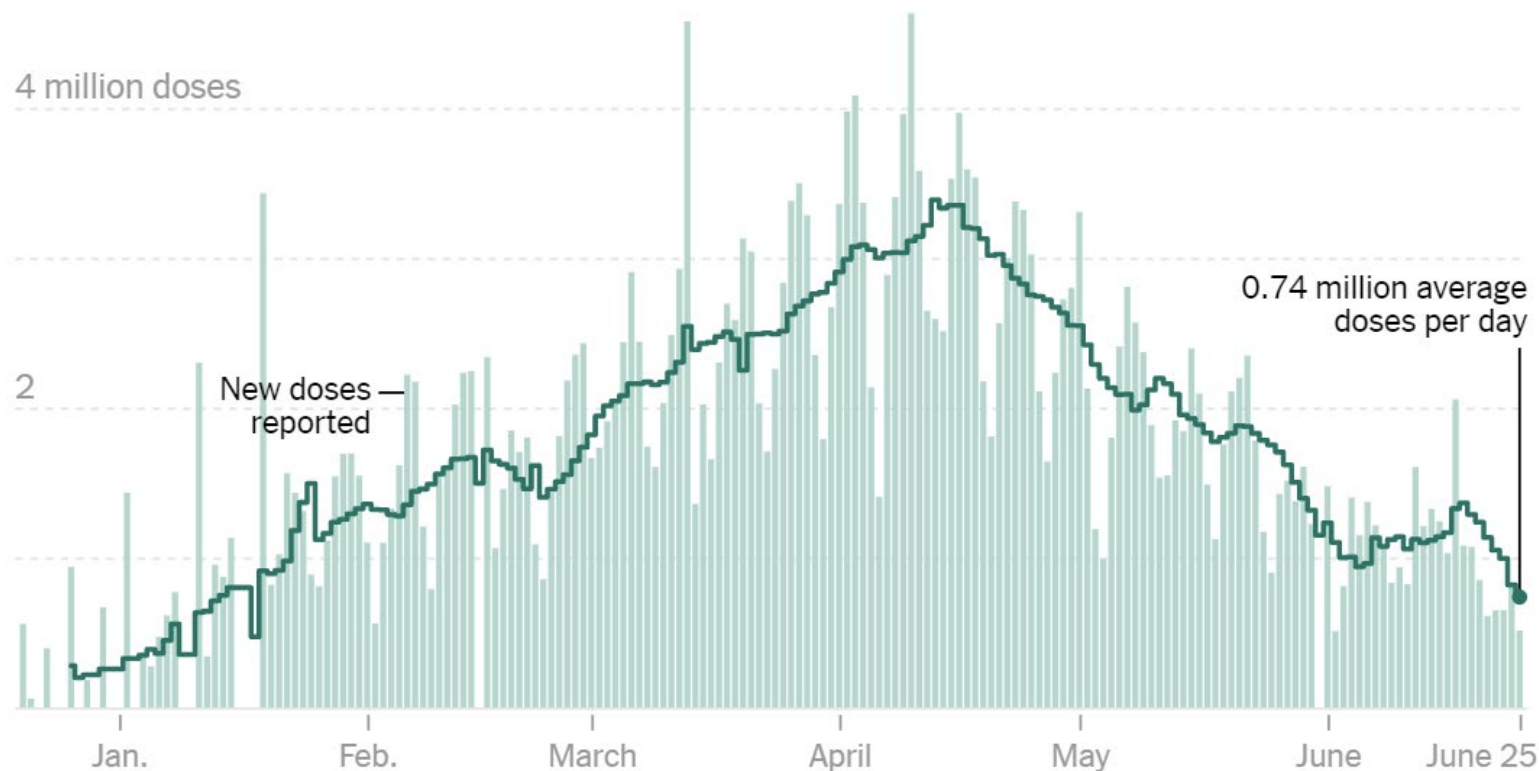
Table 11. Vaccine effectiveness against hospitalisation for Alpha and Delta variants

Vaccination status	Vaccine Effectiveness (%)	
	Alpha	Delta
Dose 1	78 (65 to 86)	75 (57 to 85)
Dose 2	92 (78 to 97)	94 (85 to 98)

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New reported doses administered by day



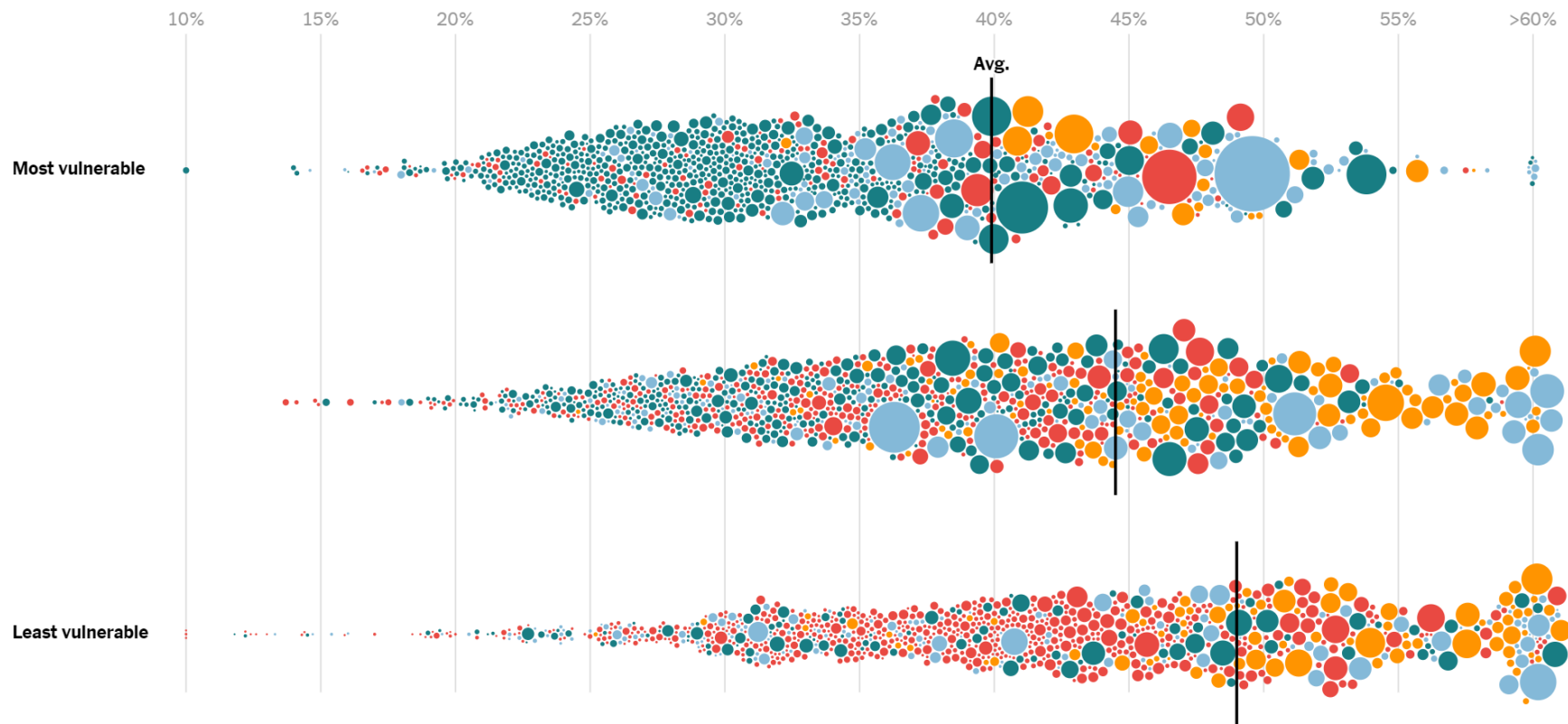
Source: Centers for Disease Control and Prevention | Note: Line shows a seven-day average. Data not updated on some weekends and holidays. Includes the Johnson & Johnson vaccine as of March 5.



Vaccination rates by county social vulnerability

Share of total population fully vaccinated. Circles sized by county population.

Region ● Midwest ● Northeast ● South ● West



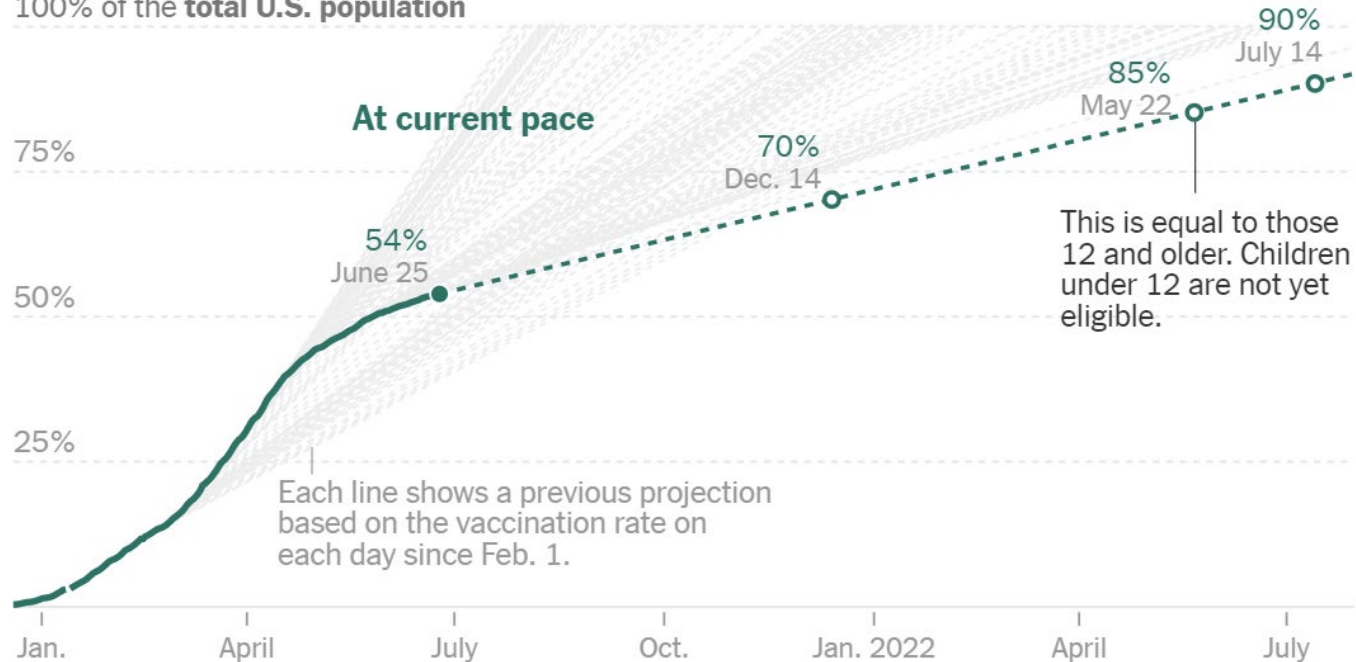
Source: [Centers for Disease Control and Prevention](#), [Texas Department of State Health Services](#), [Colorado Department of Public Health & Environment](#), U.S. Census Bureau | Note: No C.D.C. data available for Hawaii, Texas and some counties. Georgia, Vermont, Virginia and West Virginia were excluded because more than a quarter of data is missing.



At the current pace of vaccination, most people could get a shot this year. But no vaccine has been authorized for children under 12.

Based on the seven-day average of people receiving a first or single dose each day.

100% of the **total U.S. population**



Sources: Centers for Disease Control and Prevention; Andrew Beveridge, SocialExplorer | Note: Total population includes states, territories and three countries with [special agreements](#) with the United States: Palau, Micronesia and the Marshall Islands.

Children and Delta

Back to school:

- Parents should be vaccinated
- Teachers and staff should be vaccinated
- Pupils 12+ should be vaccinated
- Don't worry too much about the under 12's
 - Mostly mild illness
 - Biggest risk is transmission to unvaccinated adults

Camps:

- Many activities outdoors
- Camp staff recommended to get vaccinated
- If everyone fully vaccinated – no masks, no physical distancing
- If some not vaccinated – masks for unvaccinated indoors, physical distancing if unmasked while eating





A 3D map of Australia is constructed from black cardboard, with the title "FORTRESS AUSTRALIA" overlaid in white text. The map is set against a background of horizontal stripes, alternating between a light gray and a dark gray with diagonal hatching. The map itself is a solid black silhouette of Australia, with some internal details like the coastline and major islands visible. The text "FORTRESS AUSTRALIA" is written in a bold, white, sans-serif font, centered horizontally across the middle of the map. The overall aesthetic is industrial and graphic.

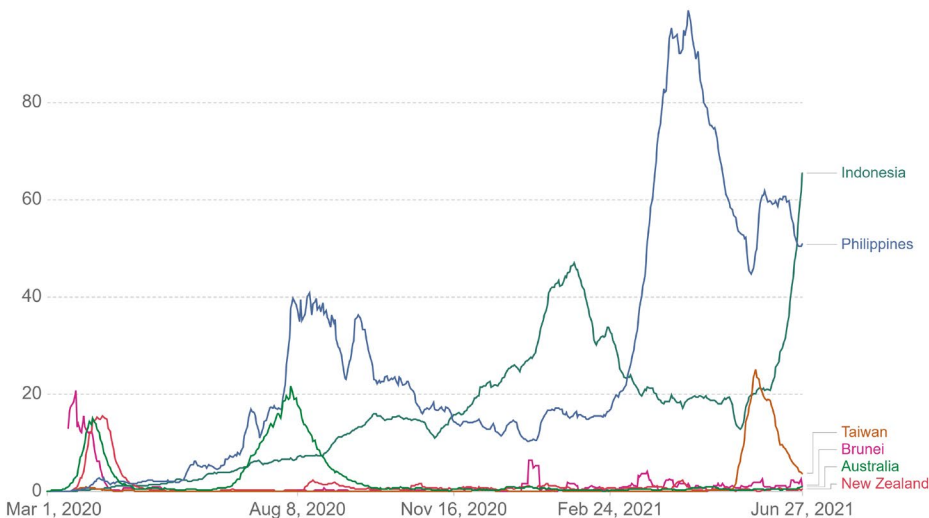
FORTRESS AUSTRALIA

Island Nations - Exit Strategy?

Daily new confirmed COVID-19 cases per million people

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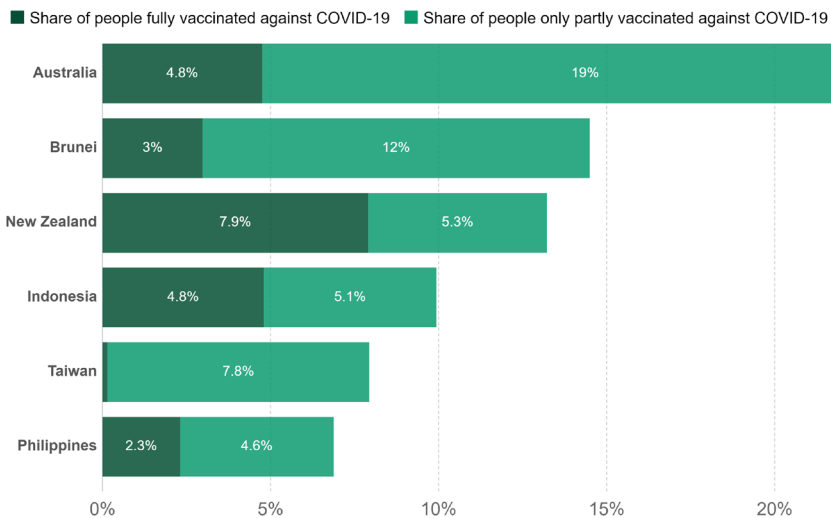
Source: Johns Hopkins University CSSE COVID-19 Data

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Share of people vaccinated against COVID-19, Jun 27, 2021

This data is only available for countries which report the breakdown of doses administered by first and second doses.

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Source: Official data collated by Our World in Data

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Covid Vaccine

Good News!

Vaccines effective against Delta and other Variants

mRNA vaccines may provide longer term immunity





Questions