



COVID-19 Update

Dr Mark Cunningham-Hill
Medical Director NEBGH



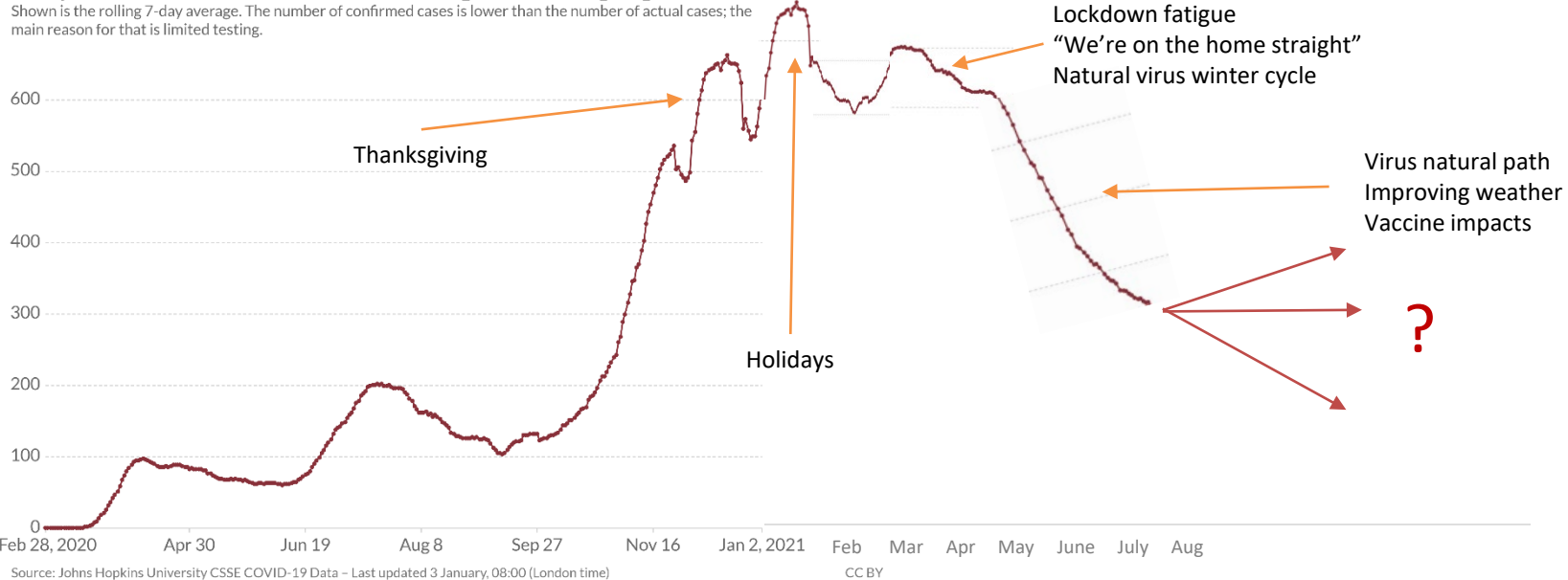
Monday January 4th 2021

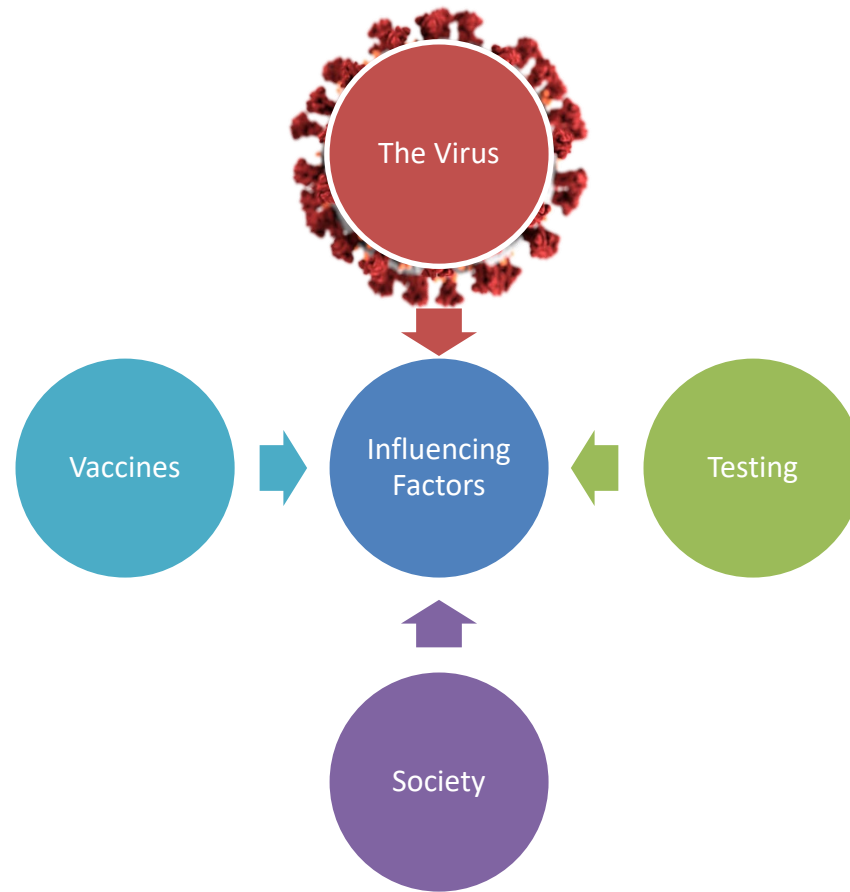


Dr Chill's Prediction

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.





Virus mutations

- Increased infectivity e.g., B.1.1.7 in UK
- Identified in 30 countries
- Found in 3 states so far

RANK	COUNTRY	REPORTED CASES	SAMPLES SEQUENCED	PERCENTAGE OF CASES SEQUENCED
1	Australia	28,238	16,537	58.6%
2	New Zealand	2,128	1,034	48.6
3	Taiwan	776	137	17.7
4	Denmark	144,047	16,790	11.7
5	Iceland	5,683	601	10.6
6	Gambia	3,791	360	9.5
7	Vietnam	1,421	113	8.0
8	Britain	2,116,609	157,439	7.4
9	Thailand	5,762	343	6.0
10	Japan	207,001	9,599	4.6
43	United States	18,229,260	51,212	0.3

New daily coronavirus cases, per million residents

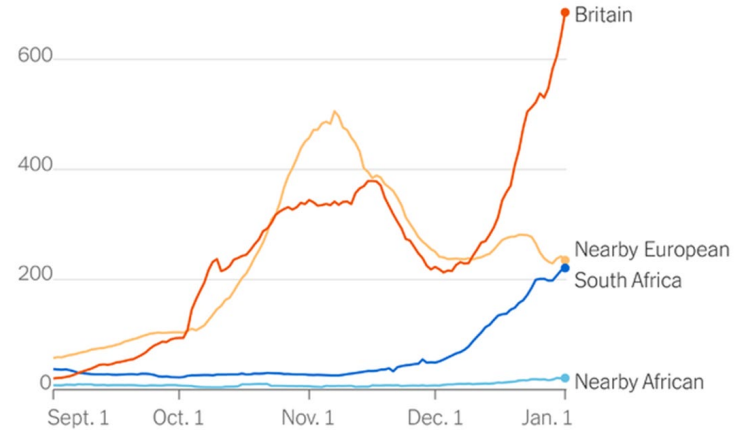
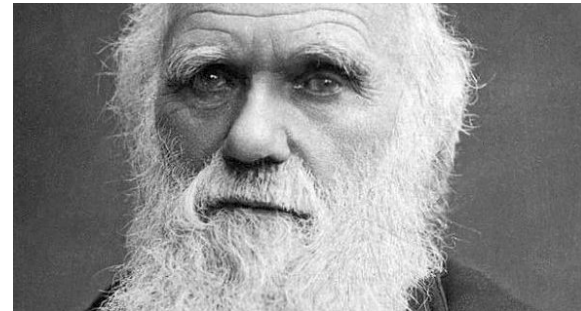


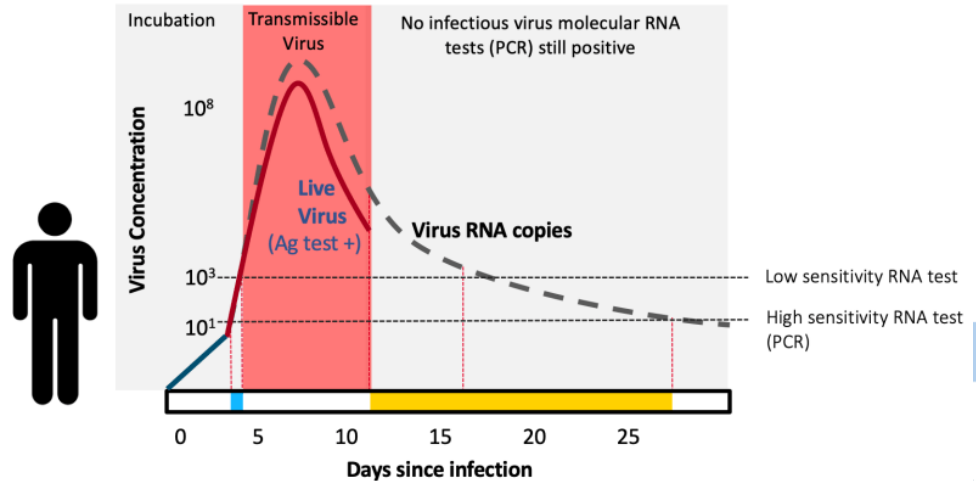
Chart shows rolling 7-day averages. "Nearby European" is Belgium, Germany, Ireland, Italy, Luxembourg, Netherlands, Portugal, Spain and Switzerland. "Nearby African" is Botswana, Eswatini, Lesotho, Namibia, Mozambique and Zimbabwe.

By The New York Times | Sources: Local and national governments and health organizations, World Bank



Testing

- Availability of widespread frequent rapid antigen tests
- Simple, cheap and good at identifying people who are infectious



Controls and Behaviors

- Limitations on social gatherings, restaurants, gyms, schools etc
- Mask mandates and mask usage
- Physical distancing
- Personal hygiene
- Travel restrictions



Vaccines

Progress: ■ Trial ■ Results expected ■ Awaiting approval ■ Available to public

👤 Trial size 💧 Doses required ❄️ Storage temperature 📊 Efficacy

2020 May June July Aug. Sept. Oct. Nov. Dec. 2021 Jan. Today Feb. March April May June July Aug.

Pfizer/BioNTech

👤 44K 💧 2 ❄️ -70°C 📊 95%

Pfizer was the first company to report positive phase 3 clinical data. It plans to produce 50M doses in 2020 and 1.3B in 2021.

Moderna

👤 30K 💧 2 ❄️ 2-8°C 📊 95%

Moderna and Pfizer both use a new vaccine approach involving messenger RNA. Moderna expects to have 20M doses for the U.S. in December and 100M globally in Q1.

AstraZeneca/Oxford

👤 65K 💧 2 ❄️ 2-8°C 📊 70%

AstraZeneca struck deals for 3 billion doses even before any late-stage study results. That's more than twice as many as any other candidate. Initial clinical results were mixed.

Novavax

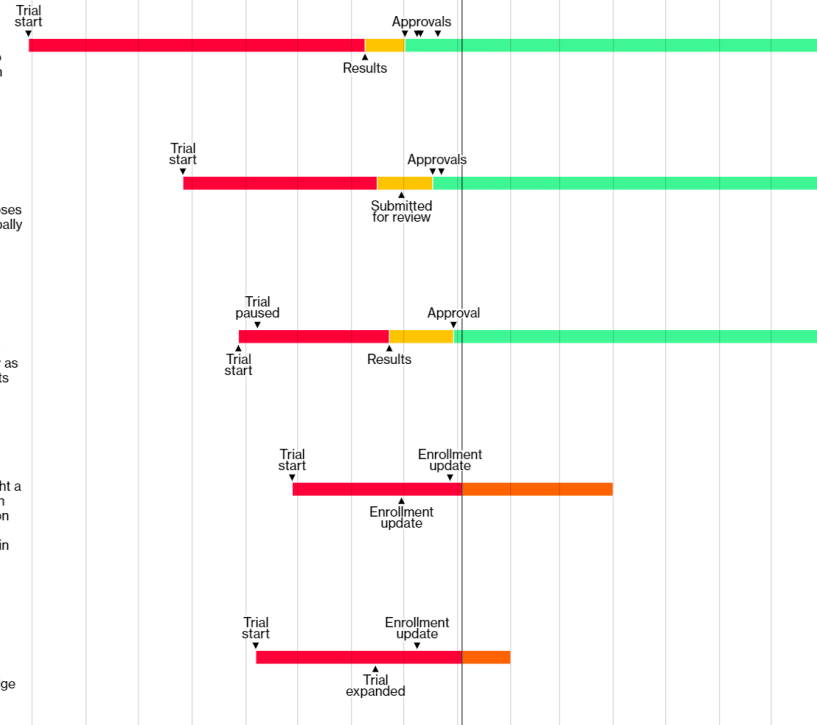
👤 45K 💧 2 ❄️ 2-8°C

This small biotech firm has never brought a product to market. It received more than \$16 billion from the U.S. and \$399 million from the Coalition for Epidemic Preparedness. The stock rose 3,000% in nine months.

Johnson & Johnson

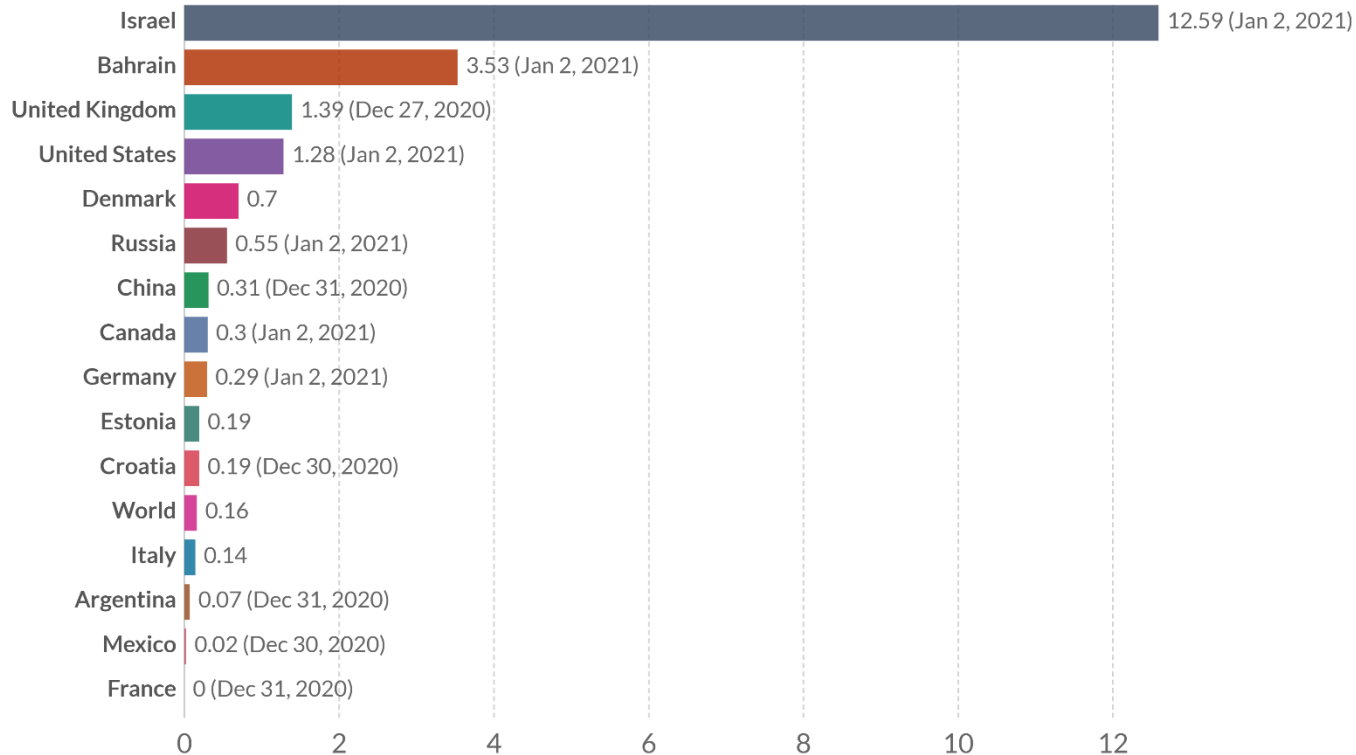
👤 70K 💧 1 ❄️ 2-8°C

Of the leading candidates, this is the easiest to distribute, requiring just one dose and standard refrigeration. To hedge its bets, J&J announced a separate trial with two doses in November.



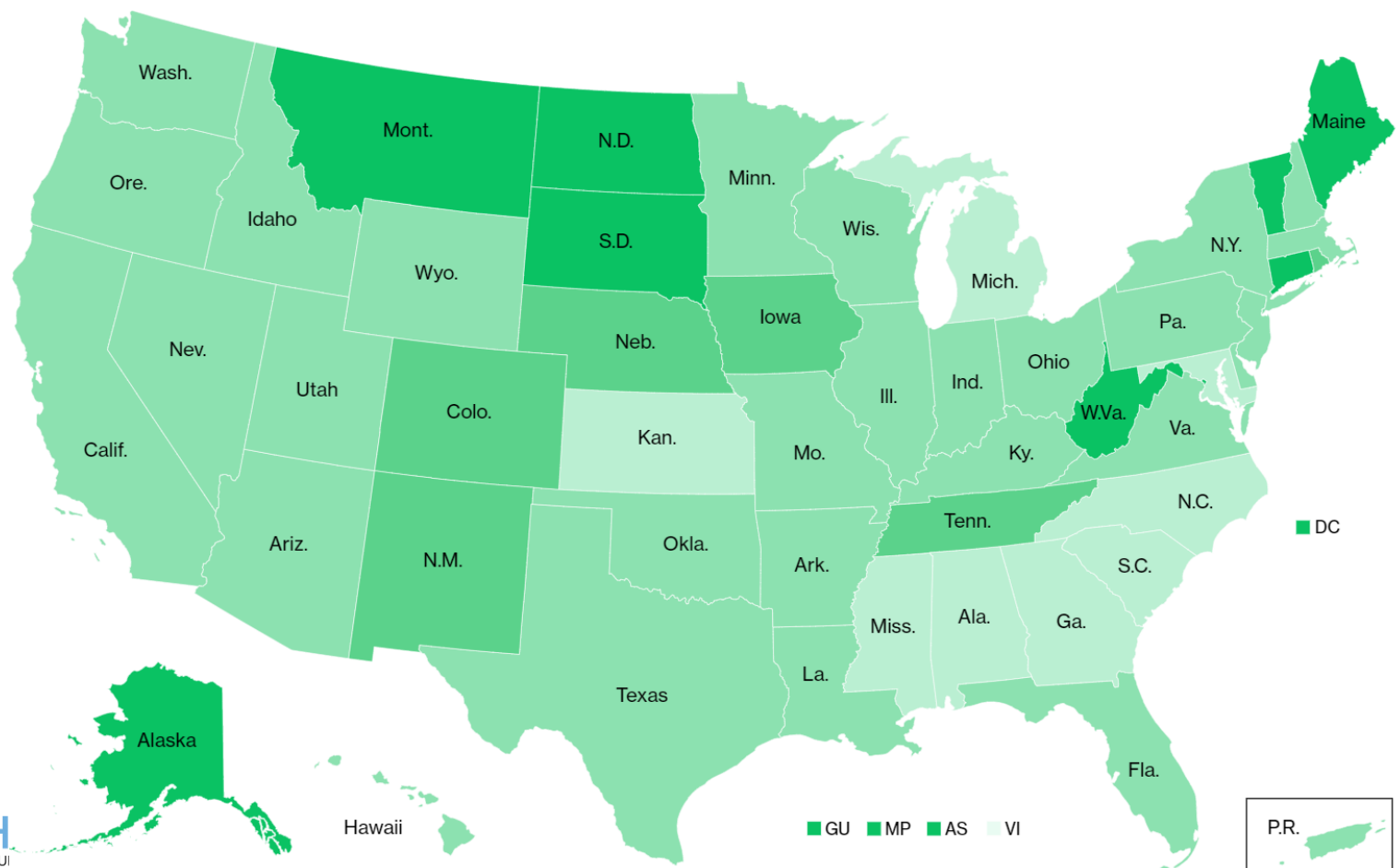
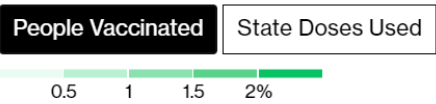
COVID-19 vaccination doses administered per 100 people, Jan 3, 2021

Total number of vaccination doses administered per 100 people in the total population. 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).



Source: Official data collated by Our World in Data. Dates refer to when the data was reported.

OurWorldInData.org/covid-vaccinations • CC BY



■ GU ■ MP ■ AS ■ VI





Vaccine Roll Out

- Approximately 220M over age of 16
- If 70% want to be vaccinated = 154 million
- Current vaccines 2 shots = 308 million
- 4.2 million doses administered so far
 - First dose December 14th
 - Approximately 210K per day – at this rate it would take 3.9 years to vaccinate all who wanted it
 - Increase to 1M per day – end of 2021

UK Vaccine Prioritization Bands

When can we expect a vaccination?

Band 1

First 10 million vaccines

Band 2

Second 30 million vaccines

Band 3

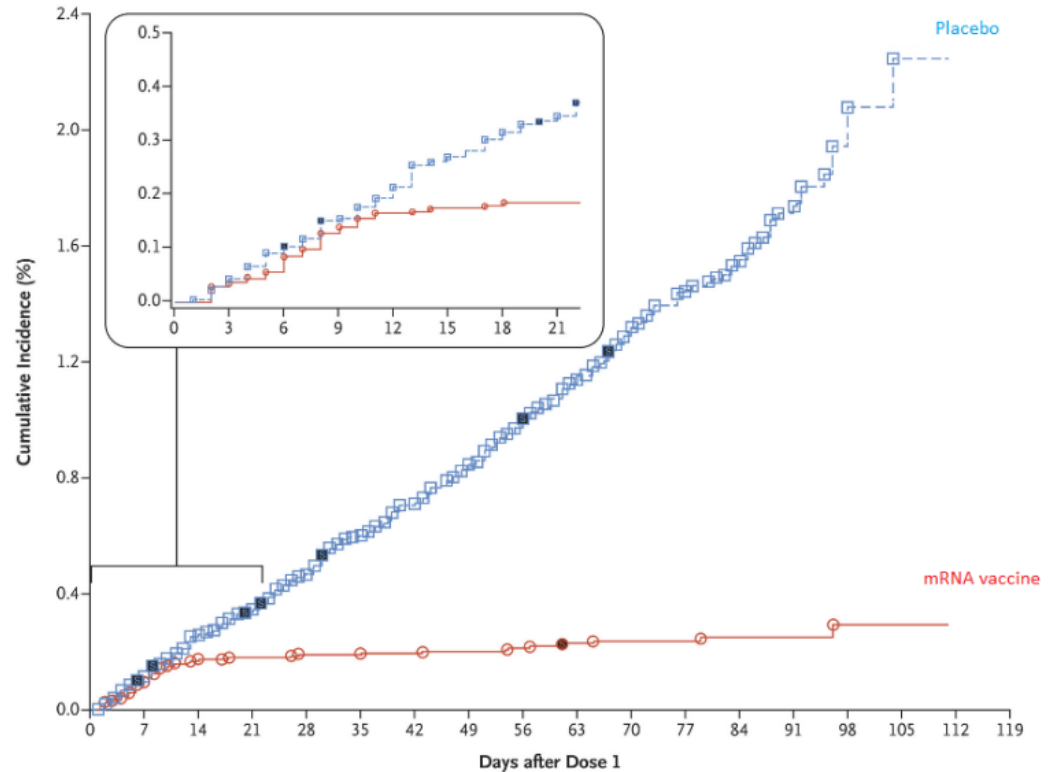
Rest of population

Who is eligible to be in each group?

Group	Who it includes	
1	Older adults resident in a care home and care home workers 1,098,000 (number of people in group)	
2	All those 80 years and over and health and social care workers 5,062,000	<div> <p>First 10 million doses ordered from Pfizer used up</p> </div>
3	All those 75 years of age and over 2,325,296	
4	All those 70 years of age and over 3,318,867	
5	All those 65 years of age and over 3,368,199	
6	All individuals aged 16 years to 64 years with underlying health conditions which put them at higher risk of serious disease and mortality 2,200,000	
7	All those 60 years of age and over 3,755,185	<div> <p>All 40m doses ordered from Pfizer used up</p> </div>
8	All those 55 years of age and over 4,405,908	
9	All those 50 years of age and over 4,661,015	
10	Rest of the population (priority to be determined) 41,599,738	

UK Approach

- Pfizer-BioNtech vaccine schedule is for second dose 21 days after the first dose
- UK are delaying second dose to 12 weeks with aim of vaccinating more people with at least one dose to minimize death toll
- They are also saying if needed can mix-n-match vaccines





Questions