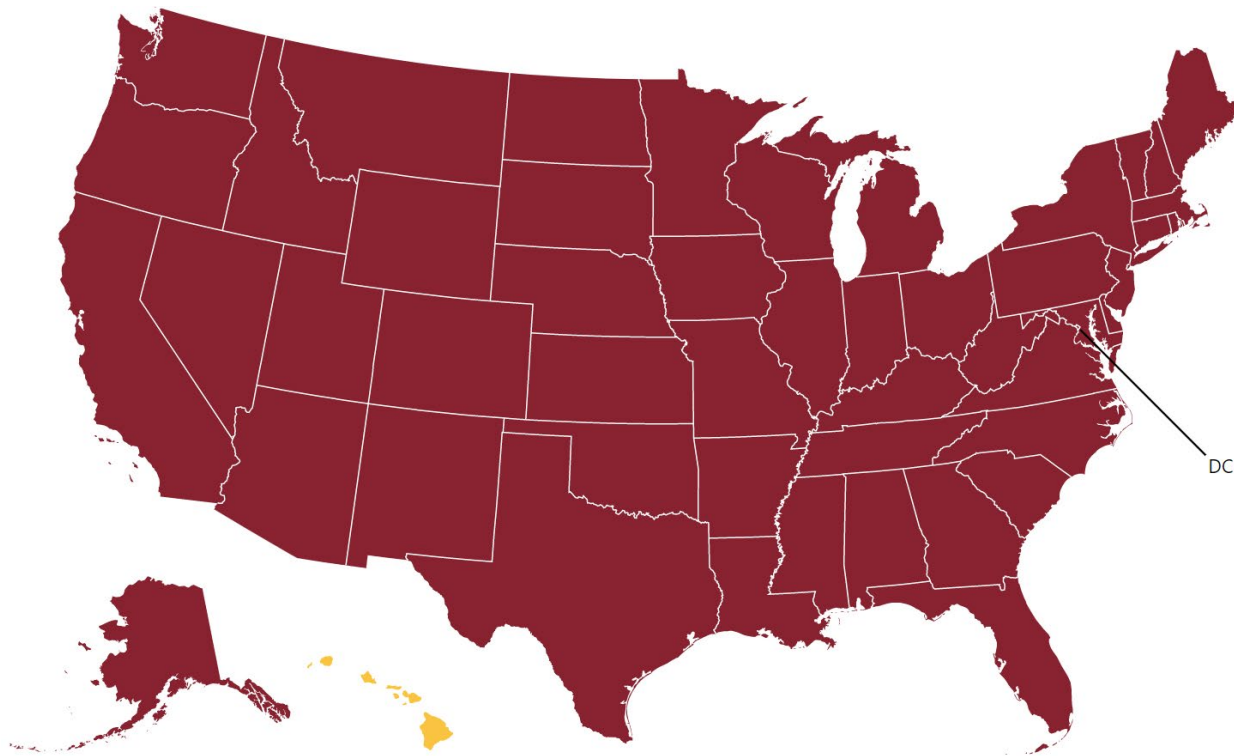


# COVID-19 Update

Dr Mark Cunningham-Hill  
Medical Director NEBGH

Monday December 7<sup>th</sup> 2020



Uncontrolled  
Spread

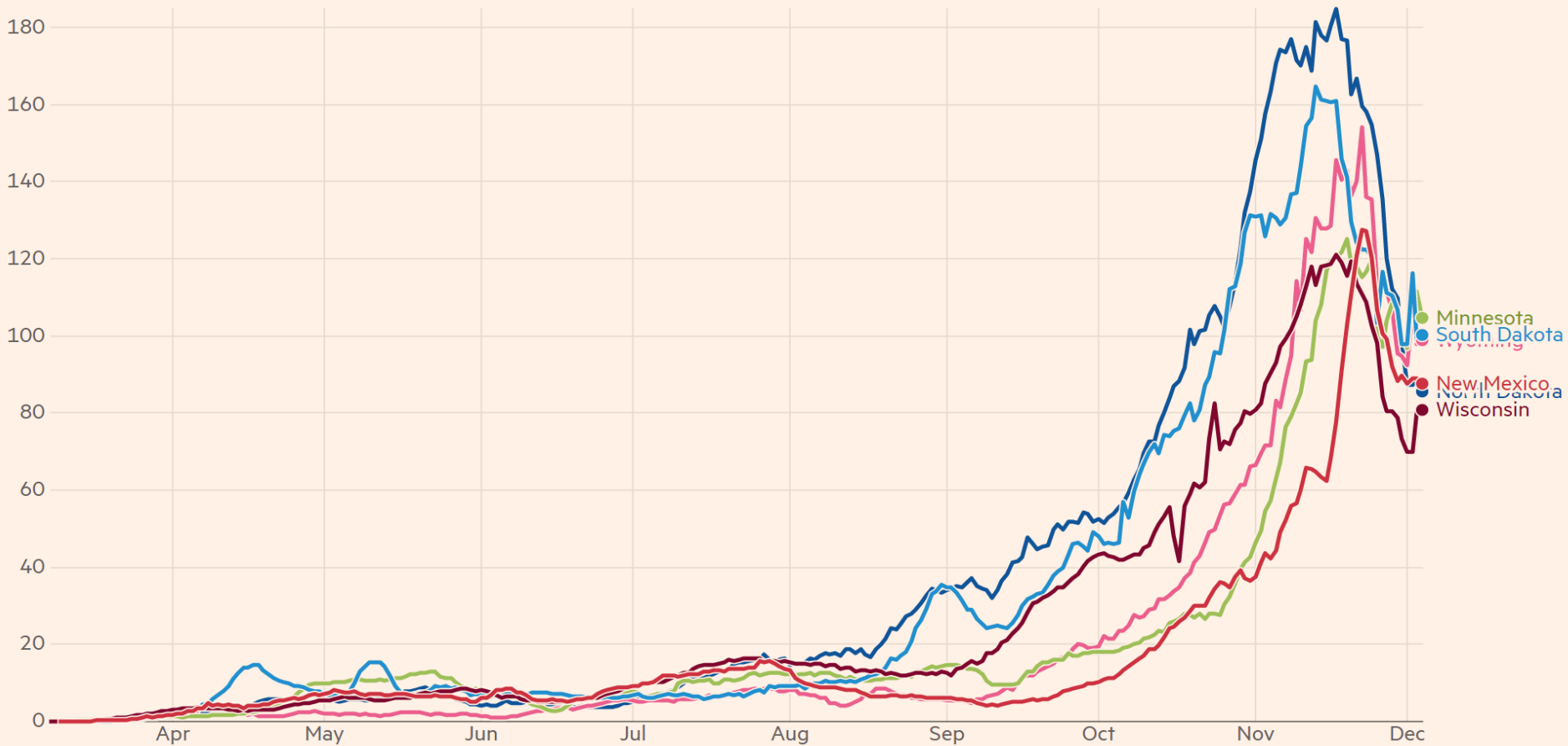
Trending  
Poorly

Caution  
Warranted

Trending  
Better

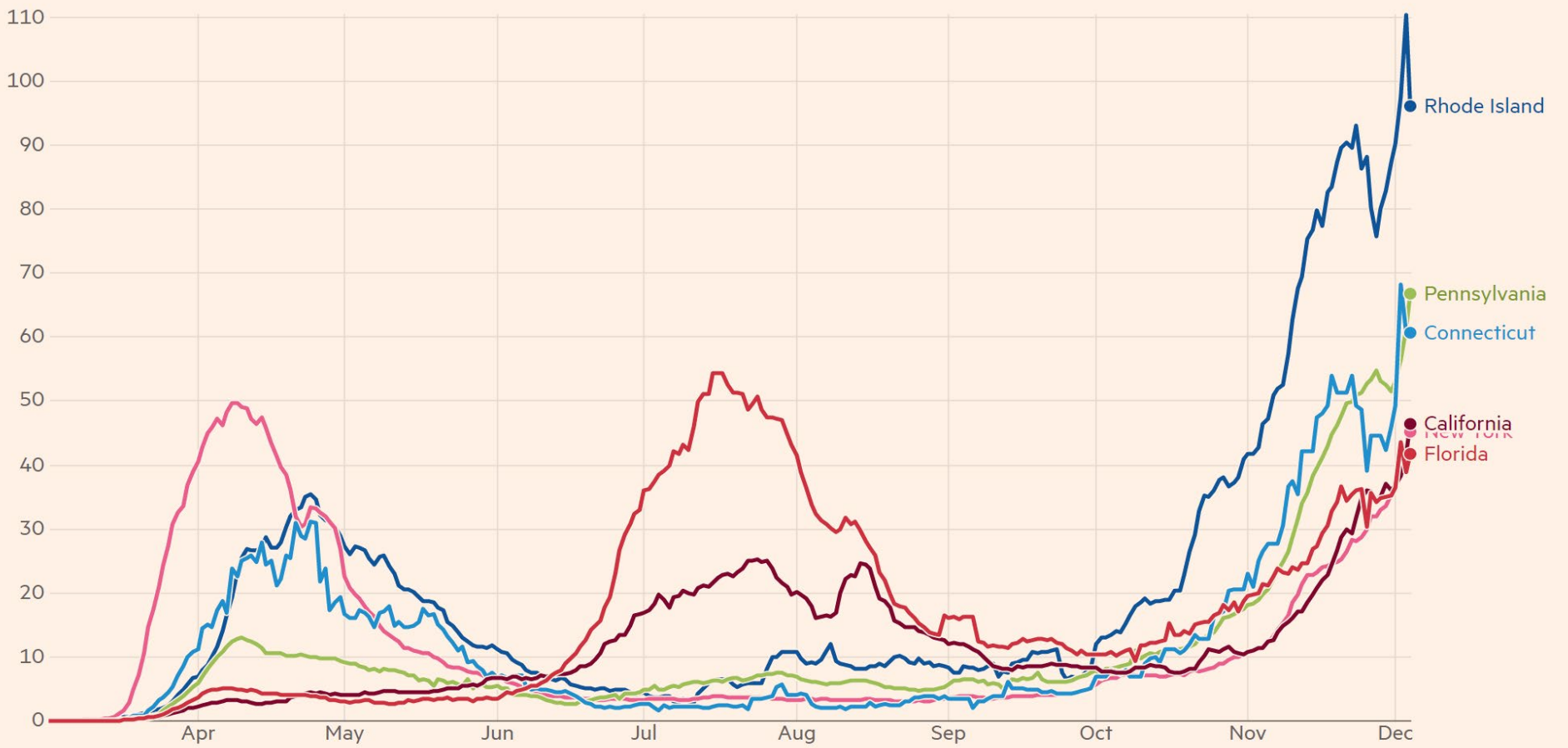
# New confirmed cases of Covid-19 in North Dakota, Wyoming, Minnesota, South Dakota, Wisconsin and New Mexico

Seven-day rolling average of new cases (per 100k)



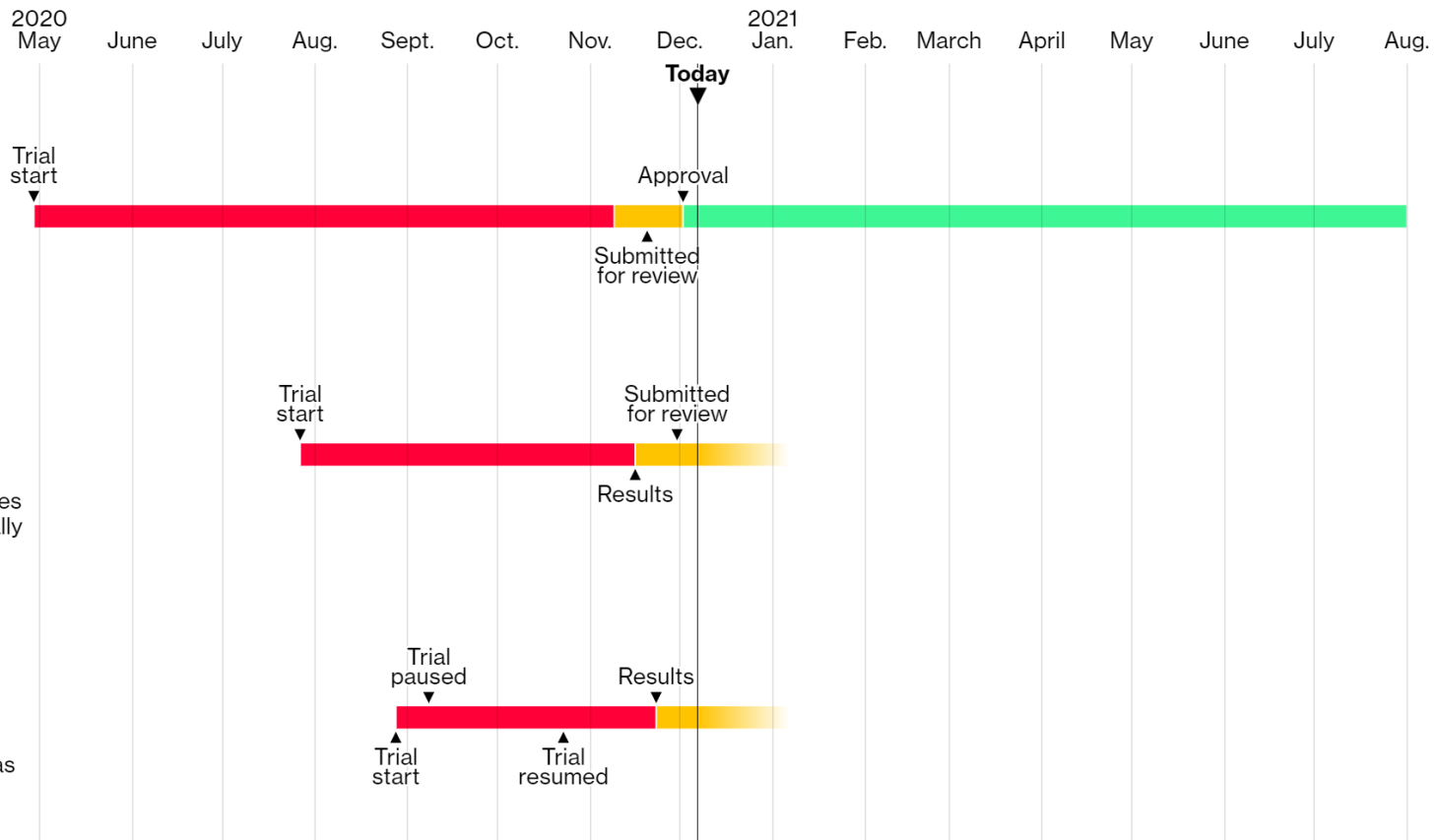
# New confirmed cases of Covid-19 in Rhode Island, New York, Pennsylvania, Connecticut, California and Florida

Seven-day rolling average of new cases (per 100k)









### 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.




Progress: ■ Trial    ■ Results expected    ■ Awaiting approval    ■ Available to public  
 👤 Trial size    💧 Doses required    ❄️ Storage temperature    ✅ Efficacy

## Novavax

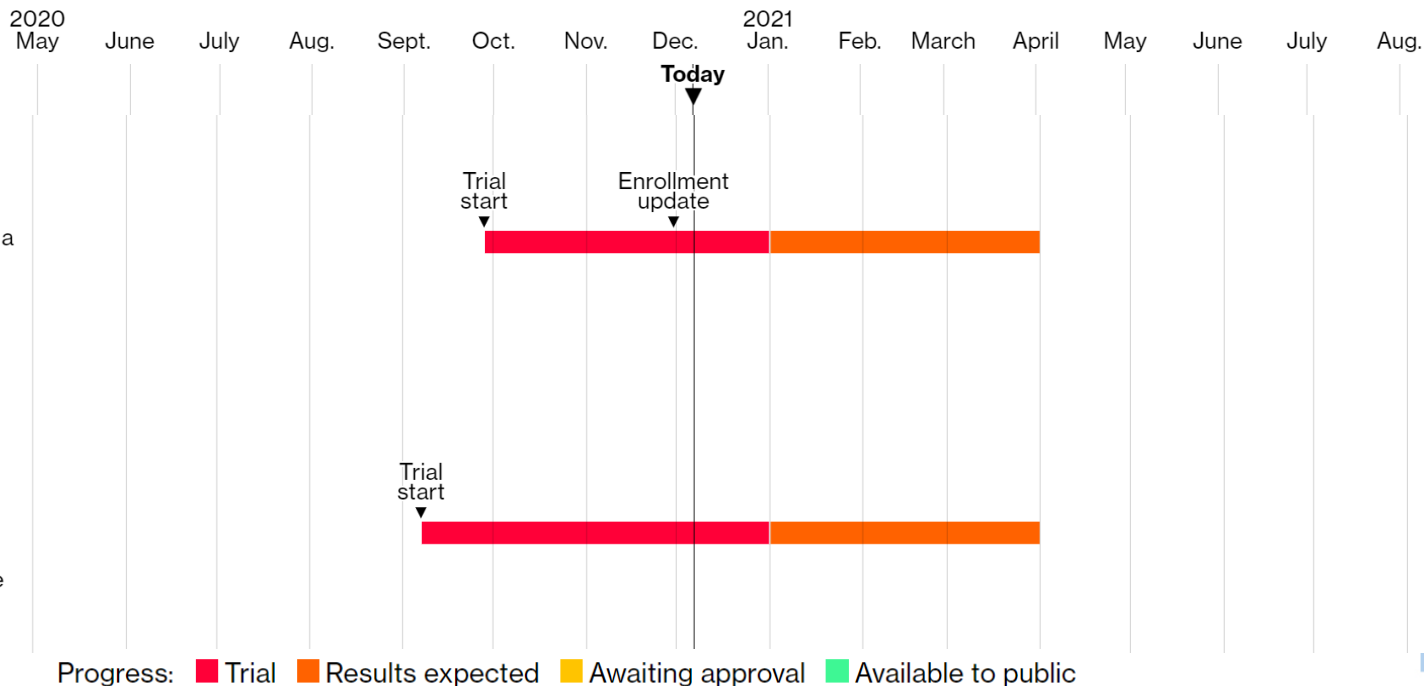
 45K
  2
  2-8°C

This small biotech firm has never brought a product to market. It received more than \$1.6 billion from the U.S. and \$399 million from the Coalition for Epidemic Preparedness. The stock rose 3,000% in nine months.

## Johnson & Johnson

 60K
  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.



 Trial size
  Doses required
  Storage temperature
  Efficacy



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

Today

## Sinovac Biotech

26K 2 2-8°C

Sinovac's vaccine triggers an immune response using the Covid-19 virus itself, after it has been chemically inactivated.

## Gamaleya

40K 2 -18°C 91%

The Russian vaccine, known as Sputnik V, was the first in the world deployed outside of clinical trials.

## CanSino Biologics

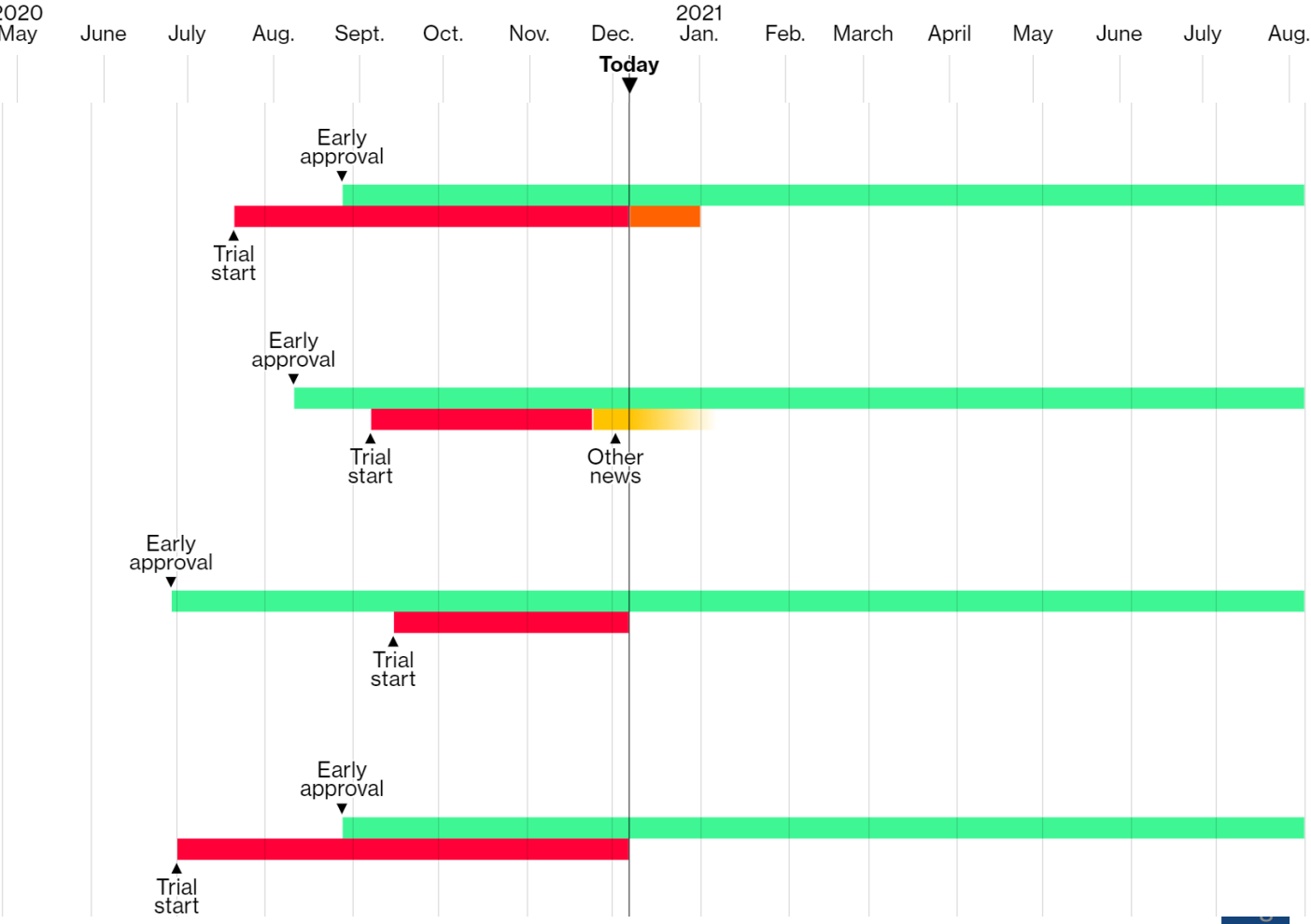
40K 1 2-8°C

CanSino's shot was approved for the Chinese military even before late-stage tests began. It uses a harmless cold virus to deliver its genetic payload.

## Sinopharm

50K 2 2-8°C

Sinopharm administered hundreds of thousands of doses before its vaccine was fully tested. It's currently working on two candidates in late-stage trials.

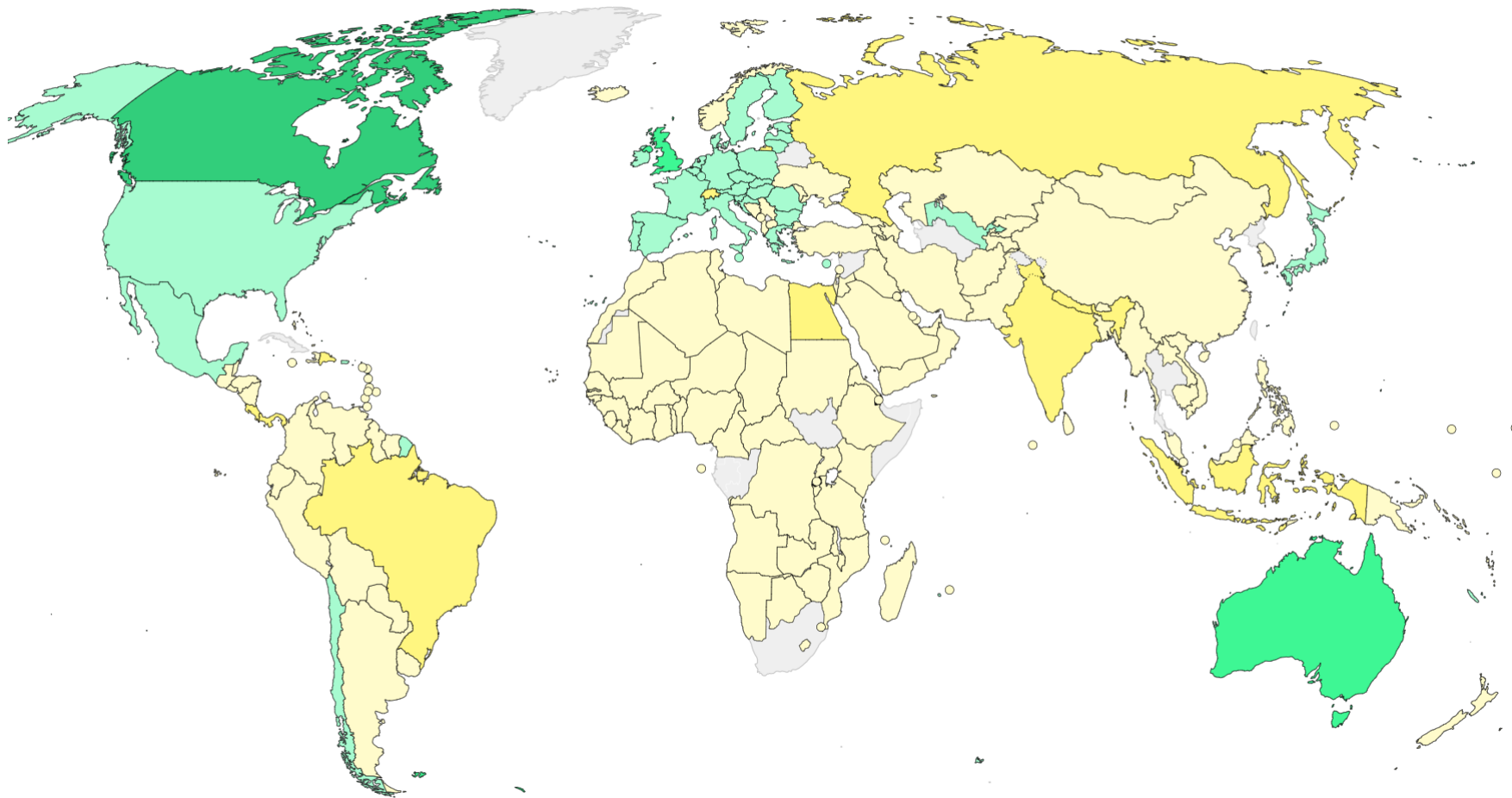




## World Map of Vaccine Contracts

Canada reserved nearly four times what's needed to inoculate its population

no data 50 100 200 300 400+ % of population covered



Start of vaccine line



Health care workers  
and nursing homes



Essential workers, first responders, adults  
with Covid-19 health risks, other elderly



Homeless,  
incarcerated

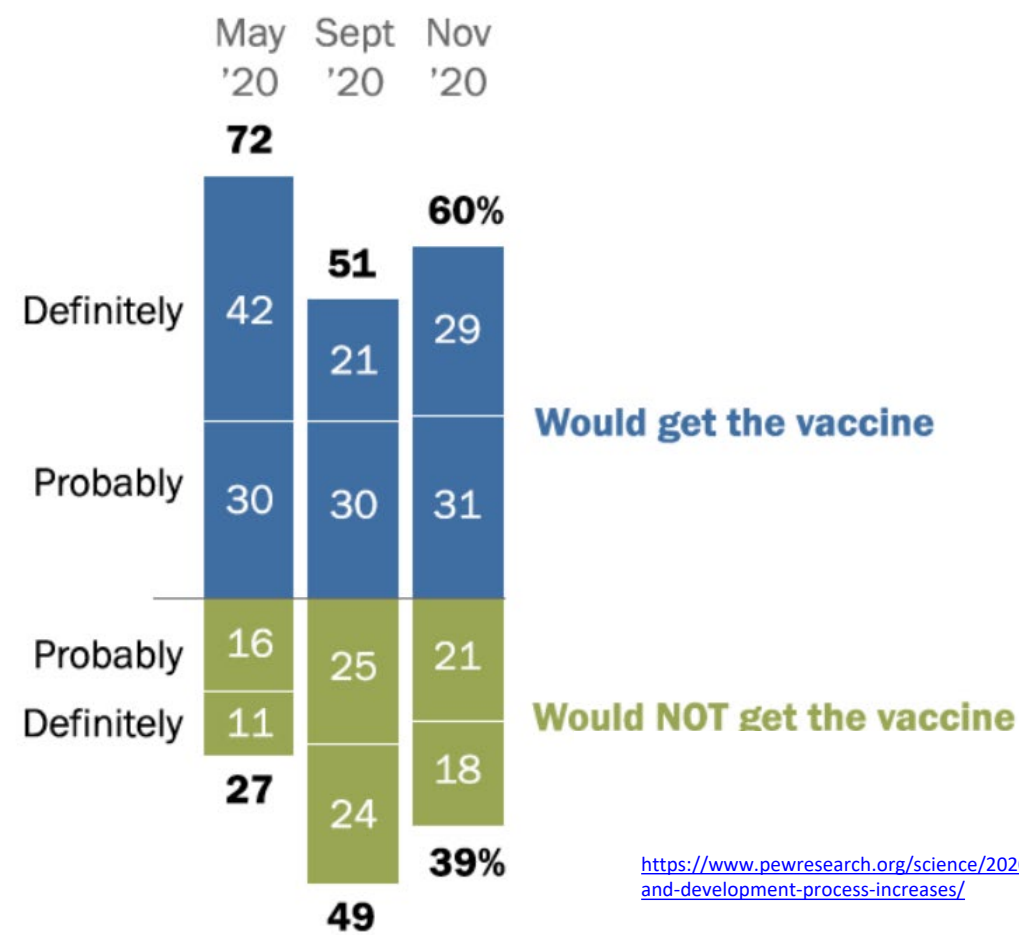


Young adults,  
children, lower-risk  
essential workers

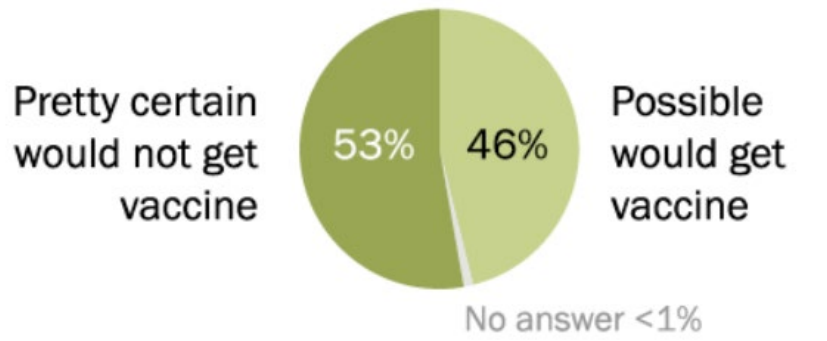


Everyone  
else

% of U.S. adults who say if a vaccine to prevent COVID-19 were available today, they ...

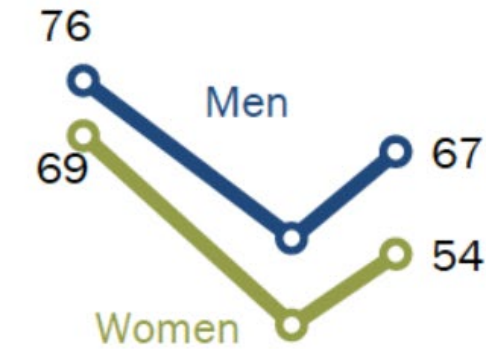


% among this group who say once others start getting a coronavirus vaccine and there is more information ...

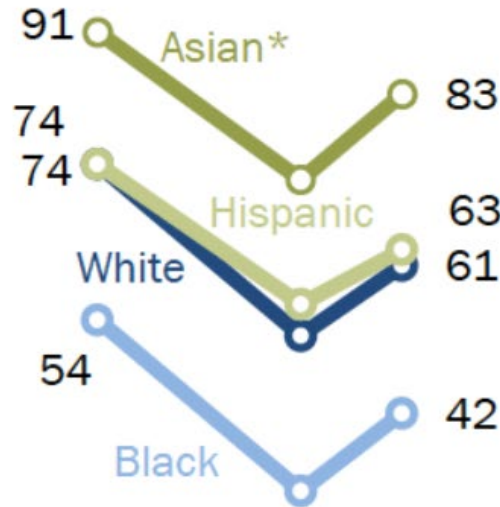


<https://www.pewresearch.org/science/2020/12/03/intent-to-get-a-covid-19-vaccine-rises-to-60-as-confidence-in-research-and-development-process-increases/>

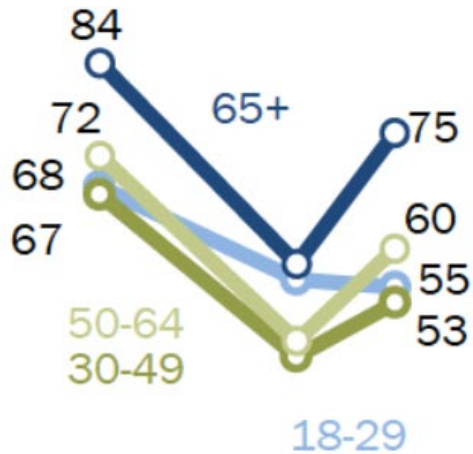
## GENDER



## RACE/ETHNICITY



## AGE



May '20

Nov '20

May '20

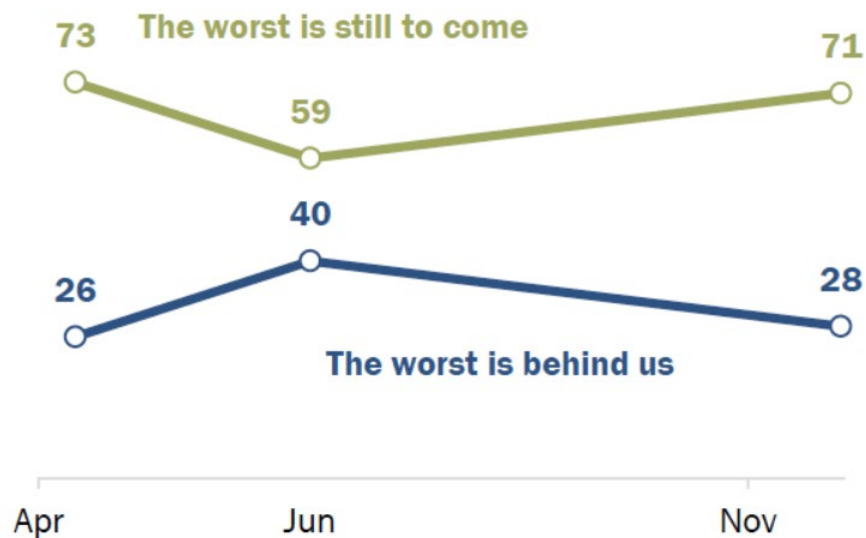
Nov '20

May '20

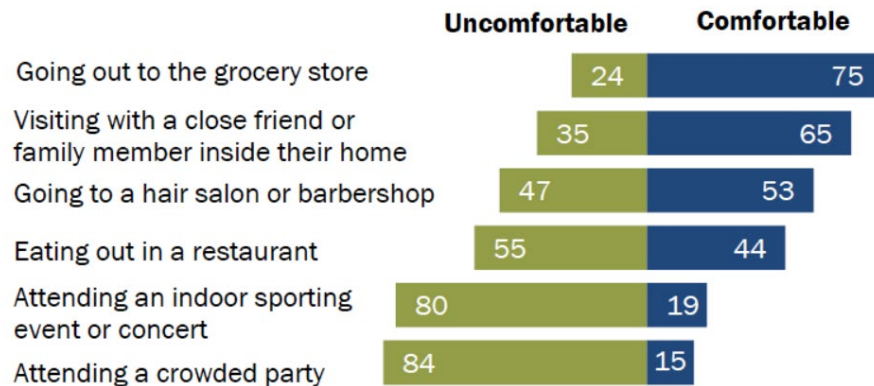
Nov '20

<https://www.pewresearch.org/science/2020/12/03/intent-to-get-a-covid-19-vaccine-rises-to-60-as-confidence-in-research-and-development-process-increases/>

% of U.S. adults who say, in thinking about the problems the country is facing from the coronavirus outbreak ...



% of U.S. adults who say, given the current situation with the coronavirus outbreak, they feel \_\_\_ doing each of the following





# Vaccine Questions

- Is being infected better than the vaccine?
- Why not take my chances with that rather than get a rushed vaccine?
- I have had COVID-19, should I get vaccinated?
- Will vaccine prevent infection, prevent illness or just reduce severity of illness?
- Will protective effect decline over time?





# Vaccine Questions

- Will children be able to have the vaccine?
- Pregnancy is a risk factor for COVID-19, will pregnant women be prioritized to receive the vaccine?
- Can vaccinated people transmit the virus to others?
- SARS-CoV-2 is undergoing mutations, what if any effect might this have on vaccine efficacy?



# Questions