



COVID-19 Update

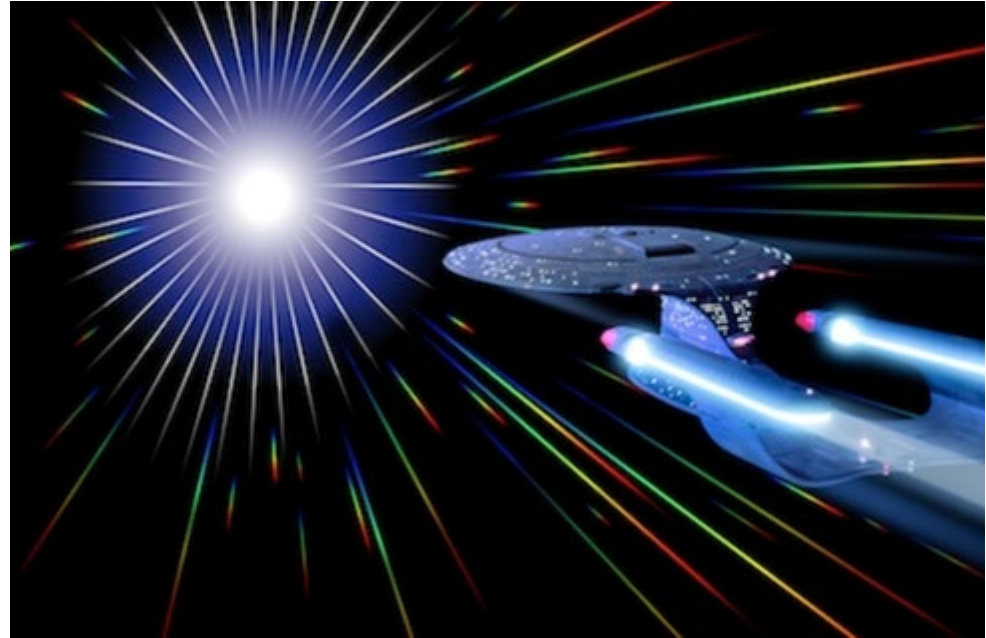
Dr Mark Cunningham-Hill
Medical Director NEBGH



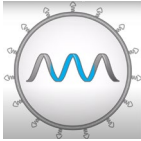
Monday July 20th

Vaccines

- 41 COVID-19 vaccine candidates currently in Phase 1-3 trials or major candidates in pre-clinical stages of development and research
- Operation Warp Speed – US is investing in 3 candidates:
 - Moderna
 - University of Oxford/AZ
 - J&J - Ad26.COV2-S



Warp Speed Candidates



Moderna

mRNA

Phase 2

Phase 3 - 7/27/20

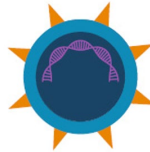
Neutralizing antibodies

Booster ↑ response

Mild side-effects 50+%

Emerging platform

\$483M OWS



Oxford/AZ

Chimpanzee adenovirus
vector

Phase 2/3

Based on AV vector used
for MERS vaccine

Neutralizing antibodies
and T-Cell

No human vaccines

\$1B BARDA & OWS



J&J

Human adenovirus vector

Pre-clinical → Phase ½

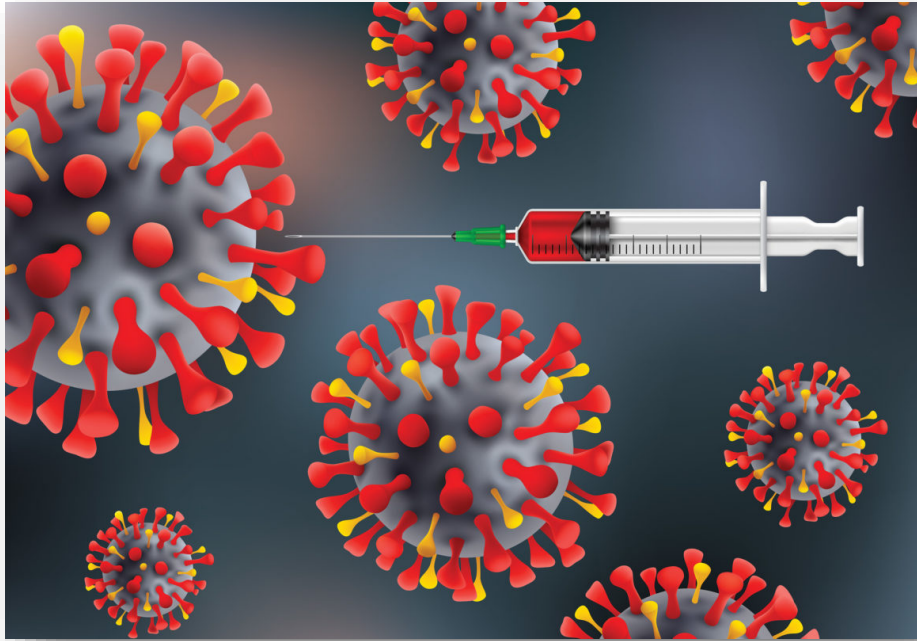
Neutralizing antibodies
and T-Cell

Based on AV vector used
for Ebola vaccine

Investigational vaccines –
Ebola, HIV, RSV and Zika

\$1B J&J, BARDA & OWS

Timing



- Earliest later this year if phase 3 trials go well and vaccine(s) get FDA Emergency Use Approval Q1 2021 likely
- Who gets the initial doses?
 - Healthcare workers and first responders
 - Teachers
 - High risk individuals
- General public 2nd



Funding and Global Distribution

- Coalition for Epidemic Preparedness Innovations (CEPI) and WHO - COVAX
 - COVAX Facility - a global collaboration to accelerate the development, production, and equitable access to COVID-19 tests, treatments, and vaccines
 - Access to COVID-19 Tools (ACT) Accelerator
 - COVAX Advanced Market Access
- US buying access to 300M doses of Oxford/AZ vaccine and presumably other 2 vaccines under OWS



Persistent Symptoms

- Increasing reports of longer-term symptoms:
 - Cough
 - Shortness of breath
 - Malaise
 - Muscle pains
 - Impacted smell/taste
 - Brain 'fog'
 - 50% of long term suffers have psychological problems, 15% PTSD (post traumatic stress disorder)

Testing



Daily percentage of positive tests (all-time average)

40%

30%

20%

10%

5%

0%

Peru

Brazil

Mexico

Nigeria

France

Pakistan

Bangladesh

Ghana

India

Thailand

Taiwan

Uganda

South Korea

Iran

South Africa

Greece

Turkey

Sweden

Norway

Italy

Germany

Estonia

Canada

New Zealand

Spain

Saudi Arabia

Australia

Russia

Hong Kong*

Singapore

Iceland

US

Daily number of tests per 100,000 population (all-time average)



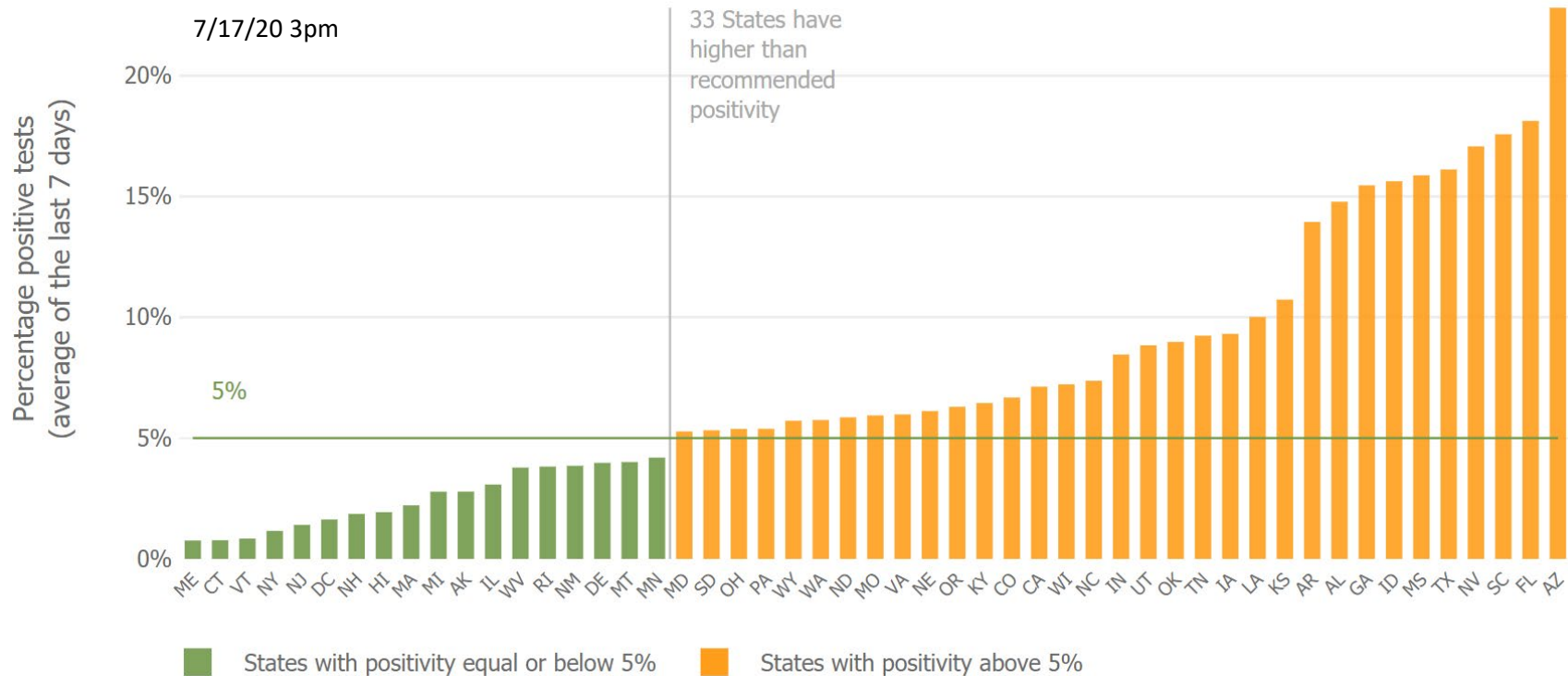
Countries



Maximum recommended positivity

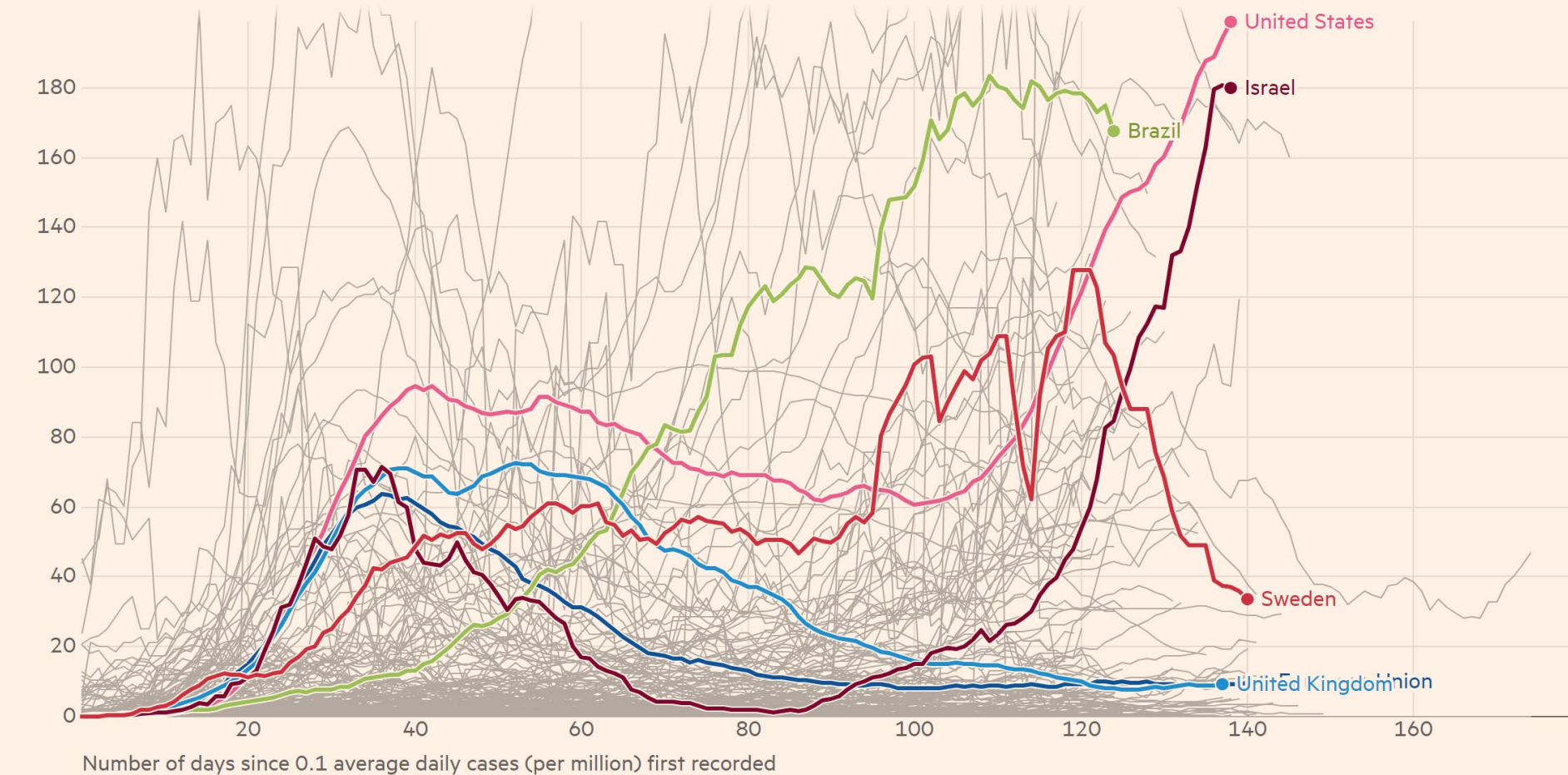
https://coronavirus.jhu.edu/testing/international-comparison?campaign_id=9&emc=edit_nn_20200708&instance_id=20110&nl=the-morning®l_id=126763527&segment_id=32873&te=1&user_id=9b30de89c635f8e9be95d526e62fbb96

Testing



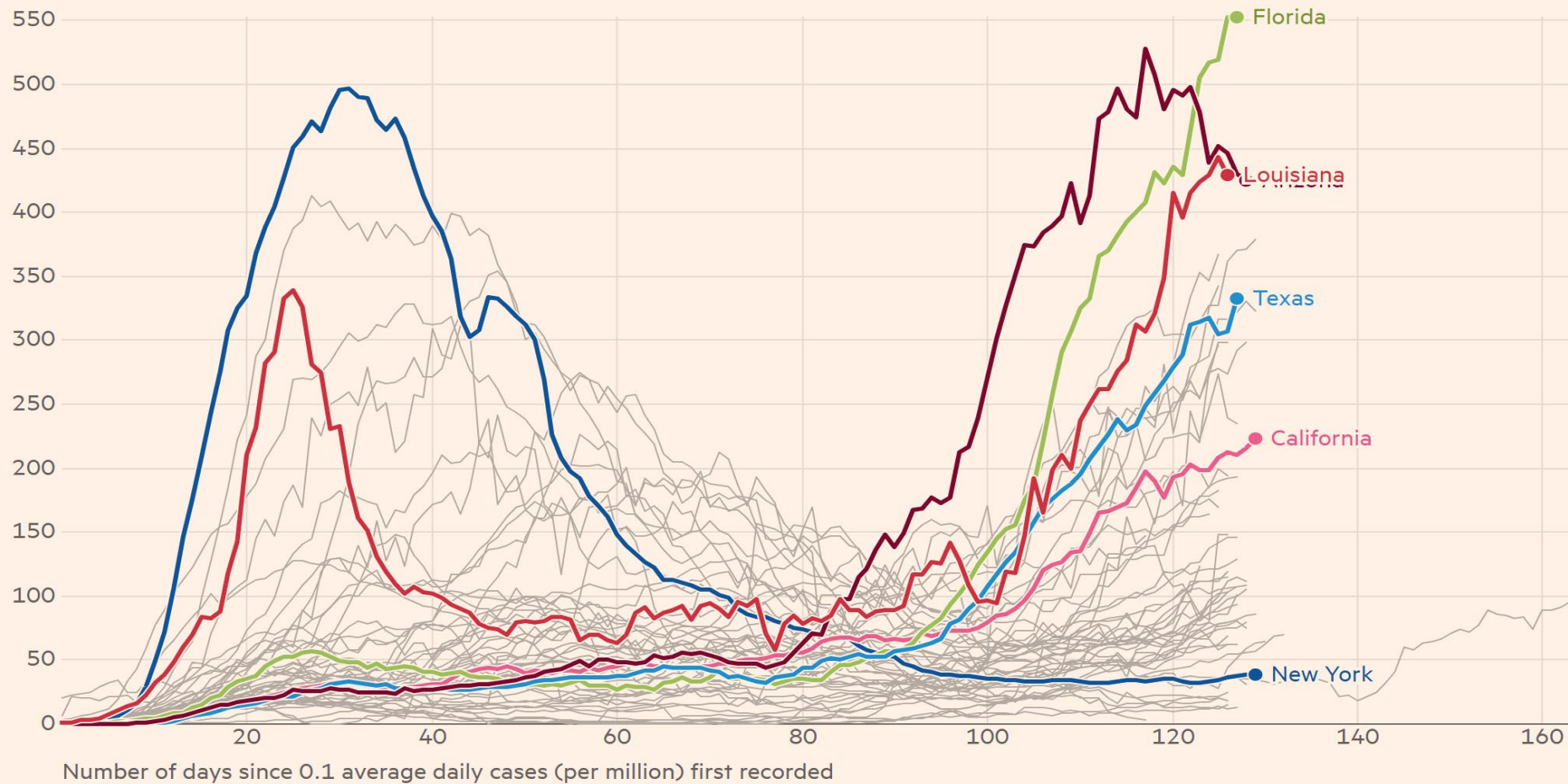
New confirmed cases of Covid-19 in European Union, United States, Brazil, United Kingdom, Israel and Sweden

Seven-day rolling average of new cases (per million), by number of days since 0.1 average daily cases (per million) first recorded



New confirmed cases of Covid-19 in New York, California, Florida, Texas, Arizona and Louisiana

Seven-day rolling average of new cases (per million), by number of days since 0.1 average daily cases (per million) first recorded



CDC Guidance

For People with COVID-19 with Symptoms in Isolation:

1. **Symptom-based strategy** - discontinue isolation under the following conditions:
 - At least 10 days have passed *since symptoms first appeared* **and**
 - At least **24 hours** have passed *since last* fever without the use of fever-reducing medications **and**
 - Symptoms (e.g., cough, shortness of breath) have **improved**
2. **Test-based strategy** – only if availability of ample testing supplies and laboratory capacity as well as convenient access to testing.
 - Resolution of fever without the use of fever-reducing medications **and**
 - **Improvement** in symptoms (e.g., cough, shortness of breath), **and**
 - Negative results of 2 PCR tests collected ≥ 24 hours apart.

For Persons Who have NOT had COVID-19 Symptoms but Tested Positive in Isolation:

1. **Time-based strategy**
 - At least 10 days have passed since the date of their first positive COVID-19 diagnostic test assuming they have not subsequently developed symptoms since their positive test. If they develop symptoms, then the symptom-based or test-based strategy should be used.
- **Test-based strategy**
 - A test-based strategy is contingent on the availability of ample testing supplies and laboratory capacity as well as convenient access to testing. Negative results of 2 PCR tests collected ≥ 24 hours apart.

TREAT YOUR MASK LIKE UNDERWEAR



1. Do not touch or adjust (especially in public).
2. Do not borrow or lend.
3. Make sure fit is tight but comfortable.
4. Make sure it is CLEAN.
5. Wear the right side out.
6. If it is damp, change it.
7. Don't go COMMANDO!

@A Chalkboard a Day



Questions