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The Executive Summary is produced weekly and contains in-depth analysis.

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**Today's Executive Summary focuses on COVID-19 illness.**

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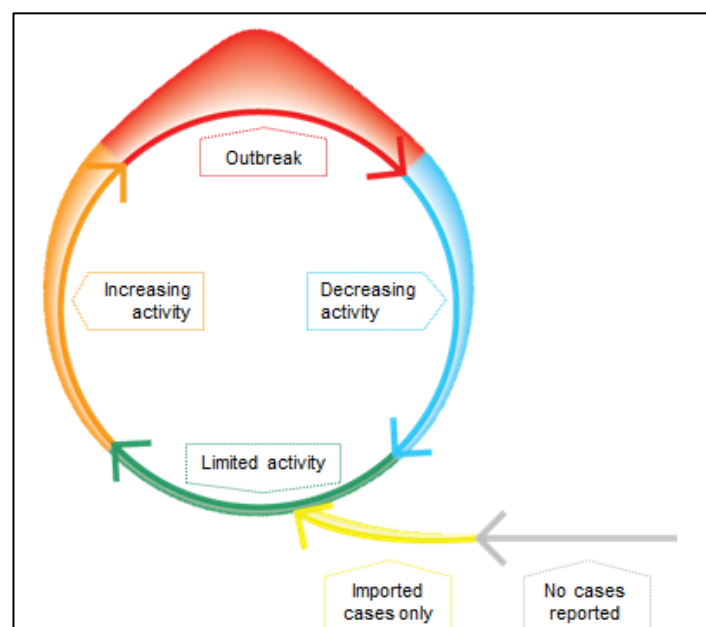
### NEW COVID-19 LOCATION IMPACT DIAGRAM

#### THE NEW INTERNATIONAL SOS COVID-19 CYCLE

We have realised that COVID-19 is better represented by a circular, rather than a linear, diagram where any country (or location) can be in one of six categories and can cycle according to COVID status.

This is currently being seen in Melbourne, Leicester, Galicia, Catalonia, Israel, Anxin, and Beijing, which had more than “flattened the curve” but are now fighting recurring outbreaks.

The outbreak in Melbourne has been sufficient to move Australia from “Limited Activity” to “Increasing Activity”.

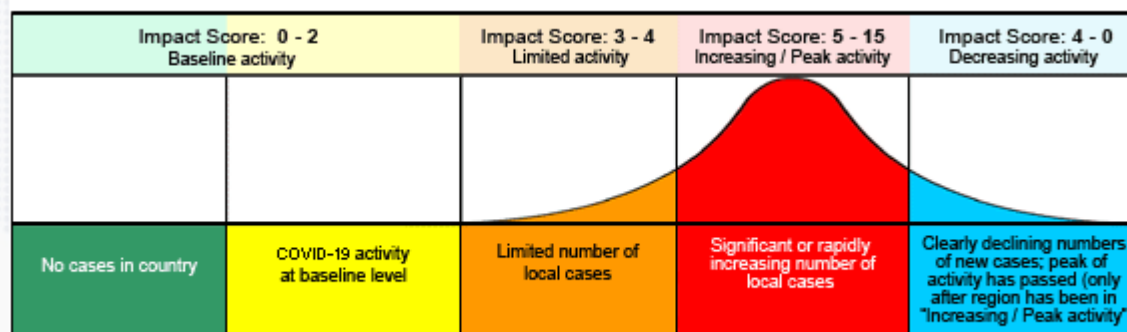


## Definitions

COVID-19 PHASE	DEFINITION
<b>Imported cases only</b>	All cases have been imported from other countries / territories
<b>Limited activity</b>	One or more of: <ul style="list-style-type: none"> <li>No reported cases (with ongoing testing).</li> <li>Minimal number of new cases per day (sporadic or small clusters)</li> </ul>
<b>Increasing activity</b>	<ul style="list-style-type: none"> <li>Moderate number of new cases per day</li> <li>Increasing trend</li> </ul>
<b>Outbreak</b>	One or more of: <ul style="list-style-type: none"> <li>1,000 cases (in first wave)</li> <li>High number of new cases per day</li> </ul>
<b>Decreasing activity</b>	May not have reached Outbreak but have all the following: <ul style="list-style-type: none"> <li>Moderate number of new cases per day</li> <li>Decreasing trend (&gt; 2 weeks declining case numbers)</li> </ul>

## THE ORIGINAL INTERNATIONAL SOS LINEAR IMPACT DIAGRAM

International SOS developed its Pandemic Planning Methodologies during and after SARS – one of the basic features was that we expected “waves” of the pandemic to affect areas, each separated by a period of relative normality, such as occurred in the 1918 Spanish flu. In addition, SARS came and went, and so did not change this understanding. So our Impact Diagram was linear; able to start again as the separate waves hit.

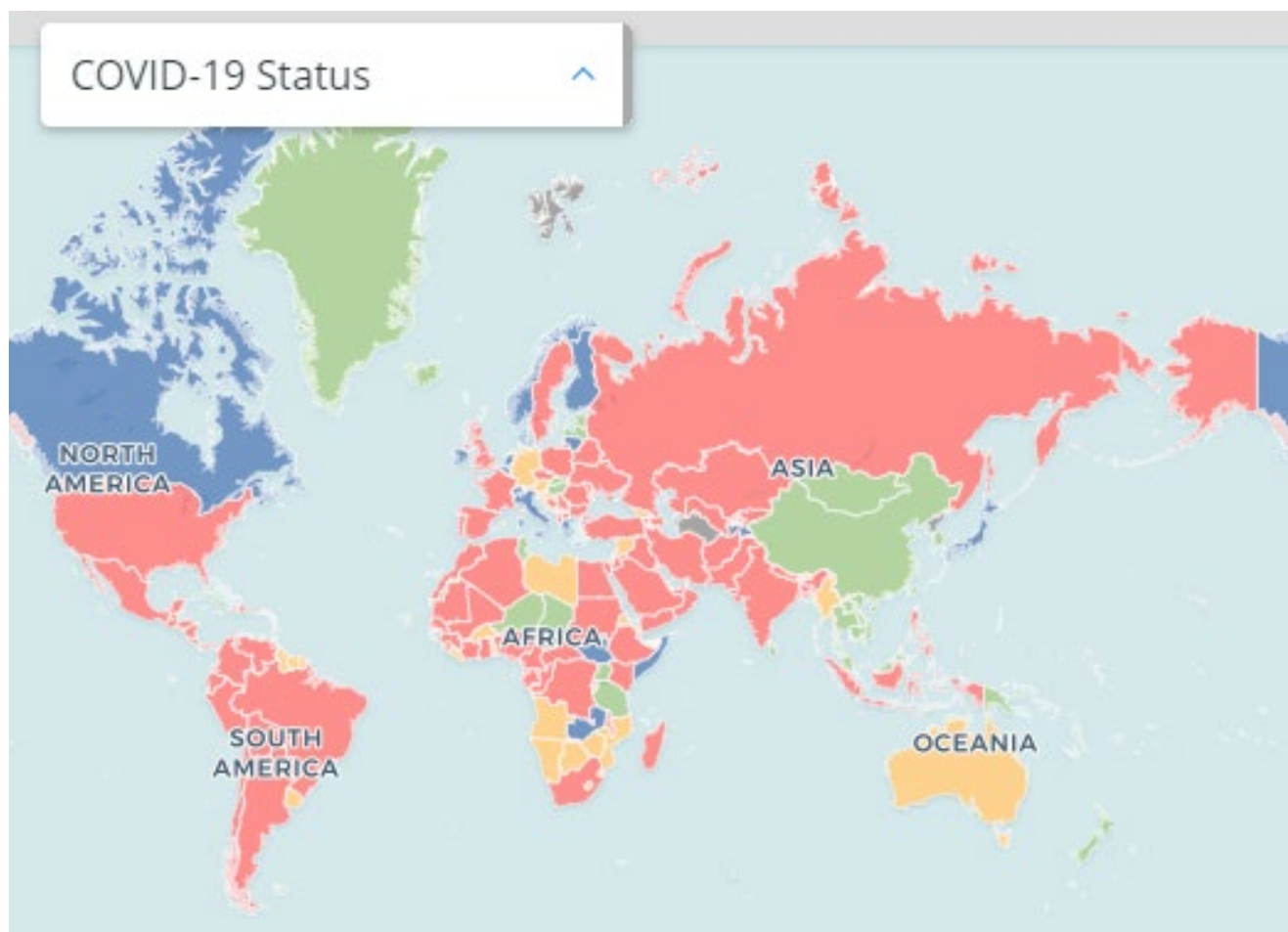


\* after 4 weeks of decreasing activity, the country returns to "baseline"

**This diagram has been retired.**

## THE INTERNATIONAL SOS COVID-19 STATUS MAP

The [International SOS COVID-19 Status Map](#) and the data table below have been updated with these new definitions:



Country	Status	Days since last reported case	Average cases / day in last 14 days
▲			
Afghanistan	outbreak	1	301.80
Albania	outbreak	1	66.80
Algeria	outbreak	1	287.33
American Samoa	no cases reported		
Andorra	limited activity	18	0.00
Angola	increasing activity	2	11.60
Anguilla	limited activity	95	0.00
Antigua and Barbuda	limited activity	4	2.80
Argentina	outbreak	1	2,278.13
Armenia	outbreak	1	593.20
Aruba	limited activity	2	0.27
Australia	increasing activity	1	67.53
Austria	increasing activity	1	68.13
Azerbaijan	outbreak	1	539.07
Bahamas	limited activity	21	0.00
Bahrain	outbreak	1	535.73
Bangladesh	outbreak	1	3,576.13
Barbados	limited activity	1	0.07
Belarus	outbreak	1	374.53
Belgium	decreasing activity	1	82.33

To demonstrate the utility of the new “COVID-19” cycle, the first section of today’ Executive Summary focusses on locations where case numbers have increased interventions and “hard” and “soft” lockdowns have been reintroduced.

## LOCKDOWNS REINTRODUCED

### MELBOURNE, VICTORIA: NOW WHOLE METROPOLITAN AREA IN LOCKDOWN

AUSTRALIA: COVID-19 CYCLE STATUS: AUS **INCREASING CASES** (up from limited activity)

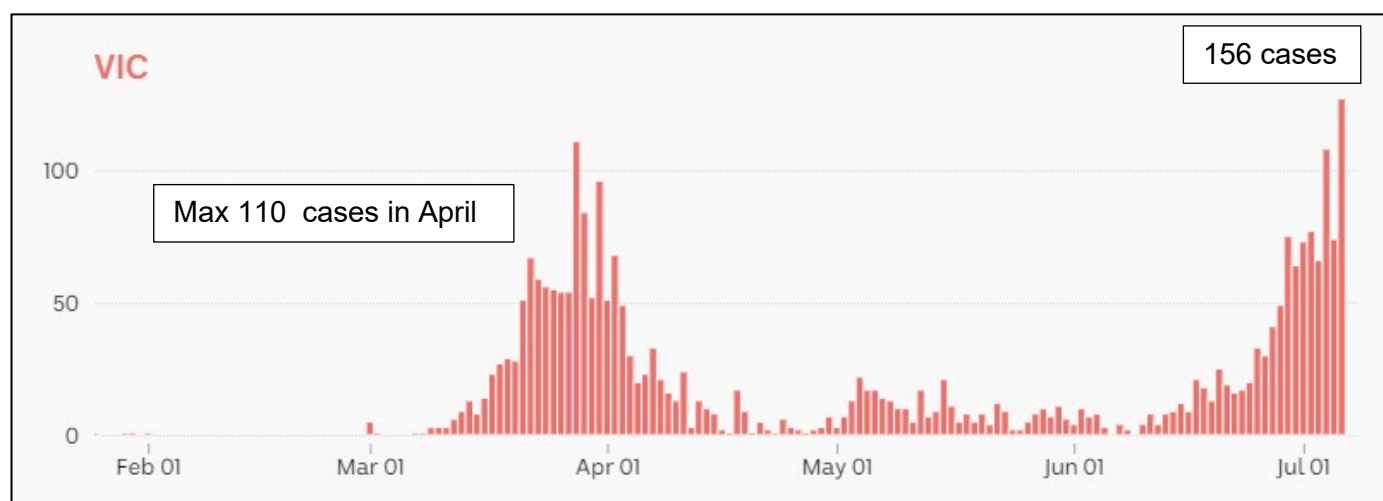
#### Stepwise reintroduction of restrictions in Melbourne

We reported last week that ten Melbourne city postcodes (population 300,000) have been given “stay at home” orders due to a significant increase in the number of “community acquired” cases in the areas.

Several days later, after the case counts continued to rise, nine high-rise public housing estates (3,000 residents) were placed into a “hard lockdown” (cannot leave your home for any reason). These apartment estates were epidemiologically likened to “vertical cruise ships” having high-density living and shared laundry and other facilities.

On 7 July, with the case count spiking to 154 new cases, the largest daily spike, metropolitan Melbourne (5M residents) has been given “stay at home orders” for six weeks. The border with other states has been closed.

#### Daily confirmed cases in Victoria, Australia



Source: [ABC](#)

#### Details:

Residents must stay at home unless:

- Shopping for food or other essentials / Medical purposes and caregiving / Work and study if it can't be done at home / Exercise

Limits on gatherings:

- No visitors at home / No more than two people gathering in public / Weddings limited to five people / Funerals limited to 10 people / Intimate partners can visit each other

Businesses:

- Retail, markets and hairdressers open / Cafes, restaurants, pubs, clubs and bars can do TAKEAWAY ONLY
- Arenas, stadiums, food courts, cinemas, concert venues, casinos and gaming, brothels and strip clubs, beauty services, holiday accommodation, campgrounds, pools, playgrounds, saunas, galleries, museums and zoos closed

There is no advisory to wear masks.

**There is a significant possibility that a Victoria-wide lockdown may be required.**



## Several of the Public Housing Apartment blocks subject to “hard lockdown”



Source: [ABC](#)

These housing blocks house some of the most vulnerable citizens in Melbourne, including refugees, migrants, and the unemployed. There are many ethnicities and languages spoken. Their transmission risk profile has been likened to “vertical cruise ships” due to the high-density living and shared facilities such as laundries.

### Cause of the outbreak

1. Breach of protocols in quarantine hotels. Security guards then joined family celebrations, including an celebration to mark the end of the Muslim fasting month of Ramadan.
2. Victoria has a decentralised public health system
3. It has been suggested that COVID communications were not satisfactorily multicultural
4. Several senior epidemiologists have also stated that it was “bad luck” (we interpret that to mean that even with overall excellent interventions, a couple of bad decisions whose effects compounded)

**There is currently NO COVID-19 community transmission in any other Australian state.**

However, [Professor Raina MacIntyre](#), head of the Kirby Institute’s biosecurity program at the University of New South Wales, said, “I would not be surprised to see epidemics detected in NSW and other states within the next few weeks...It is possible there has been seeding of infection to other states, and silent epidemic growth which has not yet being detected.”



### A FIELD HOSPITAL IS BEING SET UP IN MELBOURNE

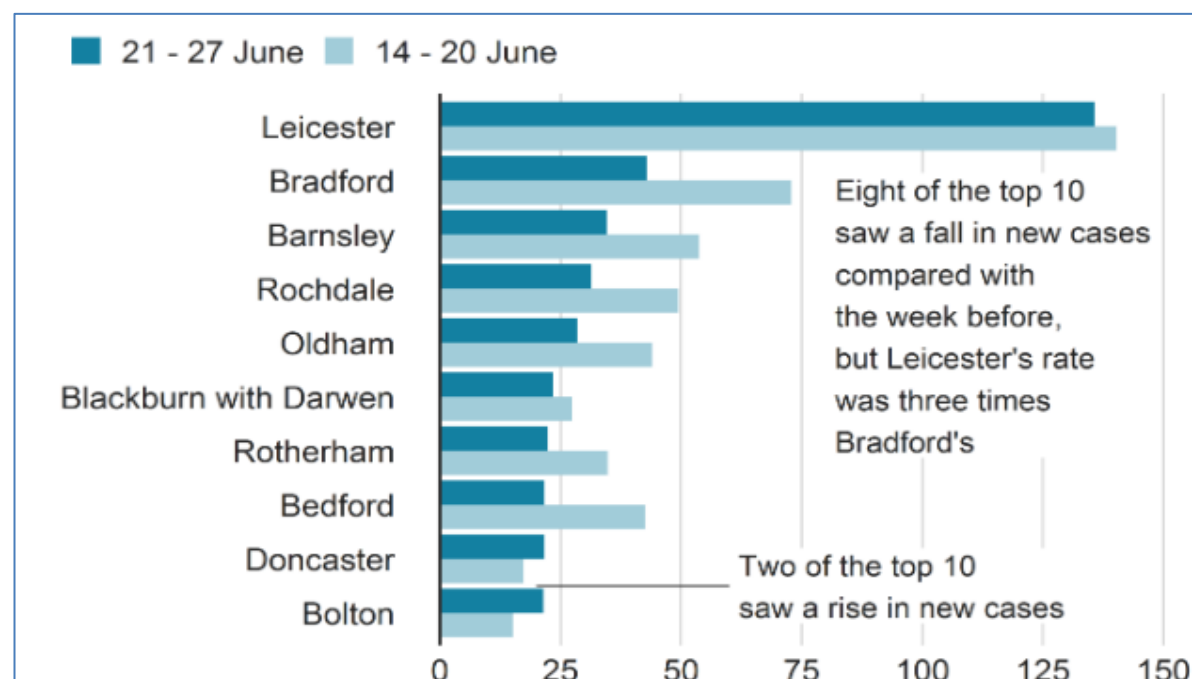
Image: Noosa News

## LEICESTER, UK – REMAINS IN LOCKDOWN

### UK COVID-19 CYCLE STATUS: **OUTBREAK**

On 17 June, a [smartphone app](#), developed by Kings College London, identified the UK Midlands as having the highest COVID rates in the UK with Leicester having three times the cases of other Midlands cities.

**Chart showing Leicester with three times the number of cases of other Midlands cities (per 100,000 / week)**



Source: BBC

Leicester was subject to a "soft lockdown" on 30 June, 2020, following reports of 944 cases in the previous two weeks

- Non-essential shops were shut
- Residents are advised to stay at home as much as they can
- Schools closed
- The loosening of restrictions occurring in the rest of England was put on hold

### Progress

The [Daily Mail](#) reports on 8 July that Leicester's COVID-19 infection rate has dropped 13% in a week, however the lockdown will not be reviewed until 18 July.

Health Secretary, Matt Hancock said in Parliament on 7 July that the seven-day rate of infection in the East Midlands city has dropped from 135 to 117 per 100,000 people

### Cause of outbreak

[Public Health England](#) has found "There is no obvious source for a recent surge in coronavirus cases in Leicester....no explanatory outbreaks in care homes, hospital settings, or industrial processes". However, the spread did not appear to be "unconstrained".

However, the journal "[Economic and Industrial Development](#)" suggests that the many small-unit garment businesses and numerous roadside hand car washes may have contributed to the spike in cases. Cramped high-density living conditions, inappropriate social distancing and continued business operation during the lockdown may also have played a part. It should also be noted that Leicester has a high BAME population who may be particularly at risk.

## GALICIA and CATALONIA, SPAIN

### SPAIN COVID-19 CYCLE STATUS: **OUTBREAK**

On 4 July restrictions were re-imposed on 210,000 residents of Catalonia after a sharp rise of cases. On 5 July, restrictions were re-imposed for about 70,000 people in Galicia, Spain, after 258 cases were identified.

#### Restrictions include:

- People are free to move around the lockdown areas
- Gatherings are limited to 10 people
- Capacity in bars and restaurants limited to 50%
- Only those travelling for work are allowed to leave the areas
- Face masks are mandatory outdoors



Spain had been on track to lift coronavirus restrictions and reach “normalcy” by the end of June.



## ISRAEL

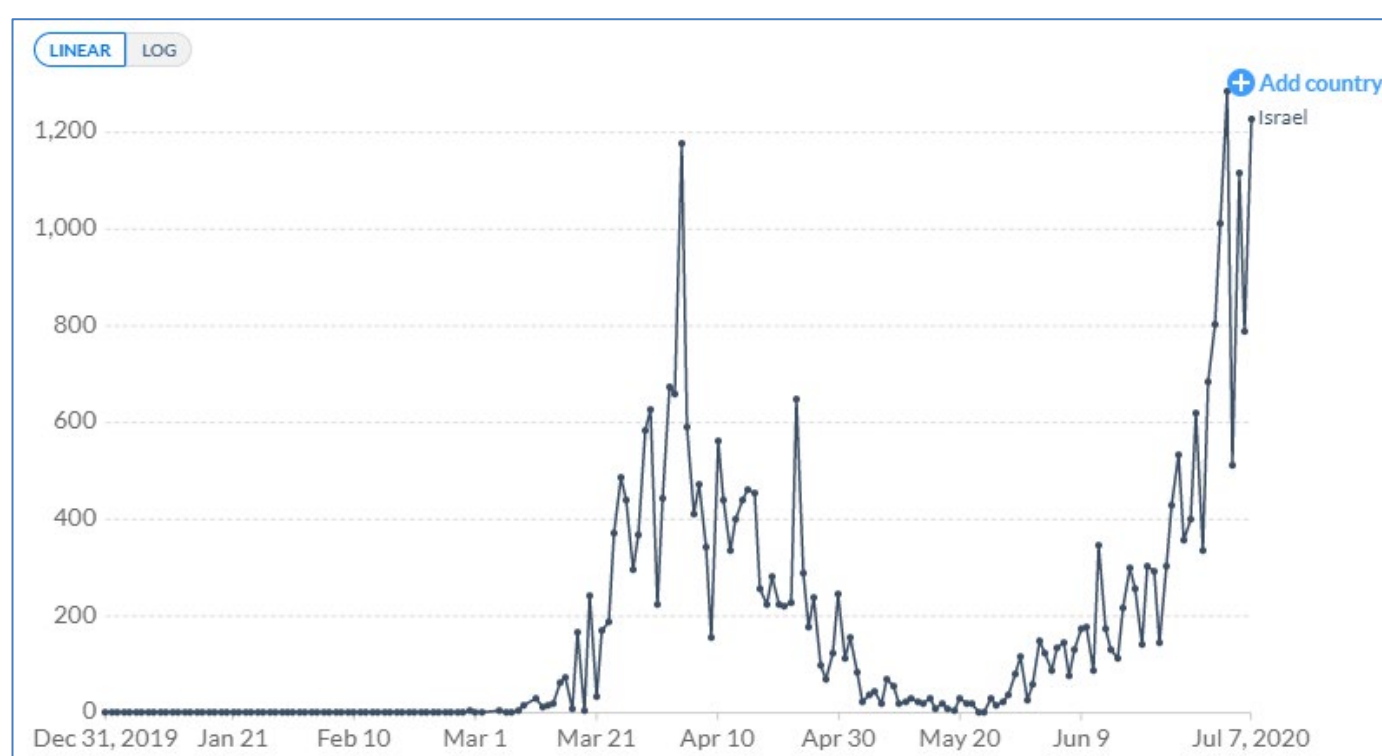
### ISRAEL COVID-19 CYCLE STATUS: **OUTBREAK**

#### Statistics so far:

- In Israel, 32,222 people have so far tested positive for the coronavirus; 342 people have died
- In the West Bank, there are 4,390 active cases; 21 people have died
- In the Gaza Strip, 72 people have been diagnosed and one person has died

**Israel has reported 1,000 cases in 24 hours, the biggest daily rise since outbreak began and the Israeli Public Health Chief, Professor Siegal Sadetzki, has resigned.**

#### Israel: Daily confirmed COVID-19 cases



#### Details of lockdown:

- Bars, clubs and gyms: closed
- People allowed at restaurants, in places of worship and on public buses was also reduced
- Over 30,000 contacts quarantined
- Resumption of phone surveillance program

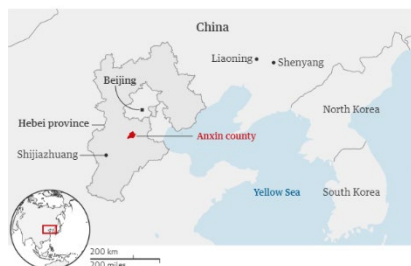
#### Cause

Professor Sadetzki said in a Facebook post "that Israel squandered its success with the first wave of the pandemic by allowing social activities too soon".

## CHINA

### CHINA COVID-19 CYCLE STATUS: **LIMITED ACTIVITY**

#### 1. LOCKDOWN IN ANXIN COUNTY



On 29 June, [lockdown restrictions](#) came into force in Anxin county in Hebei province near Beijing to manage a small COVID-19 cluster of 18 cases. This affected around 400,000 people.

Officials announced that Anxin would be "fully enclosed and controlled". Only essential workers are allowed to leave their homes, while one member of a household is allowed to go out once a day to shop for necessities. No non-residents will be allowed to enter buildings, communities or villages.

Map: [Guardian](#)

#### Course of outbreak

Anxin is not as densely populated and local [officials remain optimistic](#) they can stop the spread of the virus. No detailed outbreak data is available.

#### 2. LOCKDOWN IN BEIJING

On June 11, following an outbreak centred at the Xinfadi wholesale market, Beijing implemented a targeting lockdown, including a "remain at home order" for certain neighbourhoods.

The market was closed, thousands who worked there or visited were tested, and contacts traced. The government has also managed movement in and out of specific neighbourhoods and restricted movement out of the city.

#### Xinfadi wholesale market



On 24 June, the number of confirmed cases in the outbreak was 269 and rose to 335 cases on 27 June.

There has been a decrease in daily confirmed cases since.

July 7	July 6	July 5	July 4	July 3	July 2	July 1	June 30	June 29	June 28	June 27
0	1	2	1	2	1	3	7	7	14	17

## SOME OPTIMISM ABOUT VACCINE, TREATMENTS, AND A NEW NORMAL

Andy Slavitt is the former Medicare, Medicaid, and ACA head for the Obama administration. He is known for giving practical advice in his Twitter feed throughout the pandemic. After graduating from college, he was an investment banker with Goldman Sachs; after receiving his MBA he joined McKinsey & Company as a consultant.

**ANDY'S COVID Update July 7:** I spent the last 24 hours with 3 scientists, all of whom have seen vaccine data, 2 of whom are former regulators, all of whom have opinion.

**My core question was what the world is going to look like in 3 years but asked other things as well.**

**Starting with a slew of good news. 3/**

- The vaccine data from Oxford (being run in Brazil looks strong). No real safety issues so far. Gives people the antibodies.
- People are getting it post-COVID & some will in a challenge trial. 4/
- What “works” means— how long & for whom is less clear. But probably more like a flu vaccine (40%?) vs MMR (97%).
- There will be multiple vaccines after the first expected in the Fall. Each likely progressively better. 5/

**The monoclonal antibody therapy is also very exciting. Maybe even more so than a vaccine.**

- If you get infected, its another way to confer immunity & prevent it from advancing. 6/
- Therapy trials are easier and quicker than vaccine trials.

**Frustration that some vaccine trials are moving too slowly & not sharing data other than in press releases.**

- That's something people can advocate for. 7/

**Everyone— and I can't emphasize this enough— was a huge proponent of masks. Efforts to invalidate masks were considered absurd. 8/**

- The reason I mention these things is that the principal thing I learned is that the future will be defined by all of these things in combination: vaccines, therapies, masks, and other human interventions. 9/

**Mutations yes, but there wasn't much concern that vaccines could keep up.**

- Also, viruses become less deadly over time and there is cross-immunity and other potential 10/

**T-cells more important and less understood than antibodies. 11/**

**What is the FDA's hurdle for approving an EUA?**

- Safety and a 50% or greater chance of improvement. 12/
- In six months or so, so far science is doing as well as our leaders are doing poorly. 13/

**The future is always murky but given what I heard I asked: so, optimistic about reducing lethality but not eradication? Basically, that's what it sounded like.**

- Yes, there will be a new normal. 14/
- What's in this new normal? Will I be able to hug my mother?
- The answers landed on “I hope so.” But no promises. 15/

**Will people wear masks in the future?**

- Hope that we are more like Asia where this becomes a norm, particularly when people are sick. 16/

**Crowds, arenas?**

- Take it slowly. Masks and immunity and digital apps will help. But people will be taking risks.
- Antibody therapies could make catching CV less deadly & therefore a more acceptable risk. 17/

**What will the time before a vaccine look like?**

- Crappy. Horrible response in the US. Way too many unnecessary deaths. Fall will be awful. 18/

**Chance that the early vaccines turn out to be unsafe or don't pan out?**

- Possible but low. 19/



Image: Wikipedia

**Will people be able to trust what they hear from the FDA or Trump Administration?**

- It's an issue. Will you? Likely. Will look at the data.

**Would you take a vaccine?**

- Depends on the data.
- Expect there to be data before approval?
- Yes.

See and hear more from Andy Slavitt on "[In the bubble](#)"

## JOURNAL / ARTICLE ROUND-UP

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**THE WORLD HEALTH ORGANIZATION ACKNOWLEDGES "EVIDENCE EMERGING" OF AIRBORNE SPREAD OF THE CORONAVIRUS**

The World Health Organization has acknowledged there is "evidence emerging" of the airborne spread of the coronavirus, after a [group of scientists urged](#) the global body to update its guidance.

"We have been talking about the possibility of airborne transmission and aerosol transmission as one of the modes of transmission of COVID-19," the WHO's technical lead on the COVID-19 pandemic [Maria Van Kerkhove](#) told a news briefing.

The WHO has previously said the virus that causes the COVID-19 respiratory disease spreads primarily through small droplets expelled from the nose and mouth of an infected person that quickly sink to the ground.

The [World Health Organization \(WHO\) is preparing a scientific brief](#) to address the continually emerging evidence on transmission of COVID-19 and plans to release its guidance "in the coming days".

**NEW VERSION OF CORONAVIRUS SPREADS FASTER, BUT DOESN'T MAKE PEOPLE SICKER**

A [global study](#) has found strong evidence that a new form of the coronavirus has spread from Europe to the US. The new mutation makes the virus more likely to infect people but does not seem to make them any sicker than earlier variations of the virus, an international team of researchers reported Thursday.

[For more information, see Article 1 in "A View from the Lab" by Prof Oxford.]

**UK: MAJORITY TESTING POSITIVE HAVE NO SYMPTOMS**

Only 22% of people testing positive for coronavirus reported having symptoms on the day of their test, according to the [Office for National Statistics](#).

**CORONAVIRUS ASSOCIATED WITH NEUROLOGICAL COMPLICATIONS**

[Coronavirus can lead to neurological complications](#), including delirium, brain inflammation, stroke and nerve damage, a new University College London (UCL) study published Tuesday in the journal "Brain" finds. Of 43 confirmed or suspected COVID-19 patients at the University College London Hospital, researchers identified ten with delirium, 12 with brain inflammation, eight with cases of stroke and eight with nerve damage.

**PANDEMIC MAY NOT HAVE STARTED IN CHINA**

COVID-19 may have lain dormant around the world and emerged when conditions were right. [Dr Tom Jefferson](#), senior associate tutor at the Centre for Evidence-Based Medicine at Oxford University, and visiting professor at Britain's Newcastle University, says there is growing evidence the virus was elsewhere before it emerged in Asia.

Last week, Spanish virologists announced they had found traces of COVID-19 in samples of waste water collected in March 2019, nine months before the disease was seen in China. Italian scientists have also found evidence of the virus in sewage samples in Milan and Turin, from mid-December, many weeks before the first case was detected, while experts have found traces in Brazil from November.

Dr Jefferson believes that many viruses lie dormant throughout the globe and emerge when conditions are favourable. It also means they can vanish as quickly as they arrive.

## INDONESIA IS ON TRACK TO BECOME THE THIRD CORONAVIRUS EPICENTRE IN ASIA

[University of Indonesia epidemiologist Pandu Riono](#) said coronavirus infection rates would continue to rise until September or October, when it could reach as high as 4,000 cases per day. He said university modelling suggested the rise would continue unabated unless stricter measures were introduced.

## HERD IMMUNITY MAY BE UNACHIEVABLE

Spain's large-scale study on the coronavirus indicates just 5% of its population has developed antibodies, supporting evidence that a so-called herd immunity to COVID-19 is "unachievable," the medical journal the [Lancet reported](#) on Monday.

## BAYONNE: BUS DRIVER LEFT BRAIN DEAD AFTER BEING ATTACKED OVER FACE MASKS

A bus driver in the south-west of France [has been left brain dead](#) after reportedly being attacked by passengers who refused to wear face masks.

## BRITAIN LIFTS QUARANTINE FOR 60 COUNTRIES

[Millions of Britons will be free to travel overseas](#) for their summer holidays after the UK government relaxed its travel advice, saying those returning to England from more than 60 countries and overseas territories would no longer have to quarantine.

Exceptions include the United States, Sweden, mainland China, Portugal, Russia and India.

## FOCUS ON TEXAS

This is our tenth report on the number of cases per day in Texas since "re-opening" in stages began on 1 May. Texas represents a microcosm of many US states with significant COVID epidemics since reducing restrictions.

- Cases per day continue to increase
- COVID-related hospitalizations continue to increase
- COVID-related ICU admissions continue to increase

## NEW CASES PER DAY

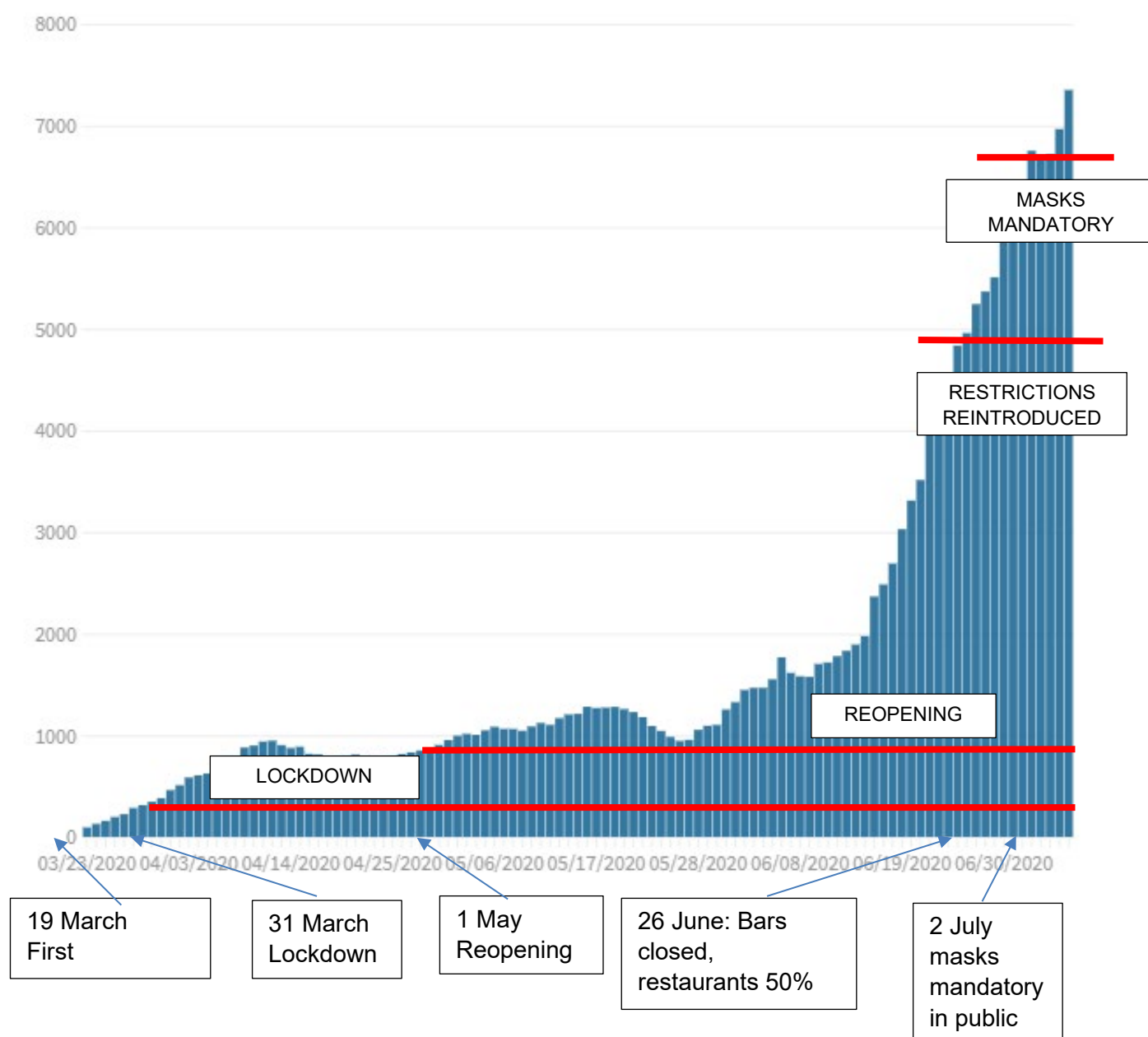
The graph below from the Houston Chronicle shows a sharp increase in new coronavirus cases. The rate remains a multiple of both when lockdown occurred and when re-opening began on 1 May.

### Cases per day

Lockdown	31 March 2020	325 cases per day
Re-opening	1 May 2020	785 cases per day
	10 June 2020	1,575 cases per day
	20 June 2020	3,309 cases per day
Restrictions re-introduced	26 June 2020	5,501 cases per day
	7 July 2020	7,349 cases per day



Texas: Seven day rolling average of new confirmed cases: [Houston Chronicle](#)





## MASKS MANDATORY

Governor Abbott made the wearing of masks in public mandatory on 2 July 2020.

However [CBS News](#) reports on 7 July that a growing number of Texas sheriffs are refusing to enforce the Governor's mask requirement.

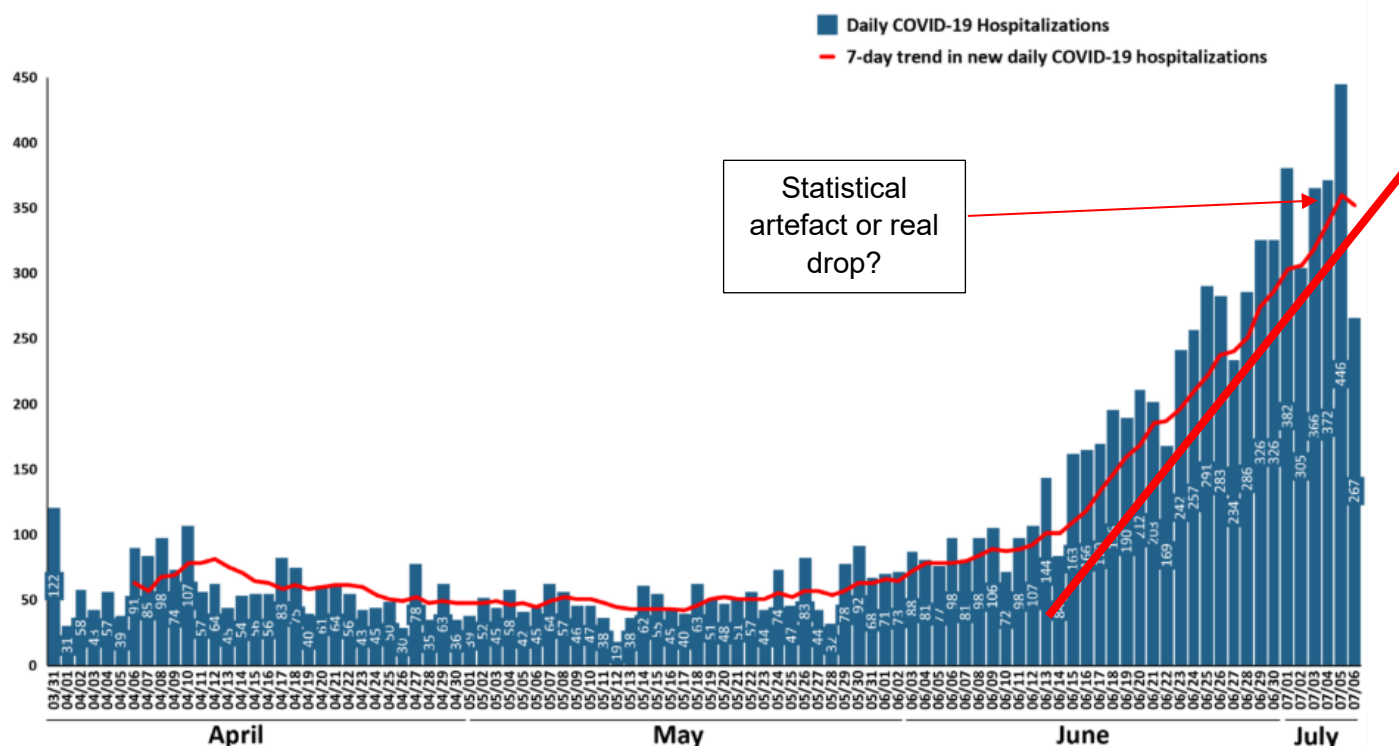
## HOSPITALIZATIONS IN TEXAS

The State of Texas does not report daily state-level hospitalizations, however Texas Medical Centre (Houston) does. The graph shows a continued increase in new COVID hospitalizations in recent weeks.

Date	TMC average daily growth in hospitalizations
4 June	2.1% daily growth
11 June	3.5% daily growth
17 June	4.4% daily growth
29 June	7.8% daily growth
6 July	2.5% daily growth

## TMC DAILY NEW COVID-19 HOSPITALIZATIONS

*ICU & Med Surg hospitalizations*



Graph: [Texas Medical Centre](#)

## A VIEW FROM THE LABORATORY: PROFESSOR JOHN OXFORD

### **Tracking changes in SARS-Cov-2 spike: evidence that D614 G increases infectivity of COVID-19 virus**

[This paper](#), despite its convoluted title has been awaited for a few weeks after early discussions about the meaning of the data. The title, a mixture of technicality (D614 G) and asserted “increase infectivity” does not help!

Of course, we all believe there have been nucleotide substitutions on this virus. After all, 10 million people have now been infected and each produced 100 million new viruses. We are dealing with huge virus populations here and experiencing natural selection on a massive scale in six months. Darwin would have loved to be here!

The authors are saying that a single nucleotide change in the ‘S’ spike has led to increased transmissibility. **But they have no association between the D614 G change and hospitalisation or any clinical data. Rather they noted increased transmissibility in the laboratory in cell or organ cultures systems.** They acknowledge that transmissibility and infectiousness are not always the same. More studies are needed to determine whether this mutation led to an increased number of infections. Nevertheless, this study, reported in a highly respected journal, “Cell”, is a packed 52-page article well worth studying. We are going to see more of such papers attempting to correlate virus gene structure with virulence, clinical picture and spreadability. This has not yet been achieved for even the well-studied influenza despite detailed work over many years. On the other hand, nucleotide sequencing can be performed quickly and cheaply with COVID-19.

The first author is Korber, working in Los Alamos (USA). This collection of laboratories came to prominence in the 1940’s when the atomic bomb was perfected. When I visited there, they had just discovered antigenic cartography mapping influenza HA changes. Now it has a strong bio-mathematical learning department. Other authors are from the University of Sheffield and from Harvard and Washington (St Louis).

They tracked virus from many geographical areas and found that an earlier form was prevalent at the presumed start of the epidemic in Wuhan but was then overtaken by D614 G variants which had higher levels of virus RNA during replication. But this is not quite the same as finding high levels of virus per se, but perhaps that data, which may be difficult to achieve, may come later?

Of course, a worry is that a mutation could cause an antigenic change. But there is no evidence of this. The authors note that **coronaviruses, unlike influenza, have genetic proofreading mechanisms**, so sequence diversity is very low. They have worked with the spike or ‘S’ protein which will be important for new vaccines because it induces neutralising antibody.

Finally, I would add that sometimes one or two mutations can increase transmissibility but reduce virulence and deadliness. There is evidence of this with bird influenza A (H5N1). So overall, it is a very important area of study.

As a postscript, I remembered an earlier thought I had that perhaps Wuhan was not the origin per se but somewhere else in SE Asia with the same bats? I am afraid that what appeared to be a single origin may be more complicated.

### **A healing journey helped by retrospective clinical knowledge from the Spanish influenza pandemic of 1918**

Perhaps it is only a sign of the times that so many stories of survivors of the COVID-19 are being published in responsible national newspapers, in this case the Guardian. This account of the husband and wife infected with the virus also exemplifies the observations of differing clinical symptoms and, of course, raises the question of huge differences between them, a question at the heart of modern molecular virology.

In this case we presume the virus is the same. The wife spent 93 days in an ICU. She cannot remember feeling ill and her coma was induced and now she has to cope with the after-effects of the breakdown of most of her vital organs and the possible amputation of her fingers. She began to deteriorate from “having a cold” to lying in bed almost lifeless. Her husband came down with the virus on the same day but recovered quickly.

She suffered kidney failure and two seizures. She was about to be transferred to a London Hospital with an ECMO machine when the doctors tried “putting her on her stomach and turned her every four hours”. This is a well described nursing technique during the 1918 Spanish influenza pandemic and this retrospective knowledge possibly saved her life. Certainly, other knowledge from 1918, casual distancing, masks, hand washing, closure of theatres and cinemas and football matches worked when applied early in the cities of the USA but had much less effect if delayed. Then, as now, good nursing was more often the key to survival.

### **Will scientific Conferences, national and international, ever recover?**

I have read many versions of this important story and there are very varying options. What is apparent is that virtual meetings are becoming the norm and many researchers have been won over. I have had my scheduled lectures and other meetings cancelled this year right up to November. I can see that for young scientists, the cost of an online scientific meeting can be sustained and online is useful for scientists with children or disabilities. It also means we can cut back air travel and reduce “our personal carbon footprint”.

I must confess that the thought of winding through Heathrow now fills me with gloom watching everyone with masks. A feature article in Nature estimated that there are 7.8 million researchers travelling to conferences per year and the annual carbon emission would be the equivalent of those of a small nation!

The virtual meeting is thought to be better for student researchers and submitting questions online allows more thoughtful discussion. Even networking could be better with an “matchmaking app”. There are negative sides to this change. Many scientific societies receive a large cash flow from the yearly get together. Poster sessions online are difficult to sustain as are the casual meetings in bars.

It is quite possible that future scientific conferences will include a significant “online” component as well as the reality of actually meeting someone. I feel myself that the traditional scientific meeting is not replaceable. I still remember the people I met from 40 years ago and the excitement of talking to scientists again all these years later.

### **Will there be a permanent change in scientific publishing?**

We have touched in a previous report upon a new wave of rapid (perhaps over-rapid?) publishing during the current pandemic. Researchers are placing un-refereed papers online whilst special very rapid 'journals' have been set up to cope with the surge of data from COVID-19.

An example of a pre-print server service is bioRxiv where manuscripts can be uploaded and where rapid review feedback is ensured. Public sharing of data is happening also on institutional websites. On top of the speed, some journals such as NEJM and Nature have made COVID-19 papers "free to read". "Open Access" has been an important novelty.

On the negative side, the economic crisis is likely to disrupt research budgets and scientific jobs and the whole of the scientists publishing industry. Perhaps not surprisingly, there have been many more publications from China, and these researchers have favoured pre-print servers. There has also been a tendency for Chinese authors to publish in journals from China itself rather than the USA and the EU.

This happened many years ago in the UK. When I started as a virologist the idea was to train partly in the USA and then to return home to England. In reality, I did my extra training in Australia at the John Curtin School of Medical Research in Canberra. Perhaps my most well-known colleague there was Peter Doherty who won a Nobel Prize for his work on immunology. Not many of my friends have an Institute named after them, but Peter does in Melbourne!

### **"Get ready for 2021"**

I had hardly finished reading the Office for National Statistics (ONS) report on the 64,000 excess deaths in the UK on my iPhone when the message popped up. It was a "government communication". I thought for a moment that we had a significant scientific breakthrough, like "a world-beating UK trace app" or even a "world beating" new British vaccine". But nothing of the sort.

The urgent message was about preparing for Brexit. A scientist had noted publicly a month ago that the political class in the UK were more interested in Brexit than COVID-19. Within a week he was in their bad books. I can see now what he was hinting at.

In the middle of all the medical and scientific effort to contain a serious world pandemic are the EU and UK leaders back on the old political gamesmanship and arguing about ownership of fish? If so, we are in a worrying position. Virus flare ups have happened in the last week in those countries who have the "best regulated strategies", viz Germany, China and New Zealand.

This is hopefully an intermission whilst we all give 100% to our infection predicament. The message on my phone was after the section on COVID-19 guidance and support and the headline said, "The UK has left the EU and these following pages are of advice, news communication, visas, on immigration".

Now, of course, the political problems will not go away but a fear is that some politicians around the world, even in a superpower, do not really believe we are in the middle of a pandemic, in which over 500,000 have already died. They are not to be sidelined by scientists although, as they said, "You are not a member of the government. You are an 'advisor'".

**Report No30 from Imperial College London: “The COVID-19 epidemic trends and control measures in mainland China”**

The report shows two features of Chinese techniques used to control the outbreak. Namely the Chinese favoured “early implementation” and thereafter “adjustment” of control measures. “Control measures such as school closures, travel restrictions and contact tracing were introduced across provinces when few cases were reported and so may have been more effective in limiting and averting transmission”. Thereafter, strategy shifted after the first wave of locally driven cases to compulsory testing and quarantine of all incoming travellers and close monitoring of asymptomatic infections.

This seems routine, but raises the question of why the leaders in the UK did not react faster given such sensible advice? After all we learnt from 1918 (see above) that speed is required for stopping a pandemic!

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