Dear Tom,

How do vaccines these days in the UK compare to 8 weeks ago? The efficacy against any infection has gone down from 30 to 10 per cent. What about the efficacy against severe infection/death, etc? You mentioned that it had held up quite well but has it gone down a bit – do you have any numbers (no worries if not).

The enclosed figures are taken from the DCM website. The estimate of vaccine efficacy for preventing infection has fallen from 32% on 18 May 2022 to 10% today (confidence intervals below). There has been a slight fall in the efficacy of preventing serious illness and fatality when seriously ill. The latter has fallen from 93% to 88% over the equivalent period.

And how do the 30 and 10 per cent figures relate to efficacy against any kind of infection further back – say when vaccines were first introduced, when Delta came along, etc?

No, the estimates are estimates of the current efficacy and change with time. This means that the changes in efficacy estimates reflect changes in viral characteristics as the pandemic unfolds.

And was protection against severe infection also much higher then than now and 8 weeks ago?

A little bit, but not as markedly as the efficacy for preventing infection. From the below figures, the efficacy of presenting serious illness when symptomatic (for people aged between 35 and 70) has dropped from 63 to 60%

The basic message from these kinds of estimates is that if you thought being vaccinated was going to prevent you from being infected, then the level of protection is probably much smaller than you thought. The efficacy of for preventing infection will decline further with immune escape due to viral mutation and as immunity wanes in the population. Having said this, the efficacy of vaccines in preventing serious illness and death has not fallen to the same degree. Although the protection against serious illness — afforded by vaccines – has fallen very slightly, it is still remarkably high and speaks to the importance of vaccination; an issue that is likely to become increasingly important as we get closer to autumn.

I hope that this helps.

With very best wishes – Karl

PS: I'm copying this to Tim for his interest.

Summary of vaccine efficacy estimates for I-News

18th of May: archive report forecasting_180522.pdf (ucl.ac.uk)

- **The basic reproduction number R_0 is estimated to be 6.4**. This reflects an 82% increase in transmission risk, relative to the average since 1 Feb 2020. This estimate includes viral mutation and seasonality effects and should fall over the next months.
- **Current estimates of vaccination efficacy are:**

  preventing infection: 32.5% (CI 30.2 to 34.7)

  preventing transmission following infection 78.3% (CI 77.2 to 79.3)

  preventing serious illness when symptomatic (age 15-34) 75.5% (CI 74.8 to 76.1)

  preventing serious illness when symptomatic (age 35-70) 63.1% (CI 62.1 to 64.1)

  preventing fatality when seriously ill 93.1% (CI 92.6 to 93.7)

4th of June: current dashboard report: Long-term forecasting of the COVID-19 epidemic - Dynamic Causal Modelling, UCL, UK

- **The basic reproduction number R_0 is estimated to be 5.1.** This reflects an 34% increase in transmission risk, relative to the average since 1 Feb 2020. This estimate includes viral mutation and seasonality effects and should continue to fall over the summer.
- **Current estimates of the vaccination efficacy are:**

  preventing transmission following infection 82.0% (CI 81.2 to 82.7)

  preventing serious illness when symptomatic (age 15-34) 76.4% (CI 75.7 to 77.0)

  preventing serious illness when symptomatic (age 35-70) 63.5% (CI 62.5 to 64.4)

  preventing fatality when seriously ill 93.6% (CI 93.1 to 94.1)

13th of July: to be released shortly: preventing infection: 16.3% (CI 14.1 to 18.6)

- **The basic reproduction number R_0 is estimated to be 5.9**. This reflects an 30% increase in transmission risk, relative to the average since 1 Feb 2020. This estimate includes viral mutation and seasonality effects and should fall over the next months.
- **Current estimates of vaccination efficacy are:**

preventing infection: 10.9% (CI 8.8 to 13.3)

preventing transmission following infection 83.8% (CI 83.2 to 84.5)

preventing serious illness when symptomatic (age 15-34) 76.2% (CI 75.5 to 76.9)

preventing serious illness when symptomatic (age 35-70) 60.4% (CI 59.3 to 61.4)

preventing fatality when seriously ill 88.4% (CI 87.6 to 89.2)

From: Tom Bawden <Tom.Bawden@inews.co.uk>
Sent: 13 July 2022 09:10
To: Friston, Karl <k.friston@ucl.ac.uk>
Subject: RE: another i story on Covid

Hi Karl

So I'm hoping to write a story on the points below today.

Could I ask:

How do vaccines these days in the UK compare to 8 weeks ago? The efficacy against any infection has gone down from 30 to 10 per cent. What about the efficacy against severe infection/death, etc? You mentioned that it had held up quite well but has it gone down a bit – do you have any numbers (no worries if not).

And how do the 30 and 10 per cent figures relate to efficacy against any kind of infection further back – say when vaccines were first introduced, when Delta came along, etc?

And was protection against severe infection also much higher then than now and 8 weeks ago?

Many thanks

Tom

From: Friston, Karl <k.friston@ucl.ac.uk>
Sent: 12 July 2022 15:04
To: Tom Bawden <Tom.Bawden@inews.co.uk>
Subject: RE: another i story on Covid

External Sender

Dear Tom,

On that, are you talking about protection against infection after any vaccination, or just second booster or any other particular jab?

I am talking about protection against infection after any vaccination; including boosters.

So it reduces risk of any kind of Covid infection by 10 per cent versus, compared to 30 per cent 8 weeks ago. Is that basically as BA.2 has been replaced by BA.4 and BA.5?

Yes, this is the most likely explanation; although it is not quite as simple as replacing BA.2 with BA.4. There are now a mixture of different lineages from all three variants that may be contributing to the immune escape. François Balloux has been keeping his eye on this – and should be able to give you a technical overview of the picture.

Are these your figures and have they been reported?

The figures come from our dashboard; however, I have not updated it for a few weeks – so the currently low levels of protection against infection are not reported. I will probably update it in the next 48 hours. These figures are in the form of weekly dashboard reports – not peer-reviewed academic reports; although the methodology and modelling has been peer-reviewed.

Do you have any equivalent figures on how effective a previous infection is now at preventing reinfection versus before?

No, the model mixes in people who have been previously infected and uninfected and it is difficult to recover the estimates for preventing reinfection. Tim Spector will have the best empirical data on this – and I am sure you are in correspondence with him.

With very best wishes – Karl

From: Tom Bawden <Tom.Bawden@inews.co.uk>
Sent: 12 July 2022 14:50

To: Friston, Karl <k.friston@ucl.ac.uk>
Subject: RE: another i story on Covid

Thanks Karl

On your last point – that might make a separate story tomorrow or the day after….

On that, are you talking about protection against infection after any vaccination, or just second booster or any other particular jab?

So it reduces risk of any kind of Covid infection by 10 per cent versus, compared to 30 per cent 8 weeks ago. Is that basically as BA.2 has been replaced by BA.4 and BA.5?

Are these your figures and have they been reported?

Do you have any equivalent figures on how effective a previous infection is now at preventing reinfection versus before?

Thanks

Tom

From: Friston, Karl <k.friston@ucl.ac.uk>
Sent: 12 July 2022 14:43
To: Tom Bawden <Tom.Bawden@inews.co.uk>
Subject: RE: another i story on Covid

External Sender

Dear Tom,

Please forgive the tardy response – I have been in meetings. In brief:

The current peak in prevalence is quite remarkable – and unpredicted by our modelling. This modelling points to immune escape as one of the key factors in the current resurgence: particularly, a declining protection against getting infected. For example, the efficacy of vaccines in preventing infection that has declined sharply in the past months – with the advent of new lineages from BA 5 and earlier variants (BA 2 and BA 4). Crucially, the protection against getting seriously ill or dying

does not appear to be falling in the same way, which means we might expect to see a lots of infections but a less marked increase in hospital admissions or fatalities.

With very best wishes – Karl

PS: for your interest, the efficacy of vaccines in preventing infection appears to form from about 30% to about 10% in the past eight weeks.

From: Tom Bawden <Tom.Bawden@inews.co.uk>
Sent: 12 July 2022 11:31
To: Friston, Karl <k.friston@ucl.ac.uk>
Subject: another i story on Covid

Hi Karl

I'm expecting to do a story this afternoon saying that Covid cases have hit a new record.

Could you send me a couple of lines on this – saying how we would never have expected to hit a new record so soon only a few weeks ago but BA.4 and BA.5 are so good at getting around immunity that we have, etc – or whatever you think…

Just something that references the fact that we've hit a new record…

And if we don't, I'll change the story round before publishing – but it seems very likely we will,

Thanks

Tom

From: Friston, Karl <k.friston@ucl.ac.uk>
Sent: 11 July 2022 12:20
To: Tom Bawden <Tom.Bawden@inews.co.uk>
Subject: RE: another i story on Covid

External Sender

Dear Tom,

No problem, please feel free to use any of the below material.

PS: A lot of people appreciate your commitment to keeping this issue alive in the media.

With very best wishes – Karl

We are currently witnessing levels of prevalence that—in the early stages of the pandemic–would have been considered catastrophic. And yet, with the dismantling of surveillance systems, situational awareness is properly at its lowest. Why? It may reflect a shift in emphasis from mortality (deaths) to morbidity (e.g., long COVID and indirect costs). However, on both counts, there will be a substantive—and potentially avoidable—price to be paid if the current surge is not attenuated by reducing contact rates and transmission risk. Put simply, the lessons learned in the past years are still in play: namely, self-isolating when infectious and avoiding of crowded, poorly ventilated, places. Put simply, we would not abandon seat belts because the Department of Transport stopped reporting traffic accidents.

From: Tom Bawden <Tom.Bawden@inews.co.uk>
Sent: 11 July 2022 10:40
To: Friston, Karl <k.friston@ucl.ac.uk>
Subject: another i story on Covid

Hi Karl

Hope you're well.

Daily symptomatic Covid cases are currently just below record levels, according to the ZOE app and look likely to hit a new high today or tomorrow.

In light of that I'm doing an article along the lines of:

As covid cases to climb towards a new record - we ask scientists what we should do?

So it would be great to get a few lines from you on that - however obvious you might think and however may times you feel like you've said it in the past.

Masks, regular testing, social distancing - calling on the government to reintroduce free tests, make sure you get a booster....whatever it may be....

Also, if there are any particular situations you should avoid or that could be made easier - such as moving that indoors party outside, or whatever.

If you can help it would be good to get your response as soon as you're able - and certainly by 3PM if at all possible although I could still add your comment in any time till around 6,

Many thanks

Tom

From: Friston, Karl <k.friston@ucl.ac.uk>
Sent: Wednesday, July 6, 2022 3:55 PM
To: Tom Bawden <Tom.Bawden@inews.co.uk>
Subject: RE: Covid infection rates

External Sender

Dear Tom,

At present, the dynamic causal modelling suggests that the fatality rates will be roughly equivalent to the current wave; however, prevalence — and the reporting of symptoms — will exceed any previous wave (i.e., twice the current peak).

With very best wishes – Karl

From: Tom Bawden <Tom.Bawden@inews.co.uk>
Sent: 06 July 2022 12:03
To: Friston, Karl <k.friston@ucl.ac.uk>
Subject: Re: Covid infection rates

Thanks Karl
Just one final one - can you say what your forecast is for the Autumn wave, or is it not that straight forward?

From: Friston, Karl <k.friston@ucl.ac.uk>
Sent: Wednesday, July 6, 2022 12:01 PM
To: Tom Bawden <Tom.Bawden@inews.co.uk>
Subject: RE: Covid infection rates

External Sender

Dear Tom,

I think it is unlikely that we will ever return to the levels of hospitalisation or fatality rates that we have seen in the past. Our modelling suggests that peak hospitalisations and death rates — next autumn — will not exceed the levels seen in early 2022. If this is right, then the main concerns now are the morbidity costs due to long COVID and pressures on public health and welfare services due to COVID-related illness.

Very best wishes – Karl

From: Tom Bawden <Tom.Bawden@inews.co.uk>
Sent: 06 July 2022 11:32
To: Friston, Karl <k.friston@ucl.ac.uk>
Subject: RE: Covid infection rates

Thanks very much Karl
Do you have a sense of what the implications of a big wave in Autumn might be – especially where the health service is concerned. Hospitalisations seem to be increasing – but are still well below previous peaks aren't they?

From: Friston, Karl <k.friston@ucl.ac.uk>
Sent: 06 July 2022 11:18
To: Tom Bawden <Tom.Bawden@inews.co.uk>
Subject: RE: Covid infection rates

External Sender

Dear Tom,

I think my comments still hold for today's story. I suspect that the current peak in symptoms will most likely fall just a bit short of the previous peak; however, Tim Spector will have a better perspective on this.

Crucially, I think – according to our modelling – daily symptoms will certainly hit a new high in the autumn; possibly far exceeding any previous waves. This is, I think a key issue; especially in relation to the programme of vaccination.

With very best wishes – Karl

From: Tom Bawden <Tom.Bawden@inews.co.uk>
Sent: 06 July 2022 10:17
To: Friston, Karl <k.friston@ucl.ac.uk>
Subject: Re: Covid infection rates

Hi Karl
I hope you're well.
This response from you came just after I published my story but I'm doing another one today saying that Covid cases have gone through the 300,000 a day barrier and are now just over 320,000, according to the ZOE app.

Do your comments still hold for today's story do you think - let me know if any don't or need to be changed.

Given that daily symptomatic cases are now quite close to the record of 349,011 on March 31st - do you think they may go above that in this wave, or more likely just fall a bit short?

And do you think daily symptoms will hit new highs in the autumn?

Best wishes
Tom

From: Friston, Karl <k.friston@ucl.ac.uk>
Sent: Wednesday, June 29, 2022 4:36 PM
To: Tom Bawden <Tom.Bawden@inews.co.uk>
Subject: RE: Covid infection rates

External Sender

Dear Tom,

I think that we could see cases peak or plateau in the next week or so; largely because the population immunity – inherited from natural infection over winter and vaccination – precludes an enormous number of new infections or reinfections. However, if we wait a few more months, immune escape and waning – in combination with seasonal fluctuations in transmission risk – create the conditions for a larger resurgence. This view is based upon modelling, which allows for increases in transmissibility and reinfection. It is important to qualify this by noting that even if the current wave peaks soon, we will still be left with very high prevalence, which will not necessarily go away. This is not an ideal situation for obvious reasons.

You are absolutely right that fluctuations in prevalence depend upon contact rates and people's behaviour. I suspect people are less concerned with outdoor sports and music events – they will be more concerned about indoor superspreader events and dangers of travelling to and from events using shared transport.

With very best wishes – Karl

From: Tom Bawden <Tom.Bawden@inews.co.uk>
Sent: 29 June 2022 08:28
To: Friston, Karl <k.friston@ucl.ac.uk>
Subject: Re: Covid infection rates

Hi Karl

I hope you're well.

Could I ask a follow up question?

Why do you think we could see cases peak or plateau in the next week or two?

I can see that school holidays could have that effect but what are the factors before thru happen in late July that could see cases peak or plateau?

Is it mainly the warmer weather?

Also, to what extent might big summer events - sports and music festivals - push cases up/make higher than would otherwise be?

Best wishes
Tom

Get Outlook for iOS

From: Friston, Karl <k.friston@ucl.ac.uk>
Sent: Monday, June 27, 2022 11:54:16 AM
To: Tom Bawden <Tom.Bawden@inews.co.uk>
Subject: RE: Covid infection rates

External Sender

I anticipate that they will peak (or at least plateau) in the next week or two – but I could be very wrong.

With best wishes – Karl

From: Tom Bawden <Tom.Bawden@inews.co.uk>
Sent: 27 June 2022 11:49
To: Friston, Karl <k.friston@ucl.ac.uk>
Subject: Re: Covid infection rates

Thanks Karl
Do you have any idea when cases might peak? No worries if not but in case you do,
Best
Tom

From: Tom Bawden
Sent: Sunday, June 26, 2022 12:26 PM
To: Friston, Karl <k.friston@ucl.ac.uk>
Subject: RE: Covid infection rates

Hi Karl
Hope you're well.
In case you're looking at your emails on a Sunday and have a view – do you think Covid rates could shoot up over the summer due to Glastonbury, cricket, Hyde Park events and so on or do you think it likely that the school holidays will outweigh that and we'll see cases coming down?

Best
Tom

From: Friston, Karl <k.friston@ucl.ac.uk>
Sent: 21 June 2022 11:54
To: Tom Bawden <Tom.Bawden@inews.co.uk>
Subject: RE: Covid infection rates

External Sender

Dear Tom,

Many thanks for your questions. This current increase was not predicted by our modelling and is therefore worse than expected. Having said that, we are in a high prevalence phase of the epidemic, which means slight changes in transmission risk could produce large fluctuations in prevalence. The transmission risk depends upon both contact rates and susceptibility to infection. These may be the primary explanations for the current fluctuation; e.g., increased contact rates during the Jubilee celebrations and increased susceptibility due to the particular characteristics of omicron (that may offer little protection against reinfection).

Danny Altman had a recent paper in Science looking at the second issue (attached). It might be useful to get his thoughts? Alternatively, Stephen Griffin will be aware of these issues and should have a fairly rounded perspective.

With very best wishes – Karl

From: Tom Bawden <Tom.Bawden@inews.co.uk>
Sent: 20 June 2022 11:16
To: Friston, Karl <k.friston@ucl.ac.uk>
Subject: Covid infection rates

Hi Karl
I hope you're well.
I'm doing an article on rising Covid rates – the latest ZOE app figures put them at more than 188,000 – a 65 per cent increase this month.

Could I ask:

-Why do you think cases are rising so fast?
-Is this a worse rise than expected?
-How worried should we be by this/what are the implications?
-Is there anything else you wanted to say?

Many thanks
Tom

From: Friston, Karl <k.friston@ucl.ac.uk>
Sent: 10 June 2022 11:44

To: Tom Bawden <Tom.Bawden@inews.co.uk>
Subject: RE: i story on low vaccine takeup in UK among children

External Sender

Dear Tom,

I think I'll just watch quietly for a week or two (without comment). Hospital admissions are starting to rise a little bit; however, the long-term forecasting from our modelling suggests these are small fluctuations. Things should become clearer in a week or so.

With very best wishes – Karl

From: Tom Bawden <Tom.Bawden@inews.co.uk>
Sent: 10 June 2022 10:13
To: Friston, Karl <k.friston@ucl.ac.uk>
Subject: RE: i story on low vaccine takeup in UK among children

Hi Karl
I'm writing a story based on ZOE app infection data on how infections have risen by 20 per cent since last Wed, before Jubilee.

If you wanted to make any kind of comment on that, anything you want, that would be great – and if you could send by 12 that would be good,

Many thanks
Tom

From: Friston, Karl <k.friston@ucl.ac.uk>
Sent: 08 June 2022 11:21
To: Tom Bawden <Tom.Bawden@inews.co.uk>
Subject: RE: i story on low vaccine takeup in UK among children

External Sender

Dear Tom,

A time constant of 200 days means that your immunity will have fallen to about 50% after 140 days or five months. This is consistent with a review of vaccine effectiveness published last April: A third COVID-19 vaccine boosts waning immunity (kcl.ac.uk)

"The effectiveness against infection of COVID-19 vaccines waned considerably 5–8 months after primary vaccination, although it remained high, particularly among people younger than 55 years. Vaccine boosters were effective in restoring protection against infection and had a good safety profile in the community"

The senior author on the study was Tim Spector.

Notice that waning immunity is continuous and probabilistic. In other words, there is a slow loss of protection that can be quantified with a time constant (200 days) or half-life (140 days).

The view I was referring to was the idea that booster programmes are more about protecting the elderly than immunising young people. In other words, the motivation is to prevent illness when infected, as opposed to suppressing the spread of infections. The booster programme will become **more** relevant in the next few months because everybody is slowly losing their immunity, following the wave of infections and vaccinations last Christmas.

With very best wishes – Karl

From: Tom Bawden <Tom.Bawden@inews.co.uk>
Sent: 08 June 2022 10:52
To: Friston, Karl <k.friston@ucl.ac.uk>
Subject: RE: i story on low vaccine takeup in UK among children

Thanks Karl
Can you say how significant the immunity drop is at 200 days and is this a number that has been reported in the press? Thinking it might make an interesting story if it hasn't – in which case please feel free to say more about what happens around 200 days and how significant that is.

Also, when you say I should make sure this view is endorsed by Prof Balloux, etc – can I check which view you're referring to? The idea that booster programmes will become less relevant in the next few months?..

Many thanks

Tom

From: Friston, Karl <k.friston@ucl.ac.uk>
Sent: 07 June 2022 15:16
To: Tom Bawden <Tom.Bawden@inews.co.uk>
Subject: RE: i story on low vaccine takeup in UK among children

External Sender

Dear Tom,

I don't think I going to be able to give you a very informed comment on this. In our modelling, we neglect vaccination in 5 to 11 year old's as being so incomplete as to be negligible. I'm not sure – from the point of view of quantitative modelling – that low levels of vaccination in this age group will really change very much. I say this because the more important factor is the loss of immunity due to waning and viral mutations in the more vulnerable (older) age groups.

This can be quantified in various ways. Our modelling suggests that there is a loss of vaccine induced immunity with a time constant of about 200 days. This means that booster vaccination programs will become relevant in the next few months – and may be more important than current uptake in younger age groups. This is because the efficacy of vaccination in preventing the spread of Omicron is smaller than its efficacy in preventing illness. In other words, the primary motivation for vaccination is less to suppress viral spread and more to protect people who are likely to suffer from infection.

You should make sure that this view is endorsed by people with expertise in modelling vaccination and, crucially, virologists (e.g., François Balloux, Danny Altman et cetera).

With very best wishes – Karl

From: Tom Bawden <Tom.Bawden@inews.co.uk>
Sent: 06 June 2022 17:01
To: Friston, Karl <k.friston@ucl.ac.uk>
Subject: i story on low vaccine takeup in UK among children

Hi Karl
I hope you're well.
I'm looking at the low level of vaccines in 5 to 11 year olds in the UK (less so Scotland) and whether that is a concern?
How much of a problem might it cause, why and when?

Any thoughts would be much appreciated – by tomorrow night if possible, so I can look to write something on Wednesday,

Many thanks

Tom

Across the UK, the proportion of five to 11-year-olds who have received at least one dose ranges from roughly [3% in Northern Ireland](https://covid-19.hscni.net/ni-covid-19-vaccinations-dashboard/), to [9% in England](https://coronavirus.data.gov.uk/details/vaccinations?areaType=nation&areaName=England) [13% in Wales](https://www2.nphs.wales.nhs.uk/CommunitySurveillanceDocs.nsf/3dc04669c9e1eaa880257062003b246b/cf7a9a9adcddbb0a8025866b003a51a1/$FILE/Wales%20COVID-19%20vaccination%20surveillance%20weekly%20report.pdf) and [20% in Scotland](https://coronavirus.data.gov.uk/details/vaccinations?areaType=nation&areaName=Scotland).

From: Friston, Karl <k.friston@ucl.ac.uk>
Sent: 30 May 2022 14:18
To: Tom Bawden <Tom.Bawden@inews.co.uk>
Subject: RE: implications of Jubilee celebrations for Covid

External Sender

Dear Tom,

Yes, these would be situations where you find yourself in enclosed spaces with poor ventilation or in crowded public transport facilities. I imagine that those people who feel particularly vulnerable will try to avoid catching the virus via aerosol transmission. Although all the indicators suggest that prevalence is falling, it is still very high (about 3%) – higher than the peak levels in January 2021 (about 2%).

With very best wishes – Karl

From: Tom Bawden <Tom.Bawden@inews.co.uk>
Sent: 30 May 2022 13:03
To: Friston, Karl <k.friston@ucl.ac.uk>
Subject: RE: implications of Jubilee celebrations for Covid

Hi Karl
I just had one other thought – while the majority of people may be able to enjoy the celebrations in a relatively worry free manner – do you think there might be certain hotspots/situations/areas in which people would be at higher risk and should perhaps be more careful?

Best
Tom

From: Friston, Karl <k.friston@ucl.ac.uk>
Sent: 30 May 2022 11:31
To: Tom Bawden <Tom.Bawden@inews.co.uk>
Subject: RE: implications of Jubilee celebrations for Covid

External Sender

Dear Tom,

I think we are in a very different place for the Jubilee celebrations. The consensus on the effect of Euros 2020 focused on transmission in enclosed spaces (i.e., public transport and poorly ventilated homes or sports bars). One would imagine that most of the celebrations for the Jubilee weekend will be at street parties, which are outside – and do not involve travel. Furthermore, the level of vaccine protection and natural immunity is now much higher than it was earlier in the epidemic. In short, I one might hope that most people will be able to enjoy the Jubilee celebrations in a relatively worry free and COVID safe fashion.

With very best wishes – Karl

From: Tom Bawden <Tom.Bawden@inews.co.uk>
Sent: 30 May 2022 11:17
To: Friston, Karl <k.friston@ucl.ac.uk>
Subject: FW: implications of Jubilee celebrations for Covid

Hi Karl
Hope you're well.
I don't know if you're back now but if you are, I thought I'd resend this in case got lost in the blizzard!

Also, could I ask – do you think there is much of a risk of a new variant being created during the Jubilee celebrations (didn't the Euros play a role in one of the variants, I'm trying to remember)? Or do you think that's highly unlikely?

Many thanks
Tom

From: Tom Bawden
Sent: 24 May 2022 10:41
To: Friston, Karl <k.friston@ucl.ac.uk>
Subject: implications of Jubilee celebrations for Covid

Hi Karl
Hope you're well.
I'm looking to write a story about the implications of the long Jubilee Weekend/celebrations for the spread of Covid, hospitalisations, etc along broadly similar lines to this one about the Euros.

https://inews.co.uk/news/science/englands-euro-2020-success-could-lead-to-a-million-extra-covid-infections-1094382

Have you done anything on this and, if not, could you crunch a few numbers over the next day or two do you think that I could use for an article?

Many thanks
Tom

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