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10th October, 2022

RE: Module 2 of the UK Covid-19 Public Inquiry, Request for Evidence under Rule 9 of the Inquiry Rules 2006: M2/ISAGE/01/DSG

Dear Mr Suter, Baroness Hallett

Many thanks for the invitation to provide a response to the questionnaire. Please find my summary views on those topics upon which I feel able to comment listed below.

Please do not hesitate to contact me if I can be of further assistance

Sincerely

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Dr Stephen Griffin, MA(Hons) CANTAB, PhD CANTAB

1. A brief overview of your qualifications, career history, professional expertise and major publications.

I have a first class degree (BA (Hons) CANTAB) in Biological Sciences (1997), and a PhD (CANTAB) in Virology (2001), both from Girton College, University of Cambridge. My PhD was supervised by NR in the Dept. of Medicine, Addenbrookes Hospital.

I moved to the University of Leeds in 2001 and undertook post-doctoral research with Personal Data

Personal Data and Personal Data In 2007 I became independent and in 2014 I was tenured as an Associate Professor.

My laboratory focuses on "Therapeutic Virology". Three main themes comprise: a) antiviral development targeting virus-encoded ion channels; b) virus-driven oncogenesis and c) virus-mediated immunotherapy for liver cancer.

My research expertise comprises the following areas: Virology, especially RNA viruses; virusencoded ion channels; antiviral development; viral oncology; Immunology, especially antiviral immunology; cancer immunotherapy; liver cancer; brain cancer; pre-cancerous stem cell signalling; SARS-CoV2; hepatitis C virus; Zika virus; influenza A virus; human cytomegalovirus; reovirus.

Five recent key publications:

Gurdasani D, Bhatt S, Costello A, Denaxas S, Flaxman S, Greenhalgh T, **Griffin S**, Hyde Z, Katzourakis A, McKee M, Michie S, Ratmann O, Reicher S, Scally G, Tomlinson C, Yates C, Ziauddeen H & Pagel C. 2021. Vaccinating adolescents in England: a risk-benefit analysis. *Journal of the Royal Society of Medicine*.

Shaw J, Gosein R, Kalita MM, Foster TL, Kankanala J, Mahato DR, Abas S, King BJ, Scott C, Brown E, Bentham MJ, Wetherill L, Bloy A, Samson A, Harris M, Mankouri J, Rowlands D, Macdonald A, Tarr AW, Fischer WB, Foster R, **Griffin S**. 2020. Rationally derived inhibitors of hepatitis C virus (HCV) p7 channel activity reveal prospect for bimodal antiviral therapy. *eLife*(9): e52555

Scott C, Kankanala J, Foster TL, Goldhill DH, Bao P, Simmons K, Pingen M, Bentham M, Atkins E, Loundras E, Elderfield R, Claridge JK, Thompson J, Stilwell PR, Tathineni R, McKimmie CS, Targett-Adams P, Schnell JR, Cook GP, Evans S, Barclay WS, Foster R, **Griffin S**. 2020. Site-directed M2 proton channel inhibitors enable synergistic combination therapy for rimantadine-resistant pandemic influenza. *PLoS Pathogens*. **16**(8): e1008716

Samson A, Bentham MJ, Scott K, Nuovo G, Bloy A, Appleton E, Adair RA, Dave R, Peckham-Cooper A, Toogood G, Nagamori S, Coffey M, Vile R, Harrington K, Selby P, Errington-Mais F, Melcher A*, **Griffin S***. 2018. Oncolytic reovirus as a combined antiviral and anti-tumour agent for the treatment of liver cancer. *Gut.* **67**(3), pp. 562-573

Samson A, Scott KJ, Taggart D, West EJ, Wilson E, Nuovo GJ, Thomson S, Corns R, Mathew RK, Fuller MJ, Kottke TJ, Thompson JM, Ilett EJ, Cockle JV, Van Hille P, Sivakumar G, Polson ES, Turnbull SJ, Appleton ES, Migneco G, Rose AS, Coffey MC, Beirne DA, Collinson FJ, Ralph C, Anthoney DA, Twelves CJ, Furness AJ, Quezada SA, Wurdak H, Errington-Mais F, Pandha H, Harrington KJ, Selby PJ, Vile RG, **Griffin SD**, Stead LF, Short SC, Melcher AA. 2018. Intravenous delivery of oncolytic reovirus to brain tumour patients immunologically primes for subsequent checkpoint blockade. *Science Translational Medicine*. **10**(422)

2. An outline of when you participated in Independent SAGE, the role that you performed and any matters that you advised on.

I first appeared on Independent SAGE briefings on a few occasions during 2021 by invitation as a guest expert on virology and immunology. I was then asked by Prof Pillay to join the team and this was made official from the 1st January 2022.

Independent SAGE operates via weekly briefings addressing a range of topics relevant to the pandemic, as well as publishing advisory <u>statements</u> (see the Independent SAGE website). For example, in spring 2022 we published a consultation <u>document</u> on what we considered "living with COVID" ought to comprise, in contrast to current policy.

We also co-write research articles, and letters to e.g. The BMJ, Lancet etc., around pandemic policy and our consensus views on the current situation and workable ways forward. Individual members obviously publish in their own right, or in groups of co-authored pieces such as a recent series of articles in the BMJ proposing questions relevant to this inquiry.

As well as the articles listed at the end of this document, I have co-led briefing sessions on topics such as: viral variants and endemicity, antivirals and therapeutics, long COVID in children, COVID mitigations in schools and vaccines. In addition, participating in weekly sessions involves answering audience questions and interacting with other discussions as appropriate when relevant to my expertise.

3. A summary of any reports and/or articles you have written, interviews and/or evidence you have given regarding the work of SAGE and/or its subcommittees and/or the UK's response to the Covid-19 pandemic. Please include links to those documents where possible.

Published research articles:

Gurdasani D, Bhatt S, Costello A, Denaxas S, Flaxman S, Greenhalgh T, **Griffin S**, Hyde Z, Katzourakis A, McKee M, Michie S, Ratmann O, Reicher S, Scally G, Tomlinson C, Yates C, Ziauddeen H & Pagel C. 2021. Vaccinating adolescents in England: a risk-benefit analysis. *Journal of the Royal Society of Medicine*.

Trisha Greenhalgh, Aris Katzourakis, Tristram Wyatt, and **Stephen Griffin**. 2021. Evidence summary to inform safe return to campus in the context of COVID-19. <u>Wellcome Open Research</u>, 6, pp. 282-282

Published letters/correspondence:

Gurdasani D, Drury J, Greenhalgh T, **Griffin S**, Haque Z, Hyde Z, Katzourakis A, McKee M, Michie S, Pagel C, Reicher S, Roberts A, West R, Yates C, Ziauddeen H. 2021. Mass infection is not an option: we must do more to protect our young. *Lancet*: Jul 24;398(10297):297-298

BMJ (2021): Government's plan recklessly exposes millions in the UK to infection when they could be vaccinated

BMJ (2022): Covid-19: An urgent call for global "vaccines-plus" action

BMJ (2021): England's schools must be made safe: An open letter to the education secretary.

BMJ (2022): A seven point plan to suppress COVID infections and reduce disruptions

Op-eds and commissioned articles

The Spectator (2020): The problem with the Great Barrington Declaration.

The Independent (2021): Naive and arrogant: the UK's response to Covid-19 cost countless lives.

The Conversation (2022): My five-year-old is eligible for a COVID vaccine – should I get them immunised?

The Conversation (2022): <u>Uptake of children's COVID vaccines is low in the UK – their slow, confused approval is to blame</u>

DeMorgen (2022): British Virologist brings difficult truth: "we are not living with COVID, we are ignoring COVID"

WSWS.org (2022): Virologist Dr. Stephen Griffin speaks on the COVID pandemic and the Omicron variant. Parts one & two.

Pharmaceutical Journal (2022): <u>SARS-CoV2 antivirals are an essential part of the solution for the pandemic, but they are not silver bullets</u>

The Conversation (2022): COVID: antiviral drugs are a vital weapon – but misusing them could backfire

Podcasts and online briefings:

APPG Coronavirus Briefing (2021): <u>Parliamentary hearing on easing of covid restrictions, variants and international travel.</u>

APPG Coronavirus Briefing (2022) Evidence session: Easing of Restrictions

Royal Society of Medicine COVID-19 Series (2022): Update on therapeutics - Episode 98

Virtual event hosted by *The Independent* (2021): Covid experts discuss what comes next for the UK beyond the crisis

The Long COVID Sessions (2022): Episode 37: Dr Stephen Griffin - virologist talking antivirals

UK Health Radio (2020): <u>Friendly viruses!</u> – Dr Stephen Griffin of Leeds University introduces us to the potential of viruses to help treat cancer

Sky News Daily podcast (2022): <u>COVID cases rising: Are the new subvariants enough to change anything?</u>

Mail on Sunday's Medical Minefield (2021): <u>Are antivaxxers and Covid deniers really prepared to die</u> for their beliefs?

Mail on Sunday's Medical Minefield (2022): Were lockdowns pointless after all?

Independent SAGE

(2021 – present) Independent <u>SAGE</u> reports (website) and <u>multiple weekly online briefings on COVID</u> (YouTube)

4. Your views as to whether the work of SAGE and/or its subcommittees in responding to the Covid-19 pandemic (or the UK's response more generally) succeeded in its aims. We have previously invited independent members of SAGE and its subcommittees to address this issue by reference to the matters set out below. You may find them of assistance, although we recognise that some are likely to be beyond your knowledge. Please address this issue as you see fit.

a. The composition of the groups and/or their diversity of expertise;

- Whilst I do not doubt the merits of any existing committee members, I was surprised that more virologists and public health experts were not present given the nature of the emergency.
- I know several members of NERVTAG well, and consider them to be excellent virologists who
 would have provided the best possible advice based upon available information and within the
 constraints of any given brief. For example, the report on potential SARS-CoV2 variation was
 excellent.

b. The way in which the groups were commissioned to work on the relevant issues;

I do not consider myself qualified to comment on this subject, apologies.

c. The resources and support that were available;

I do not consider myself qualified to comment on this subject, apologies.

d. The advice given and/or recommendations that were made;

On the whole, I have found the vast majority of SAGE advice and recommendations to be entirely sound, and, notably, in agreement with Independent SAGE. However, I do have multiple concerns surrounding the (non-) implementation of such advice by Government as listed below (see f).

However, I wish to highlight one main case where I believe that SAGE were fundamentally incorrect, namely the initial strategy to "slow the spread and broaden the peak" of infection, as famously announced by the CSA in the media in Feb/March 2020. The caveat to this is that it's abundantly clear that the centralised model for testing and surveillance that ignored offers of assistance from NHS and University laboratories was flawed to the point that there was incomplete understanding of the scale of infection and doubling times.

My understanding of this approach is that it was based upon 1) a view that the UK population would quickly develop "fatigue" regarding restrictions (later rebuffed by SPI-B); 2) that it might be possible to apply particular NPIs at given times to rationally affect the growth of the epidemic and avoid a second, larger wave; 3) that due to the majority of people developing less severe disease, that this approach might have an added bonus in building population immunity. Ultimately, this amounted to a strategy entrenched in herd immunity by mass infection, deliberately or not.

The reality was that the gravity of the situation in China (despite e.g. papers published in January and February in the Lancet) and Italy was not fully appreciated or accepted, that practices and advice from WHO in early March upon officially announcing the pandemic to mount stringent NPIs and upscale testing/isolation were not acted upon, and best-practice from South East Asian countries experienced from the SARS-CoV1 pandemic was similarly not considered: Singapore, South Korea, Taiwan, Japan and other countries have all managed to avoid the prolonged, repeated and stringent lockdowns seen in the UK by an approach involving the intelligent, well-resourced implementation of test/trace/isolate/support, mask wearing, effective border quarantine, and improved air quality.

Whilst certain NPIs and distancing/isolation measures were implemented, gradually, through March, mass gatherings such as the Liverpool Champions League game and the Cheltenham Festival were allowed to continue. It was only when the combined news of the doubling time reaching just 3 days and Prof Ferguson's report came to light that it was realised that this was potentially disastrous. Realisation that NHS capacity would be overwhelmed many times over eventually led to SAGE recommending that all available NPIs and distancing policies be implemented, effectively the full lockdown. It appears from testimony to the joint committees that planning for such an eventuality was not in place prior to this epiphany.

This summary is based upon my recollection of events/media, as well as primary literature and testimony presented in the <u>report of the joint committees</u> in 2021.

e. The extent to which the groups worked effectively together;

I do not consider myself qualified to comment on this subject, apologies.

f. The extent to which applicable structures and policies were utilised and/or complied with and their effectiveness.

My own, albeit limited, experience of Cabinet office committees is that autonomy is not prioritised above briefs given by senior staff and assessment of pre-provided evidence bases. Thus, my view is that SAGE may have lacked the freedom to state independent preferences, rather than the best course of action chosen from defined scenarios. This is an important distinction from Independent SAGE, which has the freedom to provide reports, briefings and other outputs according to what members consider to be important policy and science communication priorities. The notion that Independent SAGE was set up in opposition to SAGE is <u>incorrect</u> – it was established to provide public access to the scrutiny of science-based policy decisions, and as a statement on the then-obscurity surrounding SAGE members and activity; not least the revelation that certain government advisors were sitting in on, and potentially influencing, SAGE meetings.

As such, as stated above, my major concerns have not been the recommendations put forward by SAGE, but rather their piecemeal implementation, or lack thereof, all under the banner of "following the science". I have listed some key examples below:

- i. SAGE advised in early march 2020 that closing schools along with other measures would be likely to reduce community deaths. This was reinforced on the 16th as being urgently recommended, but were not implemented until the 20th. At this time, the four day delay would have constituted more than one doubling time.
- ii. SAGE advised in June 2020 that school reopening's should be accompanied by improved ventilation in addition to other measures. This has still not moved beyond opening of windows/doors (with an impending winter energy crisis, and only in response to high CO₂ readings) and a meagre rollout of HEPA filters.
- iii. SAGE subgroup (SPI-M-O) cautioned in Autumn 2020 that reopening schools with measures as they stood (masks for older children in communal areas but not classrooms, bubbles, isolation, hygiene measures and distancing) would be likely to accelerate transmission. However, this went ahead without modification and by December 2020 the prevalence in school children was higher than any other age group. SAGE then advised broad-ranging measures in December following the short November lockdown, which were not followed and the ensuing debacle of children returning for a single day in January followed, amidst high levels of transmission.

iv. One of the most damaging decisions of the pandemic was to ignore the recommendation of SAGE to implement a circuit breaker lockdown in the Autumn of 2020. To compound matters, this was based upon testimony from non-SAGE members, Profs Heneghan, Gupta and Tegnell, in direct competition with the SAGE position put across by Prof Edmunds, which therefore. As I understand it, undermined due process. Moreover, Profs Gupta and Heneghan are signatories and known proponents of a US think tank (AIER) sponsored movement, the "Great Barrington Declaration". This is a widely debunked and discredited movement, based upon herd immunity via mass infection whilst "protecting the vulnerable", which is neither feasible nor without consequences for those not classified as such.

This inaction led to further increases in prevalence, hospitalisations and deaths, eventually resulting in the second lockdown implemented in November. SAGE have also documented that lockdowns are evidentially more effective the sooner they are implemented, as well as needing to be less severe or long-lasting. Lastly, the conditions generated as a result of inadequate measures led to Rt being well above one, and provided fertile ground for the emergence of the more transmissible and pathogenic Alpha variant, which was then also spread around the world as a result of leaky UK border restrictions.

5. Your views as to any lessons that can be learned from the UK's response to the Covid-19 pandemic, in particular relating to the work of SAGE and/or its subcommittees. Please describe any changes that have already been made, and set out any recommendations for further changes that you think the Inquiry should consider making.

i. In addition to the now well-known exercise Cygnus in 2016, modelling an influenza pandemic, a total of <u>eleven</u> pandemic exercises were run between 2015 and 2019, including avian influenza, Ebola and Lassa fever. However, exercise Alice modelling a MERS-CoV pandemic was also commissioned by Dame Sally Davies. Shockingly, outputs from the majority of these exercises were seemingly not communicated to SAGE, NERVTAG or other relevant committees in early 2020. Moreover, the existence of these exercises was covered up by the Government until repeated FOIs and an appeal to the Information Commissioner led by <u>Moosa Qureshi</u>, eventually culminated in their release by PHE.

It is disappointing and almost certainly damaging that lessons learned from previous pandemic exercises were not implemented. An opportunity was missed to include directly relevant information into SAGE pandemic planning, which may have helped redress the balance between the response in the UK and countries from South East Asia that had prior experience of the first SARS pandemic.

The recommendations <u>included</u>: that stockpiling of high grade PPE would be essential for the safety and effectiveness of frontline staff; "port-of-entry screening" along with supported quarantine and isolation planning, based upon a range of contact types including: symptomatic, <u>asymptomatic</u>, and high risk groups; the critical need for established real-time test, trace, isolate and support mechanisms; sufficient trained personnel; adequate NHS beds.

The Government initially chose not to disclose these reports as to do so "may undermined public confidence in the pandemic response". Little wonder. Upon their release, Matt Hancock and other Government spokespersons highlighted that SARS-CoV2 differed to SARS-CoV1 or MERS-CoV, making the exercises less relevant. However, unsurprisingly there is general <u>agreement</u> that this information would have been directly relevant to advisory committees and government planning.

In light of these revelations, one must ask serious questions regarding the woefully inadequate provision of appropriate PPE to hospitals and care homes, as well as the highly questionable

procurement and tender processes by which this was hurriedly addressed (the VIP scheme, etc.). This is well documented to have cost countless lives during the first wave and beyond.

Linked to this, it is pertinent to ask whether NERVTAG and other interested parties would have recommended removing SARS-CoV2 from the HCID list had the findings from previous exercises been available. This coincided with the PPE supply crisis and meant that provision of e.g. FFP2/3 masks was only required for high risk procedures etc., thereby relieving pressure on the emergency procurement processes. However, as HCW have long pointed out, adequate filtering masks would have been highly beneficial across the board and prevented both mortality and morbidity affecting an already over-worked and exhausted workforce.

We should also question why the establishment of "NHS" Test and Trace (in name only) took until May 2020, well after the first wave had peaked. In addition, as noted by the joint committee report, what justified the centralised model that ignored offers of assistance from NHS and University laboratories, as well as local contact tracing expertise, is unknown. Arguably, the privately run system and integrated PHE/academic involvement eventually became a world-class testing operation, supported by excellent genetic epidemiology (e.g. COG-UK), but the essential companions to this, namely contact tracing (and reverse contact tracing) and supported isolation were never satisfactorily implemented. One only need look to South Korea, Japan, Taiwan, and China to see the value of having such systems in place, at a fraction of the exorbitant costs for the UK operation, and with appropriately qualified leadership and oversight. The ensuing failure to observe appropriate accreditation of outsourced testing sites is an example of the failings of the private-sector led operation in the UK, exemplified by the scandalous mistakes at Immensa during 2021.

ii. A general feature of the UK pandemic response was to act reactively, rather than proactively, giving the impression that economic concerns were prioritised over public health. The example of the second lockdown is discussed above where action was delayed until the last possible moment rather than acting on SAGE advice. Notably, the resurgence in transmission seen upon each occasion following harsh measures has been due to unlocking too quickly and indeed even encouraging activities that increased transmission by policy, such as "eat out to help out". In the prevaccine era, this was unwise and short-sighted, at best.

The tier system was another example of reactive policy, where measures were implemented in response to rising cases, not to curtail them. Not preventing movement en masse meant that pockets of tiered restrictions were inevitably doomed to reach the highest level. This also led to discord between central and local government, mainly due to the inconsistencies in attributing tiered regulations to different, often adjacent locales. Moreover, announcing the implementation of new restrictions was mismanaged, for example the introduction of restrictions late at night on the eve of religious festivals, or giving prior warning of the new tier 4 restrictions in London as Alpha struck, leading to a chaotic exodus that inevitably seeded more infections across the UK.

The "data, not dates" mantra of the post-alpha roadmap to reopening was again, sadly, a futile gesture. Whilst pressure of rising transmission DID delay some of the relaxation of measures, the fact that these were caused by a novel, immune-evasive and highly pathogenic variant of concern, Delta, was squarely ignored, despite the introduction of a new VoC being a major underpinning of the original cautionary approach. Ending this plan on "freedom day" inevitably led to the rise in cases seen through the autumn, and fertile ground in which the new Omicron (BA.1) variant and subsequent sub-variants have spread causing unacceptable mortality and morbidity since. Multiple analyses and models have shown that working from home, hybrid learning and such-like have had considerable effects upon curtailing virus transmission over the course of the pandemic, but these initiatives are now becoming less favoured, in part from Government rhetoric (e.g. the visits from Mr Rees-Mogg to the offices of civil servants in Whitehall).

iii. The recognition of schools and universities as key hubs of transmission was resisted throughout 2020, and was even reneged following the announcements by the PM and others around school closures in January 2021...after a single day return after Xmas. Much of the schools policy still seems based upon 2020 data, often published by investigators linked to UKHSA/PHE. International studies clearly showing that children were readily infected and clearly infectious, passing infections back to their households as a result. As discussed above, the failure to ensure safeguarding in the classroom as recommended by SAGE since 2020 has clearly led, during 2021/22 to huge levels of school transmission and increased hospitalisations in younger age groups. Yet another summer has passed in 2022 with no provision of improved ventilation, filtration, or other measures to ensure student safety. This is mirrored in Universities, and the current absence of a requirement for COVID risk assessments in these environments now amounts to a total abandonment of protections.

iv. Related to the question of schools, it has been consistently difficult to reconcile the decision making of JCVI in the context of childhood vaccinations. The committee has consistently taken far longer to discuss and/or approve the rollout of vaccines for younger age groups following MHRA approval in comparison to similar setups in other countries. Whilst it was right to prioritise older people and vulnerable groups in the early phases, we lagged significantly behind e.g. Europe and the USA in providing vaccines to adolescents during 2021. Instead of providing protection during the summer, ahead of term starting as seen elsewhere, the decision was delayed until November. Even then, JCVI abstained from a ruling and referred the issue to the CMO as their analysis had found only "minimal benefit" for the vaccine in this age group. However, it was notable that their brief had not included long COVID or associated community risks, although even without these factors it was not clear from alternative analysis how this conclusion was drawn. Once the CMOs approved the rollout, this was initially restricted to a single dose, despite this not being the approved regimen and unlikely to provide full benefit.

Similarly, the decision on under 12 vaccinations was delayed until April 2022, and announced as a "non-urgent" scheme despite clear benefit being shown by the JCVI analysis. Members of JCVI appeared on UK mainstream media and referred to the vaccine as "optional", and aimed at future variants, not the present circulating strains. Unsurprisingly, uptake in this age group remains at around 10% as parents generally do not perceive the need. In turn, this poor uptake is now being used as a reason to justify the cessation of vaccines in children turning 5 from September 2022, which was not highlighted previously and only included in the "fine print", as it were. Discussion of vaccines for under 5s seems a dim and distant hope, at best, despite large-scale safe rollouts in other countries.

Concerns around these actions from JCVI are threefold: first, a lack of clarity and transparency around JCVI decision making exists, with the adolescent analysis still not in the public domain and publication of minutes considerably and consistently delayed. Second, the ambiguous messaging around childhood vaccines feeds anti-vaccine narratives, with the recent cessation of the newly eligible 5-11 entries a prime example. Whilst clearly not intentional, greater awareness of how decision making that lies out of line with other countries might be twisted to such ends would be expected. Third, former members of JCVI involved in these proceedings may have conflicts of interest, evidenced by previous data leaks and consolidated by now vocal support of pressure groups such as HART and Us for Them, which have a clear policy against childhood vaccination.

v. Whilst support for clinically vulnerable individuals began on a successful footing during the early pandemic with the shielding initiative, this did not continue. Shielding not only provided practical support but also legislative protection, ensuring that those with vulnerable status could not be forced

back into work or lose their job. However, this programme in its full form sadly ended in the summer of 2020, then reintroduced during subsequent waves without much of the support in place, effectively merely asking vulnerable people to remain at home.

Whilst vulnerable groups have been prioritised for vaccination schemes, many remain unable to reengage with society as a result of non-supportive Government policies that effectively have allowed transmission to spread unchecked. The onus on individual responsibility for e.g. mask wearing, even now in healthcare settings, places unreasonable barriers in the path of this group, who of course usually have the most cause for seeking medical attention. The dropping of masks on public transport (and the lack of ever insisting that these were of high quality) and in public areas makes venturing out much higher risk, as does the abandonment of free testing (with obvious consequences in more deprived areas) and the lack of other mitigations in public spaces (e.g. improved ventilation).

The "living with" policy relies entirely upon vaccines, supplemented by the provision of therapeutics for those in whom vaccines do not provide adequate protection; this number is certainly several million people. However, there are serious questions to ask around how robust this might be, with issues relating to the accessibility, and effectiveness of some therapeutics. Moreover, despite its approval by the MHRA some time ago, the innovative AZ combination long-term antibody therapy, "Evusheld", has been declined by Government for at-risk groups, despite its potential as a prophylactic that could enable vulnerable people to live fuller lives — this is commonplace in other countries. Whilst variants certainly threaten to escape such therapies, recent studies show Evusheld to retain activity clinically versus e.g. BA.5.

vi. The combined effect of dismantling surveillance, stopping the provision of free LFDs, abandoning sensible mitigations, halting the funding for activities such as REACT or ZOE, and the general narrative around living with unchecked transmission of the virus is detrimental to the wellbeing of the UK population on multiple fronts:

First, it neglects the impact of long COVID, which can occur upon first, or reinfection (increased risk) with a range of severity, longevity, and in people of any age.

Second, it ignores the scale of harm done by acute disease and post-acute sequelae in terms of hospitalisations and deaths during 2022, resultant NHS pressure, and risk to HCW.

Third, it marginalises those who chose, or need, to continue to take precautions in order to function within society and the focus upon individual choice has led to highly vocal groups that target those in favour of protections. The sense of altruism in the UK is dwindling as the price of "freedom".

Fourth, it discriminates against those who have less in society, including poorly paid front-line workers that cannot work flexibly, who cannot afford and/or are culturally less inclined to test, wear masks, or get vaccinated. Social deprivation maps to higher incidence of disease, death and long COVID across the UK.

Fifth: Uncontrolled transmission serves to challenge our waning immunity from infection, increases long COVID incidence and predisposition to other conditions, increases the incidence of rarer events such as sever childhood illness, is disruptive in terms of schools, the workplace and elsewhere, and, finally, continues to propagate the vast diversity that both allows the virus to evolve at a high rate, generating new variants of concern, as well as prolonging the duration of the task needed to achieve a stable equilibrium with the virus, ideally at a very low endemic set point that can be mitigated by vaccination and surveillance...but this remains years away as a direct consequence of current actions.

vii. An already underfunded public health infrastructure in the UK has been severely disrupted during the pandemic. What was the precise reasoning behind disbanding PHE? What is the exact function, and indeed the influence of the JBC? Did/does this clandestine body contradict SAGE advice during the pandemic? Is the UKHSA now sufficiently well-funded, led and organised to carry on its essential role? It is also clear that a lack of cohesion existed between PHE (now UKHSA) and the other devolved health agencies, leading to different restriction requirements and flouting of rules in some cases, as especially evident from the Tiered system.

viii. Earlier and more widespread recognition of aerosolised transmission (Suspected since the outset) would likely have helped to save lives. This would be mitigated by FFP2/3 masks, but these were not provided/mandated, and this also applies for supported isolation, improved ventilation, and improved test & trace. Some recent Government guidance has led to public spaces, including hospitals, reverting back to droplet-based hygiene theatre from 2020, where hand washing and distancing take precedent over masks and ventilation. Notably, several hospital trusts have reinstated mask mandates for staff in recent days upon encountering a sharp increase in cases, including a high proportion of nosocomial origin.

ix. Whilst I am not an expert, it is clear that the messaging around pandemic became unclear and confusing as the Government moved from a public health motivated emergency to increasing focus upon individual risk. "Stay home, save lives, protect the NHS" was clear, focused and accurate. It generated a community spirit which overcame any previous fear of "lockdown fatigue". The initial claps for NHS workers were well received. However, later iterations including phrases such as "stay alert" were essentially meaningless and, in my view, began to trivialise the issue even though this predated vaccines. Furthermore, England and the devolved nations began to use different content, which led to more confusion and less buy-in from the public. It is fair to say that England tended to have less cautious messaging than other parts of the UK. I am aware that various PR companies were charged with overseeing this content, and the fact that they are now being considered for involvement in this inquiry strikes me as ill-conceived, at best.

Without going into obvious details, even the most coherent messaging campaign would have been overshadowed and wholly undermined by the callous, selfish, unsavoury and illegal actions of Government advisors, civil servants, MPs and (prime) ministers during periods of restrictions. The lack of appropriate consequences and/or propriety resulting from these revelations has severely undermined public trust in the pandemic response.

- x. Finally, I think it entirely appropriate that the details of the initial days of the pandemic response from government meet full disclosure as a consequence of this much-needed inquiry. Decisions such as non-attendance by senior policymakers of COBRA meetings, sending residents back to care homes from hospitals without tests or adequate safeguarding in place, the pause in testing in March 2020, the slow and centralised model for establishing test/trace/isolate, the delay in implementing measures during the autumn/winter 2020, and the continued lack of safeguarding in schools and the juvenile vaccination programme require urgent attention.
- 6. A brief description of documentation relating to these matters that you hold (including soft copy material held electronically). Please retain all such material. I am not asking for you to provide us with this material at this stage, but I may request that you do so in due course.

This is referred to above or is available at https://www.independentsage.org/