HOUSE OF COMMONS

Public Administration and Constitutional Affairs Committee

Oral evidence: Covid 19 Vaccine Certification, HC 42

Monday 24 May 2021

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Watch the meeting

Members present: Mr William Wragg (Chair); Ronnie Cowan; Jackie Doyle-Price; Rachel Hopkins; Mr David Jones; John McDonnell; David Mundell; Tom Randall, Lloyd Russell-Moyle; Karin Smyth; John Stevenson.

Questions 1 - 59

Witnesses

I: Professor Peter Openshaw, Professor of Experimental Medicine, Imperial College London; Professor Judith Breuer, Director of Infection and Immunity, Professor of Virology, UCL; Professor Trish Greenhalgh, Professor of Primary Care Health Sciences, University of Oxford; and Professor Melinda Mills, Professor of Demography, University of Oxford.

II: Emma McClarkin, Chief Executive British Beer & Pub Association; Bill Bush, Director of Policy, Premier League; and Richard Jordan, Producer, Richard Jordan Productions, Patron, Brighton Fringe.

Written evidence from witnesses:

– [Add names of witnesses and hyperlink to submissions]

Examination of witnesses

Witnesses: Professor Peter Openshaw, Professor Judith Breuer, Professor Trish Greenhalgh and Professor Melinda Mills.

Q1 **Chair:** Good afternoon and welcome to a public meeting of the Public Administration and Constitutional Affairs Committee. This evidence session is to consider the use of Covid vaccine certificates, which have also been colloquially called vaccine passports. The Committee has received a record number of written submissions to this inquiry and I would like to thank all of those who took the time to share their evidence with the Committee. Given the volume of this evidence it will take officials some time to process but please be assured we are taking note of all the views shared with the Committee.

The Committee is very grateful to all of our witnesses this afternoon who have given of their time. The first of our panels are experts from the medical sector and the second are representatives from those who could be impacted by the use of Covid certification.

I will ask the first panel to introduce themselves for the record, please, starting with Professor Peter Openshaw.

Professor Openshaw: Good afternoon and thank you for asking me to appear. I am a Professor of Experimental Medicine at Imperial College London. I am a chest physician by background, I am an immunologist by speciality and I am a member of NERVTAG, which is one of the advisory committees.

Professor Breuer: Good afternoon, thank you again for inviting me. I am Professor of Virology at UCL and Consultant Clinic Virologist at Great Ormond Street Hospital. I am a member of the COG-UK steering group and I am also a member of the MHRA expert working group on Covid-19 vaccines.

Professor Greenhalgh: Hello, I am a medical doctor. I trained in general practice and in public health. I am Professor of Primary Care Health Sciences at the University of Oxford and I specialise in interdisciplinary research. For the purpose of what I have to say today I have been working closely with aerosol scientists who are engineers and chemists and I have learnt a lot from them.

Professor Mills: My name is Melinda Mills and I am Professor of Demography and a director of the Leverhulme Centre for Demographic Science at the University of Oxford and Nuffield College. I am also a member of the Royal Society group that looks at this and authored a report on vaccine certification, and I am a member of SAGE SPI-B and the ethnicity subgroups.

Q2 **Chair:** Thank you very much. My first questions goes to Professor Mills. As you mentioned in your introduction you chaired a review into the feasibility of a certificate or passport system. Could you set out what the

purpose of a certification system would be?

Professor Mills: That is a very important point as we looked at in our Royal Society report. Criteria need to be in place from infection immunity, ethical discrimination issues, technical, data privacy and how the public will respond to this. It is down to the purpose of the use of this certification system. We looked at how it has been introduced in different countries and possibilities. The purpose could be for international travel, which is already underway in many countries. Another issue, it could be for domestic use, which has been introduced in some countries. That could range from large sporting or entertainment events to museums and public places. You could also think about smaller events such as weddings and funerals.

There has been a discussion about businesses, would it be introduced there as it has been in some countries to enter into restaurants, pubs or supermarkets. Is there a red line that you cannot block people from essential services? The final one would be would you require it as an employer for your employees to have some sort of certification as a duty of care.

When the Government report comes out I think those usages and what the purpose will be, will be essential to clarify.

Q3 **Chair:** What is it we need to know in order to understand if a certification system would be able to achieve its purpose?

Professor Mills: We would have to know what the certificate would contain. We know for international travel there are three different aspects. One is proof of vaccination, the other one is proof of a test, such as a PCR, some countries also require an additional antigen test a few hours before you board a plane. Then the third one is do you have proof of immunity from previous tests. There is about four different elements and I will just go through them very quickly.

Other experts will be in a better position to talk about the first one, which is about understanding infection immunity and the type of vaccine in terms of immunity infection in the variants. But we also have to think about what if people have the vaccine that is not authorised for use in your country. In the US, for example, Oxford and AstraZeneca is currently not authorised. How does that work for certification?

The second one is ethical and discrimination issues. Does it exacerbate our existing inequalities. There is youth that do not have access to the vaccination yet so will we be charging them for a Covid test to meet some of these requirements? Will it be free or price capped? Will the elite be the only ones that are able to travel? There are certain groups that are more vaccine hesitant as well, such as ethnic minorities. So ethical and discrimination issues are important.

The third one is technical aspects. It is key, the interoperability between different devices. Can we use it on different devices? Is there a paper

option? Is there interoperability between different countries? So the EU green certificate. Has the UK been talking with the EU or other countries to use the NHS app and will they accept it? If people come here will we accept their certification? We need some sort of international agreement. Obviously attention to forgery if you have a digital or printed copy.

Finally, the other thing that will really need to be in place to achieve its purpose is data privacy and security. The key here for the public to accept it and to use it is trust and transparency. They do not want to feel that their data is being harvested. There are concerns about data privacy and security. There will have to be privacy preserving standards in place.

If we look at the international systems, such as for the EU green certificate that has been piloted in the Netherlands, it is making very clear distinctions with where your personal information is linked. For travel it has to be linked to your personal details, for domestic events, many countries are making the decision not to link it to personal details and there are new solutions out there, such as the Netherlands, that is making everything open access and available for people to look at. You will constantly have new QR codes, you will not be tracked or traced.

Then the third one is if you link it to medical uses. The NHS England app that is currently being used is linked to medical data. That is linked to private data. People will have questions about that because they will fear that there could be a mission creep or a function creep and they want to understand how is their vaccine data related. Countries such as Denmark have as sundown clause, which means that the past won't be used after that. I could go into other issues but I think I can stop now. Just to give you an idea, cyber security and computer science experts are quite worried, they have not seen a DPIA, that is a data protection impact assessment, yet for the NHS app. I could not find it either. It would be really important to understand what data they are collecting and why, and what are the main risks, such as hacking, or processes that have been put in place to mitigate this.

Chair: Thank you for that comprehensive overview. I am going to go to Rachel Hopkins, please, now.

Q4 **Rachel Hopkins:** I am going to ask some questions about transmission and if I can go to Professor Greenhalgh first. What is the current understanding of how Covid is transmitted?

Professor Greenhalgh: The evidence points very strongly to the conclusion that not only is this virus airborne but that its mode of transmission is predominantly airborne. Indeed some scientists think exclusively airborne. We published a paper on this in *The Lancet* in April 2021. Just to summarise very briefly, there are many different streams of evidence, for example, the huge number and great variety of super spreader events, cases caught in quarantine where people are sharing air but they never meet directly because they are in different rooms in a quarantine hotel. The fact that indoor transmission is so much more

common than outdoor transmission. If it was just droplets you would not see that difference because it is a gravity driven process. The phenomenon of overdispersion, which I am sure you have heard of, again points to an airborne transmission.

The fact that transmission is predominantly close contact but also occurs in the longer range and various other kinds of evidence. There is lots of evidence that pieces together point to a very strong evidence base that this virus is airborne. To sum up, the way you catch this is if you inhale air that someone who is contagious has exhaled for things that produce aerosols, such as singing and shouting and talking, chanting but also just the presence of stale air that has built up indoors. An example of this is a school classroom with the window shut and kids sitting there for two hours, quietly breathing, but the virus sits in the air and the longer you sit there the more likely you are to catch it.

Q5 **Rachel Hopkins:** Thank you very much. Professor Openshaw and Professor Breuer, do you want to add anything to that?

Professor Openshaw: Yes. This is not my special subject but I am a respiratory physician and my first degree was in respiratory physiology so I do have a background in this sort of area. My question would be: what sort of size of particle is capable of causing transmission? Is it exclusively the respirable particles that reach the lower airway or could it be larger particles of say 100 microns that might deposit in the upper airway and might cause initial infection there? I would probably give the opinion that although very small particles entering the lung are part of the transmission chain, larger particles that might emitted from your pharynx, your tongue, your teeth, your lips, for example, and might be deposited in your nose or possibly even in your eye if you are speaking very loudly close to somebody's face in a noisy environment, might possibly cause some seeding on to other mucosal surfaces, including the conjunctiva. That could also be a mode of transmission.

I would absolutely agree with Professor Greenhalgh that there is comparatively little evidence of transmission from surfaces, which is what we were assuming early on was going to be a major mode of transmission.

Professor Breuer: Only to say that obviously the load of the virus in the secretions is also important. The timing of when the aerosol or the droplets are produced during the course of the disease will be important, when you have high viral loads, you are more likely to transmit.

Q6 **Rachel Hopkins:** A follow-on question, starting again with Professor Greehalgh: how do different environments affect transmission? Is there a difference between sports stadiums, theatres, pubs and restaurants, for example?

Professor Greenhalgh: There are a number of things to bring in. The first question is how fresh is the air that is being breathed. If it is stale

air, and think about the kids in the classroom, of course if that air is fresh that is much less of a problem.

The second is, are you in the direct jet of somebody's exhaled air or, as Professor Openshaw has said, the secretions. So if you could catch it on their exhalation. The third is what is the local incidence of disease. You could say that the same pub in 2018 was much less dangerous than it is in 2021 because the incidence of Covid is different. It is not just about the building. That is the first thing to take into account. To come to your question, outdoor environments are much safer than indoors so the marque with the sides rolled up is much safer than the indoor environment. Outdoors could be risky if someone is shouting directly in your face. That does happen. For example, Cheltenham races 2020 is probably the only major outdoor super spreader event, although people argue about that.

Going back indoors, which is where you asked me to focus mainly, unventilated spaces are the big danger. The basement club with the windows shut or possibly without any windows in the room. Another thing to take account of is the size of the space. Cars are really bad. If you look at the measured—I think one of the only places they have reliably cultured the virus from the air is in cars because they are such a small volume. Small offices. Much better to be in a cathedral. I was so pleased when they did the vaccinations from some of those cathedrals because they have high ceilings and they are draughty.

The other thing to think about is prolonged close contact. Spending two or three hours indoors compared to say popping into the corner shop for a pint of milk. It is going to be much worse. It is absolutely about the viral load of the person who is exhaling but it is also the longer that person is indoors and exhaling into stale air, the worse it is. Finally whether people are vocalising or not. In summary, the worst-case scenario is anywhere where you have a small unventilated space that people are in for a long time making a noise when they are close together. How about that?

Q7 **Rachel Hopkins:** Very good. Professor Openshaw and Professor Breuer, do you want to add anything further to that?

Professor Openshaw: I might just say that I am still washing my hands after I have been on the bus. I think that if somebody has been fiddling with their nose, holds on to the handrail and then I hold the handrail as I get off the bus and then wipe my eye or rub my nose, I would still be afraid of catching it by that method. I would not drop those precautions completely but I do agree with Professor Greenhalgh that the inhalation route is very, very important especially in those enclosed settings.

Professor Breuer: Nothing to add from me.

Rachel Hopkins: Brilliant, thank you, everybody.

Q8 **John McDonnell:** I will direct these questions to Professor Breuer and

Professor Openshaw. We have now seen a number of Covid variants arise, most recently the Indian variant, which has happened in my own constituency this week. Could you explain how variants arise and what effect they have on transmission, severity of illness and hospitalisation rates?

Professor Breuer: I will take that first. For variants to arise the virus needs to be replicating. It needs to be reproducing itself. It needs to be infecting cells and making copies of itself. When it makes these copies during the course of normal infection, it will produce mistakes and those are known as mutations in the reading of the code, the genetic code. It is producing mistakes all the time. We have lots of variants occurring all the time, it is just that when it produces a mistake that gives the particular virus and advantage in the host it is in or in the host it then infects, it will then become fitter than other variants. That advantage could be an ease of spread, ease of transmission or just making more of itself, anything like that will give it an advantage. The key thing is that you need the virus to be replicating in order to get variants. If the virus is not spreading, you will not get variants.

I think it is important to remember that transmission between people is absolutely key. That is where we are seeing many of the variants that are popping up now and, indeed, in the past the ones that popped up in the UK were when we had high levels of transmission.

The situations in which the variants may be selected for can change. Now that more and more of us have antibodies, if there is a variant that manages—if we have a lot of transmission going on in the presence of, let's say, poor quality antibodies, waning antibodies—we had our vaccines, let's say, two years ago—we are at two years post-vaccination we might not have so much antibody then we might get transmission and partial immunity may then select for variants under those circumstances. It is key to have transmission.

The other situation, which we know less about, is where there is chronic shedding of the virus. We have some suspicions that people who are relatively immunocompromised and may become infected for long periods of time and shed the virus, it may then produce more variants, more mutations and in some cases those might then transmit. We don't know who is doing a lot of shedding in the community. For example, in children, if there is a norovirus, which is another pandemic virus, it is children who shed for long periods of time and they seem to generate lots of variants that then may go on to become pandemic. We still do not know terribly much about that.

Professor Openshaw: I absolutely agree with Professor Breuer. Maybe to emphasise that the more global reproduction of the virus that is occurring, the more likely it is that variants will arise. That is one of the reasons to emphasise the message from the World Health Organisation that none of us is safe until all of us are safe. We must roll out vaccines

globally in order to try to limit the amount of viral replication and therefore limit the rate at which new variants are emerging.

John McDonnell: Thank you, Professor Openshaw, you have predicted my second question and have just answered it. Thank you very much.

Q9 **Lloyd Russell-Moyle:** Professor Openshaw, what is our current understanding of the Covid vaccines in terms of infection and transmissibility? We know quite well now the serious illness and hospitalisation, that has been widely reported in the media, but in terms of transmission, if we are talking about vaccine passports to stop the transmission of these things.

Professor Openshaw: Yes, so vaccines can achieve several different things depending on just how much of an immune response they generate. Remember that these vaccines currently are given by intramuscular injection and the way in which the effect is monitored and the effect that is produced mainly by these vaccines, is a rise in antibody levels in the serum, which is the circulating liquid element of blood.

That is not the place in which an immune response is most protective when it comes to defence against infection of the moist linings of the nose and lung. In order to induce protection at those first line sites you need a different type of antibody, which is mostly generated by the infection of the mucus membrane. The mucosal immune system is the subject of a very intense immunological study. I am a member of the society of mucosal immunology, one of the founder members, we have our own journal. It is a distinct discipline within immunology and I think it is important to emphasise that in order to generate optimal defence at the mucosal surface the best initial encounter with the immune system is at the mucosal surface because the immune system then remembers that this is an infection of the moist mucus membranes and not a blood stream infection.

Having said that, I think it is remarkable that we now have a range of vaccines, eight licensed vaccines, all of which not only generate brilliant immune responses but also protect very well, generally, against the more severe end of diseases, perhaps because the virus requires a more systematic penetration in order to cause that very severe end of the range of disease. However, the vaccine response that is necessary to prevent viral replication in the moist mucosal surfaces is not necessarily very well induced by that type of immune triggering. Ideally, to get a really good immune response, the best way at the moment would be to have a mild infection and then be boosted by an intramuscular vaccine. That generally would give a very good response.

Q10 **Lloyd Russell-Moyle:** As a case study, I had it in February when it first came to this country and I have now had my two vaccines afterwards, I had my second one two weeks ago just now, so from a perspective of someone in my situation you are saying I would be very unlikely to be able to then replicate it in the body. What about someone who had just

had the two vaccines and not that initial infection? Are you saying that there is still quite a high likelihood that they could still replicate it in the lungs and soft tissue?

Professor Openshaw: That is exactly right, yes. We do not know how long that protection that you do get against viral replication from simple intramuscular vaccination will last. It could be that initially there is some protection and that might disappear relatively fast. Whereas, for your own situation, where you first encountered the virus via your mucosal surface and then was boosted by vaccination, you should have really good protective levels, which will probably last very much longer.

Q11 **Lloyd Russell-Moyle:** That is interesting. When you say "we have no evidence" I just want to be clear because sometimes people then interpret that as meaning that it does not do any good. It might well be that the vaccines do something to reduce infectivity but you just do not yet know, is that what you are saying to me? At the moment the assumption would be it is better to err on the side of caution. Is that the right summary?

Professor Openshaw: No, I think to be clear, the vaccines that we are mostly using at the moment, the AstraZeneca and the Pfizer vaccine, both induce a pretty good reduction in transmission from the evidence that we have so far. It is not absolute and it is not absolutely solid. In other words, it is still possible for a proportion of people who have been even doubly vaccinated to experience some virus replication and therefore to potentially transmit the virus. That seems to be a relatively rare event.

Q12 **Lloyd Russell-Moyle:** Do you have numbers? I know one always has to be cautious of numbers because they can be packaged in many different ways, can't they? Do we have rough numbers in terms of the likelihood of it being successful versus not?

Professor Openshaw: We have relatively limited evidence but there were some studies done with the AstraZeneca vaccine when it was under development. In Oxford they did some very nice prospective studies where they did regular sampling and they were able to show that people who had been vaccinated, when you sampled them prospectively, had a reduced rate of asymptomatic viral replication. Of course that may be accompanied by an even further reduction in the transmission because the amount of virus that is being secreted and is live and capable of going on to cause secondary infection may be even further reduced compared to the amount of virus replication in the moist surfaces. If you would like I can provide some more detailed evidence subsequently, if you would like to see that.

Q13 **Lloyd Russell-Moyle:** That would be useful, because to me this is the nub of the issue. There is no point in talking about vaccine passports to stop infection at all unless there is some evidence or some research that says that they do reduce infection. At least reduce it enough to stop it

circulating. I can see Professor Breuer's hand up.

Professor Breuer: Peter is quite right that the first studies were done with AstraZeneca but there have been studies since then. There is good evidence that they do reduce transmission, we don't know for how long. There is a very nice household study, and households are a good place to study transmission because you know when people are exposed. The problem with looking at it generally is that you do not know when they are exposed. If we do prospective studies in households, you know when the index case occurred and you know when they exposed the household. There is at least a 50% reduction in transmission under those circumstances and household transmission is thought to be the most extreme, it is where we would expect to see transmission. We do this with lots of different infections. Household transmission is definitely down by at least 50%.

If you look at some of the studies that are coming out in population terms, it is about 70% to as high as 90% in some studies where it is done at a population level, looking at care homes and things like that. They do not necessarily have exact exposure data. The vaccines do help. We know that the vaccines reduce viral loads and that is a very important part of transmission because the higher the viral load the more likely you are to transmit. We know that all the vaccines that we have looked at in this country reduce the amount of viral load. They are very effective.

One dose reportedly can reduce transmission by 20% to 30%. Vaccines are very effective at reducing transmission. The question I suppose is how much do you need to reduce transmission by in order to stop seeing circulation. Once you have no circulation then it doesn't matter if a vaccine is slightly less effective because there is nothing to be effective against. We have lots of examples of vaccines that we use very successfully where they are not that great but because we have managed to get the transmission rates right down, it does not matter so much. I think the two vaccines, as they stand, are capable of really reducing transmission rates.

Q14 **Lloyd Russell-Moyle:** In summary, there is some good evidence in terms of 30% and 70%, we do not quite know where that fits in between at the moment but that is looking very positive. We do not know yet about the durability of protection, is what you are saying, Professor Openshaw, but we do know that in the current period it is working relatively well, we just do not know if it is enough to get it below the replication rate that we need to drive it out.

Professor Greenhalgh, do we know about the effects of the vaccine on transmission in different settings? Does the vaccine help stop it in the car but not in the cathedral or whatever, or does that not make any difference? Does it reduce it equally everywhere?

Professor Greenhalgh: In a sense, the impact is going to be similar wherever you are because the way it works is it reduces the amount of

virus that you are likely to transmit when you exhale and possibly when your produce a droplet that flies across the room. Yes, bearing in mind all the stuff I said earlier about different settings having different propensities to allow the infected air to accumulate, of course someone who has been vaccinated—as Judith says, the vaccine is not 100% effective at preventing transmission and in fact I spent a lot of time this morning trying to put some figures to the amount that it reduces. Even the CDC website in the States is saying we don't know the figures yet. It is likely to be a very high proportion. It is likely to reduce it by an order of magnitude or two orders of magnitude. That is the sense that we are getting. We haven't yet got the actual chapter and verse.

Yes, everything is as a proportion reduced.

Q15 **Lloyd Russell-Moyle:** That is very interesting. At the moment we are asking a lot of people when they go into venues and when they go into meeting rooms or whatever to take Covid tests, when they go to work, and we know Covid tests have a propensity also of not being 100% accurate just because of the way that they are. We are not yet asking people for a Covid certificate of vaccination. Is a vaccination a more accurate route of knowing that someone is going to be negative than a test? Knowing that tests, of course, are not going to always be 100% accurate. Do you get what I am trying to compare there? Maybe I am comparing apples with pears.

Professor Greenhalgh: It is a question of both and, isn't it? I am not sure that these things substitute for one and other. As I have said, the thing that would bother me most is the local incidences of Covid-19. If it is absolutely ripping through the town I would not be going out of the house probably. I certainly would not be going indoors with other people, whether some of them had vaccination certificates or not. If Covid was ripping through the town what I would like is for people to be masked and vaccinated, and for the windows to be open, and for not spending very much time indoors.

I know that you are trying to do and I can see why you are trying to do it but I don't think we have the data to say a vaccine certificate is equivalent to a double mask. I don't think it works like that.

Lloyd Russell-Moyle: No. That is much appreciated, thank you very much.

Professor Breuer: I just wanted to say that it is all about probabilities and what is being said is basically we reduce the likelihood by having low transmission, you reduce the likelihood if there is high transmission by having masks, you reduce the likelihood of someone being positive and transmitting if they have a negative test. It stacks up. You can multiply them and the probabilities all reduce every intervention that you include.

Lloyd Russell-Moyle: The difficulty is trying to reduce the number of interventions because people do not like them and work out what the

best balance is. Thank you.

Q16 **Tom Randall:** If I could direct my questions to Professor Mills and Professor Breuer. Professor Mills, first. If we look at the Seychelles, which has one of the highest levels of vaccination in the world. I think it has vaccinated 70% of its population with two doses. They are experiencing as surge of Covid cases and they are currently reimposing lockdown restrictions. The main vaccine they are using in the Seychelles is the Sinopharm vaccine, which has been used in about 57% of their vaccinations. What is your understanding of how those vaccines that are not currently being used in the UK might be accounted for any vaccination certificate system that we might use here?

Professor Mills: Thank you for that question. From my understanding 71% were vaccinated with one dose and 62% with two doses, just to correct that. I think there are a few factors here about why they might be comparatively higher vaccinated but experiencing more cases. One hypothesis is it is, as you were saying, the type of vaccine and the efficacy, so Sinopharm and AstraZeneca but we don't have the detailed data that has seen infections down by the type of vaccine. We would have to understand that.

My understanding is that two-thirds of positive cases that did contract this have mild or no symptoms and they were not coupled with hospitalisation. For those that were admitted to hospital, about 80% of those cases were not vaccinated and the majority had other health conditions. It is important to look at this but that does not mean that we should not look at the different types of vaccinations because Chile uses Sinovac, that is less effective than Sinopharm but the same producer, and they have had a spike in cases. China is one of the largest producers and distributors of vaccines to many areas of the world. This needs to be examined but I just wanted to say that.

I am sure Professor Breuer can talk about whether other variants compromised those vaccines but you would need genomic surveilling and sequencing like the UK to understand that. It could be that there are issues in the cold chain logistics, transport or storage. I am not sure, we don't know. It could be that this population has had fewer cases so lower natural immunity. That is one hypothesis. The other one, people are saying that infections could have been brought through tourism. In April they had 1,400 visitors arrive. But I think the last plausible hypothesis is what the Health Commissioner is saying of the Seychelles and all of this opening up. They are linking the rise in cases to increased economic activity so they relaxed their restrictions very early in March when people only had one dose or were not vaccinated. They reopened restaurants, schools. There were very few restrictions for Easter celebrations and many of those people had one or no dose of vaccine.

It is just a warning. There are multiple aspects here, but the Health Ministers themselves are saying it is a warning not to open up too soon.

Q17 **Tom Randall:** Professor Breuer, what does the Seychelles experience tell us about the risks that we might have, even with high levels of vaccination in the country?

Professor Breuer: Professor Mills has answered it extremely well and I would have said exactly the same as her. It is a data free zone. We do not know very much about what is going on really. We don't know who has had which vaccine, we don't know what the variants are but the figures speak for themselves. If you open up with quite a few people only having one dose of vaccine, and even with those who have had two doses they will not be fully immune for a couple of weeks after their second dose, 30% of people were not vaccinated and so they are enough to build up high levels of virus and transmit them. I think we are seeing what happens when you have high levels of transmission for very good reasons, plenty of partially vaccinated, plenty of unvaccinated people. You basically get people being infected with mild disease mostly who have been vaccinated, and the ones who are seriously affected are those who have underlying comorbidities and who are not vaccinated. That is exactly what we are seeing.

It emphasises that vaccination has to be only part of the solution, especially with a virus that we are still learning about. We just don't know enough about this virus to be able to say definitively, "Vaccinate everybody and that is going to clear the problem up". We have to continue to use the social distancing, there is the issue of imported variants, imported virus, and we have to gauge how the long the vaccine immunity will last as well.

It is a multifaceted problem and I think that the Seychelles is probably explained by things that have nothing to do with the vaccine, and potentially a vaccine that is slightly less efficacious just exaggerating those. That would be my feeling.

Q18 **Tom Randall:** The Seychelles experience does not affect your confidence or any concerns about the effectiveness of AstraZeneca? I know AstraZeneca has also been used a lot in the Seychelles.

Professor Breuer: I can only speak about the experience of AstraZeneca from the UK experience and it has been absolutely excellent. There has been no inkling that AstraZeneca has not performed as well as Pfizer or now we have the Moderna vaccine as well. It has been an extraordinary, amazing vaccine along with all the others, something I actually didn't believe would happen. I have to say I was incredibly sceptical at the very beginning. No, I have no problems with the AstraZeneca vaccine, I think it is an excellent vaccine. I don't know anything about who has been vaccinated in the Seychelles and how many doses they have had so I have no knowledge of whether there are breakthrough to the AstraZeneca vaccine in the Seychelles.

Q19 **Tom Randall:** So far we have had new variants and the vaccines have been effective against them. Were a new variant to emerge where the

vaccine was less effective, would knowing someone's vaccination status be of any use?

Professor Breuer: I think so because it would enable us to explain those severe cases. It is very important for trust in the population that we are able to explain what is going on to people so that if they get severe disease it is not a vaccine failure.

On a pragmatic note, we are hoping that drugs will come along—the best way to deal with pandemics is a combination of an oral drug that can be given to people who have the virus and are infected plus vaccination. If those drugs come along we would need to know who to give the drug to very quickly. People who had not been vaccinated would be first at the top of my list for getting the prophylaxis that we would need to give them. I am hopeful that will also happen in the next phase of controlling this pandemic.

Yes, I would say vaccination status is important to know for planning and for medical planning.

Q20 **Tom Randall:** Thank you, Professor Breuer. I will come back to Professor Mills about discrimination. We have all seen quite clearly that the uptake in vaccines has been sometimes mixed depending on certain groups. There are certainly certain group in society, particularly certain ethnic groups, where vaccine take up has been a lot lower, there has been what is called vaccine hesitancy. What do you think the effect of certification would be on these groups if it were introduced?

Professor Mills: Discrimination in ethical aspects is very important because we have to reflect on how the public would even accept this kind of certification as well. You have talked about certain ethnic groups that have disproportionately been impacted in terms of mortality, deaths and infections. These are also groups that are more vaccine hesitant. We are seeing some changes in that also over time. I guess you can think also about age discrimination as well. The focus now had to be to save lives and protect the NHS and obviously it is a pandemic so that is important. There has been a focus on older individuals. Many of the younger age groups and those people working in hospitality and the labour market, they will not have their first or even their second dose until autumn. Their first dose is not planned until around 31 July so that means their second one will be later. They will not have proof of vaccination. If this is rolled out for travel or as a condition of employment or to enter into a music festival or sporting event, if it is just vaccination, for example, this younger group would be disproportionately affected. If they need some sort of test and they have to pay for it for travel, that makes it difficult for the younger population or as a condition of work, so we need to understand that.

There are also people who do not want to be vaccinated for religious or political beliefs and we have to understand, whether you agree with them or not, how do you weigh human rights versus public health and

protection of the population? What are you going to do with those people? Will you say, "You are not vaccinated but you have to pay for a test?" or will their employer have to pay or does the Government have to pay? I think that it is a question. Some countries have made vaccinations mandatory for children in schools. I doubt that will be the case here for Covid and it probably would not be a good idea with the population as well; there could be quite some resistance. Most people will take it on their own accord and understand why they should be taking it for altruistic reasons.

The last point of discrimination that we often forget about is there could be businesses, particularly small businesses, that have some issues. If certification is required for domestic uses and they have to hire additional staff at the door, they could be disproportionately impacted.

Q21 **Tom Randall:** Picking up on the unvaccinated people, those who for whatever reason don't have a vaccine, are there any ways that they could be included in the certification system or do you think it is just denial or—

Professor Mills: I think if you have a certification system, if you see what other countries have introduced, there are certain people who have allergies, for example, or can't be vaccinated and there are certain people who have religious or political beliefs. The question is what do you do with them and some of the options could be what we have been discussing, what has been introduced for international travel. For example, would you allow them to show that they have had a test, that they are negative for certain events or certain situations, and also an antibody test if they have had a previous infection. There is lots of discussion about that and other experts could speak to that. Those could be some of the options, but then it comes down to cost and responsibility again. Is it an individual responsibility or is it the Government or the employer or the sports event? Where does the responsibility for that cost lie?

Q22 **Tom Randall:** Once people are vaccinated and if they have their certificate to say that they have been, what do you think will be the effect on people's behaviour? Do you think they will remain hesitant or abandon any hesitancy and throw themselves back into society?

Professor Mills: We have looked at that recently as part of SAGE and SPI-
B, the behavioural insights group. We looked at survey data and mobility data and examined what people did after they were vaccinated. This was in the older population who are probably a little bit less mobile than some of the younger population, so you can't transport all of those findings directly, but we found that people did not understand the duration of immunity, so they had non-health members entering into their households sooner than you would think after their first dose. That suggests that there should be more public messaging, explaining to people when you are protected, particularly if you are in a vulnerable

group. We found that the slightly younger people were less likely to social distance but they were more likely to wear a face covering. Larger households were less likely to adhere to the group size of indoor gatherings, but that sort of makes sense if you think about it. Then there were some people who were mobile before and they were just mobile after. You will always have that group of individuals.

When we talk about people who don't comply to some of these things, we have to think about why they don't comply. There is a large group of workers who can't work at home and they lack a unified voice. Some of them don't comply because they need to take public transport to get to work. They can't physically distance at work. We looked at the Covid infection study and at the different autonomy to comply with these things. It is really important to take that into account and give a voice to the people who have to go out on the front line and have to interact and find ways to talk with them and protect them against infection when they are not vaccinated yet.

Q23 **Karin Smyth:** I would like to move to testing. Professor Openshaw, then Professor Greenhalgh, it has been suggested that testing for Covid could form part of a certification system. How might the type of testing be used to be part of that certification?

Professor Openshaw: We might be talking about two types of tests. One is a test for antibody and that antibody would be mostly in a blood sample. The other test is for virus and would typically be in a sample taken from the nose or throat or saliva. The testing for antibody would reflect previous exposure to the virus or to vaccination and you can distinguish between those because of the pattern of antibody tests that you can perform on the serum or on the plasma. That will tell you the level of immune response. It will not currently tell you exactly how protected you are against severe disease and death or symptomatic disease or asymptomatic viral replication. There is still some uncertainty about how to interpret those antibody tests in the blood and the advice you would give about how protected you are against the different levels of disease.

Different tests for the virus can be performed that generally aim to determine whether you are currently infected. You could say that the PCR test, which is the very, very sensitive molecular test, which has mostly been used, is somewhat over-sensitive in that you can continue to find virus or traces of the virus genome even in people who have fully recovered and are no longer an infectious risk to anyone. There is a long tail of detection of the viral genetic material, the RNA. It is often held up as being the gold standard of testing but others argue that well performed, well designed sensitive tests that are quicker to do—the lateral flow tests—are possibly indicative of transmissible virus. But I think Professor Breuer could probably expand on this topic further.

Professor Breuer: I completely agree with you that the testing is fraught with difficulties of interpretation of the results and we don't really

know. We know that the lateral flow tests are less sensitive and they may correlate better with infectious virus. We think that but we don't know for sure, which is why everybody in the end defaults to getting the PCR because at least you know that there is genetic material there. But it is very unfair because, as Peter said, there are some people who have this shedding for much longer and they are not infectious. It is rather imperfect.

Q24 **Karin Smyth:** Professor Greenhalgh, would it be fair to say that testing should not really be considered part of a certification process on that basis?

Professor Greenhalgh: I am not a virologist and I have nothing to add to what the others have just said on that, but there is also the practicalities and the logistics. I have done a bit of social science work on what is known as ecological flexibility of artifacts. That is a big mouthful but what it means is, for example, you get a queue of undergraduates wanting to go into a disco and you have somebody at the front and everybody shows their ID to prove they are over 18 or something like that, and it all just flows. Once you start having to do an actual test, it takes hours to get into the disco and nobody wants to go, but also the testing is going to have to be done repeatedly whereas with the vaccination, once you have had your two shots you have your certificate or your card. I carry mine around in my wallet now. I think the practicability of the testing, never mind all the immunological and virological questions, needs to be factored in. I think that if it is not really simple, it is not going to work.

Q25 **Karin Smyth:** Coming back to you, Professor Openshaw, there seems to be a lot of "ifs" in this but if it were to be considered part of a certification system, what do we know about the time period for which a negative test is effective?

Professor Openshaw: It tells you what your status is at that moment. It does not necessarily tell you what your status is going to be in two, three or four days' time. It is a balance between the practicalities of repeated testing and the amount of new information that you can gain. There is a long history of screening in medicine and there are people who are very expert in the topic of screening who need to be consulted on this type of question. Would I feel safe to sit next somebody on a flight if they had had a negative PCR test two days earlier? I think probably that would give me some reassurance. If it was a week earlier, a little bit of reassurance but not really very much because the time course for shedding is such that a week before is not really going to predict how much virus they are shedding at that time. A lateral flow test, a rapid test, the 30-minute test, done when you are about to board the aeroplane would give me some reassurance that at the moment they are probably not going to infect me. I would will wear a mask and wash my hands.

Chair: We have a full panel, so we will move on with a lot of speed if we

possibly can.

Q26 **Mr David Jones:** My question is for Professor Greenhalgh. Recent data tends to indicate that a single dose of the vaccine reduces transmission by about 35% to 50% but that, of course, is in a context where other interventions, such as social distancing, mask wearing and so on, are in place. If these other interventions were not in place and social interactions increase, what is the likelihood that the rate of infection might go up again, even when vaccination has taken place?

Professor Greenhalgh: Precisely as Professor Breuer has already explained, this is a probability thing that each one of these measures—I don't know if you have ever seen the wonderful diagram of the Swiss cheese where each different measure is another slice of Swiss cheese and you just hope that one of those is going to stop the viral particle. They all interact and it is going to go down by proportion, but I don't think we are ever going to get the exact figure for this because there are just too many variables. It is the same problem as can we predict what the weather is going to be in a year's time? No, because there are too many interacting variables.

Q27 **Mr David Jones:** How do you think the knowledge that other people were vaccinated in certain situations would affect the rates of transmission and infection?

Professor Greenhalgh: It is not the knowledge of whether they are vaccinated. It is whether they have been vaccinated.

Q28 **Mr David Jones:** Forgive me, in other words what I am trying to get at is are people likely to change their behaviour if they feel that there is a greater degree of vaccination?

Professor Greenhalgh: Professor Mills was talking about would me being vaccinated change my behaviour. Would you being vaccinated change my behaviour? Possibly, but I don't think there is any direct evidence. But with masking the whole question of what we call risk compensation was put out—the idea that if you wear the mask you are going to behave really badly because you think you are protected—and delayed policy by months and months and probably caused countless deaths because people were overthinking it and thinking that there was going to be all this risk compensation, people were going to behave differently. I don't think there is any evidence that it happens. There is no evidence to the contrary, but we have to be careful not to be over-cautious about this. It doesn't seem very likely.

Q29 **Mr David Jones:** Would increased interactions between people provide a greater opportunity for mutations to occur and new variants to arise?

Professor Greenhalgh: The more the virus spreads the more chances there are that new variants will occur. There are people who are cleverer on this topic than me, so I will shut up but, yes, it is spreads that cause the mutations.

Q30 **Mr David Jones:** I wonder if someone cleverer than Professor Greenhalgh could comment on that last point, please?

Professor Breuer: I could comment. I don't think I am cleverer than Professor Greenhalgh but I can still comment. She is absolutely right that for variants, as I explained, you have to have the virus infecting cells and replicating and transmission increases the chance of variants arising. Anything that reduces transmission is a good thing, be that vaccinations, distancing, masking, testing people or whatever.

Q31 **Karin Smyth:** Professor Openshaw, some scenario thinking, hopefully. If all restrictions were lifted under a certificate system and a new variant were to arise that the vaccines were ineffective against but we had a certification system, what do you think the impact of that might be?

Professor Openshaw: It would depend whether there is absolute evasion or partial evasion. Are you proposing that this is a completely immune evasive variant or does it still have some cross-reacting—

Karin Smyth: I am going to go it is only partial but—

Professor Openshaw: It is only partial. I think that is probably right. Immunologically we have not only the antibody-mediated immunity but also the T cells that defend us against viruses. The T cells recognise internal parts of the virus typically. They recognise the surface proteins as well, but to a degree it is the internal proteins that are more highly conserved and so typically protect better against new variants, which may not have changes in their surface proteins. I expect that there would be partial immunity even to an emerging variant that was driven by the T cell immune response and that this to a degree would attenuate the severity of infection. It is difficult in the situation where there is partial immunity to predict how much protection there is going to be against those different elements of disease going down the severity scale. We need to build up experience of what is happening with the variants to answer that and that takes time. We have to observe and then deduce to pronounce.

Karin Smyth: Thank you. I guess our concern is that if we have certification it starts to build in as something permanent for something that is evolving and that is difficult to keep on top of.

Q32 **Jackie Doyle-Price:** To move neatly on to the whole issue of herd immunity, Professor Openshaw, what share of population do you think we need to establish to achieve herd immunity? Following on from that, having achieved that, what purpose does certification play at that point?

Professor Openshaw: There is an approximate relationship between the amount of transmissibility of the pathogen and the level of immunity that is required to prevent its circulation in the community. With a very infectious virus, let's say measles, you need a very high level of immunity in the population to prevent onward spread, whereas with a less infectious virus even reduced levels of immunity are capable of reducing circulation. We were initially expecting with the Wuhan strain that

immunity of something like 60%, 65% was probably going to be enough to prevent onward transmission. Each of the B117 that was originally isolated in Kent or the 617.2, one of the Indian variants, represented an increase in transmissibility that translates into a requirement for greater levels of immunity in the population to prevent spread. In the face of these increased transmissible variants, we probably are looking to achieve something closer to 80% immunity to prevent onward transmission. I am very keen to hear what the others say on this.

Q33 **Jackie Doyle-Price:** Thank you very much. Would anyone else like to add anything on that?

Professor Breuer: I agree entirely with what Peter has said, but I also want to add that in a situation where you have herd immunity and the virus is being introduced into the country, you are never going to achieve herd immunity. It is very much speaks to keeping the rates down everywhere and for respiratory viruses it is very hard to have herd immunity without restricting the import of variants for it to be universal.

Q34 **Jackie Doyle-Price:** At the risk of oversimplifying it, essentially when you have a virus that is mutating as quickly as this one is, herd immunity is a constantly moving feast?

Professor Breuer: Potentially, yes. As Professor Openshaw said, the variants we are now dealing with are more transmissible than the variant we started with and, therefore, the herd immunity estimates have to go up. If we get even higher variants of transmissibility the herd immunity estimates will have to go up even further. That is only if you are in a closed community as well. If it is being transmitted all over the world, every time a new variant comes in or a new virus is introduced, you still get outbreaks. I think herd immunity is a nice concept but it is going to be a long time before we can actually use it for public health planning.

Q35 **Mr David Jones:** Professor Mills, what do you feel would be the effect domestically of introducing a certification system in the United Kingdom?

Professor Mills: For international travel that is coming, so we can look beyond that. If we introduced it, I think there have already been some pilots in many other countries for large events and it is improving so it could allow for safe return to large events and people feel more comfortable and have more consumer confidence. I think a blind spot we have is transmission in family gatherings, as others were discussing. I think organisers of public events and small gatherings—funerals, wedding, family gatherings, dense workplaces—will be looking for what the directions are there. You will hear later, but it could be quite difficult for small businesses with costs in monitoring and I think we need some more clarity for employees themselves: could they be required to have some sort of certification? If people don't have the opportunity to be vaccinated yet, will there be tests and, if so, who will pay for it?

Q36 **Mr David Jones:** Are there any particular types of events where you think that a certification system would be particularly helpful?

Professor Mills: What we have seen from other countries for large events such as sports events or music gatherings or something like that is that they have developed privacy-preserving technology where they are able to allow people to come in, they are tested in advance, and there have been pilots here, which I am sure you will hear about. I think those could be quite useful. I think you will get into big issues in bars and restaurants and certain places. Some countries have introduced it. Denmark has the corona pass and it has been introduced in Israel where you have to show some sort of certification, but again it comes down to if you have not had the opportunity to be vaccinated how will that work and who will pay for it and do I have to get tested or have to get tested often? How will that work? We have to think about that and also it has to be clarified for events and gatherings for people. Often there is the tendency to push that responsibility to businesses but I think there should be guidance to know what they need to do.

Q37 **Mr David Jones:** What particular ethical or practical concerns do you have about the introduction of such a system?

Professor Mills: I think internationally probably that will happen, so I don't think we need to talk about that, as I said before. But for domestic use for large events, I think you will need extra staff, if you are a business, to monitor that. I think you have to understand if your staff have not had the opportunity to get vaccinated or if there are vulnerable populations, if you are working in a care home or healthcare, should it be a requirement for those employees and how long would this have to be in place?

Q38 **Mr David Jones:** How long do you think it would have to be in place?

Professor Mills: Other people have discussed this already. I think we have to learn with this virus. It could be something like influenza. If we learn that new infections are not coupled with hospitalisation and death, I think that is when you can start to treat it in some ways like influenza where you have booster shots. Certification measures might have to be adjusted, as has been discussed, if we have some variants escape or immunity wanes. But we have things like this in place already. The yellow card for travel has been in place for travelling to different places, so adding Covid as a requirement would not be that big a difference.

As Professor Openshaw said before, how long does it need to be in place? It will only be resolved when the world is vaccinated, so we really have to look at international solutions and a lot of us have been focusing on vaccinating our own populations. It is quite important that there are surplus vaccines and many countries have them. We need to shift to vaccinate the world.

Q39 **Mr David Jones:** We have already had concerns expressed to this Committee about the ethics of introducing a certification system domestically. Do you share those concerns?

Professor Mills: I have spoken about some of these ethical concerns. We have talked a lot in the media about ethnicity and certain groups. I think we have forgotten a little bit about age and that this is an age-graded rollout. It would be important to look at younger groups. That is where you have to speak with people who are vaccine-hesitant and have more communication at a local level to talk about that. There has been a lot of discussion about that. I think we have to make sure that we do not block out people who have not had the opportunity to have their first or even second dose yet. If this certification is brought in, it would have to be clear to them what would be available for them and how much it would cost and whether would they be disadvantaged.

Q40 **Mr David Jones:** What about those who on libertarian grounds object to having to produce evidence of vaccination?

Professor Mills: I think there is a history in the UK, but in other countries too—some countries widely use identification cards or numbers for linking to medical data or counting the number of migrants they have, which is not the case in the UK where we don't have that registration system. I think it is quite important to be clear to people. As I said at the beginning, at the onset what will you do with their data and how will it be linked? Those are mostly the concerns that people have, "Is it privacy-preserving? Who has access to my data and how will they use? Will it be the Home Office. Will it be linked to housing? How is it related to my privacy?" Those are mainly the concerns.

People with some of these libertarian values also have them on economic grounds, so they want things to open up for economic reasons as well. If you can show that you have some privacy-preserving technology or if you are like Denmark and you have a sundown clause and you can say we will have this for this period, I think people would want things to open up as long as it is not linked to tracking them or using their data in a way that they are not expecting.

Q41 **Chair:** I thank the first of our panels, four distinguished witnesses, for their time and for sharing their expertise with us this afternoon. We are very grateful indeed.

Examination of witnesses

Witnesses: Emma McClarkin, Bill Bush and Richard Jordan.

Q42 **Chair:** Now, seamlessly, we are moving across to our second panel. I can see that they should be on the call and I ask that they introduce themselves for the record, please, starting with Emma McClarkin.

Emma McClarkin: Good afternoon, everyone. My name is Emma McClarkin. I am the Chief Executive of the British Beer and Pub Association. We represent half of the pubs in the United Kingdom and

90% of the beer that is sold here. Some 900,000 people are employed in our sector and we contribute £22 billion to the economy. It is our job as a trade association at the BBPA to ensure that the right business environment is created for the industry to survive now but ultimately to survive.

Bill Bush: I am Bill Bush. I am Executive Director of the Premier League. As well as a football competition, we are also one of Britain's biggest independent broadcasters. We broadcast more to the world than pretty well all the rest of the broadcast sector put together. We have hundreds of thousands of season ticket holders. Attendance over a weekend might be—depending who is at home, Manchester United or a smaller club, obviously it varies—750,000 or something of that sort. About 50 million people in this country say that they follow the Premier League. We are a major generator of taxes, so our economic impact is a relatively significant one for what is otherwise a relatively small sporting competition.

To give you some idea, Covid-19 has hit in all sorts of way. Purely economically it is hard to estimate the full losses but they are certainly north of £1 billion to the Premier League alone in the sporting sector since its inception. That could rise to £1.5 billon to £2 billion, depending on all sorts of variables that we will not know until clubs' accounts are closed in a year or so.

We are very closely involved in the debate that you are having and understand that live attendance is a very large part of our economy. For other sports that proportionately have less of their income from broadcast, it is an even more vital component of their survival that attendance can happen at a reasonable scale.

Richard Jordan: Good afternoon, everyone. I am Richard Jordan. I am a UK and international theatre producer with my own production company in London. I work in both the commercial and subsidised sections of the industry. I am also a patron of the Brighton Fringe, which in England is the largest fringe festival and the third largest in the world.

The impact of Covid on our theatre industry and our arts industry has been absolutely devastating. We bring billions into the economy. We are significant in the way that we export work and within the local communities we serve it is not just the theatre productions that we bring. It is also the extent of outreach work that we undertake in theatre and community relationships. As we come back from this pandemic in due course, hopefully, I think it is proven how important the role of theatre is in recovery and renewal of communities as well as bringing live entertainment back to audiences.

Q43 **Lloyd Russell-Moyle:** Emma, Bill and then Richard, in that order: how has the Covid pandemic affected your industries? Particularly, Emma, how has it impacted on members differently, depending on the size of business? Have some struggled more than others?

Emma McClarkin: I think that our sector has borne a disproportionate burden through this crisis and has been deeply impacted throughout. The regulatory as well as the financial impact on us has been extraordinarily difficult and as we go cautiously to be open, as we are now, it is going to take an awful lot to recover the sector and make good on the losses. Many businesses will still be accruing debt in this period while we are operating under restrictions because they are unable to get beyond breakeven while they are in place. It is unfortunately still ongoing despite the fact that the doors are now open for most of the pubs.

I think it was very visible that the pubs, the bricks and mortar, were closed and the impact that it had. Of course our brewers felt the same impact and we have estimated we have thrown away 87 million pints of beer and, as you can imagine, the amount of skill and passion that went into creating that literally went down the drain. That has been incredibly hard for our businesses and our members to absorb. We know that pubs are down at least two-thirds revenue wise in the last year and many far more than that. It has been devastating, nothing short of catastrophic.

Q44 **Lloyd Russell-Moyle:** With their opening up now, is it just the social distancing measures that are causing the continued economic impact or are there other measures that are causing that?

Emma McClarkin: We had outdoor opening as the first opening. The capacity restrictions that we had from the indoors-outdoors was massive. Now we are opening in many parts of the country, not in totality, the social distancing really constricts our capacity, but it is also things like table service, which also constricts the profitability and the efficiency of our businesses to create profit and be commercially viable. That is incredibly difficult for us to overcome now.

As well as the financial cost, I want to underline the social impact that we have had. We have lost the community hub, the place that we meet. We know that we have had problems in the past with isolation and loneliness and these last 15 months have really accelerated and exacerbated that. These pubs as part of our British culture are very much part of the community and the hub they can go to. The detriment to the social value is also huge and we need to bear that in mind as we move forward if we want to sustain the great British pub.

Lloyd Russell-Moyle: We definitely do.

Emma McClarkin: Can I touch on the point you made about scale of businesses, because I don't want to forget these questions? It is really difficult to say that it has impacted on one more than another. It has equally had the same impact across the piece on this one. The reality is that perhaps larger businesses can absorb more shocks but they absolutely cannot absorb any more than they have already, so we have to ensure going forward that there will be no more.

But for smaller businesses it is absolutely desperate and they are smaller businesses that cannot afford to hire extra members of staff, for example. There will be pubs that could probably viably open, or at least within the paper conditions, but it requires so much more staffing that they do not have access to or funds for that makes it impossible for them to open now. There are people running businesses with extremely small teams and those pubs will definitely be feeling this.

Q45 **Lloyd Russell-Moyle:** Thank you very much. Bill, the Premier League is the richest league in the UK. How have clubs in the lower leagues and non-leagues managed? Some were not allowed to even do sports. My local Whitehawk FC was not allowed to even meet for the whole year whereas the Albion has been meeting and my local Peacehaven FC has been, on the other end, but that middle group was really stymied. Have you done an assessment of what clubs and kinds of clubs might have been affected differently within the leagues?

Bill Bush: Yes, we have to an extent. There are two forces at work, of course. There is the public health requirement that certain activities, if they can't be made safe, particularly when the prevalence is high, have to stop. There were sports activities being stopped as we were in the long lockdown last spring. There is also the fact that if you don't have broadcast income, you choose to stop. Many leagues in what is called the National League system just about kept going at the conference level, those that get promoted up to the Football League if successful, but below the National League into the National League system itself, the 1,000 or so football clubs at that level, were curtailed.

I want to echo Emma's point. It is not just the economics. It is what this does socially to hubs of the community. Just as pubs are absolutely at the heart of so many of our communities, so are football clubs and not just the huge cathedrals—I think is the word the Prime Minister used recently when talking about some of our larger stadiums—but the parish churches of football are absolutely part of the community. That loss of sociability and social connection, volunteering and so on for many of these clubs has been, in a year of some large tragedies, one of the small tragedies that sport has been massively inhibited. Even when allowed, it often could not take place for economic reasons.

We are trying, where possible, to make some funding available so that at least the clubs can go into mothball and then come back. Where we are now is all sorts of football clubs, and other sports at the community and semi-professional level, could come back but they need attendance. It is not just the ticket money, it is the fundraising events that they do, setting out their bar or their hall for social events and kids parties, and it is expenditure in the bar on match day. These things really matter and there are thousands of clubs in this situation. They have dug really deep. Furlough has been hugely important at that level but without special measures to keep them afloat, they don't stay afloat.

I think we are at a point now, 14 months in, where we really need, if prevalence is low enough to allow it, to speed the return of fans. Summer sports—I can speak for them a little bit, football Euros is a major international competition—everything from Wimbledon downwards, Formula One, have this one opportunity. Wimbledon is two weeks; the British Grand Prix is a few days in high summer. They need to get the people in to get the turnover, to get the footfall, because it provides the infrastructure for an entire sport and all the jobs and all the social engagement that flow from it.

Q46 **Lloyd Russell-Moyle:** It also makes it so much more interesting when you have a live audience watching the sport, even if you are not there. I am sure there will be questions later on about your experiences of the semi opening up that we all experienced in the Premier League the other week and how the testing regime works. We will come back to that later.

Richard, I know you are involved in one of my local fringes and we are desperately trying to get stuff up and going. It is really exciting. But how has the range and size of theatres and performances been affected? We managed to get some outdoor stuff going last year. I know The Warren and things like that that are part of the fringe managed to keep going with some of their activities but others have been completely shut, particularly the indoor theatres. Is there a discrepancy here that we need to look at a different kind of regime for the different kinds of entertainment?

Richard Jordan: Yes, there is. To take Emma's and William's points, the theatre or arts industry works at all sorts of scale. We are talking about grassroots, local and rural touring, right the way through to those shows that are playing at the O2 arena, and that access to culture is incredibly important. It becomes relative because your costs are based on the scale at which you are working. In March last year our industry was pretty much devastated and we went through a period where the nature of theatre indoors unfortunately is not conducive to a pandemic. Outdoor performance was certainly a move to get things going in the summer but it was still a very much heart in your mouth kind of situation because you were not sure whether things were going to suddenly turn round and change. We had huge issues over whether there would be insurance and there is still a continuing question that we are continuing in a sort of blind position where insurance for Covid, cancellation or curtailment, has not been confirmed in any way for the arts sector.

The arts sector saw massive redundancies, so we lost a huge skilled workforce at the time, not least across front of house and backstage positions that are completely vital in coming back now if we are going to be reopening in any system, a certification system or something to be administered. In December, after almost a year without productions, we came back and we launched again, only for a matter of weeks later to have to close down. A huge confidence and terrible PR result came out of that that lost thousands again for the industry.

We also have a freelance workforce where a lot of them are working on shorter contracts, not being able to access Cultural Recovery Fund support. Some of the smaller theatres certainly got some—not everyone, of course—but a lot of the employees were not able to gain any government support for loss of income or work because they were on short-term contracts. The result of that has been a significant rise in mental health issues across the industry. It has been a perfect storm.

The other big loss within that is also the loss of, possibly, commercial investment, if you look at the West End and investors coming in and putting on shows because, of course, every business has been affected. Philanthropy has gone down. People who may have once donated and supported these industries do not necessarily have the reserves to be able to do that. We are seeing a situation where decades of work has potentially been lost in 14 months.

Lloyd Russell-Moyle: Thank you. On the insurance issue, we had to cancel Brighton Pride because of being unable to get that underwriting for Covid cancellation. It is difficult. I suspect we will come on to—and I might pop back in, Chair—the different kinds of certification, but I will hand you back over to the Chair for now.

Q47 **John McDonnell:** This is a multiple question. Sorry about this. On 21 June, social distancing will be removed. Tell us about the impact on your particular sectors and industries if you could. Are you anticipating possibly the reimposition of restrictions? What impact would that have? As Richard touched upon, how would it impact upon your sectors if there were variable restrictions over the next few years? Would some level of more predicable restrictions be preferable?

Bill Bush: Yes, several questions in one. I hope my answer is not too tangled.

First, social distancing is going on 21 June. We support the Government's objective that legal restrictions should go from that date and we would like sport, large scale and small scale, to be part of that. It would be unfair and not understood if venue attendance were somehow not seen as part of a general loosening of restrictions.

Social distancing does not do it for us. To give you some idea, we have had too many rounds with social distanced attendance. The Government's target was a cap of 10,000 or 25%, whichever was the lower. Our average attendance was about 7,500. At that level, at our grounds, with stewarding and other arrangements needed, we were barely breaking even. We were just about covering costs at that level. Social distancing, quite apart from being not great from a fan point of view—it is better than not being there, but it is not the best experience—is also economically continuing the torture. It is not half an answer. For many clubs, not opening at all would be economically better. As it is, we want fans there and so of course we all embraced getting fans back, but let us

not pretend that it was an economic opportunity. It was a way of re-engaging with the fan base, which so matters to every club.

To tougher questions about possibly needing some mitigations to continue if there is further variance or a winter surge in infection rates because people are much more indoors than they are outdoors and so on, there is strong evidence now that ventilation is highly effective. We would rather open up, understand the risk factors and take them on board with things like maximising ventilation and so on, and have Covid certification embracing both vaccination and testing as a fallback that is likely to be needed, so that we fall back to a certificated population of attendees rather than social distancing with all the destruction of opportunity and employment that flows from that, still worse behind closed doors.

I am not an expert—you just heard from some real experts—but we understand that summer is less likely to be a period of high transmission for obvious reasons: we are outside more and so on. But to know that a tested operational Covid certification system is available at relatively short notice would be a major reassurance. Not all sports are one-offs. Our league runs over nine months with 380 matches spread across 38 match rounds. Knowing that the fallback means we can keep on going through the whole season to this time next year, we can plan, invest, recruit staff, train them and know we have a reasonable chance of keeping them in employment for that period.

Football is perhaps one of the first exemplars of the gig economy. In the 1860s we were part of the gig economy. There might be only 30 or 35 matches a year at a particular stadium. When we take people on, they are often on low incomes. They often get skill training from us that is useful in other jobs that they do. They are often young people, particularly in hospitality, and are often from ethnic minority backgrounds, particularly in the larger cities. If we can give our shifting population of employees some uncertainty in an uncertain time, although we cannot give any guarantees, it would be useful for planning, training, employing and delivering to know that there was at least a fallback of certification, even though we are well aware of the problems. Apart from anything else, if it is needed in the autumn and into the winter, it gives much more time for an even larger proportion of the population to be vaccinated. We want testing regimes to be available so access to football stadiums can be a universal proposition, not a narrowed down one. Even if that involved three-quarters of the population, we would still rather it was 100%, for obvious reasons.

To your last question on having a stable regime that we could fix our plans to, we are worried about that because the need for caution means that we would not be allowed to embrace the ambitious opportunities of the summer if vaccination is kicking in even more than now. We would be held to a risk-averse model, which would deny opportunities to attend and opportunities fairly substantially. While we accept that we do not want to be overenthusiastic and start with a full burst of attendance and

then have to crash back to something much more severe, we would like to understand the options, to be clear with our fans and our broadcasters about how we might have to step down according to the risk level, and to clearly have certification. Provided privacy standards can be met and provided universality can be met, we believe it is an important part of that series of steps. Opening up to the maximum would be wonderful. It needs to be safe. How do we step back? Then we can plan accordingly. If we were to embrace a regime that might get us through with some reasonable guarantee through to this time next year, it would be a pessimistic one and we would rather not begin with pessimism. We would rather begin with safe optimism.

Q48 **John McDonnell:** There is no equivalent of VAR, is there?

Bill Bush: No, we cannot rerun it. It is live, with all the strengths and weaknesses of live.

Q49 **John McDonnell:** Do not go there. Emma?

Emma McClarkin: To put it simply, our businesses will not start their journey to recovery until all the restrictions are removed. 21 June has to be the date that all restrictions fall away. They limit our capacity. Any lingering restrictions would put at risk and in jeopardy the future of many pubs and also our brewers. They need that confidence to see their market return to them and to build their own recovery through this period of time.

It takes another knock-on effect as well in terms of restrictions if you think about it from a consumer confidence position. Any lingering restrictions will also have that depressive impact on consumer confidence. We need the message to be clear that hospitality is safe. We know that it is safe. We have invested in making it safe and making it Covid-secure. We know that there are impossibly low chances of catching Covid within a hospitality setting, as in the latest SAGE report as stated. We need the message to go out there that hospitality is safe. We can provide a safe place to socialise and we do. Vaccinations are giving people that protection. The Secretary of State said that we will move away from restrictions on freedom because we have the protections of the vaccinations. That message needs to go out to encourage people to feel safe out there and in indoor environments as well.

It is important that we understand what has happened throughout the last 15 months in terms of cycling in and out of various levels of restrictions. It has had a devastating impact not only financially with phenomenal costs of each iteration going in and out and also psychologically for our teams to keep reopening, restocking their businesses and then throwing the food away. It is deeply unsettling and of course a huge economic hit to the industry.

We ask that we get back to some stability. Of course, we want to be open and safe. We are safe. But we need to be commercially viable and we

have to be able to trade at viable levels. That means without restrictions. We need to get to that stage as soon as we possibly can.

Richard Jordan: The theatre industry is working on the basis that on 21 June social distancing restrictions will get removed, which will enable us to return to operation. That is the belief we have been told and we have proceeded forward with that in good faith.

If we can get to that point, there will be an immediate spike of encouraging people to come back, but we cannot underestimate that there is going to be a confidence issue and there will need to be a build to get there. The diehard theatregoer will inevitably, come thick or thin, go and see that show at the theatre. But far more important is the occasional theatregoer who comes in and gives the economic driver that is coming through.

Once we hit the ground running, however we do it, if we go on 21 June, it has to be momentum. We have to hit that ground running because coming behind that will be implications of economic hardship for people affected by that. If we can build momentum at the start, we have to be able to carry that train forward, which means we cannot get into a position again of stopping and starting with lots of different restrictions coming in.

Also, on a business front, the theatre industry has a lot of planning that goes ahead of it. You cannot simply flick a switch on and start again. We are looking at shows, music festivals and things that are coming through a year ahead and we are already selling tickets for those events. Equally, in the budgeting of a production, if you normally need to work with a 1,000-seat capacity and are having to go down to 800 seats, you do not have the capacity to mop up a quieter night and get to your break figure of running costs at the end of the week because you do not have that leverage on house and sales. That is challenging, indeed, for people coming in with investment and for how you look at attracting that as a business. Removing all restrictions will encourage people to come back and invest and work in theatre productions. They will be a lot less interested if we suddenly have to change the roadmap on them again.

Importantly, in your question, you asked if we anticipate the reimposition of restrictions and the impact that would have. All the points I have just said would be affected, but we would also immediately lose audience trust. Patron trust here is important because theatre is all about exchange in every nature of its industry. We cannot cause a lot of confusion with that. We will end up making people more cautious or nervous about booking in advance, which of course represents significant financial ramifications.

Administratively, it will be difficult. We have a lot of agencies that are brokering and we subcontract out to ticket agencies for tickets and ticketing systems. There is already a staffing issue within theatres and how that will be administered.

If we have variable restrictions over the next few years, it all comes down to consistency. In theatre, you cannot have one size fits all to get this right. It has to deal with the idiosyncrasies. There has to be a real ease of operation so that audiences and theatres can both understand and administer it without confusion.

Importantly, we do not work in an industry predominantly that always has advance ticket sales. We want to also encourage that spontaneity. We do want that person who on a Saturday morning can say, "I want to go to the theatre this evening". We could make those who have been inoculated and carry a certificate the elite who can do that, but we are denying access to a whole group of other people. Those day-seat policies and schemes are terribly important for generating new audiences with shows that sell tickets on the day.

The half-price ticket booth in Leicester Square is, sadly, a victim at the moment of the Covid pandemic. There is one in New York as well. Their busiest time of selling tickets is between 6 pm and 7 pm in the evening. People sit down there and say, "I want to go in and see a show". We are not always dealing with an audience that decides two or three months ahead to book in to see a show.

I have one last important note on budgets. A new show coming along can re-budget itself, possibly, but those big musicals that will start coming back, huge income and tourism drivers, already have set weekly running costs for those shows. There is a small limitation on how they can reduce or change those running costs. A change of capacity, even a small one, is dramatic to them.

Q50 **Chair:** Bill, you have indicated a degree of favourability towards the idea of some form of Covid certification. Given that all your sectors have been in dire straits because of the pandemic and the restrictions, is there a danger in your thinking being affected by this being tantalisingly dangled before you as the great panacea and way to solve everything? Bearing in mind what you say will be brought in by the Government, are you happy to move to a society that requires papers before going to watch a football match?

Bill Bush: No, I am not. I jumbled these up in sequence. The most important thing is to get society back to normal. As Emma said, the impact of vaccination in particular has led to a prevalence that allows us to manage living with Covid in a much more open way than now. One expert witness in your previous session pointed out that there were also improvements in oral drugs and in treatments. The real concern here is not whether people get Covid but whether they are ill and their lives are threatened and the NHS is overwhelmed because of Covid. We will reach a point eventually where society can be largely opened up and we live with Covid in the way we live with flu and other common infections. Our preference, without doubt, is for openness and freedom.

Having said that, it would be wise, certainly over the next year or two—and perhaps the Danish pathfinding here is interesting—to have certification as a reinforcement to reduce the level of prevalence in the attending population but to sunset it. When prevalence does reach a point where society as a whole does not need these kinds of restrictions, sport and other large venues will not need those restrictions, either. There is no doubt that is our preference. We see Covid certification as the lesser of evils. It has significant downsides but the next stop on the line is social distancing, which is awful for sports and other entertainment events large and small.

The stop after that is staying behind closed doors, which we would quite like not to have to go back to. We did it successfully. It was an immense stress and strain. We managed to stay afloat economically. We managed to entertain the public through televising matches. We earned enough to extend support to other parts of the football pyramid. But it was a ghastly experience. If we cannot open up fully, we would like proper, considered, planned safety nets. The most obviously available—not a panacea but a way of binding up the wounds before they get too tragic—is a universal certification system for those events of scale where the impact of the numbers attending is greater than if those people were doing other things with their families like going to the pub, where there is still a risk factor. Only if there is proven to be an enhanced risk in going to these large events would we believe there might be scope for additional mitigation. Our view is that if mitigations are needed, all the relevant ones should be looked at.

Q51 **Chair:** Thank you. Emma, papers for a pint. What say you?

Emma McClarkin: We are implacably against the introduction of vaccine certification for entry to pubs. It would completely go to Richard's point on spontaneity. The local pub is a place you can go that can be a hub. You do not know when you will want to go to the pub, but you know it will be there whenever you need it. That would be a significant hurdle and barrier for people to overcome to go there. We do not need any more thinking twice among our consumers. We need them to know that the pub is there, it is open and they will get back to life as normal when they are there.

It would have a significant impact on the running of businesses in terms of the staffing and the costs to businesses. We have done a recent survey. Even just as a hurdle, it would detract about 25% of our trade from coming in. If you need a cost for that, it is about 25% of our revenue, which is an awful lot of money. Some businesses cannot absorb that. They cannot afford another member of staff to police an entry point. That is hugely significant.

Of course we are an industry that is already open and operating safely. This would be a retrospective fit to our industry that we would not wish to see.

Q52 **Chair:** Thank you. We will explore the practicalities further but, Richard, on the principle, do you have anything to add?

Richard Jordan: Our principle in the arts and entertainment industry would be to operate without social distancing. If the decision to come is that a certificate will alleviate that choice and it is either/or, then it would be a cautious yes to the certificate. However, absolutely, if it comes in, it has to reflect its moral and economic responsibilities for such an introduction.

It is an incredibly important point for the theatre, which is, like all our industries that we are here today talking about, diverse and accessible. If we start to preclude people from coming in, the theatre's position in that troubles me. How might we be perceived in such a model coming in? It cannot be a one-size-fits-all model. It has to be fluid in how it can work between organisations and venues. There will be a tremendous cost involved with this. Hopefully, a certificate will allow us to return to some normality of pre-pandemic operation, but it will be that only for a certain group of people if they have chosen not to take the vaccine for whatever reason.

Also, uniformity in how it works is an important consideration, particularly in the tourist markets. For example, if we are working on the vaccines we have here in the UK, the West End thrives on international visitors, as do many international festivals like in Brighton and Edinburgh. We have seen a huge growth in Chinese audiences coming into the UK in the last three years before the pandemic. A different vaccine is being administered there. Will that vaccine be acceptable in the UK for audiences or people entering the buildings to attend sporting events or theatre shows? Will they have to go through a rapid test to achieve that? Will it have to happen at the theatre or the sporting event before the show? That in some ways seems quite impractical and quite unappealing. It is an important point. As we see booster shots coming through, different countries may be working at different rates of speed than the UK. We have to be careful that this does not create complexity and a level of exclusion.

Q53 **Tom Randall:** Emma, you may feel you have addressed the question I was going to ask. I hear what you say about how you are opposed to any certification to visit the pub. But if such a system was to be introduced, has your industry considered any specific logistical considerations or hurdles that need to be overcome to make visits to the pub possible?

Emma McClarkin: Of course we have considered the impact this would have and it would be significant for us if there was a certification system introduced into pubs, particularly having an entry checkpoint with somebody at the door making those changes. We are already doing that and it would be akin to Test and Trace but more burdensome. We have already put in significant investment to do that as the pub sector. It is an extra responsibility that we have to bear at a time and period of recovery when we are trying to make a living. We need to get our businesses back

to do that, not add extra costs to our businesses through the introduction of a certification scheme, which might also at the same time detract people from wanting to come in. The knock-on messaging that goes out is that there is another hurdle and another barrier to coming into a local pub, which does irrevocable damage to the message that it is safe to go back out and to give consumers confidence. Yes, it absolutely is a burden that is too great to be put on our industry right now.

Q54 **Tom Randall:** To play devil's advocate on this for a moment, if people are already used to scanning in when going to the pub, is that inbuilt or would the additional requirement of scanning or showing a document change behaviour in terms of making going to the pub less attractive?

Emma McClarkin: A certification scheme in whatever guise would not be as simple or as usable as the Test and Trace app. Of course we have to physically record people's documentation and details if they do not have a smartphone, for example. Will be able to do that with flexibility if we do not have a viable record that someone physically shows us? If they do not have smartphone technology, older customers might be put off coming in and might be nervous about it.

More than that, there is an ethical impact of excluding different demographics and different people. We know that our young people, for example, will be at the back of the queue for vaccinations. We employ a lot as our staff and they are also our customers. We will be turning away people who have not even had the opportunity to be vaccinated yet. It is a large sector not only of our staffing but also of our customers coming back in to, hopefully, help us rebuild our trade.

There are many different facets to how this could have a negative impact on us. We have been through them all and have come out with the conclusion that this is not for us.

Q55 **Tom Randall:** That was interesting. Bill Bush, you described that certification is possibly a reassurance. Might there be issues implementing it? A Premier League football match might be fairly easy to implement, but might a grassroots sporting event be more logistically challenging for you?

Bill Bush: I agree with Emma that if there could be no restrictions, it is the easiest of all. We are talking about here an environment where conditional access is allowable as an alternative to staying at home. The system would need to be simple. It would need to be robust. It would need to be reasonably accurate. The NHS app is well advanced at holding data and is in the process of being adapted to carry vaccination and testing data and to deliver that information reliably when needed. There are lots of preconditions about how it can be done but it does need to be simple. The simpler it is, the easier it is to use at smaller venues.

It would not be for us to draw the line, but at some point medical advisers—local PHE directors would have a role, perhaps—will need to

work out at what point a venue is small enough and, in sport's case, outdoors enough to not require these extra safety measures. If Britain in dealing with the coronavirus is allowing people to go to pubs without any let or hindrance, then they should absolutely be allowed to go to the smaller sports venues because they are not that much different in scale and almost certainly more outdoors. Why would you restrict one and not the other?

However, if access were restricted, we would want to have a system so that as far down the sporting pyramid as possible, venues with some management capacity could check the signal from the NHS app to show that someone either is vaccinated or has been recently tested and therefore is likely to have a lower prevalence of infection than the average. If we could get down through the Premier League, through the Football League and into the larger non-league venues, it would be the vast majority of the attendance part and the economically viable part at football. At that point, we would lose scale connection with the pubs. We are talking about the bigger grounds with turnstiles that are checking at the entry point anyway. As we go up the scale from large non-league clubs into the league clubs, a huge proportion of the attendance is season ticketholders, who have identity cards in effect in their season tickets, which has their names, addresses and often photos. At many grounds now, you can scan in quickly. We would be adding to that person's existing identity material, giving in effect a green tick to say that the NHS has information from vaccination and from testing to indicate a high likelihood that they are not infectious. That would allow us to continue with a degree of scale in attendance in these conditional circumstances where free access is not thought to be wise but some forms of access are being encouraged for social and economic reasons.

It is important not to lose sight of that middle ground. We do not want to move from being fully open to fully closed or socially distanced, which is nearly closed from our point of view. We believe there should be proper research and investment to work out how that middle ground can be reasonably safely navigated.

Q56 **Tom Randall:** Richard Jordan, there is a mixture of larger theatres and smaller venues. Could any certification system work in both or either?

Richard Jordan: From the theatre perspective and for the arts and entertainment industry, I worry that this decision is coming too late. It feels like it needed to be before we began performance on 17 May and before a litany of shows announced returns so they knew exactly the position they would need to be working within. We all know that often the media does not tend to always favour good luck stories and tends to home more in on the bad luck ones.

What will the vaccine certificate require? If you have had two jabs, will it say that you can come in and sit in an auditorium? A lot of the young people who have been booked in to perform or attend some of the music festivals will not necessarily have had two shots by the time they happen.

Will tickets have to be recalled if they cannot have access to these performances? Will the situation change? There needs to be a consideration that comes into that.

One point Emma made is important and I come back to what I said earlier. Theatres are transient public spaces. The West End opens at maybe 7 pm or 6 pm in the evening for a performance. Theatres like Birmingham Rep or Norwich Theatre Royal or the National Theatre have activity going on inside their buildings all the time and people coming in and going out. We cannot close the building for a period of time and then reopen it again. Education and outreach are vitally important and are going on quite regularly and often in some of the smaller venues.

One consideration in terms of the cost is that if we are saying that this is coming on an app of some description, will every theatre of whatever size have to have fast and efficient wi-fi and phone charging stations in place? What happens if a person has been out and about on the day and turns up with a flat phone battery that needs charging? Theatres do not always have a lot of space. Potentially, if we have to do rapid testing before an audience because someone does not have a certificate, they might come to a box office and mix with people who do have certificates and are trying to get tickets? Where will that happen? I cannot imagine we can have a line of people down the street being rapid tested before they can necessarily go in. How to mitigate that is a particularly important consideration for smaller theatres.

It is important to remember that a lot of smaller venues are independent. The chains of theatres work at a large scale and may be able to take a rollout that they can implement across a section of theatres. But smaller independent theatres may potentially find this far more challenging. Even if their capacities are smaller, they often have fewer staff who are resourced to run them administratively.

Also, the theatre workforce, particularly in some of those smaller venues but not just them, are enhanced often by a volunteer workforce. They do not necessarily have people working night after night. People come in on different days to support a show. They may lose interest and enthusiasm for working there. That is often an older workforce joining in and taking part, but they will be needed. We certainly know from what we hear that a possible volume of staff will be needed for administration. There will also be a need for training and consistency within that. There are quite significant challenges for certainly smaller venues and larger ones as well.

Q57 **Mr David Jones:** You have largely answered the questions I was going to ask. But do you have any other concerns about the introduction of Covid vaccination certificates as far as your particular sectors are concerned?

Emma McClarkin: I mentioned earlier that we are worried about the impact they will have on different parts of society and different groups

feeling welcome in our venues. We are the great British pubs. We want to open up our doors to communities and we want everybody to feel welcome. If segments have not had the vaccination, they would feel excluded from that and we would not want to be in that scenario.

We employ young people in our venues as well. We have significant concerns about perhaps any mandatory requirements on the basis of vaccination certification before we offer conditional work, which would be enormous for us to overcome.

There is also a tension on the door. We have had to stop people throughout the reopening and explain the restrictions, how they work, the Test and Trace and the need for us to collect data. In some circumstances, it has created tension and conflict between our employees and our consumers. We would not want to add any more to that. We are hospitality. We want people to be welcome and to come into our service and feel at home in our environment. We do not want to add to any potential conflicts that would come through. We are concerned that they would add complexity and another burden of responsibility on our staff at the door as well.

There are lots of different aspects of this that need to be taken into consideration fully. From our perspective, this cannot be made workable. We feel it is unnecessary, particularly in light of the fact that we are having positive uptake of the vaccination of up to 90%. We feel that this will be a burden put on our industry at a time that they cannot absorb it.

Richard Jordan: Again, the complexity of the theatre is that we are dealing with multiple scales. The Brighton Fringe and the Edinburgh Fringe are the largest fringe events in the UK, Brighton in May and Edinburgh in August. Look at that section of the sector, many venues pop up in different spaces as temporary builds for three weeks. A lot of those shows play in a day. In 2019, 3,500 productions from around the world came to the Edinburgh Fringe, so of course it brought a huge economic build to that city, as it has done with tourism and the associated things that the arts afforded for that.

Within that are a lot of people attending different shows or more than one show in a day and a workforce of quite young people, like Emma's, who are not highly paid. I am concerned that the staffing and the training within this will become an issue. A lot of these organisations operating on the fringe are not in receipt of arts support and funding. They provide a hugely important platform for our industry training, but not just that. A lot of people take part in the fringe, particularly young people, for their own personal development. People go up from a college or university to play and find that the skills the arts afford them develop into a whole lot of other career choices. Young people particularly from disadvantaged communities will come and see their local theatres as hubs for those activities.

We do need to think carefully about the consistency of this and the deliverability and sheer cost of this. It is not a one-size-fits-all model if it comes in. It needs a lot of industry input from all sectors on our side in its development to make sure it is delivered correctly if it does move forward.

Bill Bush: I have touched on our concern. We believe in opening up, absolutely, if it is safe to do so. That should happen and there should not be undue restrictions, certainly not differentials between sectors with some sectors being more restricted than others. That is not fair or economically efficient. It is hard to then explain to the public why in one activity they encounter certain restrictions that they do not encounter in other parts of their lives.

Our concern is that unless there is significant investment in Covid certification, both in vaccination data handling and in testing infrastructure and data handling, there is no fallback. Either we are open or it is deemed through medical advice that being fully open is no longer safe—we are concerned about a new variant or a winter surge—but there is no fallback in preparation. The pubs will have to close or go to full social distancing and sporting stadia will have to close or go to full social distancing with all the damage that causes. We regard Covid certification, stretching the metaphor somewhat, as a bit like a fire service. We want to have a good fire service around in case we have a fire, but we hope we do not have a fire and we hope never to use it. Nevertheless, we have to make the investment.

Despite the international scene being still quite grim in many parts of the world in terms of infection, here in Western Europe the numbers are coming right down. Our concern is that with the move into summer, we will move into openness and will have relatively free access both for staff and for customers and fans, but then will have no small step back into a certification method because it was thought in summer not to be necessary but by October or November we wish we had it. We believe this should go forward as a viable fallback rather than as a first preference. It should not be the first preference.

I do agree with Emma and Richard. This should not be an objective we seek. It is a protection that we believe necessary for many attendance venues of one sort or another to be viable over the longer term including through the winter and into whatever variants throw at us in coming months and to be ready for it, rather than trying to introduce such a thing at short notice. That would be a bad idea.

Q58 **Jackie Doyle-Price:** Between you all, you have given a good analysis of what would be wrong with this but why it still remains on the agenda given the uncertainty and the need to keep business open. I am concerned that the impact of all the measures we have taken to tackle this pandemic have not fallen equally on all parts of society.

If we were to end up using Covid certification to keep businesses open, I

would welcome your perspective about what that would mean for social cohesion in our society, bearing in mind that in some more deprived communities there has been less prevalence of vaccination and we are also witnessing some vaccine hesitancy among some ethnic minority groups. What does that mean for combating elitism and excluding other parts of society?

Bill Bush: These are tough decisions and there is no obvious unique right answer. Anything other than fully opening up leads to consequences with variable impacts. For example, I talked about the number of young staff and ethnic minority employees we have. We also have a significant number of older staff. If they were to be concerned about the risk of infection because insufficient safety measures were in place, they may exclude themselves from the job market. Similarly, if hospitality were regarded as particularly high risk, the employment consequences would be on the people who work in hospitality. We are not alone in having staff with a young profile and an ethnically diverse profile. Social distancing, which is a real killer of employment in hospitality, has an unequal impact in terms of a lot of the issues you have talked about.

Our view is to be fully aware of the challenges, work out what mitigations can be introduced and to strive for universality. But the most readily available universality is for all of us to stay at home until the coronavirus is beaten and that might take many years. We have to find viable compromises that are, in a world of hard choices, as fair as possible and open and transparent. If we are aware of an unfair or unreasonable impact taking place, we should seek to mitigate it right from the start. If we cannot justify it, we should not do it.

Emma McClarkin: I have already touched on our concerns about the impact of certification and the next barrier to hit us. We have already been significantly impacted by other restrictions and regulations. The pub is a great leveller where everybody can go and should be able to have a good affordable pint, coffee or lime and soda if they wish. Everybody is welcome at the pub. We would not want to see any change to that dynamic or our offer to the public. We want to strive to maintain that open-door policy and not to have to exclude different people.

When we look at the demographic of our employees working within our industry, there is a great concern about the long-term confidence they can have in careers in hospitality. All these decisions have that knock-on impact not only on consumer confidence but on our staff as well. Will I be able to get a job? Will I be let go because the pub closes or needs to reduce its numbers of staff? Will I be contracted this week or maybe not? Is it better to go in a different direction? All of that has a huge impact. In our workforce, 43% are under the age of 25 and 53% of those are women. We provide incredible flexible work for a lot of people coming back in. The issues we will have with social mobility will be impacted if the hospitality is not strengthened and has the confidence to continue to

trade viably and to allow everybody in those communities to come to the pub and also to work in it as well.

Richard Jordan: Everybody should have the right to have access to the arts. It is important that as we approach this we think about that carefully and what all our industries represent for the communities we represent.

Bill made an important point about transparency so that it is not met with panic and suspicion and it does not create division between attendees. One of the glorious things about the arts is that you want to create cultural collisions. You want to bring people together to converse and share ideas, thoughts and opinions and simply have a good night out of entertainment.

Also, is this the end of the school parties or the group trips that come? How do you administer young people on a train or a bus? What happens when they get on and one of them does not have a certificate? What happens when they get there? Do we say, because of whatever belief they have or whatever reason they have chosen not to have the vaccination, they will no longer be allowed to watch a performance or a piece of live entertainment or a piece of art?

Also, it becomes evasive, as Emma was saying, with our workforce possibly standing on the door and having to ask someone about their health situation or being confronted with something. Our staff members who work front-of-house are not paid high salaries for undertaking that work.

We need to be sure that the theatre and the arts and entertainment sector has a clear legal position that will be supported so that it is not suddenly being sued or having bad PR coming back because we are discriminating and not allowing someone to enter a performance. If it is on a smartphone, what happens if you cannot afford a device and can no longer go in to see that piece of community work or embrace something in your local theatre? You now no longer have that inclusion. Economic discrimination also becomes an important factor that we do need to consider carefully.

Jackie Doyle-Price: There is a massive assumption that everyone has a smartphone. Thank you. That was helpful.

Richard Jordan: Can I say another important point about international audiences coming in with data roaming plans? If we are saying they have to access this with wi-fi, even among young people, not everyone is on an expensive phone plan. Those quite important considerations come in. If you are from overseas and you are here with a data roaming plan, it can be expensive to administer. Will we have to make sure free wi-fi is provided in all our theatres to administer that? Does that work easily? If you make it too difficult for people, they will stop coming or will reduce their active attendance.

Q59 **Karin Smyth:** Mr Bush, Ashton Gate Stadium is in my constituency and I know they were so excited to have people back in the last week. What have football and the wider sporting industry learned from the events coming back last week? You touched on quite a few things. What have you learned, particularly around the use and feasibility of testing?

Bill Bush: It will be important to separate out social distancing, which has characterised the Football League, EFL and Premier League and other sports' regular return since 17 May.

In parallel and starting a bit before that, the Events Research Programme was not based on social distancing but tested means of getting away from social distancing. It does not use vaccination data, which may come in phase two, but uses testing data. The report is yet to be published but we hear so far that in the present level of prevalence, outdoor sporting events at least—and I think this is also true for indoor events—have no significant increased transmission risks from the attendances that have taken place.

Secondly, doing the testing is a real burden. It may be universally available but it is a pain in the neck. It has to be relatively recent before the event, the day before or so, so if you are going to an event on a Saturday you will be tested on the Friday. With lateral flow it does not take long, but you have to travel there, queue a little bit and travel back. Then—again, a smartphone point—you will get a text alert to say whether it is negative or not. Testing does work. It can be universal. It is a burden.

Vaccination, however, as it spreads, could obviate the need for testing and could be the default load-carrier so that people can get in and out of venues quickly if they have been vaccinated and are willing to use the NHS app for this purpose. But everyone can go with testing.

Why not use home testing? If it is good enough for schools, why not for venues? Public health experts will say that there is too much unreliability with home testing. Covid certification would ease the present pressure as indicated by the Events Research Programme if it included vaccination evidence, but nevertheless it represents a burden, which is worth it only if the alternative is social distancing. More optimistically and we hope more durably, the vaccination effects and treatment effects will mean it is safe enough and we can live with Covid and with attendance at venues.

Emma McClarkin: There could be testing put in place as an alternative to having vaccine certification. We have deep concerns that I have already explained about the spontaneity of visits to the local pub. Should it become a prerequisite to have a test, it would force people into narrow windows of business. Trade being concentrated in pockets around the weekends or in one planned visit is not economically sustainable for us. To open, we need sustained and consistent trade throughout the week. We fear that testing would specifically then concentrate that trade in one moment and therefore businesses would still be unviable.

Richard Jordan: A lot of our staff are freelancers. Would a certificate affect employment in our industry? Yes, it could do, but we again need to think about how this policy works. Take, for example, the crews that work to get a production in at the start of a week and out at the end of a week, the musicians who work in different orchestra pits and on different shows on different nights. How would that system be implemented if we also needed to see that certification among our staff members? We would need to be careful that members of staff do not feel discriminated against or feel that they were not chosen to be employed because they have not had their jabs accordingly or indeed because they are a younger person waiting in line for the next group of booster jabs to come through. Once the system starts, we need to make sure that the booster injections for our workforces and people are consistently coming through and there are no lags or gaps in that.

Chair: Thank you. I thank the three members of our second panel this afternoon, concluding a highly valuable session for us all. Thank you for your time and for sharing your expertise with us.