REPORT ON PROCEEDINGS BEFORE

PUBLIC ACCOUNTABILITY COMMITTEE

NSW GOVERNMENT'S MANAGEMENT OF THE COVID-19 PANDEMIC

CORRECTED

Virtual hearing, via videoconference, Sydney, on Tuesday 10 August 2021

The Committee met at 12:30

PRESENT

Mr David Shoebridge (Chair)

The Hon. Robert Borsak (Deputy Chair)
Ms Cate Faehrmann
The Hon. Scott Farlow
The Hon. Courtney Houssos
The Hon. Trevor Khan
The Hon. Peter Poulos
The Hon. Penny Sharpe

The CHAIR: I would like to welcome everybody to this virtual hearing of the Public Accountability Committee and its inquiry into the New South Wales Government's management of the COVID-19 pandemic. Before I commence, I acknowledge the Gadigal people, who are the traditional custodians of this land and pay our respect to Elders past, present and emerging. Today's hearing is being conducted as a fully virtual hearing which enables the work of the Committee to continue during the COVID-19 pandemic. As we break new ground on the technology, I would ask for everybody's patience through any technical difficulties we may encounter today. If participants lose their internet connection and are disconnected from the virtual hearing, they are asked to rejoin the hearing by using the same link that was provided by the secretariat. That applies to each of the witnesses as well as members of the Committee.

Today we will be hearing from Government witnesses, including the Hon. Brad Hazzard, the Minister for Health and Medical Research; and Dr Kerry Chant, the Chief Health Officer. Later this afternoon we will also hear from a panel of epidemiologists and experts. Before we commence, I will make some brief comments about the procedures for today's hearing. Firstly, while parliamentary privilege applies to witnesses giving evidence today it does not apply to what witnesses or others say outside of the hearings. Secondly, Committee hearings are not intended to provide a forum for people to make adverse reflections about others under the protection of parliamentary privilege. Please stick to the issues. All witnesses have a right to procedural fairness in accordance with the House's resolution to that effect. There may be some questions that can only be answered on notice—we would hope they would be minimal—but, if so, the witnesses have 21 days in which to answer those questions. I also note that today's proceedings are being broadcast live from the Parliament's YouTube and a transcript will be placed on the Committee's website as soon as it is available.

Finally, a few notes about the proceedings today. Could I ask all Committee members to clearly identify who questions are directed to and could I ask everybody to please state their name when they begin speaking. Could I also ask the witnesses to respect who the questions are being directed to. As it is a Webex hearing it is best if that is self-policed between the members of the Committee and the witnesses. Members should also utilise the "raise your hand" function when raising points of order, and could everyone please mute their microphones when they are not speaking. The best option is to use the space bar to unmute when speaking. Please remember to turn your microphones back on when you are getting ready to speak. If you start speaking whilst muted, please start your question and answer again so that it can be recorded on the transcript.

Members and witnesses must avoid speaking over each other so that we can all be heard clearly and the matter can be recorded by Hansard. Also to assist Hansard, may I remind members and witnesses to speak directly into the microphone and to avoid making comments when your head is turned away. I now welcome our first witnesses. Minister, I remind you that you do not need to be sworn as you are already under oath due to your office as a member of Parliament. Dr Chant and Dr Lyons, as you have already been sworn in at an earlier hearing of this inquiry you will not be sworn in again, but I remind you that you remain under that oath.

The Hon. BRAD HAZZARD, Minister for Health and Medical Research, before the Committee

KERRY CHANT, Chief Health Officer, and Deputy Secretary, Population and Public Health, NSW Health, on former oath

NIGEL LYONS, Deputy Secretary, Health System Strategy and Planning

The CHAIR: Minister, given how limited our time is I will ask that, instead of an opening statement, we now proceed directly to the opening questions from the Opposition.

The Hon. PENNY SHARPE: Can I just begin by thanking Dr Lyons and Dr Chant and the Minister for attending today. Importantly, I pass on the Opposition's great thanks for the work that is being done by NSW Health and our frontline workers. They must be very tired but they are doing amazing things every day and I just want to acknowledge that upfront and thank them very much. Dr Chant, on 16 June the first Delta variant cases in Sydney were discovered and unfortunately today we have had record numbers at 356 in the last 24 hours. When did your team start preparing for a potential lockdown in Sydney?

Dr CHANT: There was a sequence of measures put in place where we introduced, on the eighteenth, masks on public transport, masks in indoor non-residential settings. On the seventh, in the seven local government areas [LGAs], masks in indoor residential settings and restrictions on non-essential travel, limits on visitors to households, and we introduced stay-at-home orders and then went to a lockdown on 26 June. So once the situation became evident that the containment could not be achieved through public health contact tracing we immediately moved to implement a lockdown recommendation to the Government.

Mr BRAD HAZZARD: Can I add to that, Ms Sharpe, the first case was on 16 June and that was the limousine driver that we all know about now. But the very first actions, quite apart from what Dr Chant was talking about—obviously the sorts of things that she is talking about have been going on for 20 months. The first step was actually on 18 June. Less than a day and a half later masks were introduced—and compulsory—on public transport in Greater Sydney and then within another two days there were further steps taken. There were masks in indoor non-residential settings in the seven local government areas of Waverley, Woollahra, Bayside, Canada Bay, City of Sydney, Randwick—

The Hon. PENNY SHARPE: Could I just stop you there, please, Minister. Thank you for repeating what Dr Chant just told us. I had a very specific question which was: On what date did the public health team start preparing and preparing advice in relation to locking down parts of Sydney?

Dr CHANT: I would have to check. The Government acted quickly when we recommended those actions to Government on the dates described.

The Hon. PENNY SHARPE: I think you can understand where I am going with this, which is that I want to understand the first date on which lockdowns, the preparation—obviously the sixteenth is when the masks started, and I thank you for that answer. But my question is when was the advice prepared and when did the preparations for lockdown start? More importantly, on what date specifically was the advice first provided to the Health Minister on locking down?

Mr BRAD HAZZARD: It is not that easy, Ms Sharpe. I know you have not been the Health Minister but when you are in the middle of a COVID crisis I spend pretty well every day here in the Health building and we discuss these issues. Dr Chant rang me—or I rang her—at about 10 o'clock or 11 o'clock last night. We talked through the night and we talked first thing in the morning. You have an expectation that some document appears, no it doesn't—it is a moving feast. Dr Chant is expressing the concerns that are raised by her public health teams, it is not just her. She has another 12 public health teams in various areas. There is constant discussion going on about what is happening as cases are rolling in. There is a classic example, which was just before—

The CHAIR: Minister, it is a Webex hearing; it is very difficult and we have very limited time. The question was put to Dr Chant and I think that it is right that we get an answer from Dr Chant.

Mr BRAD HAZZARD: Dr Chant gave her answer—excuse me Dr Chant—and can I remind you that we have volunteered to come here. We do not acknowledge that you have the capacity to have us here. We have come here to try and assist and give you the information you need. So, you might remember that I—

The CHAIR: The question was put to Dr Chant and if you would allow Dr Chant to answer.

Mr BRAD HAZZARD: No, actually I will answer the question that I am now talking about, thank you. It is not up to you to determine who is going to answer the questions. I am the Minister and I will answer it. On 23 June we had the West Hoxton birthday party, which was a major, major case.

The Hon. PENNY SHARPE: Excuse me, Minister, can I just stop you there. Minister, we are not trying to catch you out; there is no trick here. We are specifically asking very important advice from the public health officials and from Dr Chant. These are the answers to the questions that we are after. We have heard you every day, admirably, at press conferences outlining most of this material. Everyone here has paid very close attention to that. We are very concerned. Given that millions of people are in lockdown at the moment and it is very difficult for everyone, we are trying to understand what happened.

Mr BRAD HAZZARD: And I am trying to help.

The Hon. PENNY SHARPE: I would rather—

Mr BRAD HAZZARD: You just spent more time than it would have taken me to explain it, Ms Sharpe. I will go back to what I was saying. On 23 June—

The Hon. PENNY SHARPE: No, Minister, I have questions for Dr Chant that I would like to get through and I would really like it if you would allow her to answer those, please.

Mr BRAD HAZZARD: Well she has, and I am now telling you that on 23 June there were eight cases linked to a birthday party in West Hoxton. A person who had worked in a nail salon at a Double Bay hair salon and was linked to the Bondi cluster attended that party. That caused a high level of anxiety and concern to Dr Chant and her public health team, and obviously the Government. Ultimately, 51 cases were associated with that party alone; 30 acquired at the party and an additional 21 linked elsewhere. That is what caused it. Of course you would remember it was the Joh Bailey cluster, I think we called it.

The Hon. PENNY SHARPE: Yes. Minister, if I could just—

Mr BRAD HAZZARD: And that then led—

The Hon. PENNY SHARPE: —stop you there.

Mr BRAD HAZZARD: —that was on 23 June.

The Hon. PENNY SHARPE: We are very well acquainted with those.

Mr BRAD HAZZARD: You are asking the question and I have to be able to answer it. On 23 June that happened and as a result—

The Hon. PENNY SHARPE: I am actually asking the question of Dr Chant.

The CHAIR: Minister and Ms Sharpe.

Mr BRAD HAZZARD: Could I just remind you [disorder]. It is my right to answer questions.

The CHAIR: Minister, if you insist upon continuing to answer, could I invite you please to complete your answer within 30 seconds and then we will go to Dr Chant.

Mr BRAD HAZZARD: As I was just saying, that major incident then caused a high level of anxiety in the public health team, which then led to the 23 June major limits on visitors to households. That is how it works. It is not just, "Oh, this is a document", and that is what happens. That is what Dr Chant has just explained and I had to put it into context and you need the context because clearly you do not understand.

The CHAIR: Ms Sharpe, I invite you again to put your question to Dr Chant.

The Hon. PENNY SHARPE: We are looking for the precise date. The nature in which the advice was provided, we will ask you about a bit later, but we are specifically asking for the date—two dates really—on which your public health team started to prepare for the need to lock down parts of Sydney and on what date you informed the Health Minister of the need to do this?

Dr CHANT: There was a progressive range of restrictions put in place and on the twenty-fifth we briefed—we acted quickly. There were already preparatory orders that had been previous orders that formed the basis of the stay-at-home restrictions. On that day, the Government responded to our initial request for lockdown of the Waverley, Woollahra, Randwick, City of Sydney and then quickly the escalating nature justified locking down the remainder of Greater Sydney. The lockdown did have effect in bringing the disease under control in south-eastern Sydney quite quickly. Unfortunately, it was unknown at the time that there was not containment of the West Hoxton party.

Obviously more investigations will be done, genomic sequencing, and I have to apologise to the Committee that I have not had the opportunity to go back and look at all of that. But there is concern that there was leakage at that point that was not recognised at the time and then that led to establishment in south-western Sydney. The lockdown was less effective in south-western Sydney because of the lower testing rates and the

impacted community needed to be engaged with. There were a number of challenges in seeing the same effect that we were seeing in south-eastern Sydney in that area. There has been a range of strategies put in place to work cooperatively with the local communities to see the impact of the lockdown.

The Hon. PENNY SHARPE: Prior to 25 June did you provide information, advice—however you want to call it—to the Health Minister of the need to lock down?

Mr BRAD HAZZARD: Repeat that again. I am sorry.

Dr CHANT: In terms of the lockdown, there was an escalating level of concern and a range of restrictions put in place, but my advice around the lockdown was given on the said date—the particular dates.

The Hon. PENNY SHARPE: Dr Chant, I understand that you are not providing precise dates. Would you be able to provide on notice to the Committee the escalating issues that were raised prior to the lockdown on the twenty-fifth?

Mr BRAD HAZZARD: I will answer that because obviously those issues go to crisis Cabinet, which is a subcommittee of Cabinet. Dr Chant is under oath and she has given you the evidence, which is quite clear, so she will not be providing any documents.

The Hon. PENNY SHARPE: Well that is disappointing, Minister, but we will move on. Dr Chant you have indicated that you have been providing advice regarding further restrictions on people from Sydney travelling to the regions. When was this advice provided?

Dr CHANT: Consistently public health has indicated the risk of seeding regionally and we have done a lot of work to prevent that. So there are requirements around testing for people who are going to the regions. We have certainly been doing a lot of messaging and we have been looking at opportunities to provide feedback on elements where the orders can be strengthened or clarified. As the Minister has said, we are actually asking people to not try and look for loopholes in the orders but rather to comply with the intent. We also were aware that our regional communities require critical health workers, other critical infrastructure workers—

Mr BRAD HAZZARD: Logistics, freight.

Dr CHANT: —logistics, freight. So I have to say that clearly our concerns have escalated since the impact in Newcastle, and clearly that was just a small—and linked back to a handful of people doing the wrong thing. Those individuals were absolutely doing the wrong thing. They seeded two separate clusters in Newcastle and, as I said, our public health team in Hunter New England is working through with the community with the lockdown to attempt to bring that under control. The actions to date have identified a number of cases but there has been strong public health action put in place. In relation to Armidale and Tamworth, those cases were people that had travelled back and were linked to the Newcastle cluster.

We have seen cases where people have wantonly disregarded and then we have seen some contacts with the regions where the testing regime has been useful in picking up and allowing us to have those early interventions. I think Orange would be an example where freight and logistics—we have worked with industry. A pandemic requires a whole-of-government response and we have been clearly working with industry as well to ensure that they take COVID-safe practices. So when they are delivering freight they do not have any interactions with other people and when they empty the truck. We are looking at a range of measures to protect our regions. We are also using our sewerage surveillance—

The Hon. PENNY SHARPE: Dr Chant, could I just stop you there. Thank you for that, that has been very helpful. Would you be able to provide the Committee with information on advice that you have provided for stronger restrictions since the beginning of the lockdown and then articulate to the Committee which ones of those have been implemented or not implemented?

Dr CHANT: I think the Minister has indicated that we have provided a lot of that advice through crisis Cabinet processes so I am not sure that I can specifically release that information. I can talk in broad terms because I think every time we go to the press conferences I articulate the concerns. So, in broad terms, we have been concerned about a number of elements. One is achieving mobility reductions similar to what was achieved in phase one of our lockdown and also the same level of mobility reduction as was achieved in Victoria in their stage four restrictions. That was our goal: to achieve that. Also more importantly, to achieve that in the suburbs that were impacted. What we have seen is that the mobility effect has been differential across Sydney and that has been a challenge for us.

The reason for that is that south-western Sydney and western Sydney provide a lot of the workers that support food, freight, disability services, aged care, hospital and health. They live in south-western Sydney, whereas other demographics in other parts of Sydney have responded to that and that probably formed a basis of

why we had to do the "authorised worker". The Government decided to implement the authorised worker program, so a very limiting movement out of those. We look at all of the data, and clearly reducing mobility. We have also had advice around compliance. Clearly it is very important that people comply and we have raised issues around the need to remove barriers to getting tested and other aspects as well.

The Hon. PENNY SHARPE: Minister, why has the advice to further restrict mobility into the regions not been implemented by the Government?

Mr BRAD HAZZARD: What advice are you talking about?

The Hon. PENNY SHARPE: Well it is clear that there are issues in terms of seeding in regional New South Wales and Dr Chant, in her very diplomatic way, has indicated that she has been concerned about this for some time. We know from the regions that there are real concerns about the number of people from Sydney—accepting that there are people with legitimate reasons that need to travel outside of Sydney—there are too many people travelling on weekends et cetera. It seems very clear to me that Dr Chant has indicated concern about that. I am wondering why there have not been further restrictions implemented by the Government on this issue.

Mr BRAD HAZZARD: As a colleague who is normally very careful in your words, can I say that you are putting words into Dr Chant's mouth and that is not at all fair. Each of the steps taken has been taken in consultation with Dr Chant. Can I stress Dr Chant is the public face. She also has 12 public health teams and she takes advice from those public health teams. For example in the case of Newcastle, she received advice from the Hunter New England public health team and the advice is on-the-ground advice as to what is appropriate and what is not appropriate. The process is then that she gives that advice to me and we talk about the issues, obviously, and she talks to others in here in terms of the other parts of Health—it is not just the public health team. Any actions that we take have to be operationalised because if we announce something we have to know that we have the capacity to back it in either from the police side or from our own health teams. For example with pathology at the moment, it is a real challenge because obviously up until early last year we were lucky to expect even getting 40,000 tests done a day.

The Hon. COURTNEY HOUSSOS: Minister, our time is about to expire. Can I just ask one question?

Mr BRAD HAZZARD: I am sorry, either I get to finish the answers or I am not going to bother. Seriously. I have got—

The Hon. COURTNEY HOUSSOS: Minister, I just want to ask one question [disorder]. Minister, I would just like to ask one question to Dr Chant before our time expires.

Mr BRAD HAZZARD: Why don't you finish the answer to my question?

The Hon. COURTNEY HOUSSOS: Minister, I am just going to ask one question to Dr Chant. Have you provided recommendations for stronger measures than what the Minister and the Government have adopted?

Mr BRAD HAZZARD: Can I just tell you Dr Chant gives a range of advice which is discussed with the rest of the public health team and the health team here in New South Wales and that advice then goes to the crisis Cabinet, and involved in crisis Cabinet is the economic issues, the mental health issues, the public health issues, the operational side. So when you say "stronger", it is like saying, "Oh, I want a ring of steel." What do you mean by that? What do you mean by that? It just seems to me that—

The CHAIR: Thank you, Minister, I think the context is useful.

Mr BRAD HAZZARD: The first speaker said this was not in some sort of—

The CHAIR: Minister.

Mr BRAD HAZZARD: —gotcha moment.

The CHAIR: Minister.

Mr BRAD HAZZARD: And all you are trying to do is carry-on like a—

The CHAIR: Minister, the context is useful. The question was directed to Dr Chant. I appreciate the context but—

Mr BRAD HAZZARD: No, actually the question from Penny Sharpe was directed to me.

The CHAIR: —I also note the short amount of time that we have today. I appreciate the context and I now invite Dr Chant to answer the question.

Dr CHANT: Obviously in controlling case numbers we want to see the effective reproductive [R] rate down beneath one. We want to see declining numbers. Clearly there is no silver bullet for that but what you want

to do is make sure you have effective recognition of cases and contacts and that good public health contact tracing. You also want to limit the opportunity for people to mix and reduce mobility. Things like mask-wearing can further mitigate that. Clearly I want to see a range of actions taken that reduce the R effective beneath one. As I said, we monitor those metrics but it is complex because we are wanting people to behave. I should say that we did observe that the community response to this outbreak was different from the first wave and we did not see the same changes in mobility patterns as we did with the first wave.

I think that bears out the fact that we have been probably through this for 20 months and there is fatigue in the community. Also the vision from overseas probably was not as scary as it was in the first wave, given we have got vaccines in those countries overseas at higher levels. I do want to say that we continually review all the metrics such as the mobility data, estimated R effectives. We are supported by research organisations which assist us. We are working and providing advice across industry how we can minimise workplace outbreaks because our key issues at the moment are workplace outbreaks and then those workplace outbreaks seeding further households and then the second one is households.

The CHAIR: Thank you, Dr Chant. I remind you the question was about measures that you have recommended.

Dr CHANT: Apologies. In general terms the broad measures would have been increasing compliance, things that reduce that mobility indicator and also things that go to how we can better support surveillance testing, rapid diagnosis, those types of elements of the response which would reduce the time it takes us to identify cases and institute those public health control measures.

The CHAIR: I will now pass the questioning over to Ms Cate Faehrmann.

Ms CATE FAEHRMANN: I want to extend The Greens thanks to the health workers in New South Wales and to you, Minister, and Dr Chant for all of the work you have been doing over the last really tough seven weeks. I want to kick off questioning in relation to the Premier's commitment around the 50 per cent coverage of vaccinations meaning reduced restrictions. Specifically to you, Dr Chant, the Doherty Institute modelling shows that 50 per cent, 60 per cent or even 70 per cent levels of vaccine coverage would not allow for relaxed restrictions unless we are prepared for a massive uptake in hospital admissions and death. Professor Doherty has actually said if we open up at 50 per cent that would be insane and at 70 per cent we are going to have to be massively careful. Dr Chant, who carried out the modelling showing it is okay for us to start relaxing restrictions at 50 per cent vaccination coverage?

Dr CHANT: In terms of the Premier's comments, I think she is very much reflecting the evidence base around the Doherty modelling. I think what is important to say is that we are in a very strict lockdown. This is stricter than the lockdown we have had in the first wave. I think that the Premier—I cannot speak for the Premier. Certainly I am very committed to the issues around getting our vaccine coverage up but very much recognise that we need that 70 per cent before we have too much of a discussion about what easing restrictions looks like. Obviously there may be some ways in which the community compliance can be strengthened with vaccine uptake. I think it is really a question for the Premier, but the Premier has very much understood the document and I think what we are trying to do at the moment is still focus on driving our case numbers down. Obviously I acknowledge that the Government balances, as the Minister has said, mental health and other health risks. I think that is the role for government, to balance those broad range of risks.

Ms CATE FAEHRMANN: The question was around specifically the modelling. Minister, can I just be clear: the modelling that the New South Wales Government is relying upon when it talks about potentially easing some restrictions when we get to 50 per cent coverage of vaccinations, is that the Doherty modelling or some other modelling?

Mr BRAD HAZZARD: I think it is fair to say that the Premier is trying to give a sense of hope to the community and also trying to drive up vaccinations. Once we get to that point of about 50 per cent, what we are thinking is that we can ease back on some restrictions. We really just need to know a lot more and we are taking advice, obviously, from the entire public health team on that. Doherty is the crucial one, obviously: you are right. That is the one that every health Minister—Labor or Liberal—around the country—

Ms CATE FAEHRMANN: If I could just—

Mr BRAD HAZZARD: Dr Chant wants to add something.

Dr CHANT: Perhaps if I could just add a couple of things. One is we want to get first-dose vaccines into everyone. We know that even one dose of vaccine has some level of effectiveness and it also has some effectiveness in moderating the individual outcomes as well as the outcomes of transmission. Two doses is much better and that is why we are also urging people to get their second dose. We have recommended that the interval

be reduced to four to six weeks to allow us to do that. We have also recommended that the interval for the Pfizer be extended so that we can get more first doses—

Ms CATE FAEHRMANN: Can I just jump in. This is all publicly available information. That is all very good. We hear it from you at every single press conference, which is great. They say unless you have heard something a million times then you do not really hear it, so that is good. In terms of the modelling, the Doherty Institute does say that even with 80 per cent of adults vaccinated we can expect potentially—this is across the country—hospital admissions of 48,000 people. That is with 80 per cent coverage. I just wanted to check, what number of hospital admissions has the Government modelled at 50 per cent vaccination coverage when that is what the Premier is now promising the people of New South Wales when some restrictions will be eased?

Dr CHANT: If I could just comment on the Doherty report. I think what it reflects is that we will need some level of restrictions as we increase our vaccine coverage from that 70 to a higher percentage. We will still need restrictions. We will still need mask-wearing, we will still need to have public health contact tracing, we will still need to have a range of measures. Obviously the higher we get our vaccine coverage the better, but we will be responding to COVID. In the end COVID will be an endemic disease. We are very privileged that we have good vaccines that actually perform much better than the influenza vaccines. I think it is very important to know that we are not talking about "a normal". We know that as vaccine coverage goes up there will still need to be a range of public health restrictions and measures in place as we work to get that balance between societal, which is a matter for government, and the public health outcome, which is reducing the number of cases of COVID.

Ms CATE FAEHRMANN: With the Premier coming out and saying that restrictions can be eased a little bit with 50 per cent vaccination coverage, as Chief Health Officer for New South Wales do you think that New South Wales hospitals will be able to cope with the level of admissions that will arise as a result of easing restrictions with Delta at just 50 per cent coverage of vaccinations?

Dr CHANT: I am actually optimistic that at the end of August we are going to have a higher than 50 per cent first dose coverage. At the moment it is really pleasing to see that the community has responded so well. I think it is a matter for us. As I think the Premier has always indicated, it is not just one metric. She will be looking at the case burden and vaccination coverage and looking for opportunities. I cannot speak for the Premier, but that is the way I certainly have taken her comments in the public domain. But it is a matter for the Premier.

Ms CATE FAEHRMANN: Minister, what percentage of New South Wales healthcare workers are fully vaccinated against COVID-19?

Mr BRAD HAZZARD: I will have to take that one on notice. I do not know the answer. Do you know that one?

Dr CHANT: I think it is a very high proportion but clearly we want to make sure. My personal view is that healthcare workers have a duty of care to get vaccinated and avail themselves of the opportunity to get vaccinated. It is a very vulnerable setting and we do not want to see any outbreaks in that setting.

Mr BRAD HAZZARD: What I can say, Ms Faehrmann, is that I know there is still quite a number of areas. They started off, because of a lack of Pfizer being supplied, focusing on intensive care, emergency departments and COVID wards. I think pretty well 100 per cent, or close to it, of those people are vaccinated. It is now extending out into general wards, rehab wards, aged-care wards and geriatric wards. I was talking this morning about this, saying that my personal view is that I think that all health workers should have the vaccine. I am talking to the unions at the moment. I have already discussed it or raised the issue with two of the unions this morning, looking at what we can do. The worry is how many people. The system is already under pressure so it is a challenge.

Ms CATE FAEHRMANN: I did hear you in your press conference. That was a very useful response. How long has that been your personal view, Minister, that all healthcare workers should receive the COVID-19 vaccination?

Mr BRAD HAZZARD: I have always thought that. The advice I got back from Health over the various months has been that there is a problem of actually having enough staff in the system to actually do the job as necessary. There is a percentage of the staff that have not had access as yet to the vaccine because of the shortage of supply of the vaccine that was allocated to the State Government by the Federal Government. There is also the initial issue that there might be a percentage of them who do not have a desire to be vaccinated. So, vaccine shortage; maybe some that do not want to have it, so that is what creates the issues that we need to address.

Ms CATE FAEHRMANN: I will throw to my colleague, David Shoebridge.

The CHAIR: Dr Chant, could I just pass on that I have had multiple people contact my office—countless people—with gratitude for the work that you have done. I pass on my personal gratitude as well. Minister, you

also have my personal gratitude for the public service you have been doing in your role as the Minister; it is genuinely appreciated.

Mr BRAD HAZZARD: Thank you.

The CHAIR: Dr Chant, the discussion about 50 per cent vaccination rates in the discussion you have had with the Premier; is that 50 per cent of adults having at least one vaccination shot? Is that the 50 per cent figure we are talking about?

Dr CHANT: I think what we are talking about is, in general terms, we know that countries where the vaccination coverage is high—can I also make the point that the vaccination coverage has to be—

The CHAIR: Dr Chant, with respect, we have a very limited time and the question was quite specific. Is that the 50 per cent figure we are talking about?

Mr BRAD HAZZARD: Sorry, David, can I just say Dr Chant is very tired. She works 18 hours a day. I think you have to let her have a little bit of licence to answer the question fairly.

The CHAIR: I appreciate that. I am just trying to work out what the 50 per cent baseline figure is.

Mr BRAD HAZZARD: She is trying to answer that.

The CHAIR: Is it 50 per cent of adults,18-plus, with at least one vaccination shot?

Mr BRAD HAZZARD: Just give her a go, David, please.

Dr CHANT: I think at the moment the messaging is really around the fact that we do need to see those immunisation rates high. Clearly the Premier has used a target, but the Premier is also well-versed with the Doherty report and its contents and the implications. What we are doing at the moment is making sure that the community accesses both vaccines, if they have access. More importantly, we have to get that vaccine into the areas that have got lower vaccination coverage.

Mr BRAD HAZZARD: And high viral load.

Dr CHANT: It does not matter if we have a 50 per cent overall coverage because if communities have very, very low levels of coverage that causes us problems as well. In terms of the target, we are very much minded—and following the Doherty report—and understand that it is not about going back to COVID normal at a particular level. We have to progressively lift our vaccination rates, but at the moment we also have COVID cases so we also have to adjust and respond to a changing situation.

The CHAIR: It would be fair to say that there is no support though, is there, in the Doherty report for the lifting of restrictions once you get to that 50 per cent target figure? Have you provided advice or is it your opinion that it is safe to commence lifting restrictions consistent with the Premier's statements?

Dr CHANT: I think that the Premier has indicated that Health is looking at a range of areas which might be very minimal. For instance there may be areas that are unaffected, such as Shellharbour or areas like that. I have not provided specific advice about any restrictions I would be prepared to ease. It is too premature and with escalating case numbers that is not the case. What I think we need to focus on is not lose track of the message, which is around vaccines protect you, your loved ones and it is important to get vaccinated. I think that some of the comments of the Premier really relate to her firm commitment. We see cases every day and when we announce deaths. Can I just say the impact in aged-care facilities has been heavily mitigated by the vaccine. I think that people really should understand that we are very privileged to have such well-performing vaccines. As I said, they perform much better than some of our other vaccines.

The CHAIR: Thank you, Dr Chant, and we all reiterate that message: Vaccinate, vaccinate, vaccinate if at all possible. Could I take you back to the commencement of the current outbreak. On 16 June we had the first effective community transmission from the driver to the driver's partner. At that stage we knew it was Delta. We have seen the UK experience about just how virulent and transmissible the Delta variant was. Why was it another 10 days before we saw the citywide lockdown?

Dr CHANT: At every step of the way we looked at the exposures, whether there were direct linkages, what were the risks, and made those decisions about the actions that needed to be put in place. Obviously with looking back there was a chain of transmission that was not detected and that was also playing into the mind that we needed to lock down. So all I can say is that we were looking closely at the information available, working with our public health networks and provided advice to government on a range of strategies. As I said, the outbreak was actually brought under control in south-eastern Sydney. It was really around when it got introduced into south-western Sydney that we saw the escalating case numbers. To be fair, it needed a different response in

south-western Sydney and there is a lot of focus on supporting communities in south-western Sydney and understanding the disease.

Mr BRAD HAZZARD: Mr Shoebridge, can I just clarify—I will keep it short. What you are missing is that the seven LGAs in the eastern suburbs were a bit like the Northern Beaches; they responded very well and very quickly. What Dr Chant was saying there is that when those cases went out to West Hoxton, that was not seen initially. That came out of the Joh Bailey hair salon. That was on 23 June. On 26 June was when we went into the lockdown. Everything was done very expeditiously, so it is not quite the way you are seeing it. You are seeing it from the sixteenth.

The CHAIR: I think by 21 June there had been 11 cases but by 26 June when the citywide lockdown was actually put in place there were sewerage fragments found in 12 different sewerage treatment plants running all the way from the Illawarra through Greater Sydney. By the time the decision was made the Delta variant was loose across all of Sydney. Dr Chant, you must have been troubled by the numbers rising day after day after day in that 10-day period. Were you suggesting a lockdown before then? I would have thought with the danger of the Delta variant that would have been the obvious thing to do.

Dr CHANT: Certainly in terms of the recommendations of the increasing escalation, actions were put in place. In terms of the sewerage detections, they were in areas of known cases.

Mr BRAD HAZZARD: Can you explain that? I do not really understand it.

Dr CHANT: So when there is a known case in a catchment, the sewage pings, sewage goes off and so we obviously look in our reports whether there were known cases in particular catchments.

Mr BRAD HAZZARD: Past cases, not the current cases—past cases. So when you see a sewerage detection, David, it does not mean there is an immediate problem with that area and they have to distinguish. That is one of the things they weigh up.

The CHAIR: Minister, by that stage there were 82 cases identified and the fragments were really all the way from Auburn to Maroubra to west Camden—

Mr BRAD HAZZARD: That is actually not true.

The CHAIR: —going off the publicly available statements from NSW Health. Were there pressures to not have a lockdown [disorder].

Mr BRAD HAZZARD: David, again your assumption is not quite right because if you had 15 cases all in one location and all connected that does not cause the public health team a lot of anxiety. It is if it is unconnected, unlinked and unknown; it is a different ballgame.

Dr CHANT: There are a variety of different factors and the epidemiology report goes along with that. Clearly the Delta variant behaved very differently to the other variants. That is the case.

The CHAIR: Dr Chant, that was not new information on 16 June or 26 June. We had that experience and that knowledge from the UK in particular, from India. Surely that should have been fed into the decision-making on 17 June or 18 June?

Mr BRAD HAZZARD: You are challenging Dr Chant's advice and that is not appropriate.

Dr CHANT: The information was based on the best available evidence at the time. Clearly the disease was not—initially they were very linked cases and then other controls were put in place. Clearly the lockdown was recommended and enacted, and we did have success in bringing the cases down. It was a seeding event into western Sydney that led to those—

Mr BRAD HAZZARD: West Hoxton.

Dr CHANT: —West Hoxton, which was not recognised at the time. It was thought that cluster had actually been identified very early but there were issues around containment of that which were not appreciated. Obviously, with the benefit of hindsight, there are different decisions that can be made, but just be reassured that we were looking very closely at all elements of the response in terms of the recommendations to government about the controls at the time.

The CHAIR: Minister, my final question in this round is: Was there any consideration given to giving so-called clean air to the State budget in that period and therefore that played into decision-making inside the Government not to call a lockdown because of this so-called New South Wales exceptionalism in the period? Was that any part of the Government's thinking?

Mr BRAD HAZZARD: I am sorry, David, I do not understand that question. Say it again.

The CHAIR: In the middle of that 10-day period the State budget was handed down, it was considered to be a celebration that New South Wales had been—

Mr BRAD HAZZARD: Sorry. Okay, I misunderstood that.

The CHAIR: —exceptional in not locking down. Was the messaging around the budget any part of the thinking—

Mr BRAD HAZZARD: No, never.

The CHAIR: —in not ordering a lockdown in that period?

Mr BRAD HAZZARD: I can give you a 2,000 per cent guarantee on that. We do not think about those things. In fact, let me tell you, we have got more money out of Treasury than we could ever have dreamed two years ago. So, no, it was not even considered, not even on the radar.

The CHAIR: I will hand over to the Opposition.

The Hon. COURTNEY HOUSSOS: Dr Chant, my question is to you. The Minister outlined the process earlier that you informally provide advice to him but then later more formally to the crisis Cabinet. The advice that goes to the crisis Cabinet, is that written or is that provided verbally?

Dr CHANT: That is provided in both forms.

The Hon. COURTNEY HOUSSOS: Okay. And the written documents that were provided, are they the documents that have been provided to the Committee?

Mr BRAD HAZZARD: They would not be because they are crisis Cabinet; they are Cabinet subcommittee, Courtney.

The Hon. COURTNEY HOUSSOS: Dr Chant, your formal recommendations to the crisis Cabinet, are they verbally provided or are they written down?

Dr CHANT: Written down.

Mr BRAD HAZZARD: And verbal.

Dr CHANT: And verbal. If there is obviously a discussion of an item, I have the opportunity to comment on the public health views. But I do note that the Government will obviously have to weigh up and balance a number of other competing views.

Mr BRAD HAZZARD: Courtney, that was what I was trying to explain before but I was stopped, because giving you context is important. Dr Chant and I literally are talking all day every day from about 6.00 a.m. in the morning to about 10, sometimes midnight, sometimes one o'clock in the morning. Then, during the course of the day when we have a crisis Cabinet meeting, she would normally come up with the recommendations—whatever her public health team has advised her. That then goes into the crisis Cabinet. The crisis Cabinet consists of a number of Ministers but also senior public servants. When we get to her particular recommendations—and there are other things looked at as well in that that are not related to Dr Chant—she would then have the opportunity, and always does, to speak to her views.

Then the other team—there are more members of the Health team sitting there who would be the operational side—they would be talking about, "Well, if we do this, what would be the impact on that? Do we have enough pathology? Do we have enough testing?" That is the way it works. Out of that comes the decision, as you would expect—same way as any normal Cabinet.

The Hon. COURTNEY HOUSSOS: Can I ask you, Dr Chant, when was the first time that you made a formal recommendation to the Cabinet to lock down?

Dr CHANT: That would have been on the dates when the lockdown was initiated.

The Hon. COURTNEY HOUSSOS: That was on 25 June?

Dr CHANT: That is correct.

The Hon. COURTNEY HOUSSOS: Okay. Are you able to provide the Committee with when you first raised the prospect of a lockdown being required with the Minister?

Mr BRAD HAZZARD: That is what I said. We were talking about all options right through, Courtney. It is not a case of, "Well, today is the day we are going to talk about lockdown." We were looking at all the options. One of the issues that was happening—and correct me if I am wrong, Dr Chant. We were weighing up what happened in the northern beaches. Dr Chant used to tell me that the difference there was that was geographically

separate. Is that right? Then we were looking at the eastern suburbs and we were not quite sure whether we could achieve the same model because it was not geographically separate. But, as it turned out, the population in the eastern suburbs was very compliant and, as she said, the numbers came down very quickly. But then, of course, there was a second issue when the West Hoxton case broke out, coming off the eastern suburbs. All those things were happening and we were discussing issues all the time about that.

The West Hoxton thing occurred on 23 June, so I would say the best recollection would be that we would have been talking about, "Well, what do we do now? How do we handle this now that we have got more cases?" And on the first day you do not necessarily get a lot of cases or in the morning. Late in the day you get more cases coming in. So then we were talking about, "What options have we got? How do we handle that?" And 23 June, the lockdown occurred only two days later. I got asked this morning in a press conference, "Why did you lock down on an hour at Northern Rivers?" Because we got advice and we do it. But the advice has to be not just public health. It has to be: What other implications are there? Do we have the police on the ground? Do we have the pathology on the ground? Do we have the testing on the ground? Can the hospitals cope? What is going to happen out of this? There is a whole lot of stuff that goes on that is not easy by any means. There is no algorithm. There is no simple equation.

The Hon. COURTNEY HOUSSOS: No, but these are important questions, Minister, and it has been a very long lockdown now in Sydney. There are a lot of people that are suffering as a result of this decision and we are trying to get to the bottom of when this was first canvassed with the Government. There have been suggestions that the lockdown should have been implemented earlier. Dr Chant—

Mr BRAD HAZZARD: Can I tell you that there are a million and one experts in epidemiology who have not been in her chair, who do not sit with the 140,000 Health staff. They give all sorts of expert—you can watch the commercial TV, you can watch ABC. Everybody is an expert.

The Hon. PENNY SHARPE: Minister, we are not asking about that advice. We are asking about the advice that has been provided by Dr Chant.

Mr BRAD HAZZARD: No, no. That was just a postulate about "Some people are saying, 'You should have locked down.'" Well, I am telling you, we take the advice—

The Hon. COURTNEY HOUSSOS: No, Minister, you cut me off midway through what I was asking. And I appreciate—

Mr BRAD HAZZARD: I thought you had finished. Sorry if I did that. Off you go.

The Hon. COURTNEY HOUSSOS: So my question to Dr Chant was: Was the basis for 25 June a written recommendation to the Cabinet?

Dr CHANT: Yes, it would have been.

The Hon. COURTNEY HOUSSOS: Okay. Did you provide a verbal advice prior to 25 June that you thought that there should be a lockdown?

Dr CHANT: There would have been a range of discussions with the Minister, but the formal advice around going into lockdown was provided on the dates when the lockdown was instituted. As I said, everyone was looking at the data closely. I think the key issue was the issue around the seeding event and whether it was contained or not, which was not—initially, the West Hoxton party was thought to have been well contained because it was picked up quite quickly. With the benefit of hindsight, I think it is very clear to see that there was a greater risk of the seeding event in south-western Sydney than was appreciated at the time that emerged and that led to the lockdown. The lockdown did have effect in bringing down the numbers in south-eastern Sydney but was not as effective in heeding the cluster growth in south-western Sydney. A range of strategies were put in place to address that.

The Hon. COURTNEY HOUSSOS: So, Dr Chant, can I ask if you have provided written advice since the start of the lockdown for stronger measures to be implemented to the crisis Cabinet?

Dr CHANT: There is always additional advice, as I can talk about in broad terms around strategies. We are always trying to learn what are the measures. You would expect us to be reaching out for our colleagues in Victoria who went through a similar experience to look at any learnings. We have provided a range of advice around the need to have local engagement—a lot of removing all of the barriers to isolation, barriers to testing, to ensure we have got safe accommodation for people to isolate in, that we have got good welfare supports, that we have got a whole-of-government response occurring and also that we need to continue to drive down that mobility and opportunity for interactions and increasing compliance.

The Hon. COURTNEY HOUSSOS: Dr Lyons, we have also got you here today. I understand you wrote a memo requesting that local health districts [LHDs] allow pregnant women a support person for the entire time they are in hospital. How many LHDs have followed your request?

Dr LYONS: I have provided that advice because it is a very important issue. We were aware that there were some concerns from mothers that they were not able to have support people along while they were going to both antenatal through to delivery and postnatal care. So we had a discussion with the Clinical Excellence Commission [CEC] about the appropriate approach to take there, weighing up all the benefits and the important wellbeing components of allowing mothers to have support people through a very exciting and important time in their lives. We decided that the balance around the risk to staff in hospitals and for other patients in hospitals was outweighed by the importance of having support people along with them.

That was a discussion through our community of practice supported by our infection prevention and control practitioners at the CEC. Then we discussed with the chief executives the issues that they were concerned about and got their agreement that we would collectively across all the local health districts—especially health networks in New South Wales—agree that we would change the position so that support people were able to accompany. So that is a decision that all LHD chief executives have agreed to.

The Hon. COURTNEY HOUSSOS: So they have agreed to it? I agree with you: This is a very important question and that is why I am asking. I think it is a really important decision by the Government to allow a support person in. I am just interested then in the implementation of it. It has now been implemented across every LHD. Is that correct?

Dr LYONS: That is my awareness. And we have been responding to any concerns that have come from people who had—after that initially went out, it took a couple of days to make sure it was implemented effectively. We did have some initial concerns raised back and we addressed those directly with the hospitals. I have not heard any concerns since about a week or 10 days ago that there is any barrier at the moment to anyone being an accompanying person. So our intention was to address that and we believe we have successfully supported that change in hospitals across the system.

Mr BRAD HAZZARD: Courtney, can I just say on that I think the system is pretty big, but I have been asked a few times by individuals—husbands or partners, whatever it be but they have been excluded—and on each occasion what I have done is I have rung the hospital management and just reminded them of the general direction that has been put out by NSW Health and asked them to strike a balance. I think it gets a bit tricky when they are right in a hotspot, a really hotspot area, because they are feeling worried and so some of the health staff are making their own decisions on the ground. But each time we have been able to remind them that it is important that partners—if a woman is giving birth, she should be able to have a partner there, whatever the partner is or whoever the partner is. They should be able to support the partner support the person giving birth. So if you have got any cases like that where it has not happened, let me know and I will chase it up for you.

The Hon. COURTNEY HOUSSOS: Thank you very much. Dr Chant, I wanted to come back to you on the question of the current reproductive rate of the virus. Do you have an accurate assessment of what the current reproductive rate is?

Dr CHANT: So clearly the R effective is tracking around or just above one. That is not where we want it to be, where we want it to be declining R effective—beneath one.

The Hon. COURTNEY HOUSSOS: Sorry, you expect that—you are aiming for it to be below one?

Dr CHANT: That is my desire for it to be beneath one.

Mr BRAD HAZZARD: Can I explain that? If it is below one it means that we are not seeing the growth. That is just the technical aspect.

The Hon. COURTNEY HOUSSOS: Yes, I understand.

Mr BRAD HAZZARD: That is why Dr Chant is saying that she would like it to be less than one.

The Hon. COURTNEY HOUSSOS: I understand. Dr Chant, if it does fall below one, would that be then the basis for you recommending to loosen the current restrictions, including the lockdown?

Dr CHANT: No. I would like to see it go beneath one and then I would like to see the case numbers continue to decline. I would like to see us get down to very, very low levels of the virus and I would like to see vaccine coverage increase. They are my public health objectives that I would like to see.

The Hon. COURTNEY HOUSSOS: Sorry, do you have a specific reproductive rate that you have in mind before you would allow the loosening of restrictions?

Mr BRAD HAZZARD: I think what she just said, Courtney, was she would like it to be less than one but a whole lot of other factors as well before she would even start thinking about that. To be honest, we have not even talked about that because at the moment we are trying to deal with a pandemic that is causing the whole community a degree of concern so we are not even there.

Dr CHANT: Certainly I can confirm I have not given any time to think about areas we would ease. What I am concerned about is the numbers of cases that are currently occurring are too high and we need to see those numbers decline.

The Hon. COURTNEY HOUSSOS: Yes, and that is certainly the—

The CHAIR: Ms Houssos, the questioning is now going to pass to Ms Cate Faehrmann.

Ms CATE FAEHRMANN: Thank you. Minister, earlier you said in response to a question from my colleague David Shoebridge that, if you are challenging Dr Chant's advice, then that is not appropriate. But your Cabinet colleagues have, haven't they?

Mr BRAD HAZZARD: I am sorry, Cate. I missed what you said. Say that again.

Ms CATE FAEHRMANN: You responded to Mr Shoebridge's question earlier. You said to him, "If you're challenging Dr Chant's advice then that is not appropriate." But your Cabinet colleagues have, haven't they, Minister?

Mr BRAD HAZZARD: Which Cabinet colleagues are you referring to?

Ms CATE FAEHRMANN: It is a question to you, Minister.

Mr BRAD HAZZARD: Well, I am just asking you which Cabinet colleagues. That is a very broad question, Cate. Which Cabinet colleagues?

Ms CATE FAEHRMANN: Minister, I think what is clear from today's questioning is that you are receiving advice as health Minister from your Chief Health Officer that you are taking to Cabinet and there is a lot of pushback about listening to and acting on this advice. Is that right?

Mr BRAD HAZZARD: Sorry, so you are saying within the crisis Cabinet? Is that what you mean?

Ms CATE FAEHRMANN: Yes.

Mr BRAD HAZZARD: Look, I think it is fair to say that what happens in the crisis Cabinet is a really healthy discussion because Dr Chant actually presents epidemiological advice and then there has to be discussions around the mental health implications. Obviously we saw what happened in China. People came out with acetylene torches and closed off doors. We do not—

Ms CATE FAEHRMANN: Minister, with respect, we are seeing the mental health implications now as a result of your Government not responding to the health advice when you received it to lock down sooner.

Mr BRAD HAZZARD: Well, that is just wrong.

Ms CATE FAEHRMANN: Is that not the case?

Mr BRAD HAZZARD: Sorry, that is a silly thing to say. And it is wrong. Sorry, that is wrong. I do not know what you are talking about with the Ministers. The Ministers actually do what Ministers should do and that is to obviously listen to the advice and challenge all the underpinning aspects of whatever is being asked to be done—if it has implications for mental health, for the economy, for all of those other things. Our Government is very, very careful on those issues. and I have got to say the crisis Cabinet team work extremely hard, long hours and work with the health team and the economic team and the education team and all the other teams to try and get the right results. I am sorry if it is not always perfect but that is what happens in a pandemic.

Ms CATE FAEHRMANN: But you just said to this Committee that we need to be not challenging Dr Chant's advice and that, if we are challenging Dr Chant's advice, then that is not appropriate. But clearly the crisis Cabinet did challenge her advice and chose to lock down later, and we are now seeing those consequences.

Mr BRAD HAZZARD: No, as I have said to you, you are completely wrong on that. Absolutely wrong. I cannot do much more than that and Dr Chant has indicated that she gave advice and we have responded every time urgently. I do not know what the issue is here. If it is a beat-up on the Government, well okay, we are here, but beat it up somewhere else, will you? Because Dr Chant is really busy and I am really busy. If you want to actually discuss the issues properly, we are here to do it. We came voluntarily. We did not have to be here. Please just ask the questions. We will give you the answers.

Ms CATE FAEHRMANN: Minister, why won't you release the advice then that Dr Chant provided the Cabinet to assure this Committee and to assure the public that you listened to the Chief Health Officer in the middle of a pandemic to lock down when we locked down?

Mr BRAD HAZZARD: Cate, you did not just listen because she just told you quite clearly that we responded as quickly as humanly a government could. I am sorry, you are just wrong. Plain wrong. And we are not going to release crisis Cabinet documents or Cabinet documents to you. If you want to be part of the Government, Cate, join the Government. But you are not.

Ms CATE FAEHRMANN: Minister, we will go to vaccinations. NSW Health has a policy—I think you alluded to it earlier. That is the policy for occupational assessment, screening and vaccination against specified infectious diseases and this includes hepatitis B, tuberculosis and even the flu. Six people have now died as a result of two partially vaccinated healthcare workers at Liverpool Hospital contracting the virus and passing it to patients. Why did you not work on a policy to ensure it was mandatory for healthcare workers to receive the COVID-19 vaccination before this latest outbreak?

Mr BRAD HAZZARD: First, can I say that it is extremely sad for every one of the families that anybody has passed away—at any time but certainly in this COVID pandemic—and my sympathy goes to each of those families who had to suffer as their loved ones were passing away. I do not think it helps to make political advantage of that, Cate. I was told this was an inquiry but now I am seeing it is more than that so I am going to let Dr Chant answer those questions.

Ms CATE FAEHRMANN: Minister, it is extraordinary that you think I am making political advantage of something when I am asking you a question about why you have not acted to ensure that healthcare workers have COVID-19 vaccinations in the middle of an outbreak of the Delta variant. I am not politicising this. It is an important question that I am receiving a lot of questions about from health workers. I assume the media also have questions on this. Sorry, Dr Chant.

Mr BRAD HAZZARD: Can I point out two things?

The CHAIR: [Disorder] Minister, we will take up your invitation and we will get Dr Chant to answer the substantive question. Let us stick to the substance. Dr Chant?

Mr BRAD HAZZARD: Can I just remind the Committee that Dr Chant has a lot of work to do this afternoon and we voluntarily came here for one hour. It is now one hour and 10 minutes, so if we could finish after this question I would be very grateful so we can get on with doing the work that we do.

Dr CHANT: Just to let you know, we have clearly—my area is responsible for that occupational health and screening vaccination program. We had already commenced work on ensuring that that incorporate COVID vaccine into it. I think the issue became what access people had to the vaccines and sufficient quantities of that. I have got to say that we have worked really very strongly with our health workforce in making the vaccine available to them and working with them on any misconceptions anyone might have to support them to get vaccinated. I agree with you that the next step is, as we have considered in relation to aged care, that in the setting of COVID vaccination should be required of all health practitioners. I think I addressed that in my opening comments that that is my belief, so, yes.

The CHAIR: Thank you, Dr Chant. Minister, the invitation is until two o'clock. It is only another 18 minutes. There are a number of additional questions and I would ask for both of your cooperation and patience until then.

Mr BRAD HAZZARD: David, it was agreed that we would do one hour. You have now had one hour and 15 minutes and we have to prepare for other matters this afternoon.

The CHAIR: Well, Minister, again, the invitation was for an hour and a half. Dr Chant, I think there are a number of questions—

Mr BRAD HAZZARD: I accepted for an hour.

The CHAIR: Thank you [disorder].

The Hon. SCOTT FARLOW: [Disorder] the Government did give up its time on this. The Minister has outlined, as has the Chief Health Officer, that they are here for an hour. I have seen the correspondence back to the Committee and that was reiterated this morning and they were provided with a time line of 12.30 p.m. to 1.30 p.m. from the Committee. I think it is fair that they be excused to be able to go to the pressing issues of State today.

The CHAIR: Thank you, Mr Farlow. I will note that that is a proposition that has been put before by the Government members, but a majority of members on the Committee have resolved to have this session continue until two o'clock. Again, I would invite Dr Chant and the Minister to spend the next 17 minutes answering questions rather than having a procedural debate.

Mr BRAD HAZZARD: David, I appreciate—

The CHAIR: Minister, I do appreciate it. I know it is hard. I know you are tired. We all understand—

Mr BRAD HAZZARD: [Disorder] I agreed to an hour; you have had an hour and a quarter. That's it.

The CHAIR: Well, Dr Chant, I will ask this question of you. You and the Minister have both referenced the West Hoxton incident, which I think occurred on 19 June but was very clear to you by 23 June was an incident causing real concerns about the spread of the Delta variant. Is that right?

Dr CHANT: I would have to refer to the particular time that we were concerned about more escape into the community so I would have to just refer to my thinking at that time. Unfortunately—I am not trying to be evasive; I just have not had the opportunity to go through that time sequence. But clearly, yes, that is the concern—that at the time it was felt that it had got there very early, that everyone had been isolated before they would have become too infectious because of the time sequence. But that turned out to be not the case in that circumstance, or at least I think there are concerns that controls around that cluster were not in place.

Mr BRAD HAZZARD: It was 23 June, David, when the announcement was made about the West Hoxton cases, not 19 June.

The CHAIR: That is what I understood you said earlier, Minister. I suppose the difficulty I have with that is, if that is the date and the concern was spread from West Hoxton, why on 25 June was it only eastern suburbs local government areas that were the subject of the lockdown? Why was not West Hoxton being locked down at least on 23 June and definitely by 25 June? How was it that that decision was made at the time?

Dr CHANT: I think I would have to just go back to when—as I said, the initial intelligence was that the West Hoxton party was effectively controlled. Everyone had been immediately contacted within the time frame. There was subsequent emerging issues associated with that and I would be happy to reflect on the thinking at the particular time. I apologise to the Committee that I have not had a chance to go back over the notes and recollections in that regard. But I am happy to answer that on notice if that would assist the Committee.

The CHAIR: I appreciate that, Dr Chant. Dr Chant, at the moment there are significant efforts being made to provide vaccines to people in the construction industry to ensure the construction industry is open in part. Do you have any idea of the number of vaccines or the proportion of vaccines that are being directed towards the construction industry at the moment?

Dr CHANT: My understanding is that AstraZeneca is being made available to construction workers—I think on a Sunday at Sydney Olympic Park. That is part of an initiative to increase vaccination coverage and we are aware that a large number of construction workers live in those areas, yes.

The CHAIR: I have had a number of people contact my office—and I am sure I am not alone—very concerned about the fact that there are efforts being made to vaccinate construction workers before we have universal vaccination across New South Wales public health workers. People are suggesting that that is a very curious direction of resources in a pandemic. Surely, firstly, we should ensure that every health worker is vaccinated before we stretch limited resources to construction workers in a pandemic?

Mr BRAD HAZZARD: David, this is getting a bit ridiculous. You are holding us up here while we should be doing the work that we need to do while you tell us you have had some cases. I will answer that very clearly. There is a heap of AstraZeneca. That is what is going to the construction workers. Your question is out of order and wrong—

Dr CHANT: So I could perhaps clarify—

Mr BRAD HAZZARD: —again, and a waste of time.

Dr CHANT: Could I perhaps clarify that there are efforts going on every day to vaccinate healthcare workers. The healthcare workers in all of the clinics are prioritised. A number of the districts have put on mobile little units that are taken ward by ward to provide access. So the district chief executives [CEs] are clearly aiming to vaccinate all of their health workers in a better setting in terms of on site and making vaccine available to workers. I would just urge all healthcare workers to take up the opportunity to get vaccinated. But they are more local initiatives at the hospital and that is one part obviously of their health and safety responsibilities.

The CHAIR: Dr Chant, there has been a lot of disruption to HSC students with the Government's initial announcement and then pulling back from the decision to put HSC students back in Greater Sydney on 16 August. Was that consistent with advice you gave to the Government at the time—that it was safe to have HSC students return on 16 August?

Dr CHANT: So clearly with the numbers so high, my advice was that it was unsafe to have anything that increased movement and mobility. Clearly a range of measures were put in place so that it allowed for those welfare—and balancing those COVID risks with welfare checks on HSC students and allowing them to access perhaps their art and other small group learning. As the Minister indicated, sometimes the COVID risk has to be balanced against mental health and other issues, but the very strict COVID-safe measures were very small groups. Very limited contact was put in place. I provided clear advice that the risk was too great anywhere in the affected areas.

The CHAIR: When did you provide that advice, Dr Chant?

Mr BRAD HAZZARD: David, we are in the middle of a pandemic. We agreed to come for one hour and you are just asking questions which are just aimed at just having a go. Can you actually—you are the chairperson and you should stick with what you agreed so Dr Chant can get on with her work. Stop carrying on like you are running for the Senate, for heaven's sake. We know you are running for the Senate. Can we actually get on with what the arrangement was? The arrangement was that we come voluntarily for one hour. And you are wasting her time.

The CHAIR: Minister, I think that the Committee has endeavoured to ensure this is an even-tempered exchange of information [disorder]. I think that needs to be on both sides. My final question—

Mr BRAD HAZZARD: Let us put a halt to it then, David, because the arrangement was one hour.

The CHAIR: My final question to you, Minister, and Dr Chant is this: The Premier repeatedly says that all of the decisions that the Government has taken have been on the basis of health advice, yet it is apparent from the discussion we have had today that that is just one part of the matrix of information relied upon when the Government has made decisions about timing of lockdowns, extension of lockdowns. Will we get some clear written advice from you or some clear statements from the Government about what other factors other than the public health advice have been taken into account in the decision-making to date and, importantly, in the decision-making going forward?

Mr BRAD HAZZARD: That is why we stand up every day, David, for an hour with the journalists who ask those questions. We have done it for more than a year and every day we talk about the economic issues, the mental health issues, the education issues, the transport issues, the police issues. I am sorry. If you have not been listening, that is not our issue and that is the end of today's hearing. Thank you very much.

The CHAIR: Well, Minister, I just simply note that we repeatedly have the Premier saying that the decision is all taken in accordance with the public health advice, yet clearly there are other issues. Now I note that there is a point of order being taken by Mr Farlow but I may just invite the Opposition, Ms Sharpe, to ask one final question and that should bring us through to two o'clock.

The Hon. PENNY SHARPE: My final question is: Minister, the Premier indicated a week ago that she would be fully complying and working well with this Committee, particularly given that Parliament is suspended and we have very limited ways to actually ask the questions. She also indicated that she would make available the health advice with which decisions are being made to this Committee. We have had a letter from the Department of Premier and Cabinet that says it is difficult at the moment but it will look at the documents. Today you have said that you will not be providing any documents. Is that the case?

Mr BRAD HAZZARD: I am happy to provide in-crisis Cabinet documents, Ms Sharpe, but I will also say that this inquiry and Committee—when we were asked to appear, we agreed we would. You do not have power to actually have us come in but we came, and we volunteered to do that. I actually thought it was a ridiculous proposition in the middle of a pandemic to take away the Chief Health Officer, who is working 18 hours a day and sometimes longer, to do what we are doing but we have done it and we agreed to one hour. That deal has been broken so at this stage if you have any further questions, you address those to the Premier. Because we are not answering for the Premier, okay?

The Hon. PENNY SHARPE: Well, that is very disappointing, Minister. We are not asking questions on behalf of ourselves. We are asking questions on behalf of the millions of people who are in lockdown, who are doing it very tough, who every day you ask to take on trust that we are relying on the best health advice to take the issues that we have—

Mr BRAD HAZZARD: And we share that information.

The Hon. PENNY SHARPE: Your boss, the Premier, agreed that she would be providing documents to this Committee that would help us interpret that and provide information and provide oversight about that. If you are not going to provide that [disorder].

Mr BRAD HAZZARD: And we have shared the information with you on numerous occasions. We have had meetings with all the Labor Party, meetings with Liberal Party, meetings with the National Party, meetings with the Independents. We talk to you all the time. We talk to the public every day. But right now this is a bit silly—an hour and a half in the middle of the pandemic. It would be the first time in history that in the middle of a war a parliamentary committee has called an inquiry to ask us, "How did you make your decisions?" We have told you what we can, given you the best we can. But now it is just getting a bit silly. If you have got questions to the Premier, ask the Premier. Do not ask me. Okay?

The Hon. PENNY SHARPE: We will.

The CHAIR: Minister, I can assure you the Committee will continue to do its work and continue to do our job of trying to hold the Government to account. We will not have a history lesson about the way parliamentary oversight has happened in other moments of crisis but I simply note that you are wrong. I also note that the Premier of Victoria made himself available for the better part of a day to the oversight committee there. Many people look to the level of transparency in Victoria as a higher standard than we have seen in New South Wales. I hope that we can have a more productive exchange at a future hearing. I do know that other members—

Mr BRAD HAZZARD: I think that was just a political statement by you, Mr Shoebridge. So thank you for that political statement.

The CHAIR: Minister, I do know that other members have further questions.

Mr BRAD HAZZARD: [Disorder] exactly what you have been doing.

The CHAIR: I do know that other members have further questions, so it is unfortunate we have run out of time. But I think the most fruitful option to take at the moment would be to thank Dr Chant for her attendance today. Minister, thank you for your attendance today. To the Committee members, I would like to thank you for the respectful manner in which you have engaged in the questioning. We are doing this on behalf of some 5½ million people in lockdown and we appreciate as much transparency as we can get.

Mr BRAD HAZZARD: Thank you.

The CHAIR: To those on the broadcast, we will now have a brief break. The Committee will resume its deliberations at a quarter past two.

(The witnesses withdrew.)

(Short adjournment)

PETER COLLIGNON, Professor, ANU Medical School, and Infectious Diseases Physician and Microbiologist, Canberra Hospital, sworn and examined

TONY BLAKELY, Professorial Fellow in Epidemiology and Public Health Medicine Specialist, Melbourne School of Population and Global Health, affirmed and examined

The CHAIR: It being 2.15 p.m., I will formally recommence the hearing. I would now like to welcome our three witnesses for this panel, which will proceed for approximately 90 minutes. I invite each of you, if you choose, to give a brief opening statement. Otherwise I will pass over to the Opposition for the commencement of questioning.

Professor COLLIGNON: I presume I am going first. I am Peter Collignon. I am trained in infectious diseases and in pathology and microbiology. I have a joint position looking after patients and also in the laboratory, including doing COVID testing at the Canberra Hospital, and I am a staff specialist. I am also at the Australian National University [ANU] Medical School as a professor in infectious diseases and microbiology, a position which I have had for quite a long time. I am speaking on my own behalf. I am not representing anybody here and I am wearing my ANU hat because I am a staff specialist. I would need permission to speak on behalf of that position, but with the ANU I can freely give those views. As way of background, I have worked in hospitals for 40 or more years. I did my training actually mainly at Westmead Hospital and then moved to Canberra. I have got a lot of experience in research, predominantly in antibiotic resistance and the spread of bacteria but I also have done some on viruses—influenza, for instance—and their spread.

My other main specialty is infection prevention and control. I am the patron of the Australasian college of that nature, so I have had a lot of published and practical experience in limiting the spread of infections. I am also on a lot of national and international committees. I have been part of World Health Organization committees for over 20 years, again mainly on antibiotic resistance and the spread of those bacteria globally as well as locally. In Australia I have been on numerous infection control committees—meningococcus. I am currently on the Infection Control Expert Group for COVID from the Federal Government. I have also been on the Ebola one about seven or eight years ago when we had the Ebola. So a lot of experience in infection control and prevention, including published works, research and part of national and international committees. I am also part of a European infection control committee as well that I got asked to be in.

The CHAIR: Thank you, Professor. I think we are satisfied with your qualifications—extraordinary experience that you bring to the Committee. We are grateful. Professor Blakely?

Professor BLAKELY: I am medically trained and a public health medicine specialist from New Zealand, where I also did a PhD in epidemiology. I moved to the University of Melbourne about three years ago now. For the last 15 years I have looked at interventions and what effect they will have on health, health expenditure, costs, all sorts of things. We have got things like [inaudible] screening programs and in the last couple of years, like everybody else, we have pivoted to looking at COVID. So I lead a group at the University of Melbourne that has done modelling for the Victorian Government, done a lot of peer-reviewed papers looking at strategies and policies and how they might play out, infection rates, costs, health-adjusted life years et cetera.

I may just open with a couple of comments on the New South Wales perspective. I think New South Wales did show us last year that you can manage COVID from what I call a moderate elimination manner rather than an aggressive elimination manner. However, the virus has changed. It is very clear that the lockdown after 18 June—the start of the current outbreak—was not hard enough and was not fast enough. I think New South Wales faces an incredibly difficult path in the next couple of months. The chance of eliminating from here is slight. It is more going to be about bridging across, when the vaccination coverage is high enough, with the least mortality and morbidity and, at the same time, the least social disruption. Thank you.

The CHAIR: Thank you, Professor. A sobering introduction to your evidence. Professor Slevin.

Adjunct Professor SLEVIN: Thank you, David. My background is more in the area of non-communicable disease prevention. I have been a practitioner of public health for 35 years. I would very much yield to my two colleagues in terms of the technical aspects of both COVID as a virus and in terms of its epidemiology. My role that I appear before you today in is as Chief Executive Officer of the Public Health Association of Australia. We are a professional association of people working in the public health sphere. Our members are voluntary. They pay money to us for the privilege of doing more work for free that benefits other people. We are not a union; we are a professional association. Our primary responsibilities are in the areas of policy development, advocacy and professional development.

The opening statement I would like to make to you is more about looking to the medium to long term rather than the immediate crisis. It is very clear today—with the highest number in the pandemic so far in

New South Wales being announced—that the urgent is absolutely trumping the medium and long term and the important. My concern relates to the capacity of not just New South Wales but all Australian governments, both State and Territory and Commonwealth, and our capacity to respond to this pandemic as it evolves—and clearly we cannot see the end of the tunnel yet—but also the next pandemic and the one after that.

So my interest is in the area of public health workforce, issues relating to the organisation we have in place to respond to this and future pandemics, the need for national organisations and structures to learn from this experience and get better next time to improve the extent to which we cooperate, our infrastructure, our capacity, our systems and our communications capacities. So my evidence is primarily going to be focusing on that long to medium term and on the immediate technical aspects I will most certainly be deferring to my colleagues.

The CHAIR: Thank you very much, Professor Slevin. I might say at this point there is national gratitude for the contribution from public health experts and I pass on that gratitude as well for you and your members and the profession. I might now pass over to Ms Sharpe to commence questioning on behalf of the Opposition.

The Hon. PENNY SHARPE: Thank you very much for being here today. Your advice and thoughts are very welcome. My first question is probably the most obvious one, which is that, with 356 cases today, the number is not going down over time. Did New South Wales take too long to lock down? Perhaps you, Professor Blakely, given that you started [disorder].

The CHAIR: Can I briefly make an observation to all Committee members. When you ask a question, could you nominate the witness that you would most prefer to answer? And could I ask the witnesses, when you are answering, for the benefit of Hansard—I know it is going to sound repetitive—if you could at each occasion commence the answer with your name that would be really gratefully accepted on behalf of Hansard. I am sure I have failed in that at different points throughout this Committee so we should keep reminding ourselves.

Professor BLAKELY: Tony Blakely. The answer to your question is yes. The lockdown was too slow, not hard enough and has actually got New South Wales into the predicament it has now and the rest of the country exposed to incursions. That is a simple statement of fact. The vast majority—I do not actually know an expert outside of New South Wales who, in that period from late June to early July, was not bewildered that there was not stronger action being taken at that stage. I also want to emphasise that the past is the past and there have been different ways of managing this pandemic all around Australia, all around the world, and we have learned from that diversity and we have learned from this.

We now know that the New South Wales approach emphatically—I think we could have predicted it in advance; in fact, I do believe we could. But we emphatically know that the New South Wales approach of that what I call moderate elimination of last year is not enough for Delta and the Premier agrees with that herself now. It is utterly clear. So I think the emphasis today is thinking about how do we get through this and what do we do next? That is my answer to your retrospective question.

Professor COLLIGNON: Peter Collignon. Can I make a comment? I actually think, even in retrospect, that is a bit of a hard question to answer. Do you lock down with one or two cases per day? Because that is probably what you would have done. In retrospect, I think the answer is yes. I think it would have been better if they locked down earlier. But when I look at the numbers, they basically locked down some local government areas I think about the Thursday, when there were still not a lot of cases, but it was a Friday and Saturday that they really kicked up. My view always about lockdowns is you want to avoid them but, if you have got a lot of mystery cases and you get a large number of cases, then it starts overwhelming you. You have so many places. So I think the answer in retrospect is yes.

But even if I look at the figures, what I worry about is the superspreading events. I was particularly worried personally about that Double Bay hairdressing salon that had three infected workers and 900 customers and I thought, "This is going to be really bad." Perversely, I do not think that got bad but what was the real problem was that seafood place, where I think, on the following day after the lockdown, of the 30 cases, 10 were related to that seafood. I think the problem when you have got any establishment that distributes food and it is cold and refrigerated—and I look at the Cedar meatworks in Melbourne last year—you get a lot of cases and you spread them.

The other trouble is they are essential workers. So even if you have done a lockdown, you may have not stopped those people from moving around. Even when I look over the next week or so, I was optimistic—"Look, they have got this under control with this lockdown." The numbers were sort of flat and even going down a bit. Then they kicked up in I think it was about 10 July. I will have to look at the exact dates that are in the epidemiology report from NSW Health. It actually looked like, "Oh, you are getting on top of this."

The real problem I have with lockdowns—if you do them, my own view is there is no point doing them for less than seven days and you probably have to do them for 14 days because the average incubation period is

five days, and 14 days is why we put people in isolation because they can pop up. Providing you have got reasonable contact tracing then I would think, well, there is some number—and obviously it is less than where they went. If you do a hard lockdown, does that mean the whole State? As it is, it has still been local government areas where it has really kicked up. In the Eastern Suburbs, where it all started, it has gone down; even in Fairfield it has gone down with the current restrictions. A lot of the problem, I think, is people not following the rules. Now, how you do that—you cannot just do it with police; you have got to have behaviour of the group.

But to some degree, I think even in retrospect it is a little bit difficult to be dogmatic—and if you are, what number do you pick? Should you have done it a week before when you only had 10 total cases and two a day? I would think most people would not have said that because I think that is when you would have had to do it—and you still may not have stopped it because of these essential workers, particularly in the food industry. I think that is still the problem now. As it was, it is my understanding, in Melbourne last year it is essential workers getting infected at work, bringing it home and spreading it to the family and then people not necessarily following the rules. One of the big spreading events was that party on that Saturday night of the lockdown. Again, that should not have happened, but it does happen and it spreads it. I still think it is a little bit difficult, but I do actually think in retrospect it would have been better if they had gone earlier. Harder? I am not sure, if you look over the next one week to two weeks, whether that would have made a difference. It is when people break the rules, and that can happen even when you have got a lockdown.

The Hon. PENNY SHARPE: Mr Slevin, are you going to have a quick go at that one?

Adjunct Professor SLEVIN: Penny—if I may call you Penny—my response to that is—

The Hon. PENNY SHARPE: Yes.

Adjunct Professor SLEVIN: —that the "retrospectoscope" is an extraordinarily useful tool sometimes. It is important to put this in context. Australia has done extraordinarily well in the response to this pandemic compared to most countries around the world. We can see the comparative international data and that is fairly self-evident. One might argue that one of our greatest advantages—that dirty great big moat around us—provides us with an extraordinary advantage compared to many countries around the world. Nonetheless, the public health workforce—my membership, the people who have been advising governments from the beginning—have done their very best. There are not any perfect answers and it is important to understand that that there is no country around the world that has done this perfectly. Every single day the public health workforce is being invited to predict what is going to happen next week or next fortnight, and that cannot be done with precision or perfection.

There is the balance that we have seen debated over the last 18 months or longer in Australia about the relative merits of locking down and the adverse effects that go with those—and they are undoubted—versus the benefits that are achieved by them. Various turns of phrase—"ring of steel" or whatever else it might have been—are shorthand for expressing harder or less aggressive responses to the pandemic. The truth is I think we will be studying this for 10, 15, 20 years to come to get a better understanding in the context of a virus that continues to evolve and mutate and change. Increasingly I am trying to urge people to have an understanding that there are not any perfect answers. Certainty has gone out the window—it is not available to anybody—so it is absolutely a combination of the best available science that we can get access to in a changing environment and a challenging circumstance where every single decision is front-page news every hour of the day and has been so for 18 months.

There are real people making these decisions and they are under extraordinary pressure. At times you see that pressure showing, and sometimes showing in extraordinarily public ways. I do not know anybody who is perfect. I do not know anybody who has dealt with this perfectly. But my exhortation is to try to shift more of the emphasis away from blame and focus more on reasonable decision-making and finding the best possible way forward. There is a range of things before us that we can do constructively. Yes, we should debate the best way forward, but I would like to see that done with a greater level of regard and respect for the people who are absolutely doing their best and busting their guts to respond to the most extraordinary assault on public health we have had in a century around the world.

The Hon. PENNY SHARPE: Thank you. Can I just be very clear: I am not seeking to apportion blame. I am trying to ask questions that will help us on the way out but also, which goes to my next question, on the way in. That is really about the information, governance and decision-making structures. This morning we had a long discussion. We are all pretty familiar with how Cabinet works and we understand the process at the top of the chain through the Chief Health Officer, and we all think that Dr Chant has been doing an extraordinary job and her team has been doing that as well. But at that next step backwards, when the public health office is getting that information and you are starting to look at those numbers tick up, people such as yourselves are watching those day by day. What works well in terms of getting that information to where it needs to finally get, which is to the Chief Health Officer? Can you provide some information to the Committee about how that works, if you have

been involved in that? That is directed at whoever has done that, whether it is through local health districts or your experience in Victoria, obviously, Professor Blakely.

Professor BLAKELY: I will have the first go. I have a perspective on this as a recent arrival in Australia. I am quite stunned at the lack of collegiality in how information is provided to government. For example, the reliance of the Federal Government on the modelling from just one group, the Doherty—that is not how the UK do it. They have three people—three groups—because any model could be wrong but if three models give the same answer you are fairly confident as a policymaker. I think this privileging of modelling from one group is anachronistic; it is just not the way to do it. For example, we need formal mechanisms whereby that information can be provided from multiple groups through to Federal Government or State Government, for that matter. That is quite a strong view on that.

I pivoted over from non-communicable diseases modelling, largely, to infectious disease modelling so I am seen as a Johnny-come-lately, right? Nevertheless, our modelling was remarkably accurate for Victoria coming out of the second wave and was indeed used by the Victorian Government. But actually getting that modelling information—not just from our group but from the Burnet Institute, the University of Sydney and Prokopenko—before policymakers in a way that it is even acknowledged that it is received has proved to be impossible. Therefore, we use the media. I do not think that is ideal.

To that end, I am happy to say that our group, the Burnet, University of Sydney and also George Milne at the University of Western Australia are launching—this Friday or next Monday—an initiative that basically just combines all that modelling in one place so the public and policymakers can see it in one place. We are going to emphasise when the models agree and when they disagree to try to get past this idea that there is privileging of information from one place. Those would be my views on the modelling side—and that most of my influence on this pandemic, if there has been any, has been through the media. I do not know whether that is right or wrong but it is what it has been.

Professor COLLIGNON: I do not have any inside track to NSW Health, I might say, so I cannot speak about them. I am on this Federal Infection Control Expert Group, which effectively answers to all the chief health officers. There is a process there: We get asked questions, we consider it as a committee, we send the advice up and it gets looked at. I gather it is privileged while it is going through all those processes. It takes a while to come out with guidelines et cetera. That is the reality of being on any committee that answers to any level of government.

As far as information coming out from various States, I rely on the press releases or the press sessions that are done each day for New South Wales, and also then what is in the media and the analysis done by ABC and other media people who ring me a lot. I guess I get it a bit earlier and they tell me because I make a lot of media comments. I rely on what is in the public arena. I guess it is a little bit delayed, what actually is officially printed, particularly in analysis. NSW Health put out their epidemiology reports, which I look at. They are always a couple of weeks late at least but there is a reality in how early you could do that.

It would be nice if more information could be out a bit earlier. I realise there are issues. You cannot do it the same day because just tracking down cases takes you time and there are other priorities, but I guess it would be nice to see more official sources of information a bit earlier. The ABC and others can do, I think, a very good job with a lot of their analysis of the numbers. I use a lot of that, plus you do your own and I rely on colleagues. Nationally, by email and others, we say, "Well, what about this?" and you make some decisions on that as well. It is an informal network where I get a lot of my information until the official figures come out.

Adjunct Professor SLEVIN: In terms of the infrastructure in New South Wales it is important for you to understand that, in terms of public health infrastructures in Australia, New South Wales is probably out in front. That is not because of the actions of this Government or the Government before that or the Government before that. In 1988 there were efforts put in place by Dr George Rubin and Dr Sue Morey to establish a public health infrastructure in New South Wales with the metropolitan and regional public health network. Along with that, they established the public health officer training program. That has been going for more than 30 years. Just looking at some of the metrics of that that they have reported to one of our recent conferences, there have been 190 enrolments into the public health officer training program and another 108—

The Hon. PENNY SHARPE: Professor Slevin, thank you. Sorry to interrupt you. I have just realised I have only got about three minutes left of this session—this is my little bit—and I have got one particular question that I wanted to get to, so I am sorry to interrupt you.

Adjunct Professor SLEVIN: No problem.

The Hon. PENNY SHARPE: There was a lot of discussion this morning about what the conditions are with which restrictions would be eased. There was talk about the reproductive rate; there was talk about

vaccination rates and what are the types of restrictions. Do each of you have a view on the conditions with which the lifting of restrictions needs—what needs to be taken into consideration?

Professor BLAKELY: We are modelling this right at the moment. I cannot fully disclose what we are finding. What I will disclose is that, yes, firing up the vaccination coverage does help bend the curve, but not as much as we would like because of the delays, and that actually the maintenance of as strong a lockdown as society can tolerate is going to help bend this curve the most. If it is relaxed too early, the number of hospitalisations and deaths could be quite something. As to when to release, I initially had sympathy for Gladys Berejiklian saying we could probably ease things a little at 50 per cent. What we are seeing at the moment and will launch in the next couple of days would suggest to me that may be too optimistic because this virus is behaving in a way that is really quite hard to deal with. That is all I can say at this point.

Professor COLLIGNON: My view is that I think this is difficult to answer and I think it is dependent on two factors: the rate of new infections—is it going down or stable?—and also the number of people vaccinated. I would not ever do what they have done in England—"Hey, every restriction is off." I think this will be a gradual reduction in restrictions. My own view is we will have restrictions until probably April or May next year because we need to see what is going to happen in the next Northern Hemisphere winter. The other thing is that even if you relax it, how many people can visit your home? There is going to be restrictions on that for quite a while.

With time—and I think it will be more November—we will have to change from looking at the number of cases to the number of hospitalisations and deaths. This will eventually become a pandemic in the unvaccinated and there will have to be a change of focus. At the moment I think it has got to be on cases because the consequences are still quite significant, because we have not got enough people vaccinated. But come October-November, particularly when winter and early spring is over—viruses spread less often, plus we will have more people vaccinated—then I think it is a different viewpoint we probably have to adopt.

Adjunct Professor SLEVIN: To add to what Professor Collignon said, I think all of that is right. I add to that that the monitoring that is going on in relation to the cases that are active in the community prior to being diagnosed is also going to be an important metric. But I think Professor Collignon is right: It is going to be longer rather than shorter in terms of being able to safely come out of restrictions. The restrictions—and how stringent they are—will have to be adjusted. Again, it is a trade-off: What risk are we prepared to take in terms of the health of the population and the most vulnerable as against the freedoms that are being sacrificed to protect those people? There is not a perfect answer.

The Hon. PENNY SHARPE: You are not helping at all with that, but thank you.

Adjunct Professor SLEVIN: I am sorry, but uncertainty is what we've got!

The Hon. PENNY SHARPE: No, I appreciate that. Thank you very much.

Ms CATE FAEHRMANN: Professor Blakely, we just had the health Minister giving evidence this morning. When questioned about this 27 August deadline and the promised 50 per cent vaccination coverage to allow us to have some restrictions eased the health Minister said it is about providing people some hope. You have just maybe dashed people's hopes by the science and the public health evidence and expertise that you have. I do not want to throw a wet blanket over all this, because it is important for people to have some hope, but it is also important for people to have the right information and be able to plan and know what is ahead of them. You are saying, essentially, that the 27 August deadline is going to lead to too many deaths for the Government to consider relaxing restrictions then?

Professor BLAKELY: Both Professor Collignon and Adjunct Professor Slevin mentioned this. It is about how you release. As far as 27 August, and pulling back a sec, New South Wales up until a little while ago had two choices: go hard, go for elimination, get it down to zero and then join the rest of the country through to November—I think that has largely gone now, unfortunately; or a messy bridge across until October when the vaccination coverage is high enough that we can manage it better. It will never be perfect. We are in that camp. On 27 August if New South Wales suddenly released and went to a soft lockdown across the whole State it would be bad. The numbers would go up quite horrifically.

But that is not to then say that there are not some targeted things that can be done with Kerry Chant and crew looking closely at the data. For example, there may be parts of the construction industry you can let back. There may be other industries that you can provide a little bit more access to. But I fear it is not going to be as much as what we had hoped. I myself hoped it would be more by the end of August. I think having some form of targeted relaxation when you get to 50 per cent is actually—it is desirable, if not essential, because we have to have some positivity and some carrots for the population. But please do not think this is going to be celebration day when you hit 50 per cent on 27 August; it is far from that and there will be a trade-off. By relaxing a little bit—if I draw a curve, there are your case numbers going up and maybe by 27 August they have just peaked. If

you relax, it will take that long to get down, whereas if you stay tight it will take a shorter time. You have got to trade-off: "What do we value the most: more liberties—and it will take until December before we pull them down to 100 per day or whatever the prediction is at that point—or do we stay hard and get it to 100 by the beginning of November or whatever the prediction is?" But that is the choice function.

Ms CATE FAEHRMANN: The Doherty Institute modelling is certainly frightening. Even under 50 per cent vaccination coverage with light restrictions only, it does suggest nationally potentially 10,300 deaths. That is with 50 per cent. This is kind of what we are dealing with. Can I just ask about the capacity of our hospitals? Adjunct Professor Slevin, I was informed that in fact when northern New South Wales went into lockdown last night Lismore hospital had no beds available and Byron hospital was also very low on beds. Do you understand the capacity or lack of capacity in regional New South Wales, particularly when it comes to available ICU beds? Is that a concern? Does the Government need to do more in that area?

Adjunct Professor SLEVIN: The short answer to your question is no, I do not know enough about the capacity in terms of ICU beds in regional New South Wales hospitals to answer your question with certainty. But as a principle, it is certainly the case that the kind of modelling that Professor Blakely, the Doherty and others have been doing is in large part about informing and answering questions of precisely that kind. But NSW Health, through its public health unit network, does have the answers to those questions. The 15 or 16 public health units are based largely with the public hospital systems and they do have an intimate understanding of their regional capacities with regard to their clinical response. I defer to Professor Collignon on that front with regard to the relative number of severe cases versus mild cases et cetera and what kind of clinical intervention is necessary. But the broad principle is that the more we relax the public health restrictions, which are broad, population-based and restricting people's freedoms, the greater we place the risk of further demands and burdens on our clinical infrastructure.

Professor COLLIGNON: In answer to that I do not have exact figures, but whenever you have anything happening in regional areas you have got less capacity than if it occurs in the city. If you get overwhelmed you have to transfer people to where most of the ICU beds are, which is in the city, but that is obviously not preferable. My understanding is that around Australia we have got a lot of ICU beds and proportionally not many are taken up with COVID or expected to be. That could change. I know in Canberra, for instance, we have built another whole hospital next to our current hospital just for COVID cases, which I hope we never have to use. But it is there as excess capacity. I think there has been a lot of planning in New South Wales for that as well. But that is a trade-off: If you do that it means there is a lot of elective surgery, including serious elective surgery, that you are not doing because you are trying to free up those beds in ICU. The more beds you have in ICU—because they are never all that empty anyway—there is something else you cannot do instead. Complicated, life-threatening elective surgery you might need for aneurysms, heart disease et cetera may get deferred or put off. It is a trade-off.

But I do not think we are going to go the way of the UK and the US, where they have 20 per cent of their population infected. I do not actually think this is going to turn around in Sydney anytime soon, but I do not think we are going to get 500,000 people infected either, which is 10 per cent of the population. I think we should be able to cope but it will be at the expense of other things. My own personal view is that we do not have enough public hospital beds anyway, even before COVID, but that is a separate issue—I am never popular for saying that. I think we can cope but it will be at the expense of other things. Northern New South Wales, for instance, very much depends on Queensland for a lot of their complicated cases. That may be an extra complicated issue because of these trans-border—Lismore and all those areas are very dependent on Brisbane, so those are political decisions as well. But in theory I think we should be able to cope with likely control by—restrictions are going to stay on. That should keep the numbers down.

The only good news about all of this—I know this is hard to believe—is that I think we are in a better position than last year in Melbourne, where about 3 per cent of all people who got infected died. That was because proportionally there were more older people. Because we have generally got a much higher rate in people over the age of 70 in particular—not enough, but reasonably high—I do not think we will see the same death and ICU admission numbers per 1,000 people admitted—but it still will be reasonably substantial—that will put a strain on our system.

Ms CATE FAEHRMANN: Thank you. That was a very good, comprehensive answer. I now turn to the lockdowns and whether you think that there is anything further—let us just remove the economic impact; I do just want to see whether there is anything you think we could do further in terms of lockdowns to reduce the case numbers of the Delta variant. Clearly there is always the economic trade-off to the health costs—we have heard about that and we hear about that all the time. But I am wondering, with all of you as public health experts, whether there is more that can be done in terms of restrictions?

Professor BLAKELY: It is actually fairly hard to tell from outside New South Wales what is really going on. We found it very hard in our meeting to try and settle on exactly what stage New South Wales is in. Can you do more? Yes, you can always do more. You asked me to put aside the economics and the social issues so I will. Further tighten up the definition of essential workers; use that same degree of lockdown across all of New South Wales so you move beyond LGA or postcode—I am not saying this is the right thing to do but you asked whether there is more that can be done; expanding the use of rapid antigen testing for workers going into workplaces, if you can dial that up quick enough. That is actually not a lockdown so that is something that is not impinging people's civil rights as much. That would be a good thing to do.

Now we are on to compliance: ensuring that masks are worn properly; ensuring people wear masks; checking that people are staying at home when they are in isolation because they are actually a case or in quarantine because they are a contact. There are all these extra methods—this is more moving on to the airline industry, where you look at it as a totality and you are trying to find all those little quality improvements that can sum to more than each one of them separately. That is as much as I can say because it is hard to read from outside New South Wales, I have to say.

Professor COLLIGNON: If I can comment on that, I think there are more things we can do. I think you do have to look at the balance. I am not sure of the value of locking down all of New South Wales, for instance, but that is a separate issue. But what can we do? What I think is important is that people wear masks properly—that is number one. Number two is we are neglecting eyes at our expense. I have had a strong view on this for over a year, but I think there is very good evidence that if you have got particles that are infectious then eye protection is very important as well as protecting your nose and your mouth. What you deposit in your eye goes into your nose. I have just been involved in a study we are trying to get published that shows if you wear face shields on top of a mask if you are a healthcare worker you probably get an extra 50 per cent protection. Okay, it is not perfect and it is available—that is the thing—but I think we are neglecting eyes. I think we should have essential workers wearing face shields as well as a mask.

I think also we should not allow people to use the tearooms to eat. Go outside and have your sandwich. If I look at Melbourne last year, and also if I look at Tasmania when they had the outbreak, a lot of that was they got it from patients but then it was staff to staff: travelling in cars together—I know you are not supposed to do that; tearooms; handover rooms. They tend to think of their colleagues as safe and they do not take the same precautions. It definitely is the four-square-metre rule. If you are doing handovers, try to be in separate spaces and do it like we are doing now with this hearing. It is all of those things. Again, it is actually getting the rules followed that are supposed to be followed—households not visiting other households. It is a mixture of how do we get behaviour so we do what actually you are supposed to be doing. But I think there are a few more physical protection things we could do, particularly to essential workers, that I think we need to tighten up and really say that. Now, I know the science is not perfect on this eye protection but I think there is enough to show, "Hey, what harm does it do?"—and it may do a lot of extra good.

Adjunct Professor SLEVIN: A very quick answer to the question: Absolutely there is more that can be done. Blunter tools that are clearer and rules for all that everybody has to follow and understand are more readily taken up and followed than those more nuanced by geographical area, by subgroup of the population-type rules. There has been a level of uncertainty, I suspect, around New South Wales about exactly what rules apply to what people and in what circumstances. While there is absolutely adverse effects associated with those uniform, blunt, consistently applied rules—they create greater restrictions of freedom for more people—it is relatively straightforward to understand that more people understand clear, blunt, apply-to-everybody rules. Yes, they are more restrictive and they come with that price. When we heard, I think, the Chief Medical Officer talking about a "circuit breaker" I suspect that is the kind of thing he is likely to have had in mind. Whether that is an acceptable message to the population at this point in the cycle of the pandemic is a different question. But the simple answer to your question is yes, there is more that could be done.

The CHAIR: Professor Slevin, that might be a useful stepping-off point. There is some discussion about some nuanced changes happening over the next few weeks, which may provide relief to some parts of the population but at the risk of potentially lengthening the curve in terms of reducing case numbers. From a public health perspective, what is the difficulty of chops and changes in the messaging and does that have an impact in terms of the reception of public health messages?

Adjunct Professor SLEVIN: The short answer is absolutely. I guess this is one area I do feel reasonably confident in. It is an area of public health I have worked in for 35 years. The more complex and nuanced the message, the more difficult it is for people to firstly understand and, secondly, follow. The blunter, the more direct, the clearer, the more binary the advice the easier it is for everybody to understand and everybody to follow. But very clearly the trade-off there is greater levels of freedom are restricted for a greater number of people and there are adverse effects that go with that. That is the bind that every government is in—not just the New South Wales

Government but every government around the world. Again, I go back to earlier statements. If you want me to say what is the best way forward, my answer is I do not know that I can offer the perfect response. It is about risk appetite, and that is an extraordinarily difficult balance act to strike in the context of this virus.

The CHAIR: Professor Collignon, I might ask you to respond on that issue and then Professor Blakely—particularly whether or not modelling takes up how the public responds to more complex, nuanced kinds of messages, or does the modelling encourage fairly blunt and direct messages?

Professor COLLIGNON: I think I agree that the simpler the message, the better. But as I understand it the main messages being given out are "get vaccinated" and "stay at home". I think they are the basic messages we need to do. Then it is the exemptions that are the issue. In some LGAs you can move—so I agree the basic messages are do not have anybody at your home, do not visit anybody else and do the minimum time out of your home that you can to other indoor situations, including grocery shopping. Personally, I think we need to message more the essential workers about some of the things they should do that I think probably are increasing their risk that would not make a lot of difference and decrease their risk. Even things like at home, if anybody is ill keep away from them—separate yourself, even in your own home—because that decreases the chance of other family members. That is difficult the more socio-economically you are deprived or the harder it is to do that because you have got more people in the one house. Again, I would take advice from others on how best to do that, but I think the simple message is get vaccinated, get vaccinated, get vaccinated, and also stay at home—do not move around and do not associate with others, other than the essential things that you are allowed to do.

Professor BLAKELY: As a principle, the simpler the message the more effective it is. Unfortunately, though, that is not simple. Just witness the AstraZeneca issue. We can all use hindsight to see how that could have been done better but there is the occasion for nuance that has to be used sometimes, with AstraZeneca being a case in point. I do think for the majority—not all—of the population they have handled it quite well when we have got these contact sites coming up on websites all the time and you can find the restrictions that apply to your LGA. I know it is not ideal, but sometimes you can at least mitigate the fact that the messaging is channelled or pluralistic.

You asked me about modelling. The modelling that we do, at least, does include lack of compliance. We assume that compliance wanes away. But I could not tell you how to prioritise that for Sydney at the moment. There are some things we look at and go, "I'm not sure." As far as being able to accurately model what is happening in Sydney because of lack of compliance, I would actually do it backwards and say, "Can we replicate what is happening in Sydney now and loosen some of the compliance?" But this may be things that the Doherty, with their access to more data that is provided, could perhaps be looking at more closely—and I would suspect that they are, because they have said that they are pivoting towards looking at New South Wales modelling.

The CHAIR: At the end of the day, one of the key determinants of when we will be able to lift restrictions is a percentage game: the percentage of the population that is vaccinated. We continue to hear discussions about the percentage of the adult population that is vaccinated but there does not appear to be a pathway to having children vaccinated. We know in the United States and other jurisdictions that millions of children ages 12 and above have been vaccinated. What do you understand to be the restrictions, or why are we not actively promoting vaccination for particularly children 12 and above? I might go in reverse order if that is okay with you, Professor Blakely?

Professor BLAKELY: There are quite a few questions in there. First, why are we not vaccinating 12- to 16-year-olds? That is simply because we have got other priority groups at the moment. The priority at the moment should be people who are still out in the community because they are essential workers, regardless of their age. That is where the priority should be at the moment to stem transmission. Then we have got the fact that the Therapeutic Goods Administration approval is not yet in place for two- to 11-year-olds. That will come through in due course. I am optimistic, based on our progress with the vaccine rollout at this point in time, that we will start vaccinating children down to, let's say, five years—maybe just secondary school—before Christmas and you can get that moving. We need to, because this virus is so infective that we will not achieve herd immunity through vaccination alone. But as many people vaccinated as possible allows us to loosen other restrictions.

The final comment I would make is that one of the things that we have modelled at this point—and we are updating this on our website; it is pandemictradeoffs.com, very simple to remember. What we have done there is we have actually said to people—down the bottom you can go in there and you can say, "What number of deaths would I accept in the next year? What number of hospitalisations? And what percentage of time in lockdown?" and you can see the policy combinations that achieve that. The X is not just the vaccine coverage; it is the vaccine coverage in kids and adults. It is also how loose we have our international borders. It is what policy settings we use as far as the level of suppression we do in our country. We have a toolkit that has got more than just vaccination in it. I believe over the next couple of months that is where we will shift our discussion to: what settings—once

we get to the 80 per cent vaccination coverage we will shift to that discussion. But at the moment we have got to help Sydney and New South Wales bridge across there with the least harm on the way.

Professor COLLIGNON: Just in answer to that, I think we will start vaccinating teenagers at least because they tend to have a much higher risk of getting infection and transmitting it than younger children. The real issue still is adequate vaccine. I would not probably give the AstraZeneca to 12- and 15-year-olds. First of all there is no data and secondly there is that risk. It is about stopping spread in society—but none of the vaccines do that with 100 per cent success. They are much better at stopping you dying and getting seriously ill. But in any group we vaccinate the benefits have really got to far exceed the risks. That is why I think a 35-year-old has a priority over a 15-year-old—because I still think they are at more risk—until we get adequate supplies of vaccine. I think that will happen in September-October and we will have a lot more data from other countries—the US, Canada—to know the safety profile in that age group as well.

If I look at England, where I looked at the data both for all their viruses, I think they have only had 22 deaths in children. You can say, "Oh, that's a lot," but it was predominantly in people with underlying diseases as well—Down syndrome, neurological problems. It was very uncommon—I think it was a rate of about one in 500,000 children—and you have got to remember probably 20 per cent of them have been infected. With younger children, unexpectedly, unlike influenza—for every virus you can think of, children have five or 10 times more infection than adults and are the way to spread it. Just look at kids you have got at preschool and playgroup. This is behaving differently. I think there is an onus to have adequate safety data, particularly in children under the age of 12, before we roll it out because the benefit for them is pretty marginal to them as an individual, if you look at their chance of going into hospital or dying versus what we do not know about the vaccine.

Do I think we will have to vaccinate all children? Yes, we do. I do not think it will be until probably next year because I think it really is important we have data with some really adequate follow-up. I do not think it is reasonable to vaccinate children for the benefit of adults because adults should get vaccinated themselves. I think we have got to be careful about not overdoing children below the age of 12 until we really have adequate data, safety and reasonable follow-up because this is behaving differently to other viruses. Who knows what will happen with their immune reaction? It may be different in children than adults, so I think the data is really important to have.

Adjunct Professor SLEVIN: I will be very quick. The first answer to your question is supply, and the second answer Professor Collignon has explained very well. But the one advantage it is really important to drive home is we actually have the luxury of learning from what is happening as live experiments in other parts of the world. That is ultimately what we must do to get the best possible benefit for our population. There are guinea pigs and trials real-world going on in the UK and the US. We must learn from that—and happily with the infrastructure in place we can. The truth is that with the luxury of the relatively low numbers compared to those populations we can gain those lessons and our populations will benefit from it. The notion about the "race"—it is worth understanding that not being at the pointy end of that race provides substantial benefits for us.

The Hon. SCOTT FARLOW: To all the panel: How different is Delta? Professor Blakely, you started off by saying that we have certainly seen a difference in how New South Wales has been able to approach this outbreak with Delta compared to the success we had previously. But how different is the virus in how it is presenting, its reproductive rate and—following on from that discussion of children—how it is presenting in younger age groups as well?

Professor BLAKELY: Thanks, Scott. There is quite a lot there. First of all, we are seeing studies where you have heard of a thousand times higher virus shedding for Delta compared to other ones. Data out of the Chinese Center for Disease Control and Prevention paper published about three weeks ago shows the time from when one person is infected to when the next person is infected—there is a huge range, of course, but on average we have seen that pull back. The generation time for Delta is less than what it was for the other ones. We see that because in our contact tracing we see these people spreading it 24, 36 or 48 hours after they have been infected. What that means is that reduces the window that the contact tracers can exploit. They used to have a window that wide. It depends on how quickly things are moving, but let us say it was four or five days before the average person who had been infected became infectious. Now that is reduced, and that really makes contact tracing not as good as it used to be. We still need it.

As far as the number of people you infect, again we do not know because you would actually need a world where no COVID measures were in place. But roughly speaking, with the old variants and Alpha, one person who was infected would infect on average 2.5 people in a pre-COVID world. We do not know what Delta is up to but the CDC about two weeks ago had a lovely graphic showing where it is on virulence—that is the damage it does—and infectivity. They are putting it anywhere between five and nine now. We accept that it is at least five; I do not know whether it is nine. But to give you some sense of where we are moving as a modelling

group, we are now including in that Pandemic Trade-offs tool—the next iteration will be launched later this week—six, 7.5 and up to eight. We are including that whole range. We do not know where it sits but it is certainly more infectious than what it used to be. I hope that helps.

Professor COLLIGNON: I think we do not have the right answer. There is no doubt it is more infectious and it is infectious earlier. Probably more asymptomatic people can infect others. That is the bottom line. Data I have seen is that if you take the Wuhan strain as having an infection factor of one, the Alpha UK strain was 1.5 and this is two. It is 50 per cent more than the Alpha UK strain. To put that in perspective, data I saw from Public Health England—if you have had close contacts in a family with the UK Alpha strain, from about 8 per cent or 9 per cent of people in the household got infected. Following up 15,000 close contacts, I think it was about 13 per cent—so again, 50 per cent more. The actual number we do not know; there is no doubt it is more.

I think the problem is that because there is viral load earlier you are actually transmitting it earlier, so instead of the average incubation period being five days it may actually be earlier—four days—but probably for just as long and with higher viral load earlier. Is it more virulent? Does it cause more disease? It is a bit hard to know. There were more hospitalisations in Scotland and England but the death rate was not higher. It is very much dependent on the age of people. If you are an 80-year-old and you get it, you have a 15 per cent mortality, while if you are a 30-year-old it is one in 10,000. Vaccination has changed the age group that is more susceptible. At the moment it may be more virulent or more aggressive, but there is not a lot in it. But there is no doubt it is more infectious and more transmissible, and probably earlier.

The CHAIR: Thanks, Mr Farlow. I might just hand it—

The Hon. SCOTT FARLOW: If I can just continue on, please, Mr Shoebridge. I want to ask as well with respect to how we are seeing the virus present around the world. We have of course seen Delta provide escalating cases globally, often in highly vaccinated communities that are more vaccinated than our community has been. One area that strikes me as having had some effect in bringing Delta under control is Singapore, although it is early days. It has a fairly large case load at present but in a largely vaccinated community, and they are seeing a downward trend in the curve there. I am interested if any of you have any views on what Singapore is doing or anything that we could perhaps use from the Singaporean experience in going forward.

Professor BLAKELY: Sorry, I do not know enough about that. I will pass.

Professor COLLIGNON: Delta is actually an issue because it does come up. If you look at the UK data, their numbers are going down. I do not know why they are going down; they are moving around. Even in India, where they had that big peak, it has gone down too. There really has not been a lot more vaccination; I presume people are just changing their behaviour. Maybe those who do it less properly are the ones that get infected early. I think they still have large numbers of testing. Singapore has had a very similar approach to Australia. The other place that has had a similar approach that has been successful is Taiwan. They had an outbreak of 300. It was a mixture of Alpha and Delta, but they did get it down as well. I think it is basically that doing the basics gets the numbers down.

It also shows, if you look at Israel or Iceland for instance, that you have to start changing what you look at once you have a large proportion of the population vaccinated. You have to look at deaths and hospital admissions. You have to remember every winter we have about 3,000, or 4,000 or 5,000 extra deaths from influenza, respiratory syncytial virus [RSV] and the common cold virus. This will become endemic, in my view, but we should not let it become endemic until we have a high population vaccination rate because otherwise the consequences are too high. That is why I think restrictions are going to be with us for a while, particularly significant ones until the end of our winter and early spring and obviously more so in Sydney. But Australia-wide, I think we need that until we really do get all the people vaccinated that can be. My hope would be 90 per cent plus, and then eventually adolescents and children below 12 as well once we have adequate data and a safe vaccine—or we know it is safe.

The Hon. SCOTT FARLOW: I will follow up with Professor Blakely. I think that it might be shared by other panel members and would be interested in their views as well. You said the chances of New South Wales getting to zero cases is now very slim and talked about the bridging, effectively, until we get to 70 per cent to 80 per cent vaccination rates in line with the rest of the nation, as per the Doherty report. I know you have touched upon this a little bit in terms of the potential loosening of restrictions, but what are the most effective interventions to maintain and that need to be maintained throughout that period until the rest of the country might be in that position of 70 per cent or 80 per cent?

Professor BLAKELY: Okay, there is a lot in that. I think it is unlikely New South Wales will get to zero before we actually get to 70 per cent vaccination coverage. You will get there first at the rate you are going. As far as what is most effective, as I said before we have modelling that is hopefully coming out in the next few

days. What it shows is that, yes, speeding up the vaccination coverage pulls back that time and certainly reduces the burden. But it is not as effective as is just staying in a hard lockdown. The harder you lock down, the quicker you can bend that curve. It is an ugly, unfortunate reality. I do not like saying it, but it is the truth. We still have to vaccinate. That has to be the number one message: Get as many people vaccinated as possible. Get across to 70 per cent and 80 per cent of the country. But it will not be the silver bullet that solves the problem for New South Wales, unfortunately.

What that means—and we talked about this earlier in this inquiry today—is that if the New South Wales Government offers rewards to citizens for getting to 50 per cent at the end of August, which I believe should be done somehow, it will inevitably slow the decline a bit. You are trading off the rate at which hopefully it is coming down by the end. It may not be, but if it was coming down then you will basically slow the rate of it coming down compared to staying in hard lockdown. But that is why we often talk about trade-offs in this pandemic. These are the things that you are trading off. As far as what is most effective, it is the lockdowns. Then there are things that are low impact on the economy, such as masks and wearing them really well—and I agree with Professor Collignon on that—and possibly even eyewear might be helpful here. There are things that we can do that are not as much of an imposition on society. Letting things off like a five-kilometre radius to a 10-kilometre radius, that type of activity—those are the things that you can let go first. The Victorian Government has been quite good at identifying those things you can let off first without too much impact on the virus spread.

Professor COLLIGNON: I think the same basics as we have been told for the last year still hold. You need to keep away from anybody who has any respiratory illness. They need to be tested, but also as much as possible you need to keep away from them. We need people with symptoms not to go to work. That still seems to happen. We need to keep our distance—the 1.5- or two-metre rule. I will not get into droplets and aerosols, but most of the transmission is when you are close to people and you get infected particles getting in your mouth, in your nose and in your eyes.

Masks give you probably an extra 20 per cent protection, from studies, but I think eyewear gives you another 20 per cent on top of that. Limiting the number of people you associate with—obviously zero is to some degree what you might want. But one is better than two, which is better than five, which is better than 10. It is all a graded thing. You want to actually keep essential workers as infection-free as you can—first of all by vaccinating them, but that takes a while to have its effect. But the basic precautions: Do not share indoor rooms with other people who may be asymptomatic and have their mask off because they have to eat. Try to find other ways to keep people apart and lower the numbers indoors. All of that will not make it go away, but it makes the numbers come down.

The Hon. COURTNEY HOUSSOS: I thank all three of you for your very informed and useful opinions this afternoon. I asked Dr Kerry Chant this morning about the reproductive rate. What do you think is the reproductive rate that we would need to get to in order to start easing restrictions? I will start with Professor Blakely.

Professor BLAKELY: To be very clear, I assume you are talking about the effective reproductive rate?

The Hon. COURTNEY HOUSSOS: Yes.

Professor BLAKELY: There is the R0 of 2.5 and of five to nine. You basically want the effective reproductive rate less than one, because that is when the numbers are going down. If you did this ideally and you got the curve bending and the numbers coming down, you would not want to relax more than what sees the effective reproductive rate go above one because then the numbers are going to go up again. The ideal way to squash the curve, the thing that we talked about last year when we were thinking about managing our way through without necessarily eliminating, was to keep that effective reproductive rate at one or slightly less—to keep it under control. That is the ideal. Whether New South Wales is going to be in that position by 29 August I simply do not know. It may still be going up because the vaccine coverage is not high enough and there will be a political or societal trade-off where they say, "We've just got to let the construction industry go back" or whatever. You sacrifice the time to when it bends and comes down by a few weeks by doing something like that. That is the trade-off.

Professor COLLIGNON: I agree with Tony. If the curve is flat then the effective reproduction number is one, but you want it going down. You want 10 people giving it to six people, who give it to four people. You can argue that if you are that six or four, then you do not want to be that, but that actually means the reproduction number is less than one. You need it less than one. Whatever level of restrictions you have, you want to keep that reproduction number below one.

The Hon. COURTNEY HOUSSOS: Professor Slevin, did you want to contribute to that?

Adjunct Professor SLEVIN: I have taken to saying nothing when the question has been answered effectively by my colleagues, so as to save time.

The Hon. COURTNEY HOUSSOS: Excellent, thank you. I might move on to a question that lots of parents will be interested in about children returning to school and how that will be safely done. I note the earlier comments about vaccinating children and that that is a possibility, but what else can we be doing in order to get our children back into school? We know that there are lots of benefits for them socially and obviously academically. I pose the specific question: How important is it that we vaccinate our teachers?

Professor BLAKELY: I find this incredibly hard to answer because I do not know the answer, but I can make some expert comments. Vaccinating teachers—they are members of our essential workforce and therefore they are in the priority because they have lots of contacts with people; they are called children. They should be being vaccinated. Whether or not they are a priority over and above the supermarket checkout person, who is contacting lots of people as they come into the supermarket, I am not so sure. But they are somewhere on that list of the people that should be vaccinated next. That is the first comment. The second comment I would make is that New South Wales has to make these hard trade-off calls. You may prioritise getting the kids back to school, for both the children's welfare but also the sanity of the parents, rather than getting the construction industry up and going.

Back to what Professor Collignon and I were saying about the effective reproductive rates, if you got it less than one and then sent construction workers and a few other essential industries back and you opened up the schools, then you may get it to above one. It is a really ugly but unfortunate reality of the trade-offs. The third comment I would make is about the types of measures that we can do that reduce the spread amongst children as much as possible, like focusing on the parents dropping off so that they are kept separate—they are not coming into the school, so you are reducing some of the transmission through the kids back to the other households; where possible, for secondary school students mainly, mask-wearing and keeping distance; measures like ensuring, if there is going to be contact sport, it is only amongst the children in that one bubble that is called a school rather than between schools. Those are all those types of things that you can do will just slightly mitigate the risk so that we can get the kids back to school. I hope those comments were useful.

Professor COLLIGNON: I agree with the sentiment that Professor Blakely is giving. The trouble is whenever you do something, you will have some transmission. The only good news is that really young children, I still think, are at less risk than teenagers, who are probably more similar to 20- and 30-year-olds. Most transmission is still in 20- and 30-year-olds, so it is the teachers and their parents more than the children. But having said that, there are priorities like the Higher School Certificate, because that affects somebody for the next year or years of their life. Even though they might be at higher risk, there are some major issues there. I personally think we should look at primary schools going back before secondary schools. I believe the teachers are an essential industry, but I also think so are people who work in Woolworths and Coles because they are up in front.

We still do not have enough vaccine. I think teachers are a higher priority than a whole lot of other people, but I think essential workers transporting food and things—and police and everybody else—are too. Where you put them in the list is an issue. But I think the more you can restrict interactions, particularly with older children, the better. Maybe that means you go to school two days a week instead of five days a week or you have half the class come—anything you can do to increase the space between people. I think older children wearing masks if there is community transmission, having as many of the teachers vaccinated as possible—all those things have incremental benefit. I think young children—six-year-olds, eight-year-olds—are much less of a risk than a 14- and 15-year-old, so some priority there as well.

The Hon. COURTNEY HOUSSOS: Professor Slevin, did you want to add anything to that one?

Adjunct Professor SLEVIN: Very quickly I will just offer the observation about the definition of "essential worker". That seems to be one of those extraordinarily rubber concepts, and I am very conscious of a whole range of people who have managed to find themselves within that definition of "essential worker" that many of us would struggle to understand the rationale behind. But one thing that might be useful is to suggest that anybody who is in that category, defined however, should also be in the category of being prioritised with regard to access to vaccine. If by definition being an essential worker means a greater degree of exposure within the community to other people then so too does it become an important consideration with regard to being given access to a vaccination.

The Hon. COURTNEY HOUSSOS: I think that is a very helpful insight. I want to ask all three of you about the expansion of rapid antigen testing. This seems to be used quite widely overseas, and I think it was Professor Blakely who said earlier that one way that we could possibly be opening up is by using it more broadly. How widely is it being used overseas? What are the roadblocks to us implementing it more here in New South Wales or in Australia?

Professor BLAKELY: Those are two tough questions. It is certainly being used more in other countries than it is here. As far as the roadblocks to implementing it here, you would have to speak to the authorities doing the licensing and purchasing. I cannot speak to that. I can say that it is not as good as a polymerase chain reaction [PCR] at any one point in time. But because it is cheaper and you can do it more frequently and you get the result back within 15 minutes rather than one day, its population-level impact can be as great if not greater. One other thing I would like to share is that in some of the modelling that we have been doing, for example if you PCR-test people three days before they get on a plane but then you rapid antigen-test them on the airport before they jump on the plane, you actually get a nice harvest and reduce the number of people coming into quarantine.

If you can strategically use the rapid antigen testing at places like every second day in quarantine, to pick people up rather than just waiting for the PCR on day 11; if you can do it in industries like the abattoir industry, where it is a high-risk setting and do it every day; if you can do it for the people working in Woolies—picking up on what Professor Collignon was saying—you will get marginal gains. It will become an issue of prioritising where you can get your rapid antigen tests out to, because we do not have an infinite supply, and also ensuring it is done in a way—you will need to train people to use it and that sort of thing. I do think in the next few months we will see quite a big escalation in rapid antigen testing to try to help us deal with what has happened in New South Wales now and also our transition to living with the virus.

Professor COLLIGNON: In answer to that, I work in a hospital laboratory that does PCR testing for COVID so people might say I have a bias towards PCR testing, but I think PCR testing is the gold standard. It picks up 99 per cent, and you do not get many false positives as well. The antigen testing in a lot of the things that are submitted looks pretty good—not as good as that but over 90 per cent or 95 per cent. The real problem is that in the real world they do not perform quite as well. If you have somebody with symptoms, some of the data I have seen suggests you pick up about 80 per cent, which is pretty good. It means you miss one in five but you have picked up four. But in asymptomatic people you may miss half; it may only pick up half of them.

If you are doing that instead of a PCR test, I think it is a bad idea. But if you are doing it in addition, even though you have only picked up one of the two people, that is still one person you have picked up that otherwise you would have missed. It has to be additional, where you need to do a lot of testing, rather than instead of. That is my only argument about these tests. A lot of people say we will not have to do PCR tests because here is a rapid test. I think that is a mistake. But if it is done in addition in a sensible way, and we evaluate how well it does in real life, then yes. One example I saw is visitors coming into nursing homes, for instance. That is not instead of; that is in addition. Provided it is additional rather than instead of, I think it will have a place.

Professor BLAKELY: Very briefly, I just want to support what Professor Collignon said about doing it additionally. I think that is a really important point, making that for the record.

Adjunct Professor SLEVIN: Yes, we absolutely need to do more rapid antigen testing—but in addition to.

The Hon. COURTNEY HOUSSOS: Professor Slevin, did you have any indication as to any of the roadblocks—why we are not doing it as broadly as they are overseas?

Adjunct Professor SLEVIN: One might postulate whether there are commercial interests—who knows? But the fundamental question is we must be doing more of it and now is the time to do so. It is serving an important and useful function in other countries around the world, and Australia needs to rapidly follow suit.

The Hon. COURTNEY HOUSSOS: Professor Slevin, I want you to expand on something that you said right at the outset, which is that at the moment the urgent is trumping the medium or the long term. I am mindful that especially in New South Wales at the moment we are in the midst of the outbreak but, given your experience, what are the things that we can be doing now for the medium and the long term?

Adjunct Professor SLEVIN: I am very grateful for the question. There are two main points, and both have actually had very serious consideration and national commitment. The first relates to the public health workforce. There have been two pronouncements of National Cabinet, one on 26 June and one in November, both of which committed to an expansion of the public health workforce in Australia. In my earlier answer I started talking about the fact that the public health workforce in New South Wales is not perfect but it is the superior model that all jurisdictions should follow, including the Commonwealth. That is the Public Health Officer Training Program. We need to put more work into accreditation and registration of public health professionals in Australia. There is a whole range of infrastructure that we simply do not have and must invest in, because for the most part public health has been the poor cousin. The experience you all have facing elections and talking about health is largely about public hospitals and ramping in emergencies and the like.

The long-term investment in public health has been the problem, but that Public Health Officer Training Program and the network of public health units around New South Wales has been a beacon that has been

consistently in place. Many other jurisdictions have not followed. That does not mean it is perfect in New South Wales. It does deserve a review, and it should be reviewed and probably further strengthened. The second point I will make relates to the relationships in governance nationally. You as a New South Wales Committee need to give consideration to the future with regard to the national public health infrastructure. Currently, unfortunately, it is a political divide. The Federal Opposition has committed to establishing a centres for disease control in Australia; the current Government has rejected that call. There has been longstanding debate in Australia about the need for that. In 2013 there was a Federal parliamentary inquiry into the matter and it was responded to in 2018. Of the 15 recommendations of that report, the only one that was rejected was a serious review into a structure of establishing a centres for disease control in Australia.

Now is the time to review that because there is a whole range of systems that must and should be put in place, not just for greater efficiency and consistency in terms of response to infectious disease pandemics that we are experiencing now but also the broader public health infrastructure in terms of dealing with the chronic disease tsunami that we know is coming and will be washing over us over the next 20 or 30 years. My simple answer is two things. One is the public health workforce. It has been ignored for far too long and even despite it having come out of recommendations of National Cabinet, not a single jurisdiction has addressed that in terms of any budgets being released in the last 18 months. The second thing is a serious sit-down—setting aside differences and accepting the important role of States and Territories and their legislative responsibilities in terms of managing public health within their jurisdictions, but with a greater level of consistency and co-operation nationally, so the expertise that does exist is most effective, most available and most efficient for all Australians.

Ms CATE FAEHRMANN: I want to turn to the issue of case reporting every day. Today we were told by NSW Health that 102 [audio malfunction].

The CHAIR: I am sorry, Cate, you are breaking up quite a lot there. We might just stop and restart and pretend you did not say anything in the interim.

Ms CATE FAEHRMANN: I think the battery wears down on your headset after a while. Let us go back. I want to talk about the case reporting and the way in which it is reported. Today NSW Health reported that 102 of today's cases were in isolation throughout their infectious period and 40 were in isolation for part of their infectious period. They say 57 cases were infectious in the community and the isolation status of 150 remains under investigation. Why is the Government or NSW Health reporting a difference between "infectious for part of the time in the community" and "infectious for all of the time in the community"? Is there a reason why we have that distinction? Sometimes it sounds a little bit misleading. Is it not the fact that we just have the total number of people who were infectious in the community, whether it is partial or total? Professor Blakely?

Professor BLAKELY: Yes, I can speak to that. I do not exactly know the rationale for doing that but I would suspect it is as follows. We will use Victoria as an example. About three days ago everybody was out in the community for the vast majority of the time. But as you have done your contact tracing and you have put people into quarantine and they are developing those cases in quarantine, they have only been in the community for part of the time before they went into quarantine, but not all of the time have they been in quarantine. It allows you to see that you are progressing—that you are seeing an increasing percentage of people that are in quarantine or isolation, depending on what word you want to use, for part of their time. Then you are hoping—you are not hoping; you are wanting—for those parts of Australia that are still going for zero transmission, you want all of your cases to be occurring amongst people who are not in the community at all before you let the lockdown go again. It gives you some sort of metric to assess your progress.

Professor COLLIGNON: I have the same view; I prefer it broken down a little bit. We still know how many people were out of the community, and you break that down to people who were out only one day versus five days. At the end of the day it is a risk. I do not see any problem in breaking it up and if people want to say this number were infectious in the community, they can add them both together to give them the number.

Ms CATE FAEHRMANN: Okay, thank you. I turn to the issue of mandating COVID vaccinations for all healthcare workers. Possibly I will go to you, Professor Slevin, for your response to that. I note that there is obviously a policy in place for healthcare workers, depending on risk categories, to be immunised and show proof of immunisation for things like tuberculosis, hepatitis B and even the flu. Do you believe that we should be mandating COVID vaccinations as long as we can get those vaccinations to health workers, which we should have been able to do by now? Do you believe that we should be mandating COVID-19 vaccinations for all healthcare workers in New South Wales?

Adjunct Professor SLEVIN: Yes, you have addressed the main barrier and that is ensuring that access is available and all of the risk is clearly explained. Healthcare workers, if they choose to not be vaccinated, should be able to be provided duties that reduce or eliminate the risk of passing on the virus to others. But we are

increasingly getting to that point. As you say, there are precedents that exist in relation to mandating vaccination for healthcare workers where it is increasingly difficult to mount an argument against that policy.

Professor COLLIGNON: I have been vaccinated, you will be pleased to know, as has everybody around me. I think mandatory vaccination for the whole community or parts of it is a vexed question. I personally do not think we should have mandatory. I think there are some jobs where you need it. For instance, if you are a quarantine worker at the moment then I think we are trying to keep it out of Australia, and there are other avenues. We have to be careful. We have to really make sure that the vaccine is very effective and reasonably safe. I am not a person who thinks that mandatory flu vaccines, for instance, are a good idea because it is only 30 per cent effective. But this is 90-plus per cent effective. This is a grey zone. Even in health care and in aged care, I think you can make a big argument that for the people who will suffer the most, who are those in aged care, there ought to be compulsory vaccination. I think we should push it as much as possible and aim for 90 per cent plus. It is this question of whether you make it compulsory for everybody. If you ask me: Is it a good idea if everybody has it? Yes. But it is a balance between—

Ms CATE FAEHRMANN: Just to be clear, Professor, my question was about healthcare workers; it was not about mandatory COVID vaccinations for everybody. But the question now in relation to that is: Do you have any recommendations for how the Government could encourage vaccine uptake?

Professor COLLIGNON: I think you can strongly advise it and make it a condition for what jobs you do. It will mean that if you want to advance your career or something, it will probably be important to be vaccinated. There are ways you can do that. I look at the vaccines we have in Australia that we are very good at. All of the childhood vaccines we have 90 or 95 per cent plus. If you show a vaccine is effective and it is safe, I think we should be able to get 95 per cent plus anyway. It is that last 5 per cent. Whether you mandate it, I will leave that to others. I personally have a worry about saying, "If you don't do this you'll lose your job", because it is a very big industry and it might have a lot of repercussions. I am all for really pushing it and I am vaccinated myself, and everybody around me, but it is that compulsion issue I am not quite so sure of.

Ms CATE FAEHRMANN: I have one last question before I throw to my colleague. If you were able to make the New South Wales Government do one thing differently in relation to their handling of COVID-19 or this latest outbreak, what would you do? Professor Blakely?

Professor BLAKELY: [Inaudible].

Ms CATE FAEHRMANN: Professor, you are on mute.

Professor BLAKELY: Can you hear me now?

Ms CATE FAEHRMANN: Yes.

Professor BLAKELY: Sorry about that. Retrospectively, it is easy: Lockdown should have been done earlier and harder. As far as the one thing to do now, I think it is holding your nerve. By that I mean being emboldened and brave enough to put new LGAs into lockdown quickly to try to stop the spread of this, and hold the nerve. The second thing—if I may bring back that airline analogy—is every little thing you can find in the system to get improvement, do it, from encouraging people to wear their masks all the way through the process. Hold your nerve and process-focus.

Professor COLLIGNON: Just on that, I guess in retrospect we probably would have benefited from locking down when you had 15 cases a day instead of 29 but that is not a lot of days overall. As Professor Blakely said, we need to not let this go out of control, so it is holding the nerve and having reasonable restrictions. I think it will be variable depending on the local government area. If you have a lot in an area, you have to go harder there than somewhere else. This moves from one area to another so you have to be able to be nimble and change and act quickly, basically, if things change.

Adjunct Professor SLEVIN: One thing? It is an extraordinarily difficult question, and I guess ultimately that puts yourself in the role of the combined responsibilities of Kerry Chant and her entire team and the elected Government. When one seriously considers that question about what one thing I would do differently that everybody has to follow, that makes it so much clearer how hard this is. I am afraid I am not going to give you an answer because we cannot go retrospective. Some of the answers you have heard are talking about what we could have done a month ago with what we know now, but clearly that is not available to us. Your question is a perfect illustration of the challenge before us, and that is that I am sorry but there is not a perfect answer. The emphasis that I want to make is that the people who are wrestling with this problem and are at the pointy end are doing their absolute darnedest to try to make this work as best we can for everybody.

It is important to emphasise—although it is hard to accept on a day like today—that Australia and the public health system, despite the modest investment we have had over the past 30 years, have done extraordinarily

well in facing down this pandemic. While it does not feel like it while you are in lockdown, New South Welsh folk and Australians are very, very much privileged and at the head of the curve internationally in dealing with this pandemic because we can learn from the experiences of other countries. I guess my answer is: Think about how you frame your next budget when you sit in Parliament and consider those next budgets. Whether you are in government or opposition, you should ask every time: Where is the investment in public health? Where is the long-term investment in the health of our population? Now, more than ever, we understand how vitally important that is. Sadly, it has taken a global pandemic to make that point. Can I burn on your souls that that is the question you should ask for every health budget allocation from this point forward. So there it is: Invest in public health, because it pays extraordinary dividends.

Ms CATE FAEHRMANN: Perfect, thank you.

The CHAIR: Thank you very much [audio malfunction].

Adjunct Professor SLEVIN: David has frozen. Who wants to take over?

The CHAIR: Am I back? Can you hear me? I am sorry about that.

Adjunct Professor SLEVIN: Yes, you are now.

The Hon. PENNY SHARPE: Yes, it is okay now.

The CHAIR: Professor Slevin, I was going to ask you about the politics of public health. One of the great difficulties that we have seen in the past 18 months is that good public health decisions save lives: It is deaths that you do not see; it is illness that is avoided. That is actually a very hard thing to sell politically, and we saw that in Melbourne. Do you think that is part of the problem about getting governments to act early and put restrictions in? It is very hard to sell politically the deaths you have avoided and the sickness you have avoided.

Adjunct Professor SLEVIN: Yes, and that has long been the case for public health. We have had an extreme example with what has happened in the US in the Trump administration. Clearly when that changed hands, so too did the direction of dealing with the pandemic in the USA. Here is an observation I will offer you for free: When any government says that they are exclusively and purely following the health advice, do not believe them. As we have heard this morning—and I dialled into the earlier session—governments actually do have a responsibility to put a filter across that public health advice for the other things for which they have responsibility: for safety, for economies and so on. There actually is a tension and a balance that has to be exist in a democracy, and we just have to accept that. But you are right that when it comes to selling the political imperative, selling the immediate is much easier than selling the long term. Selling a cure is easier than selling a prevention, because the prevention and the benefit that comes with it comes in a generation's time. You are going to be out of office by then, so the question is: Do you care? What I am going to do is invite each of you as professional politicians to reflect in your soul upon what you have learned about this experience.

I go back to something Professor Blakely said, and I think it is fascinating. Even in circumstances where he can provide you with the precise and exact model with all of the trade-offs—you have to pay this price in terms of restrictions to freedom; this price in terms of investment in programs, whether it is in vaccination or whatever else; and you have to ask your electors to give away these things that they enjoy—but you are selling the outcome not in terms of no disease and no death but less disease and less death, how do you arrive at the perfect formula? The perfect result is not available. What you are asking for is the least worst option in this pandemic, and there is not that perfect answer. My answer to you, David—and I thank you for the question—is the political is public health. It always has been and it always will be, but we have to have a constructive and respectful conversation about what those trade-offs are. I am delighted to say for the most part in Australia we have respected the science as part of that discussion. Again, it has not been a perfect outcome but we have done pretty well and I think it is worth recognising and celebrating that. Today might not be the ideal day to reflect upon that, but I actually think to some extent it may indeed be.

The CHAIR: Thanks very much, Professor. My final question is this. Tomorrow we will see yet another 11 o'clock press conference. We will see more questions asked about when the lockdown will lift. Is it at 50 per cent vaccination rate? Is it at 60 per cent vaccination rate? I will start with Professor Blakely and then Professor Collignon. Do you think we should start getting more realistic about the message, a bit more honest with the people of New South Wales, and say that realistically we are probably going to have a form of lockdown at least until Christmas? Do you think we should try to start getting that message out? Is that what I am hearing from you?

Professor BLAKELY: To some extent, yes. There is no way that New South Wales will be able to go back to a low stage, like a stage one or near pre-COVID, any time between now and November at the earliest. I think it is wise to talk about the fact that we will have to live with some level of restriction for the next 100 days,

and we do get to choose how much restriction but we trade off with that how much this virus gets ahead of us or we dampen it down. Those are the decisions we are making, which does mean letting go the idea that New South Wales will eliminate and get down to zero before the rest of the country has hit 70 or 80 per cent. I think that is virtually impossible, so it is probably realistic to start talking about how we are going to bridge over.

That does mean some level of restrictions, but it will not need to be a hard lockdown all the way through to Christmas. Once that vaccine coverage is up at 80 per cent, there are some things you can start relaxing off. We are not exactly sure how much you can relax. I like to use the metaphor of a driver in a digger with the levers, be that Premier Berejiklian or Prime Minister Morrison. We can ease some things off and we can see what happens to the effective reproductive rate, and we can ease off a bit more and try to keep that effective reproductive rate less than one as we march our way up to 70 per cent or 80 per cent vaccination coverage and head towards Christmas.

I would like to finish on a very positive note. I actually think Christmas and New Year in Australia could be quite nice, because we will have the vaccination coverage up at 80 or even 90 per cent. We would worry if you opened up the international borders, but it will be a bit like crossing a busy road. We will get to the middle, where you have those refuge islands in the middle where you take a break and you look the other way. We can take a break there and things could be quite good. We will be travelling around, hopefully, as long as the virus does not throw something else at us. I think it is important to have that hope and that positive signalling, and I believe it is a genuine aspiration that Christmas could be quite good: vaccination coverage up, transmission dampened down—not gone away completely—and we take a break before we open up to the rest of the world and we have a nice summer.

Professor COLLIGNON: I share Professor Blakely's optimism for the end of this year, because I think we will have high vaccination rates and it will be a time when there is less transmission. What happens in August? I think you cannot actually make any predictions until a few days beforehand, because whatever number you see is a reflection of what happened five days beforehand. But whatever we do will be a balance between how many people we have vaccinated, how many cases we see and what level of restrictions is proportionate to what we see at the time. I personally think we probably need restrictions of some type, in fact, until April next year all around Australia. But it ought to be basically proportionate to the season, and also what we see happen overseas with vaccinated people with a lot more transmission than we will see in Australia and what we learn from that. I am happy to have others do this experiment, both for vaccination and transmission, and for us to learn from it and do things that are sensible based on the data that is available.

The CHAIR: I am sorry, time has beaten us. Professor Slevin, did you have a final statement that you wanted to make at this point?

Adjunct Professor SLEVIN: Only to say thank you for this helpful, constructive and respectful conversation. I publicly acknowledge and thank the extraordinary public health workforce not only in New South Wales but in Australia. These are people who have been working two shifts, seven days a week, for 18 months. Many of them have not had holidays. Many of them need the next version of the cavalry coming over the hill. Most of them get berated because they do not provide the answer that people want. Everybody wants a perfect answer and everybody is scared. Everybody is still scared about this pandemic. If you as professional politicians can take a leadership role and advocate their part, understand the nuances and complexities and appreciate that there is not a tabloid answer to these challenges—and this conversation, I am sure, has reinforced that for you—I will ask you to act as advocates of public health, not just as a result of this pandemic but into the future and long into the future, for your entire careers. You now have an insight into the complexities that are being faced and challenged. I hope you will take those cudgels up as elected representatives of the people of New South Wales and prosecute that case for public health well beyond the duration of this pandemic. I thank you for the opportunity to talk to you.

The CHAIR: Thank you very much to all three professors. I personally am very grateful for you spending the time and sharing your enormous depth of expertise with us, the insights you have with us, and actually pointing out that these are very complex public policy decisions that we all need to make. On behalf of all of the Committee, I not only thank the three of you but I extend that gratitude to everybody who is working in public health for the community across New South Wales and across Australia. Thank you to the nurses, the doctors and the extraordinary public health staff. We know how tough it is; you have our collective gratitude. With that, we will end the broadcast here today. Thank you, everyone, for joining us. There is a further hearing tomorrow focusing on education, and a key focus for tomorrow's hearing will be the HSC and decisions being made about safety for the HSC students and teachers. Thank you very much.

(The witnesses withdrew.)

The Committee adjourned at 15:57.