EDUCATION AND HEALTH STANDING COMMITTEE

HEARING WITH THE CHIEF HEALTH OFFICER

TRANSCRIPT OF EVIDENCE
TAKEN AT PERTH
WEDNESDAY, 14 OCTOBER 2020

SESSION ONE

Members

Ms J.M. Freeman (Chair)
Mr Z.R.F. Kirkup (Deputy Chair)
Mr Ian Blayney
Ms J. Farrer
Ms S.E. Winton

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Hearing commenced at 10.17 am

Dr ANDREW ROBERTSON
Chief Health Officer, Department of Health, examined:

Dr ROBYN ANN LAWRENCE
Deputy Chief Health Officer, Clinical Services, and State Health Incident Controller, examined:

Dr PAUL ARMSTRONG
Deputy Chief Health Officer, Public Health, examined:

The CHAIR: On behalf of the committee, I thank you very much for attending and agreeing to appear today to provide an update on Western Australia's preparedness for a second wave of COVID-19. My name is Janine Freeman and I am the Chair of the Education and Health Standing Committee. To my left is the deputy chair, Mr Zak Kirkup, and to his left is Ms Sabine Winton. Mr Ian Blayney and Ms Josie Farrer are apologies and are unable to attend today.

You would have been in committee hearings before but I have to say this: it is important that you understand that any deliberate misleading of this committee may be regarded as a contempt of Parliament. Your evidence is protected by parliamentary privilege; however, this privilege does not apply to anything you might say outside of today's proceedings.

To my right are the two clerks of the committee and Hansard are here today. Before we begin, do you have any questions about your attendance here today? Is there anything you want to know from us?

Dr ROBERTSON: No.

The CHAIR: Would you like to make a brief opening statement?

Dr ROBERTSON: Yes, if I could. It is probably useful to set this in context. Obviously, this is one of the more unprecedented events that we have had. We have always had plans for a human epidemic, but this is obviously the first time in recent memory we have had to activate these plans. Under those plans under the Emergency Management Act, the Department of Health, and specifically the chief executive, is the hazard management agency, and that position has been delegated to me. The plan involves part of the Emergency Management Act but also the Public Health Act. I have a role under the Public Health Act as the Chief Health Officer. Both acts have been utilised in managing this particular pandemic.

The two Deputy Chief Health Officers—I am sure there will be questions later, but obviously on the public health side with Dr Armstrong as the Deputy Chief Health Officer, he manages all of the Public Health Emergency Operations Centre, which includes things like contact tracing, which is obviously a focus for this committee, but also covers a lot of the broader public health issues that come out of that with a strategy and other public health issues. With Dr Lawrence, the State Health Incident Coordination Centre, for which she is the State Health Incident Controller, looks more at the clinical side and at some of the non-health operations, including things like hotel quarantine, but we can go into that in more detail. That highlights exactly where our respective roles are.

[10.20 am]

The CHAIR: The Auditor General's report that came down on 24 September 2020, in reviewing your preparedness for a COVID outbreak basically it gave you a bill of good health, I think, based on the planning outlined and on what they had looked at. That report talked about surge plans. You based your surge plan on a model that uses May 2020 national data for rates of hospitalisation, intensive care use and ventilation. Is there any argument for using more recent data, particularly since this data was prior to the second Victorian outbreak? I suppose we just want to know about your surge capacity and how that will fit for preparedness.

Dr ROBERTSON: Yes, the surge capacity was obviously based on that and that was the best information at that time. We continue to monitor and change our operational plans. It is very dependent on what has happened subsequent to them. While that was reflected in those, I think we can safely say that all of our operational plans continue to evolve. These are our outbreak plans. They continue to evolve and are based on the current information that we have at the time. Robyn might like to make some comments.

Dr LAWRENCE: Yes, thank you. We have reviewed that recently, partly in line with it, but also because the timing was right and we were able to get some visibility of Victoria. The consensus at the end of that discussion was that we thought that baseline was not an unreasonable point to remain at, at this point in time, on the basis that Victoria's figures are quite skewed, because they had a number of aged-care facilities evacuated to hospitals, not because they required hospital care but because of what happened in their aged-care facilities. Whilst we acknowledge that that is always going to be a risk with aged care, it does not mean you need a hospital facility to manage it. In reflecting on what is happening around the world, we decided that the baseline we used to inform the modelling was not an unreasonable point to maintain it. It does not change the numbers massively, and whilst the Auditor General recognises there is a risk base in your preparedness, we did not want to reduce the number of beds we may be prepared to have available, so we thought it was good assurance to leave it where it was.

The CHAIR: That was one of the questions we had. Indeed, it was about the treating of residents of aged-care facilities who test positive onsite and keeping them in the aged-care facility rather than putting them in hospitals. There is difference in different states in terms of how that operates. Can you explain the rationale around that? In terms of our preparedness, why do we think that that is the best way, if we do have an outbreak?

Dr LAWRENCE: It is a very complex scenario and it is not a one size fits all. As a philosophy, minimising movement of people is always going to be the safest option, but when you make that decision, you have to take into consideration all of the factors around that. Where a resident is sick and requires hospital-level care and desires of that care rather than palliative care, for example, which some residents may choose in their place of choice, then that will be facilitated. There is absolutely no question about a resident who requires hospital-based care having access to that care. That is not in dispute. Where there is a difference of opinion is automatic movement of anybody who tests positive. Where we are placed on that is that within our outbreak management plan, it is very clear: we will send in a team to assess the facility. If the facility cannot be safely managed, which might be for a range of reasons, we would consider alternative accommodation if that is required, but it may not be a hospital setting. And it may not be the positives you move; you may move the negatives, as an example. It will be a risk-based assessment of the facility, the layout, the resources they have and the capacity and capability they have at that time to make the best decision.

The added complexity is that even with the wellest of aged-care residents, the risk of delirium when you move them is very high. We know that that increases the challenges of nursing them wherever

they may be moved to and, therefore, increases the risk to other people in that environment, as well as to the staff in that environment. That was a very clear lesson out of Victoria. When they did move a lot of people, they got quite significant outbreaks where they moved them to because the residents became very delirious and very difficult to manage in any environment. So minimising movement, both from infection control as well as the wellbeing of the resident, is balanced against how you can manage the infection control in the facility.

The CHAIR: Before I hand over, I will ask the question early on: Senator Mathias Cormann made comments just recently that we are not prepared because we have had such a period of time of non-community contact for being able to trace and to be able to manage nursing homes and the whole areas of that. Would you like to get that out of the way and comment on that?

Dr ROBERTSON: I am happy to make some comments on that. What sometimes is forgotten is that we did manage the first wave and obviously we learnt a lot from that. We have been planning subsequent to that that we would get another, at least a substantial, outbreak, possibly a second wave, at some stage. All of our focus has been on doing that. We have not been complacent. We have continued to develop our organisation. We have picked up a lot of the lessons that have come from other outbreaks in New South Wales, Queensland and Victoria, and integrated those in. We have assisted. So, during the contact tracing we were assisting Victoria in their contact tracing and we have used those opportunities to assist other states, which both assisted them but also made sure that we kept our skills in those areas current, and we continued to do that. As Dr Lawrence has said, we have been continuing to evolve our planning, but also we have been working considerably, not just on the planning for various outbreaks, but also on our surge capacity and how we could surge up, whether that be for SHICC to develop up so that we can operate there, whether it is in PHEOC where we need to develop our ability to respond rapidly to an outbreak and, of course, that involves our contact tracing. All those plans have and continue to evolve. Obviously, the government has accepted that and continues to fund our preparedness going forward. I might pass to Dr Armstrong.

Dr ARMSTRONG: I would have said exactly the same thing as Andy. Just to add to that, I think we need to remember too that we in Western Australia have managed outbreaks since we have had the closed borders, especially with ships. We have done that very successfully. Everybody agrees with that. We have managed a cruise ship, *Artania*, with 500 crew on board and 800 passengers. We got that ship quarantined and turned around in as quick a time as possible. No other country or state has done that before. We demonstrated that we could use the ship as a quarantine vessel for safety reasons—you do not have to bring people onshore—and for cost considerations and convenience. That was the first time that has ever been demonstrated. We have had an outbreak on the *Al Kuwait* livestock carrier. That was done in as quick a time as possible; it was successful. The *Patricia Oldendorff* that set sail last week, again, was a very successful operation, and now we are managing this other ship off the coast of Port Hedland. Although that is just a type of outbreak, it demonstrates, I think, that the systems we have in this state are up to it.

[10.30 am]

Mr Z.R.F. KIRKUP: Thank you very much everybody for coming in today. Ahead of any questions, I would like to thank you for your continued service to the state and the work you have done in helping to protect Western Australians. I think it is important to recognise the work you have done up until this point and continue to do. I might pick up on the aged-care point before moving into border arrangements, if that is okay—just moving off what the Chair said.

I note, Dr Lawrence, when you suggested that there might have to be the idea that Health goes into a facility to assess it, and there were those flying squads—I think the health minister said on 24 or

25 September that those flying squads would be moved into a facility, then assessed, and then you make the decisions based on what happens to patients who might be positive or negative. In Victoria, within the space of I think 30 days, you went from having one or two facilities to I think it was 103 facilities within three weeks that were infected. Does Health have the capacity in that circumstance to deal with such a large volume of facilities, if we are reliant on the flying squad model?

Dr LAWRENCE: I guess 103 facilities here would be almost 50 per cent, which was not the position Victoria was in, so it would be a reduced number, if you said that, as a likewise percentage. All of our modelling and planning is based on a hierarchy. So, if we have one outbreak, clearly you get the best experts we have got available to form the outbreak management team for that facility. As your numbers grow, you might have a school and an aged-care facility, so clearly we do need to spread the resources thinner, building on surge capacity, but the level of expertise as you bring people in, they are more recently trained et cetera. So, the model is that at all times an expert is leading. It might be a series of outbreaks, and then your next leadership team managing the outbreak team; and then we are building armies of people who are more recently trained with dedicated skill. So for supporting infection prevention in nursing homes, the experts in infection prevention from the PHEOC have been training up staff development nurses, as an example, so that we can use them to go in. They are not the absolute experts, but will have a higher degree of expertise than what they had before that additional training and they would have more expertise than what would be available in the facility. So that is how we are planning to manage it; therefore, you manage series of outbreaks under expert leadership down the path, and very much you send those experts in, you set the systems up then you leave a different series of people, depending upon what that facility needs.

We have outbreak management teams, we have rapid response teams and we have clinical liaison support teams, which will be able to provide support to the clinical care of the residents, as an example, if GPs are not available. So GPs are saying they would like to be actively engaged in that. They will form part of the outbreak management team if a facility has a dedicated GP; they know the staff, the facility and the residents. If for some reason that GP is unavailable or busy doing other things in their practice, we have got the resources to bring to that table to do that. So we have tried to cover all scenarios.

Mr Z.R.F. KIRKUP: Yes, I appreciate that. With 103 being representative of 50 per cent of Western Australian facilities in that case, have you done modelling on how many you could cope with at any one point in time?

Dr LAWRENCE: No, not in that way, because if we had 103 of that sort of thing—I think that would be unlikely to start with—I think the state would take far earlier interventions before we got to that process, because at any point in time we are not just going to let the bug run through the community. The minute we started to see any community transmission, there is a series of hierarchies of things you start to put into place. The minute we saw community transmission, one of the first things that happens is that as a recommendation all aged-care workers and entrants to aged-care facilities wear masks. Currently that is not a requirement. It is a bit like community masks, but in the aged-care facility that comes in earlier so that you aim to break that transmission earlier—plus I think you would see well before we got to 50 per cent of our communities infected that we would have more systematic public intervention.

Dr ROBERTSON: I think the public health measures are critical in this. Obviously, getting to 50 per cent of our aged care would be a major issue for us, so there will be a lot of public health measures that would come in. Whilst managing the outbreak there, our focus would be very much on

preventing further spread, whether it is into other aged-care facilities or into the aged-care sector generally, and into other sectors—into the disability sector as well. So a lot of focus, whether that is through masks, restricting people's visitors coming into those facilities, looking at the workers within those facilities and tracking those workers; we know that many of them are casualised labour and they work in multiple facilities. Working with the general practitioners who have input into those facilities, we met with the general practitioners last night, and a large discussion around that was on how we continue to provide support for all those facilities in that kind of event. Obviously at the same time the contact tracing and testing would be going on and that would enable us to target our resources at that stage.

Mr Z.R.F. KIRKUP: I appreciate that. From my perspective, I am keen to understand—and maybe we do not have that understanding about how many infected facilities the state could handle at any one point in time. Given you have a staffing arrangement ratio in place, which has been outlined by Dr Lawrence, if there is no capacity to understand—sorry, is there a capacity to understand how many infected facilities we could cover at any point in time?

Dr LAWRENCE: The simple answer is we have not done the modelling, and the complex answer is it would be highly unlikely we would have only aged-care facilities impacted. The algorithm to actually model that would be highly complex and we would be moving staff to a whole range of services to cover where the highest risk is at the time. If we had 100 facilities impacted, I have got not much doubt we would have changed things in our acute sector to free up staff to support that initiative, if that was the highest priority. But it is pretty unlikely that would be the only priority if we had 100 per cent or 50 per cent of our facilities infected. So, trying to do that modelling is a very complex algorithm, and we have not done it is the simple answer.

Mr Z.R.F. KIRKUP: I have been told that I have one more question before I yield to the member for Wanneroo on this subject. In that case, you will note, Dr Lawrence, the language you use at the moment is "facilities generally", so I am assuming we are not just talking about congruent living or aged-care facilities; we are talking about general facilities—schools and things like that was referenced previously. Who makes the call on whether or not you put staff into an infected school or infected facility? What does that look like?

Dr LAWRENCE: So, schools are simple—but the answer as to who makes the call on an outbreak actually is public health; they are the lead. Health would not typically put staff into a school, because a school is: "You close it, you clean it, and you reopen it."

The CHAIR: In talking about this and talking about the planning for this and the planning scenario, one of the things that is being relied on, obviously, is the closed borders and the situation we have at the moment. Just based on the readiness and the preparedness, can you explain the merits of the 28 days zero community transmission in all states before our borders can reopen, and is it your belief that the hard border is preventing the sort of lockdowns or the issues around the nursing homes with community transmission happening in Victoria and New South Wales at the current time? Because, really, we are talking about the 28 days and the current requirement to wait out the 28 days with no community transmission in New South Wales and Victoria.

Dr ROBERTSON: I am happy to talk to that. The 28 days is based on normal communicable disease control two incubation periods, so that is where it comes from. That allows for us to have an appreciation that by two incubation periods, we would then be fairly certain that there is no community spread. I can give you the example. We have obviously the *Vega Dream* at the moment. One of the individuals on the *Vega Dream*—the person who was picked up—he had been out of port for 16 days, so you would sort of say, "Well, in 16 days he shouldn't have it." What we believe is that there was probably somebody who was mildly symptomatic or asymptomatic who has spread

to him, so he was the second generation of that. It is really to make sure that we actually are not missing people. We know in this particular disease there is a significant portion of the population, particularly the younger population, who will be asymptomatic or mildly symptomatic. So the 28 days gives us confidence that there is no real community spread. We have seen that recently in New South Wales. They actually got to day 12 with no community spread, and then, unfortunately, got a number of cases, and they are bringing those back under control. That is the basis for the 28 days.

[10.40 am]

The whole issue around borders is they are obviously effective—and this has obviously gone to the Federal Court, as you are aware, and we have placed our statements before the Federal Court. We believe they have been very highly effective in preventing imports into it. So, with no community spread in WA now for over six months, the only way we were going to get the disease in is obviously by importing it, and the borders have been highly effective in preventing imports from coming into WA. We have managed those. That is not to say we have not had cases. We have obviously had a number of cases in our hotel quarantine and on the maritime shipping, and we have been able to manage those effectively. We are not anticipating that we will not get cases—and that is part of the reason we have to be prepared for them.

Having said that, we continue to review the borders and look at whether they are appropriate and proportionate. You will be aware that the border controls have a number of exemptions. More recently I recommended to government that, given the reduction in cases in both New South Wales and Victoria, we lessen the current conditions on those states be reduced—and that occurred on 5 April. We are constantly reviewing that and looking at whether we can safely do —

The CHAIR: It is 5 October. And 5 October is when they could go home and quarantine at home?

Dr ROBERTSON: Correct. So, those coming from Victoria could now go to home quarantine—before they had been required to go to hotel quarantine. Those in New South Wales, which had been restricted to a small set of exemptions, moved to the same set of exemptions as other jurisdictions.

The CHAIR: In terms of that aspect of not having six months of community contact and community transmission, the issue is, if it then comes into the community, how quickly we are able to respond with tracing. I understand the department has advertised for tenders for contact tracing software—PHOCUS, release 3. Is this a more advanced version of what you are currently using?

Dr ROBERTSON: Yes, that is correct.

The CHAIR: And what will it offer? What is the expectation of this particular tracing software? Can you just take us through that a bit?

Dr ROBERTSON: I might pass to Dr Armstrong, but I will make one comment first. Our PHOCUS contact tracing software—we are looking for version three, so we have already had version one nearly from the beginning. I am sure Dr Armstrong can give the exact details, but we have obviously modified it and now we are looking at a longer term version that will again pick up on some of the things that we have learnt over that period.

Dr ARMSTRONG: The two key elements of contact tracing are, first of all, having good tools to be able to contact trace, and having appropriately trained and appropriate numbers of staff to do the work—the contact tracers. We recognised very early on—probably before most states and territories, and most countries—that we needed a system that could manage a large number of people in a contact tracing sense. We did not have an existing system, so it was quite rapidly procured early in the pandemic, and that is based on a Salesforce platform. The system is called PHOCUS, and there has been a number of enhancements to that system as time has gone on. We

have got to a point now where we are comfortable that the system is fit for purpose. It has got excellent automation, which is a key component.

One of the most important things in the public health response is to not let your contact tracing blow out. That has happened in other parts of the world. As soon as that happens, then you lose control of the epidemic and it is very difficult to put the genie back in the bottle from there. It is all about trying to maximise the FTE that you have—the people that you have—to do the work that they need to do, so automation is a really key component of that. An example of that is that this system has the capability of SMSing or emailing large numbers of people. That takes the human component out of it, and if somebody responds back, "Yes, I do have the symptoms" or "Yes, I do need help", then that can be when the contact tracers come into play. It has got good reporting functions. It has also got an ability to help us understand clusters, so if a number of cases occur in a particular part of the metropolitan area, for example, the system will be able to flag that and we can hone in on it and see, "Well, is there a cluster happening there?" to enable us to get onto that cluster very quickly. It is all about being as quick as you can to try to put a lid on that particular outbreak or cluster.

So PHOCUS 3, we have a contract up until the beginning of January next year. We know what the specifications are because we think we have got this fit-for-purpose system at the moment. I must say that other states have come on board in the last few months too. So South Australia first up, and New Zealand also has a similar system, and Victoria much more recently. They had quite a different system, which is largely paper based, and we have never had that in Western Australia. So PHOCUS 3, tenders are out at the moment, and the specifications are similar to what we have at the moment for PHOCUS 2.

The CHAIR: And it will include using WebPAS—patient administration system? So does that mean we will have a capacity later on to have some sort of statistical capacity to look at long-term issues around the virus, because it goes into the WebPAS system?

Dr ARMSTRONG: One of the features of this system—and we have moved to a point now where we are doing this progressively, and it is only more recently that this has happened—is an ability to link to other systems, including WebPAS, so that data linkage of your contacts and your cases to other systems is a very powerful tool. So that is a key component of the PHOCUS system.

The CHAIR: You were saying about what is done in New South Wales: is WA's contact tracing system different from what is done in New South Wales? That is held up as the gold standard. Is ours different from the New South Wales system?

Dr ARMSTRONG: I do not have fine detail of what they do in New South Wales, but I have worked in New South Wales health department before and I know their principles are the same—as they are everywhere for contact tracing—and that is having trained staff who know the game, who ring people very quickly, get that information, the so-called "disease detectives", enter that information in a system that is hopefully automated, and they do have a good electronic data system in New South Wales. So the principles that they would be working under would be the same as ours. Whether it is exactly the same in all the parameters, I do not know. I do not know that detail.

The CHAIR: What role, if any, is the national COVID app playing?

Dr ARMSTRONG: We have not had to use the national COVIDSafe app. Since the COVIDSafe app has been released, almost all of our cases have been in hotel quarantine—they are people coming in from overseas or other states—so most of those people who would be their contacts would be the close household contacts or people in the room with them at the hotel. So the power of the COVIDSafe app cannot be brought into play there, because already we know who their close

contacts are, so it is not going to add anything. We have not had experience with the COVIDSafe app that has helped us.

The CHAIR: At this point in time?

Dr ARMSTRONG: Yes.

Mr Z.R.F. KIRKUP: Dr Robertson, just returning to the Federal Court hearing and the evidence that you gave there. I understand at the time there was a suggestion that the options that were being considered with respect to the border arrangements was that you were restricted in providing advice in relation to opening to all states or to no states. Is that accurate? I know that happened in July, so I am just making sure it was an accurate reflection of what was said during that hearing.

Dr ROBERTSON: I think the discussion—this is a slightly difficult question to answer. I am not sure. I would have to go back to that. A lot of the discussion was more around the use of other measures, including things like hotspots and those kind of measures. The legal status of whether it could be all borders or some borders probably sits a little outside my area, so I could make advice as to whether from a health risk point of view I felt that that could be an appropriate approach, but the legal aspect I obviously need to leave to the Solicitor-General.

[10.50 am]

Mr Z.R.F. KIRKUP: I appreciate that, Dr Robertson. Just to clarify, in relation to the provision of advice in terms of opening to all states or to no states, that was the reference to the legal advice that was provided, not the health advice?

Dr ROBERTSON: Yes.

Mr Z.R.F. KIRKUP: Thank you for that ability to clarify. In that instance then, have you ever considered advice that looks at other options that do not include simply closing Western Australia's borders? Has other advice ever been considered to look at the travel bubble concept or opening to selected states and territories at any other point in time, rather than the approach at the moment that the state has, where it is simply open to no other states—except with the exemptions that have been previously mentioned.

Dr ROBERTSON: Yes, I have. That advice was provided on 25 September to the Premier, and he released that advice. That advice is in the public and that listed a number of options and a risk stratification on those options, so that when we got to certain things, there were options at that stage to either look at broadening the exemptions—the exemptions, as you are aware, are reasonably restricted. So either broadening the exemptions or in certain cases to removing what we are largely talking about, which is the quarantine requirements—whether that be home or hotel quarantine.

Mr Z.R.F. KIRKUP: As part of the arrangements that are currently in place, it has been previously stated that we would not look at opening our borders until there is no evidence of new transmission for 28 days in all states. What do you rate as the likelihood of that being actually achievable?

Dr ROBERTSON: Look, with this particular disease, it is very difficult to say. But we have obviously seen very good progress made in New South Wales. While they have had a small setback, they were obviously making good progress towards that. We are now seeing Victoria with a couple of outbreaks, but they are getting their case numbers, on a five-day rolling average, sitting around 10. Look, I still think it is feasible within the next one to two months, or probably closer to two months. But my advice at the time is not predicated on all of them being open.

Mr Z.R.F. KIRKUP: Sorry, just to clarify, Dr Robertson—the advice is that it could be individual states—sorry —

The CHAIR: The advice on 25 September, you are talking about?

Mr Z.R.F. KIRKUP: — is that they could be individual states rather than all states; is that right, Dr Robertson?

Dr ROBERTSON: I said that is a consideration that could be made, yes. But, again, that is health advice. Whether there are legal aspects to that, that would need to be considered by government.

The CHAIR: And that advice is nothing new, because that was something that was presented in Parliament on 25 September?

Dr ROBERTSON: Yes, that is correct.

The CHAIR: And tabled in Parliament.

Mr Z.R.F. KIRKUP: The range of advice that has been provided in the past to government—outside the advice that has been provided on 25 September—has there ever been early advice provided to the government that other options for a travel bubble or border controls could be maintained, or has the health department, and in your role as Chief Health Officer, have you only arrived at that at 25 September?

Dr ROBERTSON: No, I provided early advice that that could be a consideration, either a broadening of the exemptions or removing the quarantine requirements for states with no community spread could be an option.

Mr Z.R.F. KIRKUP: I appreciate that, Dr Robertson. As part of that risk assessment, I suppose, of the options that might be available to the state, is it possible just to get a quick, brief summary from you of what options have previously been provided to the state—I realise it has been tabled on 25 September—but, given it has possibly been provided to the government earlier, what other options there are? Obviously, we have a relatively strict border control regime at the moment, but what are the other options that have been provided to the government for consideration?

Dr ROBERTSON: Obviously, as we tightened with Victoria, some of the options are actually if we get significant outbreaks—get a second wave—is we can tighten the requirements, as we did, we tightened up the requirement. There was obviously the requirement for hotel quarantine for people coming from Victoria. With the outbreak from New South Wales, we tightened the requirement on exemptions—because of the outbreaks. As they came down and they reached certain levels—and that risk stratification sets out those levels—then we have eased those restrictions for various states.

As I have said, beyond that, I have just given broad guidance to say that further exemptions could be considered—whether that includes things like business travel or family reunion and/or we could consider removing the quarantine requirements for states that have no community spread or a subset thereof. That would be dependent on our confidence with the border arrangements in those states.

Mr Z.R.F. KIRKUP: In that case, just to clarify, I appreciate, effectively the government having been provided with options that suggest that in certain circumstances further quarantine easing could take place, or further restrictions could take place and it is up to the government as to whether or not it follows your advice?

Dr ROBERTSON: That is correct.

The CHAIR: Just in terms of preparedness, which is what we are here to talk about today, if there is an outbreak, what current treatment regimes are being looked at? Obviously contact tracing is really important and then isolating people so that they do not pass the disease on because they are infectious, but what sort of aspects are around our preparedness in terms of treatment? I know that

when we looked at the Auditor General's report, we had 304 ventilators on order—it would be good to know if we have got an update—but that is at the extreme end of it. What is the sort of stuff that we are talking about in terms of treatment and where are we taking that in terms of that planning scenario?

Dr ROBERTSON: I might make a couple of comments and then pass to Dr Lawrence. A lot of our planning started, took place—and many of those things are in it—and I believe most of those ventilators, if not all, are now here. Unfortunately, because of the time they have taken—the three to six months—to arrive, a lot of the planning that was based on the early material are in place, and that includes things like our protective equipment as well, and other equipment from additional beds to additional monitors and all of those equipment. So, a lot of that is now in place.

The second part around that is around training of staff and ensuring we have sufficient staff. A lot of work has been done in that area, as well as search plans for specific areas—for example, like laboratory services or diagnostic imaging services. A lot of that continues to be developed. Some of this dates back to planning that was literally nine months ago and is now, because of the requirement for procuring hardware and equipment, coming fully to fruition. I think, on the material side, we are probably in a reasonable position, but the other part is the planning side.

Dr LAWRENCE: If I may, I think your question was including the specifics of treatment.

The CHAIR: Yes. My understanding is that if we get an outbreak, the whole idea is that we wanted to flatten the curve—that we did not want to overwhelm the health system. We have had the time to do all the preparation and planning and surge planning, and we have had time to get the equipment, but my understanding is, if you want to flatten that as well, obviously it is contact tracing and isolating, but also treatment so that you are doing that. So, yes.

Dr LAWRENCE: I am not sure treatment flattens the curve, actually, so there is really very, very limited treatment for COVID. So, oxygen, if you are sick enough to need oxygen. There is some evidence around steroids in those who are very sick requiring intensive care. And that is it pretty much at the minute—everything else is still in a trial phase.

To make sure that WA stays abreast of that, we are—in the early days, again, we set up a range of clinical advisory groups who looked at the specifics in their area. There was one for obstetrics, so not only did they look at how you managed obstetrics in the COVID environment, they looked at whether pregnant women were going to be impacted by COVID and what, if anything, they should be doing.

The ICU group, which is where all of the bulk of the big interventions are focused, has been very active and we are very lucky we have got some very significant researchers in WA and they are participating in big international trials. There is one called ASCOT, in particular, which is what they call an adaptive trial, where they are continuing to add things, take things—do all sorts of things. They have not got anyone in it, clearly because we do not have any cases, but they are actively engaged in that.

We have also formed a specific clinical advisory group to stay abreast of the literature—what is going on in other countries—to be able to continually be feeding that. Of course, clinicians are mostly naturally inquisitive and they are following the literature in their own subspecialties. I think at this point there are still limited treatments available, despite what we perhaps hear from some other countries in the world.

[11.00 am]

The CHAIR: That is very interesting.

Dr LAWRENCE: I probably should just add: there were things in the early days that we were worried about, which was supportive parts of that treatment and the availability of those. So drugs, in particular—and anaesthetic drugs to keep people asleep while they were on ventilators—were one of those things that appeared to be in short supply. So there was a very big piece of work also done around stockpiling the most critical drugs, and that group has now been expanded out to more common drugs that we thought might be put at risk by supply chain breaks. We have tried to cover off those aspects, as well as the big-ticket items that everybody could see in front of them, which was ventilators, as well. I think, from the perspective of treatment, we are as well prepared as we can be. And if a new treatment comes along, the challenge always with that is the country that works it out, particularly if it is a big, rich country, seems to have bought quite a lot of it before the rest of the world knows and you are playing catch-up. But we are as on the front foot as we can be in that space.

The CHAIR: I just want to move to remote Aboriginal communities. My understanding is that as part of the preparation communities were developing local pandemic action plans. Do you know if there is some sort of audit to show that all Aboriginal communities have done that, and is there some way to ensure that they tick all the boxes and will operate effectively in the case of an outbreak?

Dr LAWRENCE: The commonwealth commenced that process with the communities, and the Department of Communities is the facilitator, and Public Health Emergency Operations Centre was involved in that in the start and has provided information. I think at a high level every community ticked off they had one. There is now quite an intensive audit being undertaken—and these are multiagency collaborations which we are working through, so Communities is involved, Health is involved, both through public health but also through our Aboriginal Health group working with all the relevant agencies. I think it is fair to say, at my last update, I think we had received back about 60—but that update was a couple of weeks ago now—and they were pushing on to try and get the rest back in. That is a more in-depth review of: can you provide us with your plan and can we have a look at it and go through it? For exactly the reasons that you have said, the bigger communities—and we do not expect one for absolutely every community, because some of them are kind of umbrella-ed under the biggest community where their sub-communities lie, but we are working through that to try and make sure that that process is as robust as possible. This is obviously clearly sitting within the frameworks that we have got, the CCT, which has been reviewed by Dr Weeramanthri. There has been feedback about that and how effective that process is, so I think we are well integrated in our response to Aboriginal communities and trying to support them through the process. There is no doubt they have challenges with housing and things, and trying to manage that should it occur, so we are making sure we continue to protect them as well as support them to support what they need should there be an outbreak.

The CHAIR: What about diverse communities and culturally and linguistically diverse communities? What sort of work are we doing in those areas? In my community I represent, at the beginning of the outbreak, there was a tea going around that was going to solve all our problems. I have yet to taste the tea—I am sure it is very lovely! You know, that whole aspect of making sure that people are aware—not just assuming that they are ignorant. I have a large Vietnamese community. They saw SARS-2 have an impact on their community. They are very vigilant around how they deal with that. My understanding is that in many African countries, particularly Liberia, their reaction has been quite good in terms of public health because they had to deal with Ebola. I am not assuming that there is an ignorance. I am assuming how do we build on what their knowledge is and their own cultural contacts or cultural frameworks where they come together as bigger families and stuff like that, and work with those communities and be prepared, if there is an outbreak in those communities, to be able to minimise any impact.

Dr LAWRENCE: Again, we have a vulnerable communities section in our planning, and that is working with Department of Communities, Office of Multicultural Interests, the police, who actually have an excellent network already into those groups, and bringing all of those together to try and focus. PHEOC, again, led that piece of work in the early days, making sure there were appropriate translations, making sure there was culturally appropriate information going out. Again, I think we have learnt lessons, particularly from Victoria, and in some ways we are lucky we have had time, but our communities are also more integrated than they are in Victoria, where they seem to be very self-contained in areas—ours are very integrated across the community. But some of the lessons, as you said, are not about ignorance, it is actually about their day-to-day life, and they share meals. That is the heart of their community, and helping them to understand that you cannot share meals, but it needs to be done in a slightly different way, and getting those messages through. Because I do not think any of them intend to give COVID to each other, but it just forms the heart of the way they are.

The CHAIR: If you have your meal on injera, which is the Ethiopian bread, you pick it up and you eat it.

Dr LAWRENCE: It is getting some of those messages through, so we have expanded that series of, I guess, reaching out, (a) identifying who has got the best links into them, and trying to use those established networks. Putting out fliers is not always going to be possible—even if we get them translated, a number cannot read. So trying to use the leaders in the community, whether it be through religious leadership or other forms of leadership. Police have a lot of those networks. They also have a lot of networks through social media, which we can leverage off. We have got good visibility of all of the ways to communicate with them, and we are engaging through those processes to ensure that they have the information they need. And as we need to get them more information, we are able to do that in a very timely way because that is the criticality of it.

Mr Z.R.F. KIRKUP: Thank you very much, Chair. Dr Robertson, I understand we have a perspective in Western Australia that we will not relax our borders until the 28-day rule—we have canvassed that a little bit already. In other states and territories across the country, South Australia has had 69 days without locally acquired transmission, Tasmania 152 days, Northern Territory 193 days and the ACT 97 days. Given that those states appear to be, in that case, relatively stable, and I imagine the government is responding to their own health advice there, is there any option that you would foresee where the travel advice could be changed to open up Western Australia to those states, given that there has not been community or locally acquired transmission, in some cases, for four or five times the 28-day rule?

Dr ROBERTSON: Yes; look, certainly. We continue to review the epidemiology; we continue to look at the border controls and I will continue to provide advice to government as to what it is. But, at the end of the day, there is an issue around—and the government's focus is on, as is mine, the safety of the WA community.

Mr Z.R.F. KIRKUP: As is all of ours.

Dr ROBERTSON: Yes, as is all of ours. And one of the things that we have to be cognisant of is it is not just the epidemiology of other jurisdictions, it is also our susceptibility within WA. I do not think we can forget that, because if we look at the modelling, because we are at phase 4, largely most activities, whether that is family, social, work activities, have now resumed, there is a lot more people out and about, there is also a lot more mixing of people. We have seen a number of events occurring over the last few weeks as the event season seems to be getting underway again. What that has done is make us more susceptible. If we look at the modelling, our R effective rate is probably sitting at around 1.4, which would suggest that if we were to get one or two cases in here—

assuming not all individuals are infective, but assuming they were—the chance of us getting a substantial outbreak and for that outbreak to spread reasonably rapidly, are high. So, we have to factor that susceptibility into our decision-making. That is one of the other considerations that goes into this, as well as the epidemiology of other jurisdictions, and also, to pick up on an earlier point, their border controls. If we open up to another jurisdiction, for example, to South Australia, and then they open up to Victoria, people can travel rapidly across borders. We have seen what is known as "border hopping" or "bunny hopping" occurring where people were doing it on an international basis, literally landing at an international airport in the east and then turning up at our airports by just literally changing planes—walking across the domestic terminal and changing planes—and were then picked up and in some cases may have had subsequent disease. Those are other considerations, but if we are confident of the border arrangements, we are confident of the epidemiology and we are mindful of our susceptibility, then I think we can and will continue to look at whether there are other options for the borders.

[11.10 am]

Mr Z.R.F. KIRKUP: Thank you, Dr Robertson. Just further to that, are you confident with any of those other states and their border controls and epidemiology?

Dr ROBERTSON: I think the epidemiology is obviously—as you say, there are a number of states now, including Queensland, that have moved to 28 days or more of no community spread. There are still some robust borders in place around the country. We obviously still continue to have concerns about New South Wales and Victoria, but we would continue to look at whether there are options for—it may be that opening up to some jurisdictions but not to others is a possibility. That obviously will be considered in any future advice.

The CHAIR: Because of that susceptibility, and there are discussions now into phase 5 and the expectations around that, would an outbreak be a lockdown like we saw in the first phase or would it be in terms of the planning, a more serious lockdown? The first phase was the takeaway restaurants and the "stay at home if you could" in terms of work and essential workers still there and schools still operated effectively, only having five or six pupil-free days. What is the planning if—I am assuming that that we are planning on the basis of being susceptible as a community —

Dr ROBERTSON: We are.

The CHAIR: What is then the sort of hierarchy of health responses if we have an outbreak?

Dr ROBERTSON: It would vary, obviously, very much on the type of outbreak. I think we have seen a number of types of outbreaks. For example, the outbreak in Queensland related to the two people who travelled back from Victoria. They were able to get on—it obviously was restricted to a number of facilities around their juvenile detention areas where they were able to rapidly identify and get on top of that. Similarly, New South Wales has had a larger outbreak but, again, they have been able to manage it without bringing in major new restrictions. Then, obviously —

The CHAIR: New South Wales are about to delay any lessening of restrictions at this point in time, are they not?

Dr ROBERTSON: Yes. Certainly a number of the states have either delayed their restrictions or, in some cases, have reimposed some local restrictions. As part of our planning, there is quite a lot of work going into if we were to start getting cases, what are some of the steps that we would need to look at to actually reduce it. That would obviously depend on the scale and where the outbreaks are occurring.

The CHAIR: Places that make us vulnerable is basically what you are saying.

Dr ROBERTSON: It is, and the other consideration here that remains is phase 4 and phase 5 and whether we continue onto phase 4 to phase 5. That is another consideration that we will need to consider. Obviously, if we go to phase 5, the modelling shows that we are already somewhat vulnerable. Given the size of the city and the state, at the moment probably the most vulnerable jurisdiction is the Northern Territory, but I suspect if we were to go to phase 5, just because of our sheer numbers, our opportunities for mixing, we would probably become the most susceptible of all of the states. That is a consideration that we would have to make as part of that planning going forward.

Mr Z.R.F. KIRKUP: I am conscious of the time; I have only two or three questions left. Dr Robertson, is the advice as it stands now effectively that Western Australians could freely travel to other states or territories based on the health advice that has been offered to government, pending a change to possibly the arrangements that are in place here with respect to phase 4 or phase 5. Is that where it stands at the moment?

Dr ROBERTSON: People can travel out of WA at any time. There has never been a restriction. The issue is really whether they can come back in again. I provided advice which eased some of the restrictions on 25 September. I will be providing further advice which will look at all of those factors going forward.

Mr Z.R.F. KIRKUP: Sorry, just to clarify things. I appreciate the advice that has been tabled previously by the government. The advice just in relation to the freedom of movement between Western Australia and other states and territories, has that advice ever been given to government that that is something that could be considered, but obviously in the context of where we sit with respect to our current restrictions?

Dr ROBERTSON: As I said in September, I did say that they were options the government could consider.

Mr Z.R.F. KIRKUP: What states and territories were they?

Dr ROBERTSON: The states that had no community spread.

Mr Z.R.F. KIRKUP: To my previous question, could that be South Australia, Tasmania, Northern Territory and the ACT?

Dr ROBERTSON: And Queensland.

Mr Z.R.F. KIRKUP: And Queensland.

Dr ROBERTSON: It has now met that criteria, yes.

The CHAIR: But that was in the advice that you tabled on 25 September.

Dr ROBERTSON: That was in the advice on 25 September.

Mr Z.R.F. KIRKUP: I did not believe the states were outlined; I could be wrong.

The CHAIR: It was about communication of community contagion.

Dr ROBERTSON: For example, it did not specify necessarily the states, but any states that could meet those criteria would obviously —

The CHAIR: It was criteria based in terms of the evidence that you tabled, yes.

Dr ROBERTSON: Thank you.

Mr Z.R.F. KIRKUP: I am just conscious of the time.

The CHAIR: Yes.

Mr Z.R.F. KIRKUP: Dr Robertson, obviously —

The CHAIR: We have some more time.

Mr Z.R.F. KIRKUP: Sorry?

The CHAIR: We have until half past.

Mr Z.R.F. KIRKUP: Plenty of time! With respect to the restrictions that are currently set in Western Australia, obviously we are in phase 4, does your health advice incorporate or take into account the impact that it has on, say, social mobility or people's mental health and the like and how do you weigh that in accordance with the greater threat that COVID 19 might pose? Obviously, I appreciate that increase in a suburban lockdown situation where people cannot go outside their dwelling, that might have a detrimental impact. We have heard from Dr Lawrence that we do not like to move people out of aged-care facilities because the impact that it might have on their mental health. How do you weigh the mental health impact from an easing of restrictions or a tightening of restrictions, if at all? You may not.

Dr ROBERTSON: It is a consideration but there are going to be mental health impacts either way. We have seen, I think, the mental health impacts that have occurred in Victoria as a result of those prolonged lockdowns and lots of other health impacts, including things like screening for various cancers. Those have been delayed and they will have some subsequent detrimental impacts on the health of people. There are both medical and mental health impacts that we consider but we also appreciate that there are mental health impacts with people being separated from family members, people being in adverse circumstances where they may have lost their jobs and are finding it difficult to return to WA. Those are factored in and obviously, most of the serious medical ones we have been able to facilitate, so we have had a number where people have had to go to Victoria, for example, for medical care. We facilitated those people being able to obviously cross our borders. But the mental health ones are certainly part of that consideration.

[11.20 am]

The CHAIR: Just as part of that, the Mental Health Commissioners across Australia have made comments at some stage that they wanted the mental health and social and economic issues to be on an equal and integrated footing with the health impact. Is that something that is in consideration when you are framing your health advice in terms of that sort of aspect of those discussions? I am assuming that you have had conversations with our Mental Health Commissioner and that you are in close contact with her.

Dr ROBERTSON: I have not been recently in contact with Ms McGrath, but we certainly have had discussions at a number of meetings in the past and they are considered. One of the issues, though, is it would be somewhat difficult to quantify what the impact actually is. It is probably easier to quantify in a lockdown situation, but the impact on difficulties crossing borders is a bit hard to quantify.

The CHAIR: Or just that sense of uncertainty that is in the community. We are susceptible because we have some "back to normal" going on and people feel like it is not here, but there is always that sense of uncertainty, is there not? I assume that is difficult to quantify as well.

Dr ROBERTSON: It is. We obviously do get a lot of requests for exemptions and things like that, so we have some anecdotal evidence that that is probably increasing over time, as we would anticipate. But it is certainly a consideration going forward.

Mr Z.R.F. KIRKUP: Is it a fair assessment, Dr Robertson, that because we have eased our restrictions to now a phase 4 level, effectively we have found ourselves boxed into a position where we cannot

then look at travel into other states or territories because we have been in such a relaxed restriction arrangement in Western Australia; and that has now made it very difficult for the state to move away from either opening up to other states and territories where there might not be community transmission, as you have indicated in your advice previously stated, and, in fact, the relaxing of restrictions here has effectively cut that off as an option that is available to Western Australians to more freely travel?

The CHAIR: It is a choice between restrictions or border, is what you are saying.

Mr Z.R.F. KIRKUP: Yes.

Dr ROBERTSON: I think it is a tightrope that we walk here. But I think from our point of view, ultimately, my assessment is trying to look at what is best for the health and safety of the WA community and that will vary over time. In the middle of the second wave, I do not think anybody would have wanted us to consider opening the borders at all. Obviously, as other jurisdictions have got that under control, there is a lot less cases, the risk has substantially decreased, then I think we will look at the risk that is there, and it may come to the stage where we now feel that the risk is at such a level that we could consider opening the borders to certain states. That is part of the ongoing consideration.

Mr Z.R.F. KIRKUP: So, effectively, Dr Robertson, the government has before it the opportunity to decide to open up a travel arrangement based on the advice that you have provided?

The CHAIR: Based on the advice that was tabled on 26 September.

Mr Z.R.F. KIRKUP: And possibly prior.

Dr ROBERTSON: And future advice as well.

The CHAIR: Yes.

Dr ROBERTSON: This is obviously—I continue to provide advice. I have been —

Mr Z.R.F. KIRKUP: It is only interesting to me, Dr Robertson, because I think it was when the Premier released his advice in Port Hedland he suggested there was an all-or-nothing approach and that was based on the health advice, but that does not sound consistent with what you have provided to us here—that there is not an all-or-nothing solution. There is actually an option for selected states and territories.

Dr ROBERTSON: I think we will always continue to look at options going forward, but there is a legal element to that and there may be other elements that government have to consider as well, but from a health point of view, I will provide the advice.

Mr Z.R.F. KIRKUP: There is no all or nothing? This is not a binary zero or one; this is that there are actually nuanced approaches that could be taken, but the Premier has suggested that it is all or nothing, based on your advice.

The CHAIR: The health advice. I will help here, because that is an all-or-nothing answer that he is asking from you, so I will assist in saying that the advice that you handed down on 26 September that was tabled in Parliament was based on a risk assessment, and that risk assessment takes into account the susceptibility that the community has because of our current restrictions or non-restrictions. Is that based on that advice?

Dr ROBERTSON: That is correct, yes.

Mr Z.R.F. KIRKUP: So we cannot open up because the state has eased our restrictions so much.

The CHAIR: It is not an all-or-nothing question. Anyway, you do not have to answer that.

Dr ROBERTSON: It is not a —

The CHAIR: If he wants to ask that question to the Premier, he can ask that question to the Premier.

Mr Z.R.F. KIRKUP: It was based on the health advice, chair. If the health advice has indicated that we can ease restrictions or we could travel, or there could be a mix; evidently it seems to me that there is an option that has been provided to government where you could travel with some changes in restrictions.

Dr ROBERTSON: I think it is a continuum from the risk, and we have to work out where on the continuum we sit. As that changes, I will provide health advice to government on that.

Mr Z.R.F. KIRKUP: Which has been done previously.

Dr ROBERTSON: Yes.

The CHAIR: I just want to raise with you something that this committee has done in a previous report around type 2 diabetes, and we have issued a report on that, and comorbidities. And in terms of preparation and preparing for if we end with, you know, have community contagion, given that there are really strong links with comorbidities such as type 2 diabetes, hypertension, obesity, when the President of the United States recently tested positive, people were saying out loud that he was a risk factor because of his weight and obesity. Are there any specific plans in terms of a public health sense to look at health measures that can reduce the risk of poor outcomes for people, if they become infected with COVID-19, to reduce those comorbidities to actually do something in that proactive preventive space in that aspect of things, or is that just too hard?

Dr LAWRENCE: Most of those comorbidities take many, many years to develop so there is nothing —

The CHAIR: We may have this for many, many years.

Dr LAWRENCE: Correct, but there is nothing you could do in the short term to turn that around. If you have got ischemic heart disease now and are obese, it is a pretty tough call —

The CHAIR: Dr Lawrence, I would have an argument with you that in terms of type 2 diabetes, if you look at our report and you lost 10 to 15 kilos of weight, you can reverse your diabetes. I know that is not the official line of the Department of Health, but given that is a 43 per cent risk of comorbidity, do you not think we could do something around that?

Dr LAWRENCE: I am not sure that diabetes in itself is actually a risk factor. It is the consequences of the diabetes, so ischemic heart disease, vascular disease and obesity —

The CHAIR: No, type 2 diabetes is seen as—if you look at the epidemiology reports, it is right up there.

Dr ROBERTSON: Obviously, it varies on different studies. There is a more recent study that suggests that obesity may not actually be a risk factor. It is very much evolving and that is a very large study out of the US. But I think probably to answer your question, while they have tended to fade a little bit into the background, a lot of our normal processes, our normal chronic disease prevention strategies continue. They are continuing and that obviously includes working with the commonwealth government on national obesity strategies, working on state obesity strategies, looking at how we manage type 2 diabetes going forward, and then also more broadly alcohol and tobacco smoking, and a number of those other chronic disease things that will all ultimately contribute to the comorbidities, or may contribute to the comorbidities. Those programs and plans continue. They have probably got a little less visibility at the moment, but we see them as still very critical going forward. As Dr Lawrence has said, they do not have an immediate effect. They will take time. And we will continue to work on that.

Unfortunately, it is difficult to deal with some of these issues. I think what we are doing, though, is continuing to look at any of the medications. What we are seeing across the world, at least in the developed countries, is the death rates are going down. That is largely because of changed treatment—the use of corticosteroids, the non-use of ventilators, if at all possible, those kinds of things. So, those clinical practices and also clinical measures, the use of Remdesivir in some cases, are helping to reduce at least the mortality and to a degree morbidity of those cases. We will continue to obviously ensure that any advances in those will continue to be introduced into our system.

[11.30 am]

The CHAIR: Just to finish off, what are we doing in terms of also monitoring people—I suppose we do not have that many, but monitoring people who have had COVID symptoms in terms of any longitudinal issues that COVID-19 may cause? There is discussion that there are these other impacts of the disease on people.

Dr ROBERTSON: This is the so-called long COVID discussion. It is an interesting —

The CHAIR: You obviously do not believe it, doctor?

Dr ROBERTSON: No, I do. There is no doubt. It is the term that is slightly odd. I think it is based on the term long-haulers. So, it is just a slightly odd term, but there is certainly, I think, quite good evidence now that a percentage will have longer term symptoms out to in some cases three months. I think particularly some of the more—we would expect post-viral symptoms after this anyway in a percentage of these cases and I think we are seeing some of that. A number of them have longer symptoms that may go out to three months. The other part of this, of course, is that a number of them, as part of the disease, may have damage to lungs, damage to heart and those are obviously a lot longer effects and that we will need to manage going forward, but again, we are probably in a better situation than most by having had very few cases and prevention very much is better than the cure in this area, I think.

The CHAIR: Yes. That is right. Especially when there is not one, as the member for Dawesville just pointed out.

Thank you very much. We really appreciate your time—and we have not spoken about a vaccine because I am not sure whether you have got anything to add on that.

Dr ROBERTSON: I might actually get Dr Armstrong—because we already started to do a substantial amount of work at both the national and state level now going into preparing for the vaccine. Obviously, we do not have a candidate yet, but there are a number of candidates that are reaching towards the end of their phase 3 trials, so we are doing the preparatory work because it will obviously be a major both logistic and personnel undertaking.

The CHAIR: Okay. There goes my scepticism.

Dr ARMSTRONG: There is a lot of work in this area and it is a very tricky area as well. There are more than 160 candidate vaccines in development in various phases around the world, some of them much more advanced than others. Some of the more widely known ones, such as the Oxford vaccine, we should be able to get some data on the effectiveness of that vaccine fairly shortly. The Australian government has arrangements with the group that is developing that. So, that is a positive thing. We just do not know how effective that is going to be yet. It is in late phase 3 trials and we should get the answer soon. There are others that are in the phase 3 trials, which is the last trial stage before you really tell whether it works or not. There is something like seven different ways you can make a vaccine. Of these more than 160 that have been developed around the world, they are using six of those methods.

The CHAIR: The seventh method did not make the cut.

Dr ARMSTRONG: I am not sure why the seventh did not make the cut. In any case, it is as much effort as you can ever imagine going into a vaccine development. Nobody has ever been able to create a vaccine for coronavirus, but the effort that is put into this one will make it more possible than at any stage. It is how effective that vaccine is going to be is the important thing. What we are really quite concerned about is that there might be a feeling that once we get a vaccine and it starts to get rolled out across the country at some stage, perhaps next year, that will mean we have conquered it. That is not the case at all because it will take a long time for that vaccine to be delivered in such a quantity that we will get good herd immunity from the vaccine. There will be an ongoing risk of outbreaks all the way through. We really have to keep vigilant about that. Knowing all of these things, we have got very good plans in place at the moment to work out how we are going to deliver that vaccine, keeping abreast of the issues. We have got people in Western Australia in very senior positions who are considering the vaccine issue at the national level. That is very helpful for us. We are setting up technical specialist working groups to advise the government on the best way to deliver the vaccine. It is just we do not know when or if or how effective the vaccine is going to be. That is where we are at with the vaccine.

The CHAIR: Thank you very much. Now the journalists are going to run outside, I should think, so that they can do doorstops with you, so I will keep chatting for a little while to give them a chance to clear the room. We really do appreciate it. We understand how difficult this is and we really do appreciate all your good work. I have a 78-year-old mother who since March has bought a car, sold her house, moved and all those sorts of things and—her husband died—I do not think all those things would have been possible if not for the good work of your health advice, so I thank you from a personal point of view as well. Thanks for coming and taking our questions. We really do appreciate it.

Hearing concluded at 11.37 am

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