TRANSCRIPT

PANDEMIC DECLARATION ACCOUNTABILITY AND OVERSIGHT COMMITTEE

Review of Pandemic Orders

Melbourne—Tuesday, 29 March 2022

MEMBERS

Ms Suzanna Sheed (Chair)
Mr Jeff Bourman (Deputy Chair)
Mr Josh Bull
Ms Georgie Crozier
Mr Enver Erdogan
Ms Emma Kealy
Ms Harriet Shing
Ms Vicki Ward
Mr Kim Wells

WITNESS *(via videoconference)*

Professor Deborah Williamson, Director, Victorian Infectious Diseases Reference Laboratory.

The CHAIR: I would like to welcome Professor Deborah Williamson, the Director at the Victorian Infectious Diseases Reference Laboratory.

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I would like to welcome you and invite you to make a 5-minute statement in relation to your operations. Thank you.

Prof. WILLIAMSON: Thank you, and thank you to the committee for the opportunity to address them today. Before I begin I would like to acknowledge the Wurundjeri people, who are the traditional custodians of the land on which our laboratory is located, and pay my respects to their elders past and present and any First Nations people joining today.

My understanding is that the purpose of this invitation today is to provide evidence to the committee to assist committee members in understanding the impact of the quarantine, isolation and testing orders, with a specific focus on issues that have arisen from PCR and rapid antigen testing. I might just start by giving an overview of my current and previous roles and their relevance to this committee. Since 1 November last year I have been Director of the Victorian Infectious Diseases Reference Laboratory, or VIDRL as it is known, and professor of public health microbiology at the University of Melbourne. VIDRL provides state, national and international microbiological reference testing and is located in the Peter Doherty Institute for Infection and Immunity. VIDRL receives funding from the Victorian Department of Health to undertake public health reference work for the state of Victoria, and along with other laboratories has worked extensively with the Victorian Department of Health on COVID-19 testing, mainly on a program of work evaluating alternative approaches to COVID-19 testing, including antigen testing, saliva testing and looking at immune responses to SARS-CoV-2. VIDRL was also the first laboratory outside of China to grow and share the SARS-CoV-2 virus. Prior to this role I was director of microbiology at the Royal Melbourne Hospital and deputy director of the MDU public health lab. In these roles I led the first evaluations of antigen testing in Victoria, and indeed nationally, in late 2020.

In this statement I would like to acknowledge the work of laboratory scientists, laboratory technicians and pathologists throughout the pandemic. The sheer scale of the laboratory response required in this pandemic has been absolutely unprecedented and quite remarkable. Laboratory testing has been the absolute bedrock of the public health response. Put very plainly, without test results there are no data to inform public health action. Laboratories have faced many challenges throughout the pandemic, including reagent shortages and workforce fatigue, but laboratories in Victoria and indeed around the globe have worked tirelessly behind the scenes, day and night, to provide test results, and we often perform this work under intense pressure and scrutiny. And there have been many learnings for laboratories in Victoria and globally over the past couple of years.

From a VIDRL perspective, the quarantine, isolation and testing orders in relation to PCR and rapid antigen testing have meant a series of changes in testing practices which, with the shift to large-scale rapid antigen testing in early 2022, eased pressure on our laboratory and indeed other laboratories. VIDRL has welcomed the sequential changes in the pandemic orders, and we do recognise the balance that is needed in the testing system between PCR testing and rapid antigen testing.

I think I will leave it at that, and I welcome questions from the committee. Thank you.

The CHAIR: Thank you, Professor. I think we have all noted the extraordinary contribution that the laboratories have had to make during this time, and particularly the Doherty Institute. Keeping the public informed along the way too has been very useful. In some ways that is what our role as a committee is too:

looking at the orders to understand where they are at now. But it has no doubt been a very trying journey. You said that there have been many learnings along the way. I suppose that could take you a long time to tell me, but I wonder whether you could briefly just give me a framework around what those learnings have been over the last two years.

Prof. WILLIAMSON: Yes, you are right, that is a long discussion. But broadly I think some of the key learnings have been in relation to ensuring a diversity of different testing modalities, and that obviously played out late 2021 and early 2022 where we had to diversify from purely PCR testing to encompass rapid antigen testing. So diversity in testing modalities, redundancy in testing modalities as well, so I guess making sure that if one supply chain or one system was not able to function, then we had layers of safety, if you like, embedded in the laboratory response. Workforce capacity and workforce sustainability I think was also a major learning. I cannot comment on workforce in other laboratories, but certainly in the laboratories that I led during the pandemic, ensuring a workforce that was able to provide testing results on a timescale that really we had not had to manage before—that is, providing critical results 24/7 on a large scale—was something that was challenging. And really finding a pool of medical laboratory scientists that were available to do that at relatively short notice, again, was challenging and talks to the importance really of that workforce in the pandemic—so testing platforms, workforce, and supply chains as well. Something which impacted the laboratories not just in Victoria but around the country and actually globally early on was ensuring a solid supply chain of reagents for laboratory testing. I guess another major factor was something around data connectivity, so making sure that the laboratory results were able to be accessed by those who needed them at the right time, and that really developed I think as the response went on. So they would be some of the key challenges and learnings.

The CHAIR: So I suppose, going to the data issue, you are receiving the tests and they are being tested and the like and you are gathering information around a particular person's test with some information about them. Could you just sort of walk me through in layman's terms what you receive, what information you keep, what you do with the information and what ultimately is done with it within your organisation?

Prof. WILLIAMSON: Certainly. I can talk to in our organisation. Our laboratory, like other pathology laboratories, conforms to ISO, NPAAC and NATA standards, so there is a strict regulatory framework that operates around laboratories. I guess in relation to data that comes in and data that goes out of the laboratory, laboratory data in the laboratories is handled by something called a laboratory information management system or a LIM system, and that is really the data warehouse, if you like, for laboratory data. So if somebody has a COVID test and it comes to our laboratory, say, for PCR testing—and this is standard, I should say, actually for any test—identifiable information is taken from the sample. Usually we need two bits of information to correctly identify or link the individual with that sample. That is standard practice, and that information is recorded in the laboratory information system. Throughout the testing life cycle that information is continually checked to make sure that throughout the testing process the sample is linked to that individual so that there is no mix-up. And again, this is just very standard good laboratory practice. And then, depending on the test result, depending on who has asked for the test, the information is then sent back usually to the referring laboratory. For COVID testing, information is also sent to the Department of Health through electronic laboratory notification.

The CHAIR: Thank you.

Prof. WILLIAMSON: Sorry, I should just say that there are very clear NPAAC—so the National Pathology Accreditation Advisory Council—standards for retention of data relating to laboratory specimens.

The CHAIR: Has that been an incredibly challenging process given the huge numbers of tests that you have had to process during the course of the last two years?

Prof. WILLIAMSON: Yes, it has been challenging inasmuch as there is sort of an economy of scale, if you like, with the testing. I guess what has been challenging for us and other laboratories is making sure that the information gets to the right people at the right time. We and other laboratories have worked very closely with the Victorian Department of Health to make sure that that process is as efficient and as seamless as possible so information is used in a very timely way to effect a public health response.

The CHAIR: Are you aware of any data breaches?

Prof. WILLIAMSON: I personally am not aware of any data breaches.

The CHAIR: Thank you. I will go now to Ms Shing.

Ms SHING: Thank you very much. Good morning, and thank you for all of your work and the frontline response that you have provided, with the scientific expertise that you bring essentially to such a significant public health emergency and the context of the pandemic, which has tested the resolve and the resources of everyone who has been involved across a range of different sectors and industries.

I want to talk about the interface between PCRs and rapid antigen tests and the way in which we moved from the PCR framework through to RATs as we saw that surge in numbers of omicron cases during late December and January. One of the things that I would like to ask you to explore is the importance of moving from that PCR framework and the benefits of moving from that testing regime into the RAT testing framework as part of that rapid response and what that means for the benefits in timeliness or in personal responsibility, to use a phrase that someone else has used, around that self-administration of tests and reporting of that data through central repositories, I suppose, of the data around positive cases and tests, please.

Prof. WILLIAMSON: Yes. Thank you for that question. It is an important one. I do think that that change, if you like, from PCR testing to rapid antigen testing was one of the most significant changes in the public health response. Certainly the *Quarantine Isolation and Testing Order 2021 (No. 3)*, the one that came into effect on 6 January, was hugely significant for the laboratories inasmuch as it really eased pressure on that testing system.

I would just say that there were a number of reasons, I think—and again I cannot comment on individual laboratories or decisions that informed changes in policy—a crescendo of things that led to that change to rapid antigen testing. One of course was the overarching context and the change in strategic direction in the transition through the national plan from really trying to track every case to the emergence of endemic community transmission, which started with the delta variant and then obviously we saw surge with the omicron variant. That in turn led to a marked increase in the positivity rate, which meant that some of the strategies employed by some laboratories, predominately pooling—where a number of specimens can be batched together and tested—were not viable options for many laboratories.

In addition, there were system capacity issues in the PCR system, predominately relating to interstate travel—so the requirement to have a test prior to interstate travel—and also surveillance testing. So there was a lot of PCR-based surveillance testing that occurred. In addition, and congruent with the increase in positivity rates, there were a number of staff absences and furloughs, which again put pressure on PCR collection systems. So no one factor I think led to that switchover to rapid antigen testing. There was, I guess, a collection of different factors which led to that very necessary switchover to rapid antigen testing.

Ms SHING: Thank you very much for that. That is really comprehensive. I would like to understand perhaps a little more about that tipping point that you have referred to and the scalability of the system around pressures to resourcing for an upscale to PCR requirements and then an introduction of RATs. We know that the accuracy of RATs is lesser but that it has been a necessary part of the response, not just in Victoria but in other jurisdictions around Australia and indeed globally—to have the best sense possible with the scale of tests that are coming in. What is that tipping point, and what does it look like to move from the comparative accuracy of PCRs, being much, much higher, to RATs at a greater scale, which give an indication but not perhaps the significant levels of accuracy that exist across the PCR framework—within which the system can cope with that, of course?

Prof. WILLIAMSON: Again, that is a good question, and there is no one factor that would lead to that tipping point. I think I have outlined some of the factors that contributed to that in Victoria, but again overarching all of this is a degree, if you like, of risk tolerance—so acceptance of that risk of community transmission with the widespread use of rapid antigen testing as opposed to PCR testing. That really was, I think, implicit in the transition through the phases of the national plan, congruent with increasing vaccination rates. That really was the backdrop, if you like, to—I think, anyway—some of the changes from PCR to rapid antigen testing. But you are right: inasmuch as the sheer scale of testing required, in the context of the emergence of the highly transmissible omicron variant, the PCR testing system was not, in my opinion, the right system to deal with that. The switch to include rapid antigen testing was entirely necessary and the right thing to do I think at the right time.

Ms SHING: But reliant also on the national framework.

Prof. WILLIAMSON: Correct.

Ms SHING: And on what it was that that public health advice was. Again, there has been a lot of conjecture about the timing of the introduction of rapid antigen testing within the framework of the public health response, but I just want to be clear around the federal framework, which was required to be in place before that could in fact become part of the landscape of understanding the numbers of cases and their movement throughout community.

Prof. WILLIAMSON: Yes. Again, overarching policy decisions are very much a question for the Victorian government rather than myself, but what I can talk to, I guess, is that home testing, really, or self-testing with rapid antigen testing, became legal on 1 November. So that was a very clear, if you like, line in the sand. It simply could not be ruled out before 1 November because it was illegal to do so, and after 1 November things happened reasonably quickly. Certainly here in Victoria measures were put in place to enable widescale rollout of rapid antigen testing.

Ms SHING: But that hung off a commonwealth framework, though, as far as decision-making?

Prof. WILLIAMSON: Again, I am sorry, I cannot talk to some of the factors that were used to guide policy.

Ms SHING: That is fine. Thank you very much for that.

The CHAIR: Ms Shing, that is your—

Ms SHING: I appreciate I am out of time. Thank you, Chair. Thank you, Professor Williamson.

The CHAIR: Good. We will go now to Ms Crozier.

Ms CROZIER: Thank you very much, Chair, and thank you, Professor Williamson, for being before us this morning and for your evidence. You made mention of the COVID information sent to the Department of Health through the lab notification system. When did that start?

Prof. WILLIAMSON: I would have to take that question on notice, because I know that it was different for each laboratory and some laboratories already had that system in place. But, I am sorry, I do not have the exact dates for laboratories.

Ms CROZIER: Thank you. That is quite all right. If you would not mind, thank you very much. You also mentioned that changes for PCR and rapid antigen testing were the most significant changes in public health. You were calling on rapid antigen testing back in September 2021 I think. I have seen an article from the ABC where you and another colleague of yours, microbiologist Paul Wood, were speaking about the rollout of rapid testing programs, yet it did not really happen. We know that omicron came into Victoria on 8 December, but we did not have that widespread uptake of rapid antigen testing until early this year really. There was a delay in providing it to the community. Have you got any insights into, you know, actually at that time when you were saying we needed this tool? I think it was Professor Wood who said:

> … they need to use all the tools available to them …

So in terms of that, 1 November was the date that we could have home testing, yet we did not have that uptake. Have you got any insights as to why that is or why it was not rolled out in Victoria at that point in time?

Prof. WILLIAMSON: Yes. Look, again, I am sorry, I cannot talk to policy or strategic decisions that were taken by the Victorian government, but what I can tell you, I guess, is some of the work that we did with the Victorian Department of Health prior to the uptake of rapid antigen testing, which I hope informed the broader rollout of these tests. Prior to the widescale rollout there were actually a number of pilot studies on going. One was at the Royal Melbourne emergency department looking at the utility of these rapid antigen tests as a triage tool. We shared that work with emergency departments across the state, and indeed we provided advice to other jurisdictions on the utility of rapid antigen testing in the emergency department. In addition, there were other pilot projects on going with industry and home testing actually under a research framework prior to 1 November, when they were, I guess, made legal. So a lot of work had been done, if you like, to lay the

foundations for the rollout of rapid antigen testing. I do think that Victoria kind of led the way on the introduction of rapid antigen testing. Certainly trying to navigate the rollout of rapid antigen testing in a broader national sense was challenging because different jurisdictions were, if you like, at different stages of the pandemic.

Ms CROZIER: Certainly. I am just curious. I know it was being used widely around the world, so I was wondering if you had had conversations with your professional colleagues around the world about the successes of home testing being used around the world. Of course it was being used by health professionals in some settings back in August and September, when you were calling on it, so it was not the home testing but it was more broadly used by health professionals. Do you think it could have been used more broadly prior to 1 November, then?

Prof. WILLIAMSON: You know, it was challenging. There were not a huge number, I guess, on the market so to speak at that point. And just bear in mind that when the tests are performed by healthcare practitioners it still requires that collection process, so again it is still relying on the workforce to collect the specimens. Just in regard to your comment about discussions with colleagues around the world, we did actually run a round table. I think it was on 3 September 2021. We did invite some international speakers, and we talked to them about the use of rapid antigen testing at home and indeed in schools actually. That was co-hosted by the APPRISE Centre of Research Excellence and the National COVID-19 Health and Research Advisory Committee. Industry partners were invited to that round table, jurisdictional health departments and academics. I thought that was a very useful forum, actually, again for identifying some of the challenges that we knew would be associated with wide-scale rollout of rapid antigen testing.

Ms CROZIER: Thank you. I am interested in that and potentially any advice you were providing to government, because at that time the Victorian government was dismissing the use of rapid antigen testing. They were saying PCRs were gold standard. Well, probably nobody was denying that, but as Professor Wood and you were saying on rapid antigen tests, we should be using these tools and we should be testing more. Obviously at that the time in September when there was so much virus out there, every tool would have been utilised. I am just wondering: what advice did you provide to government around those discussions, particularly from that roundtable discussion that you had?

Prof. WILLIAMSON: The advice that we provided was really that we should be exploring the use of rapid antigen testing on a larger scale and looking at, I guess, the feasibility and usability of home testing, and that did happen. In fact with the Victorian Department of Health we started a study in late September, which was a feasibility study of self-collected rapid antigen tests in the community and at home as well. So we were well supported by the Victorian Department of Health in looking at use cases for rapid antigen tests.

Ms CROZIER: Was anyone from the Victorian government on that round table with those discussions that you had at that time?

Prof. WILLIAMSON: I would have to take that on notice and get back to you.

Ms CROZIER: Thank you. That would be helpful. Chair, have I got any more time?

The CHAIR: No, you have just run out.

Ms CROZIER: Okay, thank you. Professor Williamson, thank you very much.

The CHAIR: Thank you. We will move now to Mr Josh Bull.

Mr J BULL: Thanks very much, Chair. And thank you, Professor Williamson, for being here to present to the committee this morning and for all of the work that you and your team have done through this very tough and challenging two-year period. I do just also want to acknowledge that the infectious diseases reference laboratory was the first organisation outside of China to grow the COVID virus and the work that was done around the importance of case identification, the development of the vaccine on the back of that and of course the work of all the scientists and lab technicians that I think you have thanked and acknowledged in your introductory remarks. Again, thank you for all the work that has been done.

I just wanted to talk again about rapid antigen testing. We know that rapid antigen tests are now widely available in the community. What I am interested to know, Professor, is: how do you see the role of RATs as we approach winter and undoubtedly cases continue to rise as we go into yet another winter? How do you see the availability of RATs within the community versus PCR testing over the next three to six months?

Prof. WILLIAMSON: Thanks. That is a very good question. Unfortunately I do not have a crystal ball, but I know that, I guess, there is obviously more supply of rapid antigen tests now. These tests are not going away, and I think that they will continue to form an important part of our testing response to COVID certainly for the foreseeable future. As I have previously mentioned, there are lessons, I guess, to be learned with the PCR testing capacity. I think for PCR testing one of the challenges that we have moving into winter is preserving that capacity for our most vulnerable patients. Rapid antigen testing will certainly do that, but we also have to be prepared to deal with the emergence of other respiratory viruses. We have had a largely influenza-free past couple of years, but obviously as international travel resumes then it is likely that we will see more influenza and indeed other respiratory viruses. That will be a challenge, but it is a live discussion at the moment around how we prepare for that. In these discussions around laboratory preparedness I think we have learned a lot from COVID in trying to be prepared as well as we possibly can.

Mr J BULL: I take your point, and I am sure we all wish we had that crystal ball. Just in terms of the research that goes into RAT testing currently, there has obviously been a whole range of commentary within the community about RAT testing—accuracy, the point at which the RAT is administered, if a person within the community that takes that RAT is symptomatic or asymptomatic. How do you see the reference laboratory's role in that process? Is there active work currently underway around the accuracy of those tests? Are we at the highest point in terms of that accuracy, or do we expect that the science will evolve for those RATs to become even more accurate?

Prof. WILLIAMSON: That is a really great question. We are I guess integrally involved in looking at the accuracy of those tests. I would just say that there is a subtle but very important point when we think about accuracy. First and foremost, we know that rapid antigen tests are less sensitive than PCR tests. We should take that as a given, and that is just a difference in the testing process itself. However, what we do in the lab is look at something called the analytical sensitivity of these tests, so in the lab we look at the limit of detection, which is the smallest amount of virus that can be detected by the test. That is, if you like, an artificial measure of accuracy, but nevertheless it is very important because it flags immediately if there might be a problem with a specific test.

What I guess is almost more important to do is to look at the clinical sensitivity of the test. That is the real-world performance of the test, and that is affected by numerous factors in addition to the kit or the test itself—sampling, for example; healthcare practitioner-collected tests versus self-tests; the timing of the test in relation to symptoms; the adequacy of how well somebody can perform the test and read the results; and the kinetics of viral shedding, depending on the variant or the vaccination status. So there are a whole bunch of things to consider when we think about the accuracy of the test, but certainly from a VIDRL perspective, we have been involved in providing information to the Victorian Department of Health on the analytical performance of those tests. That is, I consider, an important role of a reference laboratory.

Mr J BULL: There are an incredible amount of variables in there that you mention, aren't there?

Prof. WILLIAMSON: A lot.

Mr J BULL: Indeed. I just wanted to go to the evidence that you provided a short time ago to Ms Crozier around the pilots that were conducted around RAT testing. Hindsight is a wonderful thing, and you mentioned the crystal ball before. I think there are some in the community who just expected that the rollout of RAT testing could happen overnight, and you would wave a magic wand, we would all have enough supply and away we would go—even though we did not at the time produce them here. I wanted to find out about the importance of those pilots and ask you: in terms of scientific method, what is the importance of conducting those pilots, and alternatively what would the other option have been had those pilots not been conducted, and what are the risks associated with that?

Prof. WILLIAMSON: Yes, that is another good question. I will talk to the first pilot that we did, which was actually in late 2020. We conducted a pilot study across three hospitals in Melbourne, working closely with the

Victorian department of health. That was really, coming off the back of the second wave in Victoria, to look at potential use cases for antigen tests at that time. We actually did not have that many cases to look at for the analytical or clinical performance of the tests, but what we identified were a range of logistical issues that may be associated with the widescale rollout of rapid antigen tests, so things like who would perform the tests, where would they be performed, how would the tests be disposed of, how would the results be recorded, and that information was I think incredibly useful in just identifying those logistical issues early. So that was the first pilot actually in Australia that was conducted.

One of the other pilot studies that we did, again in mid-to-late 2021, was I guess leveraging off that, a pilot study looking at—and I mentioned this before—the use case in the emergency department for rapid triage: so looking at people who came in with respiratory symptoms, using a rapid antigen test and rapidly triaging them to a location in the emergency department. Again, that was incredibly useful. The Victorian Department of Health organised a meeting with other emergency departments where we were able to present those data to them and share protocols et cetera. So, again, I think useful in informing a broader rollout.

You asked me what the alternative would be. Actually I do not know. I guess it would have been just rolling them out blindly without any information. I do not know that we would have been able to roll them out in the same way had we not had that information. I can tell you that information from the pilot studies that we conducted here in Victoria was in demand from other jurisdictions.

Mr J BULL: Right. So other jurisdictions used as a basis some of the work that was conducted within those pilots—

Prof. WILLIAMSON: Correct.

Mr J BULL: for their rollout of rapid antigen tests.

The CHAIR: Thank you, Mr Bull.

Mr J BULL: That is my wind-up. Thanks, Chair.

The CHAIR: It is.

Mr J BULL: Thank you very much, Professor.

The CHAIR: Thank you. We will go to Ms Kealy now.

Ms KEALY: Thank you very much. Thank you, Professor Williamson. As a medical laboratory scientist, I have utmost respect for what you and your team have done over the pandemic: working up the tests so quickly, getting a quality control and assurance program up quickly and getting those tests through and supporting your staff as well. So thank you very much.

I would like to just go into a little more detail around the testing capacity of VIDRL over the course of the pandemic, and particularly I guess related to some evidence that was provided by Professor Sutton last year around testing capacity over the entirety of pathology having decreased because of the changing positivity—there was batch testing beforehand, when there were positives in December last year, that could not be undertaken. Can you just give an overview of the testing capacity of VIDRL over the past six months or so and how that changed, particularly over the December period, where we saw a peak of positive results.

Prof. WILLIAMSON: Yes. Thank you for that question. So I guess in relation to the testing capacity specifically at VIDRL, we are able to test up to 1000 samples a day. I should just note that we are, as you pointed out, a reference laboratory rather than a high-throughput diagnostic laboratory. So towards the end of last year and certainly early this year a lot of our efforts were not focused predominantly on diagnostic testing but rather reference testing, and specifically, as Mr Bull asked, around evaluating different antigen tests; developing quality assurance panels for other laboratories, particularly in relation to salivary PCR testing; looking at the utility of alternative approaches to serology, like dried blood spots; and I guess other reference level work. So our capacity did not change, but I guess the focus of our work as a reference laboratory did necessarily change.

Ms KEALY: So as a reference laboratory, do you confirm positive tests and sequence the positive samples?

Prof. WILLIAMSON: Yes, we confirm the positive tests. The genomic sequencing for SARS-CoV-2 is performed in the other reference laboratory in the Doherty, which is the MDU public health lab.

Ms KEALY: Very good, thank you. You mention reagent shortages. Were there key periods of time that you can point to where there was a shortage of reagent?

Prof. WILLIAMSON: Yes. I think that the reagent shortages were most acute in early to mid-2020. That, I guess, was a function of global factors, really—case surges in Europe and then subsequently the United States. So as testing really ramped up in other parts of the world, supply chain issues for testing reagents became a problem not just in Victoria and indeed not just in Australia. But as manufacturers then subsequently increased their manufacturing capacity for testing reagents that shortage became less acute. So that was probably the most challenging period in terms of reagent shortages.

Ms KEALY: And there has not been any significant reagent shortage since that mid-2020 time period?

Prof. WILLIAMSON: Not in our laboratory, but I cannot talk to other laboratories. I know that there have been bumps, if you like, but not as challenging as early 2020 for the large high-throughput machines. There have been ongoing issues with what we call GeneXpert tests—they are the point-of-care molecular tests—but that has been across the country, not just in Victoria.

Ms KEALY: Excellent, thank you. Professor Williamson, can you give some insight into the data around the confirmation of the positive tests? What is the rate of correlation of a sample that is sent to your laboratory and identified as positive to COVID? What is, I guess, the correlation rate of that also testing positive within VIDRL?

Prof. WILLIAMSON: I do not have the exact data to hand, and I will take that one on notice for the exact figures, but broadly speaking tests that are performed in other laboratories use two targets, which will increase the specificity of their test result. I guess it depends really on the sensitivity of their test compared to the test that we use. But I can take that on notice and get back to you with the exact figures.

Ms KEALY: Thank you very much. In January 2022 we saw a number of samples which were discarded by private pathology companies because they were not tested within the relevant time frame. As VIDRL had been the primary testing laboratory in Victoria for some period of time before the private pathology services came online, were you ever asked to pick up any additional diagnostic testing to provide that surge capacity and relief for the private pathology providers who could not keep up with demand over that December–January period?

Prof. WILLIAMSON: I would have to check to see whether we were specifically asked about private pathology providers. We did provide some surge capacity to some of the public pathology services, but I will have to double-check if we were requested to take on anything from private pathology providers.

Ms KEALY: And is that something that was initiated within your own links within the pathology network, or was that an engagement that took place via the government seeking additional support?

Prof. WILLIAMSON: Yes, so that was driven by the COVID-19 pathology team within the Victorian Department of Health. They had been, I guess, looking at load distribution across the public pathology system for quite some time and had really put in quite a bit of effort to try and make sure that if one public lab was experiencing challenges in capacity, they were able to redistribute some of those specimens to other labs. I know that there was a lot of that that went on. And, again, we did meet as a network, if you like, of public pathology laboratories. We met fortnightly throughout the pandemic—or throughout most of the pandemic, I should say—in a meeting that was convened by the COVID-19 pathology team.

Ms KEALY: So were there government representatives at that meeting?

Prof. WILLIAMSON: Yes. It was a meeting that was hosted by the Victorian Department of Health.

Ms KEALY: My time is up, Professor. Thank you very much for your time.

The CHAIR: Thank you. We will move now to Mr Erdogan.

Mr ERDOGAN: Thank you very much, Chair. We have talked quite a bit about I guess how this pandemic has evolved, especially over the last 18 months, and in particular more recently your role to do with rapid tests and testing and the laboratory work. On that point I just wanted to thank you for all the work you have done and are continuing to do on behalf of all Victorians. It is very valuable and important work. Mr Bull shared with us that you were one of the first laboratories to test for the virus or grow the virus outside of China, so thank you again. But what I did want to also talk about is I guess the changing nature of the pandemic and in particular what research is being done or is underway in relation to the omicron subvariant BA.2, because following what is going on in obviously other jurisdictions, in the United States, I noticed that it is expected to become the dominant variant in the United States. What research are your laboratories doing in relation to that subvariant, BA.2, at the moment?

Prof. WILLIAMSON: Thank you. That is a timely question. You are right—BA.2 is certainly the dominant variant here in Victoria at the moment. There are a range of different research activities that are underway looking at BA.2. A lot of this work is done in conjunction with the Victorian Department of Health through that program that I mentioned earlier, which was I guess looking at innovative testing approaches. One is to look at the performance of rapid antigen tests against BA.2. That is a piece of work that is on going at the moment, and that is in our laboratory. We are also looking at immune responses to BA.2, and then I know that other work is going on at the MDU public health lab and indeed nationally looking at the genomic characterisation of BA.2. So there is a lot of work going on at state and national and indeed international levels looking at BA.2. I and a number of colleagues are linked into those national and international networks, and that makes sure that any research that we do here has global relevance.

Mr ERDOGAN: Thank you for that, Professor, and I will look forward to I guess the findings of that research. It is very, very important. Obviously the policy settings are done in that health setting but also by government as well, as you touched on earlier. Currently twice-weekly rapid antigen tests have been highly recommended in schools and early childhood education settings during term 1 of this year. How important do you think this has been in limiting the impact of COVID infections in these settings and in the community more broadly?

Prof. WILLIAMSON: Thank you for that question. Again, I cannot talk to the specific policy decisions that have been made by the Victorian government in relation to the rollout of rapid antigen testing, and again I do not think that—

Mr ERDOGAN: But do you think testing has an impact on limiting the spread in the community—that rapid testing does?

Prof. WILLIAMSON: Yes. I think there is no doubt that testing and isolation have a role in limiting the spread. I think it is well evidenced now that rapid testing and isolation have a role in limiting the spread of SARS-CoV-2. I think that we do need to evaluate some of the widespread rollouts, and that is I guess to inform future preparedness. I would hope that that work is underway.

Mr ERDOGAN: Okay. Thank you for that. From me that is all, Chair. Thank you again, Professor.

The CHAIR: Thank you, Mr Erdogan. In the absence of Mr Wells we will go back to Ms Crozier with his questions.

Ms CROZIER: Yes. Thank you very much, Chair. Professor Williamson, thank you again for the information. I am just wondering: you mentioned that you were doing those pilots and they started in November 2020. Was the Minister for Health briefed on those pilots or what was going on at that time and throughout the time you were conducting the pilots?

Prof. WILLIAMSON: I am sorry; that is not a question for me. That would be a question for the Victorian Department of Health with regard to their internal briefings.

Ms CROZIER: Okay. Thank you very much. If I could just go to those meetings that you said the pathology networks had—you and the private pathology—that were hosted by government. Could the committee have a copy of the minutes from 1 December as to what was being highlighted at those meetings, obviously with the number of tests that were increasing at that time, and the concerns that you may have raised with government?

Prof. WILLIAMSON: I just want to clarify there—sorry—that the meetings were with the Victorian public pathology services. The private pathology services were not at those meetings.

Ms CROZIER: Thank you. That is my misunderstanding. I thought they were at all of those. But would you have a copy of the minutes that could be provided to the committee in relation to some of those findings that you were concerned about that may have been highlighted in those meetings, considering that the rise of cases was happening throughout December?

Prof. WILLIAMSON: I may have them, but I think, again, I would direct you to the COVID-19 pathology team in the Victorian Department of Health.

Ms CROZIER: Okay. We will do that. If I could just go back to that. I know that, as Ms Kealy has said, the number of cases was increasing and throughout December it was clear from Professor Sutton's evidence—that 50 000 tests. I mean, you said yourself that VIDRL could only do 1000 tests as a reference laboratory, so you could not do the mass testing for the community, for the state. With those numbers increasing through December, I am just keen to understand what throughput the public pathology had—how many tests they were putting through at that time. Would you have that indication or could you tell the committee, or is that a question on notice?

Prof. WILLIAMSON: That is a question on notice, but again I would just come back to your comment about the 1000 tests a day at VIDRL. We are not predominantly a diagnostic laboratory. We are a reference laboratory that does a range of different reference activities, as I have outlined—you know, looking at rapid antigen tests, looking at saliva tests, looking at reference level testing. The indication of our testing capacity is not reflective of diagnostic laboratories in the state.

Ms CROZIER: I understand that. Is that the same for the other public pathology as well, then?

Prof. WILLIAMSON: No. The other public pathology laboratories—their primary focus is not reference testing but would be diagnostic testing.

Ms CROZIER: Yes. That is why I am keen for the committee to have those numbers that they were doing so that we could get some comparison of the numbers that obviously Professor Sutton was concerned about with capacity for the system to be able to cope. That is a question on notice, Professor Williamson, if that would be all right, please.

Prof. WILLIAMSON: Yes, no problem.

Ms CROZIER: Thank you very much. Am I correct in saying that VIDRL were the only laboratory to be undertaking the tests when the pandemic hit in February and March—there was no private pathology doing the diagnostics at that time?

Prof. WILLIAMSON: Again that is probably a question for my predecessor. But, yes, for a short period of time my understanding is that VIDRL was the only laboratory doing the diagnostic testing. But again that was congruent with other laboratories around the country. At that point the testing was, I guess, limited to reference-level laboratories, but obviously that rapidly changed and testing was rolled out to both public and private laboratories quite quickly.

Ms CROZIER: Yes, I am aware of that. But in other states at the time there was private pathology also doing the diagnostics. It was not just referencing laboratories that were doing the testing. There was private pathology undertaking diagnostic testing at that same time in other states. Am I correct in that?

Prof. WILLIAMSON: I could not comment on other jurisdictions' testing. Again, that would have to be a question on notice.

Ms CROZIER: Would you be able to take that on notice and provide it to the committee? Thank you very much. Chair, I think that is all I have, thank you.

The CHAIR: Thank you. Thank you, Professor. We will go finally to Ms Ward.

Ms WARD: Thank you. My office manager is now positive with COVID today, so I am trying to tackle that as well as this. Sorry, I won't be a sec. Thank you very much for being here, Professor Williamson. I really appreciate the time that you are spending with us. I respect exactly how busy you are. But I also want to extend my gratitude for all of the work that you and your team have done over the last 2½ years. I imagine it has been very fascinating work for you, but it has also been incredibly draining and work you would probably prefer not to have to be doing in terms of how it affects other people. But I am sure that there is an intellectual fascination with what you have learned over the last two-and-a-bit years as well.

It has been really interesting to hear what you have been saying about the evolution of rapid antigen tests in this state and also Australia and how we are using them to manage COVID. It is great to know that we were the first restriction in Australia to allow positive RATs to be treated as positive cases and the first jurisdiction to include daily positive case numbers from them in our reporting. The pilots that you are talking about, though, are really interesting to learn about, as is the data that has been produced with that and the subsequent pilots that have been demanded in other jurisdictions. Did the information that you have gathered from the pilot studies that have happened in Victoria go to the TGA in helping them decide what RATs they would use, what would be approved and how we got to that 1 November date?

Prof. WILLIAMSON: Thank you for that question, and yes, it has been exhausting and challenging. But the work that we did in the pilot studies was exclusively for the first pilot study done in conjunction with the Victorian Department of Health. More laterally, since early this year we have been working with the TGA to look at the analytical performance of different tests. I cannot talk to where the Victorian Department of Health may have, I guess, presented data that we did as part of those pilots and whether that did go to TGA, but I can certainly say that we are working with the TGA now.

Ms WARD: Great, thank you. I do not know if you have got the time to do this, but talking us through the collection of data and the variants that you are collecting and what you extract—the genomic sequencing that you do in understanding the variants that we have got—you said that BA.2 is now the dominant strain in Victoria. When we say dominant, where is that up to? Is it 60 per cent, is it 70 per cent of current cases? And how easy is that to determine? Is that purely based on PCR data that you are collecting, or is there also some evidence through RATs that you are able to obtain?

Prof. WILLIAMSON: That is a good question. The rapid antigen testing does not allow for the determination of variant status. It will obviously give you a qualitative result as to a positive or negative but at this stage we cannot take the rapid antigen tests and do genomic sequencing or detailed PCR characterisation to look to see which variant is dominant. But PCR positive samples are able to undergo genomic sequencing, depending I guess on how much virus is actually in the sample, and there is a very, very well-established pipeline for doing the bioinformatic analysis of those samples, which I guess is internationally standardised now. With regard to the proportion of cases that are BA.2, I do not have the most up-to-date information, and again I could take that on notice. But I should just note that there is a national group called the Communicable Diseases Genomics Network which has, again, worked tirelessly throughout the pandemic to put in place a national framework for looking at the emergence of different lineages. That information is available to both state and federal departments of health and is the most up-to-date information that we have on variants.

Ms WARD: Thank you. You may not be able to answer this, but in terms of variants, we know that there are genomic changes that have happened within Australia, but those variants do not seem to have gone very far and they certainly do not seem to have gone overseas. Is that correct—that we seem to be bringing into the country these genomic changes, these different strains, whereas the strains that have emerged in Australia, at this point in time at least, do not seem to have gone far?

Prof. WILLIAMSON: That is a difficult question.

Ms WARD: Yes, I thought it would be. Sorry.

Prof. WILLIAMSON: One of the reasons is that we do not sequence everything—the sheer number of cases prohibits that. It is not feasible nor is it sensible to sequence everything. So I guess that is a hard question and actually a difficult question to answer.

Ms WARD: No, I thought so. Sorry. I was just curious. You talked about sharing a lot of the learnings that Victoria has obtained with other jurisdictions. I assume that includes other states and territories in Australia, but

how far internationally are you sharing what we have learned here in Victoria and the work that you have done, particularly around RATs?

Prof. WILLIAMSON: We have shared that through peer-reviewed publications. That is the primary method of sharing research and scientific findings, and we have always tried to get that information out into the public domain as quickly as we can. That means that information is accessible nationally and internationally, so that has been our primary way and our preferred way actually of sharing research findings.

Ms WARD: Thank you. Thank you, Chair.

The CHAIR: Professor Williamson, just finally, our role as an oversight committee is to also look at the impacts of the orders that the government has made during the course of the pandemic on people's human rights, and privacy of course is one of those human rights that we are considering. I am just wondering if you could comment on whether you consider that the procedures that you have in place in your lab, in keeping information, gathering information, you are conscious of the need for privacy, whether you think it has been satisfactorily done and whether you think there could be any improvements in the protection of people's individual privacy with the testing that goes on?

Prof. WILLIAMSON: Thank you for that question. It is an important one. As I mentioned earlier, our laboratory and other accredited laboratories in the state and in the country conform to very well-established standards for data protection, data privacy, specimen retention, and I am confident that in our laboratory we have the optimal systems in place to protect individuals' privacy. They are well established, and they were in place long before the pandemic.

The CHAIR: Good. Thank you for that answer. I will take the opportunity now to thank you on behalf of the committee for giving evidence here today. You will receive a transcript of the hearing for you to review, and you will also receive with that a list of any questions that were put to you that you were to take on notice. So thank you again, and we will now take a short break.

Witness withdrew.