

TRANSCRIPT

LEGISLATIVE COUNCIL LEGAL AND SOCIAL ISSUES COMMITTEE

Inquiry into the Victorian Government's COVID-19 contact tracing system and testing regime

Melbourne—Monday, 23 November 2020

(via videoconference)

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Ms Sheena Watt

WITNESSES

Professor Euan Wallace, AM, Secretary,

Mr Jeroen Weimar, Commander of Testing and Community Engagement,

Ms Sandy Pitcher, Deputy Secretary, Case Management, Contact Tracing and Outbreak,

Professor Andrew Wilson, Chief Medical Officer, Safer Care Victoria,

Professor Brett Sutton, Chief Health Officer,

Dr Simon Crouch, COVID-19 Deputy Public Health Commander, Case Management, Contact and Outbreak,

Dr Clare Looker, COVID-19 Deputy Public Health Commander, Case Management, Contact Tracing and Outbreak, and

Dr Annaliese van Diemen, Deputy Chief Health Officer, Communicable Disease, Department of Health and Human Services.

The CHAIR: Good afternoon. I would like to declare open the Standing Committee on Legal and Social Issues. It is a public hearing for the Inquiry into the Victorian Government's COVID-19 Contact Tracing System and Testing Regime. I am sure it goes without saying, but please ensure that your mobile phones are switched to silent.

I would like to begin this hearing by respectfully acknowledging the Aboriginal peoples, the traditional custodians of the various lands each of us are gathered on today, and pay my respects to their ancestors, elders and families. I particularly welcome any elders or community members who are here today to impart their knowledge of this issue to the committee or who are watching this broadcast at home or wherever you might be. In fact I would like to welcome all members of the public who may be watching this broadcast today.

Today we are joined by a number of committee members, who I will introduce now. Looking at my screen, I have Deputy Chair Dr Tien Kieu, Ms Georgie Crozier, Ms Sheena Watt, Mr Lee Tarlamis, Ms Wendy Lovell, Ms Kaushaliya Vaghela, Mr Enver Erdogan, Dr Matthew Bach and Ms Melina Bath. I hope I have not forgotten anyone. I would also like to very much welcome the witnesses here today: Professor Euan Wallace, Mr Jeroen Weimar, Ms Sandy Pitcher, Professor Andrew Wilson, Professor Brett Sutton, Dr Simon Crouch, Dr Clare Looker and Dr Annaliese van Diemen. Thank you so much for making the time to appear before us today in what I think is a most important inquiry.

Just to let you know, all evidence taken at this hearing is protected by parliamentary privilege as provided by our *Constitution Act* as well as the standing orders of the Legislative Council. Therefore the information you provide today is protected by parliamentary privilege. However, any comment repeated outside this hearing may not receive the same protection. Any deliberately false evidence or misleading of the committee may be considered a contempt of Parliament.

As you would be aware, all evidence is being recorded and you will be provided with a proof version of the transcript following the hearing. I would very much encourage you to look at that and make sure that there are no inaccuracies or misrepresentations, because ultimately it will appear on our website.

I also would like to make it clear at the start of this hearing that in undertaking this important inquiry the committee's goal is to understand the position Victoria is in in relation to the capacity and fitness for purpose of our contact-tracing system and testing regime. With your assistance we can understand what makes for best practice in this area with a view to advising the Victorian public about our current system and how it will serve us into the future. Practices can always be reviewed retrospectively, but what is important is to ensure we have a system that can serve Victorians well and in which we can be confident. I would also like to express my thanks to the many staff of the Department of Health and Human Services, both in leadership positions and at every level, who have worked so hard in facing this problem of an unprecedented nature. I appreciate all of their efforts, and as senior leaders of that department, I really do welcome you—genuinely welcome you—here today.

Now, I understand that Professor Wallace will make some opening remarks and that you will be sharing your screen with a few slides for us. Thank you and, again, welcome.

Prof. WALLACE: Thanks, Chair, and thank you to the committee for your time this afternoon and for allowing so many witnesses to come together. I think what will become apparent over this afternoon, indeed if it is not apparent already from last week's witnesses, is that to properly understand the issue of contact tracing, which is a pipeline from an individual coming forward for testing all the way through to quarantining contacts, it is useful to have the experts in the field all here together. Chair, can I just begin also, on behalf of my team, by acknowledging the traditional owners of the lands on which we are dialling in from and pay our respects to their elders past and present.

It is 24 days now in Victoria since the last local transmission—or we have had 24 days of no local transmission—and this is about one thing only: it is about stopping virus transmission from one individual to others in the community. That is where the department has expended most of its efforts over the majority of this year: to try and stop and contain this virus as quickly and as comprehensively as possible.

As a nation Australia has achieved something which very few other nations globally have achieved, and Victoria in particular has achieved something in containing a second wave that very, very few places elsewhere in the world have done. Indeed countries internationally are now looking to Victoria specifically for advice on how did we achieve what we have achieved. Of course, not to oversimplify, but it is a combination of social restrictions that those of us who live in Melbourne in particular are only too familiar with and comprehensive and very effective contact tracing. In that regard, again on behalf of my team, I just acknowledge the enormous effort that Victorians, particularly Melburnians but all Victorians, have played over the last six months in containing this virus in our community to allow us to look forward to the Christmases that we had hoped to look forward to at the very beginning of this year.

Today is about contact tracing principally. As you will hear, it is a pipeline from an individual coming forward for testing who may have symptoms to then the return of that test result, to the isolation of the individual while they wait for their result all the way then through to the quarantining of their contacts so we can stop transmission of the virus and also understand where the virus came from to that individual—where did the individual pick up the virus from?—and then tracing those contacts.

First and foremost, and I think it is picked up in Alan Finkel's review—and you heard from Alan last week, the chief scientist—that deep community engagement and trust is fundamental to effective contact tracing. It does not matter how good your processes and systems and interviewers are, unless you have the trust and engagement of the community, the processes just will not work. We have seen some of those lessons just in last few days play out in South Australia. If I could call up the slides.

Visual presentation.

Prof. WALLACE: Thank you. Very briefly, in the next 15 minutes I just want to take you through some of the changes that have happened over the last six months or so. Chair, you have already introduced my team. This slide is the organisational structure of the Public Health COVID-19 Command. My predecessor, Kym Peake, as secretary, established an emergency management structure to deal with the health issues that were presented by the pandemic. This structure in front of you is just the Public Health COVID-19 Command component of that overarching emergency management structure. The lozenges with the purple rings around them, purple borders, represent individuals who are here today. What I hope you can see is that among the witnesses today are the most senior people in our system who have led the teams and led strategy and policy around how we have contained this virus. The key thing is that there has been a very linear reporting structure through to the state controller for health, which is the Secretary for the Department of Health and Human Services. I am going to hand over now to Sandy, who will summarise some of the improvements, and then on to others. Sandy.

Ms PITCHER: Thank you, Euan. As Euan just set out for us, the story that we have to speak to you about today and provide evidence on is really an example of Victoria's capacity in terms of contact tracing and talk to you about what the pipeline is, as Euan has described, really from the start of the COVID testing regime right through to working with people who are COVID positive and their contacts. So it really is a journey for the patients and the people involved, and there really are a lot of different touchpoints that we will be able to talk to

today—and talk about our areas of continuous improvement, because as we have been through 2020 we, along with the rest of the world, have learned a very great deal about addressing COVID and what we need to do to have the very best responses. And we actually feel that through some of our experience we have not only the lessons that we have learned for ourselves and our story of continuous improvement but also information that we think is really valuable to share with colleagues across Australia and internationally.

So as we run through today we will talk about testing times and our turnaround with results. We want to talk about the way that we have worked with our communities, particularly some of our vulnerable communities, and how we have used different digital systems and grown our digital systems to really try and get to world's best practice on those. And we will touch on working with our culturally and linguistically diverse communities as well as our work with businesses and that really important role that the Victorian business community has played, and we thank them for their efforts, and certainly as well relationships with general practitioners and that very, very important frontline role that general practitioners play in public health and working on social determinants of health every day.

If we go to the next slide, I will hand over to our Chief Health Officer, Brett Sutton, who will talk us through the next few slides.

Prof. SUTTON: Thank you, Sandy, and thank you, Chair and members, for the opportunity to present today. This is an epidemic curve of effectively the two waves that Victoria went through. As you can see, the epidemic was known in China from the beginning of the year, indeed late last year. I issued a Chief Health Officer alert on 10 January, the first I think in Australia, because we knew about the concern regarding a new virus that was transmitting that had caused a cluster amongst people and that could be well be transmitting between them. On 25 January we had our first case in Australia, which was in Victoria. There was a period of time when there were very few cases, through February, but a trickle of ongoing arrivals. On 13 March we had our first community transmission, but you can see from the colours there that the majority of our cases were still international travellers arriving. It was in late March that that ceased in Australia for arrivals from China and later other countries. And so the proportion of those who were international arrivals decreased over time, but there were still those who were contacts of confirmed cases and a small number and a small proportion who were of unknown source, so a less-challenging first wave in that regard.

Cases were driven down to very low levels through April and May, and as we all know now, there was a significant increase in cases towards late May and early June that took off very quickly. You can see that we really managed a second wave that was pretty much the equivalent of Australia's total cases in its first wave. The majority of those were contacts of confirmed cases, but there was a significant proportion that were acquired in Australia of unknown source. These are cases where the individual cannot identify who they have potentially acquired it from and we cannot find an individual who is connected through epidemiology or some other common source to the cases that are notified to us.

In the beginning of that second wave there were a number of restrictions that went into place: a postcode lockdown, which we are aware of, stage 3 restrictions came into force and mask wearing just before the peak, and then it was really on the peak that we had a state of disaster declared, stage 4 restrictions in metropolitan Melbourne and stage 3 restrictions in regional Victoria shortly thereafter. We saw a rapid decrease in cases in the weeks subsequent and, as is not unusual, a kind of stubborn and frustrating long tail but with smaller and smaller numbers of cases as time went by with a view to opening up and easing restrictions. The road map for easing restrictions came out on 6 September. This reflected the modelling work that we had done through August–September that indicated that we could ease restrictions over time and continue on that downward trajectory.

We went to step 3 on 16 September in regional Victoria, hitting some milestones in terms of numbers of cases, and then step 2 on 28 September in Melbourne. The 18th of October saw the easing of some social and business restrictions, and on 1 November there were zero new cases, which has remained for the last 24 days. Next slide, please.

These are the outbreaks with active cases. We had our peak of outbreaks really in mid-August. There were at one point in time over 400 with active cases, so that represented literally thousands of cases. You can see to late August that the average number of cases per outbreak was relatively small. It did increase through September, but it was with smaller numbers and a very, very intensive and very timely response, including with rings of

contact tracing, the primary contacts and their contacts—so the secondary contacts, the contacts of contacts—that we drove down the numbers of associated cases in those outbreaks, really because we intervened with those notified cases and their contacts and put a very robust quarantine measure for those two rings of contacts around those cases. It drove down the numbers of cases because we were really ending those outbreaks at a much earlier stage. That was a combination of rapid turnaround in testing times and really rapid contact tracing that was part of a compressed time frame that we will speak to today around the point of testing to the point of notification to the point of identifying close contacts and being able to follow them up for quarantine purposes.

And these are the testing numbers for Victoria. Victoria has done very well in relative terms in Australia. We have had the largest number of total tests on a per capita basis. We are also leading in Australia overall, although I note that South Australia has had very substantial testing just in the last week, obviously. So we have also gone through the ebb and flow of testing according to the transmission and the engagement of the community to come forward for testing. We have obviously had the most confirmed cases, but even for our population size—second in Australia—we have had very high testing numbers really from April onwards. Sometimes it has dropped off, in part because of engagement around testing, but the capacity has continuously increased over the course of the nine months of this pandemic. Thank you.

Mr WEIMAR: Good. Thank you, Brett. Jeroen Weimar here. Good afternoon, Chair and committee members, and thank you for the opportunity to meet with you this afternoon. I will talk briefly to a few slides to describe really the testing response before I hand over to Sandy. As Brett has described, the chart I have in front of us now really describes the testing response to the two waves. The rather bold red line represents the percentage of positive tests detected in our testing load, and the blue lines are the total volume of tests over the period since the start of the year. What that of course highlights is that our testing capacity during the first wave was actually quite limited and quite small—not necessarily a huge problem. It was like that across Australia, as we were rapidly mobilising PCR testing capacity, but it was also of course very targeted at incoming travellers, people coming in. It was a very tight group of people that were most at risk.

The testing capacity actually started to really mobilise from the back end of April through May and June, and you can see the higher testing levels that were starting to be apparent after the first wave and before the second wave. And of course it ramped up again during the June–July period to an absolute high of around 35 000 tests a day, running at around 24 000 tests a day on average during July and August—really the peak of the second wave. There was a very strong community response, over 200–210 I think at our peak—fixed testing locations across the state. And during that late July–August period there was a deployment of a whole range of different testing modalities—rapid response teams, who were bringing testing into communities, particularly into outbreaks; the launch of call to test, providing testing capacity for people who were not able to leave the home; and a whole range of other testing modalities. Testing volume and symptomatic-testing demand started to drop noticeably really around the September period. Into October you can see that gradual easing off of the testing volume numbers, at the same time of course as the overall case load was dropping. And the proportion of positive results is clearly dropping in line with all that.

Really what we have been doing over the last four or five weeks is starting to increasingly push toward asymptomatic testing in very targeted locations, so getting into some of our high-risk industries—asymptomatic testing for staff working in aged care, asymptomatic testing for staff working in COVID wards in health services. So what we are seeing, as of and up to the last couple of weeks, is we are now testing probably around 14 000 people a day on average, just under 13 900 a day on average. However, of course we are now looking at how we continue to rebalance our testing system with lower levels of—or now with zero levels of—community transmission and also starting to think ahead, of how we manage that as the risk profile changes over the months ahead.

What we have also been doing, as well as building this testing capacity, is building a testing network, building more mobile-testing capability, deploying alternative testing modalities like saliva testing, wastewater testing, and antigen and rapid molecular testing. We have also seen a significant improvement in the turnaround times, and turnaround times for test results is a critical piece around ensuring that members of the public feel confident to come forward and can get a rapid outcome on their test results. Back in July we were running with about half the tests taking longer than a day for people to get their results, and certainly we saw some of our lab test results taking two, three, four days sometimes to come back. We now have 96 per cent of test results coming back within a day. In fact around 40 to 45 per cent are coming back within around 12 hours—so a really rapid turnaround now of testing results. That also of course allows people to plan and to make decisions. And of

course it accelerates for those positive cases that we were getting back in October, September and August—it allows a far more rapid acceleration into the contact-tracing process, which I am sure we will discuss going forward.

If I go to the next slide, in terms of what that testing system looks like, we have around 200 or so COVID-19 testing facilities. There is a broad range of different types of facilities that we have run. So we have the 26 very visible drive-through testing facilities in metropolitan Melbourne, the things we all see on the news. There is a level of those also in regional Victoria. But of course we also have GP respiratory clinics, we have hospital respiratory clinics, we have private GP clinics, even some pathology collection centres and walk-through centres. So all up, right now, there are 106 testing centres across metro Melbourne. Everybody is within at least 10 k of a testing facility, and around 93 testing facilities are currently operating across regional Victoria—again, giving us good geographical coverage, ensuring everyone has got good and easy access to safe and effective testing arrangements.

Again, for the 1600 or so staff who work across those testing centres, one of the strong elements of that testing performance has been its accessibility but also the high level of infection control. We have had no breakouts. We have had no risks and no negativity happening around the physical testing infrastructure, ensuring that we can provide that solution to people across the state. Next slide, please.

If we then turn to how we drive our testing program, there are really sort of three tiers in which we look at our testing. The base of our pyramid is very much around ensuring everyone has got access to testing, and it also speaks to how we engage with all communities across Victoria—that we understand the barriers that people face, we understand the challenges that people face in wanting to get tested, recognising when they need to go and get tested and how they physically access the testing system—and hence the different range of solutions we offer in that space and the high level and deep level of community engagement that we have been developing over many months.

Secondly, the middle tier of the pyramid is around the proactive engagement, prioritisation and surveillance testing we have been doing, particularly over the last two or three months, with high-risk industries, so a lot of work in our food-processing industries—meat processing, fish processing et cetera—but also of course supporting the aged-care sector and health services. And then at the peak of the pyramid is that really swift response to outbreaks that Brett has spoken to. That has been critical to us to ensure that outbreaks are contained more quickly, and if you compare and look at the speed of response that we have accelerated over the last five or six months, you can really see how some of those recent outbreaks have been brought far more quickly to heel with fewer people impacted and less seeding out into the wider community. All that is based around a far more mobile, far more agile and far more responsive testing system to go and achieve that, and with that, I will now hand over to Sandy to talk about some of the contact-tracing improvements.

Ms PITCHER: Thanks, Jeroen, and thanks, committee. Leading on from the improvements in testing and the testing that Jeroen spelt out, this chart here really just demonstrates the efforts and activities that were happening across June-July into sort of August and September—recognising that, as well as looking at different technologies that we were able to build, we introduced very unique and successful things such as Operation Vestige, where we knocked on the door of individuals who initially had not been responding to phone calls but moved to visit all positive cases and all close contacts as part of the way that we supported and interacted with people with COVID in Victoria. So this chart really demonstrates that adaptation and continuous improvement and the high levels of activity and focus that we have been experiencing in Victoria.

If I move on to the next slide, this is really demonstrating the percentages of cases that we are interviewing within 24 hours and the percentage of known contacts that we are visiting within 48 hours, and this is so important in fighting COVID. As Professor Wallace said right at the start, the key focus of all of our activities has been, ‘How do we slow and stop the spread of COVID?’, and the timeliness of being able to interview cases and respond to their contacts has been critical. You will see that a series of 100 per cents moving up throughout October really demonstrates where our system is and where it is looking into the future, and we recognise that we have really built some improvements here but also that that speed and that consistency have been part of the Victorian story over the past weeks.

And if we move to the next slide—and I am conscious, Chair, that time is probably running a bit short—this just demonstrates, as I had said earlier, that achieving these results, achieving these 100 per cents and 99 per

cents, really relies on the combination of having workplaces working with us in terms of any cases identified there, hospitals and sensitive settings being really key partners, and understanding the way COVID operates in those settings. Having the Victorian community coming out for testing at such high levels, as Jeroen has talked about, and the support across our community sector, particularly working with some of the most vulnerable people in our community, are all really important parts, and the public health intelligence takes all of those settings and all of that information into really making the test, trace and isolate system that we have in Victoria.

So if we skip on to the next slide now, we have here a bit of a demonstration—and I can speed through this one, Chair—in terms of understanding what those second-wave characteristics were and how we responded in terms of our outbreak management. That settings-specific focus, where we have a different approach in aged care than we do in schools, than we do in our industries, is a really important part of understanding how you stop the spread of COVID.

If we go to the next slide, communication and really targeted, clear communication with Victorians has been critical to the work we do. Jeroen talked about this with testing, and this has also been really important with the community, who are very engaged in the daily numbers but also understanding things like exposure sites—that sense of if you have been somewhere that there has been COVID, the actions that we want you to take in looking out for symptoms—and of course those things that we can never stop thinking about: being 1.5 metres apart, the embracing of the use of masks and all of the different work that workplaces have done in terms of their COVID-safe plans.

Next slide. Finally, as I mentioned earlier, we have done really critical work in terms of working with different communities, and particularly our priority populations team within CCOM has worked in really unique and important ways with our Aboriginal and our CALD populations. We do have materials translated constantly into 57 languages, with audio and video content as well as written, recognising that as directions have changed throughout COVID we have been continually updating those messages.

Next slide, thanks. I will now hand back to Euan just to talk through these final parts of our system.

Prof. WALLACE: Chair, just some very quick closing remarks—and of course we will leave these slides with the committee. This slide really just summarises the digitisation of our systems through particularly the second wave—lessons that were actually learned in the first wave that were planned in the interim before the second wave hit us—but essentially all about getting rigorous, quality data entered into the system as fast as possible, triggering then automatically a whole sequence of events that leads to the isolation of cases and the quarantining of close contacts. Next slide.

Then last, the changes that we have made to our outbreak responses. This slide just summarises the efforts of our so-called IPCON team—our infection prevention and control outreach nurses team. They have made some 1000 preventative visits and 1175 responsive visits, visiting industries, workplaces, aged-care homes, hospitals and schools, both in response to outbreaks but also to prevent future outbreaks. You can see the work that the IPCON team have done in strengthening industries very broadly, working with hairdressers, working with beauty salons, working with restaurants and with shopping malls about how they reduce their risks into the future as our social restrictions come off.

Next slide, thanks. I will leave this with the committee to look at at their leisure. It is really a summary slide of the list of improvements that we have made throughout the response particularly to the second wave and to give you a sense of the improvements that are very recent and still in flight—some of the stress testing we have been doing with the Australian Defence Force, for example, that is called out in the Finkel review.

Last slide, thank you. This is the most important slide. I just want to remind the committee that it is literally all about every minute counting. And it is about engaging with individuals, with communities, with employers, with businesses, and of course it is about public health and of course it is about government supporting individuals and enabling them to participate in the way that we need to participate.

Chair, we have done a whirlwind tour for you—we are now in your hands—really so that you understand and the public understands the current status of Victorian contact tracing, readying ourselves for anything that the future brings us. Thank you.

The CHAIR: Thank you all very much. That certainly was a whirlwind of slides at record speed, I think you got through those, so well done and thank you. I appreciate that you will be leaving them with us. If I could possibly start with a few questions, and I suspect that initially these will be to you, Sandy.

You very kindly supplied us with quite a bit of data a couple of weeks ago, which I appreciate. We had asked for data from 1 January, but all the data that you supplied us was really from 15 August. Even looking at the slides there, we saw quite a bit of data from about August. Is the reason we have not got data prior to August that prior to then it was not in a system where it could be collated and collected?

Ms PITCHER: Thanks, Chair. I am happy to provide more and additional data to what we have already provided if that would be useful. I think the direct answer to your question there is really around the form in which it was requested and what we had in that form to be able to reply. I would just say with the workforce data that because obviously we have changed through the course of the pandemic the arrangements for our staffing and also the way in which our structures have been covered, sometimes the data is really just the CCOM team, which is the cases, contacts and outbreaks management function, which is a very large one. But it is certainly not all of the public health COVID response, which covers certainly Jeroen's area with testing and community engagement. We also have the intelligence area, which does a whole lot of intelligence and AI work in terms of contact tracing. We do also have logistics and support. Depending on which version of cutting our workforce data, that can be the difference in what we can provide. So, Chair, happy to work with you after this to perhaps provide more information if that will be useful.

The CHAIR: Yes, thank you. And I think one of the areas that we saw and you mentioned it in the slides—and, Jeroen, this is probably towards you—was the test tracker program, but I know that basically we were not supplied any data of tests that were outside the test tracker program in the data that we received. I am wondering whether there is a good reason for that, or if it is something that you can follow up for us.

Mr WEIMAR: Yes, Chair, certainly I am very happy to follow up on that. I think, as I said in my brief summary slide presentation, we have certainly got all the data around how many tests we have done over the last 10 months or so and the number of positives. We have got turnaround test time numbers and all the rest of it over that period of time, so happy to provide that.

The CHAIR: I think it shows the public the level of improvement that has been happening during this process. It seems like every day those crucial minutes have become quicker and quicker. It would probably be good to see the whole lot of that. Just on that as well, we had testing site location data only from September.

Mr WEIMAR: Okay. Again, we can certainly provide testing site location data all the way from the beginning. I think as I said earlier, we started mobilising the fixed testing network back in February, when the very first cases were identified. That network has grown significantly, obviously. Particularly over that March to June period there was a significant expansion of the testing network, and certainly by the end of July we were running around 200, 210 sites. We have maintained that level of network since then. There have been a few sites coming in, a few sites coming out, as you would expect. But again, happy to provide—maybe I will do it on a month-by-month breakdown as to site numbers by month going back to February.

The CHAIR: Yes, I think that would be really, really helpful to us. Thank you. We can see the data—you have just provided it for us in those slides and certainly in some of those graphs—and we also found that there was some trouble in that you had stored the negative test results separately. So they were stored outside the PHESS system. I wondered if that has changed now. Now that you are on Salesforce, is everything stored in the same place?

Prof. WALLACE: No. Chair, we made a decision back in late July to August around how the results came in. Most of the results come in through something called electronic lab reporting, or ELR. It is an automatic feed that comes in from our 15-odd laboratories. Obviously the majority of results are negative. Even on the peak days when we had 700-odd new cases there were tens of thousands of negative cases. At that time we were using PHESS as the IT platform. The way that that ELR, those results, came in, the negative results were queued in the order they came in, in the same way that the positive results were. So essentially the positive results were being held up by the negative results. So a very important decision was made to then triage, to filter off the negative results to allow positive results to come in immediately. That probably saved us 24 hours in the every-minute-counts approach because it allowed all the positive results to come in effectively in real

time. As we have built the CRM and used the Salesforce customer relationship management platform we have yet to bring the negative results into that Salesforce. Again, it is part of having confidence and comfort that the CRM—it is a brand new build—is doing exactly what we want it to do in real time. The future intent of course is then to bring the negative results into that feed. So that explains it.

I might go back to your question about the data also. It is part of our response to the second wave. So the second wave was: ‘How do we contain this?’. We got very clear advice from the Burnet Institute around the time frame. The national standard, as you know from Dr Finkel, was 48 hours from the notification of the result to the quarantining of that case’s close contacts. The Burnet said, ‘No, no, no, no. It has to be 48 hours from the time the test is taken’. Now we did not have the data hooks that allowed us to extract all the time points, so we built those time points into our processes to allow us to report. So the reason that some of the data do not exist all the way back to January is the data simply were not collected in the manner—

The CHAIR: You just were not counting that, yes.

Prof. WALLACE: But the fact that we now do report it, and we are now many hours ahead of the national standard, the gold standard if you like—24 hours ahead of the gold standard if you like—just reflects a relentless pursuit of test to quarantine within 48 hours and, as Jeroen showed you, now we are down to 36 hours and 35 minutes on average.

The CHAIR: Thank you. I will move to the Deputy Chair, Dr Tien Kieu.

Dr KIEU: Thank you, Chair. Thank you, panel, for appearing today and also for supplying the information and can I also particularly support the team in thanking all the staff at DHHS for their relentless work under very much pressure from an unprecedented event in our lifetime. We are very thankful for you too for being able to come out of the second wave. Only a few countries in the world could do that, including Vietnam and Hong Kong, and Victoria.

This inquiry is about testing and contact tracing. I would like to ask some questions that are forward looking, particularly in that we are in Victoria opening up for returning travellers, international students included, to come into the state. The first thing is about testing. We have very good test numbers, leading Australia per capita. How could we keep up that rate of testing going forward until we have some effective treatment or vaccination for the virus? With that, is there any new biochemical or biological test that can reduce the time of the turnaround, or any technology that would help us in terms of testing and tracking? The problem is not technology but also with the platforms—that we would have very different platforms within our state as well as friend states where we have different platforms and also different legislation with regard to the testing and the tracing.

Now, about the contact tracing, I am interested in the tracing. You are not only tracing downstream a person who is positive and then how many people they are in contact with and so on, moving forward and asking them to quarantine and having the person quarantine. What about tracing back upstream? Can you explain to us a little bit about that? It is important to find the source, and also maybe genomic tests could then identify whether there are any serious issues of mutation or something. So there are two questions—one about testing and one about tracing.

Prof. WALLACE: Thanks, Dr Kieu. I might ask Jeroen to talk about the testing, and then—

Dr KIEU: Sorry, Professor Wallace. I also take this opportunity to congratulate you on the new role and responsibility.

Prof. WALLACE: Thank you. That is very kind. So I might ask Jeroen to answer the questions about testing and then Brett or Simon and Clare to talk about the contact-tracing processes. I might just preface Jeroen’s answers by re-emphasising that testing is not possible without the community engagement, so even in our most recent responses to the outbreak to support our colleagues in South Australia, where we have offered testing at our borders, it is about people coming forward and being confident that the test results will be turned around quickly so they do not have to step out of the community for long periods of time. But Jeroen can take you through how we maintain testing rates and what new technologies for testing are on the horizon.

Mr WEIMAR: Great. Thank you, Euan. So, yes, I think, as Euan says, at the moment about three-quarters of the testing we do, so 75 per cent of the 14 000–15 000 tests a day, are people with symptoms coming forward and presenting at one of our testing locations because they are showing symptoms. As Euan says, it is critical for us. The first thing for us is about maintaining community confidence and support. That is so people understand that when they have symptoms, they get tested, and the way we do that is we have a lot of deep and ongoing engagement—both obviously through the media, through communications, but far more importantly with individual communities, different language groups and different sections of our society—to make sure that we understand some of the barriers and challenges that they may face in coming forward to get tested and address them. Whether it is around some of the financial arrangements for people to self-isolate or whether it is around giving people closer, more intimate and easier access to testing points, those are the kinds of things that we have certainly been doing over the last few months and we will continue to do.

One of the significant barriers we know, of course, is that the nasal swab is not everyone's favourite thing to do, although the swabs have certainly changed in the last few months so they are far less probing than they used to be. But what we have also been developing and working on is our saliva-testing platform, and we now use saliva-based testing, where people suck on a straw, for the significant part of our ongoing asymptomatic surveillance testing program. It is much less intrusive, it is much less uncomfortable and of course it reduces one of the major obstacles that we face, particularly in doing frequent asymptomatic surveillance testing. So the saliva platform is something we will continue to use and build upon. It is something that very, very, very few other jurisdictions use. We have done a lot of testing and development work here in Victoria on that tool, and that has gone extremely well for us.

The other point of course you allude to is around, 'Are there more-rapid tests available?'. We have been doing a series of trials with the Doherty Institute around antigen and rapid molecular testing modality, so we have had about six different testing platforms that we have been exploring and deploying here in Victoria to see whether we can use them as part of our testing regime.. We are close to finalising our work, particularly on the antigen test, and the beauty of the antigen-testing platform, although it still is provided under a clinical environment, so it still needs clinical supervision and clinical control—you cannot just hand it out like a box of lollies; we still have to administer it in a secure environment—is it provides a response within 15 to 20 minutes, so it allows a far more decentralised rapid turnaround of testing results. Although it does not have the same specificity and sensitivity as the PCR test, it does give you a much earlier way of sorting out the wheat from the chaff, and particularly in those screening-type scenarios, that is something we are now starting to really look at: how we can deploy that antigen platform going forward.

In terms of then 'What does that do for our testing volumes?' and 'What is our testing strategy going forward?', the other important tool we have up our sleeve is sewage testing. There are now 50 different sewage-sampling sites across the state. The power of that is now really becoming apparent, because every single sewage-sampling site outside of the metro area is now green—there are no positive traces. Of course the other day we saw both Portland and Benalla indicate traces of the virus, which allowed us to deploy a localised response to those communities to say, 'We really need you to engage and to see whether we have a risk in that area'. We did something similar in Kilmore; we did something similar in Apollo Bay and Anglesea. So they are really good canaries in the coalmine. It does not tell you who has got COVID; it tells you that there has been some COVID activity in the area and it really allows you to narrow in. It will be very important for a COVID-safe, COVID-normal summer for us to continue to use that sewage platform.

I think finally, in terms of how we target our testing going forward as restrictions ease off, one of the particular focus areas for us will be people coming into the state now that—as the Chief Health Officer said yesterday, I believe—we are getting close to the point where we are not seeing community transmission happening within Victoria. We are getting very focused on people coming into Victoria, particularly obviously international arrivals when they start up again, and how we ensure that people who are coming into contact with international arrivals through hotel quarantine are regularly tested, because they start to be the new front line, to minimise the risk of COVID transmission coming back into the community. So very high levels of surveillance testing—asymptomatic testing—in those kinds of settings will be really important, and of course that ongoing work with all Victorians around maintaining that focus on coming forward with symptoms.

Before I hand back to you, Euan, I think a really good example of our joined-up approach has been with schools. I mean, schools have been fantastic in the last six weeks in essentially directing parents of children to go and get tested if Johnny comes to school with a snuffle or a sore throat. That has really been a significant

part. We have seen a 20 per cent increase in children coming forward—a quarter of all the people who are being tested are now under the age of 19—so that is a really strong institutional response. And as more and more workplaces go back again, we will be working very closely with businesses to ensure that they ensure that any of their staff coming in understand that if they are not feeling well, they have to go and get tested, because not only does their personal safety rely upon it, but also the ongoing viability of that business in a way relies on that as well. Back to you, Euan, on the difficult question.

Prof. WALLACE: Thanks, Jeroen. I might hand to Brett and Simon or Clare to answer the contact-tracing questions.

Prof. SUTTON: Thanks, Euan. Thanks, Dr Kieu. Firstly, I guess it is important for the committee to understand the rationale for upstream testing. If you are just trying to stop onward transmission, does it really matter where someone has gotten it from? The rationale is really around the fact that when you identify someone who has passed it on to a case, they are already known to be someone who is spreading illness, so they are infectious. We know that 70 per cent of all confirmed cases do not pass on to anyone else and 30 per cent of cases are those who drive transmission to all other close contacts, so you are really trying to find someone who you can identify as much more likely to be passing on to other close contacts. So acquisition testing is really important for that reason. It has been a core strategy for South Korea and Japan, who have both been relatively successful—although in the last couple of weeks less so—in controlling numbers over a very long period of time.

The difference in interviewing is that you are trying to work out where someone has been in the 14 days before they became symptomatic, so that means you are identifying the close contacts that they have had in that 14 days to determine who might have been the source of their infection. They are often the same household members who are close contacts anyway, but they might include, for example, workplaces or other places that have been visited a week or more before an individual became symptomatic. So you would then go to those individuals. You might do a PCR test, but importantly you can also do serology—so a blood test of serum—to see if they have developed antibodies, which would be an indication that they have been a case and they have recovered and that would give you an indication that they were the origin, potentially, of the coronavirus in the notified case. You can then look to their close contacts and see whether there are some other missed individuals in a workplace, in another setting, to explore and control transmission through that way.

Sometimes genomics tells you that they are linked, and sometimes genomics tells you that you have a case who is apparently linked to another notified case but you do not have an epidemiological link between them. So that can be a prompt to reinterview, to prompt those individuals about specific places they have visited or specific individuals who might be working in an industry that seems to be the link between cases. So genomics can be important for both acquisition and for otherwise finding connections between apparently distinct cases. I might throw to Simon around secondary close contacts, because I think that is another important strategic element. Sorry, Chair?

The CHAIR: Before you do, Simon, I am just conscious—we are trying to give everybody equal time to ask questions, and I just want to check with the Deputy Chair. Dr Kieu, you are running at your time limit, and I understand Mr Tarlamis is going to give you one of his slots. Do you want to keep going?

Dr KIEU: For the flow of the answer, if Lee could give me the time—thank you very much.

The CHAIR: Thanks. Go ahead, Simon. Thank you.

Dr CROUCH: Thank you very much, Chair. Following on from what the Chief Health Officer has just explained, I think it is also important to recognise that we do not just limit our acquisition source testing to those really clear close contacts that are clearly identified under that strict definition of the 15 minutes face-to-face or the 2 hours in the same room. We take a very broadbrush approach to really stretch out to all of the potential contacts that could have come into contact with that case. We are seeing more and more these days those instances where people are becoming infected from much briefer exposures to cases, and so we do not want to miss anything. So we might take an entire school, for example, and do testing across the entire school rather than just focusing on the class—always depending on the epidemiology of what we understand. But in some respects and sort of perversely we also look into those secondary close contacts. So while the contact tracing may identify that first string, the primary close contacts, we also identify that secondary ring, so that is

those contacts of close contacts. And while testing them early is not really particularly beneficial in looking at the onward spread, testing those secondary contacts early can also be a source of identifying acquisition. One of the things that we have learned throughout the course of this response is that up to 50 per cent of cases come about from presymptomatic or asymptomatic transmission. We see a lot of transmission in that group. So widespread testing both in that acquisition period of about 14 days before but also of those secondary close contacts is really important to get that ring around the cases and to really identify where it comes from. I think it is really also—sorry, Chair?

The CHAIR: I do not mean to cut you off, but I am just conscious of time. I think you have really answered that well. If I could turn to Ms Georgie Crozier, please.

Ms CROZIER: Thank you very much, Chair. And thank you everybody for being before us this afternoon. It is an important inquiry, as the Chair said in her opening remarks. You have all been pointing out the significant improvements in what has been happening over the last few months, and I note the information that has been provided since 15 August. Because the first question really is a very general one, I am wondering if we can back up to your comments, Chair, about the requests we have put in to the department to have that information, or whether there was simply no capacity for the department to collect all that data. I think that is really important for us to firstly understand.

My next question goes to an issue around what Dr Finkel said in his evidence to the inquiry. He said that the system became overwhelmed, and I am just wondering—perhaps, Dr Sutton, to you—if you could explain to the committee? Because you were advising government, and government was speaking to the community—at what point did the system become overwhelmed in the second wave?

Prof. SUTTON: Thanks, Ms Crozier. Look, I think it is difficult to define exactly what that means. It is true that whenever the case numbers increase, whatever jurisdiction you are in in the world, you get to a point where you cannot effectively do all of the work for an individual case that you might otherwise do. When you get to hundreds of cases—and I think it is probably at that kind of level—when you get to 200 or more cases per day, it starts to really challenge your ability to get to all of that timely information for the close contacts and to get to all of those close contacts, who can sometimes number 20 for an individual, within that critical time period.

The United Kingdom has demonstrated that they have only been able to get to two-thirds of their actual notified cases. They have gotten to fewer than 50 per cent of their close contacts, and something like only 18 per cent of those close contacts have even isolated. So when you get to very, very high numbers, it does degrade your ability to get to those really important benchmarks. And for us, I think that probably kicked in in the hundreds. That really speaks to the importance of the restrictions that need to go into place to stop it getting away from you in that regard. Even with small case numbers that can be an important additional measure, as South Australia explored last week.

Ms CROZIER: Yes. I am taking up your comments in relation to what you said in your opening comments. You said there was a significant increase of community transmission in late May, early June, which was very timely in terms of certain events that were happening about that time. My point is to understand at what point the system become overwhelmed when those numbers were—clearly you could not do that tracking and tracing, or the department was unable to. And at what point now—is it 200, that figure that you have just mentioned, if, for instance, tomorrow or next week we had an outbreak? Would it be that 200 number that you spoke of just a few minutes ago?

Prof. SUTTON: Well, as I say, we will provide the metrics for those important measures to the earlier times to the extent that we can. But the threshold, if you like, is that we want the most timely response to every single case now. It is really important that we are not going to get to 200 cases—I am very confident that we are not going to get to 200 cases—because with even a small number of cases we are going to be hitting those metrics very early.

Ms CROZIER: That is what we are trying to ascertain. But what I am trying to ascertain is the history of it. Of course we heard from Salesforce, who approached the department in March and was turned away, and I understand that there were a number of reviews undertaken. Telstra Health undertook a review. They gave the department a report. I am just wondering if somebody could answer that question for me. Where is that report, and how many of those recommendations were actually implemented from the Telstra Health review that

occurred—I think the department approached them in July—all around this time when the second wave was really out of control and we were in lockdown? I think it is really important for the community to understand exactly what was going on within the department and what systems were in place and what recommendations were being undertaken at that time as well.

Prof. SUTTON: I would say in late May and early June it was really the cases out of hotel quarantine that were driving the increase in numbers, and I think the driving force there was what looks like, epidemiologically and genomically, a superspreader event. It popped up in a number of large households at the same time over a very broad geographical area, and so even I think with the best contact tracing in the world we were faced with individuals who had up to 20 unique close contacts each, either in the workplace or at home or both. The contact tracing identified the close contacts that they identified, but there were clearly mystery cases there because there were individuals who were not identified as close contacts. Now, that could be a challenge because of how infectious someone is, all of the places that they have gone to and the fact that transmission might have occurred through a casual setting. So contact tracing cannot solve all of those issues—

Ms CROZIER: Sorry to interrupt you, but we had a submission from a GP that said, you know, 20 cases it became overwhelmed. I take your point about the community transmission, but in terms of what happened at that point and where it was, we need to understand exactly what was going on I think. So no question about the genomic testing—I think you have already stated publicly in the past about where those cases were coming from and the complexity of it as well—but just in relation to what was actually happening with the systems in the department that could assist you and the rest of the team.

Prof. SUTTON: Euan, I might throw to you for the CRM element.

Prof. WALLACE: Ms Crozier, I think with the key events at that time, as Brett has summarised, with increasing numbers, that the current process—these are the processes that were in place in every other state and territory around the country—just could not cope with those numbers, new every day, and the close contacts for each of those new cases, which at the time, at the peak, was averaging around 10 close contacts per new case, so it was 700 new cases and then 7000 close contacts. And the changes that we have put in place, the automation from end to end, from digital data entering at the time of the test all the way through to SMS texting going out to cases and then close contacts automatically, even allowing cases to enter their own information ahead of an interview, have taken us to a place today in Victoria that we estimate—and we estimate because of course we are not there, thankfully, and hopefully, as our Chief Health Officer said, we will not be again—we could cope with 500 new cases a day through the current system, with a capability—

Ms CROZIER: But what was the Telstra health review then? What did that do? What was that telling the department that the problems were? As I said, a GP was saying, ‘Well, we were overwhelmed’. We knew that. We heard the evidence from Dr Rait last week. He said that, basically, there were cultural issues and DHHS was defensive, so clearly there were massive issues going on. And I think it is important for the committee to understand why those reviews were in place and what was taken up and what was not, because I think we all understand the community transmission and how that occurred, but it is really about the systems and what happened and how they have improved.

Prof. WALLACE: So one of those slides that I have left with the committee summarised the system changes that we put in place, really in response to both Telstra recommendations but also the second wave, about how to get information into the system as quickly as possible. I will give you an example. Before the creation of what we call a case contact management portal, the interview—like it was done everywhere else in the country—was written down by the interviewer and then typed separately into our system, so that is a two-step process. One of the key changes was to allow the interviewer to type through our portal into the system automatically, so really as soon as they enter information about close contacts, that close-contact information is available to the system that would then, in future steps, lead to texting and notification of those close contacts. Again, with the continued improvements to those steps—initially that close-contact texting step required another manual step to say, ‘Let’s send some text messages’—all of those processes are now automated so that when a positive test result comes in to the CRM, the case is automatically allocated to a team for interview. It is allocated by postcode, depending on where the person—

Ms CROZIER: So it is a single case manager now but there were multiple case managers at that time, and the confusion arose through the inputting of data? I think that is what we heard.

Prof. WALLACE: I do not think it was so much confusion; it was that the steps were manual at the time. Because remember the system that it was based on, the public health—

Ms CROZIER: So why did the department—sorry to interrupt you; I am conscious of my time—not take up the offer of Salesforce back in March to digitise?

Prof. WALLACE: There were a number of approaches made to the department, and a decision was made to spend resources on improving or enhancing the existing PHESS database.

Ms CROZIER: Who made that decision, Professor Wallace?

Prof. WALLACE: That decision was made by public health—by ourselves.

Ms CROZIER: Was that a collective of you? Was it the minister, was it the secretary, was it Dr Sutton or was it all of you?

Prof. WALLACE: I will take that on notice because I was not part of public health at the time, but it was made by ourselves in public health. So it was really about, ‘How do we best respond to the challenges that are in front of us?’. We needed solutions as quickly as possible, and being mindful of the time lines that putting Salesforce into operation takes we had conversations at that time with colleagues in WA and South Australia about just how long it takes to build the Salesforce platform to get it operational. We had an operational system, and decisions were made, I think quite appropriately, to improve and enhance the system because the solutions would be delivered faster. It was then, in mid to late July, that we decided that future enhancements were beyond the current PHESS system and future enhancements would only be afforded by complete digitalisation end to end, hence then the engagement with Salesforce.

The CHAIR: Sorry to interrupt. Again, this is a timing issue. Georgie, did you want to follow up just on what—a question on notice, thank you.

Ms CROZIER: Very quickly. Yes, thank you, Chair. I am very interested in that point. That is very interesting, Professor Wallace. Thank you very much for that information. Could I just ask if we could have that Telstra Health review provided to the committee, that report that I mentioned, if possible, please?

Prof. WALLACE: The Telstra review is a cabinet document.

Ms CROZIER: It is a cabinet document? Is any of it public? Is any of it within the department that the committee could actually have?

Prof. WALLACE: I will take that on notice, Chair.

Ms CROZIER: I think it would be very important for the committee to understand. Thank you, Chair.

The CHAIR: Thank you, Georgie. Enver Erdogan.

Mr ERDOGAN: Thank you. My question, I guess anyone could answer but probably Professor Sutton with his knowledge on the contact tracing. At the beginning of this pandemic the commonwealth government announced the COVIDSafe app and that was going to help our contact-tracing efforts around the country. How helpful has the COVIDSafe app been for Victorians?

Prof. SUTTON: Thanks, Mr Erdogan. Look, we continue to encourage people to download the app. We have said previously, and I stand by this, we had public health directives, policy settings, that meant that people had very, very few individual close contacts. They certainly were not having new close contacts. People were largely at home. Their close contacts were their own family members who they had been close contacts with for some time. So even though transmission was occurring, the number of identified close contacts was very small for those new cases, and they were pretty readily identifiable. They were the workmates, some other family members who might have needed to provide care, or contacts through emergency service provision et cetera. So even though there have been over 1800 individuals who have downloaded the app who we have identified through notified cases, we have not found close contacts through the COVIDSafe app in addition to those who have been nominated by those individuals because they simply know who their close contacts are.

As we move to settings where people will go to restaurants, people will move to retail shopping areas and will not necessarily know who they have been standing next to for 15 minutes cumulatively, I think that is an opportunity for the COVIDSafe app to come into its own. I hope it identifies more people, but to date it has not really added more than what we have been able to ascertain through direct interview with our cases.

Mr ERDOGAN: Thank you. Probably my next question could be for Professor Wallace to answer. Why is the QR code for Victoria not ready yet? And will it be ready before the rollout of the vaccine?

Prof. WALLACE: Yes, thank you. So the QR code is in pilot as we speak. So it is being used as we speak so that we get a sense of how useful it is. So it is in use now, and in terms of will it be used more broadly ahead of a vaccine, yes, I think it will given the time lines that we expect of a vaccine delivery. The QR code will be in widespread use this side of the new year. The results, as you know, from two or three of the vaccine trials overseas look extraordinarily promising—much more promising I think, we would have to acknowledge, than many of us thought, being mindful that up until now there has not been an effective vaccine against any coronavirus. So I think the work that large pharma has done in partnership with some of these institutions—Oxford and others—really has been outstanding, and there is a genuine promise of an effective vaccine for delivery next year. But it will not be until next year. Again, I might hand to—

Mr ERDOGAN: You have kind of answered my question. Sorry, Professor Wallace, I am just worried about time. You have answered the question. So we will have the QR code system implemented before the vaccine is rolled out.

Prof. WALLACE: Yes, the QR again is being used in progressive pilot and implementation phase now.

Mr ERDOGAN: Because I think we heard last week that data is key to contact tracing, and that seems to be, across the board, accepted.

Talking about digitalising, I notice that we have engaged Salesforce, and Salesforce's record really stands on that they are in charge of 35 US states at the moment—their contact tracing. The results in the US in terms of the COVID global pandemic are not great. Is Salesforce's engagement going to resolve issues with this pandemic?

Prof. WALLACE: Look, a great question. I think having an end-to-end solution like Salesforce is not the be-all and end-all. It goes back to one of the points I made at the very beginning: that your contact-tracing processes can be as good as you like, but unless you have got proper engagement of the community who come forward to have testing and who share their information, no matter how good your platform is it will not be effective.

One of the reasons that Salesforce was chosen, as I said, was to fully automate—the CRM fully automates the process from the test to the quarantine and continues the engagement with both cases and close contacts. It is a platform that the Ministry of Health in New Zealand put in place. Now, they already had a Salesforce platform in for their cancer-screening program, so it was a very easy decision for them to make to say, 'Now, let's repurpose our platform for COVID, for pandemic response'. But our colleagues in WA and South Australia, who were incredibly generous with their experiences with us to help inform our decisions, also had very favourable experiences with Salesforce. Again, the ultimate decision about moving to Salesforce rather than continued enhancement of our existing system, which was called PHESS, was simply that no matter how many enhancements we made with PHESS we could never get the digital end-to-end system that Salesforce—

Mr ERDOGAN: I appreciate your robust answer, Professor Wallace; it was quite enlightening in explaining how it all fits in in our response. One last question, and it comes out of the evidence that was provided to this inquiry last week from I believe it was a medical practitioner who stated their belief that DHHS was not readily accepting or acknowledging mistakes. Do you believe the department now recognises and has learned from mistakes made?

Prof. WALLACE: Look, that just is not my experience. As you know, until mid-July I was CEO of Safer Care Victoria and have been on secondment to the department. Safer Care—we have been in existence for four years—work hand in glove with the department, with health services and care providers. So the characterisation that was given last week by one of the witnesses, it is just not something I recognise.

Let me give you a practical example. We heard very clearly over the last couple of months of the multiple phone calls, doorknocking and face-to-face visits we made with families, particularly large families where the virus travelled through the household, so the mother or the father may have been the first case or the child may have been the first case and then progressively the parents and other children who were all close contacts became cases themselves and so on. Because of our multiple teams—we have got a case management team and a close contact management team—there were multiple phone calls going into the households and families were telling us that they found the messages confusing. We heard that loud and clear and we established a new case management role where we had a single individual looking after a household so that the messaging was crystal clear in their own language, it identified the welfare supports that they needed if they needed any, et cetera, et cetera to reduce errors in interpretation of the messaging we were trying to give them.

So I think again the characterisation of a department that was not willing to say, ‘Well, actually, that didn’t work so let’s change how we do it’, I do not think is realistic. It certainly is not my experience. We have very purposefully reflected every day on lessons learned and ‘How will we change what we do to make this more efficient and more effective?’.

Mr ERDOGAN: Thank you, Professor Wallace. I think your answer has been quite robust, and it helps respond and enlighten the inquiry, so my appreciation for being so forthright.

The CHAIR: Thanks, Enver.

Mr ERDOGAN: I will leave it there for our next—

The CHAIR: Thank you. Wendy Lovell.

Ms LOVELL: Thank you. Professor Sutton, on Thursday, 3 September, you gave a videoconference briefing to doctors at Melbourne Health. The videoconference was taped and reported on in the media, as you know. In response to a question about criticism of contact tracing you said, and I will quote this:

It was totally challenged. No question there. Even at lower numbers, there were intrinsic challenges with contact tracing.

You then went on to talk about paper-based and faxes and stuff like that, but you also said the recent decision by the government to upgrade the technology for contact tracing:

... should have been part and parcel of our response for years.

And I was just wondering: over the two years that you have been the Chief Health Officer and I think six and a half years with the department, what advice have you provided to the minister or the department that tracing was inadequate and needed upgrading, and when did you first give that advice?

Prof. SUTTON: To your first point around intrinsic challenges with contact tracing, it is true that those intrinsic challenges were ones of engagement with those individuals. I think the points that Professor Wallace has made about the need to build a person-centred, trustful relationship in that interview process is a really important one. So they were intrinsic. They were intrinsic to the cases that we were dealing with, and the process of contact tracing was challenging even at small numbers for that very reason. We know that South Australia has gone to WA, New South Wales, the commonwealth and Victoria for assistance in following up their 4500 close contacts when they have only got 25 notified cases in their most recent cluster—fewer than 10 a day on average. They have got challenges that are intrinsic to their contact tracing. Everyone finds that.

In terms of my advocacy—and I have been at the department for almost 10 years now—for public health and investment in systems and people, that has been continuous from the time that I have been at the department, from a team leader role to manager of communicable disease prevention and control. I was in a relatively junior position for most of the first seven years, so my advocacy has been through input to my supervisors, who carried that information to relevant deputy secretaries and the secretary at the time and ministers over that time.

Ms LOVELL: Can the committee have a copy of any advice that you provided to the minister or the department on upgrading contact tracing during your term as Chief Health Officer or even Deputy Chief Health Officer?

Prof. SUTTON: Sure. I can search through. As I said, I would not have had a direct line to ministers for most of my time in the department, but I can certainly see what I can find.

Ms LOVELL: Terrific. Thank you. When did you first know that there was a problem in hotel quarantine?

Prof. SUTTON: I was aware of different issues in hotel quarantine. I was aware of some of the critical incidents that had happened in hotel quarantine really at the time that they occurred. They were referred to Safer Care Victoria for investigation at that time. They were not referred to me. As I have said in statements to the hotel quarantine judicial inquiry, I did not have operational oversight of that program and I was not in a command or a control role, but the information about some critical incidents certainly came through to me as it did to much of the senior leadership in the department. With respect to the outbreaks that occurred, I was informed early on in those outbreaks about some staff members at those two hotels becoming positive. I was aware of that through our normal outbreak notification process.

Ms LOVELL: Professor Sutton, what I was referring to was: when were you aware that there was a problem that had escaped from hotel quarantine that was now going to be problematic for our community?

Prof. SUTTON: It was in the very early days, when those incident management teams and outbreak management teams were formed. I can come back to you with the exact dates, but it was very early on in those outbreaks when the initial cases were notified to the team.

Ms LOVELL: Okay. The exact dates would be great. Thank you. In relation to use of the COVIDSafe app, it actually identifies contacts that you would not know, you do not know. The tracing that you were doing was really only tracing known contacts of people. You used the COVIDSafe app after we were locked down, but why didn't you use that COVIDSafe app prior to the lockdown? Because it may have then prevented the actual problem.

Prof. SUTTON: I believe it was in use for a longer period of time than just post the lockdown, but perhaps Clare or Simon have some information, or Annaliese even I think was in a public health command role when the COVIDSafe app was still in use in Australia, including in Victoria. There was a time I am aware of where we were working through some legal privacy provisions, that we needed to compartmentalise the data out of the COVIDSafe app completely separately to the rest of our data collection within DHHS. That was a commonwealth privacy requirement, as I understand it. Annaliese, do you have anything in relation to the use of it?

Ms PITCHER: Brett, it is Sandy here. Just as Annaliese is preparing, I can confirm it was just, I think, a period of two days short of three weeks that we had that data privacy issue. Although we were still able to do some collection, that was already very much in the lockdown period. So the app has been used in Victoria, as it has been in the other states, and we have worked very closely with the other states in trying to work with the commonwealth to improve the app. So it has been a period of continuous improvement on the app as well—working out the best ways to collect the data, how to use the portal that the commonwealth has created, states and territories coming together with learnings about options. And I think the technology has been worked on, with a focus on improving the way the bluetooth capture happens, across that period too. So it is really a big work in progress, but I would certainly say it has been in use in Victoria as long as it has in all of the other jurisdictions.

The CHAIR: Thank you. Wendy.

Ms LOVELL: Did Annaliese have something to add?

Dr van DIEMEN: Certainly. Thank you, Chair. Apologies; I am on video on a different device to my audio. But, yes, the COVIDSafe app has been in use in Victoria since it was launched at commonwealth level. We have worked through, as with the other states and territories, the initial issues with data separation from our regular contact-tracing processes. And during the time that I was Public Health Commander there were very few, if any, periods where the COVIDSafe app was not in use.

I would have to take it on notice. I believe, similarly to Sandy, but not for the time periods—and they have been a day or two at max—when we were utilising the kind offers of assistance from other states, where there was some clarification required as to whether other states and territories were able to collect information on COVIDSafe app use on our behalf. As soon as that was clarified, that was restarted for those cases where other jurisdictions were providing assistance. Other than that, the COVIDSafe app was certainly in use for all of the time that I was Public Health Commander.

Ms LOVELL: Thank you. And also, can we just get a number on how many contact tracers there were actually allocated per case?

The CHAIR: I think you might need to clarify that a bit further, Wendy.

Ms LOVELL: The other day we heard—and I cannot recall the exact number—that there needed to be a specific number of tracers per case for the tracing to be effective.

Dr CROUCH: Look, I can speak to that a little bit. As Professor Wallace indicated earlier, we have a number of different teams that work through the different components of the journey that we have for the contact tracing. So when a case is initially notified it is allocated to a member of staff to do the case interview. So that is one member of staff who will do that interview. It can take up to 2 hours, or even more in particularly complicated situations where you are having to use a translator or engage in other challenging components of that interview. So that is one member of staff who will start that journey. Then you identify the close contacts associated with that case, and so you then have the team that deals with the close contacts, who are able to follow up with those close contacts. And again, making calls to close contacts will be done by an individual person to speak to them, and so throughout the journey, depending on the number of close contacts there are, both primary close contacts and secondary close contacts, there will be a large number of people involved in responding.

But, again, as Professor Wallace highlighted earlier, one of the learnings that we have had and one of the ways that we have moved forward is to develop the client services coordination role to have virtually a client manager for each case. So while there are many different people involved in the many different touchpoints, again, if we have a setting involved like a school or a workplace, they will be able to keep engaging with that setting. So lots of people are engaging. We do have this one point of focus that the case and the cases—

Ms LOVELL: Yes. Sorry, do you have an average number of contact tracers per case?

Dr CROUCH: I do not. I would have to go and find it and take that on notice. But it can be from a small number to a larger number depending on the number of exposures.

The CHAIR: Thank you, Wendy. Kaushaliya.

Ms VAGHELA: Thanks, Chair. Thanks to all the panellists for your time, submission and presentation, and big thanks for the great work done by everyone involved in bringing Victoria to where it is today with 24 days straight with zero new cases. My question is for Mr Jeroen Weimar. Mr Weimar, during the pandemic we faced many difficulties, and one of the many difficulties in controlling the spread of COVID-19 in the community has been ensuring that there is clear communication across all communities in Victoria. This inquiry is focused on the improvements in the contact-tracing system. Can you tell the committee about the implementations that have been made and the ways that Victoria's contact-tracing system connects and communicates with multicultural communities both during and following an outbreak?

Mr WEIMAR: Yes, of course. Thank you, Ms Vaghela. As you say, I think it has been one of the most important areas for us, and particularly if you look at the way that the second wave has impacted Victorians. Although we have said many times the virus does not discriminate, it has disproportionately impacted people who are living in high-density households, who are working in less structured roles or in short-term, part-time or casualised employment and who sometimes face language and cultural barriers in engaging with the other support that is provided by the state. Fifty per cent of people who have contracted COVID in Victoria were born outside of Australia, and that is significantly more than the proportion they are of the population.

I will do it in parts. I think first of all it is about ensuring that we are trying to communicate consistently with all Victorians around: what is COVID? How do you access the support? How do you get tested? And what support is available to people? We translate all of our material into 57 different languages. We advertise and publicise our information in a huge number of different outlets—through print media, social media and online media but also through many community organisations. We work in a very structured and a very regular way with local councils. We work very closely with local community groups. We work very closely with the Victorian Multicultural Commission. Back in August we set up the CALD communities task force to directly engage with community leaders around the challenges of COVID impacting different communities in order for us to

better understand the real and perceived barriers that people face as well as to try and otherwise communicate with people.

If we then get into individual outbreaks—and Professor Wallace has touched on this briefly—one of the bits of feedback we have had as we found positive cases particularly within specific communities is that we have learned that we have to work far more closely with community leaders. So yes, there is information that we can provide and that our clinical teams can provide, but what we have started to do—and this goes back really to late July and early August—is work very closely with community leaders. In fact we started in June with the housing towers, working very closely with people who are trusted voices within their own communities and recognising that they can influence, direct and support people who are facing a very challenging situation. COVID may not just be a health issue for them; it may also have implications for their dependents. It may have issues for their employment, for basic income and for providing all the other needs that they have.

Certainly when we get to individual COVID-positive outbreaks we have been dealing very closely with a whole range of community groups. As we got into our outbreak response we set up incident management teams involving community leaders, involving local councils and involving community health organisations to really wrap around a particular outbreak and to look not only at the people who were already positive for COVID but also what the other community institutions and the other contact points were that we could have in that wider network. We know and we understand how the virus transmits not only between community links and family links but also through schools, through workplaces and through retail, so it is trying to get ahead of that particular distribution in terms of bringing all those individual leaders together.

The most recent good example is with the northern metro outbreak where the breakthrough there was working really proactively with the school community. We were very concerned about how the virus was moving through a number of different households. What we ended up doing was working through school leaders and the school leaders phoning up families to get messaging out in yet another way because they were a far more familiar and trusted voice than a health department official would be. That was particularly effective. And of course we always work through faith leaders and others where that is appropriate.

There is an ongoing nature around all of this. We employ a number of bicultural workers across a number of communities, particularly in the wider metropolitan area. We work very closely with all the councils to support their local teams. Professor Sutton and I, when we are getting into outbreak mode, are holding regular evening community meetings, either with leaders or with the whole community, to explain and to listen to what the challenges and the issues are and how we can better adapt our approach, customise our approach and provide the right kind of support. The sort of things that looks like is that when we are dealing with an outbreak we will provide localised testing solutions in the locations where community leaders think it is appropriate. We know that for some members of our society, they are very concerned about the optics of being perceived to have COVID. They are looking for privacy and they are looking for a confidential, quiet place to be tested. We can provide that. We can provide testing at home. We can provide accompaniment with community leaders. And of course we have got local surge teams that we can push into areas to make those kinds of connections.

In the evidence you will have heard last week we do aim to work closely with our primary health networks and with the GP networks. We know that in so many cases GPs are a critical part of that communication chain, a critical part of a friendly, trusted voice in providing honest information to people. So we try and draw in the PHNs where we possibly can. We also recognise of course that there are many people who do not have a GP, who are not part of that GP infrastructure, and the very first time they come into contact with the Victorian health system is through COVID, so we have to be able to adapt to both of those particular kinds of scenarios.

Finally, to close on this question, that work continues. Even when we do not have any positive cases we still have people out there right now in Hume and in Wyndham Vale working with people at this very moment to understand any risks and concerns that they have got and how to encourage people to take on the ongoing importance around COVID-safe behaviours. We have got people handing out masks, handing out hand sanitiser and providing that very localised support to ensure that as many people as possible can provide a really COVID-safe way of living.

Ms VAGHELA: Thank you. Do you have—

The CHAIR: Kaushaliya, that was half your time, but if you want to come back—

Ms VAGHELA: I have got a question. I can ask now if I have time or I will come back? Okay, I will come back.

The CHAIR: Thank you. Dr Matthew Bach.

Dr BACH: Thank you very much, Chair, much appreciated. Earlier on in our hearing Ms Crozier spoke to Professor Wallace and asked him exactly who it was within the department who refused the offer of support from Salesforce on 30 March. I would like to ask other members of the DHHS team who are here with us this afternoon to provide me with just a simple yes-or-no answer about whether or not they are aware of who refused that offer on 30 March.

Prof. SUTTON: I think, Dr Bach, that is me.

Dr BACH: Professor Sutton.

Prof. SUTTON: I am not aware.

Dr BACH: Is anyone aware?

Prof. WALLACE: Perhaps, Chair and Dr Bach, I think it is not a case of a refusal per se. A number of approaches were made to the department. The questions were around, 'What is required today to make the improvements that we need as soon as possible to meet the challenges that are in front of us today?', and the decision was made to make enhancements to the existing platform because those enhancements could be delivered and implemented much faster than buying a brand new platform. Now, I was not in the department at the time, but I think that was very much the right decision. The challenge facing public health CCOM—case contact and outbreak management—at the time was the need to get interviews onto the existing platform as fast as possible, so I think that was the right decision.

Then as the pandemic and our response evolved it created the headroom for us to say, 'Okay, the longer term solution to this is a fully digital product', which is what the CRM brings us, and we had then space and capacity in order to deliver that. But there was not the space and capacity to deliver that back in June and July. Remember that WA and South Australia put in their platforms when they had very low numbers of cases, and at the height of a pandemic when the priority is, 'Every minute counts; we need to get an interview done as fast as possible and that information entered into our system as fast as possible so that we can then quarantine the contacts as fast as possible', I do not think anyone would contemplate, 'Let's down tools and build a brand new platform'. It just is not an appropriate decision.

Dr BACH: All right. Thanks so much, Professor Wallace. I will now refer to some questioning from my friend, Mr Erdogan, a little earlier regarding some evidence we received earlier in the week from no lesser authority than the AMA, the Australian Medical Association. He talked about the fact that the claim had been made that the department had a culture that was defensive, that did not admit errors and that did not take accountability, and I note your response, Professor Wallace, which was strong in defence of the department. Again I would like to allow every member of the department who has been with us to speak just very briefly in answer to my question, so if you would not mind restricting your responses to just a sentence or so. Given that Professor Wallace said that the culture of the department is to be highly reflective, I am sure you have all reflected upon this time that we have gone through in the second wave and the response to the second wave. My question, then, to each and every one of you—perhaps starting with you, Professor Sutton, then Dr van Diemen and the rest of the team—is: which government mistake through this time do you most regret?

Dr KIEU: Chair, may I have a question?

The CHAIR: Yes, Dr Kieu. I think I know what you are going to say, but please.

Dr KIEU: I think the inquiry is into the improvement in the testing and the contact tracing. Is the culture of the department relevant? If it is, then please explain, and you could proceed. Otherwise we could—

Dr BACH: Very happy to explain.

The CHAIR: I think if you could limit your question to contact tracing and testing, that is—

Dr BACH: I am very happy to restrict my question to contact tracing and testing, but Dr Kieu's question was simply about relevance. We have heard evidence this week not only from the AMA but from senior representatives of the World Health Organization that to build trust—and this is something that Professor Wallace has spoken about length today—with the community it is imperative for government agencies like the Department of Health and Human Services to demonstrate that they are responsive to feedback and to criticism and that they acknowledge their errors. It has been put to us as a committee by the Australian Medical Association, no less, that this is the opposite of the culture that the department has. Professor Wallace has refuted that, and that is fine. Nonetheless, given that we have heard that evidence, given that trust is so important—as Professor Wallace says, the World Health Organization says, the AMA says—to enable us to move forward into a COVID-safe Christmas period and 2021, my question is entirely relevant to our terms of reference.

The CHAIR: I welcome witnesses to respond to that question as it relates to the terms of reference of this inquiry, which is contact tracing and testing.

Prof. WALLACE: Chair, if I may: Dr Bach, I completely agree with you. Trust is absolutely foundational to the community engaging with us, and I think through both the evidence that we have given this afternoon and the slides that we have provided the committee, it is very explicit and clear that we have changed things—changed them because we have learned—

Dr BACH: But I have asked to hear from everybody, and Professor Sutton first. I would be very interested to hear from you, and that is lovely. But if it would be possible to hear from others, that would be excellent.

Prof. SUTTON: I am happy to respond, Dr Bach. Thanks for the question. I think the lesson for all things in communicable disease is that prevention is better than cure. I think if there is anything that I would have liked to have learned earlier it is around having a greater surge capability at hand when those really significant challenges come up. The big abattoir outbreak of Cedar Meats had not been discussed at a national level. We did not have a national plan that had been worked up through our Communicable Diseases Network Australia. It had not been discussed at AHPPC, where we had reviewed the international literature and got in place national readiness for some of those really sensitive settings. In the same way, when we called on other jurisdictions to support us in our contact tracing, they needed to support us with paper-based systems, where we were getting on the telephone, we were spending a lot of time through the administrative processes to get their additional support. That has been straightened out and it ran much more smoothly when South Australia went to multiple jurisdictions for support. If only we had been able to do that at the time, but we had not done enough of the groundwork to have a kind of unified transition to that surge support across the country.

Dr BACH: Thank you, Professor Sutton. I wonder if we could hear from Dr van Diemen on this question.

Dr van DIEMEN: Certainly. Thank you, Dr Bach. I think it is an important opportunity to reflect on all of the learnings that we have had. I think for me the biggest learning that we have had along this journey has been that really in communicating—the really fine balancing line that we have been toeing throughout this entire response—perhaps we could have done that a little bit more strongly and more openly. We were constantly and are constantly trying to balance the needs of individuals, families, larger workplaces, larger communities in the entire state, and something that is right for one individual and their family might not be right for their community or the entire state. And I think really introducing that nuance across our broader communications to the population is a really important thing that we have improved upon as we have gone along.

Dr BACH: Thank you very much.

The CHAIR: Dr Bach, are you satisfied?

Dr BACH: I would not mind hearing from the rest of the team if there is still time, Chair.

The CHAIR: You have got a couple of minutes, yes. Who would like to also respond? Simon.

Dr CROUCH: I am happy to dive in and reflect on the culture of learning that we have here within the department and within CCOM specifically. I think one of the unique things about the coronavirus response—it is very different to any of the other diseases that we deal with on a daily basis within the communicable disease section here at the department—is the ever-changing understanding of the disease itself. When you look back at

the start of the outbreak, where it was only thought to be transmitted by people who were symptomatic, or the changing understanding of the relative infectious periods and all of these different things, at each step along the way we need to be agile and responsive as a department and as professionals to be able to capture those changes in a rapidly evolving scientific setting and make that work in line with our own structures and processes so that when there is a change to the case definition we can roll that out quickly, or if there is a change—we talked a lot about acquisition source testing and secondary close contacts, which were things that were not even thought about way back at the beginning of the response. So it is having the agility to be able to make that change, communicate that change well across the department and to communicate it well across the community so that they understand the journey that we are going on. So it is that responsiveness and that agility in a very rapidly changing scientific field.

Dr BACH: So just to understand you correctly, Dr Crouch, not being responsive and agile was the regret that you had—of the government.

Dr CROUCH: No, I was not saying that we were not responsive and agile; I was saying that we can always learn to be more responsive and more agile and make sure that when changes are understood at a national and international level we have processes in place to be able to pick them up. As Professor Wallace said earlier on, every minute counts, so if we take two days to enact a change that is based on the up-to-date scientific literature, that is two days that we could have gained, so it is just making sure that we optimise and maximise that agility.

Dr BACH: I understand—no regrets from you. Thank you.

Ms PITCHER: And Dr Bach, Sandy Pitcher here. I am happy to offer some reflections. One that I think is a really interesting one and a useful lesson that I have talked to people interstate about was that importance of getting everyone to have their very first contact-tracing interview. It was really vital for us, and we were having a number of people who were not answering their phone, we were not being able to get in contact with them, we were calling them multiple times, and the ability to be able to send people directly to their homes and visit them on their doorstep was such a good lesson for us and such a good, I think, recognition about the reasons that people were not answering their phones.

Initially I had suspected that it meant there was perhaps a reluctance to talk to us, but we found very quickly that some people just did not like answering unknown phone calls, which is fair. What we were able to bring in very quickly was some text message advance notice so people knew it was the DHHS calling, so that great lesson. Also, people really appreciated the chance to understand how important it was, so that doorstep visit, even after we brought in the advance text message, was and still is really important for the response, because talking to someone at the doorstep and receiving some information sometimes in writing supplements that phone call that we have and it just means we as a system know that we have got to those people within 24 hours. You will have seen earlier on in the data we are really measuring now in the 4 hours—the first 4 hours rather than the first 24—and I think the lesson of being able to send someone directly to the door was a very important part of that lesson.

Dr BACH: All right, thank you.

The CHAIR: Thank you. Dr Bach, you have almost exhausted your time, but you have got—

Dr BACH: I will come back in the next round, Chair. Thanks.

The CHAIR: Thank you. Mr Lee Tarlamis.

Mr TARLAMIS: Thank you, Chair, and thank you to everyone who has presented today. I will get straight into it. I am not sure who this is best directed at, so I will just fire it off and you can answer, whoever it is most appropriate for. During the hearings last week there were some questions around the idea that there were some lost cases, so I was just wondering. Could you explain to the committee, so we can have a better understanding, why there were a number of cases classified as ‘lost to follow-up’, what that means and whether the fact that some cases became uncontactable should be of concern?

Dr LOOKER: Thanks, Mr Tarlamis. I can probably speak to that question. It is Clare Looker here. I think the ‘lost to follow-up’ is not a group of cases that we have necessarily initially made contact with and lost, so to

speak. It is that there are on occasion times that we have difficulty making initial contact with a case following a positive test result. The usual process when someone gets tested is that they will obviously provide their contact details to the testing site or the doctor who is taking that test. There is an opportunity there for error, obviously. Either someone has not provided accurate information or perhaps it is not captured in completeness. If that test becomes positive, that then comes through as collected at the site to the department and we use those details as the basis for trying our initial contact out to the case, which is typically a phone call.

We do have quite robust measures in place now to try and follow up if we cannot make immediate contact with someone. We have a designated team who try to verify contact details. There are different processes that we use to do that, so we have some data linkage that we do with different state and commonwealth data sources. We also have the Operation Vestige program which Sandy just spoke of, which was having officers available, if we have contact address details, to go and doorknock that individual. We can also use Victoria Police to make doorknocks and to use some of their intelligence that they might have if we are continuing to not be able to contact someone. I mean, we obviously continue to make rigorous efforts to make contact up to sort of a period of 28 days, and there are a small number of cases where we have not been able to make contact after that time—not recently but during that sort of most significant surge in case numbers. In that situation we then make a decision that given it is 28 days since that initial notification it is highly unlikely that that case is still infectious so we cease the follow up of them but they remain captured on our system. I think they are the cases that may be referred to in some of the situations you are describing.

Mr TARLAMIS: And over the past month, as the case numbers have been low, we have had a number of cases where there has been a positive COVID-19 test that has been returned but that case has been determined to be persistent shedding, not reported as a daily case, and that has been happening in Victoria but not as much in other jurisdictions. Can you tell us a little bit about this, and is this something that we should be concerned about going forward?

Dr LOOKER: Look, I think—and I will defer to others also—the fact that we are identifying these cases should not be a concern. It speaks to the comprehensiveness of the testing that is happening at the moment in the state. The reason we are seeing these cases here is because we did have a significantly large number of cases, you know, back in July and August, so there is obviously a larger group in the community who potentially could intermittently shed virus like this. It is something that has been observed. It has been observed interstate in much lower numbers but also overseas, and we know that people can on occasion shed sort of fragments of viral RNA up to a number of months after that initial infection. That is not thought to infer infectivity, but we take a very conservative approach and if ever we get a positive test result in, even if it is in someone that we know has been previously cleared, we really treat it as a new case until we know otherwise.

There are characteristics that we can look at about that test. We can look at the strength of the positivity. We can re-run that original swab on an alternate testing platform. We can arrange for a case to be re-swabbed. We can also do antibody testings. There is a whole suite of evidence that we gather and then come together and take to our expert review panel, which includes microbiologists, infectious disease physicians and epidemiologists, who can then make a judgement as to whether they think there is any possibility this could be a new infection—we know that is very rare but there are occasional case reports of that overseas—and also whether there is any sort of risk that this case is infectious.

Typically when we get that initial result we do take a number of precautionary public health actions. So we ask that person to isolate. We ask their close contacts to quarantine. We would sort of actively investigate any sensitive setting they might have been engaged in. But hopefully, and as has been the case most recently, once we have that additional reassuring information in place we can meet with the panel and then stand down those actions. But I do not think the identification of these cases is a concern. Much as they can be a frustration to chase up, I think it really speaks to the kind of comprehensiveness of the testing and following up that we are doing at the moment.

Dr CROUCH: If there is time, I would like to add to that, but I will take the lead from you, Madam Chair.

The CHAIR: If you can do it incredibly quickly, Simon.

Dr CROUCH: Just to provide the reassurance, the international literature indicates that people are hardly infectious beyond five days. We take a conservative approach of 10 days to clear cases. And for even the most

severe the national guidelines are 20 days. So anybody detecting viral material after the 20-day period is really of very little concern, and that is based on the international evidence.

The CHAIR: Thank you. Thank you so much.

Mr TARLAMIS: Thank you.

The CHAIR: Ms Melina Bath.

Ms BATH: Thank you, Chair. And thank you, ladies and gentlemen, for being here with us today and providing all this information. My electorate is in Eastern Victoria Region and I want to relate an incident, a cluster case, that happened in the Latrobe Valley in early August. It related to a contact, a young person who was at high school, upper high school age, unfortunately contracting the disease. He attended school. He was in class in school, and there was a family who is now known to me. Their son was in that classroom and the school contacted them. I am shocked to understand this, but at no time during the course of that whole episode for them did DHHS contact them.

Now, this is not a word of a lie. The school had their phone number. They had the son's, the parents'—Mum and Dad—et cetera. This was from 3 August to the 11th—that incubation period. They did go off and get tested; they went to their GP and requested a test—all the family. Luckily they were not COVID-positive. But this is a period that we saw before your report card up there. I am just interested: do you think that this is a common practice that that occurred? Was it because the contact tracers were in low numbers? I guess I am reflecting on some of the comments about the importance of that contact. In your opinion is that a first, direct contact, being in a school classroom? Could you flesh that out for me? I am not sure who would like to. Maybe, Dr Sutton, if you would like to—and others.

Prof. WALLACE: I might start, Ms Bath, because there are a couple of elements to this, and obviously not knowing the specifics of the case it is difficult to answer with precision. There are a couple of things going on, though. Remember that in mid-July we established six regional public health units. For the Gippsland corridor we established one at Latrobe Regional Hospital in Traralgon. So as soon as those regional units were established and up and running they actually de facto were the department of health CCOM contact-tracing unit, so they did the contact tracing and case management for local cases. So it is possible that the LRH actually did it rather than us, and that was a very purposeful intent; it was to take contact tracing as close to the community as possible. And then the other thing that happened—

Ms BATH: Were they given additional resources? In your answer could you fulsomely explain that? Was LRH given additional resources, or were they seconded from DHHS?

Prof. WALLACE: It was a sort of phased implementation. It depended on the health service. So the first regional unit was set up at Barwon at Geelong's University Hospital, and then we progressively established the others with the support of Geelong. In the most recent wave we have established six metropolitan local and public health units, and it depends on the individual units. Sometimes we will lend staff, if you like, to them, and so they are wearing the local public health unit T-shirt, as it were, working for the local public health unit but are actually our own staff. There is obviously training involved, and as soon as they have got their own teams trained and on board, then our staff would return. Remember that we are all working from home, so this is all in a virtual environment. We are not sending staff down to Traralgon or to Shepparton or wherever; it is all done remotely.

Another thing, though, that has happened is our education unit, and it may well be that it was handled through the educational unit. Sandy or Clare, I do not know if you want to comment on that.

Ms PITCHER: Thanks, Euan, and I think that is right—that without knowing the particular case it is hard to give a particular answer—but I think it goes to the breadth of our response and the number of specialist areas that we have as part of the COVID response in Victoria. So certainly, as Euan spoke of, the local public health units are a very important part of local responses, and when people are contacted by them that is on behalf of the department, if you like. But also the partnership that the Department of Education and Training has had with the Department of Health and Human Services is a really important one to stress here because I think again it is one of the areas where we really recognise that we have been able to provide some really personalised service by bringing the Department of Education and Training team into the Department of Health

and Human Services, having them embedded in our CCOM structure and having people who really know and understand schools really understand contact tracing as well and putting together that knowledge to give the very best service. This was so that when principals and school leaders from all of the sectors, whether they be government schools or Catholic and independent schools, needed to speak to someone they had a whole range of expertise that they could tap into. Just as we have done with CALD community leaders, we have used school leaders, like principals, to be able to communicate really closely with our school communities when there have been cases and instances. And they are already a trusted source for that school. They have already got in-built mechanisms to be able to contact their school communities, and it just means that we have got that ability to be able to reach people in the best way that suits them. So without knowing the particulars of the case, I think that those two areas are probably the most important parts of our contacting families.

Ms BATH: Thank you.

Prof. WALLACE: Can I go back to one of the comments that Dr Bach made earlier around lessons learned. We did get a number of complaints—or feedback—from individuals saying, ‘You never contacted me’, when in fact they had been contacted by the regional public health unit. We changed our messaging because we learned from that. And so when the regional public health unit reach out to do the contact tracing, they say, ‘We’re phoning you on behalf of the Department of Health and Human Services, so we are in effect the Department of Health and Human Services’, because they are expecting a call from us but they are getting a call from the local hospital. It is one and the same. So we learned that lesson, and we changed our messaging.

Ms BATH: Thank you. I guess they are saying that the only person that contacted them was the principal, which they were pleased about, but that was a missing expectation from that community. If I can move on to another line of questioning, we had a very outstanding doctor, Dr Haikerwal, here the other day, and he related to us his frustrations around DHHS and phone contact that he had as a doctor. I think in one of his points he said, ‘I used to ring after 8.00 pm otherwise I’d be waiting on the phone for up to 40 minutes’. And he said once the doctor reported—and I think he was speaking about himself but also his colleagues—to DHHS, there was no future interaction with the referring GP about the outcome of the case. He found that quite frustrating. We also spoke about utilising GPs better. What lessons have you learned from that—and I am sure you have heard of these incidents before—and what are you doing to improve processes around information for GPs?

Prof. WALLACE: Thanks. I might answer with a bit of a technical solution first and then maybe ask Annaliese to talk about the work that we have been doing with GPs. You are quite right, I think, about the witness that you had last week saying, ‘We’d be on the phone for 40 minutes. I’m phoning later in the evening’. There is no question that our telephony system was not meeting the needs of GPs phoning in results. Again, we split our system to create a dedicated line, and we get a daily report on average time taken for calls, the number of calls abandoned et cetera, et cetera. Again, we are really using data to drive improvement to make sure that GPs have access to the system to notify cases in a timely way. So we heard the problem, we saw the problem and then we set about solving the problem. I think the average time now to pick up is something like less than 8 seconds. Beyond that, there has been a much, much richer engagement with GPs. I might ask Annaliese to describe some of the things that we have been doing since really the very beginning, to be honest.

Ms BATH: Thank you. You just mentioned there a telephony system. What is that system? Could you explain that? Maybe Annaliese could, but could you explain that system that you have just referred to?

Prof. WALLACE: It is just our call centre system, so the telephone systems, the telephone lines, that we have got coming in. We have dedicated lines for different functions, and we have a dedicated line for our GPs or doctors to phone in results.

Ms BATH: Sorry, I know I sound like I am being a bit pedantic here, but does it have a name? Is it ‘Telephony A’, or what is the name of it?

Prof. WALLACE: Well, the telephonic platform we use is a system called Genesys.

Ms BATH: Yes, Genesys Cloud?

Prof. WALLACE: Yes.

Ms BATH: Okay. Thank you. I am happy to cede the rest of my questions over to my colleague Ms Crozier.

The CHAIR: Thank you. Georgie, you have got about 5 minutes

Ms CROZIER: Thank you, Chair. Can I just follow up on that question that Ms Bath just asked? So it is the Genesys PureCloud system, I presume, Professor Wallace. Is that correct? When did it commence within the department? We know there have been a lot of issues around the communication—that has been highlighted.

Prof. WALLACE: I do not have that information, precisely when it came in, unless others do, with me. If not, we can take it on notice.

Ms CROZIER: If you would not mind. It is just because there have been so many different platforms and systems, and we are just trying to work out how it is all operational, how it is all integrated, because we heard from Dr Finkel that the integration will not be complete until the end of this year in terms of the systems in place. Is that your understanding?

Prof. WALLACE: I think so. I think what Dr Finkel was referring to was the total integration of the CRM platform from test all the way through. This is about incoming calls rather than outgoing. So there are both incoming calls—both doctors and laboratories phoning in with results—and then there is a whole suite of outgoing calls, both for cases and close contacts. They get called every day during the period of isolation or quarantine, and it is changing messaging as the journey across the 10 or 14 days, depending on whether they are a case or a contact, because if you are a contact, you then have testing on day 11. If you choose not to have testing on day 11, you have got another 10 days beyond the original 14. So there is a whole complex messaging system, but it all comes off the same platform. But I think what Ms Bath was asking was about incoming calls.

Ms CROZIER: If we could have that time frame, that would be very helpful for the committee to understand when it came into place and to see how the system has improved. If I could just go—

Ms PITCHER: Chair, I can probably answer that then.

Ms CROZIER: Thank you.

Ms PITCHER: So March was when the Genesys Cloud system was brought in, and I think it was late March that it was operational.

Ms CROZIER: Okay. So that has been going for virtually the entire time. Can I just switch then? As those systems were put in place, if I can just ask Dr van Diemen or Professor Sutton about the Cedar Meats issue. We know there were 111 contacts, and that was the largest cluster during the first wave. Why did it take so long for you to shut down that facility, and why did it take so long for the contacts to be followed up?

Dr van DIEMEN: Brett, would you like me to take that?

Prof. SUTTON: You can start, certainly.

Dr van DIEMEN: Sure. Ms Crozier, thank you for your question. I think the discussion around Cedar Meats is actually one that does illustrate well the rapid learnings that we have had for this pandemic compared to previous outbreaks and previous management of outbreaks in the state of Victoria and across the country, and indeed across the world.

Ms CROZIER: Sorry to interrupt you, but the minister at the time said it had been handled absolutely perfectly, as we all know. I am just wondering why she would have said that—if you can go back and understand what you have done, why it took so long for those people to be followed up, and the—

Dr van DIEMEN: Certainly. Not wishing to interpret the minister's intent, but my understanding of her comments was that the outbreak had at that time been managed to our current guidelines. But what we realised a number of days into that outbreak was that in fact this was spreading faster than the current guidelines, which were aligned to the national—

Ms CROZIER: Could you provide us with those guidelines?

Dr van DIEMEN: Yes, we can. There have been many, many iterations of the first round of guidelines, which I think were developed in early January.

Ms CROZIER: I think that is important because New South Wales were having outbreaks and they were dealing with it much better. Contact tracing was much more efficient in New South Wales in early April when this outbreak occurred. So I would be very interested to see those guidelines that Victoria was following to back you up on that.

Dr van DIEMEN: Certainly. The actions that we undertook in Cedar Meats in terms of designating an entire workplace to be close contacts regardless of what was reported by individual contacts, closing down an entire workplace and putting many hundreds of people and their families then into quarantine was above and beyond what was currently recommended at national level and above and beyond—

Ms CROZIER: Did any go into hotel quarantine?

The CHAIR: I am sorry, Georgie. Your time has expired, I am afraid.

Ms CROZIER: It always does.

Dr van DIEMEN: Look, I can very quickly just say that anybody who was not able to safely quarantine at home was offered alternative accommodation, and that was arranged for anybody who wished to take that up.

The CHAIR: Thank you. Ms Sheena Watt.

Ms WATT: Thank you, Chair. And thank you to the staff from DHHS for your presentation today. I understand, Ms Pitcher and Professor Wallace, that you started in the department around July-August, which is not far before I started here, and around that time the case numbers were just up at 700 cases a day. As an outsider coming in, much like myself to this, what did you see as the department's contact-tracing response, and did you have any reflections on that as an outsider coming in? That is probably my first question; I have got another one after that. I will leave that to perhaps Professor Wallace.

Prof. WALLACE: Yes, thank you. As you know, I was in Safer Care at the time and then came across along with Sandy and others. It was really part of the department's response to growing numbers, so more hands on deck. I think it was a purposeful and necessary response to have more senior hands involved, as indeed our whole workforce grew to several thousand.

I think what we saw—well, let me tell you what I saw, and then Sandy can tell you what she saw. I saw a workforce that were working unbelievably hard and many long hours. And this is a very skilled workforce—and the contact tracing is a very skilled technique—who were trying to deliver that at the same time as training the surge workforce that we were surging at the time. And I think, as Brett has already reflected, if there are key lessons here for us as a state, it is about having that surge workforce always ready so that they can step in. And that is one of the things that we have been building over the last four months. I saw a workforce that were working extraordinarily hard, that were very responsive to Sandy and I saying, 'Let's bring on another surge workforce. Let's do these different things', and Sandy established Operation Vestige, our doorknocking thing. And a workforce that were very agile and able to pivot and really embrace new solutions to the ongoing and ever-evolving challenges that we were facing.

Ms PITCHER: Thanks, Euan. I certainly support all of those observations. And I would just note as well that I guess the opportunity that Euan and myself had was that we travelled with the ADF and Professor Finkel to New South Wales to observe the New South Wales contact-tracing system, just as we had already been having regular meetings and conversations with colleagues around Australia. And I think one observation I would have is I was definitely reassured, not just for Victoria but for Australia, by the amount of sharing of information, sharing of responses, approach to the role of addressing COVID. Some of those interstate rivalries that you sometimes see in intergovernmental relations certainly were not present in the response. So things like looking at the processes we were using in New South Wales and Victoria, we absolutely used those same contact-tracing techniques, those same systems. And also, just similarly, that ability to share and, as Euan really stressed, a workforce really open to working extremely hard, also always learning. And regularly, I would say—more than two or three times a week—people would be reflecting on journal articles that they had read internationally, lessons that they had seen. So for my sense in coming from other workplaces, it was very much a learning environment and an environment very committed to the people of Victoria and more broadly to the health and wellbeing of the people of Australia.

Ms WATT: Thank you. At that time, with then peak daily numbers, we had entered into a stage 4 hard lockdown, and you shared some reflections on New South Wales there. If we were not indeed in that hard lockdown and people were not prevented from seeing each other and creating more contact, how do you believe Victoria's test, trace and isolate system would have been managed without that additional measure? Can you reflect on that without—

Prof. WALLACE: Yes. It is an important question. I might ask Brett because I think he talked about this earlier, about the combination of social restriction measures and contact tracing and where contact tracing actually becomes less important. Brett?

Prof. SUTTON: Yes, I think the point about this virus is that if it has a reproduction number above one, even if it is a little bit above one, it is still exponential growth. If that is 5 per cent a day, that becomes several fold over a number of days and goes to thousands upon thousands after a number of weeks. The modelling that we did from the beginning that was presented to cabinet and later revised modelling based on newer and more accurate information always pointed to the potential for tens of thousands of cases per day, as we are seeing in similar-sized jurisdictions in Europe and similar-sized states in the US. So we could have gone to tens of thousands of cases per day, which would have translated to hundreds of deaths per day.

In those circumstances contact tracing really does not add anything, because the overwhelming need is to stop people interacting. So that is the critical importance of lockdowns. You try and avoid them to the fullest extent possible, and you try and make them as limited in their scope as is reasonable to get on top of transmission, but if we had not been able to drive that reproduction number below one, which clearly we have done as cases have trickled away to nothing, we would have been faced with hundreds and then thousands of cases per day, which would have overwhelmed all of our systems in terms of the public health response but also the health system response to all of the clinical needs and the flow-on effects, as has been seen again in Europe and North America in all of the workplaces, schools and other settings where cases arise.

Ms WATT: Thank you. Chair, do I have time for another question, or am I out?

The CHAIR: You do. You are about halfway through your allocated time for the session, so you can keep going now or we can come back to you.

Ms WATT: I just had a question, but I am not sure who for. We have heard a lot about the multicultural community response, and I am just wanting to know if any members had any reflections on the Aboriginal community-controlled health response to this. We have not seen big numbers, which was a very big fear in the Aboriginal community, around COVID, and I just wanted to know from the department's perspective what their reflections were on the Aboriginal community response.

Mr WEIMAR: Yes. Ms Watts, it is Jeroen here. I am happy to take that question, and thank you for raising it. To date we have seen 75 cases of COVID-19 amongst the Aboriginal community across Victoria and fortunately of course no fatalities. Eleven of those were hospitalised at some point along the way. We have had really quite a tailored approach to supporting Aboriginal communities across Victoria. We have had 14 different Aboriginal community-controlled health organisations providing COVID testing—so dedicated arrangements in place to provide them with additional support and to also ensure that we can provide that testing in a safe and controlled environment. What we have also dealt with is—and I think the Shepparton outbreak we had back in September was a pretty good example of this—that every time we saw those outbreaks coming we identified any particularly vulnerable communities and looked at how we could best support them in terms of handling that particular outbreak.

In the case of the Aboriginal community in Shepparton we actually did a whole series of rapid testing for them on the very first day of the outbreak—so tests whereby we had the response within a couple of hours—because we were particularly concerned around 40 of those community members if there had been any penetration of the virus into that community. With some of the other potential health complications in that area we really wanted to get to the bottom of that very quickly. So in all we did about 40 or 50 on-the-spot tests with results within a couple of hours, which assured us that actually there was no presentation at that point. That allowed us to continue to protect and to guard that community whilst we dealt with the wider Shepparton outbreak.

The Aboriginal community are probably the most structured and best example of using the existing health in the community structures that are in place, using existing community leaders and working with the really strong

local partnerships that already exist to ensure we have got good, relevant, localised information, really active engagement and really active work around COVID-safe practices. We have used a lot of the learnings in that space and applied them to other communities we see across Victoria, again recognising that the way you implement that has to reflect the dynamics of the community, who the influential people are and what the best way is to get information and support into those areas. And that work continues; we continue to provide lots of that localised, regionalised approach. It is a critically important part of not only getting through the second wave but also managing COVID safety going forward.

Ms WATT: Thank you.

The CHAIR: Thank you, Sheena. I would just like to follow up a bit on the information that is provided around contact tracing. I think what we saw in South Australia was we had a temporary visa holder possibly frightened about sharing some information with the contact tracers, and we know what that led to. We heard from Liberty Victoria that they also have similar concerns in Victoria that people will be less forthcoming about telling their story if they feel that there may be repercussions for that. In looking on DHHS's website there is not a lot of information to assure people of the confidence of the information that they are providing to contact tracers, and I am wondering if there are plans for expanding the contact-tracing information that is available to the public and providing some of those assurances.

Prof. WALLACE: Chair, it is a very good suggestion. During the interview process, really the first-up statement is, 'Any information you provide to me during the interview is confidential'. You are absolutely right, as Liberty Victoria is absolutely right, that there is a need to protect an individual's privacy, and there is a tension between that and having enough information to trigger the next actions. If we discover through an interview close contacts, we do not share with the close contacts where that information has come from. In many cases it is obvious, but that is not information that is shared. And I have to say—again, as someone who has just joined public health command since July—I have from day one been impressed about just how seriously public health under Brett's leadership takes privacy and the rights of the individual. There is a tension, and I think we again look to South Australia for the last couple of days about where things might have been done differently, because again, if we go back to the very beginning, we cannot do this without the community coming on board. They have to be open to us, and we have plenty of examples of people sharing information of doing things that maybe they should not have done—people shopping in Chaddy, which was outside the 5-kilometre radius that they were allowed to travel from their home, saying, 'Well, I know I shouldn't have been in Chaddy, because I live 14 k away, but I was there'. We could not then enact the next stages of our Chadstone response without that information, so it is something we are extremely sensitive to.

The CHAIR: Are there plans to provide those greater assurances? I think that really was highlighted in South Australia, where no doubt that person had concerns that the information they were providing would affect their visa or their time in Australia.

Prof. WALLACE: We will certainly look at that. Brett, I do not know if you want to comment.

Prof. SUTTON: Yes, I think we will follow it up. As you say, Euan, it is something that we are very explicit about in those individual interactions, but if there is that broader level of confidence that we can provide to those who have not even been contacted by us that just lifts up that sense that people can be free with information of a sensitive nature, then I think that is a good thing.

The CHAIR: Thank you, and Liberty Victoria certainly highlighted that—particularly, as you say, when 50 per cent of the people who have contracted COVID were born overseas and some of them have very different experiences with governments and with government officials in their countries. Just moving on to the QR codes, I am sure all of us have experienced the wide variety of QR codes that are out there in hospitality now. Have you tested the ability of that information to be fed easily into your systems now? I know the hoteliers association introduced their own QR code for their members, and certainly I have seen a whole range of commercial QR codes in the various hospitality venues I have been to. But does that feed easily into your system now?

Ms PITCHER: Chair, thank you. I am happy to take that one. Look, we really thank all the businesses who are using their QR codes, and we recognise that many of them were already using versions of these QR codes for different things even prior to COVID but particularly across the course of this year. I guess on my theme of

working closely with other states, this is something that we have spoken with New South Wales and other states about, about the relative merits of having one system that the whole state uses or indeed a range of systems that different companies already have in place.

Really the most important thing is that the information can come to those of us who need it, who need to do contact tracing, in the most reliable, speedy way, and with that as the test we are actually very comfortable that whichever form of QR code is used our CRM Salesforce system is able to take that data and is able to use it—whether it be through different information-sharing platforms or whether it be fed straight into the system that information will be available. Really the QR code is very simple in many ways. It provides the name, phone number and contact details of the person but also the time that they were in a venue, and that is really what we need. We need what time they were there and we need what time other patrons were there. We are very alive to the security concerns of not all of those businesses holding that data more than they need, but we are also very alive that we do not need other things than that ourselves to be able to have a very effective contact-tracing system that businesses and government are working in partnership with. I think we reflected on the COVIDSafe app not perhaps providing what we had all hoped for in some ways at the start of the pandemic in terms of lots of different contact information. What we have all learned I suppose is that the QR code opportunities that different sites will have I think we hold some great optimism for in terms of providing that data.

The CHAIR: Great. So you have tested this, the flow of information?

Ms PITCHER: Yes, that is right. And just to say, Chair, too, there are a lot of things that can be automated, and they are able to be, but there is also an important role that the contact tracers need to play here because we do need to know in a conversation with people who else they were with, what else happened and what they did. So being entirely automated, while possible, is not probably preferable in all of the parts. I just want to stress that in terms of what the QR code needs to do but also cannot replace, if you like.

The CHAIR: Yes, I totally appreciate that. Thank you. I will turn to Deputy Chair Tien Kieu.

Dr KIEU: Thank you, Chair. I would like to pose this question to Professor Wallace, the Secretary. We have seen a very big improvement for the system, and as a result we are now on 24 days of having no cases and no fatalities, and by 28 days we will be declared free by the standard of the WHO. But then we will have to open our borders and so on, so have you the confidence in the capacity and the capability of the system, or have you any other concerns, very burning concerns, and the resources to satisfy them? For example, putting a technical hat on, artificial intelligence is not in the system I understand at the moment from the previous witness, but it does give us the capability of prediction, which may not be always correct but at least we would be focusing and homing down to a smaller area. So the question is: do you have confidence, do you have any concerns and do you have a wish list? Thank you.

Prof. WALLACE: Wow, thank you. I might cut to Brett in a moment just about the broader epidemiology and what we think the future holds because that goes to the foundations of the question, but do I have confidence in our contact-tracing processes and system? Yes, I do, and I think the chief scientist is on record saying that it is among, if not the best, in the country. We have a very good contact-tracing system process. It has been refined through the fire of battle in a way that no other jurisdiction's systems have been refined, so I am very confident. Do I have confidence in the virus? Absolutely not, which is why I am going to cut to Brett in a minute. If I have learned anything, if any of us have learned anything this year, it is that this virus continues to surprise us in ways that we could not have anticipated.

Do I have a wish list? Well, I think as a Victorian I would wish we have a system that continues to learn, and I think I can reassure Victorians that we have a workforce that is voraciously and relentlessly looking for improvements and looking for lessons learned elsewhere. Sandy commented upon our trip to New South Wales to share experiences with New South Wales. Yes, to learn stuff from New South Wales, but also for them to learn things from us. One of the newspapers carried a story, written in a very pejorative manner, about 'Victoria goes back to school'. Victorians have an expectation that we are constantly going back to school. We live and breathe a continuing education life; we never stop learning. I think Victorians should have confidence that their public health unit is never stopping learning. We will always seek new ways to do things and do things better if it is in the service of killing this virus and allowing us to live the lives that we want to live in Victoria and Australia more broadly.

We are doing some work on predictive analytics, artificial intelligence—it looks really promising—and very sophisticated analytics about making connections that the human eye could not connect otherwise. I look forward to seeing what the outcome of that might be. One of the challenges for testing that of course—and it is a nice challenge to have—is that we have got no new cases to test it on. But that would be a fun thing I think to see, to be able to tell us, ‘Well, if you see these changes, then this is what is going to happen next. So get ahead of it’. I might cut to Brett in terms of the broader epidemiology.

Prof. SUTTON: Thanks, Euan, and thanks, Dr Kieu. Look, I think modelling becomes trickier to inform us when you are down to literally zero cases. We now need to try and imagine scenarios that maybe we have not imagined before. We know now that the risk has shifted from within our own community to potential incursions at point of entry. So whether it is a maritime crew who gets sick offshore and needs to be helicoptered to care in Melbourne, as has happened in Western Australia, or whether there is cargo that carry the virus or the exchange between those who are handling cargo, we need to look at our first ports of entry as a higher relative risk. We need to consider what it means to have international travel start up again in Victoria. We have invested enormously in the interim recommendations from the inquiry into hotel quarantine, and I have got a lot of confidence in the way that that will be implemented going forward. But it remains inherently risky because that is where our positive cases are going to emerge. Some of those individuals will need hospital care, and our hospital systems will need to be ready to respond with all of the standards that we know need to be applied to infectious or potentially infectious cases.

But we also need to think about things that might surprise us. Obviously there were additional outbreaks in China that might have been linked to frozen seafood, so we need to think about where any new incursion might occur and how best to ready ourselves for it. So I think the broad surveillance strength through sewerage surveillance, clinical surveillance, syndromic surveillance, testing—having new modalities of testing that engage new individuals who maybe have not been tested before because they did not like the idea of a nasal swab or who maybe had a nasal swab and do not like the idea of getting another one. If we can introduce saliva testing that means that we reach a new cohort of people for testing or get that other half of Victoria who has never tested, then we should look into that. I think we just need to do continuous horizon scanning and try and challenge ourselves in term of imagining how this virus might challenge us, because there is absolutely no room for complacency.

Dr KIEU: As with a fire, in order to prevent any disaster we have fire drills from time to time. Do you have any plan for a COVID response drill? And what set and form would it take?

Prof. SUTTON: Euan, do you have some ideas there? You are muted.

Prof. WALLACE: Sorry, I did not quite hear the question.

Dr KIEU: Sorry, to deal with fire, we have drills from time to time. And now to deal with the pandemic and this virus, is there any trial run or any drills so that we can respond just in case of some very big outbreaks or, even worse, a third wave?

Prof. WALLACE: Well, I think the broader question is this is not likely to be the last pandemic that our city or the world faces. I mean, this is a reality of life. We have had a number of lead-up pandemics to this and never quite got to this—I am thinking of SARS and MERS and so on. I think many of the lessons we have learned through this and the changes we have made will serve us well and Australia well for meeting future pandemics. I was a doubter. I did not believe at the beginning of the year we would have a vaccine, and I think one of the staggering things that has been delivered through this pandemic is that science has really stepped up to the plate and delivered a vaccine technology that is brand new and that looks extraordinarily effective—probably more effective, if the trials hold out, than we could have hoped for. It is way outside my area of expertise, but it feels like there are lessons and infrastructures and approaches there which will be poised ready for future challenges of this nature.

The CHAIR: Thank you.

Dr KIEU: Just very quickly, have you had all the resources that you would need?

Prof. WALLACE: In terms of contact tracing and public health, we have had all the resources we have needed, yes.

Dr KIEU: Thank you.

The CHAIR: Thank you. Georgie Crozier.

Ms CROZIER: Thank you very much, Chair. Could I just follow up very quickly with Dr van Diemen in that last line of questioning that I was just doing in relation to the number of Cedar Meats employees that went into hotel quarantine and what date they went in—how many and when they went in. Would you have that information, or take it on notice?

Dr van DIEMEN: I would have to take that on notice, Ms Crozier. I do not have that on me.

Ms CROZIER: Thank you. If I could just turn to another question. It might be again, I think, to Professor Sutton or Professor Wallace. How do contact tracers reduce the duplication in the information they are putting into the PHESS system? How do they actually verify the identity of people and how do they identify whether they are actually giving correct information? Do they provide a drivers licence or electoral roll ID? How is it actually verified?

Prof. WALLACE: Maybe either Simon or Clare want to comment. There are a couple of questions. One is about duplication—we have an automatic de-duplication process in the systems—and then in terms of broader verification, Simon or Clare, do you want to—

Dr CROUCH: Yes, look, I can pick up on some of that. So the underpinning of the requirements for a notification for coronavirus is the pathology result—the result that we get from the lab. That is really where it comes from. You are not a confirmed case unless you have a positive PCR result. You may or may not be aware that there are national guidelines around providing the appropriate information along with pathology tests—you have to have two or three factors of identification when you have your test taken, and that goes through to the labs. So when we get the information from the lab we know that it has been collected from the right person and is verified. So when we receive that information in we always go through a process of looking to see if we have had a notification on that person previously, and that might be a doctor's notification—we get notifications from both doctors as well as from laboratories—and so quite often the case is we will get two notifications that come into the system and we have to go through that de-duplication process. As I am sure you can understand, when the case numbers were very high that de-duplication process took a little bit longer—

Ms CROZIER: Sorry to interrupt you, Dr Crouch. Could you give us an indication of how long it was to resolve that duplication process? How long did that take?

Dr CROUCH: I would have to get back to you with some exact numbers on that; I will take that one on notice. But our intelligence team, our epidemiologists, are constantly reviewing the notifications as they come in and are going through and taking out any of those duplicates that come in. And it is not just duplicate notifications, for example, from a new case. As Dr Looker spoke to earlier, those persistent shedders, those previously positive cases, we also have to look back and see if we can match up with a case that might be a persistent shedder in the past. So there are a number of different elements to that sort of data cleaning and de-duplication process.

Ms CROZIER: Okay, and so when the contact tracers are speaking to them once they have got that result into the system, what qualifications have contact tracers got in asking these questions? Because we have heard that there has been, as we all know, confusion, there have been communication breakdowns, there have been issues around people not understanding who was contacting them from the department. So what qualifications do those contact tracers have?

Dr CROUCH: I can start off with this, but one of my colleagues may want to join in shortly. All our contact tracers that are employed are employed using various job cards, and I believe that those job cards were supplied to the committee as part of the information that we provided up-front. They come from a range of backgrounds. The majority of our contact tracers are from a nursing background or an environmental health background. Within the Department of Health and Human Services here in Victoria we include environmental health specialties as well as clinical nursing specialties within our contact-tracing realms, so the large proportion of our contact tracers come from those backgrounds. Obviously for some of the more straightforward, heavily scripted components of the response—so the daily check-ins with the close contacts, for example, where we have used some of those third-party contracted organisations such as Hello World—they will not have that

same level of qualification, but they are much more routine and standardised processes. But in terms of that initial interview and that first questioning, the larger proportion of them come from that medical background.

Ms CROZIER: So the Hello Worlds and the others, Ernst & Young—there is a whole range of companies that have been brought in to do this contact tracing. I am just wondering about the proportion of those contact tracers with a health or medical background. I think that would be very important for the committee to understand so that we can understand just how many people were in the contact-tracing team. We know it was a very small contact-tracing team at the start of the pandemic and it grew over the months, but if we could please have that information, that would be terrific, Dr Crouch. Thank you.

Ms PITCHER: Chair, just through you, we can certainly provide the information to supplement what we have already provided. I think I would just stress, further to my earlier point, that what actually constitutes the contact-tracing interview itself is not what Hello World and Stellar and Ernst & Young were doing. We probably would not say they were contact tracing per se, but they were providing sort of check-in calls daily to check on how people were and things. Just to note that we will provide that delineation, because on our side when we talk about contact tracing it is a very different approach—

Ms CROZIER: Thank you for that clarification, Ms Pitcher. So every initial call to a positive case was undertaken by somebody with a health background. Is that what you are saying?

Ms PITCHER: It is, yes. Absolutely.

Ms CROZIER: But not every follow-up call.

Ms PITCHER: Depending on the follow-up. So a follow-up to check someone is okay and they are safely isolating and they have got medicines and foods—we did not do that for medical stuff. We saw that as more of a care-and-connect call. But if we were following up on a contact-tracing issue, then that person would have a medical background and that would be the person doing that.

The CHAIR: Great, thank you.

Ms CROZIER: Have I run out of time?

The CHAIR: You have, Ms Crozier, I am afraid.

Ms CROZIER: Thank you, everyone.

The CHAIR: Yes, thank you. Enver Erdogan.

Mr ERDOGAN: Thank you. Professor Wallace, you touched on an important and I guess ethical public policy area earlier when you were talking about the tension between competing public policy interests, one of which is about the confidence that people have when they are giving information to DHHS staff. Are you saying that because we want people to answer truthfully, even if DHHS was to discover that there were some people working for cash, for example, or people working outside their visa requirements, that that information would not be passed on to the appropriate authorities? Is that what you are saying?

Prof. WALLACE: I am saying that, yes.

Mr ERDOGAN: Okay. Secondly, I have a question about a broader public policy tension as well. Do you believe that if we had a greater proportion of the population in full-time, secure employment, that would assist contact tracers? We have seen the casualisation of the workforce or people being in precarious employment being an issue throughout this pandemic. Do you believe we should be pushing public policy towards greater full-time employment for the workforce?

Prof. WALLACE: Look, I think that is out of my expertise as either Deputy Secretary of CCOM or even indeed the Secretary of health. What I can say is—and I think Brett has already alluded to this or discussed this earlier, and Jeroen—that this virus has disproportionately affected members of our most disadvantaged communities, people who are living in a cash economy, who are casual employees, who have multiple jobs, and again we have seen that in our sister state just over this last week. And one of the changes that we have had to make in Victoria—I am thinking of our aged-care sector, where we have restricted employees to single aged-

care facilities rather than working across multiple aged-care facilities—has been a key measure in controlling virus spread, because if you are working in one place and there is an outbreak in that place you are not going to take it somewhere else, which is what we saw earlier on in the second wave. Let me answer your question broadly: there are certainly social levers and socio-economic levers that we could consider pulling and adjusting as part of a broader community, whole-of-government response to preventing and containing pandemics of this nature, but those broader macroeconomic decisions and policies that you ask about are out of my expertise.

Mr ERDOGAN: Thank you for that. I have one last question. This one is probably directed at Professor Sutton. It is about the sewage testing that we have heard about. In the last week we have been hearing a bit about testing of the sewage system. How accurate is that as a guide, and what value should we place on that? Could you explain a little bit about that as well—so, I guess, what are the metrics? What are the benefits of doing that testing?

Prof. SUTTON: Sure. Thank you, Mr Erdogan. The sewage testing that is happening and being rolled out globally is also going through a learning experience. People do not yet know its full value. What seems to be the case is that we can pick up virus relatively early when there is an infectious and shedding individual within the sewage catchment that is being tested. It also appears to be relatively sensitive, so that you could have one individual amongst thousands of others, tens of thousands of others, who are not cases and still pick up sufficient virus to be able to tell you that there is an individual who is infectious or shedding within that sewage catchment. It does not tell you much when you already know that you have got tens or hundreds or thousands of people within that sewage catchment who are cases, but when we are moving to this space where there is effectively no community transmission and we see all of our sewage catchments turn negative with the results that they are producing, we can get to a point where it becomes really useful from a surveillance point of view if they then turn positive again.

We have seen a few cases recently with some low positives on single genes within the sewage catchments. People are rightly saying, ‘Well, is this a real result?’. We do think it is an accurate test, but we also know that you can recover from coronavirus and still shed the virus in faeces and it can still be picked up in sewage. But you will not have symptoms, and therefore if we are prompting you to come forward for testing you will not come forward, because you have not got any symptoms. But if we four weeks from now, eight weeks from now, when things have been negative for a long period of time, see a really strong positive, then that will be a very powerful cue for us to investigate that, to really prompt people to come forward for testing [Zoom dropout] you will probably pick up a case at the same time as that individual [Zoom dropout] be useful if there are people who are not presenting for testing, if there are people with very mild illness who do not feel sufficiently unwell to go forward for a test. So it is an adjunct. It is not going to be the whole story, but I think it will be a very valuable tool in this no community transmission phase that we are all keeping our fingers crossed that we will stay in.

Mr ERDOGAN: Thank you.

The CHAIR: Thank you, Mr Erdogan. Kaushaliya Vaghela.

Ms VAGHELA: Thanks, Chair. My question is for Professor Sutton. Professor Sutton, Victoria has done what no other country in the world has and nearly reached eradication of the virus in the community. To get here there have been a lot of difficult decisions and several occasions when it felt like decisions on easing restrictions were delayed due to ongoing outbreaks like Casey, Chadstone, Kilmore and Shepparton and then the northern metro outbreak. Obviously then there was a turning point in Victoria where you were able to provide advice to government that it was safe to ease restrictions. Were there times when your public health advice to not ease restrictions was based on your concerns that the system was not robust enough?

Prof. SUTTON: Thanks, Ms Vaghela. Look, I do not think that there were delays or deferrals in opening up based on considerations about the robustness of the response from those indicators that Ms Pitcher showed in the introduction. It was pretty clear that through September and October in particular those metrics were performing very well. So if there were some decisions about a delay of a day or a few days in terms of the exact timing of the easing of restrictions, it was more about how the epidemiology of transmission was happening at that point in time—could we ease the restrictions in the specific areas without putting at risk accelerating transmission? So it was just reflecting on the epidemiology and making sure that we were not opening up

household visits or particular settings that would put at risk an acceleration of transmission. I was confident of those metrics not as preconditions but as indicators of the strength of being able to respond to an uptick in cases that were present, but I did not want to put at risk the continued decline in cases by accelerating transmission because we would inadvertently get too many people in close contact with an inappropriate timing of easing of restrictions.

Ms VAGHELA: Do I have time for one more?

The CHAIR: A quick one, Kaushaliya.

Ms VAGHELA: Okay. So, Professor Sutton, reflecting on the recent experiences in South Australia, can you tell us what you see as some of the inherent issues with any contact tracing system and whether they are something that can be overcome?

Prof. SUTTON: Look, I think South Australia has learned lessons that Victoria has gone through. They have taken a go early, go hard response, which has been my philosophy from the beginning, but I think they have implemented it after a long period of time without community transmission. I think that will be a model for all of Australia. I think they will also reflect on the fact that they need to have a person-centred approach in their contact tracing interviews so that they establish rapport and trust and that they get accurate information to the fullest extent possible. It is problematic if individuals are vilified—it sends a message to the broader community not to come forward with information or maybe not even to get tested and be investigated as a case. So I think that across Australia we will guard this precious low or no community transmission status that we have and that we will respond very quickly and robustly, and if it is too much too early, we will probably live with that if we can take a few days to get more information to be satisfied that we are in a good place and ease restrictions accordingly.

The CHAIR: Thank you. Thank you, Ms Vaghela. Ms Sheena Watt, do you have further questions?

Ms WATT: No further questions. I am happy to pass on my time.

The CHAIR: Thank you, Ms Watt. I just have a quick question for Professor Wilson. Thank you for being here and patiently listening to us over this time. I would be interested as the Safer Care Victoria Chief Medical Officer in your reflections on where we are with contact tracing and I suppose on what you have heard today and whether you think things are on the right track and where we probably may have gone amiss and what we have learned.

Prof. WILSON: Thanks, Chair. I think probably the reflection I have, which has come through today, is that engagement with the community—and my main area is obviously the hospital system—and engagement with our colleagues, our workers in aged care and hospitals but also with vulnerable communities is absolutely critical. That is certainly in response to Dr Bach's question earlier. That is my reflection. I think certainly I and I would suggest many of us just underestimated how challenging it is and how any vulnerability that we had in terms of how we interact with our community, both our workers and parts of government that do not always work as well as they can together—aged care and the acute health system, for example—the virus exploited, and I think that is the thing that we are really actively working on.

The CHAIR: Great. Thank you, Andrew. Just following that, we have certainly heard, and we heard it today, about that connection with the GP network. Is that something that you are seeing expanding and improving, because I think that has certainly been a repeated message over the last couple of weeks—that that could be improved.

Prof. WILSON: Certainly I have tried in my own way to contribute to that. I think again that is a challenge. How we work with our primary care partners—it is not just GPs; it is also allied health workers and other workers in our community—has to improve. It has to improve for lots of reasons beyond COVID. We have also seen how chronic disease is managed in our community and those things, and COVID is overlapping with that of course. I think there has been a really strong attempt to interact. We are only at the start of that journey, but many of us have met with groups of GPs from right at the start of the pandemic. I know Anneliese and Brett and I meet with them often really, weekly for a while and certainly every second week. We interact with the unions, the AMA and others very often, so I think we really have aimed to lift their voices.

I think probably the other thing with general practice is that we did have a model with the estates, which was really the start of that, with the Cohealth work. The group that worked at the estates were very heavily engaged with us, and we set up the concept of a virtual hospital, which picks up on a lot of the things we have been talking about today. So that is really the start, if you like, of what has expanded out of having a virtual hospital structure, which is growing. I think there is a real commitment to involve GPs. It is a long, complex journey, and we have not solved it. We have not solved it for many decades before now, and it is the same, as we have said, with aged care. I think there is a really strong commitment. I know they have enormous capacity and ability and they want to be involved, and it is just a matter of how we can use their skills well, understanding that our system is not integrated like it is in other countries. We have to accept that and move on, but I think there is a commitment. It is better, but it has got a long way to go.

The CHAIR: Thank you. Look, I would just like to thank you all and also to reiterate our thanks to all DHHS staff, because we know that they have been working around the clock. They have been living and breathing this, and we are extremely grateful for that. I appreciate the candour that you have brought with you today. I am really grateful for that. As I mentioned, you will receive a proof transcript of today. I would encourage you to have a look at that and make sure that we have not misrepresented anything that you have said today. On behalf of the committee and on behalf of the Parliament, thank you for your time here today and thank you for your time all throughout 2020. I think we can call this hearing to a close.

Prof. WALLACE: Chair, can I just say again, on behalf of all of us, thank you. Thank you for the time that we have had with you this afternoon. And again I reiterate that I think Victorians can be very proud of what they have achieved but also, having seen it close-up, very proud of their contact-tracing team. I think the world has looked on and seen what is possible when community and government work together and when our decisions are driven by science. The world is in awe of what we have achieved here in Victoria. Thank you.

The CHAIR: Thank you. That is a great note to finish on. Thanks, everyone, and good afternoon.

Committee adjourned.