AGRICULTURE AND ENVIRONMENT COMMITTEE

Members present:

Mr GJ Butcher MP (Chair)
Mr AJ Perrett MP
Mrs J Gilbert MP
Mr R Katter MP
Mr JE Madden MP
Mr EJ Sorensen MP
Mr J Pearce MP

Staff present:

Mr R Hansen (Research Director)
Mr P Douglas (Principal Research Officer)

PUBLIC HEARING—INQUIRY INTO THE HENDRA VIRUS EQUIVACC VACCINE AND ITS USE BY VETERINARY SURGEONS IN QUEENSLAND

TRANSCRIPT OF PROCEEDINGS

WEDNESDAY, 31 AUGUST 2016

Brisbane

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Committee met at 10.00 am

CHAIR: I start by acknowledging the traditional owners of the land on which we meet today. I declare open the Agriculture and Environment Committee's public hearing in relation to its inquiry into the Hendra virus EquiVacc vaccine and its use by veterinary surgeons in Queensland. I am Glenn Butcher MP, committee chair and the member for Gladstone. With me today are: Mr Tony Perrett, the member for Gympie and deputy chair; Mrs Julieanne Gilbert, the member for Mackay; Mr Robbie Katter, the member for Mount Isa; Mr Jim Madden, the member for Ipswich West; and Mr Ted Sorensen, the member for Hervey Bay. Mr Jim Pearce, the member for Mirani, will be joining us again today after being approved by the committee.

The inquiry we are working on today was referred to the committee on 25 February 2016. The committee is required to report to the parliament by 22 October this year. Submissions accepted by the committee are published on the committee's inquiry web page. Witnesses are not required to give evidence under oath, but I do remind witnesses that intentionally misleading the committee is a serious offence. I remind those present that these proceedings are similar to parliament and are subject to the Legislative Assembly's standing rules and orders. In this regard I remind members of the public that under the standing orders the public may not participate in proceedings and may be admitted to or excluded from the hearing at the discretion of the committee.

Mobile phones and other electronic devices should now be turned off or switched to silent. Hansard is making a transcript of the proceedings today which we intend to make available on our website. Those here today should note that the media might be present, so it is possible that you may be filmed or photographed. I ask witnesses to please identify themselves when they first speak and to speak clearly into the microphone.

I remind witnesses of the importance of being relevant today. Our inquiry has specific terms of reference, and they dictate what the committee can examine and report on. They include the incidence and economic impacts of adverse reactions by horses following vaccination and the reporting of those adverse reactions and economic impacts. We do not have scope today to hear personal complaints, disputes or other grievances against vets, horse owners or others over the treatment of horses. If you wish to raise such matters in your evidence which you believe to be relevant to the inquiry, I ask you to do so without naming the individuals involved.

CROOK, Dr Allison, Chief Veterinary Officer and General Manager, Animal Biosecurity and Welfare, Biosecurity Queensland, Department of Agriculture and Fisheries

CHAIR: Welcome, Dr Crook. Do you want to readdress the committee with a short opening statement, or are you willing to take questions?

Dr Crook: I am happy to take questions.

CHAIR: Doctor, the point has been raised previously in our discussions with people that allowing potential HeV cases to go untreated is in itself a biosecurity risk as it may allow for unmonitored horse-to-horse transmission. Do you think this is true? If these things are going untreated, is it possible to be transmitted to more animals on each property? Is it a biosecurity issue?

Dr Crook: There is evidence of horse-to-horse transmission for infected animals. We have had that in several cases that we did manage. In terms of if they go untreated, our understanding of the way the disease occurs is that the horse would rapidly deteriorate and would be expected to die within 48 hours, so it would be during that period that the highest risk of transmission would occur.

CHAIR: In saying that, in your opinion does the risk compare to that posed by the potential transfer to humans? Obviously the risk to horses is one thing, but is the risk of transfer to humans high?

Dr Crook: Horse-to-human transmission requires very close contact with infectious material, most commonly body fluids such as blood or secretions from the horse. That is how horse-to-human transmission occurs.

CHAIR: A lot of people, particularly horse owners, have said that the only way you can really catch Hendra is to put your arms basically into some regions of the horse that the general public probably would not come in contact with. Is it true that you need to be very intimate with a contaminated horse before you risk catching Hendra, as opposed to just being around a horse that has Hendra?

Dr Crook: The evidence we have with cases of human infection is that it has involved very close contact with highly infectious material. That is, as I said before, the body fluids of animals, particularly as they are in their clinical stages, so excreting high loads of virus.

CHAIR: In layman's terms, if a horse had Hendra and it sneezed on me, would that be considered a risk?

Dr Crook: If the horse is clinical with Hendra and you are exposed to its bodily fluids, yes, that is a risk. There are levels of risk associated with it, but a clinical case of Hendra virus should be treated very, very carefully.

CHAIR: In that instance, if I was wearing a face mask and gloves, do you believe that would be enough to stop the transfer from horse to human?

Dr Crook: In terms of the standard precautions and additional precautions to be taken when dealing with Hendra virus infected horses, there is a hierarchy of those. With the PPE, it is about protecting from exposure to the body fluids that you would be exposed to and protecting the mucous membranes—the mouth, the eyes and that type of exposure. We have other colleagues with high expertise in that who can also address that.

Mr PERRETT: Thank you, Dr Crook, for coming in again today. With respect to property management practices, it has been suggested that certain actions can be taken by property owners and horse owners to perhaps lessen the risk of potential exposure and the ultimate infection of a horse. What sort of property management practices do you see as being something that could be advocated for horse owners to adopt to perhaps lessen that risk?

Dr Crook: There is a hierarchy of strategies that we recommend. We recommend that vaccination is the single most effective way of minimising infection of horses. In terms of additional biosecurity measures that can be put in place on properties, it is largely around minimising the interaction between flying foxes and horses and breaking that transmission cycle. That includes measures such as not putting water or feed bins under trees where flying foxes may be roosting or feeding or active. Other measures that can be taken include identifying risk periods and risk trees that are on a property and either removing horses from those paddocks during that period or minimising that contact. That may mean removing the horses, particularly when flying foxes are most active, which is during the night-time.

Mr PERRETT: That is something that you obviously actively encourage. If people come forward looking for advice, do you explain those processes to them so that they can minimise that risk?

Dr Crook: Yes, and there are a range of measures that people can apply. Based on their risk management and their risk assessment for their enterprise, we offer those mitigations that people can use.

Mrs GILBERT: Thank you for coming back in today. I come from an area where there are a lot of bat populations and flying foxes, so there is always a lot of chatter about flying foxes. We have had a lot of submissions from horse owners talking about the flying fox population. Some of them say that we should just cull all the flying foxes, which we know is not the best way of going about things. It is fairly blunt. Do you believe there are other ways we could be looking at this problem with the virus being carried by these animals? Should we be looking at ways of treating the carriers of the virus rather than looking at the horse?

Dr Crook: The flying fox is a natural host for the Hendra virus. They will carry the Hendra virus and may not show any evidence of that, but they can excrete the Hendra virus. Treating them would not be feasible or practical. The main focus is on separating the interaction between the flying fox and the horses, and they were some of the approaches that we were talking about before.

Mr SORENSEN: Vets should know what to do when they come along to horses that are not vaccinated, but what about the nurses and other people like the farmers themselves? What training do they get to prevent those infections?

Dr Crook: In terms of general awareness, there is a lot of information around Hendra virus available, not just from ourselves but also from other people. If a veterinarian is attending a property and bringing a vet nurse with them to assist them, obviously there is a duty of care there and an education process there, as there would be with interacting with the horse owner at that time.

Mr SORENSEN: When the vet gets there and he is by himself and he has to get the owner or somebody to help him, whoever it is, does he get a little demonstration before that? Does the property owner get a demonstration before they go to the horse? Do they usually suit up in the PPE?

Dr Crook: This is the vet on the property? I would probably refer that to our veterinary colleagues who are on the properties.

Mr MADDEN: Thanks for coming in this morning, Dr Crook. This inquiry has focused on the Hendra virus vaccine, but would you agree that vaccines are a long-established management tool for animal production in Queensland for things like horses, sheep and cattle?

Dr Crook: Yes. There are a large range of vaccines available to manage endemic diseases for production animals.

Mr MADDEN: Could you outline some of those other commonly used vaccines and any issues that may have arisen with regard to those vaccines?

Dr Crook: Any in particular?

Mr MADDEN: No, not really.

Dr Crook: Your classic vaccinations include the clostridium family, so that is tetanus, blackleg and those types of things. Botulism also falls in that family. Particularly for the horse industry there are vaccinations for strangles, which is a bacterial disease, and also for some herpes virus. For cattle you have the leptospirosis vaccination for those types of diseases, so there is a very large range.

Mr MADDEN: Are any of those other viruses for which vaccines are given transferrable between animals and humans?

Dr Crook: From a zoonotic potential the big one is lyssavirus, which is also carried by flying foxes, but there is not a commercial vaccine for that.

Mr MADDEN: There is no vaccine for that one?

Dr Crook: If we had to deal with a situation like that we would be able to manage it through vaccination, but it is not through one that is routinely available.

Mr MADDEN: While this inquiry is focused on Hendra virus, is there a wide range of other vaccines widely used in animal production with sheep, cattle and horses in Queensland?

Dr Crook: Yes, for the management of endemic diseases.

Mr PEARCE: You were just talking about the release of vaccines. Do other vaccines have a different testing time frame than that which applied to the Hendra vaccine? My understanding is that it was done fairly quickly and that has been a bit of a concern. With those other vaccines that are used by cattle, sheep or whatever, what is the regime that is applied to the testing of those vaccines?

Dr Crook: Just for clarification, is that from concept to bringing it through to the marketplace?

Mr PEARCE: And before releasing it**.**

Dr Crook: That is not an area of my expertise, and I think there would be others more appropriate to answer that. I think it would vary depending on what the product is that we are looking at and also the conditions that would be applied in terms of full registration for that.

Mr PEARCE: Would the department not have some concerns about that? If it is to be released, would they not like to know that it is ready to go and has been properly tested?

Dr Crook: Product registration is not a function for the Queensland government. That is for the federal government through the APVMA.

Mr PEARCE: You are just happy to let it go along that way?

Dr Crook: When a product is fully registered, the product is registered and available for use in the jurisdictions then.

Mr PEARCE: Do you have any comment to make with regard to the fact that there is a lot of comment out there that it did not go through proper testing? I know that you are trying to say it is not your responsibility, but I would have thought that an agency that has a close relationship with animal welfare would have some concerns about making sure that the process was carried out properly.

Dr Crook: Absolutely. We work with the APVMA and accept that they do a full and robust study of products that are being registered. Indeed, for this one it did go through the minor use permit process and then through the full registration process.

Mr PEARCE: You do not check the process that the APVMA went through? You are just happy to take their advice?

Dr Crook: That is their area of jurisdiction and responsibility.

Mr PEARCE: I also think you have a responsibility. You care about the welfare of animals.

Dr Crook: Absolutely.

Mr PEARCE: If there is a problem, at the moment you are in a position where you cannot actually say that that vaccine went through a proper testing regime and that you as an agency are happy with it and therefore the horse owners out there should not be having any problems.

Dr Crook: As part of the process for product registration there is a public submission process that we are invited to participate in for all products. I am not just talking about Hendra products. Then there is also the process around the adverse reactions et cetera that we can monitor, access and keep ourselves up to date with.

Mr PEARCE: You monitor the adverse reactions? Is that what you said?

Dr Crook: We can monitor them. They are publicly available and we can look at them and see what is being reported about a particular product.

Mr PEARCE: Have you been monitoring this process?

Dr Crook: We monitor all sorts of things.

Mr PEARCE: And making comment?

Dr Crook: We make comment when appropriate.

Mr PEARCE: When appropriate?

Dr Crook: Yes.

Mr PEARCE: Who determines when it is appropriate?

Dr Crook: I guess it would depend on the issue.

Mr PEARCE: When is an issue big enough to be appropriate?

Dr Crook: That is right.

Mr PEARCE: That is my question. Can you tell me when an issue is big enough to be appropriate?

Dr Crook: Yes, if there was significant risk to animals or humans or there was a severe adverse reaction reported.

Mr PEARCE: Do you not believe that that has happened in this case?

Dr Crook: I am aware of what the reports were, yes.

CHAIR: We heard that back when this first came out the Biosecurity vets were very cooperative and actually got in and took over the incident, basically. During our hearings we have heard concern from some of vets that with the latest outbreaks they seem to be segregated and left to their own devices. That is what we heard when asked about the role of Biosecurity vets. They now believe that they are left on their own. They feel that the Biosecurity vets do not get into the full gear and are basically there just to give information and it is the local vets who are doing the work.

What is the role for Biosecurity vets? Say there is an outbreak and there are two horses involved and potential human interaction and contact. Can you explain to me the role of the Biosecurity vets? Has that role changed from the first case that was brought forward—the Vic Rail case? It seemed to us that the vets were telling us quite clearly that they feel as though once something like this happens they are the ones who have to get in there and do the work and the Biosecurity vets are just sitting back saying, 'We are not going in there. We would rather you go in because you are the local vet.'

Dr Crook: Can I clarify whether we are talking about when there is a confirmed case?

CHAIR: Correct.

Dr Crook: When there is a confirmed case we take responsibility for managing that incident. As soon as a positive result is reported, I know about that. I am on the phone and we are organising for our people to be there. We are contacting the vet who has submitted the sample and we are organising for either the vet or ourselves to contact the owner of the horse. We will then mobilise and be on those properties. Depending on what time the result is available, that would be within a matter of hours.

We will take responsibility for managing a positive Hendra case in an animal. That would involve managing the site. That would involve establishing control zones on the property and who has access to the animals. We would then be responsible for undertaking the testing, setting up the biosecurity arrangements for that property and working with the property owner to manage that and also to manage all biosecurity risks.

CHAIR: That would include care of the horse during this time and being in full protective equipment?

Dr Crook: The day-to-day care of the horses would remain with the owner but in association with us—under Biosecurity advice and putting in place risk mitigation. If there is any interaction with any animals it is minimal, such as feeding horses, watering horses. We would minimise any close contact with any animals until we have all the results available.

Mr PERRETT: As the Chief Veterinary Officer, do you have direct contact and relations with the Department of Health and the Chief Health Officer? What I am alluding to is what we touched on before about diseases that can be transferred from animal to human, such as Leptospirosis or Q fever. I have had Q fever in the past so I know plenty about that. Obviously for Q fever there is a human vaccination. There have been certain suggestions around stall-side tests or perhaps even human vaccination down the track. How do you work and communicate directly with the Department of Health and particularly with the Chief Health Officer?

Dr Crook: I do know the Chief Health Officer. We work very closely together and regularly with members from Queensland Health. We have regular interagency meetings. That is representations between us, Queensland Health and Workplace Health and Safety Queensland. We are working regularly, meeting regularly, reviewing regularly around particular zoonotic diseases. Hendra is always on the agenda, as are some of the other diseases you mentioned.

In the case of an event or a confirmation of a positive Hendra case in an animal, my third phone call will be to the Chief Health Officer to advise them of what is going on. We then work very closely with them in terms of ensuring the health of people on those properties—not just the immediate physical health but also any other support that may be required for people involved in an incident. Yes, it is a very close working relationship.

Mr PERRETT: The other issue is looking for possible human vaccinations and the like. I cite Q fever as being one. I do not think there is one for Leptospirosis, but there is certainly one for Q fever. What is the process there? That may be a question that could be asked of the Department of Health and the Chief Health Officer. There have been some suggestions that perhaps some further work could be encouraged in that area in terms of looking for opportunities. What is the process? Do you get involved in the advocacy for that as being something that is worthwhile?

Dr Crook: Yes, that would be a question for the Department of Health. We are aware of the work that they do, particularly around the monoclonal antibody work, which is not a vaccine but a treatment that is available after exposure. In terms of vaccine work, we are aware and are watching what is going on around the world in terms of development in that area. That would be a specific question and a specific consideration for the Department of Health. We would be talking to them about what is being developed, particularly if there are developments in the animal health area that may be of benefit or of interest to the human health area.

Mr PEARCE: Is Biosecurity Queensland absolutely confident that APVMA's processes for assessing and approving the Hendra virus vaccine for use firstly under a limited use permit and then under full registration were thorough and rigorous?

Dr Crook: Thank you for the question. We have made a previous statement to this committee about our confidence in the Hendra vaccine for horses and the registration of that product.

CHAIR: Thank you, Dr Crook, for your time this morning.

LEHRBACH, Dr Phil, Director, Regulatory Affairs, Zoetis Australia Pty Ltd

L'ESTRANGE, Dr Richard, Veterinary Operations Manager, Zoetis Australia Pty Ltd

MESSER, Dr John, Director, New Product Development, Regulatory and Scientific Affairs, Zoetis Australia Pty Ltd

NEALE, Dr Maria, Sales and Marketing Manager, Zoetis Australia Pty Ltd

CHAIR: I welcome our next witnesses from Zoetis Australia. You have made your opening statements at our previous hearings. If you do not mind we will start asking you some questions. Obviously as part of this inquiry we have been around the countryside a bit. At our recent hearings there was quite a lot of concern about the timing and number of shots horse owners have to give their horses. I am aware that we have recently passed that the timing can go from six months to 12 months after the boosters.

Some of the concerns we heard, particularly at the hearing in Nambour, were that horse owners had done some private testing on the level of antibodies in their horses. They were found to be hundreds of times higher than they needed to be. We have moved the timing out to 12 months. Going forward, is any work being done to extend the time for vaccinations and, rather than it being 12 months, it being potentially three or five years? We have heard that that is normal for any other practice of this type.

Dr L'Estrange: I might defer to Phil to complete the answer. It is quite normal in veterinary medicine for vaccinations of horses to be given every six to 12 months. The only vaccine that I am aware of that has a longer labelled interval is tetanus. That is peculiar to Australia. Our tetanus label for horses suggests out to five years. That is not consistent with the global tetanus scenario, where other countries tend to have an annual tetanus vaccination interval. Even within this country, an expert panel of prominent microbiologists and veterinarians suggested that tetanus should be annual rather than every five years. I guess what I am saying is that there are two other vaccines in Australia that are given to horses routinely every six months, being the strangles and herpes vaccines. Annual vaccination is the more routine default, I suppose. Longer intervals would be unusual. There would be no other precedent for that.

CHAIR: The other side of it is the reactions to those that are done every 12 months compared to what we have obviously heard as part of this hearing is quite different. Is there any reason that would be the case? As you would obviously know from our hearings, there are quite a few concerns. We have had many town hall meetings where there have been quite a few people with concerns about the reactions to this vaccine. Do we see the same things with tetanus and strangles? Is it common?

Dr L'Estrange: I guess the difference between the Hendra vaccine and the other vaccines is to do with the requirement to report. When the product was under permit, it was compulsory to report everything, whether it was even a hint of suspicion or something that was more definite. That created a perception of a higher reaction rate for this vaccine than other vaccines. Other vaccines are not reported as often, but that is because there is no requirement to do so and there is an acceptance amongst veterinarians as to what is kind of normal, if you want to use that word, so is not worthy of a report. Anecdotally, if we visit veterinarians they do often compare vaccines. They do not, in broad terms, see a difference between this one and others. Maybe even some versions of the strangles vaccine in the past have been claimed anecdotally to be far more reactive than this one. I think it is more about a perception than a reality and it is driven by that compulsion to report that was in place when the product was under permit.

CHAIR: Going back to the other part of my original question, is it possible that horses can be overvaccinated? As I said, in some of the reports we heard, when they had private testing the levels were well and truly above what was recommended for a horse to be vaccinated and safe. Is there a way forward in the future if it can be proven by these types of means that they do not have to vaccinate because the levels are so high? Is that a possible thing to look at? We have to report on this and give some recommendations. Is there a way that horse owners can be confident that their horses are vaccinated and that the levels are safe even if it is 12 months, two years, three years, five years?

Dr L'Estrange: There are two parts to that question. The first one is: can you overvaccinate a horse? There is only one other vaccine that I am personally aware of where that is theoretically possible and that is with strangles. There is discussion in the scientific literature that if you vaccinate horses that have been recently infected with strangles or have very high antibody titres already you

can precipitate illnesses in that horse. There is some doubt about that. I do not think it is conclusively proven, but it is discussed in the literature. I do not think there is evidence for that with the Hendra vaccine.

CHAIR: This is a new drug, though.

Dr L'Estrange: It is a new drug, yes. If we look at the illnesses that are associated with that, with the strangles vaccine we are not seeing those illnesses reported against the Hendra vaccine. We are not seeing evidence at this point—in my mind, anyway. As far as acceptance of titres, I think that would be a question for APVMA. APVMA dictate a regime for vaccination and they are the regulator and we abide by 'the labels suggests you give a vaccine at certain intervals'. The label does not suggest any acceptance of a certain titre as an alternative.

Mr PERRETT: Thank you for coming in again. Around current and future research, we have obviously heard varying opinions about the vaccination and its worthiness in certain circumstances. As a company—and I understand that this may be commercially sensitive information—are you still conducting research into this particular vaccine or is there other research that is being undertaken for circumstances where there has been perhaps an adverse reaction and an antidote may be available for horse owners?

Dr Lehrbach: Certainly we continue to research the vaccine itself, particularly in its formulation and the details of the manufacturing process. Any response we do get from the field is also researched in terms of an ongoing program to either improve or change the vaccine in some way.

Mr PERRETT: We have heard other examples of research being done at universities, stall-side tests and the like that, while not directly related to the vaccination, may relate to the disease and the ability to detect that. I wondered whether Zoetis is in that space as well, or whether they work collaboratively with other groups where there are opportunities to look for further advancement in the safety of this particular vaccination or in a case where there is, as I mentioned, an adverse reaction. Is any work being done where there may be some sort of alternative treatment, be it an antidote or something like that, that could deal with some of the concerns put forward by some horse owners?

Dr Lehrbach: Certainly we would be looking for collaborations in the diagnostic space, because that is part of our interest in this area.

Mrs GILBERT: You have been talking about the vaccination for horses. Where are we up to with the human vaccine? There is one vaccine—

Dr L'Estrange: There is no human vaccine. There is a bit of a misinterpretation, perhaps in the media, of that particular field. There is a human monoclonal antibody, which is a bit like an antivenin, if you like, that is given to humans who are assessed as having been at high risk of exposure to Hendra virus. It is a treatment for somebody on suspicion of exposure. The idea is that the antivenin blocks the virus and so it is a short-term administration of antibodies. Those antibodies will disappear out of the body within a matter of weeks. However, it is not a vaccine as such, which is designed to generate the body's own antibodies and provide prolonged protection.

CHAIR: We have heard from a couple of vets who said that they were keen to administer this vaccination to themselves. What would happen if someone did that?

Dr L'Estrange: The vaccine is designed to be given to a horse, so I would expect that they might at least have perhaps a nasty headache—

Mr PEARCE: Or a runny nose.

Dr L'Estrange: Or a runny nose. It is not something that we recommend.

Dr Lehrbach: Certainly it is not tailored for human use in that the components of the vaccine are not applied for human vaccines.

CHAIR: Why have not we trialled this, or something else, on humans so that the vets can have something similar to what we give to a horse? If it is good enough for a horse, are there other trials that we can potentially look at to give something like this to our vets?

Dr Lehrbach: As a company, we do not commit to developing human vaccines at this stage.

CHAIR: You are?

Dr Lehrbach: We are not.

Dr L'Estrange: We are an animal health company, so that would be for other people to consider.

Mr MADDEN: Thank you very much for coming in today. Some of the submitters have observed vets administering multiple vaccinations to horses on occasions. I guess they have connected that with the knowledge that with humans there are some vaccines that should not be administered simultaneously. For the record, could you confirm that it is safe to administer HeV vaccine with other vaccines such as the strangles booster?

Dr L'Estrange: There is no data on concurrent administration with other products, whether they be vaccines or any other medicine. Having said that, that sort of data is rare. It is logistically and financially impossible for pharmaceutical manufacturers to test every product against every other product. Veterinarians, both here and overseas, routinely administer multiple medicines and vaccines concurrently. In the US, where they vaccinate for many more things, it is quite routine to administer quite a number of vaccines simultaneously into the one horse, quite often from different manufacturers. There is no data supporting that practice, either. We leave those sorts of decisions up to the individual veterinarian. If we get feedback from veterinarians—perhaps they have done that—that would lead us to believe that perhaps it is not a good thing to do, we will offer anecdotal advice against it. However, we have not seen any significant feedback that would lead us to make that sort of advice, to date anyway.

Mr PEARCE: Dr L'Estrange, could you explain having the initial dose and then another one 21 days later?

Dr L'Estrange: Three to six weeks later, yes.

Mr PEARCE: How did you come to the decision that that was the best way to go through the whole vaccination process, to make sure a horse is immune? Who determined that it was going to be six or 12 months? Can you provide us with any scientific evidence to back that up?

Dr Lehrbach: Yes. This was trial based or data based. We varied the interdose interval—that is, the time between the first and second dose—over a period of weeks. Then we monitored the serological response of groups of horses that received that particular treatment. We were there to optimise the immune response with different interdose intervals. Three to six weeks was the interval we chose that maximises that immune response. It is data based.

Mr PEARCE: It is data based on a trial—

Dr Lehrbach: On a trial report that was forwarded to the APVMA to support our label claim.

Mr PEARCE: For a drug that has only just come on the market, it was trial based and you are able to make decisions about when a horse should have boosters or go through a process?

Dr Lehrbach: Correct. In the same way as our third repeat dose after six months was based on our trial work, which was presented to the APVMA and established on our label.

Mr PEARCE: Are you able to provide the committee with a record of that trial?

Dr Lehrbach: I can certainly do that, and a summary of the trial.

Mr PEARCE: That would be good. Dr L'Estrange produced to the inquiry all the testing that has been done on this vaccine efficacy to show why this over-the-top regime was required. You must have had reasons and evidence to say that you need to go through this other process of doubling up or having the vaccine again after six weeks and then again after 12 months. I suppose that is your part of your previous answer.

Dr Lehrbach: Exactly. It is all data based, to achieve those claims on the label.

Mr PEARCE: Could you tell me what qualifications Zoetis has to assess adverse reaction and decide if it should be forwarded to the APVMA?

Dr Lehrbach: I might defer my answer to John Messer, who is responsible for managing our adverse experience program and interacting with the APVMA as to those records.

Dr Messer: Thanks for the question. The approach that we take is that any adverse event reported to us is forwarded to the APVMA. Serious adverse events are forwarded within 10 days. At the moment, the remainder of the adverse events are forwarded in about two months after they occur. We do not make a decision about whether or not we will forward something to the APVMA; we forward all adverse events that are reported to us, or that we identify independently perhaps on social media. If it meets the criteria of an adverse event, we forward that to the APVMA.

Mr PEARCE: What has Zoetis included in their online training modules to adequately cover the minor permit and how it must be used?

Dr L'Estrange: When the product was released initially under permit, it was APVMA's requirement that there be an online training module for veterinarians to educate them about the Hendra virus itself and the administration requirements of the vaccine. Zoetis complied with that requirement and created the online module. Now that the product is registered, there is no longer any such requirement. Veterinarians do not have to complete an online module anymore.

Mr PEARCE: Okay. I want to go back to an adverse reaction again, if I can. An adverse reaction is reported to the local vet and they are supposed to advise you. I have heard, or I have read it somewhere, that you make the decision as to whether that should be reported to the APVMA?

Dr L'Estrange: No, I do not, no. There is no decision to be made. If an adverse event is reported to us, it is passed to the APVMA, full stop.

Mr PEARCE: Every report that has been made to you through a vet would have been passed on to the APVMA?

Dr L'Estrange: Correct.

Dr Messer: That is correct. To add to that, every employee within Zoetis is trained in that obligation so that even if a report is made to someone, say, for example, other than Richard—it might go to some of our sales representatives—they understand that they must pass it on to the pharmacovigilance function to enable that report to be made to the APVMA. It is not just a select few who understand that obligation; the company globally rolls out training, that all of us have undertaken, which indicates our obligation to report every adverse event to the pharmacovigilance function, which then reports it on to the regulator, the APVMA.

Mr PEARCE: So all reports in and out would be recorded?

Dr L'Estrange: Correct.

Mr PEARCE: Could we have a look at the history of that? Could we have a copy of the last 12 months where that has happened? It is reported in and it is reported out, so it should not be a problem.

Dr Lehrbach: The reports are certainly summarised by the APVMA on their public website and they have recently updated that summary. If you are looking for numbers, they are certainly there.

Mr PEARCE: But I did not ask about them; I want to know what you guys do. You get a report from the vet. Is it reported and then discussed or whatever before it goes up? Are those reports recorded?

Dr L'Estrange: Yes, everything that we receive is retained. As far as providing those details to the committee, I would be reluctant to give you everything because, of course, they contain confidential information from all parties, whether they be horse owners, veterinarians and the like. I think I would need to source permission from those parties on a case-by-case basis before I could hand that information in full to the committee. APVMA, as Phil said, provide some reason and they are a more public organisation.

CHAIR: Would you be able to provide the numbers of referrals that have come to you and that have been passed on?

Dr L'Estrange: Absolutely.

CHAIR: Can that be done?

Dr L'Estrange: I sourced an update on that figure from our pharmacovigilance department this week. As of this week, there have been approximately 1,460 adverse event reports to Zoetis. Those reports are either with APVMA or, as John indicated, there is a slight lag time. I think there may be approximately 20 that are yet to reach APVMA, because of the interval type of nature of reporting, or passing on to the APVMA.

CHAIR: Thank you. Why does it take two months? If you refer all to the APVMA, what is the process that it can take eight weeks to get through?

Dr Messer: The obligation to report adverse events for a registered product is that serious cases are reported within 10 days and non-serious cases are reported annually. Given the volume of Hendra reports, to assist the APVMA in processing them themselves, at the moment we send them through every two months. It is not an obligation on us to do that. When we talk about the `non-serious', we are talking about the lump, the sore neck—those sorts of reactions. The APVMA requires an annual summary, but if they were to get those number of hundreds in one go as an annual summary then their processing would be very uneven. We send that through every two months as a voluntary procedure.

CHAIR: Thank you. Just for clarity, it was compulsory to put in a report if there was any adverse reaction. Is that still happening now?

Dr Messer: All adverse events are reported when they are received.

CHAIR: Even though currently it is in full production? There is still a reporting?

Dr L'Estrange: It is not compulsory for people to report to us anymore. It was—or for veterinarians specifically it was compulsory to report when the product was under permit. Now that the product has moved to registration, it is like every other product on the market. The reporting system is voluntary from the end user, or the veterinarian, to Zoetis, but if Zoetis receives a report, there is no voluntary nature on our part; all reports are processed on to APVMA. The only voluntary bit is on behalf of the owner or veterinarian

Mr MADDEN: I have a question for Dr Messer. It is with regard to something that you said in answer to a question from the member for Mirani. It is with regard to the adverse reactions that you report to the APVMA. Did you say that you report adverse reactions if they are recorded on social media?

Dr Messer: That is correct. If we identify an adverse reaction from any source that fulfils four characteristics—there is an identifiable firsthand reporter; there is an identifiable patient; there is an identifiable product, which, in this case, is the Hendra vaccine; and there is an adverse reaction that occurred, or was suspected or reported to have occurred—then we report that.

Mr MADDEN: Just following on from that, can I presume from what you have just said that, if a picture appears on social media of a horse with, say, a rash and the allegation is made that that rash was as a result of the vaccine, you would properly investigate that and, if that criteria you just mentioned were satisfied, you would then report that to the APVMA?

Dr Messer: That is correct. If the criteria were satisfied, generally if possible we would reach out for more information. That is the role that Richard has taken. We would reach out for more information where we could find it because, obviously, the more information we can give the APVMA and have ourselves, the better we can classify the particular issue. Yes, we have an obligation globally, within company requirements, that any adverse event, whether we identify it from scientific literature or social media—any source that meets the requirements of an adverse event—we report that both internally to the company and also to the regulator.

Mr MADDEN: If a Mary Smith posted a picture of a horse on Facebook, you would then send a message to Mary Smith via Facebook asking for more information with regard to that post?

Dr Messer: We may. It depends on whether we felt that we needed more information in that case. We may report it as we found it. We may not always contact Mary Smith—we may not be able to contact her—but if we felt that we had enough information to identify a case we would report that to the APVMA so that they are aware that the case is out there.

Mr PERRETT: I have a follow-up question to a question that you took on notice. You were to provide some further information to the member for Mirani around the process to establish the correct vaccination programs. Perhaps it could be helpful to the committee to also compare it with other vaccinations for animals, be it dogs, cattle or horses. I think that would be valuable—whether it is the parvo, lepto, or three-day sickness vaccine. I know that they are not all of Zoetis's, but I think that puts it into perspective. I think that would be helpful to the committee.

Dr L'Estrange: It varies a bit from vaccine type to vaccine type and species to species. There has certainly been a lot of discussion in the scientific literature over the last 10 to 20 years in the dog space concerning parvo vaccination in particular. That is a different structure of vaccine. That is a live vaccine for the most part. Live vaccines are considered to have a more prolonged effect than dead vaccines, and Hendra is a dead vaccine. In the dog world, yes, there is discussion about, `Can you give parvo vaccines less frequently than has been traditionally conducted?' There is no discussion in the literature that I am aware of around horse vaccines in particular. Dead vaccines tend to be given more frequently and are thought to require more regular boosters, if you like, than, say, a parvo live vaccine in a dog. In Australia, we do not have any live horse vaccines; they are all dead. Regular boosters are the norm, if you like, for dead vaccines.

Mr PERRETT: It would be helpful if we could have that sort of information to put it in context in respect of what we would call common vaccinations, particularly within those industries. I am very familiar with a lot of those, because I have been through a lot of them personally. With regard to that further research, we spoke about antivenins earlier. Can you provide us with anything like that, while respecting the commercial nature of it, and any research that could provide confidence for the broader community? That is one of the areas that we are looking and that would be helpful.

Dr Lehrbach: Just to follow on from what Richard said about the dosing, that is what you want us to compare—other vaccines with Hendra? I can think of one.

Mr PERRETT: I think it would be helpful, because there are a lot of common vaccines that are used on a daily basis by thousands of property owners across this state. I think it would be helpful to put it in context as to the regular use of those, the safeguards that are in place, the Hendra vaccination and the work that the pharmaceutical companies do on these common vaccinations.

CHAIR: Is the Hendra vaccine being reviewed and updated? That is what happens with a lot of other vaccines—they continually improve them. Is that happening, or are you happy with where it is and that is the end of the story?

Dr L'Estrange: Phil may need to expand. He is probably closer to it than me, but I think, given the difficulty that we have had getting it to 12 months, it would be even more difficult to get it for longer.

Dr Lehrbach: That is correct. We are happy with where we have arrived at with the dosing regime and the research that we have done to achieve that.

CHAIR: There is no ongoing research?

Dr Lehrbach: There is always an ongoing program of looking at new formulations—as I said earlier, looking at the manufacturing process in detail to improve that.

CHAIR: Thank you. Thank you very much for your attendance today. It was very informative.

ARTHY, Ms Kareena, Chief Executive Officer, Australian Pesticides and Veterinary Medicines Authority, via teleconference

NORDEN, Mr Alan, Executive Director, Registration Management and Evaluation, Australian Pesticides and Veterinary Medicines Authority, via teleconference

CHAIR: Thank you for taking the time to speak to the committee today. As you are probably aware, we are being broadcast and Hansard is recording today's hearing. We have asked you at a previous hearing to make some opening comments. At today's proceedings we will be asking you some more questions in line with the previous statements that you have made, if that is okay with you.

Ms Arthy: That is fine.

CHAIR: I refer to your recently released data titled *Summary of adverse experience reports made to the APVMA about Hendra virus vaccine*. It indicates that there were nine reported potential adverse reactions in the first quarter of this year. The figure does not align with the evidence that we have actually received about the frequency of possible adverse reactions. Do you think there could be under-reporting of adverse reactions on a broad enough scale to affect the EquiVacc safety assessment? The committee has been told that there are thousands of potential adverse reactions on someone's desk that have not been classified and are not included in the public data. Do you know if this is correct?

Ms Arthy: I will start and then I will hand over to Alan Norden. On the first question, which is around the potential under-reporting of AERP as adverse experiences, I think it is fairly safe to say that on nearly anything there would be under-reporting if you consider full reporting to be every adverse experience. We rely on several sources of adverse experience reporting: from the company—in this case Zoetis—from the state and territory governments who may get reports and also from the horse owners and veterinarians themselves.

In terms of the follow-up with whether there is an impact on safety, I would be very surprised if there were reports out there that were of sufficient severity or nature that would not be reported to the APVMA. In general, what I have found over many years of experience is that the horse community are very passionate about the health of their horses. If they had concerns, they would report those concerns to an authority, whether that authority is a veterinarian or a state government or us or the company. Anything that would be serious enough to impact our decisions around potential safety assessments of the vaccine I would expect we would hear about. As I said, I would be very surprised if there is information out there that would be essentially new to us. I know that there is a lot of work in the horse community to encourage them to report adverse experiences.

The second part, which is around thousands of reports on someone's desk—I do not think so. I am pretty confident that, certainly on Hendra virus, we prioritise that. Any report that comes in we look at and we look at very quickly to make sure that we are not seeing trends that are of concern. There might be a difference between what we have and what we analyse and what is finally communicated back out to the people who report. There is often a delay in that. In terms of the potential of having thousands of reports on someone's desk, that is unrealistic, and I would think and I would know that that is wrong. I will hand over to Alan Norden.

Mr Norden: We do go through a process as well. Some of those reports would still be in a process of being classified. As we go through that, those numbers would be updated in relation to the determinations of those reports.

CHAIR: After hearing what you have said, there seem to be quite a few avenues where people can report adverse reactions. Is there any way forward where there could be a one-stop shop for reporting those reactions? I am very big on apps. Is there any way forward where there could potentially be some form of an app that most people could easily get on to and report straight through to one source, rather than relying on something from Zoetis, something from a vet, something straight through to you and something from somewhere else? Is that something that you could possibly look at? During this hearing we have heard quite a few stories—we are not talking hundreds; we are probably talking thousands—of people who have issues with reactions. Is there an appetite to look at something like that?

Ms Arthy: It is one thing that I have not thought about before, and we can certainly think about it. In thinking out loud with this, we have 11,500 products that we look after at the APVMA, so whatever adverse experience reporting system we have would have to fit all of them. In my experience for quite a long time, the more avenues you have for people to report the better because people do not often know about one particular source.

Having said that, it might be something in terms of the APVMA's service around AERP that we can look at in the future development of our IT systems to make it easier on our website to report. That is something that we can certainly look at. In terms of a one-stop shop, I would be reluctant to set the APVMA up as a one-stop shop because often the adverse experience is better off reported to a vet who might be able to deal with the specifics of that case with a client. It is also good to go to the companies because they can look at any direct implications for their product.

I think it is important to understand that, certainly in terms of the role of the APVMA, we do not look at trying to resolve and give answers for single cases. We look at trends, because at the end of the day what we are concerned about is the safety of the product when used across the country, not just some individual animal. With adverse experiences, if people want answers around individual animals, they are better off reporting it to their vet or the company rather than necessarily us. As I said, in terms of the services that the APVMA provide, I would be very happy to look at whether we can improve the way that people can report in to us.

CHAIR: As you said, the best way to see trends is the more information the better. The question related to how we as a committee can recommend better ways of reporting adverse reactions. I am glad that you are open to having a look at different ideas.

Mr MADDEN: Ms Arthy and Mr Norden, thanks for being with us today and for making yourselves available to answer our questions. Could you advise if the process for reporting adverse reactions for the EquiVacc is any different from the process for reporting adverse reactions for any other veterinary medicines? Who determines what the process is for reporting adverse reactions to veterinary medicines?

Ms Arthy: To answer the first one, essentially no. It is exactly the same process. It is not just the veterinary medicines but for every agricultural and veterinary chemical that we register. In terms of who determines the reporting process, it comes from a variety of sources. Under our legislation we actually have a provision where the companies themselves have an obligation to report to us, otherwise they face severe fines. When you are dealing with veterinary medicines, it is the veterinarians who are the best source of information when it comes to adverse experiences. I am pretty sure that through the Australian Veterinary Association they have worked with their veterinarians about the importance of reporting adverse experiences. I am pretty sure that at the state and territory level they also do work with the veterinarians. I am just checking with Mr Norden whether there is anything else more formal.

Mr Norden: No, other than just the general public as well would report. As Kareena mentioned, the number of different mechanisms by which they would come into our system would be through obligations under the legislation, reports that we receive from veterinarians and reports that we receive from the general public.

Ms Arthy: I cannot stress enough that we really value the reporting in from veterinarians. They are the best source because they understand the vaccine, they understand the disease and they understand the clients. We know that with the information that comes in from the vets we really do not have to do much more investigation. Certainly where we would like to spend more time is how we improve that reporting in. At the moment we have no reason for concern in terms of the reporting that vets do in to us.

Mr MADDEN: Is that legislation just one single act that you are talking about?

Ms Arthy: We have nearly 800 pages of legislation and they all go into each other. It is one clause. Underneath our Agricultural and Veterinary Chemicals Code Act, it is section 161.

Mr MADDEN: I was interested to hear from Zoetis this morning that they monitor social media with regard to adverse reactions. I wanted to ask you if you do the same.

Ms Arthy: Not really, no. We do find that it somehow ends up in our inboxes. We do find that a lot of social media comes in to us via other sources. For example, we have feedback areas on our website. There is often quite a lot of direct email, so we do find out. We do not routinely monitor Facebook because, as I said, we look at 11,500 products and if we did that for every one that would eat up all of our resources. As I mentioned, we look at trends and often what is trending on Facebook we would get through another source.

Mr PEARCE: I just want to go back to adverse reactions, if I can. Could you advise the committee how many adverse reaction notifications are registered at the moment on your database?

Ms Arthy: Yes. We are trying to get that information up. I will hand over to Mr Norden.

Mr Norden: For the ones that we have reported more recently, which were up until 31 March, obviously I think you have copies of those figures and they are available from our website. I would have to get other figures as to the ones that we have not yet classified. I do not have that number with me at the moment.

Ms Arthy: If you are okay with us taking it on notice, we can get that to you in the next day or so.

Mr PEARCE: In saying that, how many do you think might be waiting to be processed for registration?

Ms Arthy: We would not be able to say that right here, but we can get that for you on notice.

Mr PEARCE: In doing that, could you also explain if there is a backlog why you have a backlog?

Ms Arthy: I do not think we do have a backlog. This is where I am puzzled as to the advice that you are getting because, as I mentioned, we put the highest priority on the Hendra virus work. There would not be a backlog—certainly not the thousands or tens of thousands you are mentioning—because that would hit our radar in our internal systems very, very quickly. We can certainly provide you with the numbers that we are currently processing, bearing in mind, as Mr Norden explained earlier, they could be in various stages, whether we have just received them or whether we are still investigating them or whether we have not reported them back out to the clients. We can certainly provide you the information.

Mr PEARCE: Do you remove registered adverse reaction reports from your database?

Ms Arthy: No. I am not quite sure I understand your question. We do not remove any adverse reactions from our database. Every adverse experience we get reported we classify as to whether it is probable, possible, likely or not likely. It still stays on our register. It just depends on how it is classified.

Mr PEARCE: If a horse does not continue with the process and is not really considered to be part of the structure that you have in place where you have the follow-up vaccinations, if that is not happening, does that horse stay on there?

Ms Arthy: We do not put our adverse experiences by horse. It is the adverse experience in this case of the vaccine. Whatever happens to the horse after the vaccine after you would see an adverse experience really does not come across our radar because we are not interested in that. We are interested in any reactions in relation to the administration of the vaccine, not in the overall health of the horse in relation to Hendra virus. Does that make sense?

Mr PEARCE: I am just rushing a little because I do not have a lot of time. Does the APVMA believe that the veterinary surgeons who administer the Hendra virus vaccine are qualified and the most appropriate people to make determinations as to whether adverse reactions are caused by the vaccine or how it was administered?

Ms Arthy: The APVMA has no view on that, because how a vaccine or any chemical is used or administrated is the responsibility of a state and territory government. Our role is to make sure that if there is an agricultural or veterinary chemical available for use it is safe. How it is used and administrated is a matter for state governments.

Mr PEARCE: You do not actually monitor the process to make sure that the right information is coming through to you?

Ms Arthy: In terms of information, there are actually two issues that you have raised. One is how the vaccine is administered and whether veterinarians are using the right approach. That is not a matter for us. In terms of how the information comes through to us, again, it is not something we would be directly monitoring. However, there are enough other groups—for example, the Australian Veterinary Association—who would be concerned about that who would be monitoring that work and following up the veterinarians. It is not just about what we do; it is about how the whole system pulls together.

Mr PEARCE: You are satisfied that is working well, that the horse owners in particular are getting the response and the representation that they should be?

Ms Arthy: Again, that is not really our call. I keep coming back to the fact that we are interested in trends. We know enough of working with the horse industry that if something serious was happening out there we would know about it. We do not need every nth degree when it comes to adverse reactions. It is really the serious ones that we are most concerned about and we are confident enough, given the publicity and the nature of the horse community as well as equine vets, that we would know. I think anything more is really outside our scope.

Mr PEARCE: I would have thought it would be part of the whole integrity of the process to make sure that everybody was across how the adverse reactions were impacting on the horse industry.

Ms Arthy: I think you are misunderstanding me. We are confident that our system is robust enough to pick up the trends that are causing a serious reaction. It is our job to pick up the trends, to see whether we need to change any of the safety directions around the use of the vaccine or whether we need to review it. We are confident that we are getting enough information for us to make that call. In terms of whether every individual horse owner needs to be aware, that is something that is not really my call because that is more around the relationship between the horse owner and the veterinarian, but in terms of the system, in terms of providing the information that we need, I am quite confident about the integrity of the system.

Mr PEARCE: Is the APVMA satisfied that adequate testing of the Hendra virus vaccine was performed on sufficient numbers and breeds of horses to ensure the vaccine was safe?

Ms Arthy: Yes. We would not have registered it if we were not.

Mr PEARCE: How do you go about that process?

Ms Arthy: I will hand over to Mr Norden, who has more detail.

Mr Norden: When we looked at the registration application—we have provided to the committee a list of the studies that we looked at in relation to the registration application—there were actually 21 efficacy and safety studies that we examined and 10 chemistry and manufacture studies that we examined as part of that process.

Mr PEARCE: Why does the APVMA support the process of compulsory vaccination of horses not only in areas where we are getting consequences, here in Queensland? I understand that there has been an insistence that horses in Western Australia need to have this Hendra virus vaccine. Do you know about that and why would you be supporting it or not pulling it into line?

Ms Arthy: To provide a bit of clarification of the role of APVMA, we have absolutely nothing to do with any decisions made by either local horse industries or wherever around the mandatory vaccination against Hendra. In any of our registrations that we have put we have not said that. We do not require it as a condition of registration. It is a decision that is put on the industry by others and it is certainly something that is not even within our scope of powers. It is not a matter of supporting it or not; it is just not our responsibility and we have never, ever required it.

CHAIR: Out of the 11,500 products—and obviously you said a lot of your work is done by trends—where does Hendra vaccine sit in the amount of referrals and trends? You said it is high on your agenda. Where does it sit?

Ms Arthy: There are a couple of ways of answering that. It is high on our agenda because it is a new vaccine and we want to monitor it. Certainly when we look at how we structure ourselves internally, if there is a Hendra report it goes to the top of the list in terms of how we assess it. In terms of number of reports, it is actually middle of the range. We actually get far more reports on other products than we do on Hendra virus. If we look at it that way, it is fairly routine for us, but, because of the importance of the vaccine and certainly some of the debate that is happening in the community, it is first priority in terms of putting in resources and analysing it.

CHAIR: Obviously when you are looking at trends and numbers, if you are talking about ones that are high on your list, maybe it would be something for a dog which just about every family in Queensland and Australia owns, whereas there are only a set number of horses that people actually own. Does that have an effect on your trends?

Ms Arthy: No, not really. I guess there might be a slight misunderstanding about what we do. For example, I know that the issue of horse death comes up regularly. If we get even one report of a potential horse death we look at it incredibly closely, and if it is likely to be the vaccine then we would probably look at taking action. If we saw, say, a lot of adverse experiences coming through on something that we would not expect, again, that is what we look at. It is a bit more complex than a sheer numbers game; it is more around patterns. If we see a spike in particular types of adverse reactions in a particular area then we might look at that differently. It is not just a numbers game. Just getting more information in would not necessarily change any of the outcomes or change how we approach this.

CHAIR: Obviously the end and highest report would be a death. Is there any information on how many deaths of horses there have been reported from these reactions?

Ms Arthy: I do not have it at my fingertips but from memory there were something like eight or nine reported. When we have done the assessment, in many cases we have been able to rule out the vaccine, but in a few cases we have basically said, `It could be. It might not be. We do not have

enough information,' so it is classified as a maybe type thing. That is really how it is done. We do not demand individual investigations on each—autopsies and things like that. If it is definitely going to be a death related to the vaccine, we would look at it much more strongly than we do.

Mr Norden: Just to clarify the comment on the number of deaths, the most recent number that I was informed of was seven and, as Ms Arthy mentioned, there could be several plausible reasons for those deaths. That actual rate was 0.0002 per cent of total doses of the vaccine.

Ms Arthy: That is again what we look at. We look at how many doses have been administered and the likelihood of the vaccine being the cause of the actual adverse experience, and then we look at whether there is a sufficient pattern for us to take action. So far we have not seen anything that we did not know.

CHAIR: I asked the question of Zoetis but they asked me to refer it to you. During our hearings we have heard quite a fair bit about titre testing. Some of the horse owners are saying that they have had their own private assessments done on their horses and the levels of the drug in the horse are well and truly above the required limits to keep the horse safe from this disease. Is there any future look at potentially horse owners not having to give the yearly dose to a horse if their levels are hundreds and thousands of times higher than the limits that are actually required to keep it safe?

Mr Norden: I would make a couple of comments about that. The first one would be that if we were to extend the duration of immunity or that revaccination interval beyond 12 months, we would need to be provided with data. That application for that change would also have to come from the registrant for the product, which would be Zoetis. They would have to make an official application with the APVMA. We would consider the information, as we did when we extended it from six months to 12 months. The second comment I make is: the APVMA is not mandating the requirement for vaccination. If a person wants to make a decision as to when they vaccinate their horse then that would be their decision.

CHAIR: Thank you very much for your information today.

ANTHONY, Dr Nathan, President, Equine Veterinarians Australia

REID, Dr Peter, Equine Veterinarians Australia

WILKINSON, Mr Jeffrey, Executive Officer, Equine Veterinarians Australia

CHAIR: We heard from you gentlemen at the initial inquiry and have heard your opening statements so if you are happy for us to ask questions that would be much appreciated.

Dr Anthony: Sure.

CHAIR: My first question is about capturing of systemic reactions. Other witnesses have raised the possibility that some adverse reactions to EquiVacc may be systemic in nature and that these can take time to become fully apparent. Is there any way this can be ruled out? If not, is it reasonable to assume that some systemic reactions may have been discounted by vets because they took longer to appear than standard reaction times?

Dr Anthony: Firstly, when we consider adverse reactions in horses to this vaccine we have to consider that more than 430,000 doses have been administered. The reports to the committee need to be kept in perspective in relation to that bulk number. When we survey our own members we are talking one in 140 vaccinations that result in a reaction—mostly minor.

On vaccinations with systemic reactions, there is potential with any vaccination—in fact any pharmaceutical—for a systemic reaction. You would expect that reactions would occur in close association with administering the vaccine. Some of the reports in submissions put to you, the committee, refer to vaccines that have been administered six months prior or many months prior, and these are unlikely but we need to look at the reaction that is being reported. This morning when I was preparing for this I had a look at submission 7, from Brian Kennedy, who is well known to the Australian Veterinary Association due to his frequent posts on antivaccination sites. When he talks about the vaccine, he is convinced that it is dangerous because he had the vaccine administered to a pregnant mare and she gave birth to a foal with, in his words, a stomach outside of its body cavity. He also talks about a couple of foals being born with bent legs.

I think this really highlights the complexity of this issue. The first defect that he talks about—a spectacular defect and something that is horrific for any horse owner to deal with—has been reported in the veterinary literature from hundreds of years ago. In fact, from the beginning of breeding domestic animals that defect has been reported. It occurs in human beings as well. The vaccine has been available on the market since late 2012. Again, we see bent legs frequently in the thoroughbred and warm blood population. In the Hunter Valley, hundreds and hundreds of foals for many, many years have been born with this defect, which is corrected—long before the development of a vaccine for Hendra. This is the complexity of what we are dealing with, really. An association in time is not evidence. The APVMA spoke to that. It is not the sheer number of reports; it is looking at the likelihood of these reports being caused by the vaccine.

Dr Reid: Can I just make one other important point which has not been covered. When you talk about adverse events due to vaccination, there are three components to that. I brought that up in my submission. This applies to human vaccines as well as animal vaccines. The first component is whether you get a side effect or an adverse reaction to the actual component that is causing the immunostimulation. The second component of an adverse reaction or an adverse event following immunisation is to do with incorrect administration. With administering 450,000 or 500,000 doses of intramuscular injections into horses, you are going to get a certain percentage of horses that have a reaction on their neck or a systemic reaction, not due to the vaccine itself but due to the fact that there are 500,000 times that a needle has been stuck into a horse's neck. From personal experience and from the experience of all other veterinarians, you are going to see those sorts of things happening, and they could be included in so-called adverse events due to Hendra vaccine. The third component is what Dr Anthony is talking about and what you are referring to: systemic reactions apparently put down to the fact that the horse has at some stage previously had an immunisation. Those sorts of claims need to be really seriously analysed and should not just all put into one basket. The committee should not consider that all accusations of systemic reactions at some stage which are unassociated in time, or even close in time, are due to vaccine reactions.

CHAIR: We have heard from some quite vocal submitters on our travels around the countryside. With the work that vets have to do particularly when diagnosing whether a horse has Hendra, the lag time in getting the test results back and the PPE they have to wear—and as we have heard again this morning, realistically the only way it can be transferred from horse to human is by really invasive stuff into a horse—do you think there needs to be some sort of relaxation on the

amount of equipment that a vet has to wear just to go and check on a horse that is potentially sick when testing for this virus? We have heard that a lot of people think that just a mask and some gloves would do the job.

Dr Anthony: Certainly no relaxation on the level of PPE when dealing with a high-risk horse suspected of Hendra, no. Just to correct you there, you put the question to Allison Crook from Biosecurity Queensland this morning about claims from submitters that you have to put your arm in a body cavity to get this disease. She answered your question in relation to a horse sneezing, and her answer was that if a heavily infected horse sneezes and blows respiratory droplets into your face and if they were to land on your mucous membranes—that is, your gums, your eyelids—you could be infected, so you are not correct and certainly it is important for the committee to understand that. There has been one preclinical transmission, so this is not dreamt up.

Queensland Health public health epidemiologists have determined that one person was infected by a seemingly normal horse in a preclinical period within a 72-hour window. That nurse was assisting a veterinarian, that is true, and that veterinarian was washing out a nasal cavity. She was assisting and she got sprayed with some of those fluids, so we should not be complacent and it is important that you understand that. In relation to a high-risk situation, yes, you only have to look at the scientists at the CSIRO who did the work. They knew they were dealing with positive cases excreting a lot of virus. What did they wear? Go back and look at that footage. They are in full-on protective equipment. We would not like to see a relaxation of the level of PPE in these high-risk situations.

I think the complexity for us arises from the very fact that any sick horse could potentially have Hendra virus based on varying symptoms, and if that horse is unvaccinated the likelihood is far greater, although still a rare disease. Veterinarians should be afforded the right to use some professional judgement and to apply graded levels of PPE based on the procedures that they are performing, and we currently do that. We apply standard precautions and we step it up as the risk becomes higher. We make judgement calls every day and we are going to get it wrong, and it is inevitable that we are going to get it wrong. This preclinical transmission increases the risk and, ultimately, if we make a diagnosis other than Hendra and we have not actually gone through the lengthy process of laboratory exclusion testing we are making an educated guess. We could certainly get it wrong. This is not just about veterinarians. You have to remember that we only swing into action and apply levels of PPE once we feel that there is some need to do that. The horse owner is often not doing that before we turn up. An exposure risk has always occurred prior to a veterinarian attending, to some degree.

Dr Reid: You have heard that people have to put their hands or parts of their body into the orifice of a horse, yet that is not correct. One of the first humans confirmed to have Hendra in 1994 was merely handling a horse that was infectious. He was not doing anything more than that.

CHAIR: We have to make recommendations as part of this inquiry. A lot of the concerns that we have heard through our travels, from vets as well, is with regard to workplace health and safety. Do you have any recommendations that you would like us to think about in relation to the concerns from vets about workplace health and safety? How can we make the job easier concerning access to horses that are potentially sick without the full raft of issues that we see with workplace health and safety and the potential charges that could come against a vet?

Dr Anthony: This is certainly a very serious concern for veterinarians, with two prosecutions of a veterinarian still pending and one finalised. There are a range of recommendations in our submission—it is quite extensive—one of which was that the three sets of guidelines be condensed into one more user-friendly set of guidelines, if you like. As we have already discussed, we believe that veterinarians should be afforded the opportunity to apply their clinical judgement in every situation, and effectively guidelines should be guidelines and they should not be mandated. With the allegations that have been put against veterinarians in these prosecutions, certainly it appears to us as though those guidelines are being mandated. They are standard operating procedures, if you like, and they were not really intended to be that. I think that certainly needs to be clarified.

Faster turnaround time with laboratory testing I think is essential. At the moment we cannot get results over weekends and public holidays, that sort of thing. Another big concern for us—if you look at these guidelines—is that the onus of responsibility lies heavily on the shoulders of veterinarians. That is because we are subject to the work health and safety legislation and often a horse owner is not. The Biosecurity Act that is now in place, since 1 July, does now provide an opportunity for that horse owner to be more responsible for their actions. We do think that we are at a point now where owners who live in high-risk areas and choose to not vaccinate their horse, if things go bad and others are put at risk, need to be responsible for their actions as well. If they have the opportunity to vaccinate

and they choose not to for their own reason—and they are entitled to do that—I think they should be made responsible for their own safety and the safety of others. Currently the guidelines suggest that we have to provide advice around the safety of neighbours et cetera.

You put the question to Allison Crook about the feedback that you have received from veterinarians saying that Biosecurity Queensland is not helping them out, that they are leaving them high and dry. She answered that question from the point at which a case is confirmed and at that point Biosecurity Queensland takes over. That is the case, but up until the point of confirmation it is the private veterinarian's responsibility. They are the sorts of changes that we would like to see.

Probably most importantly we would like to see the Queensland government assist veterinarians in educating people about the benefits of this vaccine. All major government agencies state that it is the most effective way to manage the disease. The APVMA have told you today that they are confident in its safety. The regulator, the people who have experience and the expertise to assess the safety of the vaccine, are confident in the safety of the vaccine. We, the veterinarians who are administering thousands of doses, are confident in the safety of the vaccine. The communication is corrupted, we think, by a minority group. We will call them anti-vaccers. They exist in all walks of life, and they have an avenue—social media—to go out there and communicate and speak with authority, and it is damaging people's confidence in a vaccine that was brought to market primarily to make sure that no-one else dies of this disease. The Queensland government, through you, the committee, has a real opportunity here to help correct this and we need your help. We absolutely need your help.

Mr PERRETT: My questions were around workplace health and safety, and I think you have adequately answered those at this stage. I will reserve any questions I might have.

Mr MADDEN: Gentlemen, thanks very much for coming in today. Dr Anthony, I note that you mentioned there have been between 450,000 and 500,000 doses of this Hendra vaccine routinely administered. Can you outline what other vaccines are routinely administered to horses in Queensland?

Dr Anthony: There is routine administration of tetanus vaccine and strangles vaccine, as we have heard before. They are the main ones. Some people vaccinate against herpes virus, which can cause respiratory infection and abortion in pregnant mares, and occasionally there is vaccination against salmonella, particularly on stud farms where outbreaks in foals can occur.

Mr PEARCE: On what grounds do you encourage vets not to treat a horse which has had an accident or is ill if they have not been vaccinated?

Dr Anthony: The Australian Veterinary Association and Equine Veterinarians Australia do not have a formal position around this. We do not go out and encourage any practitioner to not treat an animal that is unvaccinated. What we do encourage is that every practice and every practitioner develop their own policy around managing this risk. What has evolved are a number of different policies, and it depends on your situation and your practice.

For example, the policy might vary if you are a sole practitioner and you are responsible only for yourself, as compared to a practitioner who employs 10 people. Your policy might vary if you own an equine hospital or a facility where horses come onto your grounds or into your hospital and stay. That is because, in that situation, if you were unlucky enough to have a positive case confirmed in your veterinary facility it would result in the quarantine of that stable and facility. In my case, for an equine hospital, that would close my business down and that business interruption is uninsurable. That influences the policy to some extent, but everyone is entitled to develop their own.

Mr Wilkinson: What length of time would you be shut down for?

Dr Anthony: It would close us down for up to 30 days. It could potentially be more if subsequent horses were infected. We would not be able to sustain that economically. Those who are critical of me as a practice owner for not allowing the entry of a particular horse until Hendra has been excluded really fail to consider the consequences to me. Again I go back to the very fact that, when you make a decision as a horse owner to not vaccinate your horse, and if the worst thing happens and that horse becomes infected with this rare disease, the implications go beyond that to yourself and beyond that to your horse. They can have far-reaching implications to many other people.

Mr PEARCE: I ask the question again. Have you encouraged other vets in Queensland to not attend to an ill horse or an injured horse if that horse has not been vaccinated?

Dr Anthony: Jim, I just answered your question. You just asked me the same question and the answer is—

Mr PEARCE: I am asking again because I did not get the answer that I think I should have got.

CHAIR: No, you cannot—

Dr Anthony: Do I have to answer him?

CHAIR: No.

Dr Anthony: Just read the transcript.

CHAIR: Move to the next question, Jim.

Mr PEARCE: In communication between horse owners, vets and Zoetis, do you have any idea how that should be structured to ensure we have information that flows backwards and forwards and that is to the advantage of the horse owner, vets and the whole process?

Dr Anthony: We do have a view there. The information exists; it is in our heads; we are communicating with our clients. As I said, we need some help because, unfortunately, as Kareena Arthy from the APVMA suggested, horse owners are passionate about their horses. Understandably, they look beyond just their veterinarian for sources of information. Social media sites such as `Say no to the Hendra vaccine' site, a site that you are aware of, Jim, provide other sources of information that are contrary to what we are saying. There is conflict there. It is difficult for us to try to correct that information.

What do we do? At grassroots level we are talking to our clients. The uptake of vaccination in the pleasure and sport horse, and even growing in the racehorse community, is high. There are 120,000 fully vaccinated horses. That is a lot. It is a lot, but we do need to make sure that that individual who is making a decision as to whether they vaccinate or not is making that decision based on information that is factual. Unfortunately, there are no referees on social media sites. I do not know.

We go to the politicians for help. I think our practice sent you a personal email asking if you could assist by settling down some of the vitriolic attacks on veterinarians on some of these sites. We did not hear back from you. We do need some assistance. What can you do? Look at the evidence and make your own decision as to whether this is a safe and effective vaccine. If you believe it is safe and effective, then help communicate that and encourage uptake in high-risk areas.

The suggestion that veterinarians are promoting uptake in Perth is inconsistent with the Australian Veterinary Association policy on Hendra vaccination. We recommend that owners of horses in high-risk areas and for high-risk situations vaccinate. Certainly we are not promoting widespread uptake in low-risk areas.

Mr PEARCE: That is interesting. I seek to know your understanding of what happens when a horse owner reports what they think is an adverse reaction to the vet. Then the vet goes through you as well?

Dr Anthony: They can. As has been reported today, that owner can report to us, the veterinarian, to Zoetis directly or to the APVMA directly. If an owner reports an adverse reaction to us, then we would report that to the APVMA. When the vaccine was on permit there was a compulsory reporting requirement, so you did not have a choice. Even if that report was, in our minds, an expected reaction,- if you like, that would still have to be reported. Now that the vaccine is fully registered, the requirements are in line with other fully registered products. Now there are not compulsory reporting requirements. As Kareena Arthy from the APVMA suggested, if a horse owner believes that their horse has just died from this vaccine, they have an opportunity—and I am sure they would—to report it directly to the APVMA. Those sorts of serious claims get reported.

Can I say one thing on adverse reactions. Now that a compulsory reporting requirement is lifted, it is fair to say that veterinarians would no longer be reporting expected adverse reactions. In other words, if we inject this vaccine into a horse's neck, as we do, and that horse develops a painful injection site for a couple of days or if the horse develops a fever following injection—this is no different to tetanus in your own arm or your own child getting a fever post vaccination—then veterinarians may not be reporting that because that is what we call an expected vaccine reaction. The parallel there is that your GP is not reporting that, either.

Mr PEARCE: When the vet turns up at a place where there is a horse and the owner has some concerns about the wellness of the horse, what risk assessment does the vet do to put him or her in a position where they say they cannot treat the horse until it has been vaccinated? I will back that up by saying there may be family and a lot of young kids who have been hanging around this horse, riding it, kissing it—that sort of thing—and nothing has happened.

Dr Anthony: But the vet has turned up on the property?

Mr PEARCE: He has come out because the horse has an injury or something.

Dr Anthony: I think there is some confusion around what is really happening out there. I will answer your question, but I will provide some background information. A survey conducted by the AVA looked at practice policies—and it is in the submission. That survey found that 80 per cent of practices surveyed attend that sick and injured horse. Only one out of five practices had a no-visit policy. Although there are practices that have a no-visit policy, you can generally find another veterinarian who will turn up. It might be inconvenient. Maybe you have to put your horse in a float and drive it 20 kilometres or maybe you have to pay a little bit of extra mileage, but it can happen. If the veterinarian has turned up then—this is a very important point—if the veterinarian does an assessment and considers that Hendra virus is a possible diagnosis here, then the decision-making process is sort of taken out of their hands. It is a legal requirement for that veterinarian, enforceable under the Veterinary Surgeons Act, to test that horse, to consider it for Hendra and to test that horse if we consider it is a possibility.

Once we do that and we test that horse, we then have to refer to the guidelines produced by government agencies. Those guidelines clearly recommend that we should limit the invasive nature of treatments provided to that horse and limit it to those required to maintain welfare. We are complying with guidelines and meeting our legislated requirements in that situation.

The thing is that we are there—and you referred to the kids who kiss the horse—and we are providing advice. We say to that family that they, firstly, need to decontaminate: they need to have a shower and change their clothes. They should minimise contact with the horse. Let's say it is Friday afternoon. We have to wait till 6 pm Monday before we have a result. We recommend the horse be put in an isolated area on that property. We do not want the kids going in there. In fact, all children have to stay away. They throw the feed to the horse. Any medications are administered in feed. We will ask who the neighbours are and go and see the neighbours and let them know not to hang around. We provide them with handouts. We leave them with PPE for even those essential contacts that they have to have.

Again, this responsibility sits on the shoulders of the veterinarian. We have an owner at the end who could have avoided all of this by vaccinating their horse. If that owner has made an informed decision, then fair enough. Unfortunately, some of these owners are making decisions based on information that is readily available that is not correct. This is the problem for us.

That is how we manage that situation. If the horse needs lifesaving surgery it should come into my hospital. If we do an exclusion test then it cannot do that until we get those negative results. We talked about the reasons that is so in a hospital setting, not to mention the fact that there we perform more invasive procedures. Does that answer your question?

Mr PEARCE: Yes. I would say that over the last six or eight months I have had many phone calls from people who ring around asking vets—all around, 150 to 200 kilometres away—to come and see their horse because it has been caught up in a fence. They will not go simply because the horse has not been vaccinated. They all ask the same question.

Dr Anthony: You should come to us. We could share the results of our survey. Jim, you know that before this inquiry was called for you posted on your social site, your own Facebook page, that you had a meeting lined up with the minister, although I think it ended up being with the director-general of BQ, to talk about these very issues. We wrote to you and asked if we could come along. We wrote to you and said could we come along. We fired up four times. I suppose—

CHAIR: I think we are at the end of this question. I think we will finish there.

Mr MADDEN: Doctor, you mentioned that the Veterinary Surgeons Act stops you from treating a horse when there is a display of Hendra virus—

Dr Anthony: No, that is not correct. We are obliged to follow the process for notifiable diseases under the Veterinary Surgeons Act.

Mr MADDEN: That is pretty much answering the question I was going to ask. It is beyond Hendra virus. Is it when horses display certain symptoms that you have to quarantine the horse?

Dr Anthony: This is the dilemma for us: the symptoms of Hendra virus are non-specific. This is the challenge for us. We are making judgement calls on a daily basis and we are doing that to the best of our ability and we are doing that based on our training as veterinarians, our scientific knowledge et cetera. However, at the end of the day, we are taking a risk and we are making those judgement calls.

CHAIR: Once again, thank you very much, Dr Anthony, Dr Reid and Mr Wilkinson from the Australian Veterinary Association.

BICK, Mr Bradley, Director, Work and Electrical Safety Policy, Workplace Health and Safety Queensland

CARROL, Dr Heidi, Medical Director, Communicable Diseases Branch, Prevention Division, Queensland Health

EL SAADI, Ms Debra, Manager, Notifiable Diseases Prevention & Control, Communicable Diseases Branch, Prevention Division, Queensland Health

GOLDSBROUGH, Mr Paul, Executive Director, Workers' Compensation and Policy Services, Workplace Health and Safety Queensland

CHAIR: I say thank you very much to the departmental people for coming today. I welcome you all. You may not have been here, but we have heard opening statements previously so we would like to just ask you some questions today in relation to your department, if that is okay. I will kick off by talking about monoclonal antibody treatment—a question for QH. Your department's reply to our question on notice states—

> The monoclonal antibody treatment has only been used on 12 people to date, one of whom was confirmed to be infected with the Hendra virus. The treatment was not successful on the confirmed case. All other recipients did not become unwell. It is unknown if they had been infected.

Does this mean that there is no evidence to support the idea that the one available treatment for HeV actually works in humans? Roughly how much does each course of treatment cost, including any fees to the uniformed services university for the use of their cell line?

Ms El Saadi: In answer to your first question, there have been animal studies undertaken by Professor Chris Broder in the uniformed services on African green monkeys and ferrets and there has been further research done. The animal studies have shown fairly good efficacy in those animals in protecting against Hendra virus. For a human case, we do not have the evidence yet to be able to answer that question. None of the 11 people who were exposed but not confirmed to have Hendra virus developed any antibodies or anything to Hendra virus to show that there was any evidence of infection, so we cannot answer that question.

In response to the cost, the cell line has been provided at no cost to Queensland Health. Queensland Health does fund the Australian Institute for Bioengineering & Nanotechnology at the University of Queensland to produce the monoclonal antibody. It costs around $380,000 to do a batch of about 50 courses, if you like.

CHAIR: I am not sure if you were here, but a couple of vets that we have talked to in our travels have said that they are quite keen to inject themselves with the vaccine that is provided to horses. Are there any studies or is anything happening in that line where we can come up with a vaccine for people, if they want it, to try to protect them from this virus?

Ms El Saadi: In the response back to Queensland Health, there has been some initial work on some possibilities for an intranasal vaccine, but it is very early studies and it would be a long way off. I know that, in the US, Dr Chris Broder is also looking at this. Really, the main work has been around the monoclonal antibodies to date.

CHAIR: So there is nothing in line with an actual vaccine for humans?

Ms El Saadi: Not at this point.

CHAIR: You say 'early stages'; what would need to be done to try to promote that to make it happen quicker?

Ms El Saadi: There would need to be significant funding to support the researchers to develop it. There was initial funding of about $12 million, from about 2011 to 2016, to do a whole lot of study around Hendra virus. A lot of that was around bats and horses. There were some studies around antivirals and vaccines. There were those two studies that we mentioned, which were provided a little bit of those funds to do some initial research.

CHAIR: Is that research ongoing or not? It is just in bits and pieces?

Ms El Saadi: It would depend whether the companies that did it were able to find a different funding source or were successful in funding bids. Not at this point, to my understanding.

Mr PERRETT: My questions are primarily around workplace health and safety issues, so perhaps Mr Goldsbrough can answer in the first instance. Can you explain to the committee the process that you go through with respect to the assessment of any potential breach of the current

workplace health and safety issues relating to veterinarians attending a situation where a horse could have Hendra virus, and then that interaction and what their responsibilities are back to the owner of the horse or any other people who have had contact with that horse prior to the vet being engaged to assess that situation?

Mr Goldsbrough: Just to be clear, you want to know the process we step through when we are called in when there is an infected horse, in terms of obligations under the Work Health and Safety Act?

Mr PERRETT: Yes, the current situation and then link that back to the new Biosecurity Act and what other implications may be there.

Mr Goldsbrough: I might ask Mr Bick to comment on that specifically.

Mr Bick: Our inspectors have an enforcement guideline or enforcement note, which includes a checklist of things that they would go through when they go out to a property if they are investigating an incident, for example. They would look at whether the property did have a vaccination program and whether they assessed the risk of flying foxes being in the area and restricted horses from those areas where they could actually come into contact with flying foxes. They would look at the safe-work method and procedures, so whether they provide training to staff around their interaction with horses and whether they provide proper personal protective equipment and handwashing equipment. They would look at how that risk is being managed generally and they would look at the various duty holders as well. They would talk to the vet around the systems that they have in place to ensure that, when their veterinarians are going out to work with a horse, they are asking the right questions around where the horse has been and the vaccination status of the horse. They would also be talking to the property owner, if it was a stable, for example, around what safe procedures they have to manage the risk of Hendra virus transmission.

Mr Goldsbrough: The two parties there—both the property owner and the vet—would have specific obligations under the legislation. Because of the different range of circumstances that can come into play, we do not have specific requirements in that regard. Really, the veterinary surgeon will be a key driver in assessing the risks from their perspective in terms of how the management would go forward. What our inspectors will do is look at the considerations of both the vet and the horse or property owner in those situations.

Mr PERRETT: At what point does the inspector decide that there has been a breach of the act? What constitutes a breach of the act, to the point where you actually then charge that vet against certain aspects of the legislation and then bring them before a court? What escalates it?

Mr Goldsbrough: I think we did answer that in the question on notice from the committee. There is a range of considerations that we go through in terms of what we reasonably expect a vet to do in a given set of circumstances and their obligations under the act and then what considerations we would take into account as to whether a matter would proceed to prosecution. Very few matters in that sense do proceed to prosecution across-the-board. However, it would be where we clearly identify a breach of standard practices of what you could expect from a reasonable vet operating in a reasonable manner.

Mr Bick: For example, if a horse was found dead in a paddock, we would get notified through DAF or Biosecurity that that horse might have had Hendra. We would send an inspector out to look at what risk management controls that person or that business had put in place. For example, say we identified that they did not have a vaccination program, they did not restrict the horse to an area that did not have flying foxes and they did not train their staff on handwashing and hygiene when handling horses. If no-one actually was infected by the Hendra virus, the first point of call for an inspector would probably be to issue an improvement notice to give that business some time to actually develop those safe systems and get something in place. As the risk gets more serious or as the outcome gets more serious, those matters are then escalated in terms of our enforcement response, which could be prosecution. Again, the decision to prosecute is actually held by the director of prosecutions in our legal area. He is bound by the DPP guidelines in terms of whether or not to take a prosecution, based on sufficient evidence, public interest and the case to answer.

Mr PERRETT: We have heard a lot of testimony, particularly from the Australian Veterinary Association and others, in respect of vets now being less inclined to attend or in some practices making a clear decision not to attend, having ramifications and creating concerns. Obviously as a committee we hopefully will take recommendations forward in and around this. Perhaps there are some other areas that you can suggest, while not compromising certain aspects of the workplace health and safety legislation, where there could be some further improvements, because ultimately

that is what we are looking for. Hopefully we as a committee can instil confidence into the broader community in and around this. It is certainly one area that I have significant concerns with. I am concerned that the escalation of the prosecution of veterinarians has ramifications.

Mr Goldsbrough: I think I said at the last hearing that, from our perspective, this is one of those areas where it is really important that we have a high level of education and engagement across the industry. What we are hoping we will achieve from this inquiry is some further areas of specificity that we need to look at to help address the overall problem. At the end of the day, the act is based around risk management and risk management principles. Vets are in that position to make a judgement call at a given point in time as to whether they will personally be at risk because of the nature of the circumstances. I am not sure that you can ever really step back from that, because under the act various people have obligations in a workplace and it does come down to personal responsibility and workers and others making calls about their own health and safety, whether it is to a supervisor, a manager or a company director, saying, 'I don't want to do that because I think it is inherently unsafe.' The act provides for that.

Mr PERRETT: That is in a workplace health and safety situation. I am interested that the owner of the horse or other people who have attended it would appear to be exempt from any of that. Obviously they are not engaged in a professional manner, but the onus seems to go back on to the veterinarian to take all care and responsibility, albeit that that horse might have been shedding active virus for three or four days prior. Suddenly the situation changes and then, beyond that point, the vet can provide certain advices, whether or not the owner of that horse or the people attending it actually follow that advice. There seems to be some ambiguity around that. I seek your advice on whether that links back to the new Biosecurity Act and whether there are obligations under that.

Mr Goldsbrough: Under the Workplace Health and Safety Act there are obligations on other people in a workplace. The behaviour of a horse owner or a property owner, when a vet is working and there is interaction between the two, can be considered in terms of our investigation and could give rise to the prosecution of another party. That is why I was referring to the importance of education and awareness, so that we can further instil that there is a whole range of people who have obligations in relation to that particular work activity, whether it is dealing with a sick horse, digging wells on a property or whatever.

Mr MADDEN: Thank you very much for coming in today. Much of the focus of this inquiry has hinged on the assessment of risk with Hendra virus. That is particularly true of the Workplace Health and Safety decision to move from the education of vets to the prosecution of vets. On the issue of the prosecution of vets, I am wondering if a document was produced that set out your reasoning with regard to moving down that road, from education to prosecution.

Mr Goldsbrough: We have not moved away from education. In a given set of circumstances, our inspectors did an investigation of an incident that occurred, made recommendations to our prosecution services area and subsequently the director of that unit made a decision to proceed with a prosecution. All of that is documented, both the investigation report and then the consideration by the director of prosecutions. That is all documented.

Mr MADDEN: Could you provide those details to the committee?

Mr Goldsbrough: Yes.

Mr MADDEN: I do not necessarily want you to provide it orally, now.

Mr Goldsbrough: I am not in a position to do that. I would have to check the legal ramifications around providing that. It may be possible that we can provide it on a confidential basis. I am not sure; I will have to check.

Mr MADDEN: That is fine. Thanks very much.

Mr PEARCE: I guess the two cases are still to go before the courts, so they are sub judice and we cannot talk about that. That is fair enough. Can you tell us what breaches actually occurred?

Mr Goldsbrough: I do not have that information with me. I deliberately stayed away from the particular cases involved.

Mr PEARCE: I understand that. With regard to the inspectors going out to a property and observing the breaches, have any inspectors done further inspections to properties or did it just stop there with those three guys?

Mr Goldsbrough: I will ask Mr Bick to comment, but we have run a whole range of activities with our inspectors.

Mr Bick: The inspectors do reactive work, which is based on incident notifications that we may receive. For Hendra virus, we receive those notifications through DAF or through Queensland Health, on the rare occasion that someone is infected with Hendra virus. They do proactive work as well. We do routine work with veterinarians, for example, where we will go out and look at the veterinary hospitals and see what kinds of areas they have in terms of restricting access to horses that might be infected if they do come into their surgeries. We look at their systems of work and the training of staff in terms of how they might handle Hendra virus incidents and how they handle others that might exist in workplaces. There is both the reactive and the proactive side for our inspectors.

Mr Goldsborough: That is really important, because that allows us to gain the intelligence then to do more education and awareness with the different groups affected. In answer to your specific question, we will come back to the committee with the actual numbers of other inspections or audits.

Mr PEARCE: One thing that has really concerned me throughout this process—and you may not be able to answer it—is that I need to understand if there are strong grounds, or a strong argument, for vets to deny an animal treatment for an illness or an injury, because there are lots of horses out there dying from colic to start with. I know that colic can be linked to some extent, but when we talk about animal welfare and the protection of the community, I wonder if it is because of those grounds under which vets have had action taken against them. Do you see any good reason vets should be denying the treatment of animals based on the information around the action that is in the courts at the moment, because that has been used as a strong argument to say, 'We can't treat your horse.'?

Mr Goldsborough: Under the Work Health and Safety Act I think it is important to establish that people have obligations and one of them is to protect their own health and safety. What we would expect is that a vet, who is no different from anyone else—someone who has been asked to work an unguarded machine or those sorts of things—has to be able to make a judgement call based on their knowledge, experience and expertise whether something will be a risk to health and safety for them. It is inherent in our society. It is a common law right for Queensland workers to deny their labour where they feel that it is unsafe. That is one of the reasons we have been approaching this complex area through education and awareness. We believe that, fundamentally, that has to be the way forward.

It is a bit like the issue of quad bikes. They are used in the workplace; they are used recreationally—farmers and kids will jump on them on weekends and so on. We have to set a prevailing culture and set expectations about what is good behaviour and what is desirable in a given set of circumstance.

Mr PEARCE: No-one wearing PPE has been infected by Hendra virus. Is wearing PPE acceptable to Workplace Health and Safety for the treatment of a horse that may need stitches in their leg or is sick?

Mr Goldsborough: Yes, it is, but I will get Mr Bick to answer in detail.

Mr Bick: It does come back to that risk management process. If someone is attending a well horse and they are just inspecting a hoof, they probably do not need to wear any personal protective equipment at all. As their interaction with the horse increases in terms of exposure to blood or saliva, so does the requirement to wear personal protective equipment. If they are giving an injection, yes, we would expect them to wear gloves and possibly goggles if they think they might get sprayed by blood when they are doing that procedure. Then as they are doing more—if they are cleaning a horse's teeth—the level of PPE is required to go up.

When you are looking at how we manage risks in a workplace, personal protective equipment is the lowest in the order of control. The reason for that is that it relies on it being worn properly, it relies on the person being trained and it relies on the person's behaviour to wear it in the first place, whereas if you move up the hierarchy of controls things such as vaccinations rely less on human behaviour and training. The Hendra virus is very similar to Q fever. The difference with Q fever is that there is a vaccination for humans. We recommend that and we strongly encourage that for people who work in abattoirs, where they could be exposed to aerosols. In addition, in those workplaces we expect that they have safe-work method statements—they restrict access, they do not have equipment that creates aerosols so that workers can breathe in some of those aerosols that could be contaminated with animal products. It is very similar to how we treat other zoonoses in our framework.

Mr PEARCE: From what you have said, my understanding is now that, in a situation where the horse could have Hendra virus, there is no reason a vet should not be able to still have a look at that horse and treat it for another injury if they are fully fitted in PPE?

Mr Goldsborough: If they were of the view that the PPE was sufficient and that they could manage the risks, yes.

CHAIR: Everything that has come up in this inquiry so far has hinged on the assessment of the risk, which we have just been talking about, of HeV. This is particularly true of Workplace Health and Safety's decision to move from the education of vets to prosecution for failing to adhere to the guidelines. Is there a document that sets out Workplace Health and Safety's reasoning around its risk assessment? If so, is there a copy of that available?

Mr Goldsborough: In relation to the Hendra virus, no, there is no specific document. Our knowledge, practices and protocols have been developed working with a range of experts in the area and other government agencies.

CHAIR: There is no set specific risk for Hendra?

Mr Goldsborough: Correct. Based on the circumstances that apply in a given situation, it is difficult.

CHAIR: Would it be hard to prosecute if there is no set risk for Hendra virus?

Mr Goldsborough: I think what you will see from our documentation is that there is a range of matters that need to be addressed to minimise the potential for exposure and we are very clear on that. That information, or that risk of exposure, would be a consideration in a prosecution, as Mr Bick said—things like flying foxes being around, whether PPE is worn, whether it is maintained. There are a whole lot of considerations.

CHAIR: Thank you. Education is still obviously the fundamental principle in Workplace Health and Safety?

Mr Goldsborough: From our perspective, it is very much so.

Mr Bick: That is also outlined in the national compliance and enforcement policy that we follow, which has tools for inspectors ranging from advice and information, through to notices, through to prosecution. We use a range of tools depending on the circumstances that we find.

Mr PERRETT: What do we do? How do we educate people? It is all right saying that you educate, but what do you do? What interaction do you have directly with the Veterinary Association or with the vets in a practical sense—not just coming along and telling us—so that they are fully aware and they are proactive?

Mr Bick: We have a range of fact sheets on our website. They are our main source of materials for vets. They link up to other materials. There is a video called *Suit up!,* which is an AVA video that we link to on our website for veterinarians to know what kind of PPE they are required to have. We also have this interagency group that we work on with the other agencies. Biosecurity and Queensland Health and the AVA and the equine veterinary associations are on them. They are the conduit to the veterinarians.

As I have said before, we have that proactive role where we might go out and do audits or do some proactive work with veterinarians. We will come back on some figures in terms of what we are doing in terms of those inspections.

Mr Goldsborough: Some of our staff will have gone around the state talking to vets and others on this subject matter. That is an important part of our work—to engage with them as well as the associations.

Mr PERRETT: That was my next question. I hope the proactive includes listening and observing.

Mr Goldsborough: Very much so.

Mr PERRETT: There is some sort of interaction with respect to some of the other challenges that can be presented with PPE with large animals.

Mr Goldsborough: How we can better manage this is by having the expert knowledge as well as having some pragmatic interaction with the community and with the professionals who work in the area so that we have a feedback loop on the sorts of information and our approach at any given point in time. That is really important—we listen.

CHAIR: Thank you very much. The time allocated for today's hearing has come to an end. I thank all witnesses who have appeared before the committee today. The committee would appreciate it if any answers to questions that were taken on notice could be provided to us by the close of business on Wednesday, 7 September. I now declare this hearing of the Agriculture and Environment Committee closed.

Committee adjourned at 12.24 pm