



CORONERS COURT

NEW SOUTH WALES

Inquest:	Inquest into the death of Tony BUGEJA
Hearing dates:	2 & 3 June 2015
Date of findings:	26 June 2015
Place of findings:	State Coroner's Court, Glebe
Findings of:	Deputy State Coroner HCB Dillon
Catchwords:	CORONERS – Cause and manner of death – Anaphylactic shock due to wasp sting – Whether response time of ambulance affected outcome – Allocation of ambulances – Whether expired EpiPen affected outcome – Ambulance policy and training concerning management of aggressive animals barring access to patient
File numbers:	2014/0069319
Representation:	Sgt Bronwyn Lorenc (Advocate Assisting Coroner) Also present: Members of Mr Bugeja's family
Findings:	I find that Tony Bugeja died on 5 March 2014 at his home at Stannix Park Rd, Wilberforce, New South Wales due to an anaphylactic reaction he suffered as a result of being stung by a wasp or wasps.

<p>Recommendations:</p>	<p>I make the following recommendations to the Minister for Health:</p> <ul style="list-style-type: none"><li data-bbox="654 353 1396 526">(i) That the NSW Ambulance Service consider equipping its emergency vehicles with a stock of dog treats or a dog toy to be used to distract dogs if necessary when attending emergencies.<li data-bbox="654 560 1396 772">(ii) That the NSW Ambulance Service incorporate into its practice scenarios used in the training and professional development of paramedics a situation based on the facts of Mr Bugeja's incident.<li data-bbox="654 806 1396 974">(iii) That the NSW Ambulance Service through a suitable medium disseminate to its on-road and other staff a list of tips, based on Dr Seksel's advice, for calming apparently aggressive dogs.
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REASONS FOR DECISION

Introduction

1. This is an inquest into the death of Mr Tony Bugeja. Mr Bugeja died on 5 March 2014 at his home after being stung by a wasp or a number of wasps. He had a severe allergy to wasp stings and, despite apparently using a EpiPen to counteract the venom, he suffered a fatal anaphylactic reaction while waiting for an ambulance to arrive.
2. In Australia, when a person dies suddenly due to non-natural causes, the case is reported to a coroner who investigates the circumstances surrounding the death. This is done to provide answers to bereaved families and the wider community but also in the hope that lessons might be learned that will help prevent similar deaths occurring in future.
3. Under the *Coroners Act 2009*, a coroner holding an inquest is obliged to make findings of fact, if possible, as to the identity of the person who has died, the date and place of death, the cause of death and the manner or circumstances of death. In doing so, coroners will ask, among other things, how the fatal incident occurred; why it happened the way it did; and whether the death in question could have been avoided.
4. Coroners may also make recommendations, especially in relation to public health or safety, that they think are necessary or desirable. I will be making recommendations for the NSW Ambulance Service to consider.
5. Before doing so, however, it is important to recognise that the focus of this inquest is on Tony Bugeja.

Tony Bugeja

6. Mr Bugeja was a 50 year-old man who lived on acreage in Wilberforce, a small semi-rural town on the upper Hawkesbury River near Windsor on the western outskirts of the greater metropolitan area of Sydney.
7. He was a truck-driver by profession, a hardworking man who took great pride in his work, his home and his family. He was devoted to his wife Lisa and their three children.

8. Mr Bugeja's allergy to wasp stings first manifested itself in the late 1990s. Following a second hospital admission around February 1999, Tony was prescribed an EpiPen (portable adrenaline injector) that he was required to keep with him due to his wasp sting allergy.
9. Over the years that followed, Tony was stung by a wasp on a few occasions and administered an EpiPen which resolved his symptoms successfully. On these occasions he did not require a hospital admission and an ambulance was not called.
10. Tony's wife Lisa recalls an occasion late in 2013 when Tony was home with a friend and he was stung by a wasp. On this day he used an EpiPen which resolved his symptoms. Tony would ordinarily attend his local GP when he needed further EpiPens and his final prescription before his death was by Dr Prabhu from Schofields Medical Practice on 28th March 2013.
11. Tony was good with his hands and had many skills. At the time of his death he was building a new house adjacent to the small two-bedroom house in which the family lived. He was much-loved by his family and friends and is much missed by them. His sudden death left them shocked and bewildered and with a number of questions that they hope this inquest will answer.

The issues

12. The circumstances of Mr Bugeja's death raise a number of issues that have been explored at this inquest:
 - Did the response time to Mr Bugeja's '000' call affect his chances of survival?
 - Did the use of an expired Epi-pen have any effect on Tony's prognosis?
 - Why were ambulances not available in the Hawkesbury area at the time of his '000' call? And should more resources be allocated to Richmond?
 - Does the NSW Ambulance Service have a policy or practice in relation to treating patients guarded by aggressive animals? If not, should it have?
 - What steps, if any, could have been taken by the first arriving paramedic to manage the dogs at Tony's home?
 - Should NSW Ambulance paramedics be equipped with some form of device that could be used to deter aggressive animals?
 - Should NSW Ambulance paramedics receive specific training in relation to the management of animals, especially dogs, guarding patients or threatening the safety of paramedics and patients?

What happened?

13. On 5th March 2014, Tony was at his home at Stannix Park Road. Lisa and the children left at around 9.00am that morning and during the course of the day, Tony was working on the construction of a new family home on the property.
14. The last contact between Tony and his wife Lisa was a phone call that took place at 1.00pm. During this call, Tony told Lisa that he had just stopped work and was coming in for lunch. Lisa indicated that Tony seemed to be well and he did not say that anything was wrong during the call.
15. The medical evidence makes it clear that Tony died from an anaphylactic reaction. As he was highly allergic to wasp stings, and there was at least one wasp's nest at the property, it is almost certain that it was a wasp sting that caused his anaphylaxis. There is no direct evidence in relation to the timing of the sting but, as anaphylaxis develops rapidly, it was most likely shortly before his '000' call but possibly after he had injected himself with the EpiPen. This can be inferred because he had had success with an EpiPen previously without calling an ambulance. It would therefore be logical that he would use an EpiPen before doing anything else. We do not know the time that elapsed after the sting before he had administered his EpiPen but presumably it was a short time only.
16. The spent EpiPen was located with Tony in the bathroom and the marks on his right thigh found at post mortem suggest that Tony administered the EpiPen. Dr Loblay suggested that Tony may have tried to inject himself more than once with the same EpiPen because marks on his thigh are consistent with a number of attempts being made. If that is so, Tony, in his distress, must have forgotten that only one injection is available from each EpiPen.
17. Lisa Bugeja indicated that Tony knew when he was having an allergic episode. He would become hot and sweaty and have difficulty breathing. When this happened he would administer his EpiPen. After doing so he would sometimes vomit. He would also sometimes need to use the toilet. Lisa stated in evidence that Tony had not discussed the use of the EpiPen with her but she knew he kept two EpiPens at the family home. These were situated in the kitchen cupboard for easy access. After Tony died, Lisa located his second EpiPen still in the kitchen cupboard.
18. The OIC, Senior Constable Romeike, recorded the time of Tony's call to '000' as 2.34pm. The Ambulance recording indicated that the call to '000' was connected to an operator at 2.42pm. Sen Con Romeike indicates that he recalls checking Tony's mobile phone on 5 March 2014 and this may have been the source of this information. On this basis, it would seem possible that Tony had attempted to call for assistance before the first logged call to '000'.

It is also possible that the clock on Tony's phone was slow. In any event, the Ambulance system records the times of '000' calls automatically so the call to which they responded was certainly made at 2.42 pm.

19. The evidence at the scene suggests that Tony accessed the kitchen cupboard once he felt the symptoms of the sting coming on and was able to retrieve an EpiPen from its box. It seems likely that Tony went to the toilet cubical and sat on the toilet before he administered the EpiPen to his right thigh. The evidence of Dr Loblay also indicates that Tony may have attempted to reinsert the needle of the EpiPen a second time, explaining the post mortem findings on Tony's thigh.
20. Tony had a second EpiPen in the kitchen cupboard. It is not known why he did not use a second EpiPen. However, Lisa gave evidence that on previous occasions, the use of just one EpiPen was sufficient to resolve his symptoms. Tony made it to the bathroom but due to the anaphylactic shock, he appears to have lost consciousness swiftly.
21. When Tony contacted '000' from his mobile phone, he advised the '000' operator of the suburb, the address, his name and his mobile phone number. It was apparent during the call that he was having breathing difficulties. After 65 seconds the call dropped out. The operator attempted to return the call twice a short time later but the calls were diverted to a voicemail service. Tony's call resulted in an incident being created and the job was classified as a '1C' requiring an immediate ambulance response with light and sirens.
22. According to information supplied by Ambulance NSW, at around the time of Tony's call to '000' at 2.44pm, there were 11 operational ambulance units in the Hawkesbury region. Of the operational units in the region in that time, two units were available to respond: Unit 1353, an ambulance crewed by paramedics Christie Brousek and Warwick Holland, and Unit 1199, a single rapid response unit driven by Duty Operations Manager Nathan Sheraton.
23. Unit 1353 acknowledged the job at 2.46pm and was to respond from Nepean Hospital. The distance from Nepean Hospital to Tony's home is around 35 kilometres and according to Google Maps around a 45-minute trip by car.
24. Due to the distance that Unit 1353 had to travel to reach Stannix Park Road, the Acting Duty Control Centre Officer, Michael Brimmer, contacted Unit 1199 Nathan Sheraton and requested that he also respond to the job. DOM Sheraton was assigned the job at 2.48pm, six minutes after the time of Tony's call to '000' and he left Riverstone station two minutes later. The distance from Riverstone Ambulance Station to Tony's home is around 22 kilometres,

depending on the route, and according to Google Maps, is around a 25-minute trip by car.

25. Paramedic Sheraton was the first to arrive at Stannix Park Road at 3.07pm, 25 minutes after Tony's call to '000' and 17 minutes after he left Riverstone Ambulance Station.
26. Upon arrival, Paramedic Sheraton entered the property through two metal gates. The first appears to have been situated at the entrance to the property driveway from the road. Due to the size of the block of land at 200 Stannix Park Road, Paramedic Sheraton continued along the driveway to a second gate. At this gate he met the two family dogs, Roy and Friday, Italian sheepdogs (Mareema breed), who began barking at him. Ambulance radio was contacted and advised of the presence of the dogs and urgent police assistance was requested.



A Mareema sheepdog

27. After some time, Paramedic Sheraton was able to make further progress towards the main house. However, as he got close to the door, Roy and Friday became agitated and began barking and growling at him again.
28. Ultimately, Paramedic Sheraton was unable to access the main house until Paramedics Brousek and Holland arrived at 3.26pm, by then over 40 minutes since Tony's initial call to '000'. Paramedic Holland was able to distract the dogs, enabling Paramedics Sheraton and Brousek to enter the house.
29. After they entered the house, they located Tony in the toilet cubical and it was apparent that he had died. There was an EPI pen on the floor nearby. It was later determined that this EPI pen had expired in February 2014.
30. After his death, a post mortem examination of Tony's body was undertaken by Doctor Renn Montgomery from the Department of Forensic Medicine. The

cause of death was listed as 'Acute Anaphylactic Reaction' with an antecedent cause listed as 'Wasp Sting Allergy'. During this examination, Doctor Montgomery identified two elevated areas on the skin of Tony's right lateral thigh that may have been consistent with an EpiPen injection site or a wasp sting.

31. Toxicological testing indicated markedly elevated mast cell tryptase (an indicator of an allergic reaction) and testing was positive for a Paper Wasp allergy. Adrenaline is metabolised very quickly in the body and this is the likely explanation for it not showing in the toxicology test.
32. I now turn to the specific issues that have been raised.

Did the response time to Mr Bugeja's '000' call affect his chances of survival?

33. Evidence was given by a consultant allergist, Dr Robert Loblay, that it is more likely than not that Tony died within 15 minutes of making his '000' call and that therefore, given the actual response time, even if DOM Sheraton had gained immediate access to him, Tony would probably not have been able to be resuscitated. Dr Loblay's evidence was that the median time from being stung to cardiac arrest has been found in a study of 32 victims of allergic reactions to insect stings to be about 15 minutes. He also said that death can occur within a much shorter time. Some deaths have been reported as occurring within two or three minutes. In his own experience, Dr Loblay thought that the median time was about 10 minutes.
34. How quickly a patient deteriorates depends on a number of factors: the patient's sensitivity to the trigger; the number of stings; the amount of venom absorbed; whether or not the patient stays upright or lies flat; and whether he or she receives adrenaline and treatment quickly.
35. Dr Loblay gave evidence that people do not have to have a genetic predisposition to insect sting allergy to fall victim to it. Moreover, while a first-time exposure may produce only a mild reaction, repeated exposures may lead to more serious reactions. Once a person has had an exposure or an allergic reaction (is sensitized), even a very limited exposure to a small amount of allergen can trigger a severe reaction.¹
36. In 2013-2014, the NSW Ambulance Service responded to 1,234,843 calls (both emergency and non-emergency). On average this was 3,415 responses per day, equivalent to a response every 25.3 seconds. The *median* response time for

¹ See also Medline Plus (US National Library of Medicine) "Allergic reactions"
<http://www.nlm.nih.gov/medlineplus/ency/article/000005.htm> viewed 23 June 2015.

Priority 1 (potentially life-threatening) cases was about 11 minutes.² This means that half the response times were less and half greater than 11 minutes.

37. Whether a response falls above or below that midway point in response times depends on a number of factors such as the availability of ambulances and crews, how many other high priority cases are in the queue, distances to be travelled, road and weather conditions, accuracy of information concerning addresses and access to patients.
38. In this case, a number of factors combined resulting in a response time of 25 minutes from the time of the call to Mr Sheraton's arrival at the Bugeja's property as first responder.
39. Unfortunately, because Tony was alone, we do not know how long he survived after being stung or after making the '000' call. If he was stung, then applied the EpiPen, found that it was insufficient to reverse the effects of venom, tried again, felt sick and gone to the toilet and made the '000' call from there, as appears to have been the case, he must have been stung at least a couple of minutes earlier than his call.
40. According to scientific literature, the amount of venom released varies from species to species and even within the same species. The wasp or wasps that stung Tony appear to have been common Paper Wasps. Their stings can inject between 4.2 and 17 ug of venom.³ We do not know precisely how much venom Tony received but for the following reasons it seems that Tony must have received multiple stings or at least one sting that was particularly venomous:
41. Tony had previously successfully used EpiPens. He almost certainly used the EpiPen that was found spent beside him. Evidence, that I will consider further below, suggests that although the EpiPen had passed its "Use By" date, the adrenaline it contained would still have been active and efficacious. If it was ineffective, this suggests that the quantity injected was insufficient to reverse the effects of the quantity of venom that Tony's body had to deal with. It is therefore reasonable to assume that he received an unusually high dose of venom or had become more allergic than previously due to repeated exposure to the allergen.
42. Given his sensitivity to this venom, and his apparent inability to stay on the line to the '000' operator, it seems that he succumbed to its effects quickly.
43. A further factor that must be taken into account is that he collapsed upright against the toilet wall. Dr Loblay told the court that a person suffering an

² See <http://www.ambulance.nsw.gov.au/Our-performance/Response-Times.html> viewed 23 June 2015.

³ See <http://www.phadia.com/en/Products/Allergy-testing-products/ImmunoCAP-Allergen-Information/Venoms/Allergens/Paper-waspCommon-paper-wasp/> viewed 25 June 2015

anaphylactic reaction suffers hypovolaemic shock. That is, the victim loses blood pressure due to loss of blood through capillaries. Once sufficient blood volume is lost from the circulatory system, there is insufficient pressure within the arteries and veins to enable the heart to keep pumping blood. This results in loss of consciousness and, within a short time, loss of oxygen to the brain and cardiac arrest. Unless patients are resuscitated quickly, they cannot survive.

44. When he collapsed upright, Tony's heart was forced to attempt to pump blood to his brain against gravity. This would have hastened his deterioration.
45. Although we do not know exactly how long Tony survived, Dr Loblay's evidence suggests that it was probably for a relatively short time. Although we can never be sure, it seems likely that even if an ambulance had been able to get to him within a shorter time than actually occurred, Tony's chances of survival were very slim indeed.

Did the use of an expired Epi-pen have any effect on Tony's prognosis?

46. The short answer is that it did not. Dr Loblay's evidence was that out-of-date medicines lose their efficacy only very slowly. In this case, the EpiPen had been expired only a relatively short time. Dr Loblay said that this short period would have made no difference.
47. The real question was how much venom Tony had absorbed and how much adrenaline he needed to counteract it. It is evident that Tony needed another shot of adrenaline but that he was probably too sick to make his way to the kitchen to collect his second EpiPen and inject himself.

Why were ambulances not available in the Hawkesbury area at the time of the '000' call?

48. One of the family's major concerns is that an ambulance was not available in the Hawkesbury area at the time of Tony's '000' call.
49. Evidence was given by Mr Richard Cohen, the Acting Director of the NSW Ambulance Control Division, which is responsible for receiving '000' calls and allocating resources to them. I have also had the opportunity to visit the Sydney region control centre to see the system in operation.
50. Ambulances are stationed across NSW in various locations. They are not confined to their own regions but in emergencies may be directed to attend incidents out of area if they are the closest available resource. The Ambulance Service is continuously monitoring the locations and availability of ambulances and crews on a highly sophisticated computerised system. Using this system, the managers in the Control Division and the dispatchers are constantly shifting

crews and vehicles from areas of lower demand and cases of lower priority to areas of higher demand and cases of higher priority.

51. Tony's case was an emergency or Priority 1 case. The closest ambulance station to his home is at Richmond. According to Google Maps, the estimated travel time by car from Richmond to Wilberforce is about 16 minutes. Presumably an ambulance under lights and sirens could get there more quickly.
52. At the time of his '000' call, however, all four Richmond ambulances were engaged in various activities and were not at the ambulance station. One was at Hawkesbury Hospital attending a patient with breathing difficulties; one was en route to Castle Hill (that is travelling south east away from Wilberforce; one was at Nepean Hospital in Penrith; and the fourth was attending an emergency at Bilpin.
53. The first ambulance despatched was car 1135 which became available after delivering a patient to Nepean Hospital at about the time the '000' operator was on the line to Tony. Very shortly afterwards, however, Mr Sheraton, whose vehicle (1199) was at the Riverstone station, and therefore the closest available to Wilberforce at the time, was despatched.

Does the NSW Ambulance Service have a policy or practice in relation to treating patients guarded by aggressive animals? If not, should it have?

54. The Ambulance Service has no specific policy regarding the management of aggressive animals guarding patients. In general, it attempts to avoid the problem arising by requesting '000' callers to lock up pets.
55. Secondly, the Ambulance Service takes the reasonable view that paramedics should not place themselves (or others) in danger when attending emergencies. Ambulance officers are not armed and are not equipped with devices, such as batons or capsicum sprays, that could be used to subdue aggressive (or apparently aggressive) animals, such as dogs. The general policy is that paramedics should call the police if they need protection.
56. Nevertheless, whether a situation is actually threatening to a paramedic crew is a matter of judgment. How that perceived threat is to be managed is also a matter of judgment for the crews involved.
57. As was pointed out by the Ambulance Service, there are two major difficulties in developing a new policy for dealing with situations such as that which arose in this case. The first is that the paramedic training program is already very full and that its priority is training paramedics in the core business of providing emergency clinical treatment. Training them in handling animals would be very

much a second- or lower order priority. This is especially the case because incidents such as this are very rare in the overall experience of paramedics.

58. Second, the range of animals that can be encountered by paramedics is so wide that it would be difficult, if not impossible, to develop training for them all or even a significant number. For example, in rural or semi-rural places, various breeds of dogs might be encountered but also horses, cattle, sheep, and many other species.

What steps, if any, could have been taken by the first arriving paramedic to manage the dogs at Tony's home?

59. Mr Sheraton gave evidence that he had felt threatened by the Bugeja dogs which were growling and barking and appeared to him to be agitated. He was unused to dogs and felt nervous in the presence of these particular animals. He said that he had tried to build a rapport with them but also that he had tried to shoo them away. He said that, especially as he approached the front door of the house, he had felt threatened by them and had used his equipment as a barrier against attack.
60. A veterinarian with specialist qualifications in animal behaviours, Dr Kersti Seksel, provided a report and gave evidence concerning the issue of how to respond to canine aggression.
61. In her report she stated:
- If a dog feels threatened it will act to protect itself and this may involve a flight or fight approach. Dogs will also act to defend their territory and respond to a territorial threat by engaging in threatening behaviours. A continued perceived threat to the dog or its territory will increase the dog's arousal escalating the response. This may culminate in an attack on a person or other animal...
- It is imperative for persons interacting with unfamiliar dogs that they understand the signs of aggression and know when and how to back away from a threatening dog.
62. She advised that, to build rapport with a dog, and to calm an agitated dog, "an experienced dog handler would establish a relationship with the dog by talking to the dog calmly, avoiding direct eye contact, keeping noise levels to a minimum and using treats or toys to positively reinforce the desired response of the dog."
63. Mr Sheraton was not equipped with dog treats or toys with which to calm or distract the two Mareemas. He also had had no training in or experience of using the other techniques mentioned by Dr Seksel but appears to have used his common sense in trying build a rapport with the dogs and seeking not to arouse them further.

Should NSW Ambulance paramedics be equipped with some form of device that could be used to deter aggressive animals?

64. Although, at first blush, the idea of equipping paramedics with some sort of implement that could be used to deter aggressive animals seems attractive, the Ambulance Service is opposed to this. The reason is that such implements could be stolen or misused by, for example, patients being treated or irresponsible bystanders. For example, if there was a baton or capsicum spray in an ambulance attending an incident in Kings Cross, it is easy to imagine a drunk or drug-affected person attacking the paramedics with it. Moreover, if paramedics used such an implement, this may exacerbate any perceived or real threats to them or their patients. Therefore, where paramedics are under threat, they are instructed to seek the assistance of police to manage the threat before proceeding.
65. I accept this argument.

Should NSW Ambulance paramedics receive specific training in relation to the management of animals, especially dogs, guarding patients or threatening the safety of paramedics and patients?

66. For the reasons outlined at paragraph [57] above, I accept that to recommend that paramedics receive general training in relation to animal behaviour may impose an undue burden on the training program they currently undertake.
67. Nevertheless, it appears to me that it would be relatively easy to work the facts of the situation that confronted Mr Sheraton into the training program by including it in one of the training scenarios that are used by the Ambulance Service to provide practical training for new paramedics and in the ongoing professional development of paramedics.
68. It would also be possible to provide advice on how to manage dogs (or indeed other animals) in another form, without the necessity of developing a formal protocol or over-stretching the training curriculum. For example, the Ambulance Service website has a news section and also sections concerning research, publications and other things. No doubt the service also notifies staff of various developments within the organisation in other ways such as internal bulletins. A short item, based on Dr Seksel's advice, on tips for handling dogs could be included in an appropriate publication.

Should more be done?

69. Mrs Bugeja and her family have natural and reasonable concerns that the Hawkesbury region of the Ambulance Service may be under-resourced. They suggested that more resources should be provided to the area.

70. Mr Cohen told the court that the Ambulance Service routinely and very regularly monitors calls on its resources and how they should be allocated. This depends on a number of factors including the demographic changes that occur over time.
71. Anyone knowing Tony Bugeja's story would be very sympathetic to Mrs Bugeja's desire for more ambulances be deployed in the Richmond area. It is not possible for me to second-guess the Ambulance Service's allocation of its current resources. Unless additional resources are provided by government, it is difficult to see how this could be done.
72. Whether there should be more resources provided to the Ambulance Service is a separate question. To put it another way, whether a greater proportion of the government's budget should be allocated to the Ambulance Service is both a political and a technical financial question.
73. Because of the doctrine of "separation of powers", it is generally inappropriate for members of the judiciary to comment on political issues, such as the most socially beneficial allocation of public moneys. It is also a technical question that is beyond the expertise of a coroner.
74. It is self-evident that governments do not have "Magic Puddings". They have budgets and make expenditure decisions according to their revenues and competing priorities. In NSW, for example, despite crime rates generally falling or at least remaining relatively stable⁴, governments (from both sides of politics) and courts, largely responding to media and community demands, have for decades become progressively more punitive.⁵ This has resulted in the allocation of moneys that might be spent on other infrastructure and services, such as ambulance services, to the building and running of prisons. Some may argue, therefore, that it would be better to have fewer people in gaols and more ambulances on the road. If the community wants a reallocation of government expenditure, members of the community must make that argument to government directly or through the media, community lobby groups or their own MPs.
75. It is worth emphasising, however, that the Ambulance Service Control Division is well-managed and has a highly sophisticated system for allocating crews and vehicles to cases according to their priorities. I was impressed by the thoughtfulness of those involved in improving the system and their desire to make it more efficient and more effective in saving lives. New systems, such as a series of state-of-the-art "super" stations in western and southern Sydney, are being introduced to further that effort. It is anticipated that these new stations

⁴ See, for example, Bureau of Crime Statistics and Research *NSW Recorded Crime Statistics quarterly update March 2015*

⁵ See, for example, Georgia Bignell & Hugh Donnelly *Sentencing in NSW: a cross-jurisdictional comparison of full-time imprisonment* Judicial Commission, Sydney, 2015 p.47

will reduce emergency response times. These initiatives are highly welcome. If my impression is correct, any additional resources provided to the Ambulance Service are likely to be allocated very efficiently and used to their best advantage. Good governments appreciate efficiency in the public sector. For that reason, while I make no formal recommendation, I hope that Mr Bugeja's death will prompt government to consider increasing the Ambulance Service's resources.

76. As for other matters, the Ambulance Service has indicated its willingness to consider a recommendation that crews take a small bag of dog treats or a toy which can be used to distract dogs in situations such as that which arose in this case.
77. It has also agreed to consider incorporating the situation Mr Sheraton confronted in its practical training scenarios.
78. Finally, I propose to recommend that the Ambulance Service provides a summary of Dr Seksel's tips for managing dogs in a bulletin or some other relevant form to its on-road staff.

Conclusion

79. Tony Bugeja's death has been a catastrophe for his wife and young children. Not only have they lost him in such distressing circumstances, but they have been suddenly reduced close to poverty as he was the main family income-earner. He was also building the new family house and worked on the large property for the benefit of the whole family. They have therefore suffered immeasurable loss and pain.
80. Yet they approached this inquest without recrimination. Instead, Tony's family exhibited great dignity, asked intelligent questions and demonstrated the decency that epitomised Tony himself. They also deserve great credit for their desire that lessons be learned that may save the lives of others.
81. I hope that they will accept the sincere condolences of the whole of the coronial team and staff of the Coroners Court. I also hope that in time their pain will ease and that their happy and loving memories of Tony will gradually dispel the shock and sadness of his death.

Findings s 81 Coroners Act 2009

82. I find that Tony Bugeja died on 5 March 2014 at his home at Stannix Park Rd, Wilberforce, New South Wales due to an anaphylactic reaction he suffered as a result of being stung by a wasp or wasps.

Recommendations s 82 Coroners Act 2009

83. I make the following recommendations to the Minister for Health:

- (i) That the NSW Ambulance Service consider equipping its emergency vehicles with a stock of dog treats or a dog toy to be used to distract dogs if necessary when attending emergencies.
- (ii) That the NSW Ambulance Service incorporate into its practice scenarios used in the training and professional development of paramedics a situation based on the facts of Mr Bugeja's incident.
- (iii) That the NSW Ambulance Service through a suitable medium disseminate to its on-road and other staff a list of tips, based on Dr Seksel's advice, for calming apparently aggressive dogs.

Magistrate Hugh Dillon
Deputy State Coroner