CORONERS ACT, 2003

*SOUTH*  *AUSTRALIA*

# FINDING OF INQUEST

*An Inquest taken on behalf of our Sovereign Lady the Queen at Adelaide in the State of South Australia, on the 3rd, 4th and 5th days of April 2007, the 4th day of June 2007, and the 12th day of July 2007, by the Coroner's Court of the said State, constituted of Mark Frederick Johns, State Coroner, into the death of Esther Ruth Stephen.*

*The said Court finds that Esther Ruth Stephen aged 54 hours, late of 18 Yalanda Street, Eden Hills died at Flinders Medical Centre, Flinders Drive, Bedford Park, South Australia on the 21st day of July, 2004 as a result of hypoxic-ischaemic encephalopathy due to intrapartum hypoxia due to delayed delivery of second twin. The said Court finds that the circumstances of her death were as follows:*

## 1. Introduction and reason for Inquest

1.1. Esther Ruth Stephen was approximately 54 hours old at the time of her death in the late morning of 21 July 2004. An autopsy was conducted by Dr Moore at the Women's and Children's Hospital on 23 July 2004 and a report dated 25 August 2004 was admitted as Exhibit C1a in these proceedings. Dr Moore gave the cause of death as hypoxic-ischaemic encephalopathy due to intrapartum hypoxia due to delayed delivery of second twin, and I so find.

1.2. Esther was the daughter of Joseph and Florence Stephen. She was born at the Flinders Medical Centre on 19 July 2004 at 0459 hours. However, the labour commenced at the home of Mr and Mrs Stephen at 18 Yalanda Street, Eden Hills earlier that morning. The labour commenced with a show at 0100 hours. Pursuant to an arrangement which had been put in place earlier in the pregnancy, midwives Wendy Thornton and Tania Smallwood attended at the Stephen's home address at

0149 hours. Mrs Stephen was carrying twins, and twin one (Hannah) was delivered into a birthing pool at 0159 hours. There was a delay in the birth of the second twin (Esther) as a result of which a decision was made for Mrs Stephen to be taken to the Flinders Medical Centre for Esther's delivery. The course of the labour and the events leading to the decision by the Stephens to have a home birth were the subject of examination in this Inquest.

## 2. Mr Joseph Stephen

2.1. Mr Stephen gave evidence at the Inquest. He is a software engineer who resides and works from 18 Yalanda Street, Eden Hills. Mr Stephen is blind, a fact which I mention because his evidence in relation to the labour and the delivery of baby Hannah, and the delay in the delivery of baby Esther was based upon what he heard rather than saw.

2.2. Mr Stephen said that Mrs Stephen had had three previous pregnancies and that he and she became aware that she was pregnant with twins in December 2003. He said that Mrs Stephen had been disturbed by the amount of medical intervention which had occurred in the births of her older children. For that reason Mr and Mrs Stephen were keen to explore the option of a home birth. Initially, they were unaware that Mrs Stephen was carrying twins. Mr Stephen said that the position that they adopted was not that they would have the delivery at home regardless of what anyone might say. Their position was rather that they wished to have a home birth if they thought that this would be a reasonable option. They carried out research via the internet and other literature in relation to home birthing and midwifery.

2.3. Mr Stephen explained that they obtained a list of midwives and after some telephone calls had been made they eventually settled upon Wendy Thornton. At their first meeting with Ms Thornton they told her that Mrs Stephen was pregnant with twins and that their preferred option would be a home birth although they were not adamant that it must be so. According to Mr Stephen, Ms Thornton was apprehensive at first about the idea of attending upon a home birth of twins as she had not done this before. Over the first few months of the pregnancy Ms Thornton fluctuated between positive support and apprehension but ended up being supportive. Ms Thornton assisted with antenatal care of Mrs Stephen by fortnightly visits.

2.4. Mr Stephen said that it was Ms Thornton's advice that they should consult with Dr Wilkinson at the Women's and Children's Hospital. Dr Wilkinson is an obstetrician with whom Ms Thornton had had previous dealings and with whom she considered she had a good working relationship. As a result of this suggestion the Stephens saw Dr Wilkinson on two occasions, 8 March 2004 and 25 May 2004.

2.5. Mr Stephen said that Mrs Stephen was very tired during the pregnancy and especially towards the end[1]. They did not think that there was anything wrong in this but attributed it merely to the fact that she was carrying twins. According to Mr Stephen, Ms Thornton did not think that there was anything unusual in the way that Mrs Stephen felt. Mr Stephen said Mrs Stephen was taking a natural iron supplement upon the recommendation of Ms Thornton.

2.6. Mr Stephen said that towards the end of the pregnancy, Ms Thornton delivered a "birthing pool" to the Stephen's house. He said that he filled it up on the night that Mrs Stephen went into labour. He said that on that night Ms Thornton arrived fairly quickly after labour started and within three or four minutes of Hannah's birth. Mr Stephen went on to give his account of what occurred after Hannah was born. He stated that after some time, Ms Thornton contacted the Flinders Medical Centre. He was present during the telephone calls and gathered that the person on the other end of the line at the Flinders Medical Centre was strongly encouraging Ms Thornton to bring Mrs Stephen into the hospital by ambulance. He remembered Ms Thornton contacting the ambulance service and giving the address of 18 Yalanda Street, Eden Hills. He thought that after approximately half an hour the ambulances arrived. There were two ambulances and four ambulance officers. The ambulance officers were unable to get a stretcher down to the house and so they required Mrs Stephen to walk to the ambulance which was a slow process. Mr Stephen went in the other ambulance with Ms Smallwood and baby Hannah. The ambulance containing Mr Stephen arrived before the ambulance that contained Mrs Stephen.

## 3. Ms Wendy Thornton

3.1. Ms Wendy Thornton was the midwife who attended upon Mrs Stephen on 19 July 2004. She made two statements which were admitted as Exhibits C9 and C9a respectively in these proceedings. She also gave evidence. She is a registered nurse

[1] Transcript, page 37

and a registered midwife and a mental health nurse. She has worked at the Women's and Children's Hospital and at Mount Barker Hospital. She started as an independent midwife in January 2002. At the date of giving evidence she had conducted approximately 130 home births. In 2004 she had performed between 40 and 50 home births.

3.2. She said that she received a telephone call from Mrs Stephen in early December 2003. She aware that this was Mrs Stephen's fourth pregnancy and that Mrs Stephen had conducted research into home birthing. She arranged to visit the Stephens in January 2004 for a general introduction. She had been informed that the third child born to Mrs Stephen came very quickly, and she was also aware that Mr Stephen is blind, and so it was desirable from the Stephen's point of view to have someone who could come to their house. She was aware that the Stephens were very concerned about what they regarded as needless intervention in the birth process. Ms Thornton said that the Stephens wanted to avoid interventions and caesarean operations except in the event of an emergency and that they did not wish to have an epidural anaesthetic. They did not want the continuous monitoring that sometimes occurs in hospital because that would have affected Mrs Stephen's free movement. They were aware of hospital protocols in relation to the birth of twins and in particular were aware that it would involve induction at 38 weeks if the children were not born earlier. According to Ms Thornton the Stephens were well informed about all standard hospital protocols and she considered that they were a very intelligent couple who had many questions of her. She thought that they were very aware of the subject, and had conducted a great deal of research. She confirmed that the Stephens were not adamant about the intention to have a home birth but would be guided by the circumstances as they developed.

3.3. Ms Thornton said that she made known to the Stephens her concerns about the notion of a birth of twins at home. She told them early on that it would most likely be a birth that would have to take place in hospital. She told them about some of the risks that might develop during the course of the pregnancy, notably twin to twin transfusion. She talked of the risks of anaemia and the risks of babies being born prematurely. She talked of the risk of hypertension in the mother and recommended that the Stephens have some involvement with an obstetrician. She encouraged them to see

Dr Wilkinson[2] because she considered he had a positive attitude to home births. According to Ms Thornton she mentioned to the Stephens the risks from a delay in the birth of a second twin and considered that they had good awareness of all of these matters.

3.4. Ms Thornton informed the Stephens that she worked with Tania Smallwood. She explained the equipment that she had available to her which included a Doppler machine for picking up the baby's heartbeat. According to Ms Thornton, Mrs Stephen was reluctant to have an ultrasound early in the pregnancy. She said that she spoke to Mrs Stephen about the need for routine blood tests and recommended that these tests be conducted throughout the pregnancy. However, Mrs Stephen said that she had had blood tests with each of the three previous children and that she regarded them as having been unnecessary. She asked why it was necessary to have blood tests on this occasion and after Ms Thornton's explanations, Mrs Stephen said she felt that she already knew what the results would be having regard to the previous tests. They discussed the possibility of anaemia and Mrs Stephen asked whether she would be able to recognise it. Ms Thornton thought that this would be likely and explained the signs. Ms Thornton pointed out that things can change during the course of a pregnancy and that it might be necessary to do blood tests later in the pregnancy for anaemia. She was aware that Mrs Stephen's diet was very good as regards iron but even so she recommended an iron supplement particularly in the last weeks. Ms Thornton was present on the occasion of the second visit with Dr Wilkinson when the subject of blood tests was discussed again. She said that Dr Wilkinson presented both sides of the argument but that Mrs Stephen maintained that she would only have such tests if she needed them. According to Ms Thornton, she never considered that Mrs Stephen had an issue with anaemia. She said that Mrs Stephen cared for a number of children and continued to run the household and felt that this accounted for the fact that Mrs Stephen was extremely tired particularly towards the end of the pregnancy.

3.5. Ms Thornton said that she had the last prenatal visit to Mrs Stephen on 12 July 2004 and told her that she was comfortable with the pregnancy continuing to a home birth. On the night of 19 July 2004 she was called by the Stephens and arranged to pick up

[2] Dr Wilkinson gave evidence at the Inquest. I will deal with his evidence later. Ms Thornton said she had a good working relationship with him.

Ms Smallwood. She stated that baby Hannah was born quite quickly after her arrival and was born in good condition.

3.6. At this point it is useful to refer to a labour record which was prepared by Ms Thornton and Ms Smallwood. The labour record was admitted as Exhibit C9c in these proceedings. It records that the midwives arrived at the Stephens' house at 0149 hours on 19 July 2004 and records the birth of baby Hannah at 0159 hours. A note prepared at 0230 hours by Ms Thornton is as follows:

> 'Florence had discomfort during evening. Noted first contraction at 0043 by Joseph. Joseph rang me at 0057 hours. I arranged to pick up Tania by 0130 and told Joseph we would be with them by 0200 hours. Joseph rang me again 15 minutes later to say that Florence had suddenly gone to frequent contractions and was sitting on the ball. He was filling pool. Tania and I arrived at 0149. Stated to unload equipment and then I went to Florence – who was already in the pool. I went to listen to foetal heart – at 0155 spontaneous rupture of membrane followed by rapid birth of head. Birth of live female at 0159 hours. Apgars 10:10. Cried immediately. Pink, alert, active. Held by me in water as Florence still contracting and leaning back on her arms. Cord pulsating strongly. Hannah crying ++. After discussion and consent from Florence cord clamped and cut by RM Tania Smallwood at 0219 hours. No longer pulsing – looking flaccid and white. Hannah continuing to cry and wriggle freely – sucking on fingers. Wrapped in warmed towels cuddled now by Joseph. Awaiting birth of second twin.
> Signed RM W. Thornton'

The progress notes then continue:

> 'FHH of Twin II immediately after birth of Twin I Hannah. Strong regular heartbeat around 140 bpm – no decels heard. Signed Thornton RM.
> Spontaneous rupture of membrane of copious clear liquor and vernix at 0209 hours. FHH 0210 – 120 bpm. Contractions continue and Florence saying she has increasing urge to push. FHH frequently pre and post contractions. Strong and regular. Baseline NAD. Florence stating she is tired but reassured she can do this!! Tolerating sips of water. Water temperature around 37°C. Florence noting baby "kicking" and moving. Continued to breathe through contractions in pool until audible decel heard at 0327 hours. FH had been around 140 bpm and decelerated down to 70 bpm. Quick recovery heard back up to 100 bpm. Immediately I asked Florence to get out of pool as I needed to a VE (vaginal examination) to check if there was a reason for the babies sudden deceleration and also to determine why she is experiencing a delay in birthing Twin II. Florence stood up immediately and Tania and I helped her out of pool. Joseph was cuddling Hannah still. FHH 5 minutely over next 20 mins and regular strong between 110 – 160 bpm. No further decels heard at this stage but I explained to Florence my concerns about wellbeing of her baby yet to be born. In between contractions I performed a VE – cervix 9 cm!! Surprising me. Small, soft, stretching anterior lip only but obviously holding back head. PP cephalic – 1 at spines. Sutures LOT. Again I told Florence that her baby was showing that she needed to be born and I apologised but said I wanted to keep my fingers in vagina and see if anterior lip would be able to be pushed

out of way with my help whilst she pushed. Florence agreed saying "Wendy do what ever you have to do." With the next contraction cervix pushed back completely and descent noted significantly. FHH again immediately after VE and with next contraction no further obvious progress seen and second deceleration heard down to 60 bpm – recovering slowly up to 100 bpm. Contractions now 2-3 : 10 less intense. I told Joseph and Florence that we have to transfer immediately to hospital as her baby was showing signs of distress. I stated that it we don't get medical help to get her baby out ASAP her baby could die. I directed Tania to put oxygen on Florence and get her ready to transfer. I told Florence she mustn't push to reduce stress on baby and stop cervix swelling as I had done another quick VE and cervix thickening anteriorly. Florence was absolutely magnificent as she gently breathed through contractions keeping oxygen on at 8 litres per minute. At 0350 after two decelerations – both well recovered – I phoned Flinders Hospital to tell of immediate transfer of Florence. First phone call I asked operator to put me through to obstetric department. She placed me through to "emergency department" where I go a pre-recorded message and then music. I rang off straight away and phone hospital again this time telling operator to put me through to "Obstetrics" as I am at home with a woman in labour and have an obstetric emergency! She told me that overnight they are not allowed to put calls through to obstetrics – they have to go to emergency. So I told her if she put me to emergency "at least make sure someone answers as I have an emergency going on!!" She put me through and initially I again got music then the ward clerk answered saying she would transfer me to medical staff. My call was taken by a man identifying himself as "Matt" emergency CN/or CNC. I told him I was Wendy Thornton independent midwife at home with Florence in a planned homebirth of twins. I told of how Hannah had been born very quickly and in excellent health. But there has been a delay with Twin II and we have noted decelerations. I stated that the cervix has become swollen and I needed to bring Florence in immediately so baby could be assisted to be born. I also told him that she is actually booked at Women's and Children's Hospital as backup but we needed to get to closest hospital and she lives 5 minutes from Flinders. He told me to call an ambulance and bring her in. I said that I wanted to bring her in myself stating that there are 2 of us midwives and we have portable $O_2$. And I was concerned about how long it would take to get an ambulance here. He told me that he wanted me to call an ambulance as "they would prefer her to come in this way" and I was to call a priority one and it would get here very quickly. I got off phone – Tania noted another deep decel down to 60 – recovering to 120 bpm. I stated I would listen to another FH and if it was normal I would call an ambulance – if I was concerned about it then I was going to get Florence there (Flinders) myself. FHH – approx 140 bpm regular beat. Florence agreed then to ambulance. Ambulance called at 0355 hours on advice from Flinders Hospital. I requested priority ONE telling operator that I needed them here asap. She stated that she was despatching them as we were talking. I gave crystal clear info stating the full obstetric emergency and saying I hope they don't get lost. She said that she was sending 2 crews with lights/sirens. We expected them ASAP. Florence was ready upright rocking and breathing $O_2$ via face mask and not pushing. Nil PV loss. At 0410 another deep decel noted. I was very concerned about whereabouts of ambulance. Trying to reassure Florence and Joseph. Sister outside looking for them. After deep decel down to 50 good recovery and FHR between 110 – 160 bpm. Heard 5 min with Doppler. I was considering private transfer again when phone call came from ambulance to say they had

got lost and were nearly there. They finally arrived 35 mins after my priority one call. FHH in ambulance 160 bpm strong and variable.'

3.7. I have quoted the above note in full because it provides a contemporaneous account of the events as they unfolded after the birth of Hannah.

3.8. Ms Thornton was asked about her attitude to intervention after the birth of the first baby. She stated that this entirely depended on how the birth of the second child was going. She stated that there were continuing contractions after the birth of Hannah and because the labour was continuing satisfactorily in that Mrs Stephen had a strong urge to push, she considered that there was no need for earlier intervention in relation to the birth of the second child.

3.9. Ms Thornton elaborated on her conversation with the CNC at the Flinders Medical Centre called "Matt". She said he told her not to bring Mrs Stephen in her own car. He informed her that if she brought them in her own private car this "would be severely frowned on".

3.10. Ms Thornton was critical of the ambulance service in what she regarded as an unacceptable delay in the arrival of the ambulance. I will deal with that issue later in this finding.

## 4. Dr Christopher Wilkinson

4.1. Dr Wilkinson is the Unit Head of Maternal Foetal Medicine at the Women's and Children's Hospital. He has involvement with high risk and very high risk pregnancies.

4.2. He gave evidence at the Inquest and confirmed that he had consultations with the Stephens at the request of Ms Thornton. He said that he regarded the consultation as being to enable the Stephens to make an informed decision as to how the pregnancy should be managed and the place of birth. He did not carry out an examination but merely provide advice. He was aware that they wished to have a home birth and that they were not keen on following what he described as a medical model of pregnancy. He tried to acknowledge their fears and their apprehensions and tried to make them as comfortable as possible with him. He informed them that he tried not to carry out unnecessary interventions as much as possible. He formed the assessment that Mr and Mrs Stephen were very intelligent people who understood exactly what he

was saying. He tried to manage the meeting with a view to encouraging them to have their delivery in a hospital setting, but he did explain what that would entail, and tried to emphasise that such interventions as occurred were not unnecessary. At the end of the first consultation, there was no decision one way or the other that they were going to have the baby at home or at hospital. Dr Wilkinson was satisfied that the Stephens would be able to make a fully informed decision.

4.3. Dr Wilkinson stated that in a twin pregnancy there is a lot more stress on the mother than for the birth of a single child. As to birth risks, he informed the Stephens that the main risk was to the second baby. He said that the position of the second baby after the birth of the first cannot be predicted and there is a chance of malpresentation and foetal distress. He said that there is a danger of separation of placenta or the cord coming down first. He explained that the highest mortality rate is with the second twin. He said that after the birth there is a danger that the placenta may not separate and that bleeding is more likely to occur and that it is usual to give an injection to help the womb contract after birth of twins. He said that he was quite unequivocal in stating to the Stephens that his opinion and that of his colleagues and midwives was that twin births should occur in hospital. He confirmed that his impression after the first consultation was that the place of birth was still an open question. He said that he was at pains to try to create an environment where if the Stephens changed their minds they would be comfortable in coming back to him. He stated that in relation to "backup" he made it quite clear that his clinical skills were only available in a hospital environment. He was satisfied that the Stephen's decision was fully informed.

4.4. Dr Wilkinson stated that he usually does blood tests on the first antenatal visit but that the Stephens did not want this. They informed him that they had had blood tests in previous pregnancies and that nothing had changed as a result of the tests so they declined. He said that he did not think that was a valid reason not to have the tests but that the Stephens had made an informed decision.

4.5. Dr Wilkinson referred to the second antenatal consultation he had with the Stephens on 24 May 2004. He said on that occasion he did an ultrasound test to make sure the first baby was head first and it was. This meant that a vaginal birth could proceed. He said that on this occasion he did not repeat his advice about the risks of birthing at home with twins. After this visit he had no further involvement with Mrs Stephen's pregnancy.

4.6. Dr Wilkinson referred to the problems that can arise with the delay of the birth of a second baby. Dr Wilkinson made the following general observations: According to current guidelines the delivery of the second twin does not need to be expedited as long as there is no sign of foetal distress and the labour is continuing. Most obstetricians would be worried if more than an hour had expired before the birth of the second child. Some obstetricians are adamant that the second baby must be born within 20 minutes of the first but that this opinion was not "particularly evidence based". Of course it was his opinion that Mrs Stephen should have been in hospital for the birth of her twins. He did not think that you could make home births for twins safe. The statistical probability was that there would not be a problem with the birth of the second twin, but that it was significant enough that Mrs Stephen should have been in hospital for that birth. After one hour of delay following the birth of the first child he would be concerned that the cervix would be clamping down and that it would become impossible to get the second baby out.

4.7. Dr Wilkinson confirmed that he did describe the possible complications and risks involved in a birth of twins at the first visit with the Stephens. He said he told the Stephens that he really needed to inform them that twin births should occur in hospital and that he was quite unequivocal about that. He said that the Stephens were not a silly couple and that they had their own views. He said that he acknowledged that unnecessary interventions could occur in hospital and that he would be their advocate to protect them from those things should they elect to have their children in the Women's and Children's Hospital. He said that had he been attending upon Mrs Stephen at the birth of her children and the second twin had not appeared within an hour, he would have examined the baby to find a reason and if he could not find any, he would then intervene.

## 5. <u>Dr Fariba Behnia-Willison</u>

5.1. Dr Behnia-Willison is a consultant in obstetrics and gynaecology at the Flinders Medical Centre. She was interviewed for the purposes of this Inquest and a record of her interview was admitted as Exhibit C12 in these proceedings. She also gave oral evidence.

5.2. Dr Behnia-Willison was on duty at Flinders Medical Centre on the night of 19 July 2004 as a senior registrar in obstetrics and gynaecology. She was told by the

Emergency Department at 0400 hours on that day that they were expecting a woman to arrive who had a twin pregnancy in a home birth setting and that the second twin was stuck. Armed with this information she arranged for an anaesthetic team and operating theatre nursing staff to be on standby. She also called her consultant Professor Bryce to assist her. Dr Behnia-Willison said that the full team was on standby before Mrs Stephen arrived, that the theatre nurses were scrubbed and the doctors were in theatre and ready to perform anaesthesia as required. She said that she went to the Emergency Department personally in the hope that her presence might enable things to happen faster when the patient arrived. On Mrs Stephen's arrival she moved the patient very quickly into the labour ward with the assistance of a couple of orderlies. She said that when the patient arrived with the midwife Wendy, she tried to take a quick history to see what was happening and was especially interested to know about the foetal heart rate. She was told that the foetal heart rate was normal and that the baby had had two decelerations prior to calling the ambulance. Dr Behnia-Willison said that she physically ran from the Emergency Department to the labour ward with the patient and assumed "the worst" and requested that Mrs Stephen consent to a caesarean section which she did. Dr Behnia-Willison stated that because they were ready to go she was able to deliver the baby within two minutes of the skin incision by caesarean section. She said that the baby was born within something approximating seven minutes from the mother's arrival at the Flinders Medical Centre.

5.3. It goes without saying that this is quite a remarkable achievement and that Dr Behnia-Willison is to be commended for the arrangements she made and the speed with which she acted to ensure such a rapid delivery of Esther upon arrival at the Flinders Medical Centre.

5.4. Dr Behnia-Willison said that she considers that intervention is necessary after twenty minutes have expired from the time of birth of the first baby in the birth of twins. She said at that point it is necessary to ask if something has happened. She stated that when she learnt that she was to be presented by the arrival of a patient who was attempting a birth of twins at home she became very worried. She said that a lot of obstetricians would not do a vaginal delivery of twins. She said that she called her consultant in even though she did not actually need him for a caesarean birth but did so anyway because of the situation. She said that the theatre is always ready to go but

that she went above that and arranged for the nurses to be scrubbed and ready, and did not want to wait for them to wash their hands once the patient had arrived. She said that she had been involved in many emergencies before with retrievals from country hospitals, but that she had not seen a home birth emergency before. Dr Behnia-Willison was plainly quite passionate in her opinion that the attempt at a home birth of twins was not a good idea. She commented, "That is really a unique case, one can write a novel about"[3]. Dr Behnia-Willison said that she never would have agreed to be involved in a home birth of twins.

## 6. Mr Matthew Kowald

Mr Kowald was a clinical nurse in the Emergency Department at Flinders Medical Centre in 2004. He gave an interview which was transcribed and admitted as Exhibit C14 in these proceedings. He confirmed that he took the call from Ms Thornton on the night of 19 July 2004, and advised that Mrs Stephen should be brought in by ambulance. He said that he called the Obstetrics and Gynaecology Registrar and told her the story that the midwife was coming in. He said that the Registrar came down to the "airlock" and was waiting with him. He said that it felt as though they were waiting for a long time for the ambulance to arrive and they called the ambulance communications centre and were told that the ambulance had got lost en route to the Stephens' home.

## 7. South Australian Ambulance Service records

7.1. According to the South Australian Ambulance Service printouts which are contained in Exhibits C4a and C4b, two ambulances were despatched. The records refer to a despatch of ambulance 205 at 0401 hours. The same record shows that ambulance 205 arrived at the scene at 0416 hours and was mobile from the scene at 0430 hours. The second vehicle to be despatched was ambulance 209 which is shown as having been despatched at 0402 hours and having been at the scene at 0411 hours and mobile from the scene at 0431 hours. The Flinders Medical Centre records[4] show that Mrs Stephen was in theatre at 0450 hours. They also record that Esther was born at 0459 hours. A consideration of the ambulance service records and the Flinders Medical Centre records leads me to the conclusion that the ambulances would have

[3] Transcript, page 269
[4] Exhibit C13

been on the scene at Yalanda Street, Eden Hills between 0415 and 0420 hours. They would have been present at the scene for approximately fifteen minutes, leaving between 0430 and 0435 hours and arriving at the Flinders Medical Centre between 0440 and 0445 hours.

7.2. Ms Thornton was critical of the amount of time that the ambulance service took to arrive at the Yalanda Street destination and then to get Mrs Stephen to the Flinders Medical Centre. In my view this criticism is unfounded. There is evidence that suggests that Ms Thornton anticipated that the ambulance may become lost. Ms Thornton said that she was concerned that this might happen and when she was contacted by the ambulance service to seek clarification of the address when the ambulance did in fact become lost, she made comments which showed that she had anticipated this possibility. From this I deduce that the locale was such that one might reasonably expect the ambulance to take longer than usual to find the address and that this possibility was present in Ms Thornton's mind. It may also account for her general reluctance to contact the ambulance, her stated preference being to take Mrs Stephen in her own private vehicle. However that plan in itself was poorly thought out and poorly conceived bearing in mind that not only did she have Mrs Stephen to transport, but that there was the matter of baby Hannah, Mr Stephen and Ms Smallwood to consider as well. She mentioned in her evidence that she had oxygen available for use in transit, but I am unable to see how it would have been possible to transport a very young infant child, oxygen facilities, and several passengers in a private vehicle with a patient in a distressed state of labour such as Mrs Stephen. This was clearly an untenable proposition, and in my view Mr Kowald was quite right to insist that an ambulance be called. I reject any criticism of the ambulance service in this matter.

## 8. Professor Roger Pepperell

8.1. Professor Emeritus Roger Pepperell gave an overview in this matter by letter dated 3 August 2005 which was admitted as Exhibit C15 in these proceedings. He also wrote a further letter dated 26 August 2005 which was admitted together with the earlier letter. Professor Pepperell also gave oral evidence. He is highly qualified in his field and I have no hesitation in accepting him as an expert.

8.2. Professor Pepperell started his evidence by pointing out that in a twin pregnancy antenatal care is different to that in a single pregnancy. He said that anaemia is a more common event and that in the third trimester high blood pressure in the mother is more common. He said that malpresentations are more common as are discrepancies in baby weight. He said that premature labour is also a common phenomenon. He said that where the babies are growing normally there is no absolute need for induction at thirty-eight weeks. However, he said that after delivery there is often a problem with post-partum haemorrhage.

8.3. Professor Pepperell stated that it is really not possible to know until the first baby is out whether there will be complications with the second baby. He said that some of these complications can occur with the birth of a single baby, but they are much more likely with a second twin. He said that such a baby, after the birth of its sibling, is very high in the womb. He said after the delivery of the first baby it is necessary to check the lie of the second baby, its foetal heart and any vaginal bleeding. If none of those presents a difficulty, then the labour may be permitted to continue. However he said the risks to the second baby increase the longer the labour continues after twenty to thirty minutes after the birth of the first child. For example, the cervix may reform (not remain dilated) after the birth of the first baby.

8.4. Professor Pepperell said that it is never possible to define exactly what the presentation of the second twin will be even if it has been cephalic prior to labour and malpresentations of the second twin are very common indeed. He said the rule in virtually all obstetric hospitals is that an anaesthetist will be present at the time of delivery of the first twin in case some form of internal manipulation is required immediately. He confirmed that the risk to the second twin due to foetal distress increases dramatically where the time interval between delivery of the twins is more than twenty minutes and the longer this time interval is, the greater the risk. It was his opinion that twins should only be delivered in hospitals.

8.5. Professor Pepperell commented that baby Esther was born in a profoundly acidotic state and the end result was therefore a complication of hypoxia in the second stage of labour. Professor Pepperell said that the profound hypoxia indicated that the hypoxic problem had been going on for some considerable period of time. Professor Pepperell was clear that there was something in the labour itself which resulted in the acidotic

state of the baby at birth but he stated that what exactly it was, we cannot now tell[5]. Professor Pepperell stated that the problem probably occurred in the last hour of the labour but that he could not rule out that it started earlier than that. However, he said that it was his opinion that if baby Esther had been born twenty to thirty minutes after the birth of Hannah:

> 'Yes, it was probably going to be okay but I can't say that with absolute certainly but probably it was going to be, if it had been delivered then.'[6]

8.6. In short, it was clearly the view of Professor Pepperell that a twin birth should occur in hospital. He stated that some of the potential complications could be coped with outside a hospital, but that if there was a problem such as a prolapsed cord, or an internal manipulation, or a need for a caesarean section to be done, this can only happen within a hospital[7].

## 9. Conclusions

9.1. Clearly a decision as to the place of birth of a child is one for the parents of the child to make. In the present case it is clear that the Stephens made their decision after having obtained a great deal of information of their own initiative. They were clearly intelligent people who were able to make a fully informed decision about the place of birth of their twins. In my opinion Dr Wilkinson explained the situation to them quite clearly and made it plain that it was his opinion that the children should be born within a hospital. Nevertheless, he acknowledged that, if all went well, it was possible to safely deliver twins in a home setting. He was at pains to preserve a relationship with Mrs Stephen such that she would trust him as a clinician should she subsequently decide to accept medical intervention. I believe that Mr and Mrs Stephen would have presented as a couple who had an ability to make an informed decision. Dr Wilkinson respected their intelligence, and did not seek to brow beat them. Instead, he assessed, correctly in my opinion, that they had a distinct preference for a home birth. They had a distrust of medical practitioners and hospitals. They were conscious that the predominance of medical opinion would be against their preferred course. They expected to be subject to critical judgement by any medical practitioner to whom they confided their preference. Dr Wilkinson made his judgements and decisions against that background and did all he could to preserve

[5] Transcript, page 370
[6] Transcript, page 370
[7] Transcript, page 352

the possibility that the Stephens may, having decided against a home birth, consult him later in the pregnancy with a view to having a birth of their twins at the Women's and Children's Hospital. In my view, Dr Wilkinson acted quite appropriately.

9.2. Dr Behnia-Willison made a most commendable effort to do all that she could to expedite the safe delivery of Esther as soon as she arrived at the Flinders Medical Centre. Dr Behnia-Willison made all possible preparations, and it is quite remarkable that baby Esther was delivered as rapidly as she was once she arrived at the Flinders Medical Centre.

9.3. I do not see the need to make any recommendations in this matter.

*Key Words: Birth Accident; Hypoxia; Infant deaths; Midwifery; Obstetrics.*

*In witness whereof the said Coroner has hereunto set and subscribed his hand and Seal the 12th day of July, 2007.*

*State Coroner*