CORONERS ACT, 1975 AS AMENDED

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 14th and 28th days of April 2004, before Wayne Cromwell Chivell, a Coroner for the said State, concerning the death of Christopher John Smith.

I, the said Coroner, find that, Christopher John Smith aged 7 months, late of 43 Fletcher Road, Elizabeth East, South Australia died at Elizabeth East, South Australia on the 12th day of November 2002 as a result of drowning.

1. Introduction

1.1. Christopher John Smith was born on 29 March 2002. When he died on 12 November 2002 he was just over 7 months old.

1.2. Christopher lived with his mother, Ms Amanda Hamlyn, and brother Dominic (then aged 2 years and 2 months). At about 5:10pm on Tuesday, 12 November 2002, Christopher's mother decided to bathe the two boys. She ran warm water into the bath to a depth of 12.5cm at one end and 15cm at the other. She placed Christopher at the shallow end, and Dominic at the deeper end.

1.3. Christopher's mother placed him in what she described as a 'bath baby seat' (Exhibit C1a, p1). In fact it was a Fisher-Price 'Stay 'n' Play Bath Ring'. This device consisted of a flexible circular rubber-like mat, the underside of which was covered in small suction-cups. Attached to the mat were four vertical supports with spaces between them, and mounted on top of the supports was a ring of plastic-like material incorporating a small back-rest. The overall shape of the device was like a small drum sitting on its end. The device was designed so that the child is placed through

the upper ring, and sits on the mat with his or her legs either side of the front support. The child leans back against the cushion and is thereby supported in a seated position. This is designed to assist the carer to bathe the child.

1.4. Christopher's mother said:

> '2. … When I placed him in the seat I made sure that the seat was secure suctioned to the bath and that Christopher's legs were separated and had a partition between them.
>
> 3. He usually sits upright in the seat. I have had to correct his position before. He sometimes lies backwards and arches his back. Sometimes his arm slips through. I have never had the bath seat come unstuck from the floor. I filled the bath to about Christopher's stomach height. I put Johnson's baby bath in the bath. It contains herbs apparently to help them sleep and relax.
>
> 4. After putting them into the bath I left them alone to get their clothes ready. I went to my room and selected numerous items. I walked past the bathroom and checked on both the kids and they were fine and happy. I placed the clothing on the mattress in the lounge. I went back to the bathroom and checked the kids again and all was well. The telephone then rang at about 5:15pm to 5:20pm and it was Scott my ex-defacto and the father of both the children.
>
> 5. Scott was calling from Hamilton Secondary College, which is on South Road Mitchell Park. He was calling me on his mobile telephone. I said to Scott that I had just put the children in the bath. We talked on the telephone for about 5 to 10 minutes. The telephone is in the lounge room and I was seated on the lounge.
>
> 6. I could hear the children in the bathroom. I could hear Christopher making noises and then Dominic's voice changed. He started to cry like a scared cry. I told Scott then I had to hang up the telephone and went to the bathroom straight away. I saw that Christopher's legs had slipped both into one leg hole. He was on his side with his arms straight out. The only thing stopping him from falling through was his armpit.
>
> 7. I grabbed hold of Christopher and tried to pull him through the leg hole. As I grabbed him the bath seat came out as well. I could not see any movement from him but I think his eyes did move a bit. There was vomit around his mouth and white foaming stuff coming from his mouth. I saw that there appeared to be poo in the bath but I don't know who did it.
>
> 8. After I grabbed out Christopher I lay him on the floor of the hallway in front of the main door. The bath seat was still around his shoulders. His torso was inside the seat and his legs were sticking out.
>
> 9. I grabbed the telephone and called 911, which didn't work. I did not have any training in CPR but I blew down his throat to see if I could get a reaction. I nearly chucked myself because of the vomit.
>
> 10. All I heard was a gurgle.'
>
> (Exhibit C1a, pp1-2)

1.5. Ms Hamlyn's defacto, Mr Scott Smith, confirmed her evidence in his statement (Exhibit C2a). The only significant discrepancy is that he estimated the length of the phone call at about 20 minutes (p2).

1.6. Ms Hamlyn's next door neighbour, Ms Amanda Bennett, confirmed that she heard her calling. She described her as 'hysterical'. She telephoned '000' and then went next door. She saw Christopher lying in the hallway. She could not find a pulse and he looked 'ash grey'. She called '000' again and they helped her to administer cardio-pulmonary resuscitation, which she continued until the ambulance arrived (Exhibit C6a).

1.7. The ambulance call was made at 5:39pm, and the ambulance attended at 5:44pm. They continued administering cardio-pulmonary resuscitation while they conveyed Christopher to the Lyell McEwin Hospital.

1.8. On arrival at the Hospital, at about 6:15pm, Christopher was rushed into the Resuscitation Room where he was examined by Dr Russell Boyd. Dr Boyd said that full paediatric advanced life-support was instituted. No cardiac activity was detected upon arrival, nor were there any other signs of life noted during resuscitation. Because there had been no response, resuscitation was ceased at 6:37pm, and Dr Boyd pronounced life extinct (see Exhibits C3a and C3b).

2. Cause of death

2.1. A post-mortem examination of the body of the deceased was performed by Professor R W Byard, Forensic Pathologist, on 13 November 2002. Professor Byard found no significant injuries, X-ray examination detected nothing of significance, and toxicological assessment revealed no signs of drugs or medication. A neuropathological examination of the brain and spinal cord was normal.

2.2. Examination of Christopher's heart revealed the presence of focal myocarditis, an inflammation of the heart muscle, usually viral in origin, which was considered incidental to the cause of death. Small bruises noted to the left chest and the back of the head, and the signs of nappy rash in the groin area were not considered significant.

2.3. Having regard to the circumstances demonstrated by the witness statements, Professor Byard attributed Christopher's death to drowning. He commented:

> 'Death was attributed to drowning given the absence of any significant underlying organic illnesses or trauma and the presenting history and death scene findings. It appears that Christopher slipped down in his plastic bath seat while unattended. The depth of the water measured by police officers was between 12.5 and 15 cm. The distance from the base of the bathtub seat to the under-surface of the upper ring was approximately 14 cm, giving a maximum space of only 1.5 cm between the surface of the water and the ring. Once Christopher had become trapped under the ring his face would not have been able to be lifted out of the water.
>
> Infant bath seats are devices that are used to enable infants to sit in adult bathtubs. They are designed to contain and support an infant, freeing up both adult hands. Unfortunately fatalities have been described associated with such bath seats with a series of 32 such deaths being report in the United States over a 13 year period from 1983 to 1995. More than half of the deaths occurred in the last 2 years of the study. The age range of the infants was 5 to 15 months with a medium age of 8 months. For this reason there have been calls in the United States for banning the sale of bath tub seats for infants. The problem that has been noted is that parents and child carers may feel more confident at leaving an infant unattended in a bath if one of the seats is being used. It has also been noted that there may be a higher rate of accidental drowning deaths in infants who are left in baths with older siblings.
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> No underlying organic diseases were present which could have caused or contributed to death. Although focal myocarditis was identified microscopically, this was regarded as incidental to the cause of death given the circumstances. The only evidence of trauma was a bruise of the left chest wall which predated the fatal episode. A small subgaleal haematoma may have occurred during the lethal episode. The irregular area of skin mottling on the anterior chest wall was considered to be post mortem staining. Microbiological, radiological and neuropathological studies were unremarkable.'
>
> (Exhibit C14a, p2)

3. Issues arising at inquest

3.1. I have received extensive material in the form of research papers and submissions concerning the issue of the safety of infant bath seats. I have distilled the following issues from this material as follows:

- adult bath tubs are particularly dangerous places for infants, because they have smooth sides, there are no hand holds, and the surface is often slippery from soap;
- the use of a bath seat may engender confidence that an infant may be left unattended in a bath. This impression may be enhanced by the use of words such as 'safe' and 'Stay 'n' Play' in naming and advertising of the product;

- only a very small amount of water is required for an infant to drown - children have drowned in bath tubs in as little as 5cm of water;
- the placement of warning labels on bath seats which advise against leaving infants unattended may not be enough to displace the confidence engendered by the seat itself;
- there is some anecdotal evidence that the confidence engendered by the use of bath seats may encourage carers to use deeper water in the bath;
- carers are often under the misapprehension that they would be alerted to problems if an infant slipped into the water, whereas an infant may drown rapidly and silently with minimal struggle;
- there is other anecdotal evidence that carers may have the impression that it is safer to leave two young children in a bath together, whereas the opposite may be true. In one research project, 17 cases of death in the context of co-bathing were examined. In each case the victim was younger than the surviving child, with the survivors being, on average, 18.5 months older than the victim. If the survivor is a toddler, his or her playfulness may have the effect of inadvertently causing the infant to lose balance and drown in the bath, and the survivor may not realise the significance of this and raise the alarm until it is too late;
- an infant may tip a bath seat over if they lean too far forward and fall face down into the bath water, and they may also climb out of a bath seat and overbalance. If the seat tips over it may entrap the infant and hold it under the water. An infant may also 'submarine' under the ring and become entrapped by it.

3.2. A study was recently conducted by the Injury Prevention Research Officer attached to the Victorian State Coroner's Office, Ms Lyndal Bugeja. This was a joint initiative of the Victorian State Coroner's Office and the Department of Human Services. The study analysed the deaths of 25 children in bathtubs which occurred in Victoria from 1989 to 2001. Most (80%) of the deaths involved children under 2 years, and the victims were mostly (68%) male. In every case, inadequate carer supervision was the most significant contributing factor.

3.3. <u>The Fisher-Price Stay 'n' Play Bath Ring</u>

Mattel Pty Limited is an Australian subsidiary of Mattel, Inc, an American company. Fisher-Price, Inc is also a wholly owned subsidiary of Mattel, Inc. The affidavit of

Craig William Armstead, the Marketing Director of Mattel Pty Limited, discloses that the Australian company last sold the Stay 'n' Play Bath Ring on 6 August 1997 (Exhibit C13).

3.4. When it was sold, an instruction sheet went with the product which contained the following warnings:

'• Children can drown in a small amount of water. To minimize the risk of drowning, fill the bathtub with as little water as needed to bathe your child.

• The Stay 'n' Play Bath Ring should be used with children who are capable of sitting upright, unassisted.

• The Stay 'n' Play Bath Ring is not a flotation device.

• The Stay 'n' Play Bath Ring should only be used in a bathtub.

• The Stay 'n' Play Bath Ring is not intended as a babysitting device. Do not leave your child unattended while using the Stay 'n' Play Bath Ring.

• The Stay 'n' Play Bath Ring is recommended for use on smooth (non-textured) bath surfaces.'

(Exhibit C13a)

3.5. The following warning was also displayed on the product:

'WARNING: To prevent drowning, never leave child unattended.'

(Exhibit C7b)

3.6. There was no way of knowing when the Stay 'n' Play Bath Ring in which Christopher died was first purchased. Obviously, it was purchased long before Christopher was born. By the time Christopher was using it, the warning referred to above had long since faded to the extent that it was no longer legible (see Exhibit C7b). I have no evidence that Ms Hamlyn ever saw the instruction sheet. I assume she did not.

3.7. Professor Byard told me that having regard to the fact that the depth of the water where Christopher was sitting was 12.5cm, and the distance from the base of the bathtub seat to the under-surface of the upper ring was approximately 14cm, the maximum space between the surface of the water and the lower surface of the ring was a maximum of 1.5cm. Once Christopher's head became trapped under the ring, he would not have been able to lift his head out of the water.

3.8. The statement of Senior Constable Cassell, who investigated Christopher's death on my behalf, contains the following suggestion:

> 'It is my opinion that the child was placed in the ring. The water was warm to mild and the bubble bath contained herbs and would have had an aggravating effect on the open sores and nappy / heat rash that the infant was suffering from. Although positioned correctly initially the infant became irritated by the rash and in an attempt to scratch at it as it had been doing throughout the day, lifted its leg from the leg hole. The infant being so young and having limited co-ordination and understanding of the requirements of the bath ring placed both legs into one leg hole. The leg holes are quite large and would accommodate two legs easily with room.
>
> I further conclude that the infant who is known by the mother to arch his back when frustrated did this and slipped into the water rolling over to be side on or face down. As a natural reaction the infant put out its arms to prevent injury and became trapped under the top section of the bath ring and thus drowning.
>
> All this however does not account for the lack of supervision offered by the mother who whilst this was occurring was in another room talking on a telephone. The mere fact of talking on the telephone provides a distracting influence on the activities of the bathing children. As there was no line of sight.
>
> From the lounge to the bathroom the mother could not visibly supervise the bathing children and relied on hearing them rather than watching them, again difficult whilst talking on the telephone. It was not until the scared cry of the older child was heard that the mother checked the welfare of the children, by her admissions she was talking to her de facto for about 10 minutes and by his account 20 minutes which is ample time for a child to get into difficulties and drown without intervention.'
>
> (Exhibit C9a, pp4-5)

3.9. I agree with Senior Constable Cassell that this is a possible explanation for Christopher's death. There is no way to know conclusively whether the nappy rash was the cause of Christopher lifting his leg, or whether he did so as part of the normal movements of a 7 month old infant.

3.10. <u>The case for banning infant bath seats</u>

The report of Ms Meg Clarke, Senior Project Officer, Injury Surveillance and Control Unit, Epidemiology Branch, Department of Human Services, South Australia, reports that as part of a consideration of this issue in the United States of America, an email was sent to the United States Consumer Product Safety Commission by a representative of Fisher-Price in which the following passage appears:

> 'After a thorough review of incident data and use patterns, Fisher-Price decided that the risks, both to the company and consumers, associated with this business were not warranted. We elected to exit the business rather than work to ensure that the product

> could be manufactured in a way that could be considered safe. While this may be possible, Fisher-Price elected not to pursue this.
>
> For example, it did not seem possible to properly warn consumers of the risks since the product itself, during normal use, seemed to imply that supervision was not necessary, despite any warnings to the contrary.' (my underlining)
>
> (Exhibit C11a, p3)

This email contradicts the written submission made by Messrs Clayton Utz, solicitors for Mattel Pty Limited, to the effect that if the product is used in accordance with the instructions, it is safe.

3.11. On the basis of the information before me, and without having conducted Australia-wide research, it would appear that there has been at least two other deaths involving a Fisher-Price Stay 'n' Play Bath Ring. One was the death of Jacqueline Barnes on 14 August 1996 at Box Hill Hospital, Victoria. This case was reported, without inquest, by State Coroner Graeme Johnstone on 7 February 1997 (Case 2385/96). It would appear that another death has occurred in Victoria, since the completion of the Bugeja study referred to earlier, which also involved a Fisher-Price bath seat, although I do not have the details of that death. The report of Professor Byard (Exhibit C14b) also records two near-misses, where cardio-pulmonary resuscitation was initiated at the scene, respiration was re-established and the child made a full recovery.

3.12. Picking up on the comment made by Fisher-Price in the abovementioned email, Ms Clarke submitted:

> 'The main problem with bath seats is not that they are defective in some way, but that their very presence encourages over-reliance on the product as a means of ensuring the safety of an infant in the bath. We believe that the use of a bath seat reduces a carer's perception of the risk of leaving an infant unattended in the bath. This creates a situation where the carer is more likely to leave a child alone than they would otherwise. If this is the case, then the bath seat itself is not incidental to the death or injury, rather it is part of the causal chain.'
>
> (Exhibit C11a, p4)

Ms Clarke argues that bath seats are not an essential product for baby care or hygiene, they are only useful during a relatively brief period, between when a child can sit unsupported (at about 6 months) and when the child can stand up unassisted (8 to 12 months), warning labels seem insufficient to counteract the psychologically reassuring

effect of the presence of the bath seat, and the fact that the better the bath seat is designed, the more likely it is that the infant will be left unattended (Exhibit C11, P4).

3.13. Ms Clarke advises that the Injury Surveillance and Control Unit has submitted to the Product Safety Division of the South Australian office of Consumer and Business Affairs that infant bathing aids should be banned. A discussion paper will soon be issued nationally for comment and will be considered on a national basis.

3.14. Dr Ronald Somers, the Head of the Injury Surveillance and Control Unit, has written to me confirming that it is the opinion of his agency that these products should be banned (see Exhibit C12a).

3.15. Mr Tim Wain, the Executive Director of the Infant and Nursery Products Association of Australia (INPAA) argued that these products should not be banned. He suggested that an industry-wide standard should be established for the provision of warning labels and education programs in the use of this equipment. In a submission to the New South Wales Product Safety Committee, arising out of the death of baby Brandon Muddle in Newcastle in February 2003, INPAA submitted:

> '6.1 INPAA does not support the ban on infant bathing frames/cradles but it does believe that warning labels and education programs can be improved. It is also the Association's belief that market forces will soon eliminate the fabric product. The plastic moulded product is a vastly superior product in design, frame safety and utilisation perspectives.
>
> 6.2 INPAA also encourages the Product Safety Committee to recommend to the Minister for Fair Trading that resources be made immediately available to assist with an educational program to raise awareness of the dangers associated with leaving infants unattended around water.
>
> 6.3 INPAA reiterates that this category of products is not sold as a safety device but rather as an aid for carers when bathing their child.'
>
> (Exhibit C8b, p6)

3.16. Both the Consumer Product Safety Commission in the United States of America, and the New South Wales Product Safety Committee decided against recommendations that these products be banned. Both agencies concluded that warning labels and education programs should be undertaken instead.

3.17. Professor Byard also argued against banning the product. He said:

> 'I wouldn't advise their use and if they were being used I'd say that they should be supervised at all times, but there are mothers - we've heard from Helen Noblett of Kids Safe, who find them very useful if they've got twins. They can have one baby in this device and they could be bathing the other baby, so that's showing how these devices can be useful and can be used safely.' (T27)

3.18. I note that the following recommendations were made in the Bugeja report:

> ' 1. Royal Life Saving Society Australia (RLSSA) refine their definition of *adequate supervision* in the context of bathing of young children to *within carer's arms reach*.
>
> 2. RLSSA in conjunction with Kidsafe and the Royal Children's Hospital Safety Centre develop and distribute a fact sheet on recommended bathing practices of children five years and under (See Appendix 2). For example:
>
> - gather adequate towels and clothes and take them into the bathroom;
> - insert plug and fill bath with warm water to an appropriate level for the child's size;
> - place child / children in bath;
> - remain in the bathroom with the child / children at **all times** keeping them **within arms reach of you** until ready to remove;
> - immediately remove the plug and all children from the bath;
> - ensure that no toys have obstructed the plughole before leaving the bathroom and that the bath is free of any water.
>
> 3. RLSSA, Kidsafe and the Royal Children's Hospital Safety Centre identify the most appropriate means of distributing this information and raising awareness within the Victorian community on an ongoing basis.
>
> 4. The findings and recommendations from the NSW Product Safety Committee's review of infant bathing rings, seats and cradles be forwarded to all State and Chief Coroners in Australia and New Zealand; and
>
> 5. Further Australian based research into carer's perceptions of bath seats as a safety device and a bathing aid is required to resolve the issue of whether to ban their sale in Australia.'
>
> (Drowning of 0-5 Year Old Children in Bathtubs in Victoria 1989-2001, page vi)

3.19. The problem with relying upon warning labels and education programs is that baby products such as these are often sold second-hand. After the initial purchase of the new product, there is no control over whether the warning labels remain effective, and there is unlikely to be a passing-on of any education received at purchase. The only effective way of communicating the information is to put <u>all</u> warnings on indelible

labels on the product, according to an appropriate standard. It is no good having some warnings on labels, and others in an information sheet.

3.20. Even if labelling was improved to that extent, I doubt that they would be effective. I agree with the original observation of Fisher-Price that the nature of the product itself induces complacency, despite any warning labels to the contrary.

4. Recommendations

4.1. Were it not for Professor Byard's advice, I would recommend banning the use of baby bath seats altogether. Professor Byard is very experienced and I place great reliance on his judgment in these matters.

4.2. Accordingly, I do not recommend banning these products. I do however make the following recommendations pursuant to Section 25(2) of the Coroners Act 1975:

- That the question of whether the sale of baby bath seats should be banned, as suggested by the South Australian Injury Surveillance and Control Unit, should be considered nationally by the relevant regulatory agencies in the light of these findings;

- That, in any event, a strong public awareness campaign should be instituted warning of the dangers created by bathing infants in adult bathtubs, and that an infant should never be left unattended in a bathtub, and that the carer should always remain within arm's length when an infant is in a bathtub.

Key Words: Infant Deaths; Drowning; Baby Equipment - Baby Bath Seats

In witness whereof the said Coroner has hereunto set and subscribed his hand and Seal the 28th day of April, 2004.

Coroner