

CHAPTER 5: SUDDEN INFANT DEATH SYNDROME

Advances and aetiology

69. In the years since the Folbigg trial, there has been no development in SIDS research that equals the significance of the Back to Sleep campaign in the early 1990s. SIDS remains a diagnosis of exclusion based on an absence of any other cause and is understood as being multifactorial.⁷¹ The key advance has been the introduction of the sub-categorises of SIDS in 2004, which necessitates considering all the deaths and the ALTE, and Caleb and Sarah's deaths in particular, in light of this development.
70. The triple risk model was developed around 1994 and reflects that SIDS is multifactorial.⁷² The main risk factors at that time were:
- a. Prematurity
 - b. Low birth weight
 - c. Exposure to maternal smoke
 - d. Sleeping on one's stomach
 - e. Shared sleeping platforms
 - f. Being over bundled or overheated
 - g. Soft bedding
 - h. Covered faces
 - i. Age of mother
 - j. Socio-economic circumstances
 - k. Evidence of neglect
71. The factors in the model are risks, not causes.⁷³

⁷¹ Transcript of the Inquiry, 18 March 2019 T26.8; T47.12; Exhibit J, Expert Report of Professor Rosemary Horne (10 February 2019) p 1; Transcript of the Inquiry, 18 March 2019 T26.8, T23.45-46, T47.13, T53.4.

⁷² Transcript of the Inquiry, 18 March 2019 T25.42-45, T26.8; T31.30-31.

72. *SIDS – Sudden Infant and Early Childhood Death: The Past, the Present and the Future* edited by Dr Jhodie R Duncan and Professor Roger W Byard, was published in 2018 (“Duncan and Byard (2018)”). It is a multidisciplinary volume which covers a wide range of aspects of sudden infant and early childhood death, including changes in definitions, epidemiology and risk factors.
73. Evidence given by Professors Horne and Elder in the Inquiry is consistent with the relevant articles in Duncan and Byard (2018), that contemporary research has advanced in terms of the sophistication of understanding or beliefs of how intrinsic, extrinsic and additional risk factors may be identified, operate and interact.⁷⁴
74. However, the greatest risk remains the sleeping position and surface, which are extrinsic risk factors. In the Inquiry, Professor Horne gave evidence that the Back to Sleep campaign changes reduced the incidence of SIDS by more than 85%.⁷⁵ She said that the incidence since about 2006 seems to have plateaued.⁷⁶ The Australian Institute of Health and Welfare figures show that in 2017, there were 87 deaths, or a rate of 0.3 deaths per 1,000, which were classified as sudden unexpected death in infancy.⁷⁷ In New Zealand, figures show in the year 2000, it was 1-1.5 per thousand live births, and in 2015 it was 0.7.⁷⁸
75. Professor Elder said that the majority of infant deaths now occur when the infant is in an unsafe sleep position, with the highest risk where this is combined with maternal smoking.⁷⁹ Premature birth is also a major risk factor.⁸⁰ Other risks were identified by Professor Horne and are reflected in the triple risk model: male gender, low birth weight, ethnicity, geographical location, climate, genetic polymorphism and parental characteristics.
76. Professor Horne gave evidence that environmental cigarette smoke and paternal smoking increases the risk slightly to about 1.1.⁸¹ Formula feeding is a risk of 1.5.⁸²

⁷³ Transcript of the Inquiry, 18 March 2019 T26.42-T27.1; T52.16-27.

⁷⁴ Exhibit D, Jhodie R Duncan and Roger W Byard, ‘Sudden Infant Death Syndrome: An Overview’ in Jhodie R Duncan and Roger W Byard (eds), *SIDS – Sudden Infant and Early Childhood Death: The Past, the Present and the Future* (University of Adelaide Press, 2018) 15, 19-27; Exhibit J, Report of Professor Rosemary Horne (10 February 2019) pp 1, 3-6; Inquiry Exhibit K, Report of Professor Dawn Elder (15 February 2019) [20]; Transcript of the Inquiry, 18 March 2019 T26.8-14.

⁷⁵ Transcript of the Inquiry, 18 March 2019 T21.18-29.

⁷⁶ Transcript of the Inquiry, 18 March 2019 T29.28.

⁷⁷ Transcript of the Inquiry, 18 March 2019 T29.8-16.

⁷⁸ Transcript of the Inquiry, 18 March 2019 T29.45-48.

⁷⁹ Transcript of the Inquiry, 18 March 2019 T43.32-49, T51.12-13, T52.38-45.

⁸⁰ Transcript of the Inquiry, 18 March 2019 T50.48-50.

⁸¹ Transcript of the Inquiry, 18 March 2019 T28.17-18 (citing Carpenter et al, 2013); 18 March 2019 T44.46-45.19. This means

Professor Elder opined that the most profound effect is exposure to maternal smoking in utero, which seems more related to alteration of the infant's arousal responses.⁸³

77. Professor Cordner said that genetic factors in SIDS has blossomed since 2003.⁸⁴ This may be accepted, however Professor Elder, who operates in clinical practice, said that genetic variation is not a topic applicable to most of the deaths that she sees. Rather, her practical experience is that they are usually children who have been in unsafe sleep circumstances.⁸⁵
78. As at 2003, SIDS was defined as the sudden death of an infant under one year of age which remains unexplained after a thorough case investigation, including performance of a complete autopsy, examination of the death scene, and review of the clinical history. Professor Hilton gave evidence at trial on the definition.⁸⁶ While it specified under one year of age, there was apparently some flexibility in its application – Professor Hilton indicated at trial that whilst extremely uncommon, it could occur in an older infant.⁸⁷ In the Inquiry he said he would never exclude SIDS if a child was under 21 days old, and that he has previously diagnosed SIDS in children over 12 months.⁸⁸
79. Professor Horne said that the peak of deaths is between two and four months of age, with 90% of infants dying in the first six months.⁸⁹
80. In 2004 Krous et al published the current definition of SIDS, and also introduced sub-categorisation.⁹⁰ The 2004 definition includes that SIDS occurs during sleep and adds the necessity of a thorough death scene investigation.⁹¹ Professor Horne explained that the sub-categories are mainly a subdivision for research purposes and to encompass cases where information is lacking for a firm diagnosis.⁹²

that environmental smoking and paternal smoking increases the odds of SIDS is by a factor of 1.1, holding other risk factors constant.

⁸² Transcript of the Inquiry, 18 March 2019 T31.24-25.

⁸³ Transcript of the Inquiry, 18 March 2019 T45.23-36.

⁸⁴ Transcript of the Inquiry, 19 March 2019 T94.30-31.

⁸⁵ Transcript of the Inquiry, 18 March 2019 T48.46-49.1-3.

⁸⁶ 14 April 2003 T655.1-16.

⁸⁷ 14 April 2003 T595.26-34, T655.1-16.

⁸⁸ Transcript of the Inquiry, 19 March 2019 T73.32-36.

⁸⁹ Transcript of the Inquiry, 18 March 2019 T22.32-35.

⁹⁰ Henry F Krous et al, 'Sudden Infant Death Syndrome and Unclassified Sudden Infant Deaths: A Definitional and Diagnostic Approach' (2004) 114(1) *Pediatrics* 234.

⁹¹ Transcript of the Inquiry, 18 March 2019 T20.49-21.1-9, T21.48-T22.22.

⁹² Transcript of the Inquiry, 18 March 2019 T21.3-9, T22.7- T23.48, T24.20-29, T24.49-50, T25.10.

81. As is apparent from the 2004 definition, Category 1A SIDS invokes classic features of SIDS with a complete investigation, a child who was older than 21 days and under nine months, and no similar deaths in the family or with the same caregiver.⁹³ It is the most definite case of SIDS – “the perfect SIDS case”.⁹⁴ Professor Horne said that if an infant is not in a safe sleeping environment, the death is usually defined as accidental suffocation or unascertained, and not Category 1A SIDS.⁹⁵ However, the definition does permit findings of minor respiratory system inflammatory infiltrates.⁹⁶ In addition, it permits the occasional “starry sky” macrophage (inflammatory cells seen on the thymus under a microscope) unless this is obviously from pronounced thymic stress.⁹⁷
82. Category 1B SIDS comprises classic features of SIDS but with an incomplete investigation.⁹⁸ Professor Horne said that a death of this type may also be able to be described as undetermined or unascertained.⁹⁹
83. In Category 2 SIDS, the infant may be of an age outside the classic SIDS range, that is younger than 21 days, or between nine months and 12 months. Similar deaths may have occurred, provided they are not suspicious for infanticide or for recognised genetic disorders. Mechanical asphyxia or suffocation by overlaying may not be determined with certainty. Marked inflammatory changes may be present upon autopsy but not sufficient to be an unequivocal cause of death.
84. Evidence received in the Inquiry indicates that there is some difference between how definitions and sub-categorisation of SIDS are viewed for research purposes, and how they are applied in forensic pathology practice and as between forensic pathologists. Professor Horne, for instance, described SIDS as excluding *all* possible causes whether environmental or involving some intrinsic factor.¹⁰⁰ However, Professor Cordner stated that SIDS does not exclude an unnatural cause and that there is always a possibility of an unnatural or natural explanation that is not uncovered. He stated that, however people use the term SIDS, smothering is not excluded on forensic pathology grounds when SIDS is the diagnosis.¹⁰¹

⁹³ Transcript of the Inquiry, 18 March 2019 T22.15-35.

⁹⁴ Transcript of the Inquiry, 19 March 2019 T74.13.

⁹⁵ Transcript of the Inquiry, 18 March 2019 T23.17-22.

⁹⁶ Exhibit D, Roger W Byard, ‘Sudden Infant Death Syndrome: Definitions’ in Jhodie R Duncan and Roger W Byard (eds), *SIDS – Sudden Infant and Early Childhood Death: The Past, the Present and the Future* (University of Adelaide Press, 2018) 1, 6.

⁹⁷ Transcript of the Inquiry, 19 March 2019 T82.19-49.

⁹⁸ Transcript of the Inquiry, 18 March 2019 T23.24-27.

⁹⁹ Transcript of the Inquiry, 18 March 2019 T23.36-40.

¹⁰⁰ Transcript of the Inquiry, 18 March 2019 T23.45-48.

¹⁰¹ Transcript of the Inquiry, 19 March 2019 T77.43-78.20; T58.19; Exhibit Q, Report of Professor Stephen Cordner (undated) p

Professor Duflou considered that this would place a death in Category 2 SIDS, unless he found “good evidence” for overlaying or a form of mechanical asphyxia, which remove it from SIDS.¹⁰² He would not describe such a death as “undetermined”, whereas Dr Cala and Professor Hilton would.¹⁰³ Professor Cordner considered that Category 2 SIDS would not exclude an unnatural death and described it as a “weaker” category – more flexible and enabling inclusion.¹⁰⁴ Dr Cala said SIDS could be understood to be a death with unidentified natural causes, but not suspected unnatural causes.¹⁰⁵

85. It was also impressed in evidence by the forensic pathologists in the Inquiry that it is necessary to consider the whole picture of the death under investigation.¹⁰⁶ Most of the time, a forensic pathologist is given a relevant history to do with the death, such as symptoms the person may have experienced.¹⁰⁷ This is reflected in the SIDS definitions, and the requirement to look at clinical features, circumstances and the autopsy.¹⁰⁸ Dr Cala said that it is important to take into consideration the circumstances leading to death, and both Dr Cala and Professor Duflou would take family history into consideration.¹⁰⁹ Dr Cala would, in a case where there are no signs, look to the clinical matters and circumstances consistent with the SIDS definitions.¹¹⁰
86. This may reflect the practical reality of uncertainties which attend practice, and an appreciation that an autopsy is sometimes quite a blunt tool, as Dr Cala described in the Inquiry and as Professor Duflou indicated in his written and oral evidence.¹¹¹
87. At the time of the trial, the terms “undetermined” or “unascertained” were more frequently used by forensic pathologists than appears to be the case now. The expanded categories accommodate some deaths which may previously have been ascribed as “undetermined”, “unascertained” or similar. Dr Beal, for example, said that a death of a child outside the age range of one to six months would probably

24, fn 7.

¹⁰² Transcript of the Inquiry, 19 March 2019 T113.14-21.

¹⁰³ Transcript of the Inquiry, 19 March 2019 T113.40, T113.12-19, T114.26-40.

¹⁰⁴ Transcript of the Inquiry, 19 March 2019 T130.24-T132.28.

¹⁰⁵ Transcript of the Inquiry, 19 March 2019 T76.35-38.

¹⁰⁶ Transcript of the Inquiry, 19 March 2019 T78.31-t79.1.

¹⁰⁷ Transcript of the Inquiry, 19 March 2019 T86.17-25.

¹⁰⁸ Transcript of the Inquiry, 19 March 2019 T86.27-31.

¹⁰⁹ Transcript of the Inquiry, 21 March 2019 T251.7-11.

¹¹⁰ Transcript of the Inquiry, 19 March 2019 T116.1-6.

¹¹¹ Transcript of the Inquiry, 19 March 2019 T86.7-9; Exhibit L, Report of Professor Johan Duflou (13 February 2019) p 51.

be undetermined.¹¹² Older or younger ages at the time of death are more readily accommodated in the present SIDS sub-categories. This is particularly relevant in relation to Caleb and Sarah, as discussed further below.

88. Before the Inquiry, Dr Cala said, “undetermined” encompasses unidentified natural causes and unnatural causes.¹¹³ Professor Duflou’s view was that “undetermined” may be employed where there is worry about trauma, describing as an example a circumstance where a child has a fractured rib: not causative of death, but worrying.¹¹⁴
89. In the Inquiry, Professors Horne and Elder were asked to apply the risk factors for SIDS, and the current definition, to each of the Folbigg children. In short, all of them were considered to be at low risk of SIDS, with Patrick at the time of his death effectively excluded from meaningful application of the SIDS risk factors because of the effect upon him of the ALTE.¹¹⁵

Caleb

90. Caleb died aged 19 days old.¹¹⁶ He was born full-term,¹¹⁷ was not underweight,¹¹⁸ his mother did not smoke,¹¹⁹ he was found on his back with his face uncovered in his own bed,¹²⁰ his bed was in his own room,¹²¹ there were no signs of neglect and the family was not socio-economically disadvantaged.¹²² Ms Folbigg was 21 years old.¹²³ Mr Folbigg did, but the evidence is that he smoked outside.¹²⁴ Caleb was not breastfed.¹²⁵ There is no evidence as to whether he used a pacifier or whether he was vaccinated.¹²⁶

¹¹² 5 May 2003 T1135.19-23.

¹¹³ Transcript of the Inquiry, 19 March 2019 T76.45-48.

¹¹⁴ Transcript of the Inquiry, 19 March 2019 T77.2-9.

¹¹⁵ Transcript of the Inquiry, 18 March 2019 T37.25-36.

¹¹⁶ Exhibit H, Forensic pathology tender bundle, p 4.

¹¹⁷ Exhibit H, Forensic pathology tender bundle, p 1.

¹¹⁸ Exhibit H, Forensic pathology tender bundle, p 1.

¹¹⁹ 10 April 2003 T530.27-35.

¹²⁰ 2 April 2003 T104.1-6, T104.52-55; 28 April 2003 T983.9-17.

¹²¹ 2 April 2003 T104.1-6.

¹²² Statement of Senior Constable Stephen Charles Saunders (12 September 1993).

¹²³ Exhibit H, Forensic pathology tender bundle, p 1.

¹²⁴ 10 April 2003 T530.27-35.

¹²⁵ Exhibit H, Forensic pathology tender bundle, p 1; 2 April 2003 T100.31-35.

¹²⁶ Exhibit E, ERISP of Kathleen Folbigg Q907.

91. Professor Horne said that Caleb did not have the major risk factors for SIDS and was low risk.¹²⁷ Similarly, Professor Elder said he had no clear classic risk factors, referring to a “little question mark” given respiratory stress at birth, noisy breathing, and laryngomalacia.¹²⁸ Professor Cordner said he would defer to Professor Horne on risk factors.¹²⁹

Patrick

92. Patrick’s ALTE occurred when he was four months and 15 days old.¹³⁰ He was born full term, was not underweight, his mother did not smoke, and he was found on his back with his face uncovered in his own bed.¹³¹ Other environmental factors were in the main as they had been for Caleb. Ms Folbigg was 22 years old.¹³² Patrick apparently used a dummy although for how long is unclear.¹³³ He had a sleep study when he was one and a half weeks old with entirely normal results.¹³⁴ Dr Marley, his GP, gave evidence that until his ALTE, Patrick was no different from other children, and had been seen for minor respiratory infections.
93. Professor Horne gave evidence that ALTEs are not linked to SIDS, and that the aetiology is very different.¹³⁵ She said that the features between the two are quite distinct, and most ALTEs are in preterm babies.¹³⁶ Also, ALTEs can happen when awake, generally during day.¹³⁷ Professor Clancy, an immunologist, did not agree with Professor Horne in this respect.¹³⁸
94. In any event, employing SIDS risk factors, Professor Horne considered Patrick to be at a low risk for an ALTE.¹³⁹ Professor Elder noted that if Caleb’s death presented a risk to Patrick, this was the reason that investigations were undertaken in relation to Patrick, which were shown to be normal.¹⁴⁰

¹²⁷ Transcript of the Inquiry, 18 March 2019 T34.42-45.

¹²⁸ Transcript of the Inquiry, 18 March 2019 T35.15-35.

¹²⁹ Transcript of the Inquiry, 19 March 2019 T117.22-23.

¹³⁰ Exhibit H, Forensic pathology tender bundle, p 37.

¹³¹ Exhibit H, Forensic pathology tender bundle, p 31; 10 April 2003 T530.27-35; 2 April 2003 T110.10-14, T116.1-9.

¹³² Exhibit H, Forensic pathology tender bundle, p 30.

¹³³ Exhibit E, ERISP of Kathleen Folbigg Q907.

¹³⁴ Exhibit H, Forensic pathology tender bundle, p 188.

¹³⁵ Transcript of the Inquiry, 18 March 2019 T36.13-41 (referring to Ramanathan et al, 2001).

¹³⁶ Transcript of the Inquiry, 18 March 2019 T36.31-33 (referring to Ramanathan et al, 2001).

¹³⁷ Transcript of the Inquiry, 18 March 2019 T46.3-8.

¹³⁸ Exhibit AT, Further Expert Report of Professor Robert Clancy dated 27 March 2019 at 1-2; Transcript of the Inquiry 22 March 2019 T329.22-34.

¹³⁹ Transcript of the Inquiry 18 March 2019 T37.1-4.

¹⁴⁰ Transcript of the Inquiry, 18 March 2019 T37.8-10.

95. While it was not possible to apply SIDS risk factors to Patrick at the time of his death, Professor Elder noted that he did not have significant factors for sudden infant death – he was not in an unsafe position when he was found, and his mother did not smoke.¹⁴¹

Sarah

96. Sarah died on 30 August 1993 aged ten months and 16 days.¹⁴² Her risk factors for SIDS were similar with Patrick's factors before the ALTE. Ms Folbigg was 25 years old when Sarah was born.¹⁴³ Sarah was vaccinated.¹⁴⁴ She used a dummy, the extent of which is unclear.¹⁴⁵ She slept in a single bed in her parents' room.¹⁴⁶ She had a sleep study at three weeks of age which showed a very small handful of apnoeas.¹⁴⁷ According to Dr Cooper, who carried out the study, these were normal for infants of that age.¹⁴⁸ Sarah also had a metabolic screen which ultimately needed no follow-up.¹⁴⁹ She saw her GP for routine vaccinations. At trial the GP gave evidence that she seemed to be a normal healthy infant.¹⁵⁰ On 18 August 1993 he prescribed an antibiotic for a flu or cold type virus.¹⁵¹ That antibiotic was last taken a few days before her death.¹⁵² She was seen on 26 August 1993 for a croupy cough.¹⁵³
97. Professor Horne observed that at ten months, Sarah was older than is usual for SIDS.¹⁵⁴ She considered that a mild respiratory infection is common and half of babies who die have had a mild respiratory infection not severe enough to be attributed to the cause of death. Professor Horne said that Sarah was at low risk for SIDS. She was found on her back with her head uncovered and was healthy

¹⁴¹ Transcript of the Inquiry, 18 March 2019 T37.1.

¹⁴² Exhibit H, Forensic pathology tender bundle, p 90.

¹⁴³ Exhibit H, Forensic pathology tender bundle, p 88.

¹⁴⁴ 11 April 2003 T540.14-20, T547.15-33, T549.55-58.

¹⁴⁵ 16 April 2003 T771.55-58, T793.47-53.

¹⁴⁶ 2 April 2003 T126.38.

¹⁴⁷ Exhibit H, Forensic pathology tender bundle p 189.

¹⁴⁸ 14 April 2003 T589.1-12.

¹⁴⁹ Exhibit AC, Genetics tender bundle, p 23.

¹⁵⁰ 11 April 2003 T540.14-20, T540.54-56.

¹⁵¹ Exhibit H, Forensic Pathology tender bundle, p 91.

¹⁵² Exhibit H, Forensic pathology tender bundle, p 241.

¹⁵³ Exhibit H, Forensic pathology tender bundle, p 104.

¹⁵⁴ Transcript of the Inquiry, 18 March 2019 T38.13-14.

apart from the cold.¹⁵⁵ Professor Elder agreed, noting Sarah snored at times but otherwise the usual risk factors were absent, and Sarah's slightly older age.¹⁵⁶

Laura

98. Laura died on 1 March 1999 aged 18 months and 22 days.¹⁵⁷ She was born full term, was not underweight, her mother did not smoke,¹⁵⁸ and she was found on her back with her face uncovered and in her own bed.¹⁵⁹ Ms Folbigg was 30 at the time of her birth.¹⁶⁰ Laura was vaccinated and used a dummy and was breastfed for two weeks.¹⁶¹
99. Laura underwent significant testing and sleep studies. According to Dr Paul Innis, her GP, she was seen about 13 times and was normal and healthy with no chronic illness.¹⁶² In the last 24 hours before Laura died, she was administered Demazin, with the last dose on 27 February 1999.
100. Dr Seton gave evidence that obstructive sleep apnoea was excluded as a risk in Laura.¹⁶³ He said that SIDS is highly unusual at Laura's age and she was of extremely low risk given the testing and monitoring of her during her lifetime, and her age when she died.¹⁶⁴
101. Laura was plainly well outside of the timeframe for SIDS but, as Professor Elder noted in the Inquiry, in terms of Sudden Unexpected Death in Infancy ("SUDI") the age range is broadened and she had seen children of an older age die in SIDS-like circumstances. Professor Horne noted that SUDI is rarer than SIDS, at 1.4 per 100,000.¹⁶⁵ SUDI can encompass SIDS and also sleeping accidents which may otherwise be "unascertained".¹⁶⁶ It may be used by a forensic pathologist prior to

¹⁵⁵ Transcript of the Inquiry, 18 March 2019 T38.14-21.

¹⁵⁶ Transcript of the Inquiry, 18 March 2019 T38.25-29.

¹⁵⁷ Exhibit H, Forensic pathology tender bundle, p 132.

¹⁵⁸ Exhibit H, Forensic pathology tender bundle, p 125.

¹⁵⁹ Exhibit E, ERISP of Kathleen Folbigg Q269, Q333; 3 April 2003 T165.19-21.

¹⁶⁰ Exhibit H, Forensic pathology tender bundle, p 124.

¹⁶¹ Exhibit H, Forensic pathology tender bundle, pp 128, 126, 138; 3 April 2003 T154.40-44; Exhibit E, ERISP of Kathleen Folbigg Q907.

¹⁶² 15 April 2003 T668.12-669.7.

¹⁶³ 15 April 2003 T695.4-16, T697.51-698.3; Exhibit H, Forensic pathology tender bundle, p 160.

¹⁶⁴ 15 April 2003 T695.20-28, T698.27-32.

¹⁶⁵ Transcript of the Inquiry, 18 March 2019 T40.40-43.

¹⁶⁶ Transcript of the Inquiry, 18 March 2019 T21.6, T24.18, T43.3.

the death being classified further as SIDS or otherwise Professor Hilton described it as a “nebulous term”.¹⁶⁷

102. In any event, Laura did not have common risk factors for SIDS.

Submissions on risk of SIDS

103. In our submission, Professor Horne’s and Professor Elder’s evidence that all of the Folbigg children were of low risk for SIDS should be accepted. In particular, none of them were sleeping prone when they died, none of them had their head covered, and none of them were on an unsafe sleeping surface. At no relevant stage did Ms Folbigg smoke. Mr Folbigg smoked, although not inside the home.

104. The evidence at trial and in the Inquiry on the significance of supine sleeping in a safe environment was that this was, and remains, the single greatest risk for SIDS. Professor Elder also referred to the greater risk presented by a combination of an unsafe sleeping environment with maternal smoking.

105. While a low risk of SIDS does not eliminate the possibility of such a death, it is appropriately viewed against the rates of death from SUDI in Australia after the Back to Sleep campaign, of 0.3 deaths per 1,000 and in New Zealand, of 0.7-1.5 per thousand. Caleb, Patrick, and Sarah all died during the era when safe sleeping practices were changing, but evidence indicates that they were all found in a safe position and safe sleep environment. The figures obviously do not specify the risk that presents in any particular child, however, they are indicative of the rarity of SUDI and SIDS in Australia and New Zealand after education on the importance of safe sleeping and elimination of smoking.

106. Later in these submissions, we address the role of infection in SIDS deaths.

¹⁶⁷ Transcript of the Inquiry, 19 March 2019 T83.18.