Safe sleeping
Supporting parents to make safer choices when placing their baby to sleep
Safe sleeping
Supporting parents to make safer choices when placing their baby to sleep

Family and Community Services
Office of the Senior Practitioner
Child Deaths and Critical Reports Unit

November 2014
Contents

Acronyms and abbreviations 3

Message from the Secretary 4

Executive summary 5

1 | Introduction 7
1.1 What is sudden and unexpected death in infancy? 7
1.2 Scope and purpose of the project 9
1.3 Report structure 9
1.4 Methodology 10

2 | The work so far 12
2.1 Co-sleeping: a wake up call 12
2.2 Rollout of learning initiatives 12
2.3 Changes to the Caseworker Development Program 13
2.4 Clinical support for field staff 13
2.5 Helpline's process for identifying the risk of co-sleeping 13
2.6 Sharing safe sleeping information with carers 14
2.7 Interagency collaboration 14

3 | What do we know about the infants? 15
3.1 Cause of death 15
3.2 Age of the infants 16
3.3 Gender 16
3.4 Aboriginal and/or Torres Strait Islander infants 16
3.5 Prematurity 17
3.6 Illness or medical condition 18
3.7 Birth order 18
3.8 Season 19
3.9 Location 20
3.10 Young parent families 20
3.11 Child protection history 22
3.12 Previous infant death in family 23

4 | What was found in the infants’ sleep environment 24
4.1 Inappropriate and unsafe sleeping surface 25
4.2 Shared sleep surface 28
4.3 Dangers with parental alcohol and drug use 31
## Acronyms and abbreviations

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>CDCR</td>
<td>Child Deaths and Critical Reports Unit</td>
</tr>
<tr>
<td>CDP</td>
<td>Caseworker Development Program</td>
</tr>
<tr>
<td>CIU</td>
<td>Clinical Issues Unit</td>
</tr>
<tr>
<td>CSC</td>
<td>Community Services Centre</td>
</tr>
<tr>
<td>FACS</td>
<td>Family and Community Services</td>
</tr>
<tr>
<td>KIDS</td>
<td>Key Information and Directory System</td>
</tr>
<tr>
<td>NGO</td>
<td>Non-government organisation</td>
</tr>
<tr>
<td>NSW CDRT</td>
<td>NSW Child Death Review Team</td>
</tr>
<tr>
<td>SDM</td>
<td>Structured Decision Making</td>
</tr>
<tr>
<td>SIDS</td>
<td>Sudden Infant Death Syndrome</td>
</tr>
<tr>
<td>SUDC</td>
<td>Sudden Unexplained Death in Childhood</td>
</tr>
<tr>
<td>SUDI</td>
<td>Sudden and Unexpected Death in Infancy</td>
</tr>
</tbody>
</table>
Message from the Secretary

I am deeply moved by the stories in this report and acknowledge the unimaginable grief of the parents, families and communities of the babies who have died. There can be no greater sadness than the death of a child and my heart goes out to the families whose stories feature in this report. May their grief, not to mention the inexplicable loss of so many young lives, strengthen our resolve and reinforce our commitment to the work of child protection.

Though tragic, these stories need to be told for the simple truth that so many of these deaths were preventable. In a day and age where medical science can do so much, and we have made such technological advances, it is confronting that babies died simply because they slept in unsafe situations.

Building trusting and respectful relationships with parents creates valuable opportunities to promote safety for their babies. The following pages provide key facts, conversation starters and practical advice. Babies known to the child protection system are more at risk of dying in fatal sleep accidents than babies who were not known. The risks need to be in our thinking and the knowledge needs to come through in our work.

Some of this information may seem simple and obvious, such as ways to encourage habits so that babies are always put to sleep in their cot. But tired and overburdened parents do not always make the right choices and they need the guidance of empathetic and respectful practitioners.

I encourage you to make the time to read this report. Bits of it are not easy and much of it is incredibly sad. But if it makes you think again when assessing safety, or it helps you be inquisitive about a baby’s sleeping arrangements next time you visit a family, then the report has served its purpose. We need to have as our goal that all babies can sleep safely and peacefully.

As always, with my deep respect and gratitude for the work you do every day to improve the lives of vulnerable children.

Michael Coutts-Trotter
Secretary, Family and Community Services
Executive summary

On a morning in January 2012, a mother woke to discover her four month old baby boy “Daniel” lying dead beside her. The night before his death, Daniel’s mother prepared a mattress in the lounge room that was pushed up against a wall. His father slept in another room. Daniel and his mother fell asleep together on the mattress. At midnight, Daniel’s mother gave him a bottle. Following this, Daniel fell asleep, with his mother again falling asleep beside him. In the morning, Daniel’s mother found him unconscious. Coronial processes could not establish the cause of Daniel’s death however found that he was compromised in some way by sleeping on an adult mattress with his mother.

It goes without saying that the unexpected death of a baby is incredibly distressing for any parent. The loss of life is intensified even further when questions about how and why their baby died are not completely understood – even after forensic examinations are completed. Alongside all consuming grief, parents are left with the guilt and responsibility that their actions caused their baby’s death.

Parents are often well intentioned in the choices they make for their baby, and in most cases, never intend to place their baby in a situation that could be fatal. For sleep deprived and exhausted parents who are trying to settle their baby, the decision to sleep with their baby, or to put toys in their cot for comfort, is understandable.

While Sudden and Unexpected Death in Infancy (SUDI) can occur in all families, sadly these deaths are more prevalent in families known to the child protection system. These families are disadvantaged, poorly resourced and present with a range of vulnerabilities such as unemployment, lower parental educational achievement, transience, young parenting, domestic violence, parental mental illness and parental alcohol or drug misuse. These issues impact on parents’ thinking and their ability to make safe choices when placing their baby to sleep.

Over a five year period (from 2008 to 2012) the Office of the Senior Practitioner, Child Deaths and Critical Reports Unit (CDCR) reviewed the deaths of 108 babies known to Family and Community Services (FACS) who died suddenly and unexpectedly. CDCR found that there was at least one modifiable risk factor known to increase the risk of SUDI in nearly all deaths reviewed and three or more modifiable risk factors were identified in over three quarters of the deaths reviewed. The stories of these babies who died provide a sobering read not least because they are confronting and distressing, but because many could have been so easily prevented.

1 Not his real name.
2 Known to FACS means the deceased child and/or their siblings who were reported to FACS within three years of the death.
3 The report also includes a review of a group of seven children aged one to two years who died unexpectedly during the five year period. Although infants aged less than 12 months are at most risk for SUDI, child death reviews have found the presence of modifiable risks in the sleep environments of young children aged one to two years similar to those found in the group of 108 infants. It is important that field staff are aware of the potential hazards in the sleep environments of older children that can also lead to tragic outcomes.
4 An overview of the key findings is provided at Appendix 1.
FACS has undertaken significant work for a number of years aimed at reducing the numbers of sudden infant deaths. FACS recognises the important and ongoing role it has in assessing safety in a baby’s sleeping environment because field staff are often in family homes where these babies die. Field staff can have enormous influence, and achieve positive outcomes with families. Promoting safety for babies presents a key opportunity to build relationships with families based on the mutual goal of ensuring that babies are placed to sleep safely.

While the work with the families of the 108 babies reflects on areas of practice that could be improved, the report also highlights practice that demonstrates change is possible when there is an effective response.

Field staff must be able to provide parents with well-informed and unambiguous messages about safe sleeping. When having conversations with parents, it is important to use language that is strong, clear and consistent. This report provides some helpful practice tips for field staff.

FACS will continue to do its part to support and educate parents to make safer choices when placing their baby to sleep. However, a whole-of-community response and the efforts of partner agencies are needed to identify new and innovative ways to reduce these deaths.

The stories in this report may be especially confronting for anyone who has experienced the death of their own baby or has worked with a family where sudden death of an infant occurs.
1 | Introduction

1.1 What is sudden and unexpected death in infancy?

Sudden and Unexpected Death in Infancy (SUDI) is a general term applied when seemingly healthy infants die suddenly and without warning, usually after the infant was placed to sleep or during sleep\(^5\).

The more familiar term SIDS – Sudden Infant Death Syndrome – is one of the subcategories of SUDI. SIDS is an exclusionary cause of infant death that cannot be explained after a thorough investigation, including performance of a complete autopsy and review of the circumstances of death and the clinical history. SIDS accounts for a large proportion of SUDI deaths (Krous et al., 2004).

While the cause of these infant deaths is not completely understood, there are a number of factors that increase the risk (Schnitzer, Covington & Dykstra 2012) and are referred to in the research literature as ‘non-modifiable’ and ‘modifiable’ risk factors (American Academy of Pediatrics 2011; Schnitzer et al., 2012). Non-modifiable risk factors are infant characteristics such as age, gender, premature birth, and low birth weight. Although infant characteristics are linked to the risk of SIDS, it is important to note that they are not necessarily causal (Child Death Review Unit British Columbia Coroner’s Service 2009). However, the co-existence of non-modifiable and modifiable risk factors, are linked to an even greater risk of infant death (Trachtenberg, Haas, Kinney, Stanley & Kraus 2012).

Modifiable risks\(^6\) are:

- sharing a sleep surface with another person, especially when that person is affected by alcohol, drugs or prescribed medication
- sleeping on surfaces other than those designed or recommended for infants such as a lounge, couch or beanbag
- placing the infant for sleep on the stomach or side
- loose and soft objects in the infant’s sleep environment such as pillows, doonas and toys
- exposure to cigarette smoke
- overheating.

Hazards in the infants’ sleeping environment increase the risk of fatal sleep accidents including accidental suffocation, asphyxiation and strangulation (Child and Youth Mortality Review Committee 2013).

Further information about what is meant by SUDI, SIDS and fatal sleep accidents is provided at Appendix 2.

---

\(^5\) NSW Child Death Review Team 2005.

\(^6\) SIDS and Kids NSW and Victoria (SIDS and Kids NSW and Victoria supports parents and families who experience the death of their baby or young child during pregnancy, birth, infancy and childhood including miscarriage, stillbirth, neonatal death, sudden unexpected death in infancy and the death of a child for any reason. SIDS and Kids NSW and Victoria focus is also on education through programs such as the Safe Sleeping Campaign (http://www.sidsandkidseastcoast.org/)); Queensland Health 2008.
Why focus on the infant’s sleeping environment?

CDCR review and analysis of the circumstances surrounding the 108 infant deaths identifies that many could have been prevented if their parents had been able to provide them with a safe sleeping environment. Ensuring infants are put to sleep safely any time of day or night can prevent or reduce the risk. Widespread safe sleeping campaigns – the most well known of these being the ‘back to sleep’ campaign in the United States during the 1990s – are credited with the decline in infant deaths in the stomach sleeping position (Trachtenberg et al., 2012). Existing research supports the need to address other and sometimes co-existing risk factors to further reduce the risk of sudden infant death (Vennemann et al., 2012). The great majority of babies whose deaths feature in this report were found to have died while sleeping somewhere other than their cot. Too many of them were sharing a sleep surface and in some cases with a parent affected by drugs or alcohol, with loose bedding or surrounded by cigarette smoke.

SUDI and the child protection context

As mentioned, while infants across all socioeconomic groups die in sudden and unexpected circumstances, infants known to child protection services are over-represented in SUDI deaths. The figure below shows that compared to the total number of SUDI deaths in NSW between 2008 and 2012, on average almost half of the infants were known to FACS over the same five year period.

Figure 1: Comparison of total SUDI deaths in NSW from 2008–12 with the SUDI deaths known to Family and Community Services

Families known to child protection services often present with a range of complex needs and vulnerabilities such as unemployment, lower parental educational achievement, transience, young parenting, domestic violence, parental mental illness and parental alcohol or drug use. These characteristics often impact on the choices parents make for...
their infants (Blair et al., 2009; Queensland Commission for Children and Young People and Child Guardian 2007; Victorian Child Death Review Committee 2005).

1.2 Scope and purpose of the project

This project was undertaken by the Office of the Senior Practitioner, Child Deaths and Critical Reports Unit (CDCR). It builds on the significant work FACS has already undertaken to ensure that field staff have strong awareness and understanding of the potential risks in a baby’s sleeping environment, and to address these risks when undertaking safety and risk assessments.

The report details the findings from the examination of the information available to FACS about the 108 infants, in particular coronial information about the cause and circumstances of their deaths, analysis of the child protection histories for the families of these babies, and casework attempts to address the risk factors for SUDI.

This report presents results from a survey of current field staff knowledge about SUDI. Some positive and encouraging observations are made about this, particularly current staff awareness of the risks associated with infants sharing a sleeping surface in combination with parental alcohol or drug use. A need for further knowledge development about other modifiable risks has been identified. This includes broader information about infants sleeping on an unsafe surface and the risk that loose objects in the infants sleeping area can pose. Field staff indicated that they wanted more training about safe sleeping and sudden infant death.

The project has three key purposes:

1. to identify risks, trends and patterns associated with these infant deaths
2. to identify current staff knowledge about SUDI and modifiable risk factors
3. to support staff to build on their existing knowledge about safe sleeping and further develop their understanding about the risk factors associated with SUDI so that they can provide clear, consistent, frequent and practical messages to parents about safe sleeping and reduce modifiable risks.

1.3 Report structure

The report is divided into six sections:

Section 1: outlines the background to the project

Section 2: highlights the significant work FACS has already undertaken targeted at reducing the numbers of sudden infant deaths

Section 3: presents information identified about the characteristics for the 108 infants and seven young children aged one to two years

Section 4: provides information about what was discovered in the infants’ sleep environments. This section includes de-identified case studies to illustrate the infants’ experiences. Sections 3 and 4 draw on research literature about safe sleeping and sudden infant death
Section 5: presents results from the survey about current staff knowledge of SUDI. This section also discusses the implications for practice

Section 6: provides information about FACS initiatives currently underway and makes recommendations to further support practice development.

1.4 Methodology

The cases
Information was obtained from the NSW Child Death Review Team (CDRT) about infants who died from 2008 to 2012 and who were known to FACS, and had been determined, by the CDRT, to have died suddenly and unexpectedly\(^8\),\(^9\). Information provided by the CDRT was cross-referenced with the list of cases compiled by CDCR. Cases were also included that meet FACS criteria for child death review that may not have been included in the list provided by the CDRT\(^10\).

The project also included the cases of seven children aged one to two years who died in the same five-year period and where there was evidence of modifiable risk factors in their sleep environment. While the primary focus of the project is on the vulnerability of infants aged less than 12 months, the intention of including observations made about the sleeping environments of older children is to highlight that vulnerability to the risk of sudden death can continue beyond 12 months.

Data collection and recording
As mentioned, CDCR identified a total of 108 infants for inclusion in the project. Data was collected about the infants’ demographics, characteristics, and child protection histories. This involved a comprehensive review of electronic Key Information and Directory System (KIDS) records, available coronial information including autopsy reports\(^11\), the police report of death to the Coroner, police brief of evidence to the Coroner and any other sources of information available that provided additional detail about the infants and their sleeping environment. Information about modifiable and non-modifiable risk factors was positioned alongside information available in the literature about sudden unexpected death in infancy. Similarly, data collection and recording occurred for seven children aged one to two years.

The data was then examined for the purposes of identifying trends and themes in risk factors, circumstances of death, interaction between the infants’ child protection history and examples of casework attempts to discuss and address the risk factors for SUDI.

---

\(^8\) Information was obtained from the NSW CDRT pursuant to section 34L of the Community Services (Complaints, Reviews and Monitoring) Act 1993 which gives the convenor of the CDRT discretionary power to authorise the making of records and disclose information for the purposes of research undertaken for the purpose of helping to prevent or reduce the likelihood of deaths of children in NSW.

\(^9\) The NSW CDRT receives data directly from the NSW Registrar of Births, Deaths and Marriages and classifies each death using the ICD-10-AM. This stands for the World Health Organisation’s International Classification of Diseases 10th revision, Australian Modification. The sources for coding of cause of death are medical certificates of cause of death an in the case of deaths that are examinable by the Coroner, autopsy reports and coronial certification of cause of death.

\(^10\) Government agencies in NSW have different criteria for child death reviews.

\(^11\) Post mortem information was available for 91 of the 108 infants.
State-wide survey

In February 2013, all CSCs across the state were invited to take part in a voluntary online survey about SUDI\textsuperscript{12}. CDCR sought involvement from senior district staff to distribute information to Community Services Centres (CSCs) via email about the survey with instructions for completion. Staff were informed that the survey formed part of a project of CDCR and were given two weeks to complete it.

The six survey questions were designed to gauge existing knowledge about the risk factors for SUDI, to elicit how this knowledge is used in their work with families and to identify additional staff learning needs. A copy of the survey questions is provided at Appendix 3. Field staff were also asked to describe any cases where they had witnessed or heard about parents making changes to reduce risk after having discussed the risks with them. CDCR received 176 responses to the survey.

Project limitations

The project is not without its limitations. CDCR was reliant on information previously obtained about the infants (during the course of review work) and as such was dependent on the accuracy and completeness of this information. Information about modifiable risk factors in each of the sleep environments for the 108 infants across the five-year period was not consistently available. A review of casework files was not completed for each of the 108 cases. This may have provided greater detail than that available on the electronic KIDS database. Where information about FACS and other service\textsuperscript{13} involvement with the family was available, details surrounding discussions about safe sleeping practices with parents were not. Interviews with field staff about their involvement with families were not conducted in all cases\textsuperscript{14}. The low response rate of approximately 11 percent limits the ability of the survey results to accurately represent the view and knowledge of field staff across the state.

It is acknowledged that these limitations have implications for the project findings.

\textsuperscript{12} Staff in all program areas were invited to take part in the survey.

\textsuperscript{13} For example NSW Health and Community Health Centres.

\textsuperscript{14} CDCR undertakes different levels of child death reviews which can involve a review of KIDS records only to a more comprehensive level of review involving consultation with district staff.
2 | The work so far

Since 2007, FACS has focused on understanding deaths of vulnerable infants and has engaged in a number of organisational learning initiatives aimed at reducing the numbers of sudden infant deaths. A strong focus of these initiatives has been on addressing the risk of infants sharing a sleep surface (co-sleeping)\(^\text{15}\) especially in combination with parental alcohol and/or drug use.

The learning initiatives are:

- a cohort review in 2008 which examined the deaths of 35 infants between 2005 and 2007 while sharing a sleeping surface
- action learning forums to develop targeted training and learning resources
- rollout of training to frontline child and family staff across the state in 2009 and 2012. This included developing resources to raise parents’ awareness of risk.
- changes to the entry level Caseworker Development Program (CDP) to include training on safe sleeping
- access by caseworkers to the internal Clinical Issues Unit where clinical consultants can provide specialist advice about substance abuse, mental health and domestic violence to frontline workers
- changes at FACS Child Protection Helpline to include definitions and thresholds concerning co-sleeping and substance abuse
- sharing safe sleeping information with authorised carers
- initiating collaboration with other agencies, including NSW Health.

In addition to these initiatives, FACS Office of the Senior Practitioner continues to raise awareness of SUDI risk factors through discussions, practice reviews and recommendations. Additional detail about FACS work so far is provided below.

2.1 Co-sleeping: a wake up call

In 2007–08 FACS undertook a project that considered a cohort of 35 infants known to FACS who died while co-sleeping between 2005 and 2007. This project resulted in the publication of an issues paper that was made available to staff.

A variety of education materials were developed for staff to use with parents and to raise public awareness including factsheets, posters, fridge magnets and wallet cards. These are aimed to assist caseworkers when discussing the risks of co-sleeping with parents. This includes materials specific for Aboriginal families.

2.2 Rollout of learning initiatives

In 2008 as part of the cohort review, an action learning strategy was undertaken to deliver the findings to staff and to identify further learning to assist caseworkers in discussing safe sleeping with vulnerable families.

\(^{15}\) The terms ‘sharing a sleep surface’ and ‘co-sleeping’ are used interchangeably throughout this report.
In 2009 information about the risks of co-sleeping was delivered to all child and family casework staff in FACS across NSW. In 2012 this information was updated and included in a state-wide rollout of presentations to managers client services, directors child and family and managers casework at Management Cluster meetings. Managers casework are responsible for overseeing the work and decision making of casework staff across the spectrum of FACS core work including child protection, early intervention and out of home care teams. This presentation was provided to all casework specialists and managers casework with information to support them to deliver the learning in their teams.

2.3 Changes to the Caseworker Development Program

Since 2011 one of the modules in the entry level training for new caseworkers – the Caseworker Development Program (CDP) – requires all new caseworkers to learn about the findings from child death reviews and the risks to children living with a parent who uses drugs and/or alcohol. This includes reviewing the risks associated with co-sleeping when a parent is substance affected. The module explores how to discuss co-sleeping risks with parents, and provide clear and consistent messages to parents about ensuring a safe sleeping environment. Caseworkers also attend a workshop that includes discussion on SIDS and the risks associated with co-sleeping.

2.4 Clinical support for field staff

FACS Clinical Issues Unit provides a clinical consultation service and learning forums. Specialist advice is provided to assist field staff to assess and manage cases where drug and alcohol misuse, mental illness or domestic violence (or a combination of these) present a risk to the safety and wellbeing of children and young people. Consultancy services can be accessed via telephone, email or face-to-face.

FACS recognises that a special focus on the needs of children is necessary because many services do not recognise the separate and distinct needs of the children who live in families where these problems place them at risk.

2.5 Helpline’s process for identifying the risk of co-sleeping

Changes to the Helpline Structured Decision Making (SDM) tools have been implemented following the recommendations made from CDCR internal reviews of co-sleeping deaths.

The SDM screening tool defines the statutory threshold ‘risk of significant harm’ criteria for an investigation by FACS. The SDM script provides definitions about ‘intoxicated/impaired parent/carer co-sleeping with an infant (younger than 12 months) or persistent sleeping arrangements that are likely to result in suffocation from objects or persons’. If it is reported that a parent/carer is under the influence of drugs or alcohol and is ‘persistent’ co-sleeping with an infant, or their sleeping arrangements are likely to result in suffocation from objects or persons, then the report has met the threshold.
2.6 Sharing safe sleeping information with carers

FACS has an important responsibility to improve outcomes for children and young people in out-of-home care. FACS has made a number of changes to policies and procedures that directly relate to an infant’s sleeping arrangement in the home of authorised carers.

In 2011 the ‘Home Inspection Checklist’ used by FACS as part of the authorisation process for carers was amended to include additional information about safe sleeping practices, SIDS and the assessment of cots used by carers. The ‘At Placement Checklist’ was also updated to ensure that when a child under two years of age is placed with a carer they are provided with safe sleeping information via the provision of a safe sleeping brochure developed by SIDS and Kids NSW and Victoria. The provision of information about safe sleeping at the time of placement is in line with the ‘just in time’ principle that information is better remembered when it is provided at the time it is needed.

FACS has also implemented a number of improvements to the sharing of information about safe sleeping practices. In 2012 Regional Foster Carer Advisory Groups held discussions about safe sleeping. These groups operate state wide and determine the best ways to identify any issues, implement strategies and support carers and placements within each local network. Some FACS regions\(^\text{16}\) sent the safe sleeping brochures and information to the carers in their network; other regions facilitated discussion about safe sleeping issues within their local meetings.

In 2012 an article about SIDS and safe sleeping practices, drafted by CDCR, was published in the autumn edition of *Fostering our Future* newsletter, which is distributed to all authorised carers. A further article was prepared for the 2013 spring edition.

A significant proportion of FACS authorised carers have been transferred to non-government organisations (NGOs) as part of the out-of-home care reforms being implemented across NSW. With this in mind, FACS is working with Connecting Carers NSW\(^\text{17}\) and has developed a training package called ‘Special Babies’ for carers in NSW. The presentation and written materials include information about safe sleeping practices to reduce the risk of SIDS.

The *Working together – safer sleeping for children under the age of two* information sheet is provided to carers authorised with non-government organisations.

2.7 Interagency collaboration

In 2013 FACS Office of the Senior Practitioner had meetings with Maternal, Child and Family Health, NSW Kids and Families to explore opportunities for collaborative work to improve outcomes for infants in vulnerable families. A commitment has been made to develop clear and consistent messages about safe sleeping as a priority when working with shared vulnerable clients.

\(^{16}\) Localisation of FACS regions into the 15 FACS districts commenced in September 2013.
\(^{17}\) Connecting Carers NSW is a FACS funded organisation that provides support, education and training to authorised carers across NSW.
3 | What do we know about the infants?

This section presents information about the characteristics of the 108 infants alongside what the research literature tells us about sudden infant death\(^\text{18}\).

3.1 Cause of death

The figure below provides details about the cause of death for the 108 infants.

**Figure 2: Cause of death details for the 108 infant deaths, 2008–12**

![Cause of death chart](image)

Details about the cause of death for the 108 infants are consistent with research studies that show that a large proportion of SUDI deaths are SIDS deaths (American Academy of Pediatrics 2011).

Forensic examination could not determine a cause of death for 22 infants\(^\text{19}\). For the six infants who fall within the category of ‘other sleep-related infant deaths’, the cause of these infant deaths was asphyxiation (3), suffocation (1), inhalation of gastric content (2)\(^\text{20}\).

For 16 infants, the cause of death was found to be the result of an illness or medical condition that had seemingly not been identified or considered life threatening before the infant died. The medical conditions included pneumonia, infections and congenital heart conditions. The infants’ ages ranged from nine days to 10 months.

Cause of death details for 16 infants is pending finalisation of post mortem investigations.

---

\(^{18}\) Information to inform this section was gathered from FACS records, the State Coroner’s Office and the NSW Ombudsman’s Office.

\(^{19}\) These infant deaths fall within the category of undetermined/unascertained.

\(^{20}\) For the two infants who fall within the ‘other’ category, one infant died from a fatal assault the result of head injuries which was discovered at autopsy. Cause of death details for the other infant was consistent with drowning (the mother was reportedly unaware that she was pregnant and believed the labour pain she was experiencing was due to gallstones). Some sudden infant deaths result from non-accidental injuries, accidents, trauma, poisoning where the cause of the infant’s death was not known at the time of their death.
3.2 Age of the infants

Ninety-three of the 108 infants (86 percent) were less than six months old when they died. Fifty-five of the 93 infants (59 percent) were aged between one and four months, and 15 infants were less than four weeks old. Fifteen of the 108 infants (14 percent) were aged between six and 12 months.

Figure 3: Age of infants who died in sudden unexpected circumstances, 2008–12

The age patterns described in the figure above are consistent with findings in the research literature on sudden infant death. While all infants under the age of 12 months are at risk of sudden infant death, infants aged less than six months are more at risk. Infants aged less than four months are at greatest risk with a heightened vulnerability for infants aged between two and four months (American Academy of Pediatrics 2005; Mitchell 2009).

3.3 Gender

Of the 108 infants, 69 (64 percent) were boys and 39 (36 percent) were girls. This is consistent with research findings which indicate that boys statistically are at higher risk for sudden infant death than girls (Blair et al., 2006). The over-representation of male children in child deaths has been consistently identified in NSW over the past five years.\(^{21}\)

3.4 Aboriginal and/or Torres Strait Islander infants

Thirty-four of the 108 infants (31 percent) were identified as Aboriginal and/or Torres Strait Islander. This is a significant over-representation, being a third of the infants known to FACS who died suddenly and unexpectedly over the five years.\(^{22}\)

---

\(^{21}\) NSW Child Death Review Team (2012) and FACS child death data.

\(^{22}\) Between 2008 and 2012 on average 26 percent of the children who died and were known to FACS were Aboriginal and/or Torres Strait Islander. Over the same five year period 31 percent of SUDI deaths were of Aboriginal and/or Torres Strait Islander infants.
Twenty-two of the 34 Aboriginal and/or Torres Strait Islander infants were boys, and 22 were less than three months old when they died. In 22 cases the infant was sharing a sleep surface with one other person. In four of these cases, the parent was under the influence of alcohol or drugs at the time. Almost two-thirds of the infants (22 of the 34) were born into families with a sibling group of three or more children in comparison to almost one-half (36 of the 74 infants) of non-Aboriginal and/or Torres Strait Islander children.

CDCR findings are consistent with NSW figures overall. Aboriginal and/or Torres Strait Islander children are over-represented in sudden infant deaths (Australian Bureau of Statistics 2011). The death rate of Aboriginal and/or Torres Strait Islander infants is more than four times the rate of other infants – for SIDS alone, almost three times the rate. The highest mortality rate from SIDS is reported for the one to two month age group for Aboriginal infants. Aboriginal and/or Torres Strait Islander infants die at almost six times the rate than non-Aboriginal and/or Torres Strait Islander infants at this age (Wilson, Quine & Lewis 2010).

Many Aboriginal people are significantly disadvantaged. This includes the effects of historic trauma associated with colonisation, dispossession and institutionalisation including high levels of domestic violence, homelessness and substance misuse (Atkinson 2013). Structural disadvantage including severe poverty, economic deprivation, intergenerational abuse and neglect, poor housing and parental alcohol and drug misuse, is at the heart of child protection concerns in Aboriginal families (Blackstock 2008). These concerns featured significantly in the families of the 34 Aboriginal infants. CDCR found that the families frequently lived in unstable housing or stayed in overcrowded households with relatives, often with unsuitable bedding for babies.

Aboriginal women who participated in an evaluation of the effectiveness of the co-sleeping/bed-sharing policy across maternity health services in Western Australia said that they understood the messages given about ‘co-sleeping’ but that there were a number of reasons why they chose this practice. Women maintained that socio-economic circumstances including overcrowded living conditions and limited access to resources meant that co-sleeping was inevitable and viewed this as even more likely in rural areas (Dodd 2012).

### 3.5 Prematurity

Prematurity is a well known infant vulnerability for sudden infant death (British Columbia Coroner’s Service 2009). Information available to FACS indicates that 37 of the 108 infants (34 percent) were born prematurely. Fifty-seven infants (53 percent) were born full term. Information on gestational age was not available for 14 infants.

Prenatal reports were received for 16 of the 37 infants. Reported concerns were about poor prenatal care (eight infants), parental alcohol or drug use (seven infants), domestic violence (five infants), and unhygienic living conditions (three infants). Prenatal reports present critical opportunities during pregnancy and hospital stays after an infant’s birth for FACS to offer services to parents and assess the parents’ openness to work on issues that are important to the baby’s safety and wellbeing.

---

23 These are infants born at 37 weeks gestation or less (NSW CDRT 2012).
24 Given that this information was not known for all of the infants, the figure could in fact be much higher.
Reported concerns after the infants’ birth were about:

- parental alcohol or drug use (25)
- domestic violence (23)
- parenting skill development (21)
- maternal alcohol and/or drug use during pregnancy (14).

### 3.6 Illness or medical condition

Sixty-seven of the 108 infants (62 percent) had a recent illness or medical condition. In 40 of 67 cases, in the two weeks leading up to the infant’s death, the infant had a viral illness or symptoms – cough, slight cold, runny nose, temperature, nasal congestion. Three infants had been treated for asthma, seven for respiratory/chest infection, two for pneumonia, five for bronchitis and one for whooping cough. Other cases included the infant being treated for protein intolerance, colic, reflux, thrush, and dermatitis.

Withdrawal from a substance was an identified condition for nine infants. Seven were being treated for neonatal abstinence syndrome (NAS[^25], and two for drug withdrawal – one infant from amphetamines and methadone, and the other from opiates).

### 3.7 Birth order

The figure below shows that many of the infants were born into a large sibling group. Of the 108 infants, 22 (20 percent) were first born in their family, 28 (26 percent) were second born, 21 (19 percent) were third born, and 22 (20 percent) infants were fourth born in their family. The remaining 15 infants were born into a sibling group of five or more. In three cases, the infant who died was a twin.

![Figure 4: Infant order of birth](image)

[^25]: Neonatal abstinence syndrome (NAS) is the withdrawal response that occurs when an infant is exposed in utero to maternal drugs of addiction. NAS is characterized by irritability, tremors, hypertonicity, tachypnoea, vomiting and diarrhoea. Although NAS is more typically seen in opiate withdrawal, similar symptoms are seen when withdrawing from benzodiazepines, barbiturates and alcohol (Lall 2008).
As mentioned earlier, almost one-half (36 of the 74 infants) of non-Aboriginal and/or Torres Strait Islander infants were born into a sibling group of three or more children compared to almost two-thirds (22 of the 34 infants) of the Aboriginal and/or Torres Strait Islander infants.

Families with complex issues including homelessness, poverty, transience, are poorly resourced and living in overcrowded conditions can lead to unsafe sleeping environments for infants. These families may lack the availability of appropriate bedding and/or create the need for makeshift sleeping arrangements that are potentially dangerous.

3.8 Season

Figure 5 shows that more infants died in the cooler months of autumn and winter. Thirty-six of the 108 infants (33 percent) died in winter and 29 (27 percent) in autumn. Research has identified seasonal factors as a risk for sudden infant death with suggestions that there is a peak in winter (British Columbia Coroner's Service 2009). This may relate to infant illness associated with the cooler months, and overheating resulting from infants being dressed with more layers of clothing, additional layers of blankets, and use of heaters. Excessive clothing and/or bedding, and room heating, can contribute to the risk of the infant overheating by providing insulation, preventing infants from losing heat, and regulating body temperature (Wailoo, Peterson, Whittaker & Goodenough 1989).

Figure 5: Incidence of sudden infant death by season, 2008–12
3.9 Location

Ninety-two of the 108 infants (85 percent) died in their usual home environment. For the other 16 who were away from home:

- eight were in parental care at the home of relatives or friends
- two infants were in hotel accommodation with their parents
- two infants died in hospital
- one infant and her mother were in approved supported accommodation
- one infant was in the car
- information about where the infant died was not available for two infants.

Although the majority of the infants were in their usual home environment when they died, the findings point to the importance of safe sleeping arrangements for babies when they are away from home. These findings are supported by a German study (Vennemann et al., 2009), which found that infants sleeping at a friend’s or relative’s home were at higher risk of SIDS than those sleeping at their usual family home. This is linked to changes in the infants’ sleep routine or lack of availability of a safe place to sleep.

3.10 Young parent families

In 34 of the 108 cases (31 percent), the infant was a child of a young parent. For the purposes of this report, a young parent family is defined as either one or both parents being under the age of 22 years\(^{26}\). Figure 6 shows that of the 34 young parent families, 33 infants had a mother who was less than 22 years old. Ten infants had a father who was less than 22 years old\(^{27}\).

Over one-third of the young parent families (14 out of 34) were Aboriginal and/or Torres Strait Islander. Intergenerational patterns of risk featured in almost two-thirds of the young parent families (20 out of 34). These families often present with entrenched intergenerational parenting problems and multiple child protection risk factors across successive generations.

For 25 of the families, the infant was born into a multiple sibling group.

More than three-quarters of the infants in young parent families (28 out of 34) were aged six months or under. As with SUDI deaths in general, boys were over-represented in the young parent families (20 out of 34) of the sudden infant deaths in young parent families. Girls accounted for less than half in this group (14 out of 34).

---

\(^{26}\) This is consistent with FACS reporting about young parents families in the Child Deaths 2011 Annual Report.

\(^{27}\) Information about the age of the infant’s father was not available in nine of the 34 young parent families.
Research has identified higher rates for both SIDS and SUDI and shared sleeping related deaths in young parent families (Paterson 2012; Fu, Colson, Corwin & Moon 2008). In the 34 young parent families, the cause of death for 15 infants was attributed to SIDS. In 13 of the 34 cases, the infant died while sharing a sleep surface. While alcohol or drug use featured in the circumstances of death in only one case, this was a reported child protection concern in 20 of the 34 young parent families.

Other child protection concerns in the 34 young parent families included:

- domestic violence (21)
- the need for parenting skill development (21)
- parental alcohol and/or drug use (20)
- parental mental health concerns (19)
- poor prenatal care (16)
- neglect (10)
- physical abuse (10)
- homelessness (9)
- transience (8).
3.11 Child protection history

Seventy-nine of the 108 infants (73 percent) were reported to FACS prior to their death – this was either a pre or postnatal report. The remaining 29 infants had a sibling reported to the agency prior to the infant’s death\(^{28}\). Five infants were under the parental responsibility of the Minister.

**Figure 7: Total number of reports received for the 108 infants and/or their siblings**

The figure above shows that just under half of the infants and/or their siblings were reported to FACS five times or less. For the others, they were reported on six or more occasions.

Reported child protection concerns were about:

- domestic violence (74)
- parental alcohol or drug use (73)
- abuse and/or neglect (58)
- parental mental health concerns (57)
- maternal alcohol and/or drug use during pregnancy (32)
- homelessness (29)
- transience (16).

Parents who present with multiple risks including domestic violence, mental health problems, and substance misuse issues are at greater risk of experiencing wider societal disadvantage including housing instability, poverty, financial difficulties, low educational attainment and social marginalisation (Bromfield, Lamont, Parker & Horfall 2010). These challenges can directly impact on, parenting, and undermine the capacity of parents to prioritise the safety of their infants (Victorian Child Death Review Committee 2005).

---

\(^{28}\) The deaths of these 29 infants were captured in the review as their deaths meet the FACS child death review criteria; that is children known to FACS are defined as those where a report was received about the child or their sibling, in the three years prior to their death.
Information about the infants’ living conditions, in particular overcrowding, is recorded inconsistently. CDCR data was able to capture the number of people living in the home including the infant – but not necessarily the ratio of bedrooms in the home, or details about the sleeping arrangements for the infant and other children living in the home. CDCR data shows that in 53 out of the 108 (49 percent) cases, there were five or more people living in the home (including the infant). In 29 out of the 53 (55 percent) cases, the infant was co-sleeping with an adult or sibling. CDCR data also shows that co-sleeping continues to occur across all family sizes.

Intergenerational patterns of risk featured in 41 of the 108 (38 percent) family histories. As previously mentioned, these families often present with entrenched intergenerational parenting problems, and multiple risk factors – such as those described above – across successive generations. Infants who move between extended families where multiple risks are present can experience instability in care arrangements. Safe sleeping arrangements in the various home environments may not be available which can impact on the choices that are made for infants.

In 50 out of the 108 cases (46 percent) the infant or their sibling received a face-to-face child protection assessment. Of these:

- 30 (60 percent) infants or their sibling received an assessment within 12 months of the infant’s death
- in nine cases (18 percent) the sibling received an assessment within three years of the infant’s death; and
- in 11 cases (22 percent) the assessment involving a sibling was more than three years old.

In 58 out of the 108 cases (54 per cent), the infant or their sibling did not receive a face-to-face child protection assessment.

In nine cases siblings were removed following the infant’s death due to a number of risk issues being identified. In one of these cases, after further assessment, the siblings were restored to their parents’ care.

### 3.12 Previous infant death in family

Eleven families experienced a previous death of an infant – either in the immediate or extended families. In seven families, the infant died from sudden infant death. In two other families, the infant died from a medical condition, and in the last family, a set of twins died from extreme prematurity.

---

29 This includes siblings and half-siblings.
What was found in the infants’ sleep environment

CDCR in-depth analysis of the sleeping environments of the 108 infants made a number of important observations and key findings. The most tragic of these is that for 103 of the 108 infants (95 percent), there was at least one modifiable risk in their sleeping environment known to increase the risk of sudden and unexpected death. What CDCR found even more concerning is that three or more modifiable risks were present in 79 of the 103 (77 percent) sleeping environments. Modifiable risks are:

- sharing a sleep surface with at least one other person, especially when that person is affected by alcohol, drugs or prescribed medication
- sleeping on surfaces other than those designed or recommended for infants such as a lounge, couch or beanbag
- sleeping on their stomach or sides
- loose and soft objects in the infants’ sleep environment such as pillows, doonas and toys
- exposure to cigarette smoke
- risk of overheating.

A breakdown of the modifiable risks in the sleeping environments for the 103 of the 108 infants is provided in figure 8. This section discusses these in more detail.

Figure 8: Modifiable risk factors in the infants’ sleep environment

This section is informed from the review of FACS records and coronial information, and is also positioned alongside literature about modifiable risks. The case studies throughout this section are informed by what parents have told authorities about the circumstances leading up to their baby’s death.
4.1  Inappropriate and unsafe sleeping surface

What the data tells us

In only 18 out of the 103 cases (17 percent) was the infant placed to sleep on an appropriate surface designed and recommended for infant sleep – a cot. In 82 cases (80 percent), the infant was put to sleep, or had fallen asleep on a surface not designed or recommended for infants.

The most frequently identified inappropriate and unsafe surface that the infant was placed to sleep was a type of bed, accounting for 49 of the 82 (60 percent). The types of bedding were an adult bed (43), a single bed (3), a futon bed (1), a makeshift bed (1) and a toddler bed (1). Other unsafe sleeping surfaces included a bassinette/bouncinette (9), mattress on the floor (8), couch or lounge (7).

The category ‘other’ contains the following inappropriate and unsafe sleeping surfaces: portable cot (5), pram (2), child-sized foam chair that folds out into a mattress (1), and in one case, the baby was put to sleep on the floor (1).

Figure 9: Reported infant sleeping surface

---

31 A safe cot is one that meets Australian Safety Standard (AS2172).º
32 The NSW Child Death Review Team considers portable cots to be an inappropriate sleep surface (NSW CDRT 2012).
33 Portable cots are not a fixed infant sleep environment and are intended for temporary use. They also meet a different Australian Safety Standard to cots (AS/NZS 2195:2010). (Mandatory safety requirements for portable cots took effect in March 2009. The updated standard was published in February 2010). The standard includes requirements for ensuring the folding mechanism is secure. Because portable cots are foldable and transportable, they are subject to more wear and tear and are generally less robust than permanent sleeping environments – household cots. Portable cots can present risks to infants, particularly if it is broken and is second hand (e.g. if the mesh is torn, there a broken parts, and a mattress is used other than one specifically designed for it). Adding a second mattress to the portable cot can cause an infant to become trapped in gaps between the mattress and sides. The face can become trapped and covered (SIDS and Kids NSW and Victoria, KidSafe NSW). Bassinettes, carry cots, and baby hammocks are not captured by the current folding cot mandatory safety definition (Product Safety Assessment, Australian Competition and Consumer Commission http://www.productsafety.gov.au/content/index.phtml/itemId/975000)
Details about the baby’s sleeping arrangements were not recorded in one case, and in another, the baby died in hospital after being presented in an unwell condition. In a third case, the infant died after falling asleep in a car capsule during a short car trip.

**What are the risks?**

The risks of sleeping infants on a surface other than one designed for infants, significantly increases the risk of infants suffocating or asphyxiating after becoming wedged or trapped (Collins 2001).

Wedging occurs when:

> ‘An infant’s body or face is compressed within a narrow space, resulting in asphyxia from interferences with chest wall movements or obstruction of the airway.’

(Collins 2001, p.158)

Infants can become wedged between the person in the infant’s sleep environment, between the other person and a wall, between a mattress and wall, or the bed-head.

**Kelly**

Kelly was a seven month old baby. Kelly was brought home after having spent the previous night at a relative’s home. Kelly’s cot had not been returned with her. At 9pm on the evening of her death, Kelly was put to sleep on a mattress on the floor. The mattress was pushed up against the wall. Kelly was placed to sleep on her back and covered with doona. When Kelly was checked on shortly after midnight, she was found wedged between the mattress and the wall. Post mortem determined that the cause of Kelly’s death was ‘positional asphyxia.’

**Kyle**

Kyle was a four month old baby. On the evening before his death, Kyle was given a bottle of formula and then put to bed by his mother’s partner. Kyle was placed on the double bed in between pillows. He was wrapped in a single sized doona. His head was exposed. Kyle was placed on his back and left on the bed to sleep. Kyle’s mother checked on him just after 9pm. He was still asleep. At midnight, the mother’s partner went to get Kyle for his scheduled feed. He noticed that Kyle’s position had changed. Kyle was on his side with his face pressed against the bedroom wall. Kyle’s face was purple. The cause of Kyle’s death is not yet determined.

Sofas, lounges and couches may also have gaps that can entrap an infant. While an adult sleeping with an infant on a lounge or sofa may result in accidental asphyxia, it is also possible for infants to become wedged and asphyxiate when sleeping alone on the lounge or sofa. For this reason infants should not be placed to sleep on a lounge or sofa, regardless of whether or not they are alone or with another person (Byard, Beal & Blackburn, 2001a).
Liam
Liam was a seven week old baby. At 1.30am, Liam’s nappy was changed by his mother. She then lay down on her back on the lounge and placed Liam on her chest. Liam was on his stomach with his head on his mother’s shoulder, facing towards her neck. The mother also placed a doona over Liam. When the mother woke at 6.30am, she noticed that Liam was still in the same position. He was purple and not breathing. The post mortem determined that the cause of Liam’s death was Sudden Infant Death Syndrome – Category II.

Ricky
Ricky was a five month old baby. Several weeks before his death, he was diagnosed with a respiratory condition. At 5.30am on the morning of his death, Ricky was fed by his mother then propped up against an infant pillow situated on the parent’s bed. Ricky then fell asleep. Four hours later when his mother went to check on Ricky, she found him face down off the pillow with the doona covering the back of his head. The post mortem determined that cause of Ricky’s death was Sudden Infant Death Syndrome.

CDCR records contain very limited information about the condition of the cot slept in by the 18 infants. Cots that are broken or are in poor condition may have large gaps that increase the risk of accidental asphyxia, entrapment and suffocation (Byard 2004). Current messages for the prevention of sudden infant death – particularly those promoted by SIDS and Kids NSW and Victoria – indicate the need to ensure the use of a safe cot that meets the current Australian standard, and a mattress that is firm, clean, flat (not tilted or elevated), and is the right size for the cot (SIDS and Kids NSW and Victoria).

Tim
Tim was a three month old baby. At 9.30pm he was placed to sleep in his cot. A blanket and a quilt were used to cover him. The cot also contained an adult pillow. The mattress was covered with an underlay sheet and a large blanket. Under these, were another sheet and quilt – both oversized for the cot. The mattress itself had a large concave in the middle. The next morning at 8.30am, his mother found Tim lying on his back in the middle of his cot, seemingly still asleep. When she tried to wake him, there was no response. The post mortem determined that the cause of Tim’s death was Sudden Infant Death Syndrome – Category II.

Other unsafe sleep surfaces include v-shaped pillows, waterbeds, mesh-sided cots, stroller prams, and overhead suspended rocking cradles. Infants can become trapped between a thick mattress and the side of a mesh cot, entangled in the mesh if it is torn, caught between the edge of the mattress and side rails or between the slats of a crib. In addition, ‘sitting devices’ including prams, strollers, car seats and infant slings should not be used as a permanent sleeping surface. Infants, especially those younger than four months, are at particular risk because they might assume a position that can create the risk of suffocation or airway obstruction (American Academy of Pediatrics 2011).
### 4.2 Shared sleep surface

#### What the data tells us

The figure below shows that 58 of the 103 infants (56 percent) were sharing a sleep surface (otherwise known as co-sleeping) with at least one other person prior to their death. The ages of these infants ranged from seven days to eight months. The majority of these infants were less than three months old (42 out of the 58 or 72 percent).

In 42 of the 58 cases (72 percent), the infant was sleeping with either one or both of its parents or other adult\(^{34}\). In 25 of the 58 cases (43 percent), the infant was sleeping with its mother.

![Figure 10: Infants’ shared sleep surfaces](image)

CDCR data found that 11 of the 58 infants were sharing a sleeping surface with a parent who was substance affected. This is discussed further in part 4.3.

#### What are the risks?

The practice of adults sharing a sleep surface with their infant is controversial. Advice provided to parents about this practice is mixed. Some countries, such as the United States, advise parents not to sleep with an infant less than three months old, while other countries including Australia, advise only certain parents such as smokers and those affected by alcohol or drugs, not to sleep with their infant (Carpenter et al., 2013). Those who support the practice argue that there are wide ranging benefits for the infant with one study contending that the practice can protect against SIDS by increasing the number of arousals in infants’ sleep (Carroll-Pankhurst & Mortimer 2001). Parents may bring their infant into bed with them with positive intention to help their baby to settle, to promote bonding or to feed the baby. The well-intentioned actions of parents are demonstrated in the following two stories about Teagan and Adam. For both babies, the parents had a reported history of alcohol or drug use; however, it was not reported that this was a contributing factor in either death. In addition, co-sleeping was not identified as a contributing factor to Adam’s death.

\(^{34}\) The “other adult” in two cases was the mother’s intimate partner.
Teagan
Teagan was a four week old baby. At 10pm on the night of her death, she was wrapped in a blanket and placed to sleep in her cot located beside the parent’s bed. At 1am, Teagan’s father was woken to her coughing. After giving her some formula, her father again wrapped Teagan in the blanket. On this occasion, to help Teagan to settle, the parents put Teagan in between them on the bed. Teagan’s father cradled her in his arms. When the parents woke four hours later, Teagan was not breathing. The post mortem determined that her cause of death was Sudden Infant Death Syndrome. It is noted in the report that ‘the circumstances of bed sharing with an adult and the admissions later made by the father suggest the child may have been in a position where the airway (nostrils and mouth) was occluded during sleep.’

Adam
Adam was a three month old baby. In the weeks prior to his death, he developed a cough, had vomited milk on two occasions, and was observed by his parents to be drowsier than normal. On the night before his death, Adam was given formula at 8pm before being put to sleep. His parents retired for the evening a couple of hours later. Adam and both his parents shared a single bed. At 5am the next morning, the infant was found dead. The family lived in a caravan with no internal heating. After the baby had died, the mother told police that she slept with her baby because of the cold weather. The post mortem determined the infant’s cause of death was ‘bronchopneumonia’. The post mortem report noted that the ‘cough and vomiting prior to the infant’s death confirmed the onset of pneumonia. Cold weather with the absence of heating in the caravan where the infant lived would have further aggravated the lung infection.’

Research highlights that sharing a sleep surface is linked with an increased risk of SUDI, including SIDS and fatal sleep accidents, and that parents may be unaware of or receive inconsistent and ambivalent information about how to sleep their infant safely. The message that child protection workers need to be giving to parents – clearly and frequently – is that the safest place for their infant to sleep is in a cot, preferably located in the parent’s room beside the parent’s bed35.

A range of views have been expressed in the public domain about the practice of parents sleeping with their infant. In July 2012, in the case of ‘Baby K’, the Victorian Coroner described the practice as ‘inherently dangerous’ and criticised the inconsistent advice provided to parents about the practice (Inquest into the Death of Baby K in the Coroners Court of Victoria 2012). The Tasmanian Coroner similarly echoed the Victorian Coroner’s findings, following an inquest into the death of ‘Baby A’, urging parents to put infants to sleep in their own cot36. Recently, the NSW State Coroner acknowledged FACS efforts to share safe sleeping information and reiterated the Victorian Coroner’s statement about the importance of consistent cross-agency messages.

35 The widely promoted safe sleeping message by SIDS and Kids NSW and Victoria is that it is preferable that the cot is located in the parents’ room beside the parent’s bed.
When infants share a sleep surface with another person the risk of ‘overlaying’ is increased. Overlaying is the:

‘Accidental death of a child by smothering resulting from a larger individual sleeping on top of the baby in the course of deep sleep or sleep induced by extraneous intoxication.’

(Busuttil & Keeling 2008, p.331)

An adult, or an older child, rolling over and sleeping on top of an infant applies pressure on the infant’s face against bedding, the mattress, or into the body of the other person. It causes the infant to stop breathing or restricts their ability to breathe. The infant is unable to cry out or attract attention because of the pressure exerted on the infant’s chest (Busuttil & Keeling 2008). Similarly, infants lack the physical maturity to be able to free themselves from the dangerous situation. The risk of overlaying is highest in infants less than five months old; however, it can also occur in children up to two years old (Busuttil & Keeling 2008). The risk is highlighted in the story below about Stella:

Stella was a five month old baby. She was the youngest of five siblings whose ages ranged from two to 10 years. At 12:30am, after Stella was breastfed by her mother, they both fell asleep in a double bed. Stella was covered with a sheet and a doona. Seven hours later when the mother woke, she found that one of Stella’s siblings was in the bed and lying across Stella. Stella was not breathing and her face was pale. The post mortem report determined that Stella’s cause of death was ‘asphyxia’ with an antecedent cause ‘positional overlay’. The police report to the Coroner about Stella’s death indicated that the family lived in a three bedroom home with only two rooms utilised for sleeping and the third for storage. Stella usually slept in a double bed with her parents and two siblings with the three eldest siblings sharing a room.

In 18 cases, the parents informed police or FACS staff that they regularly slept with their baby. This was sometimes despite the presence of a cot in the parent’s bedroom. In one case, the family reported that sleeping with their children was a regular occurrence. The parents had slept with all of their other four children during infancy. FACS was aware of the family’s experience of a previous child death from sudden infant death however, further exploration of the reported information of the history of co-sleeping did not occur.

There is documented information in 16 of the 58 cases that FACS staff were aware of the dangerous sleeping arrangement prior to the infant’s death. In 14 out of these 16 cases, there is documentation available that indicates staff had spoken with the parents about the dangers of sleeping with their baby.

In 13 cases, the mother had brought the infant to her bed, mattress on the floor or lounge, to breastfeed or bottle feed the infant. The mother and/or the infant subsequently fell asleep. The potential danger of fatigue is common for parents of newborns. This is highlighted in the following two stories about Sophie and Mason. For Sophie, her parent’s fatigue was compounded by prescribed medication.
Sophie
Sophie was a six week old baby. Sophie’s mother was on a methadone program. She had increased her methadone dose during the pregnancy and was yet to reduce this following Sophie’s birth. Sophie’s mother had reported to health professionals that her dose may be too high, because she kept ‘nodding off’. In addition to this, Sophie was described as an unsettled baby and her mother reported to professionals feeling sleep deprived as a result. On the evening of Sophie’s death, her mother took Sophie to bed in order to breastfeed her. Half an hour later, Sophie’s father noticed that Sophie’s mother had fallen asleep and Sophie was still attached to her breast. When the father approached the bed to pick up Sophie, he noticed that Sophie was not breathing. Sophie’s cause of death has not yet been determined.

Mason
Mason was an eight week old baby and a twin. Mason had been ill in the weeks prior to his death with symptoms of a respiratory illness and had required assistance with clearing his airways. During the afternoon on the day of Mason’s death, he was taken to bed by his mother for the purpose of breastfeeding. When Mason’s mother finished breastfeeding him, she placed him beside her in the bed on his side. Both Mason and his mother fell asleep. Two hours later Mason’s father went to wake Mason’s mother so that she could breastfeed Mason’s twin. The father noticed that Mason was still in the same position that he had been placed to sleep but was blue in the face. The bed that the two were sleeping on had a number of loose items, including pillows, blankets, and sheets. The post mortem determined that his cause of death was Sudden Infant Death Syndrome, Category II, based on his circumstances of death including him being found in a potentially unsafe sleeping environment.

4.3 Dangers with parental alcohol and drug use

What the data tells us
CDCR data found that in 11 of the 58 families, where the parent intentionally went to sleep with or had unintentionally fallen asleep next to their baby, the parent was observed (or admitted to police) that they were under the influence of alcohol or drugs at the time.

It is possible that this number may be higher given that parental alcohol or drug use was a reported concern in just over three-quarters (44 of the 58) of the families. Parents’ fears about potential consequences of their drug use, or the alcohol or drug use being identified as contributing to the infant’s death, are likely to prevent parents from admitting that they were affected by drugs and alcohol leading up to the infant’s death.
What are the risks?

FACS is very clear in its messages about just how dangerous it is for a baby to sleep with a parent who is affected by alcohol or drugs. The bottom line is that under no circumstances should parents sleep with their baby when they have consumed alcohol or drugs. Alcohol or drugs, including prescribed medications – and combinations of these – particularly depressants (e.g. cannabis, methadone and heroin) slow down a person’s ability to react to situations. They can make people feel extremely tired, drowsy, and can cause people to sleep in a much heavier state (The Royal Women’s Hospital Victoria 2012). Parents who co-sleep with their baby, planned or otherwise, and who are affected by alcohol or drugs are at very real risk of being unable to rouse, to be aware of the position of their baby or respond to their baby appropriately (Mesich 2005; Dodd 2012). The risk of a parent rolling on top of their baby and the baby being smothered is increased significantly in these circumstances. When assessing the risk of parental alcohol or drug use, it is important to have in mind the frequently all consuming nature of alcohol or drug use and the way it impacts on thinking and choices parents will make for their baby.

Tasha

Tasha was an 11 week old Aboriginal baby. On the evening before her death she was placed to sleep on her parents’ double bed by her father. Tasha’s mother returned home at 1am. She was intoxicated and got into bed with Tasha. The mother woke a couple of hours later to breastfeed Tasha. Tasha was not checked by either parent until after 1pm the following day. The post mortem determined that Tasha’s death was ‘unascertained’. Tasha was reported to FACS twice before she died which included concerns that Tasha was born underweight to a mother who had no ante-natal care and binge drank alcohol.

Jack

Jack was a 17 day old baby. At 2pm Jack’s mother lay down on her bed to feed him a bottle. His mother fell asleep next to him. She had taken methadone and anti-depressant medication. When she woke several hours later, she found that Jack was not breathing. The post mortem determined that Jack’s death was Sudden Infant Death – Category II. The report noted that this is most likely due to the fact that mechanical asphyxiation would be considered but not determined with certainty in this case.

4.4 Sleeping position

What the data tells us

The table below highlights what CDCR found about the position the infants were put to sleep. Obviously, infants do not necessarily remain in the same position during sleep (British Columbia Coroner’s Service 2009). For this reason, details about what position the infant was placed to sleep and the position they were found, are provided.
Over half of the infants (58 of the 103 cases or 56 percent), were placed to sleep on their back; however, other risk factors were identified. Twenty-six of the 58 (45 percent) infants who were put to sleep on their back were sharing an unsafe surface, in most cases an adult bed. In seven of these cases, the infant was sleeping with a parent affected by alcohol and/or drugs. In 24 out of the 26 (92 percent) cases, the infant was also sleeping with loose and soft bedding.

Twenty-three infants were put to sleep in an unsafe infant sleep position. Of the 23 infants, 16 were placed to sleep on their side, and seven on their stomach. Infants can end up on their stomach if placed to sleep on their side. In two cases, the parents told police that it was common to put the infant to sleep on either their stomach or side.

Table 1: The infants sleep position

<table>
<thead>
<tr>
<th>Position placed to sleep</th>
<th>Number of infants</th>
<th>%</th>
<th>Position found</th>
<th>Number of infants</th>
</tr>
</thead>
<tbody>
<tr>
<td>Back</td>
<td>58</td>
<td>56</td>
<td>Back</td>
<td>33</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Stomach</td>
<td>11</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Side</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Not recorded</td>
<td>7</td>
</tr>
<tr>
<td>Side</td>
<td>16</td>
<td>16</td>
<td>Back</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Stomach</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Side</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Not recorded</td>
<td>5</td>
</tr>
<tr>
<td>Stomach</td>
<td>7</td>
<td>7</td>
<td>Back</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Stomach</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Side</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Not recorded</td>
<td>0</td>
</tr>
<tr>
<td>Not recorded</td>
<td>21</td>
<td>20</td>
<td>Back</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Stomach</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Side</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Not recorded</td>
<td>16</td>
</tr>
<tr>
<td>Other</td>
<td>1</td>
<td>1</td>
<td>Infant not placed for sleep</td>
<td>1</td>
</tr>
</tbody>
</table>

Seventeen of the 23 (74 percent) infants placed to sleep on their side or stomach were sleeping on an unsafe surface (e.g. adult bed, mattress on floor, couch, or lounge). Further, 15 of the 23 (65 percent) infants were sharing a sleep surface with at least one other person.

In six cases, the infant had been placed for the purpose of ‘prop feeding’. The risk is considered in Billy’s story.

37 The case of one infant was not sleep related. The infant died in hospital. This infant is included in the cohort because a modifiable risk factor was found in his sleep environment or classified as SUDI by CDRT.

38 Prop feeding is defined when you give a baby a bottle by leaning the bottle against a pillow, or other support, rather than holding the baby and the bottle (http://www.sharecare.com/health/baby-feeding-and-nutrition/why-avoid-bottle-propping-feed).
Billy
Billy was a three month old baby. Although the cause of Billy’s death is pending further investigation, Billy’s sleeping environment was unsafe. Billy slept on a mattress on the floor that was pushed up against a bed frame. The mattress had a number of full sized quilts on it and a bunny rug. Billy slept on the mattress alone. He was left to consume a bottle of formula unsupervised. Prior to Billy’s death, FACS received a report including concerns that Billy was being prop fed.

What are the risks?
Public campaigns, in particular the Back to Sleep campaigns in the 1990s, are linked to a reduction in the number of infant deaths in countries where campaigns emphasised the importance of placing infants to sleep on their back (supine position). Placing infants to sleep on their stomach (prone position) was identified as a major risk factor for sudden infant death.

Parents need information about the risks associated with placing infants to sleep in the side position. The likelihood of an infant rolling from the side position onto their stomach is significantly greater than the infant rolling onto their back (American Academy of Pediatrics 2005).

James
James was a two month old baby. He was born six weeks premature and was in hospital for two months for respiratory distress. On the night of his death James was breastfed at 8pm. He was then placed in his cot on his side. He was checked at 9.30pm. He was asleep and breathing. An hour later, James was checked again. He was found on his stomach with his head face down. At 10.30pm the baby was checked on again. He was found lying on his stomach and face down. He was cold and not breathing. The post mortem determined that the cause of James’ death was Sudden Infant Death Syndrome – Category II.

CDCR records show that in three cases, the parents intentionally placed their baby to sleep on their stomach (two infants were in their cot and one on the mother’s chest). All three of the infants were found dead on their stomach.
4.5 Loose bedding/objects in the infant’s sleeping area

What the data tells us

In 92 of the 103 cases (89 percent), there were hazards in the baby’s sleeping environment known to increase the risk of sudden infant death such as loose bedding, pillows, toys and other objects. In five cases, the information was not available. Fifty-four of the 92 infants (59 percent) were sleeping with one or both parents and/or a sibling in combination with loose bedding and/or objects in the sleeping area.

What are the risks?

The presence of loose objects in the baby’s sleep environment can cause their airway to become obstructed and increase the risk of suffocation. This is especially the case if the baby’s head becomes covered by blankets or other objects. The risk of strangulation can also be increased from cords. The research literature also suggests that sleeping infants on pillows can increase the risk of the infant re-breathing carbon monoxide (Byard 2004).

Toby

Toby was a six week old baby. In the week prior to Toby’s death, he had a slight cold. At 7pm, Toby’s mother put Toby to sleep in his cot on his stomach and with his head to the side. The cot was located next to a mattress on the floor that was slept on by the parents. The baby blanket was tucked underneath the cot mattress. Several hours later, Toby’s father removed Toby from the cot and burped him. Toby was put back to sleep in his cot on his stomach, and with his head facing to the side. About an hour later, Toby was heard grizzling, but quickly settled. He was not checked on at this time. About 30 minutes later, the parents realised that Toby had not woken for his night feed. When the parents checked on Toby at this time, they found Toby on his stomach with his head face down on the cot mattress. The post mortem determined that the cause of Billy’s death was Sudden Infant Death – Category II. The post mortem report notes that ‘the infant would have been unable to free himself from the position of his head being face down. The infant’s external airway may have been compromised and the infant may have asphyxiated at this point.’
Tom
Tom was a nine month old baby. At the time of his death, Tom was living with his 15 year old mother and her 17 year old boyfriend. Tom was usually wrapped in a blanket before being put to sleep in a portable cot. On the night of his death, Tom was placed to sleep on his side. He was fed at midnight, rewrapped and returned to the cot. Just after 8am the mother’s boyfriend checked on Tom and discovered that he was cold to touch and blue in colour. When police arrived at the home, they discovered that Tom’s cot was full of doona covers, several stuffed toys and blankets. On initial glance, police thought that the cot was used for storage due to the number of items in the cot. Some of the items were stacked inside the cot. Tom’s mother told police that the doonas were at the bottom of the cot to make it ‘comfortable’ for Tom, and the stuffed toys were in the cot so that Tom had something to play with when he woke. The post mortem determined that Tom died from ‘accidental suffocation’.

Oscar
Oscar was a three month old baby. At 6am, Oscar’s father prepared him a bottle of formula before returning him to bed with his mother. The parents reported that as Oscar would not sleep in his cot, he slept with his mother while the father slept separately in another room. The mother gave Oscar the bottle. She then left Oscar to sleep on the bed. Oscar’s mother left the room to lay down on the lounge with her three year old son. They fell asleep. Oscar’s father left for work. His mother woke in the afternoon and found Oscar not moving and cold. Oscar’s mother told police that she found Oscar had rolled over in his sleep and was found with his lambs wool underlay inside his mouth. The post mortem determined that the cause of Oscar’s death was consistent with Sudden Infant Death – Category II. Accidental suffocation was not excluded.

4.6 Exposure to cigarette smoke

What the data tells us
Information about the babies’ exposure to cigarette smoke was available in 51 out of 103 cases (50 percent). Information was available for 29 families that both the mother and father smoked. In 31 out of the 51 cases (61 percent), the baby was sharing a sleeping surface with one or both parents. Information available from nine families was that they smoked outside.

What are the risks?
A multitude of research has consistently found an association between parental smoking and the risk of sudden infant death, in particular maternal smoking during pregnancy and after the birth of the infant (passive smoke) (Fleming & Blair 2007; Mitchell 2009; Wilson et al., 2010). Babies exposed to cigarette smoke after birth have twice the risk for sudden death. If the mother smoked during pregnancy and after the baby’s birth, the infant is three or four times at greater risk of sudden infant death.
Cigarette smoke, even after the cigarette has been put out, can be absorbed into clothes, couches, curtains, and bedding.

Current research on the links between smoking and sudden infant death highlights the association between the co-existing risks factors of smoking and co-sleeping, and sudden infant death (American Academy of Pediatrics 2011). For example, two week old infants who share a sleeping surface with parents who both smoke ‘are at 65-fold increased risk of SIDS compared with infants room sharing with parents who do not smoke’ (Carpenter et al., 2013). Some researchers have contended for some time that the most significant avoidable risk factor for sudden infant death is a reduction of parental smoking and that smoking parents should never sleep with their infant (Sullivan & Barlow 2001; Vennemann et al., 2012). Further, research indicates that smoking outdoors does not minimise risk as the risk of passive smoke is still there for the infant (Coroners Court Victoria; Baddock, Galland, Taylor & Bolton 2007).

Max
Max was a five week old baby. On the night of Max’s death, he was placed to sleep in a double bed with his parents, which was common practice for the family. When Max's mother checked on him in the morning, she found him to be cold and unresponsive. Both of Max’s parents were smokers. They informed police that they had been advised about smoking around infants and as a result, they only smoked outside. The final post mortem report indicated that the cause of death for Max was thought to be consistent with Sudden Infant Death Syndrome – Category II, as Max was co-sleeping at the time of his death.

Chantelle
Chantelle was a seven week old Aboriginal baby. Chantelle was born six weeks premature, spent a number of weeks in hospital prior to discharge and had experienced symptoms of a cough in the two weeks prior to her death. On the evening before Chantelle’s death, she was placed to sleep in a bassinet in her parent’s bedroom. The following morning, Chantelle’s mother woke to feed her and found her to be unresponsive. Both of Chantelle’s parents were smokers and also smoked cannabis. Police noted the smell of tobacco smoke in the home and in certain rooms in the home, including the room where Chantelle slept there was a strong smell of cannabis. The post mortem determined that Chantelle’s cause of death was consistent with Sudden Infant Death Syndrome – Category II.
Thomas

Thomas was a ten month old baby. Thomas had recently been ill with a respiratory condition. On the evening of his death, Thomas was placed to sleep in his cot on his back. When his parents checked on him later in the evening, they found him on his stomach, limp and unresponsive. Both of Thomas’ parents were smokers. Police observed a number of ashtrays in the home and noted the smell of smoke throughout the home. The post mortem determined that the cause of Thomas’ death was consistent with Sudden Infant Death Syndrome – Category IA.

4.7 Overheating

What the data tells us

The possibility of overheating from thermal stress\(^\text{39}\) was identified in 38 of the 103 babies’ sleep environments (37 percent). Cases were included if the infant was wearing several layers of clothing, heavily covered in blankets, excessive heating in the infant’s bedroom and/or poor ventilation in the room.

What are the risks?

Thermal stress, in the form of overheating, has been associated with sudden infant death (British Columbia Coroner’s Service 2009). Excessive clothing and/or bedding, can contribute to the risk of the infant overheating by providing insulation, preventing infants from losing heat and regulating body temperature (Ombudsman Western Australia 2012). This can be caused by an excessive amount of bedding, clothing, and poor thermal/ventilation. An infant can also overheat if the baby’s head becomes covered or while sharing a sleep surface with another person (British Columbia Coroner’s Service 2009; Wailoo et al., 1989).

Jenny

Jenny was a 10 month old baby. She was born six weeks premature with severely underdeveloped lungs. The night before her death, Jenny was put to sleep in her cot by her mother. She was wearing a nappy and singlet, a woollen jumper, a jacket, and pants. She was also covered with a cot sized doona. The mother closed the bedroom window and turned on a heater. The bedroom door was closed. Jenny’s mother checked on her the following morning and found Jenny was not breathing. Jenny was found with the doona wrapped around her head and upper body. She was lying on her tummy and face down. Investigating police described the baby’s room as ‘hot’. Police also found an empty baby bottle, another pair of pyjamas and a second doona in the cot. The post mortem determined that the cause of Jenny’s death was consistent with Sudden Infant Death Syndrome – Category II.

\(^{39}\) Thermal stress is defined as ‘mechanical stress induced in a body when some or all of its parts are not free to expand or contract in response to changes in temperature’ (McGraw-Hill Dictionary of Scientific and Technical Terms).
Travis
Travis was a five month old baby. He lived with his parents and six siblings. At 10pm Travis and his mother went to sleep on the mother’s bed. Travis was wrapped with a doona, and had a fleecy blanket and sheet mattress covering him. The doona and blanket were in a dishevelled state. When he was checked on at 4am, Travis was not breathing. Police who attended the home observed that the room Travis slept in was poorly ventilated. At 6am, police measured the room and lounge room at almost 30 degrees. It was summer. Post mortem determined that the cause of Travis’s death was consistent with Sudden Infant Death Syndrome.

4.8 Sudden unexpected death in young children

Although babies aged less than 12 months are most vulnerable to sudden death, the circumstances of death of the group of seven children aged one to two years is also included to highlight that children older than 12 months are also vulnerable to hazards in their sleep environment that increase their risk of death. Sudden Unexplained Death in Childhood (SUDC) is defined as:

‘The sudden and unexpected death of a child over the age of 12 months, which remains unexplained after a thorough case investigation is conducted.’

(Krous et al., 2005)

SUDC deaths are far less common than SIDS deaths. While there are differences, SUDC shares some characteristics with SIDS such as the child’s death occurring during a sleep period. The seven cases of SUDC included:

- an over-representation of boys, accounting for six of the deaths
- an age range of between one and two years
- six children dying in the colder months of autumn and winter
- four children dying from an undiagnosed medical condition
- two Aboriginal children.

Of the seven children, four died while sharing a sleep surface with at least one of their parents. In one case, the child was sleeping with both parents and a sibling. In three of the seven cases, the child was found lying face down.

In all three cases where the child was sleeping in a cot, hazards were present in the children’s sleep environments such as loose bedding and toys. The two stories below about Adam and Charlie highlight that the risk of sudden death in unsafe sleeping environments can continue beyond 12 months.

---

40 CDCR defined the seven young children based on data collected from electronic KIDS records, available coronial information, and other sources of information available that provided additional detail about their sleeping environment.
Adam

Adam was a 17 month old boy. At 7pm Adam was placed to sleep in his cot located in his mother’s bedroom. Because it was a cold night, Adam’s mother dressed him in several shirts, a knitted jumper, two tracksuit pants, a pair of socks, his nappy and a bib. He then had a cotton wrap placed around him, and was covered in a doona. Another doona was placed over his legs. Adam was given a bottle and left to drink it on his own. When it was almost midnight, Adam’s mother heard him cry out; however, because he stopped crying, she did not check on him and went back to sleep. At 8am Adam was found by his mother in the middle of the cot with a doona covering him. When she lifted the doona she found Adam face down, entangled in the second doona. Adam was cold to touch. Post mortem determined that the cause of Adam’s death was consistent with ‘accidental asphyxia’.

Charlie

Charlie was a 16 month old boy. At 8.30pm he was placed to sleep on his back. Charlie slept in a cot. As part of the cot was broken, a make shift railing was attached to keep him from climbing out of the bed. There was also other furniture placed in and around the bed to hold the sides together. Charlie slept with a number of adult blankets and sleeping bags that had been piled on top of the mattress. Charlie was covered with a full sized adult doona. At 2am, Charlie’s nappy was changed by his mother. He went back to sleep. At 7.30am when he was checked on by his mother, Charlie was found with the bedding wrapped around his head. He was not breathing. A cause of death for Charlie is yet to be determined.
5 | What this means for practice?

CDCR review and analysis of the cases has identified examples of skilled and proactive practice where field staff have spoken with parents about unsafe sleeping arrangements and the range of risks to their baby. Against the widely held view that sleep related infant deaths are potentially one of the most preventable deaths, the challenge for FACS lies in maintaining good casework practice, where this is already happening, and identifying cases where it can be improved.

Cases have been identified where opportunities to assess safety in the baby’s sleeping environment were missed. This is despite FACS having information about at least one modifiable risk in the babies’ sleep environment. It may be that the risks were simply overlooked, that safe sleeping did not factor into the risk assessment process, staff were not aware of all of the risk factors when responding to these cases, or that staff felt that it was not their position to challenge parents on this issue.

One of the ongoing challenges for field staff when working with vulnerable families with a range of child protection concerns and complexities is that safe sleeping messages communicated to parents are not always received, understood or adopted. Where there are a range of parental risk factors, the capacity of parents to maintain practices that promote safety for their baby needs to be tested. Changed parental practice is critical in reducing these deaths. Having described the vulnerabilities for this group of babies in the previous two sections, this section of the report focuses on the implications for practice and lessons for learning.

5.1 Responses to the state-wide survey

The state-wide survey of field staff confirmed that field staff do have an awareness of the range of risk factors for sleep related infant deaths, and are able to give clear and concrete messages and sound practical advice to parents about the safest ways to sleep their baby.

As previously mentioned, CDCR received 176 responses to the survey. All 176 survey participants responded to the question about their existing knowledge of the risk factors for sleep related infant death. Of these, 139 respondents (79 percent) identified three or more risk factors in the baby’s sleep environment. Responses to this question are provided in table 2. Given the small number of responses to the survey, caution was exercised in drawing any significant conclusions. Nonetheless, some encouraging observations are made about the existing knowledge field staff have of the risk factors for SUDI. Again, while exercising caution, some gaps in knowledge were also identified.
Table 2: Survey results about staff knowledge on the risk factors for sleep-related infant death

<table>
<thead>
<tr>
<th>Risk factors in the infant’s sleep environment</th>
<th>Respondents</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shared sleep surface (co-sleeping) (adult, sibling, pet)</td>
<td>114</td>
<td>65</td>
</tr>
<tr>
<td>Infants’ exposure to cigarette/marijuana smoke</td>
<td>109</td>
<td>62</td>
</tr>
<tr>
<td>Loose objects in infants’ sleep environment</td>
<td>83</td>
<td>47</td>
</tr>
<tr>
<td>Unsafe sleep position</td>
<td>77</td>
<td>44</td>
</tr>
<tr>
<td>Infant sharing a sleep surface with a person affected alcohol, drug or prescription medication</td>
<td>63</td>
<td>36</td>
</tr>
<tr>
<td>Unsafe sleep surface</td>
<td>45</td>
<td>26</td>
</tr>
<tr>
<td>Overheating/thermal factors</td>
<td>42</td>
<td>24</td>
</tr>
<tr>
<td>Breastfeeding/prop feeding infant</td>
<td>5</td>
<td>3</td>
</tr>
</tbody>
</table>

In light of the strong focus since 2007 that FACS has placed on addressing the risk of co-sleeping in combination with parental alcohol and/or drug use, it is unsurprising that the responses mostly highlighted risks related to infants co-sleeping. However, given that only 65 percent of respondents mentioned co-sleeping as a risk factor, over one-third of staff did not show awareness of this as a risk factor. This is significant and suggests that ongoing training is needed about the risks of co-sleeping. Again, while caution is used to draw significant conclusions from the results of the survey,

41 This includes acknowledging the small sample size and possible bias in the results because participants in a voluntary survey are likely to be those who have experience with SUDI or an interest in the area.

Sixty-nine of the 176 survey respondents (39 percent) identified with a number of the infant characteristics. These are the baby’s gender, age, prematurity, low birth weight, maternal smoking during pregnancy, a family history of sudden infant death, and diagnosed/undiagnosed medical conditions. Infant characteristics in combination with factors in their sleep environment were provided in 50 responses (28 percent).

Of the 165 (out of 176) respondents (94 percent) who answered the question designed to elicit information about further learning needs, 114 (69 percent) respondents indicated that they wanted access to more information about sleep related infant deaths, and the development of additional resources to provide to parents. In particular, 76 out of the 114 respondents (67 percent) mentioned they would like further training (including working with Aboriginal families, and families from culturally and linguistically diverse backgrounds), regular updates and/or information about what current research says about safe sleeping and sudden and unexpected infant death. Forty-six respondents mentioned they would value practical training on how to have conversations with parents about safe sleeping – especially parents resistant to change, and creating a safe sleep environment. Respondents also said that access to easy-to-read pamphlets (e.g. how to set up a cot that is safe) would be helpful to give...
to parents as a starting point when engaging them on this issue. Some respondents indicated a need for consistent messages to be given by FACS and NSW Health to families shared across agencies. Fifty-one of the 165 respondents (31 percent) indicated that they did not need additional information on this issue.

Other results indicated that the majority of knowledge gained about safe sleeping was mostly attributed to FACS training (85 of the 176 responses). Other sources of knowledge were from personal experience (44), the media (36) and research (35).

### 5.2 Successful strategies and positive outcomes

The survey asked field staff to describe any cases where parents had removed risk from their baby’s sleeping environment after these had been pointed out to them by field staff. It is important to highlight cases which demonstrate good casework and positive outcomes. These reassure that change is possible; that parents do listen to advice provided to them by field staff.

Providing the family with a cot was the most frequently recorded strategy that successfully removed the risk of co-sleeping.

‘…parents are often not aware of the vulnerabilities or risk factors associated with co-sleeping. Our CSC regularly provides families with cots and helps parents to develop routines whereby the infant sleeps in the cot rather than in the bed with the parents.’

‘…the mother had not bought a cot for her baby about to be born. She was co-sleeping with her three year old and was going to also sleep with the newborn. I spoke about the dangers of the three year old or the mother accidentally smothering the newborn. We bought a cot which she has now set up and is ready for the baby. The mother is also working on strategies to get the three year old into her own bed.’

Other survey responses included showing parents how to sleep their baby (e.g. where to position the baby in the cot), giving parents the hard facts and having frank conversations with them about the very real risk of their baby dying, developing a safety plan and supporting the information provided with evidence-based research. A caseworker provided the following case example that led to the parents changing their behaviour with regards to cigarette smoking:

‘…one family had an overflowing ashtray sitting on the baby’s cot. With a safety plan and education from baby health nurses, this changed and the parent now smokes outside.’
The following case example involves a young parent family.

‘...I had a matter where the parents were very young and uneducated. I accompanied them to a sleeping and settling course at Karitane Day Cottage and the parents really took on board the information that was provided to them. The course was practical as it showed them how to wrap their baby but also talked about the risks around SIDS and what to do to reduce the risk. The parents went home and removed the bumper padding that was in the cot.’

In another case example, a caseworker described how a mother removed the risk to her baby sleeping with loose objects.

‘...one family had blankets cover the top of the cot to block out light. The mother was unaware of the risk that this created...the blanket could fall or be grabbed in the night and fall on top of the infant. The mother took the blanket away and at subsequent home visits, the blanket had been moved away.’

### 5.3 Practice challenges

Section 2 of this report highlighted the significant work of FACS in an effort to prevent these deaths. However, despite the most tenacious efforts of field staff to convey safe sleeping messages and address risk, for a variety of reasons, some parents will continue to make unsafe choices about their baby’s sleep environment. This is seen in the story about Chloe.

**Chloe**

When Chloe was approximately a week old, field staff visited the family. Chloe was seen looking red in the face. When staff raised their concerns with the parents, they told staff that they had been sleeping with Chloe. Staff told the parents about the dangers of co-sleeping and bought a cot for them.

When staff visited Chloe and her family again several weeks later, they were told that Chloe was asleep. When staff asked to see Chloe, the parents agreed after some reservation. Staff found Chloe sleeping on her stomach face down. Staff quickly repositioned Chloe onto her back. They told the parents about the dangers of babies sleeping on their stomach. A family support worker who arrived at the home told staff that she will be working with the family.

The next month, FACS was informed about Chloe’s death. Police reported that Chloe had been sharing the bed with her parents because of the poor condition of Chloe’s cot. She was found in the morning lying on her stomach face down. The post mortem determined that the cause of Chloe’s death was consistent with Sudden Infant Death Syndrome – Category IA.
Responses to the survey suggest that field staff worry about whether parents actually adopt and maintain the strategies suggested to them. It is not the role of field staff, nor is it realistically possible to monitor families 24 hours per day. What is important is that when field staff speak with parents about safe sleeping, field staff need to:

- engage and have respectful conversations with parents about any known or identified risk factors
- canvas what parents already know about safe sleeping
- discuss with parents the things that are happening in their lives that might make it hard to adopt safer practices (e.g. exhaustion, domestic violence, substance misuse and a lack of safe bedding)
- confidently talk about safe sleeping and provide information to parents about the vulnerability of babies and what they can do to promote safety
- develop safety plans with families that reinforce safe sleeping practices
- test and verify assertions made by parents – for example, if a parent tells you that they have a cot for their baby, it’s important that field staff make further inquiries about this such as asking to see the cot, asking when and/or for what purpose the cot is used, and does the baby sleep in the cot during night time sleep only or during the day as well
- identify supports needed by parents to apply new knowledge.

**Importance of not assuming prior knowledge and changed behaviour**

CDCR findings from the review of the cases, supports the need for field staff not to rely entirely on previous assessments completed on the family where safe sleeping issues have been discussed. A key learning from the case reviews is that parents may not change their practice even though they have been informed about the risks. It is important not to assume that over time parents will retain prior knowledge or that they have changed their behaviour. Some of the cases reveal that unsafe sleeping practices have been long standing in the family. In one case, the parents told FACS that they had shared a sleeping surface with all four of their children. The parents continued the unsafe practice despite the recent death of their baby being the second in the family in the same circumstances. The importance of not assuming prior knowledge is demonstrated in Jessica’s story.
Jessica was 27 days old when she died. Before Jessica was born, she had been reported on a number of occasions with concerns about domestic violence, the mother’s serious alcohol and/or drug use, mental health and chronic homelessness. Jessica was born six weeks premature and underweight. At this time FACS received reports about Jessica’s mother’s capacity to provide adequate care for her because of her alcohol and/or drug use, risk of homelessness and transience.

During a home visit, field staff sighted Jessica. They also saw a cot in the mother’s bedroom. Although Jessica’s mother told staff that Jessica slept in the cot, staff were concerned that the cot was not being used to sleep Jessica. Staff spoke with the mother about the dangers of co-sleeping and sudden infant death, and especially in a small living area where a family member was a smoker, and the risks that this posed for Jessica.

On the morning of Jessica’s death, Jessica was found not breathing by her mother. Jessica’s mother called ‘000’. Jessica’s mother told police that Jessica had been sleeping with her. She had moved a lounge next to the bed to prevent Jessica from falling off. The mother told police that she should have listened to the advice of FACS staff about the risks of co-sleeping. Jessica’s mother was affected by alcohol when she went to sleep with Jessica. The post mortem determined that the cause of Jessica’s death was consistent with Sudden Infant Death Syndrome – Category II. The report noted ‘co-sleeping can result in mechanical asphyxiation which could be a risk factor.’

This is a common finding in CDCR data which shows that it is not often the first or second born baby in the family that died in co-sleeping circumstances. Less than half of the babies who died while co-sleeping were the first or second born (22 out of 58).

For families living in poverty and disadvantage with often unstable housing and stretched and limited resources, unsafe sleeping practices may be a pragmatic necessity rather than a choice because of the lack of availability of safer options, such as a cot. It can also be harder to convince experienced parents, and usually the mother, if she has co-slept happily with her other children.

5.4 Assessing risk for unsafe sleeping

This review highlights the need for FACS staff to understand the risk factors for SUDI and to intervene with families to assess risk where there is an infant in the home. The findings also highlight the need for parents – their families and carers – to be provided with well-informed and consistent advice that will support parents to make decisions that are safest when putting their baby to sleep.

Out of the 103 of the 108 cases where at least one modifiable risk was present in the baby’s sleeping environment, FACS was aware of this in 72 cases (70 percent). This could be an underestimate given that information about this was not always available. Examples of risks either reported or discovered during the assessment process were:
the mother’s history of unsafe sleeping practices despite her attendance at an education group about sudden infant death

- a family history of unsafe sleeping arrangements with other siblings (e.g. co-sleeping)
- evidence of cigarette smoking in the home
- a previous child death in the family from SIDS
- parents overtly telling caseworkers about their unsafe sleeping practices.

In 24 out of the 72 cases (33 percent), a face-to-face assessment was undertaken for the baby. In 14 of the 24 cases field staff directly addressed the dangers with the parents. This needs to improve.

The experiences of the infants described throughout this report reflect the importance of holistic assessment. Implementing strategies that support parents to undo unsafe habits, is not easy work. The difficulties can be exacerbated in families where poor parenting practices have been modelled and have continued into successive generations.

Where there is a history of child protection involvement parents may be less receptive to messages from FACS. Nevertheless, it is important for field staff to give parents the hard facts and to engage them in frank conversations about the very real risk of their baby dying irrespective of how the information will be received by parents.

As highlighted in section 3, domestic violence was the most commonly reported child protection issue, followed by parental alcohol or drug use, mental health issues, family homelessness and transience. The adverse effects that domestic violence and parents’ alcohol or drug use can have on parenting capacity, and parents’ ability to provide consistent and safe supervision and care for their baby, are well known. Babies’ vulnerabilities are heightened in young parent families and where the need for parenting skill development is a significant issue. Reported concerns about overcrowded living conditions, homelessness and transience, can impact on the availability of appropriate bedding and/or create the need for makeshift sleeping arrangements that are potentially dangerous.

The importance of engaging other adults in the home in safety plans

Education about the risk factors for SUDI should not be targeted at one parent alone – usually the mother who is most often engaged in the assessment process and/or is seen as the infant’s primary carer. An important finding from this review is that in 57 of the 103 families (55 percent), there was at least one other adult living in the home (e.g. the father, a grandparent, other relative, or a family friend) that could have also been provided with educative information about SUDI and the importance of providing babies with a safe sleep environment. Understanding who is in the home and who may be in a position to help with a safety plan can help to reduce immediate risk. A grandparent, aunt or other household member can be asked to participate in monitoring how safe the baby’s sleeping arrangement is going to be. Other adults in the home, or much older siblings, similarly need to be aware of the risk to babies.
5.5 Sharing the responsibility: working with our partner agencies

While FACS staff are well placed to provide information to parents about safe sleeping, parents may be less receptive to messages from FACS which are often conveyed in the context of statutory and involuntary intervention. A collaborative approach with our partner agencies is needed to ensure that consistent messages are given to parents about the practices that promote safe sleeping. Given the range of agencies and organisations that provide parenting advice to families, communicating with other agencies and working collaboratively with them is critical in delivering clear and consistent messages about providing a safe sleeping environment for babies at risk. It is important for field staff to find out about what messages health and other professionals are giving families and what strategies they are implementing to reduce risk. Reinforcing messages and practice that is consistent across all agencies who share vulnerable clients is needed to promote safety for babies. Working locally to discuss a shared approach will ensure more consistent practice across agencies.

5.6 Key messages for parents

The following are key messages that should be consistently given to parents. The messages align with the SIDS and Kids NSW and Victoria safe sleeping recommendations. It is important that the messages are given using language that is non-judgemental and non-accusatory.

The safest place for your baby to sleep is in a cot next to your bed.

Make sure that your baby is sleeping in a cot with nothing else in it. Babies can choke on toys and pillows, or become tangled in loose blankets.

Never sleep with your baby on a lounge, couch, mattress or sofa. They can roll or fall off or be suffocated.

It is not safe to sleep with your baby if you have been drinking or using alcohol because you could roll on them and suffocate them.

Always put your baby to sleep on their back. It is not safe for babies to sleep on their tummy because this can cause them to stop breathing. You shouldn’t put your baby to sleep on their side either because they can roll onto their tummy and then stop breathing.

It’s important not to smoke around your baby or where your baby sleeps, it makes it really hard for babies to breathe.
5.7 Practice tips and suggested questions

If there’s a baby in the home, the following are some practice tips to consider when assessing the safety of where they sleep.

When assessing the risk of substance use

- Reinforce the message to parents that sleeping with their baby under the influence of alcohol/drugs or prescribed medication is dangerous and increases the infant’s risk of death.
- Ask parents what drugs they are using including any prescribed medication.
- Ask what dose they are on and when is the dose taken.
- Ask parents about their baby’s sleeping routine.
- Does the baby’s sleep routine coincide with when a parent takes their dose.
- Ask parents how they feel after taking drugs.
- If you don’t know the impact of prescribed medication or drugs on a parent’s functioning, it is important to ask.
- Ask parents if there is another adult in the home who can monitor/supervise the baby.
- If the parent is the only adult in the home, make sure the parent puts the baby in the cot.
- Contact the Clinical Issues Unit and ask a consultant how the type and dosage would affect a parent e.g. would it make them drowsy, sleepy. Tell the consultant there is an infant in the home.

What to look for when checking the infant’s cot

- Ask parents to see the baby’s cot.
- A safe cot is one that meets Australian Safety Standard (AS2172).
- If you can slide a drink can in between the rungs of the cot, the cot is NOT to safety standard.
- Ask the parent to show you how they put the baby to sleep. Show/explain to parents that the safest way to sleep a baby in a cot is with the baby’s feet placed at the bottom of the cot.
- Remind parents to tuck the blanket in firmly.
- Reinforce the message to parents that the safest place for their baby to sleep is in a cot next to the parents’ bed.
- Check the mattress – is it in good condition? Things to look for are: is the mattress firm? Is it flat? Is it the right size for the cot?
- Make sure everything is out of the cot except a fitted blanket and mattress.
- Tell parents that covering a baby’s head increases the risk of sudden infant death.
- Tell parents about the dangers of infants sleeping with loose/soft objects e.g. toys, pillows, bumpers, loose bedding.
- Ask parents where they got the cot/mattress? Explain that second hand/old cots/ mattresses can be unsafe.
Is the bedroom free of other risks including cigarette smoke.

Check that the room is well ventilated.

Explain to parents the importance of supervising their baby and to never leave a baby unsupervised to bottle feed.

**Asking parents how they sleep their baby**

- Reinforce the message to parents that sleeping with their baby under any circumstances is dangerous and increases the risk of their baby dying.
- Talk to parents about the benefits of establishing good sleeping routines for their baby from the start with set bed times and feeding, and to keep these simple and consistent.
- Ask parents ‘are you intending to sleep with your baby?’, ‘where did your baby sleep last night?’ and ‘where do they have their day sleep?’
- Reinforce the message to parents that their baby should never be put to sleep on an unsafe surface e.g. mattress, lounge, sofa, couch, adult bed, beanbags, pillow.
- Tell parents never to leave their baby unsupervised on a couch, lounge or bed.
- If the baby is going to be sleeping away from their usual place, ask what temporary safe sleeping arrangements have been made when away.

**What you can ask parents about the baby’s sleeping position**

- Ask parents about what position they put their baby to sleep.
- Reinforce the message to parents that the safest position for their baby to sleep is on their back.
- Remind parents about the ‘Back to Sleep’ campaign in the 1990s and its success.
- Explain to parents the dangers of sleeping a baby on their side or stomach.
- Explain to parents that they should never prop an infant up with a pillow because an infant can roll onto their tummy and suffocate/asphyxiate.

**What to do if parents are smokers**

- Tell parents that there is an increased risk of sudden infant death for babies exposed to smoke, and especially for babies who share a sleep surface with a smoker.
- Look for indicators of risk such as ashtrays and a smell of smoke in the home.
- Ask the parents if they smoke in the baby’s room.
- Check the room where the baby sleeps for evidence of smoking.
- Remind parents to tell other people in the home or visitors to the home not to smoke in the home or car. Tell parents to explain the risk to family and friends.
- Explain to parents that even smoking outdoors poses a risk to babies from second-hand smoke and smoke on clothes.
- Talk to parents about wearing a ‘smoking jacket’ and washing their hands and face after each cigarette.
What you can say to breastfeeding mothers

- Educate breastfeeding mothers so they are aware of the potential dangers of fatigue and sedation.
- Teach mothers that they should breastfeed their baby out of bed to avoid the risk of falling asleep and the risk of accidental smothering.
- Ask if there is another person in the home to ensure the infants’ safety when breastfeeding if taken to bed or on the lounge.
6 | Where to from here?

It is important for FACS staff to continue to address this issue, and for staff to keep learning about the risks for SUDI, particularly those associated with the infant’s sleeping environment. This report has detailed the significant work FACS has already undertaken in an effort to reduce SUDI deaths. This section provides information about other FACS initiatives currently underway and additional recommendations to further support knowledge and practice development.

6.1 Current initiatives

Education program

In late 2013, CIU in collaboration with SIDS and Kids NSW and Victoria, developed a one day training package for Aboriginal caseworkers, managers casework and casework specialists. The package was piloted at Bankstown CSC in October 2013. A further pilot occurred at Dubbo CSC in February 2014. The training package was intended to enhance the knowledge, skills and confidence of Aboriginal staff to deliver clear and consistent messages about safe sleeping to Aboriginal families and in cultural consultations with non-Aboriginal staff. The training package provides caseworkers with an understanding of the impact of domestic violence, alcohol and other drug misuse and mental health issues on sleeping practices and provides caseworkers with an opportunity to practice having safe sleeping conversations in the context of child protection casework. The training also responds to the over-representation of Aboriginal and Torres Strait Islander babies in SUDI deaths and provides caseworkers with advice about culturally appropriate safe sleeping conversations. Following the successful pilots, the CIU decided to revise the training package to a format suitable for delivery to all frontline staff in 2014-15.

Development of resource materials

In 2013 the CIU worked in partnership with NSW Health and the FACS Aboriginal Services Branch to develop a variety of new Aboriginal and non-Aboriginal safe sleeping resources. The resources provide simple, clear messages about safe ways to sleep a baby and are for use by caseworkers, health workers and community members. The resources specifically target risks associated with sharing a sleep surface with a baby when affected by alcohol or other drugs. In June 2014 the CIU distributed 150 safe sleeping Aboriginal and general resource kits consisting of posters, door hangers and wallet sized cards to all CSCs. The resource kits were also distributed to NGOs and throughout NSW Health districts.
6.2 Additional recommendations

The recommendations arising from the review aim to support continued learning about SUDI and safe sleeping, and to ensure that field staff are aware of the current information about this issue.

1. **Report distribution**
   Copies of the report *Safe sleeping: Supporting parents to make safer choices when placing their baby to sleep*, to be distributed across FACS including all district directors, directors community services and managers client services, as a learning resource for frontline staff.

2. **Child Deaths 2013 Annual Report**
   An abridged version of this report to be published in FACS *Child Deaths 2013 Annual Report* for public release in late 2014.

3. **E-learning training package**
   FACS Office of the Senior Practitioner to scope the development of an online training package on SUDI focusing on modifiable risk factors in the infant’s sleeping environment. This resource will be shared with other agencies, including NGOs.

4. **Safe sleeping training package**
   CDCR to work with CIU to broaden the training package developed by CIU (at section 6.1). The training will be further developed to include information about working with culturally and linguistically diverse families who, alongside Aboriginal families, are also over-represented in SUDI deaths. CIU will collaborate with Districts to facilitate delivery of the package to field staff in 2014-15.

5. **Supporting practice at the Helpline**
   CDCR to progress discussions with Helpline about safe sleeping and the application of the current script and SDM tool to better support Helpline caseworkers to identify infants and young children who may be at risk of fatal sleep accidents.

6. **Interagency meetings with NSW Health**
   That FACS Office of the Senior Practitioner reconvene its meetings with NSW Health with the view of sharing the findings from this review and to discuss establishing consistent cross-agency messages on safe sleeping and barriers to this.
References


KIDSafe NSW at http://www.kidsafensw.org/


Ombudsman Western Australia 2012, Investigation into ways that State Government departments can prevent or reduce sleep-related infant deaths, Ombudsman Western Australia, Perth.

Paterson, D 2012, Sudden infant death syndrome (SIDS), Boston Children’s Hospital, Boston, http://www/childrenshospital.org/az/Site1654/mainpageS1654P0.html

Redacted Findings into the Death with Inquest into the Death of Baby K, in the Coroners Court Victoria at Melbourne, delivered on 6 July 2012 at the Coroner’s Court of Victoria, Melbourne, http://www.coronerscourt.vic.gov.au/home/coroners+written+findings/findings+-+340909+baby+k


SIDS and Kids NSW and Victoria http://www.sidsandkidseastcoast.org/


Wilson, L, Quine, S & Lewis, M 2010, ‘Sleeping infants safely, considerations for GPs’, *Australian Family Physician*, vol.39, no.1/2, pp.66–68.
Appendix 1

Key findings

Between 2008 and 2012, 108 infants known to FACS died suddenly and unexpectedly during this five year period\textsuperscript{42,43}. All of the 108 infants died before their first birthday.

Infant characteristics

Of the 108 infants:

- SIDS accounted for 46 infant deaths (43 percent)
- 93 (86 percent) infants died by the age of six months, peaking between two and three months – this highlights the vulnerability of infants
- majority were boys (69 of the 108 or 64 percent)
- Aboriginal and/or Torres Strait Islander infants were over-represented (34 of the 108 or 31 percent)
- 37 (34 percent) were born premature
- the infant suffered from a recent illness/medical condition in 67 cases (62 percent)
- most infants who were the second born in the family (28 infants or 26 percent)
- 65 infants (60 percent) died during the cooler months of Autumn and Winter
- 92 infants (85 percent) died at their usual residence
- 34 infants (31 percent) were born to a young parent aged under 22 years.

Modifiable risks in the infants sleep environment

In depth analysis of the 108 infant sleeping environments found:

- at least one modifiable risk factor in 103 of the 108 cases (95 percent)
- three or more modifiable risk factors featured in 79 of the 103 cases (77 percent)
- 58 of the 103 infants (56 percent) were sharing a sleep surface with one other person; in 11 cases, the parent was known to be affected by alcohol or drugs
- hazards such as loose bedding, pillows and toys were present in the sleep environment for 92 infants (89 percent)
- less than one-quarter of infants (23 out of 103 or 22 percent) were placed to sleep in an unsafe position.

\textsuperscript{42} Source: FACS data.
\textsuperscript{43} Known to FACS means where a report was received about the infant or their sibling in the three years prior to the infant’s death.
Child protection history

Examination of the child protection histories for the 108 infants and their families found:

- 79 infants (73 percent) were the subject of a report to FACS prior to their death – either a pre or post natal report. For the 29 other infants, their sibling was the subject of a report within three years of the infant’s death
- five infants were under the parental responsibility of the Minister at the time of their death – either under an interim or final order
- in 72 of the 103 sleeping environments (70 percent) FACS was aware of the presence of at least one modifiable risk factor in the infant’s sleeping environment before the infant’s death. In 14 of these cases, FACS provided information about safe sleeping to parents
- in 50 out of the 108 cases (46 percent) the infant or their sibling received a face-to-face child protection assessment
- for 26 of the infants (24 percent), the case was allocated at the time of their death
- the most frequently reported risk factors were domestic violence (in 74 families or 69 percent), parental alcohol or drug use (73 families or 68 percent), parental mental health problems (57 families or 53 percent), homelessness (29 families or 27 percent) and transience (16 families or 15 percent)
- concerns about child abuse and/or neglect had been reported in 58 families (54 percent).

---

44 One infant was placed with FACS authorised carers, one was with non-government carers, two were in the care of relatives (in one of these cases, the parents were given unsupervised contact with the infant), and one died in her mother’s care while at a residential service as part of plan for restoration.
Appendix 2

What do we mean by SUDI, SIDS and fatal sleep accidents?

**Sudden Unexpected Death in Infancy**

Sudden Unexpected Death in Infancy (SUDI) is not a cause of death. It is a broad term used for classifying infants less than 12 months old who died in circumstances that include:

- unexpected or unexplained at autopsy (those meeting the criteria for SIDS)
- of an acute illness that was not recognisable by carers and/or health professionals as potentially life threatening
- of an existing health condition that was not previously recognised by health professionals (NSW Child Death Review Team 2012).

In some cases, a cause of death can be explained following post mortem investigations.

**Sudden Infant Death Syndrome**

The widely accepted definition of Sudden Infant Death Syndrome (SIDS) is:

‘The sudden unexpected death of an infant less than 1 year of age, with onset of the fatal episode apparently occurring during sleep, that remains unexplained after a thorough investigation, including performance of a complete autopsy and review of the circumstances of death and the clinical history.’

(Krous, Beckworth, Byard, Rognum, Bajanowski, Cutz, Hanzlick, Keens & Mitchell 2004)

There are a number of sub-classifications of SIDS (sourced from Krous et al., 2004). These are:

**Category IA**

Includes infant deaths that meet the requirements of the general definition and:

- the child was more than 21 days and less than nine months old, was born full-term and has demonstrated normal growth and development with no other similar deaths among siblings or close genetic relatives
- at autopsy there were no potentially fatal pathological findings and no evidence of abuse, neglect or unintentional injury.

**Circumstances of death**

The circumstances of death are that the child was found in a safe sleeping environment and investigation of the scene did not provide an explanation for the death.
Category IB
This category includes deaths that meet the requirements for the general definition and all of those for category IA except that investigation of the death scene and forensic analysis may not have been performed.

Category II
This category includes deaths that meet the criteria for the other categories except that one or more of the following conditions may also exist:

- aged from 0–27 days or from nine months up until 12 months old
- similar deaths among siblings, or close genetic relative
- neonatal or perinatal conditions that have resolved by the time of death, for example those relating to premature birth
- autopsy findings of abnormal growth or development not thought to have contributed to death
- marked inflammatory changes or abnormalities not sufficient to be unequivocal causes of death.

Circumstances of death
Potential suffocation caused by overlaying bedding but not determined with certainty.

Unclassified SIDS
This includes deaths that do not meet criteria for SIDS category I or II but where other diagnoses are unequivocal including cases where autopsies were not performed.

Fatal sleep accidents
Fatal sleep accidents are defined as a death of an infant occurring during sleep, as a result of an accident, such as a fall, suffocation⁴⁵, or asphyxiation. Fatal sleep accidents are explained deaths that meet SUDI criteria (Queensland Commission for Children and Young People and Child Guardian 2007; New Zealand Child and Youth Mortality Review Committee 2013).

⁴⁵ Suffocation in a place of sleep includes situations where the whole or part of a body, such as a limb or breast, can cover the face, flex the neck or apply pressure to the chest or abdomen of an infant making it hard to breathe leading to asphyxia (New Zealand Child and Youth Mortality Review Committee 2013).
Appendix 3

Survey questions

Thank you for taking the time to complete this survey. The survey will inform a review being undertaken by CDCR of cases involving infants who died suddenly and unexpectedly (SUDI) and where the cause of death remains largely unclear. Many of these cases involve infants dying during sleep.

1. What risk factors are you aware of that can increase an infant’s vulnerability to a sleep-related death? Please list.
2. Where did you learn about these risks?
3. How would/do you use this knowledge when working with families where there are infants in the home?
4. Briefly describe any cases where you have seen or heard about parents implementing changes to reduce the above risks after you have discussed these risks with them?
5. Do you and/or your colleagues need more information about sleep-related infant deaths? If you answered yes, what information would you find helpful?
6. What is your role within the agency?