

# Baby Essentials

Report on a blitz approach to education for aligning health and community sectors with essential knowledge and action for preventing sudden infant death in New Zealand



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## ***Baby Essentials***

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Report on a blitz approach to education for aligning essential knowledge and action with evidence for preventing sudden infant death in New Zealand

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This report and the work it describes is an acknowledgement of the power of networks. Our team of Safe Sleep Champions took the blitz approach to heart and, with the help of the internet, facilitated extraordinary participation in the *Baby Essentials* programme in a short period of time.

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## Executive summary

**Introduction:** To have a population effect, public health initiatives need scale. This means broad participation, wide reach and deep penetration into priority groups. Sudden infant death rates have fallen by 80% in New Zealand since the mid-1980s. Yet for the sub-groups in which these tragedies now cluster, current rates match those of the epidemic 20 years ago. The decline in infant death rates has slowed considerably in the past decade or so with smoking and bed sharing, either in combination or not, common risk factors in current SUDI cases. The prolonged debate about the safety of bed sharing for babies has hindered the prevention effort and been confusing for professionals and the public. This report describes how networks and the internet were used to power a simple education approach and small resource in an effort to align our nation in safe sleep awareness and action for ending preventable sudden infant deaths.

**Method:** A national network of safe sleep champions (SSC) was formed, from health and community professionals. Members were to act as champions of safe infant sleep at local level. They were prepared to facilitate a standard programme of essential knowledge and skills for protecting infant life, called *Baby Essentials*. Materials included a 24-slide MS PowerPoint presentation and 'Talk Cards' for facilitating key conversations with families. The presentation was also formatted for online access, fitted with voice-over, and launched as a complimentary resource, two months after the peer-facilitated option, in order to support the blitz approach and reach more people. Safe Sleep Champions promoted both options.

The programme was designed to align knowledge, understandings and action with key principles for protecting a baby's life and to enable protective intervention by families. The online tool was embedded in a template enabling basic information on usage, reach and impact to be collected, and similar, but not identical, information was collected from the session reports of SCCs. Reporting by SSCs was optional from June 2010.

Self-rated 'increased confidence' (IC) to discuss infant sleep safety was used as a measure of impact of the education, regardless of prior confidence, for both presentation modes, which were certificated courses attracting continuing education points from professional bodies.

**Results:** The education achieved high participation, broad reach and was highly cost effective. More than 6000 people from across New Zealand participated in one or other of the presentation modes. More than 1000 were in non-health roles and 277 were family members.

One practitioner prepared, on a one by one basis, 65 SSC to facilitate the standard programme. Between 1st September 2009 and 31st December 2011, this network delivered at least 301 sessions reaching a collective 2941 participants. As a proportion of the 1374 participants for whom feedback forms were provided, there were high ratings (7-9/9) recorded for 'overall value' of the sessions (96%), and 'increased confidence' to discuss infant sleep safety with families and colleagues (91%).

From 18th November 2009 to 31st December 2011, 3312 online sessions were completed, 11% of these by Maori or Pacific participants. Reasons for participating were given as 'to educate others' by 70%, and 'for personal interest' by 30%. For session completers who also provided an IC rating (n=2684), 69% rated their increased confidence to discuss infant sleep safety with others as high (7-9/9). A high IC rating was significantly influenced by spending more time per slide ( $p < 0.001$ ) and being Maori, Pacific, Asian or 'other' compared to New Zealand Europeans ( $p < 0.001$ ).

**Discussion:** Through the power of networks and the internet, over 6000 people from across New Zealand society were able to participate directly in this education. The added impact from unreported sessions and the indirect flow-on effects of safe sleep conversations is unquantifiable. The 'Baby Essential' education enabled participants to address with confidence what had previously been a problematic issue. This report is evidence of the capacity for scale from a coordinated approach to health education that makes use of a supported network of professionals, as well as the internet, to leverage impact from a simple and low-cost education tool.

## Recommendations

These recommendations are based on the findings from this report and the issues raised by participants of facilitated sessions as reported by Safe Sleep Champions.

1. That regions with high Maori birth rates increase expectations of staff for education and action on protecting babies from accidental asphyxia and other causes of preventable sudden infant death.
2. That new-born facilities introduce clip-on cots, or another option for enabling closeness *and* safety for babies, as support in managing complex needs in the critical new-born period.
3. That the Safe Sleep Champion model is considered as part of a strategy for addressing other child and youth mortality issues such as drowning, car accidents and suicide.
4. That the core elements of a supported networks, focused materials, online option, pursuit of scale and blitz approach to participation, all be maintained as central to effectiveness if the approach is replicated.
5. That the issue of infant sleep safety, move on from debating the pros and cons of bed sharing, and give equal attention to enabling smokefree pregnancies and safety in co-sleeping situations, where these occur.

## Introduction

Public health interventions need sufficient scale if they are to have any chance of influencing population outcomes. Improving survival rates for babies from preventable causes of sudden infant death is one example of a current health challenge that needs new thinking. While survival rates in New Zealand have increased by 80% since the mid-1980s, improvements in recent years have slowed considerably. Currently, 60-70 babies die suddenly each year in their first year of life and as they sleep<sup>1</sup>.

The pathway from published evidence to protected babies has become complex. It was a lot simpler around 1990 when prone sleeping was promoted as dangerous for babies and parents acted quickly and with dramatic results in terms of lives saved. A review of the changing patterns of sudden infant death in New Zealand over the past 25 years<sup>2</sup> describes a different reality for today's parents and professionals in addressing risks and pursuing protection. Based on diffusion of innovations theory<sup>3</sup>, it outlines a three pronged strategy for prevention in the here and now: develop contexts that support, networks that influence, approaches of value to priority populations.

The need for scale in addressing sudden infant death is obvious. For families, there are an estimated 1,000 sleep events in the critical first six months that need protecting, assuming 5 sleep events per day per baby for the first six months. For the population, there are an estimated one hundred and twenty million opportunities for tragedy each year, given birth rates of more than 60,000 per year. Even if we consider only the babies more vulnerable due to exposure to smoking in pregnancy, there would still be a potential 25 million vulnerable sleep events each year, or 70,000 /day, (assuming maternal smoking rates of 20% for non-Maori and 33% for Maori<sup>4</sup> and 2011 birth numbers<sup>5</sup>). Clearly, protecting some sleeps, or some babies, will not be enough for a measurable reduction in sudden infant deaths. Developmentally appropriate conditions need to apply to all babies and all sleeps to safeguard the chances of survival.

The internet offers opportunities for broad participation and extensive reach in health education, in a way that traditional workshop approaches cannot<sup>6</sup>. This report describes usage and impact of a simple education tool, delivered in workshop and online modes, for aligning



people from across society with the knowledge, attitudes and actions for providing developmentally appropriate sleeping conditions for babies as they sleep.

## Methods

### Developing the network

Previous work involved forming and supporting a network of Safe Sleep Champions from each of the 21 district health boards (DHBs). To refresh this network, invitations were sent to relevant DHB services managers to nominate at least one champion for the network. To extend it, similar invitations were sent to well child services, all mayors of city and district councils, and various other agencies and individuals with a previous association with this work. Midwives acting as peer facilitators in the smokefree education for midwives programme (Smokechange midwives) also trained, as a group, as Safe Sleep Champions. Otherwise people came forward at different times and from across New Zealand so were prepared for their Safe Sleep Champion role one by one, over the telephone.

A 'Safe Sleep Champions' Resource Kit' was developed to standardise training and delivery, and was supported by a web page for easy download of materials. Candidates were stepped through programme materials and processes in a sixty minute coaching session. The expectation was, by July 2010 to deliver at least 5 facilitated education sessions to peers or others in their sphere of influence, using the pre-prepared materials supplied, and provide activity reports for each session delivered.

Responses to issues that came up in sessions and were identified in activity reports were posted on an 'issues forum' on the programme website for sharing with the wider champion network and participants themselves. Network members were nurtured and supported to develop in their roles and personalise these to their particular environments. This support was more intensive at first, and when new champions replaced colleagues, and is on-going.

### Materials

**Presentation:** A 24-slide MS PowerPoint presentation was the focal tool of the programme. The presentation was in four sections (knowing, believing, supporting action and influencing) with each section introduced by a baby from the four main ethnic groups in New Zealand. The intention was to give babies a 'voice', involve them as messengers, so as to present a universal

view of the need for developmentally appropriate conditions for all babies, everywhere, regardless of individual or cultural variations in care.

Content was designed to align participants with current knowledge, attitudes and actions for a blitz approach to preventing sudden infant death in New Zealand. It was a stripped down presentation of 'essential' information to address what was understood to be barriers to action at the time. The tool addressed the following: current prevalence, established evidence on risk/protective factors, the bed sharing controversy, coroners' perspectives, communication approaches, options for discussion topics, and an overarching direction of influencing personal and population change. Each slide had a 'bottom line' statement to summarise the material on the slide and extend the value of participation to those with less technical knowledge of the topic.

A key component of the presentation was to rally support for ending preventable sudden infant deaths completely and soon. It promoted shared responsibility for protecting children, with a personal challenge (wero) to each participant to have more safe sleep conversations with families and friends and bring others to the education.

**Talk Card:** A simple A5 sized laminated card was the resource used in peer-facilitated sessions for practice in discussing essential infant safety information with families. The card promoted six essential conditions for protecting a baby's life with photo images illustrating each. The principles were summarised as: face-up, face clear smokefree, breastfed, close to a parent and handled gently. On the back of the card were a safe sleep check and a description of potential environmental hazards for a baby when sleeping. The package of factors was intended to draw into SUDI prevention education those professionals whose primary focus was breastfeeding or preventing shaken baby syndrome.

The six principles card and a summary slide show of each principle were translated into 20 languages, being those most common in New Zealand, as support for health professionals working in communities where English may not be the first language of family members. The rationale was to present an inclusive approach, draw minority communities into conversations about infant safety and demonstrate sudden infant death as the universal problem that it is.

### **Facilitated delivery**

Peer-facilitated education was aimed at mainstream health professionals and included skill practice and discussion as well as the *Baby Essentials* presentation. It was designed as a 60 minute session that could also be presented in 30-90 minutes depending on circumstances.

Safe Sleep Champions promoted the education and coordinated venues, attendance and materials. Five delivered sessions, complete with activity reports, were expected before July 2010. On-going education and reporting, using the materials, was encouraged. Safe Sleep Champions, and the programme, were presented to DHBs, councils and other agencies as a resource to integrate into local efforts for protecting the lives of babies.

### **Online delivery**

The *Baby Essentials* presentation was fitted with voice-over and formatted by a software development company for online access, at a cost of NZD\$3000.00. The online delivery mode was the 'bare bones' presentation and was expected to take 12-15 minutes to complete. A three-question optional quiz preceded the first content slide and its answers were provided to participants following the last content slide. These data were not captured.

The online tool was intended to complement the more intensive facilitated workshop delivery mode, and extend the reach of sessions to enable participation by people after-hours, in rural locations and non-health roles. The purpose of the voice-over was to reach out to a broader audience by explaining the key points of each slide in everyday language, in the hope that it might draw in community and whanau participants, too. Except for the voice-over, content was not adapted for non-health audiences, rather promoted as 'this is what the health professionals are learning'.

The online presentation was embedded in a template for monitoring usage, with emailed reports received weekly complete with an MS Excel spread sheet of updated usage data. Feedback from usage reports enabled targeted promotion in low using regions and groups, and motivational support in regions and groups where usage was growing. Initially, the tool was promoted and coordinated nationally, and from July 2010 it moved to being largely the responsibility of safe sleep champions and others in each region, agency or profession, as well as participants themselves.

A recommended maximum three questions were included at start-up to describe participants' reason for using the online tool, the region they were from, and their ethnicity. Questions at

the end were about their role, their rating of 'increased confidence' (IC) on a 1-9 scale (defined as 'increased confidence' to discuss safe sleep information with others), and requests for a certificate acknowledging participation. Being internet-based, people were free to exit at any slide and answering questions was optional. The response for IC ratings was used as a marker of the tool's impact.

Certificates were emailed to those requesting one who also supplied an email address. Both the facilitated and online presentation versions carried continuing education credits for midwives and nurses on evidence of certification.

Called *Baby Essentials Online*, this e-learning tool aimed to increase conversations with vulnerable families about essential safety conditions for sleeping babies through encouraging broad participation, shared responsibility, and extensive reach. Specifically, the goals were to:

- Enable more people to participate than was possible with a facilitated approach
- Reach beyond the primary audience of mainstream health professionals
- Increase confidence for discussing safe sleeping conditions for babies

### **Statistical methods**

Usage and participation data from both delivery modes were analysed by frequency distribution using MSExcel and levels of significance determined using Chi squared tests. Findings were defined as significant for  $p < 0.05$  values. A simple key word find method using MSWord was used to analyse qualitative data and group comments from participants and presenters under themes.

## **Results**

Results from the two delivery modes are presented separately as the data collected were not identical.

### **Participation in facilitated sessions**

**From Presenters' Activity Reports:** Activity reports were received from 65 safe sleep champions who presented a collective 301 facilitated sessions to 2941 peers. Two thirds of these sessions were completed before the end of the required reporting period of July 2010, with activity reports for a further 100 sessions submitted on an optional basis after this date.

Participants were from every DHB region with 40% coming from just three: Auckland (15%), Capital and Coast (13%) and Hawkes Bay (13%). As expected, champions working in DHBs registered the most participants (57%), an average 8.5 / session, with 17% of participants from sessions delivered by each of Plunket (at 26.4/session) and Smokechange midwives (at 7.2/session). Also noteworthy is the participation by the Child Youth and Family Service whose safe sleep champion delivered 4 sessions to 63 social workers across the country.

Most participants were midwives (33%) or nurses (32%) and included some allied health professionals (9%), a few doctors (1%) and people in 'other' roles (11%) or of unknown role (14%). The duration of facilitated sessions varied from 15 to 180 minutes averaging 48.0 minutes per session and 58.2 minutes exposure to the education per participant. Participation results are summarised on Tables 1 to 4.

Presenters were invited to give a brief appraisal of their sessions on their activity reports and comments were received on 205 (68%). Comments varied widely and were overwhelmingly positive about how the programme was received. A key word search identified the following main descriptors: sessions facilitated 'discussion' (91); experiences were 'good' (78), 'great' (26) or 'positive' (21); there was active 'participation' (35); lots of 'questions' (68); materials were 'well received' (31); content was 'interesting' (27); there was appreciation for the 6 principles 'cards' (25). Challenges reported by some related to technology, people not turning up, time constraints, finding opportunities, busy workloads and birthing demands on reliability and availability of midwives. Selected responses are provided on Table 5 and the sample comment below is an example of high community participation and leverage from one session.

*"I gave a presentation to seventy parents and grandparents at my mother's garden club in Keri Keri. It was greatly appreciated and I was stopped by many in the town to say thank you and that they had emailed family the information."*

In 147 activity reports presenters identified Issues raised, discussed and addressed in sessions. Again, a key word search identified the following as main topics: 'swaddling' (26) and 'wrapping' (12); access to 'six principles' talk card (24), 'cot card' (10), safe sleep 'leaflet' (4), non-specific 'resources' (4); 'bed sharing' (17), 'co-sleeping' (7), 'body size' (2), 'fatigue' (4); application of safe sleep 'principles' (10); products such as 'pillows' (7), positioning 'wedges' (6), 'slings' (4), 'hammocks' (3); new-born care in 'hospitals' (10), 'NICU/SCBU' (3), 'skin to skin'

(6), 'position' (6); 'breastfeeding' (7); 'smoking' (12) and 'access to 'NRT' (6); realities for 'parents (16) and 'families' (6). A selection of responses is provided in the Appendix 2 and below is an example of a discussion for overcoming intervention barriers for health professionals.

*"Discussed the issue of whakama (shame) in a cultural context and all agreed that while it might feel difficult to discuss safe sleeping with parents there is no greater shame than having to acknowledge that the information wasn't shared and an infant's death could have been prevented."*

**From participants' evaluations:** Individual participant feedback forms were received from 48 champions. These represented 1374 (47%) participants who were exposed to the education for an average 52.4 minutes each (range 15 to 150 minutes). Most (96%) rated the overall value of the session highly (7-9/9). Eleven hundred people provided an IC rating (for 'increased confidence' to discuss infant sleep safety with parents and colleagues) which was also high (7-9/9 for 91%).

One thousand and five participants also offered a comment with their feedback. The key word find was used to group descriptors of people's experiences. Main categories, consistent with the high ratings of overall value for the session, were: various elements were 'good' ... (237), 'great ...' (197), 'well ...' (137), 'excellent ...' (94) or 'awesome' (13); content was 'informative' (141), 'clear' (72), 'interesting' (69), 'valuable' (46), 'important' (37), 'useful' (36), 'enjoyable' (32), 'easy to ...' (32), 'understandable' (21), 'relevant' (18), and 'interactive' (10); participants appreciated 'discussions' (84), 'resources' (51), 'refresher' (24), 'visuals' (16), 'pictures' (6) and a 'principles' approach (13); superlatives used in comments included 'brilliant' (6), 'wonderful' (6), 'fabulous' (5), 'amazing' (4), 'extremely ...' (3). Selected responses are provided in Appendix 3 with three examples given below.

*"Great programme delivery with thought provoking information and excellent communication strategies."*

*"I feel much more confident now. I think I have been a bit wish washy about it as I have slept with my children. The presentation is precise - educating parents with the facts. If*

*people are going to sleep with their babies in the bed - talk about making it safe - remove pillows, have firm mattress etc.”*

*“Excellent presentation. Hugely informative, great scientific evidence. Well-done. Will work exceptionally well in my practice.”*

### **Participation in online sessions**

This analysis is of sessions rather than participants. There is no way to identify if a person repeated an online session, or participated in both a facilitated and an online session. Given that only 3 of the 1005 responses from participants of facilitated sessions identified that they had also done the online session, and that a further 7 indicated their intention to, it is assumed that most online sessions were completed by first time participants.

**Deciding the study group:** Of 5246 times when the internet link was opened between the ‘go live’ date of 18 November, 2009, and 31st December 2011, 1298 (24.7%) sessions were closed before any content had been viewed, leaving 3958 sessions where the presentation started, of which 3311 (84%) proceeded to completion. From these 3311 completed sessions, 628 were excluded from further analysis for having no response to rating ‘increased confidence’, resulting in a total 2683 sessions in the study group. This is 67.8% of started sessions and 81.0% of those completed. Data were analysed by time of use, reason for participating, average time per slide, region, ethnicity, role, ‘increased confidence’ (IC) rating and whether a certificate was requested.

**Usage:** There was an average participation rate for completed sessions of 24.4 /week, or 105/month over two years. Usage showed seasonal and weekly patterns, with more frequent usage in non-summer months (77.3% in March to November) and earlier in the week (55.9% on a Monday to Wednesday). A significant 17.6% (472) sessions occurred on a weekend.

Session activity was highest in the first months of implementation and March 2010 was the month of highest use. Overall, session activity gradually declined from a total 1396 (52%) sessions in 2010 to 1126 (42%) in 2011. Usage by months, seasons and days of week are shown graphically in Figures 1 to 3 respectively.

For most sessions (74.2%) the reason for using the tool was given as 'to educate others' rather than 'for personal interest'. For about half of sessions (53.3%), people spent the intended average 30 seconds or more on each slide.

**Reach:** Use of the online tool reached across regions, cultures, roles and sectors, and directly into families. As expected, the majority of users were from regions and groups with larger populations. Sessions were completed by people from Northland (104) to Stewart Island (4), with South Auckland recording the highest number of sessions (378), followed by Canterbury (337) and Wellington (317).

Session activity was analysed as a proportion of the 2010 birth numbers (Maori and total) for each region. Nelson-Marlborough had by far the most sessions as a proportion of the region's 2010 new born population for both Maori (39.5%) and all (7.9%) babies, followed by Hawkes Bay (10.2%, 4.6%) and the East Coast (4.5%, 3.1%). Table 6 presents session frequency by region in proportion to 2010 birth numbers.

The eight regions with higher Maori birth numbers (South Auckland, Waikato, Hawkes Bay, Manawatu-Wanganui, Northland, East Coast and Taranaki) accounted for 11816 (64.0%) of the 18458 Maori babies, and 29374 (46.0%) of all 63897 babies, born alive in NZ during 2010. Sessions completed in these eight regions had 43.5% of participation in the online tool.

Most sessions (72.9%) were completed by New Zealand Europeans with 7.7% by Maori (207), 6.3% by Asian (170), 2.8 by Pacific Peoples (74) and 10.0% by people of other ethnicities (267). The majority of sessions (64.8%) were completed by people in health worker roles, specifically, non-Plunket nurses (750), midwives (597), Plunket nurses (141), allied health professionals (95), doctors (88) and childbirth educators (67).

Non-health roles made up 945 (35.2%) of sessions, spanning community (173), education (71) and business (17) sectors and included 3 coroners and 1 politician. There were 276 sessions completed by parents (214) or grandparents (62) and 408 (15.2%) where role was not specified from the dropdown list of options. For nearly all (91.3%) completed sessions, people requested a certificate.



**Impact:** On completion, participants were asked to rate how much they felt their confidence had increased for discussing safe sleep information with others (hereafter referred to as 'increased confidence' ratings or IC ratings), after using the e-learning tool. For 68.8% of sessions, IC ratings were high (7-9/9) in this group of completers.

A comparison was made between sessions with high (7-9/9) and low (1-6/9) IC ratings to identify any variations by: reason for participating, regional clusters, ethnicity, average time taken per slide, and role. Results are summarised on Table 7.

Not unexpectedly, time spent per slide influenced IC ratings. High IC ratings were greatest for those spending 60 sec / slide or more, and least for those spending less than 30 sec / slide. ( $\text{Chi}^2 = 14.740$ , D.F. = 2,  $p=6.299^{-4}$ ). Maori, Pacific, Asian and 'other' participants were more likely to rate highly (7-9/9) their increase in confidence ( $\text{Chi}^2 = 19.584$ , D.F. = 1,  $p=9.63 \times 10^{-6}$ ) relative to NZ Europeans, yet ethnicity was not associated with spending more time per slide.

There were also significant differences in IC ratings by role. Relative to those in health and community worker roles, whanau were less likely, and those in unspecified roles more likely, to rate 'increased confidence' highly (7-9/9). ( $\text{Chi}^2 = 20.149$ , D.F. = 2,  $p=4.215 \times 10^{-5}$ ). People in health roles were more likely to be New Zealand European than other ethnicities ( $\text{Chi}^2 = 95.759$ , D.F. = 12,  $p=7.4 \times 10^{-13}$ ) and spend less time per slide compared to people in all other roles, including 'unspecified' ( $\text{Chi}^2 = 28.750$ , D.F. = 6,  $p=6.783 \times 10^{-5}$ ).

In summary, the impact of using the e-learning tool on increased confidence to discuss its content with others was more likely to be rated highly by those spending more time per slide, by Maori, Pacific, Asian and 'other' users compared to NZ Europeans, and least likely by whanau users (parents and grandparents). Neither the reason for taking the online course, nor the region from which people came had any influence on IC ratings.

**Exclusions:** People participating in excluded sessions (1275), being 647 non-completed and 628 completed, but with no IC rating, were significantly more likely to be doing the presentation for personal reasons rather than to educate others ( $\text{Chi}^2 = 29.509$ , D.F. = 1,  $p<0.0001$ ).

## Discussion

The purpose of evaluation is to look systematically for value in a piece of work and learn from activities undertaken in the name of improving public health. We report, here, the use of a simple tool for aligning understandings and action for preventing sudden infant death. The programme was designed as an intervention for putting research into practice, not as research itself; nor was it an isolated work, but complementary to a broader change strategy.

### Main findings

The *Baby Essentials* education tool raised the confidence of participants to discuss infant sleep safety. As well, it achieved high levels of participation and broad reach from both of its delivery modes of facilitated and online sessions, with participation penetrating into community and family settings as well as health. It is likely that the strong network of safe sleep champions and online access played key roles here. Networks enable the spread of ideas, role clarity focuses action and the internet facilitates access. While building a Safe Sleep Champion network had been the focus of previous work, the dedicated tool, with its online option, was a mechanism for supporting champions to extend participation and be even more effective in SUDI prevention education.

### Comparing delivery modes

This report is not intended to be a comparison of the relative merits of facilitated versus online modes of the education tool. Facilitated sessions were a more intensive experience than online sessions with the added components of skill development, practice with using resources, and discussion, so it is not surprising that 'increased confidence' ratings were higher for facilitated over online participation (91% vs 69% for high ratings and 80% collectively). Issues raised and addressed within facilitated sessions enabled personalised understanding of the material presented in ways that an online sessions could not.

### Facilitated sessions

**Addressing issues:** That most participants rated highly the overall value of facilitated sessions, suggests that safe sleep champions were well prepared, confident in the material and competent in addressing issues raised. It is likely that competence was supported by the 'issues forum' on the programme website that was updated as new issues were identified from champions' activity reports.

**Preferred delivery modes:** Wellington, Canterbury, South Auckland and central Auckland had high participation rates in both facilitated and online sessions, yet Hawkes Bay stands out as the region with highest participation, in both modes, relative to population size. In other regions one mode was favoured over another e.g. Nelson had high participation in the online option, but not facilitated sessions and Waitemata the reverse. Having both options available enabled regions to participate in ways that suited them.

**New-born facilities:** Several safe sleep champions reported on issues raised by staff working in new born facilities where there are tensions between promoted safe sleep practices and the complex realities of new born settings and needs. When conditions are unfavourable, staff can be exposed to criticism, in their work to support the establishment of breastfeeding and the many other needs of babies and mothers in this critical time. Such conditions are: high and narrow adult beds, lots of pillows and tired or medicated mothers. These do not support babies to be safe in their mothers' beds when being held, nursed or sleeping. Three-sided 'clip on' type cots, or an alternative solution, need to be considered as a standard of care for new-borns exposed to risk in these ways, and as support for staff responsible for infant safety.

### **Online sessions**

The discussion below is of the added value provided by the online option as a complement to facilitated sessions and to the broader approach to prevention of sudden infant death.

**Patterns of use:** High participation and broad reach are essential components of the scale required for an intervention to have a population effect. The online tool achieved both. Once in motion, usage of this tool seemed to run itself with consistency across the two year study period for: monthly usage patterns, proportions of completers to non-completers, and the participants' reasons for taking the course. Further evidence of added value is in the potential work time saved from nearly one fifth of sessions being completed on a weekend, assuming most were in unpaid time. Usage has continued into 2012 with an average 20 completed session / week in the first 4 months, making this an increasingly cost-effective course with every passing week.

**Survival equality:** It cannot be overstated that to address inequality the underachieving group needs to achieve at rates greater than the achieving group or groups, and requires intervention intensity to match such a goal. As a group, Maori babies are most at risk of sudden infant death, not because they are Maori, but for a raft of other complex reasons one of which is that Maori babies carry a greater burden of risk. To achieve survival equality, deaths of Maori babies must reduce at rates proportionally greater than non-Maori babies, a four-fold reduction in fact. This calls for far more intensity in all interventions to protect the Maori baby.

**'Usage to births' ratios:** As an example, the eight regions with higher numbers of Maori births had 'usage to births' ratios for the online tool that were appropriate for total birth numbers, but would need a 50% increase in usage to be proportional to the Maori new born population, and a 200% increase to match the level of intensity required of any intervention working for survival equality for Maori babies. The Nelson-Marlborough region took the blitz approach to heart and achieved a 4:10 ratio of 'usage to births' numbers for Maori births, and 4:50 for all births. It is also encouraging to see relatively high 'usage to births' ratios in Hawkes Bay and

the East Coast region, being regions with high Maori birth rates, and in South Auckland which recorded the highest overall usage of the tool. Every effort to increase use of this tool, or similarly effective material, by Maori, would be positive, given the high ratings for increased confidence reported by Maori in this study.

**Roles:** Almost 1000 sessions were completed by people in non-health roles, a quarter of whom were parents or relatives of a baby. This degree of reach is more difficult to achieve in traditional workshop style health education, yet it is critical to growing 'networks that influence' across the community and within families. While hoped for, such participation was unexpected, given that the tool had not been designed or adapted for people in non-health roles, except in the voice over.

**Session intensity:** The finding that spending longer per slide increased impact was expected, but that that impact was highest for Maori, Pacific, Asian and 'other' groups, compared to NZ Europeans was not. This may reflect variations in starting knowledge and confidence and is not a reflection of actual confidence. Impact was measured as 'increased confidence' to discuss safe sleep as a result of the presentation and not 'confidence' per se. Since most NZ Europeans were also mostly health professionals, it may be that their increase in confidence from viewing the presentation was lower, but actual confidence higher. While a tailored resource is likely to be even more appropriate to non-European groups, this finding does suggest that mainstream approaches can be useful to specific populations, too.

**Systematic action:** The online tool made it easy to build safe sleep education into standard expectations for professional development, practice updates and orientation systems. The features of easy access and short duration supported some regions to use the tool as a system in a staff education plan, with completing the course and presenting the certificate accountable expectations. There were anecdotal reports of junior doctors being required to 'show their certificate of completion' as part of their paediatric placements, of hospital staff being expected to complete the course 'during the month of ...' and of safe sleep champions monitoring participation rates as feedback that their systematic action was happening. It is also likely that 'points' allocation by nursing and midwifery professional bodies drove up participation in these groups. While geographical reach was varied, with some regions participating more intensively than others, all of New Zealand was represented in the completing group.

**Ripple effects:** Comments from presenters and participants allude to a ripple effect of influence from the education. The presentation itself put out a challenge to participants to bring at least another 5 people to the education itself and to use their influence widely through safe sleep conversations within their networks. Participation and impact reported here is likely to underestimate actual results due to the unquantifiable influence of these

conversations, of sessions not reported after July 2010 and those known to be continuing in 2012.

**Cultural participation:** The tool was designed to emphasise the universal nature of safe sleep principles, as being relevant for all babies during a critical stage of development. It did not promote SUDI as a Maori problem, but as a problem for any baby where risk factors cluster. While some comments from participants reveal cultural acceptability in terms of topics discussed and the approach taken, with some presentations presented in te reo or from a kaupapa Maori perspective, ethnicity was only identified for online sessions. It was interesting that increased confidence ratings from online participation were lower for New Zealand Europeans than for Maori, Pacific, Asian or 'others'. This may indicate the former group coming from a base of higher confidence, but it is an encouraging finding for a non-targeted resource.

**Limitations:** Reporting is constrained by the limited data able to be collected around an e-learning experience without undermining participation in it. It is likely that user factors partly explain why 1298 sessions were exited before any content was viewed. Similarly, at the end of the presentation, there were people in 628 sessions who exited after the last slide but before the page inviting information about role, impact or certification options. High dropout rates and non-compliance with data collection are to be expected from e-learning tools where people participate more on their own terms. Factors contributing to not starting or not completing the presentation might have included: a misdirected web browser search, interruptions, not being the right time, not what was expected, or simply not being interested.

**Added value:** The value of this work is in the more than 3000 online sessions that *were* completed, and the increased confidence to discuss infant sleep safety reported. No claims can be made from these findings for an impact on professional practice in terms of increased conversations, or on family practice in terms of increased safety conditions for babies. However, in the spirit of programme logic<sup>7</sup>, it is likely that more confidence leads to more discussions, which fosters increased understanding and results in safer care for more babies. Given that SUDI is a major component of preventable infant mortality<sup>8</sup>, it is worthy of note that during the two-year intervention period, total infant mortality steepened its downward trend in NZ to be the lowest on record (from 5.09/1000 live births in 2010 to 4.72/1000 live births in 2011<sup>5</sup>) and this has continued into 2012 (4.55/1000 live births for the year to March 2012).

## Conclusion

Taken together, the *Baby Essentials* tool used in facilitated and online modes, enabled more than six thousand people from across health and community roles to be aligned in understanding and action for preventing sudden infant death, resulting in their increased

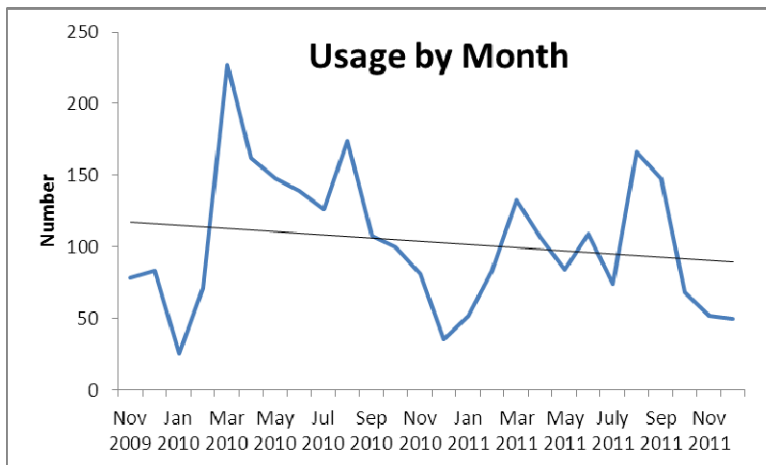
confidence to discuss with families. As well, it supported systematic action at local level, was deemed useful to Maori and, at a cost of just one dollar per completed session, the online option was a cost-effective complement to other efforts for preventing the sudden death of New Zealand babies.

## References:

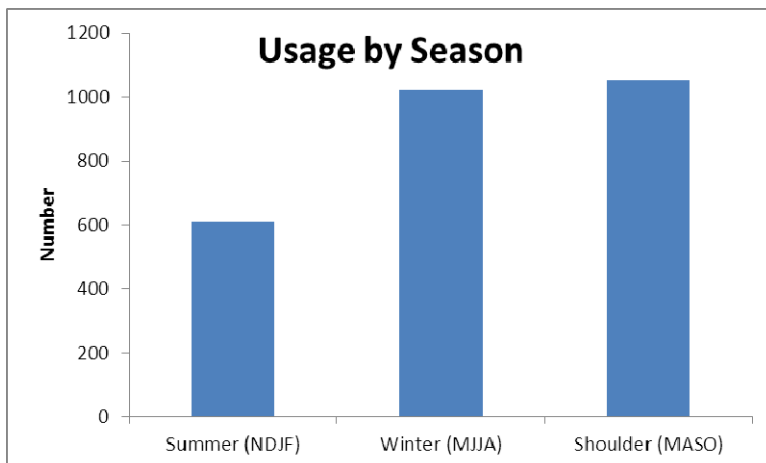
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## Figures

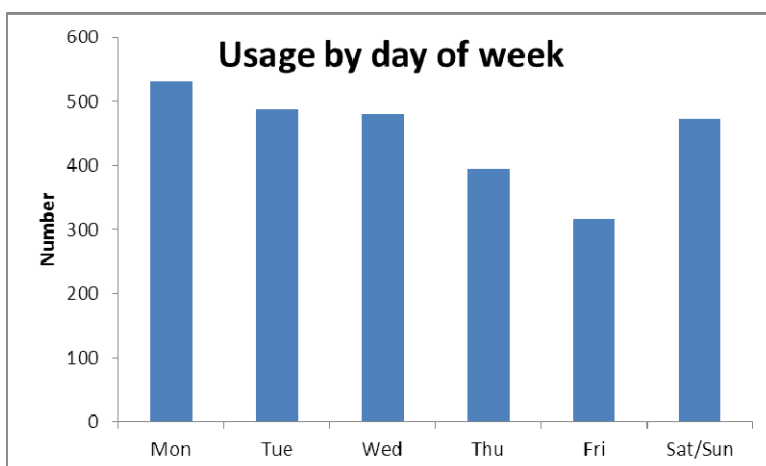
**Figure 1.** Patterns of usage by month for an e-learning tool on preventing sudden infant death



**Figure 2.** Patterns of usage across days of the week for an e-learning tool on preventing sudden infant death



**Figure 3.** Patterns of usage across seasons for an e-learning tool on preventing sudden infant death





## Tables

**Table 1.** Participation in facilitated sessions, by DHB regions, sessions and participants.

District Health Boards	Facilitated Sessions	
	Number of sessions	Participants
	N	N (%)
Auckland	27	445 (15)
Bay of Plenty	9	95 (3)
Capital Coast	29	386 (13)
Canterbury	32	255 (9)
Counties Manukau	21	179 (6)
Hawkes Bay	32	368 (13)
Lakes	11	30 (1)
Mid-Central	6	34 (1)
Nelson-Marlborough	4	19 (1)
Northland	1	18 (1)
Otago	13	92 (3)
South Canterbury	9	44 (1)
Southland	10	61 (2)
Tairāwhiti	12	70 (2)
Taranaki	4	31 (1)
Waikato	17	165 (6)
Wairarapa	2	42 (1)
Waitemata	28	210 (7)
Wanganui	9	54 (2)
West Coast	2	7 (0)
<b>Sub-total</b>	<b>278</b>	<b>2605 (89)</b>
<b>National Forums</b>		
Sub-total	23	336 (11)
<b>TOTAL</b>	<b>301</b>	<b>2941 (10)</b>

**Table 2.** Number of participants by participant role

Participants' roles	Participants
	N (%)
Midwives	961 (33)
Nurses	955 (32)
Allied Health	251 (9)
Doctors	28 (1)
Other	324(11)
Role not known	422 (14)
<b>TOTAL</b>	<b>2519 (86)</b>

**Table 3.** Agencies delivering facilitated sessions by numbers of sessions and participants

Agencies presenting facilitated sessions	Sessions	Participants
	N	N (%)
DHBs	197	1681 (57)
Plunket	19	501 (17)
Smokechange Midwives	68	492 (17)
Child Youth and Family Service	4	63
Birthcare	4	48
Private birthing facilities	3	43
Eastern Institute of Technology (Hawkes Bay)	1	41
Pregnancy Help Training Seminar	1	24
Parent Centre Forum	1	18
Family Start	1	12
Taonga Teen Parent Unit (South Auckland)	2	18
<b>Grand Total</b>	<b>301</b>	<b>2941</b>

**Table 4.** Duration of facilitated sessions by numbers of sessions and participants

Duration of facilitated sessions	Sessions	Participants
	N	N (%)
30 minutes or less	64	477 (16)
31 to 60 minutes	66	519 (18)
60 minutes or more	143	1771 (60)
Duration not known	28	174 (6)
<b>Grand Total</b>	<b>301</b>	<b>2941 (100)</b>

Average session length: 48.0 minutes, range 15-180 minutes

Average exposure per participant: 58.2 minutes, range 15-180 minutes

**Table 5.** Selected comments from presenters of facilitated sessions (appraisal and issues raised) and from participants of their sessions

**A. Presenter comments: appraisal of sessions**

- They loved the Safe Sleep cards depicting the 6 principles
- Was asked to present *Baby Essentials* at nurse aids / receptionists study day.
- The information pack was good. Brilliant resource for a midwife.
- Fabulous session with great energy and discussion
- Birthing suite and maternity ward busy - difficult to release people
- I have laminated the safe sleep 6 principles cards and they are in all the cots in Neonatal Unit. Great talking points between staff and parents.
- Four participants were Maori, so I came from a Kaupapa Maori perspective,
- Participants appreciated the style of presentation and the refreshing SUDI prevention information
- Staff very impressed with talk card that contains 6 essential pictures and accompanying information.
- Went well, well received. Discussion part most important. Talking about barriers to safe sleep message.
- First workshop presentation! Felt very well supported with material and background information.
- Attentive audience, lots of discussions, good questions - thought provoking. Presentation visually good.
- Some really good discussion about corners' cases/real situations that LMCs find themselves in, great info shared as a group.
- Very well received. Good discussion re bed sharing - unsettled babies and smokefree initiatives. Need more leaflets and principles cards

**B. Presenter comments: issues raised in sessions**

- Again the main issues were around access to the resources. Most of the nurses wanted to have the Talk Card with the 6 principles on it.
- Wrapping (babies) in ward, cots elevated, use of cot cards. All keen to go and spread the word
- Babies sleeping in hammocks and baby slings
- Concerned about co-sleeping on the wards when the women are here for some "sick" reason....and knowing that they could not manage the wards if co-sleeping was banned
- Cold houses, benefits to babies of wearing hats, used principles to guide practice
- Swaddling, wedges, safety sleeps, grandparents safe bed sharing were the main issues raised. Used info from the issues forum to address much of this which I had printed off beforehand.
- Discussions around modelling in SCBU how we can improve. (formalising opportunities i.e. discharge planning) to discuss safe sleep every sleep
- Only 1 person in the group of 25 challenged the information. This was perhaps a typical response "I smoked, bottle fed and slept all my kids on their side and they are fine". What is most pleasing and encouraging about this is that the rest of the group fully supported my responses to this person and challenged her to believe the information she was hearing and act on it so that babies she worked with were as protected as possible.

- Swaddling, (safe) cultural practices and changing attitudes
- Hard to convince family about unsafe practices, one family already had cot death, though baby still bed sharing, smokers. Will suggest own bed in family bed
- Tiredness and body size could also be highlighted along with alcohol and drug use - as tiredness is a risk that may seem normal

**C. Participant comments: on experience of sessions**

- A very 'real' presentation. Good practical information - easy to share
- Awesome, can't fault your presentation
- Clear, concise, well presented, relevant, empowering
- Enjoyed the workshop and discussion that has encouraged me to be open about safe sleep with my whanau/ families I work with
- I feel I have missed opportunities to discuss these issues and will now try and make the most of them - also ensure I lead by example and transform parents understanding
- Presented kaupapa well, with empathy and compassion (for those who have experienced SUDI) and passion for the kaupapa. Clear concise and conclusive, thank you
- Would be great to have a DVD of the presentation for postnatal women. This issue is a shared responsibility between health care professionals and family
- Excellent information and well presented with PowerPoint - very easy to understand
- Wonderful, very good, learnt heaps and will pass on to my friends and family
- Very informative and learnt a whole lot about safe sleeping and will definitely share this information with whanau!
- Thank you so much for this session, very informative and very interesting, absolutely amazing, the research that has been done and the work you have put in to making it realistic to get it out to the general public
- Really brilliant session!
- Very useful information. Presentation in Maori in Cook Islands
- Puts the questions and answers parents give into context - feel like I have a coherent explanation for them now
- Presented in a language that I could understand. Very educational, thank you for your time
- Great presentation, felt more confident to spread the word - can't wait for this topic to come up at me next classes, thank you
- Well-structured and outlined. Easy to follow and understand because its well prepared
- Excellent session, great presenter, easy to follow session, very interesting topic

**Table 6.** Completed sessions as a proportion of birth numbers for 2010 (Maori and total) by region

Regions	Number	Completed Sessions	
		As a % of Maori births	As a % of Total Births
South Auckland	378	7.6	2.2
Canterbury	337	13.3	2.3
Wellington	317	9.7	2.3
Nelson-Marlborough-Tasman	270	39.2	7.8
Hawkes Bay	211	10.1	4.6
Central Auckland	206	11.0	1.5
Waikato	154	3.1	1.2
Manawatu-Whanganui	136	5.0	2.1
North Shore-Rodney	118	8.1	1.4
Bay of Plenty	112	2.9	1.4
Northland	104	3.7	2.2
Otago	103	13.8	2.2
West Auckland	80	4.2	1.1
East Coast	48	4.5	3.1
Southland-Fiordland-Stewart Island	25	3.6	0.9
Taranaki	25	2.3	0.8
Wairarapa	13	3.7	1.2
West Coast	13	7.2	1.5
Coromandel	8		
Central Plateau	5		
Stewart Island	4		
Not in NZ	16		
<b>Grand Total</b>	<b>2683</b>		

**Table 7.** Variations in participant rating of 'increased confidence' according to: reason for participating, region, average time per slide, ethnicity and role of the participant.

Variable	'Increased Confidence' (IC) Ratings						Significance
	Low (1-6/9)		High (7-9/9)		Total		
	n	%	n	%	n	%	
<b>Reason for participating</b>							
Personal interest	237	28.3	456	24.7	693	25.8	NS
Educate others	600	71.7	1390	75.3	1990	74.2	
<b>Total</b>	<b>837</b>	<b>100</b>	<b>1846</b>	<b>100</b>	<b>2683</b>	<b>100</b>	
<b>Regions with</b>							
High Maori Births	334	39.9	834	45.2	1168	43.5	NS
Low Maori Births	503	60.1	1012	54.8	1515	56.5	
<b>Total</b>	<b>837</b>	<b>100</b>	<b>1846</b>	<b>100</b>	<b>2683</b>	<b>100</b>	
<b>Average time per slide</b>							
<30 sec	431	51.5	823	44.6	1254	46.7	p<0.001
30-59 sec	324	38.7	766	41.5	1090	40.6	
60 or more sec	82	9.8	257	13.9	339	12.6	
<b>Total</b>	<b>837</b>	<b>100</b>	<b>1846</b>	<b>100</b>	<b>2683</b>	<b>100</b>	
<b>Ethnicity</b>							
NZ Euro	652	77.9	1304	70.6	1956	72.9	p<0.001
Maori	53	6.3	154	8.3	207	7.7	
Asian	35	4.2	135	7.3	170	6.3	
Pacific peoples	12	1.4	62	3.4	74	2.8	
Other	79	9.4	188	10.2	267	10.0	
Not specified	6	0.7	3	0.2	9	0.3	
<b>Total</b>	<b>837</b>	<b>100</b>	<b>1846</b>	<b>100</b>	<b>2683</b>	<b>100</b>	
<b>Role</b>							
Health	547	65.4	1215	65.8	1762	65.7	p<0.001
Community	68	8.1	152	8.2	220	8.2	
Whanau	113	13.5	163	8.8	276	11.0	
Other	8	1.0	9	0.5	17	0.6	
Not specified	101	12.1	307	16.6	408	15.2	
<b>Total</b>	<b>837</b>	<b>100</b>	<b>1846</b>	<b>100</b>	<b>2683</b>	<b>100</b>	

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**Acknowledgements:** Change for our Children Limited receives funding from the New Zealand Ministry of Health for education services to prevent sudden infant death.

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# Appendices

## Presentation

**Baby Essentials**  
education for all on protecting babies' lives

Brought to you by Devotion, Vikiel, Chen, Kate and Change for our Children (2009-10)

[www.changeforourchildren.co.nz](http://www.changeforourchildren.co.nz)

**change for our children**

*Awhaaha aho! I tohu moemoea.  
From my mother's teachings, peace protection will be my dream.*

**Start-up Quiz**

1. Name one thing that weakens a baby's arousal response.
2. What is meant by 'window of risk'?
3. What is the triple response for protecting babies during sleep?

Your score: \_\_\_\_ / 3

**My name is Devotion**

Please make sure everyone knows the information that follows. If we could speak, this is the protection all babies, everywhere would ask for. *Fai'afai'oa.*

**Knowing**

Protecting babies is everyone's business.

**Babies do die**

**How many?**

- Total: 300 babies / year (from all causes of death)
- SUDI: 60 babies / year (from all SUDI type deaths)

**SUDI deaths include:**

- Explained (e.g. sleep accidents that lead to asphyxia/suffocation)
- Unexplained (e.g. SIDS/colic death - which is the main group of SUDI deaths)

**Causes of sudden unexpected death in infancy (SUDI)**

SUDI is the term for all sudden unexpected deaths in infancy.

**Which babies die?**

Babies are at risk if:

- Under six months
- More vulnerable due to
  - smoking in pregnancy
  - born before 35 weeks
  - birthweight < 2500 grams
  - influence of alcohol / drugs
- In unsafe sleeping situations

**Most SUDI deaths are preventable.**

**Triple Risk**

Sleep factors trigger death for most SUDI babies.

**How do babies die?**

Babies have a natural drive to breathe or arousal response. This fails for SUDI babies. They stop breathing in their sleep.

**Breathing may stop due to**

- things that weaken arousal
  - smoking in pregnancy, being premature, low birth weight, bottle fed or unwell.
- hazards in the sleeping environment
  - pillows, unsafe positioning, people in the bed, loose covers, soft bedding, the influence of alcohol and drugs, or partying
- a mix of these

Sleeping babies need to breathe.



## Why is arousal important?

- It is a baby's defense in life-threatening events
- It 'resets' a baby's vital functions e.g. heart rate, blood pressure, breathing.
- The same factors that weaken arousal, increase SUDI risk.
- Their effect on arousal is greatest at 2-3 months, the peak age for SUDI.

**Factors that weaken the arousal response**

Ref: Horne R, Paediatric Child Health Vol 11 Suppl A 2006

Arousal is a baby's wake-up call. 6

## Where do babies die?

- In any place that babies sleep
- Lower rates in beds designed for babies e.g. cots, bassinets ...
- Higher rates in other places e.g. couches, adult beds or mattresses, make shift beds, armchairs ...

A 'baby bed' is a bed designed for babies.

No place guarantees safety. It needs to be made safe.

Ref: Depanter et al. The Lancet. Vol 363, 2004

Babies need a protected space wherever they sleep. 7

## The co-sleeping debate

- Some support a *universal ban* on babies sleeping in the same bed as parents
- Others support a '*remove hazards and make it safe*' approach
- All agree
  - 'in same room as sleeping parent'
  - 'in own bed' (a bed designed for babies) for high risk situations:
    - Smoking in pregnancy
    - Premature or low birth weight
    - Alcohol, drugs or partying

**A Safe Sleep Option**  
that is promoted in the Maori community

[www.maoriids.org.nz](http://www.maoriids.org.nz)

Whakana maori: haka owhaioa potohaki. It is a traditional way to keep babies safe and clean whenever they sleep - both in and out of the shared bed.

Ref: Paediatric Child Health Vol 11 Suppl A 2006

Disagreement is a sign that more research is needed. 8

## Believing

**My name is Vaiuli**

Please help everyone **believe** the information about safe sleep. Just knowing it may not be enough. Ka pai.

Knowing may not be enough. 9

## Reality Check

**Circumstances**

- healthy baby girl, 7 weeks old, normal birth at 38 weeks weighing 2890 grams, formula fed, smokefree mother
- in portacot in parents' room on three mattresses, top one covered by a sheet, with a top sheet and 3 blankets all tucked in firmly. No pillows.

- baby wrapped tightly in fleecy blanket, her arms tucked in, placed on her tummy, as usual, with head to one side.
- mother knew tummy risky, tried back in first 2 weeks, but baby settled better on tummy
- mother found her baby with her face down into mattress
- Verdict:** possible suffocation from sleeping on the tummy

Death is a cruel consequence for a parent acting with love. 10

## Coroner's findings

Table 1: Accumulation of risks for seven Wellington SUDI babies

Baby	Unsafe position	Unsafe wrapping	Smoking	Pillows	Formula fed	Smoking & bed sharing	Total risks
A	Yes	Yes	Yes	Yes	Yes	Yes	8
B	Yes	Yes	Yes	Yes	Yes	Yes	8
C	Yes	Yes	Yes	Yes	No	Yes	5
D	Yes	Yes	Yes	Yes	No	Yes	5
E	Yes	Yes	Yes	No	Yes	No	4
F	Yes	Yes	No	No	Yes	No	3
G	Yes	No	?	Yes	Yes	No	3

We have the knowledge to prevent such deaths. 11

**Why people don't believe**

<p><b>Healthy adopters</b> Practices that are high risk in some situations are widely adopted.</p>	<p><b>Gone away</b> Compared to 250 SUDI deaths a year 60 seems not many.</p>
<p><b>Windows of risk</b> Babies develop their way <i>into</i> and then <i>out of</i> periods of risk.</p>	<p><b>Hidden in ordinary</b> Sleep hazards are not seen in ordinary situations.</p>

Safety advice needs to make sense to people. 12

**Some parents say**

- I'm scared she will choke on her back.
- He's on his side so he won't get a flat head.
- I prop her on pillows to help her wind, but she is on her back.
- I know back is best, but she settles better on her tummy.
- We all sleep together to keep warm. Our house is freezing.
- When my baby is sick he always sleep in bed with me.
- I thought that was a pakeha thing – sleeping on the back
- We fall asleep together feeding on the couch, never in our bed.
- You can't use patches when you're pregnant. That's why I'm still smoking.
- Can't see what breastfeeding's got to do with cot death. They just say what they like.
- The crying gets to you. I'll do what works. Better than throwing him out the window.

The realities of the moment can compete with what is essential. 13

**Supporting Action**

**My name is Chen**  
Please help everyone to act on the information in this presentation. Believing it may not be enough. Xie xie ni.

People expect professionals to help them do what is best. 14

**Some professionals say**

- I don't waste my time on this if they are low risk.
- Too much to cover. You have to pick and choose your topics.
- I did it all wrong with my kids, smoked, on the tummy, in our bed, but they are 'healthy as'.
- I don't agree with babies sleeping in their own beds. No wonder women struggle with breastfeeding.
- It's about whakamā for me.
- Some of these people have very difficult lives. We are there to support them not judge them or tell them what to do.
- Everything keeps changing – cot death, SIDS, SUDI. It just confuses everyone. I've stopped listening.
- I prefer the traditional ways – tightly wrapped, on the side with the bassinets propped.
- Not an issue, now. Used to be.

Attitudes of professionals show in their practice. 15

**Aligning with protection**

from → to

optional	essential
informing	transforming
messages	principles
usually	always
knowing	understanding
fear	confidence
single issues	in context
avoiding risk	pursuing protection

The language of protection helps create the change. 16

**Focus on the face**

**The Carpenter Study**  
A large study of 745 SUDI babies and 2411 healthy comparisons found:  
NB: Below, blue numbers refer to 135 and green numbers refer to 2411

Babies are designed to sleep face-up (on the back). Their arousal response prompts them to breathe and strong gag and swallow reflexes protect their airway if they spill.

62% of deaths were due to:

- Turning from side to tummy (12% vs 2%; risk ↑ by 45)
- Being placed on the tummy (39% vs 11%; risk ↑ by 13)
- Getting a covered head (25% vs 3%; risk ↑ by 12)

Ret Carpenter, et al. The Lancet, Vol 363, 2004

'Face-up, face clear' saves lives. 17

**Why smokefree matters**

**Te Whare Tangata**  
- a child's first home -



Babies cannot open a window or escape from smoking harm. They are trapped with the toxins.

Ref: Carpenter, et al. The Lancet, Vol 363, 2004

- ▶ **Smoking: builds vulnerable babies** (more than 15000/year in NZ)
  - takes oxygen, delivers poisons
  - makes placenta struggle and it may 'give up' early (premature birth)
  - weakens vital systems as they develop
  - makes babies weak, sick and die
- ▶ **Smoking: highly significant SUDI risk**
  - As is 'smoking + bed sharing' combo (15% vs 2%; risk ↑ by 18 in Carpenter study)
  - smoking is involved in most bed sharing deaths (77% in the Carpenter study)
- ▶ **Smoking: main cause of preventable death and disease for babies**

Smokefree from the start builds resilient babies. 18


**Protection beyond sleep**

- ▶ **Breastfeeding**  
Around the world breastfeeding saves lives. It strengthens every aspect of development: breathing, learning, growth, immunity ... It helps prepare a child for independent life.
- ▶ **Closeness**  
Human babies need a parent close by, day and night. The parent must be close enough and able to respond when their baby, or a situation, alerts them to a need.
- ▶ **Gentle handling**  
Survival depends on gentle handling. Rough handling can tear blood vessels inside the head and cause brain damage or death. A stressed parent needs support.

A baby's care must match the demands of their development. 19

**My name is Katie**  
You have influence. Please use it to protect us. Thank you.

**Influencing**



Through children we influence the future. 20

**Safe Sleep Blitz**

Can we build a culture of **safe sleep for every baby** in New Zealand in the next 12 months?

**No, if we**

- don't aim to
- keep doing what we do

**Yes, if we**

- think it matters
- work together
- do things differently

Vision: safe sleep for every baby, in every place, at every sleep. 21

**What can you do?**

- ▶ Do what you can
- ▶ Be systematic
  - E.g. build a guided 'baby essentials check' into your practice with every family.
- ▶ Seize opportunities

The strategy is simple  
kororo, kororo, kororo  
talk, talk, talk  
pocha kucha (chatting)

Ideas for conversations		
✓ affirm safe sleep practices	✓ advise against pillows near a sleeping baby	✓ refer for smokefree support
✓ emphasize 'in own bed' for most vulnerable babies	✓ explain safe swaddling (only when face-up)	✓ address side sleeping when you see it
✓ advise on safe ways to settle babies	✓ help balance closeness and safety	✓ emphasize 'every' time, place and sleep
✓ Discuss what supports a healthy arousal or open airway	✓ guide a 'baby essentials' check	✓ be clear about risks for gains and low birth weight babies

Remember the babies. 22


**The partnership**

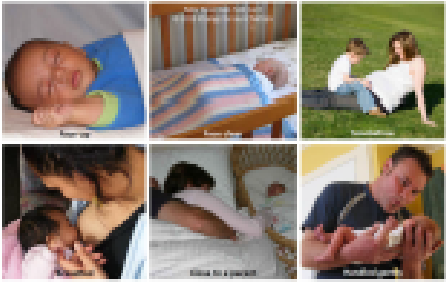
**Support people to create the change**

- ▶ From the very start make babies as **strong** as possible
  - Smokefree, breastfed ...
- ▶ For every sleep make breathing as **easy** as possible
  - Face-up, face clear, open airway from safe neck position ...
- ▶ Make every place a baby sleeps in as **safe** as possible
  - Designed for babies, checked for hazards ...

**Development demands a triple response to the triple risk**  
safe sleep = face-up + face clear + smokefree


A baby essentials 'safe sleep' check is practical support. 23

 Six principles for protecting a baby's life



The SUDI story is about to change. Thank you.

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 End-up Quiz

1. Name one thing that weakens a baby's arousal response.
2. What is meant by 'window of risk'?
3. What is the triple response for protecting babies during sleep?

Your score: \_\_\_\_ / 3

### Talk Card

Six principles for protecting a baby's life

Baby Essentials Talk Card  
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English 2010

### Baby Essentials Safe Sleep Check

<p><b>1. From the very start</b>, make babies as strong as possible.</p> <p><b>How strong is my baby?</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Was my baby smokefree in pregnancy?</li> <li><input type="checkbox"/> Was my baby born after 36 weeks?</li> <li><input type="checkbox"/> Did my baby weigh more than 2500 grams at birth?</li> <li><input type="checkbox"/> Is my baby breastfed?</li> </ul> <p><small>For more vulnerable babies, the extra protection of their very own 'baby bed' (a bed designed for babies) is essential every time they sleep.</small></p>	<p><b>2. For every sleep</b>, make it as easy as possible for babies to breathe freely.</p> <p><b>Can my baby breathe freely?</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Have I put my baby down to sleep face-up? (not side, front or propped on pillows)</li> <li><input type="checkbox"/> Is there plenty of space around the face?</li> <li><input type="checkbox"/> Is there no chance of getting onto the tummy, near pillows, under covers or into gaps? (i.e. in a safe space)</li> <li><input type="checkbox"/> Does my baby breathe only smokefree air?</li> </ul>	<p><b>3. In every place they sleep</b>, make the environment as safe as possible.</p> <p><b>How safe is the sleeping place?</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Is my baby close by me (in the same room when I am also asleep)?</li> <li><input type="checkbox"/> Is my baby in their own 'baby bed' or in a sleeping space I have made safe for my baby?</li> <li><input type="checkbox"/> Have I noticed and removed, or avoided, possible hazards?</li> <li><input type="checkbox"/> Does my baby have a sober person with them when there is alcohol, drugs or partying?</li> </ul>
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**Hidden Sleep Hazards**

Ordinary things can become sleep hazards for babies as they pass through a critical stage of development. Placing babies in unsafe positions can be why they get into trouble later in their sleep. Hazards may come from: pillows, soft items, loose covers, adult bedding, a soft surface, mattress tipping sideways, being propped, couches, people in the same bed, bulky or tight wrapping, an unusual neck position, pressure on a tiny chest, alcohol, drugs and partying.