

## **SURVEY OF INFANT SLEEPING POSITIONS, AUSTRALIA, JULY 1992**

This publication contains statistics about the sleeping positions of children aged less than two years. These statistics have been derived from a population survey conducted by the ABS in July 1992, and represent a selection of those available from the survey.

In 1991 there were 373 infant deaths registered in Australia which were attributed to Sudden Infant Death Syndrome (SIDS), representing 18 per cent of all deaths of children aged less than two years. In the ten years from 1982 to 1991, 66 per cent of SIDS deaths occurred in the first four months of life, and 96 per cent within the first year. Analysis over that period shows that SIDS deaths peak during the winter months.

Recent medical research has suggested that the sleeping position of infants is a factor affecting the risk of death due to SIDS. The research suggests that those infants who sleep on their stomach (prone) have a higher risk of SIDS deaths than those who sleep in other positions. The survey was conducted to identify the patterns of sleeping positions and to enable the targeting of relevant education programs for parents and carers.

It should be noted that the findings of this survey could reflect the outcome of campaigns already conducted in some Australian States and Territories advising parents not to place their infants on their stomach to sleep.

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### **MAIN FEATURES**

- Survey results show that 46 per cent of infants aged less than 2 years are usually placed on their side to sleep, while 40 per cent are placed on their back and 13 per cent on their stomach.
- The pattern of sleeping positions differed markedly according to the age of the child. The majority of very young infants were placed on their side to sleep (69% of those aged less than 6 months). The proportion of children placed to sleep on either their back or stomach increased with age. For example, 7 per cent of infants aged less than 6 months were placed on their stomach to sleep compared with 16 per cent of those aged 18 months to less than 2 years.
- Overall, 25 per cent of children aged less than 2 years did not usually change their sleeping position. This proportion decreased as age increased, from 56 per cent of those aged less than 6 months to 11 per cent of those aged 12 months to less than 2 years. Of those who changed position, 80 per cent were reported as changing while asleep.
- Some 78 per cent of infants placed on their side to sleep usually changed position, compared with 76 per cent of those placed on their back, and 60 per cent of those placed on their stomach. Of those placed on their back and who usually change position, 54 per cent change to their stomach whereas of those placed on their side and who usually change position, only 37 per cent change to their stomach.
- There were some noticeable differences between States in the position that infants were placed in to sleep. The proportion of infants placed on their stomach to sleep was highest in the Northern Territory (27%) and Queensland (23%) and lowest in Tasmania (5%) and New South Wales (9%). In all States except Queensland and the Northern Territory, the side was the favoured position placed in to sleep; in Queensland and the Northern Territory it was the back.
- The pattern of sleeping positions varied only slightly by mother's age or employment status, but some differences by mother's birthplace were evident. For example, infants of mothers born in Southern Europe were much more likely to be placed on their side to sleep (63%), and less likely to be placed on their stomach (4%) than infants of Australian born mothers (46% and 13% respectively).

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### **INQUIRIES**

For further information about the Survey of Infant Sleeping Positions output contact Brian Richings on Canberra (06) 252 5786 or any ABS State office.

For information about other ABS statistics and services please refer to the back page of this publication.

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TABLE 1. CHILDREN AGED LESS THAN TWO YEARS: POSITION PLACED IN TO SLEEP BY AGE BY SEX  
AUSTRALIA, JULY 1992  
(\*000)

Position infant placed in to sleep	Age (months)					Total	Per cent
	Under 3	3 to less than 6	6 to less than 12	12 to less than 18	18 to less than 24		
Male							
Back	5.1	9.9	23.2	27.3	35.7	101.2	38.7
Stomach	2.0	3.6	8.5	10.8	13.3	38.3	14.6
Side	26.0	13.6	26.5	28.5	25.7	120.2	45.9
Don't know	**0.4	**0.1	**0.0	* 0.5	1.0	2.0	0.8
<b>Total</b>	<b>33.4</b>	<b>27.2</b>	<b>58.3</b>	<b>67.0</b>	<b>75.7</b>	<b>261.7</b>	<b>100.0</b>
Female							
Back	4.6	7.1	21.6	32.4	35.8	101.5	40.8
Stomach	1.8	1.3	9.0	7.3	10.4	29.9	12.0
Side	23.5	17.7	25.3	22.7	27.3	116.5	46.8
Don't know	**0.1	**0.0	* 0.4	**0.3	**0.3	1.2	0.5
<b>Total</b>	<b>30.0</b>	<b>26.2</b>	<b>56.4</b>	<b>62.8</b>	<b>73.8</b>	<b>249.1</b>	<b>100.0</b>
Total							
Back	9.6	17.0	44.8	59.7	71.6	202.7	39.7
Stomach	3.8	5.0	17.5	18.1	23.7	68.1	13.3
Side	49.5	31.3	51.8	51.2	52.9	236.8	46.4
Don't know	* 0.5	**0.1	* 0.4	* 0.8	1.3	3.2	0.6
<b>Total</b>	<b>63.4</b>	<b>53.4</b>	<b>114.7</b>	<b>129.8</b>	<b>149.6</b>	<b>510.8</b>	<b>100.0</b>

TABLE 2. CHILDREN AGED LESS THAN TWO YEARS: POSITION PLACED IN TO SLEEP  
BY POSITION USUALLY CHANGES TO BY AGE, AUSTRALIA, JULY 1992  
(\*000)

Position infant placed in to sleep	Doesn't usually change position	Position usually changes to				Total
		Back	Stomach	Side	Don't know	
Age: under 6 months						
Back	19.9	..	3.5	3.2	**0.0	26.6
Stomach	6.7	1.2	..	0.9	**0.0	8.7
Side	39.3	33.6	5.1	2.5	**0.2	80.8
Don't know	..	..	..	..	* 0.6	* 0.6
<b>Total</b>	<b>65.9</b>	<b>34.8</b>	<b>8.6</b>	<b>6.6</b>	<b>0.8</b>	<b>116.8</b>
Age: 6 to less than 12 months						
Back	16.2	..	14.4	13.0	1.2	44.8
Stomach	8.5	4.1	..	4.4	* 0.6	17.5
Side	7.8	23.6	17.0	2.1	1.3	51.8
Don't know	..	..	..	..	* 0.4	* 0.4
<b>Total</b>	<b>32.4</b>	<b>27.7</b>	<b>31.4</b>	<b>19.5</b>	<b>3.6</b>	<b>114.7</b>
Age: 12 to less than 24 months						
Back	12.5	..	65.9	44.7	8.1	131.2
Stomach	11.8	14.5	..	13.6	2.0	41.9
Side	5.5	41.5	45.8	8.1	3.2	104.1
Don't know	..	..	..	..	2.1	2.1
<b>Total</b>	<b>29.9</b>	<b>56.0</b>	<b>111.7</b>	<b>66.4</b>	<b>15.4</b>	<b>279.3</b>
Total						
Back	48.6	..	83.9	61.0	9.3	202.7
Stomach	26.9	19.7	..	18.9	2.6	68.1
Side	52.6	98.8	67.9	12.7	4.8	236.8
Don't know	..	..	..	..	3.2	3.2
<b>Total</b>	<b>128.2</b>	<b>118.5</b>	<b>151.8</b>	<b>92.5</b>	<b>19.8</b>	<b>510.8</b>

CHART 1. CHILDREN AGED LESS THAN TWO YEARS: POSITION PLACED IN TO SLEEP BY AGE, AUSTRALIA, JULY 1992

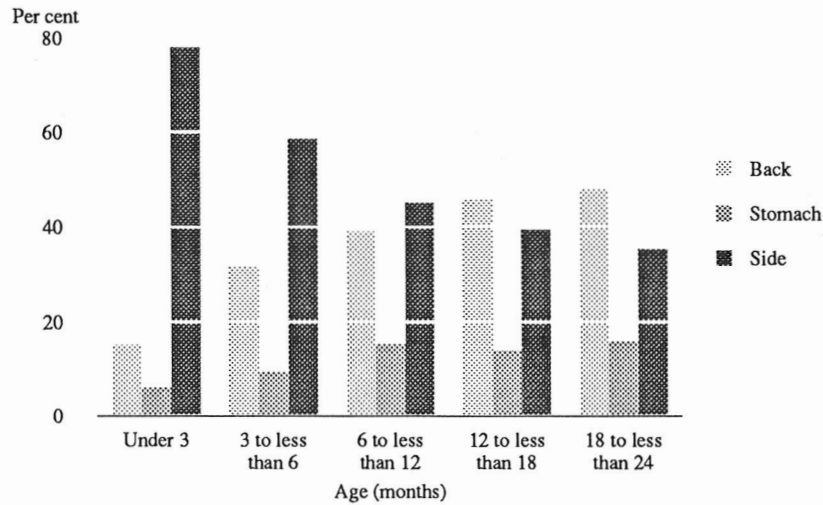


TABLE 3. CHILDREN AGED LESS THAN TWO YEARS WHO CHANGE POSITION: POSITION USUALLY CHANGES TO BY WHEN CHANGES POSITION BY AGE, AUSTRALIA, JULY 1992 ('000)

<i>Position to which infant changes</i>	<i>Age: under 6 months</i>	<i>Age: 6 to less than 12 months</i>	<i>Age: 12 to less than 24 months</i>	<i>Total</i>	<i>Per cent</i>
Asleep					
Back	24.5	21.5	48.6	94.5	31.2
Stomach	6.6	24.8	97.2	128.7	42.5
Side	4.4	16.9	58.2	79.5	26.3
Don't know	**0.0	**0.0	**0.0	**0.0	**0.0
<i>Total</i>	<i>35.5</i>	<i>63.2</i>	<i>204.0</i>	<i>302.7</i>	<i>100.0</i>
Awake					
Back	7.5	4.8	5.3	17.5	41.0
Stomach	1.2	5.0	9.4	15.6	36.4
Side	1.7	2.2	5.7	9.7	22.6
Don't know	**0.0	**0.0	**0.0	**0.0	**0.0
<i>Total</i>	<i>10.5</i>	<i>12.0</i>	<i>20.4</i>	<i>42.8</i>	<i>100.0</i>
Don't know when changes position					
Back	2.8	1.4	2.2	6.4	19.0
Stomach	* 0.8	1.6	5.1	7.5	22.2
Side	* 0.5	**0.4	2.4	3.3	9.7
Don't know	**0.2	3.2	13.2	16.7	49.2
<i>Total</i>	<i>4.3</i>	<i>6.6</i>	<i>23.0</i>	<i>33.9</i>	<i>100.0</i>
Total					
Back	34.8	27.7	56.0	118.5	31.2
Stomach	8.6	31.4	111.7	151.8	40.0
Side	6.6	19.5	66.4	92.5	24.4
Don't know	**0.2	3.2	13.2	16.7	4.4
<i>Total</i>	<i>50.3</i>	<i>81.8</i>	<i>247.3</i>	<i>379.4</i>	<i>100.0</i>

TABLE 4. CHILDREN AGED LESS THAN TWO YEARS: FAMILY TYPE BY POSITION PLACED IN TO SLEEP  
AUSTRALIA, JULY 1992  
(Per cent)

Family type	Position placed in to sleep				Total
	Back	Stomach	Side	Don't know	
Married couples with —					
Dependent children	39.9	13.8	45.8	*0.5	100.0
Dependent children and other relatives	38.5	*10.8	47.8	**2.9	100.0
Dependent children and non-dependent children(a)	36.8	*9.9	53.3	**0.0	100.0
Single parent with —					
Dependent children	39.4	12.2	47.5	**0.9	100.0
Dependent children and other relatives(b)	*31.1	**0.0	*64.7	**4.2	100.0
<b>Total</b>	<b>39.7</b>	<b>13.3</b>	<b>46.4</b>	<b>*0.6</b>	<b>100.0</b>

(a) Includes other relatives. (b) Includes dependent children and non-dependent children and other relatives.

TABLE 5. CHILDREN AGED LESS THAN TWO YEARS: POSITION PLACED IN TO SLEEP  
BY SELECTED CHARACTERISTICS OF MOTHER(a) AUSTRALIA, JULY 1992  
(Per cent)

Characteristics of mother	Position placed in to sleep				Total
	Back	Stomach	Side	Don't know	
<i>State of usual residence —</i>					
New South Wales	41.7	8.7	48.7	0.9	100.0
Victoria	39.2	11.8	48.4	0.7	100.0
Queensland	39.4	22.5	38.0	**0.2	100.0
South Australia	38.3	10.6	51.1	**0.0	100.0
Western Australia	34.5	18.6	45.9	* 1.0	100.0
Tasmania	44.1	* 5.1	50.8	**0.0	100.0
Northern Territory	45.6	26.6	25.9	**1.8	100.0
Australian Capital Territory	34.4	21.8	43.9	**0.0	100.0
<i>Age of mother (years) —</i>					
Under 25	41.2	11.0	46.5	1.3	100.0
25 to 29	40.9	13.4	45.3	* 0.4	100.0
30 to 34	37.8	16.0	45.7	0.5	100.0
35 and over	39.3	10.5	49.8	**0.4	100.0
<i>Birthplace of mother —</i>					
Australia	40.1	13.2	46.1	0.6	100.0
UK and Ireland	38.0	15.8	45.7	**0.4	100.0
New Zealand	39.6	14.3	46.1	**0.0	100.0
Southern Europe	32.4	* 4.1	63.4	**0.0	100.0
Other Europe	48.5	18.9	32.6	**0.0	100.0
Middle East	25.4	14.5	57.8	**2.3	100.0
Asia	45.4	15.8	38.8	**0.0	100.0
All other countries	29.5	9.2	58.8	**2.5	100.0
<i>Employment status of mother —</i>					
Employed	43.1	14.1	42.5	* 0.4	100.0
Unemployed	42.6	9.8	46.3	**1.3	100.0
Not in labour force	37.6	13.1	48.6	0.7	100.0
<b>Total</b>	<b>39.7</b>	<b>13.3</b>	<b>46.4</b>	<b>0.6</b>	<b>100.0</b>

(a) Characteristics of father or guardian if no mother present.

## EXPLANATORY NOTES

**Introduction**

In July 1992 a survey was conducted throughout Australia to obtain information on the sleeping positions of children aged less than two years.

**Scope**

2. The survey included all persons aged 15 years and over except:

- a) members of the defence forces;
- b) certain diplomatic personnel of overseas governments customarily excluded from census and estimated populations;
- c) overseas visitors holidaying in Australia;
- d) members of non-Australian defence forces (and their dependents) stationed in Australia; and
- e) visitors to private dwellings.

**Survey Method**

3. The survey was conducted as part of the regular population survey, which is based on a national multi-stage area sample of about 36,000 private dwellings and special dwelling units (eg caravan parks, hotels, motels, selected institutions), and covering about two-fifths of one per cent of the population of Australia.

4. Interviews were conducted over a period of two weeks in July 1992. The information about infant sleeping positions was obtained from occupants of selected dwellings by trained interviewers, where there was at least one child under the age of 2 years. Some 2,416 infants aged less than 2 years were covered by the survey.

**Reliability of the estimates**

5. Estimates in this publication are subject to two sources of error:

- a) sampling error: since the estimates are based on information obtained from occupants of a sample of dwellings they may differ from the figures that would have been produced if all dwellings had been included in the survey. Details of sampling error in this survey are provided in paragraphs 6 and 7 below.
- b) non-sampling error: inaccuracies may occur because of imperfections in reporting by respondents and interviewers and errors made in coding and processing data. These inaccuracies may occur in any enumeration, whether it be a full count or a sample. Every effort is made to reduce the non-sampling error to a minimum by careful design of questionnaires, intensive training and supervision of interviewers and efficient operating procedures.

**Sampling variability**

6. Estimates derived from the survey are obtained using a complex ratio estimation procedure which ensures that the estimates conform to an independently estimated distribution of the population by age and sex rather than to the age and sex distribution within the sample itself.

7. Since the estimates in this publication are based on information obtained from occupants of a sample of dwellings they are subject to sampling variability; that is they may differ from the figures that would have been produced if all dwellings had been included in this survey. One measure of the likely difference is given by the standard error (SE), which indicates the extent to which an estimate might have varied by chance because only a sample of dwellings was included. There are about two chances in three that a sample estimate will differ by less than one standard error from the figure that would have been obtained if all dwellings had been included, and about nineteen chances in twenty that the difference will be less than two standard errors. Another measure of the likely difference is the relative standard error, which is obtained by expressing the standard error as a percentage of the estimate.

TABLE A. STANDARD ERRORS AND RELATIVE STANDARD ERRORS FOR ESTIMATES OF PERSONS, AUSTRALIA

<i>Estimate</i>	<i>SE</i>	<i>RSE%</i>
800	400	50.1
900	430	47.5
1000	450	45.2
1500	560	37.4
2000	650	32.5
2500	730	29.2
3000	800	26.6
3500	860	24.6
4000	920	23.0
4500	970	21.6
5000	1000	20.5
10000	1400	14.1
50000	2800	5.6
100000	3600	3.6
500000	6200	1.2
1000000	7600	0.8

**Unpublished statistics**

8. As well as the statistics included in this publication, the ABS has other relevant unpublished data available. Inquiries should be made to the contact in the phone inquiries box at the front of this publication.

**Symbols and other usages**

\* relative standard error between 25 and 50 per cent

\*\* subject to sampling variability too high for most practical uses (relative standard error 50 per cent or above)

. . not applicable

9. Estimates have been rounded and discrepancies may occur between sums of the component items and totals.

IAN CASTLES  
Australian Statistician



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