Australia's babies: their health and wellbeing

Birthweight

Birthweight is a key indicator of a baby's health status and also of their future health as adults. For babies, low birthweight is defined as a birthweight less than 2,500 grams, and very low birthweight as less than 1,500 grams. Low birthweight babies have a greater risk of poor health and dying, often require a longer period of hospitalisation after birth and are more likely to develop significant disabilities (Mick et al. 2002; Leeson et al. 2001). A baby may be small due to being born early (preterm), or it may be small for its gestational age (intrauterine growth retardation (IUGR)). The factors contributing to low birthweight include socioeconomic status, size of parents and age of mother, number of babies previously born, mother's nutritional status, smoking and alcohol intake and illness during pregnancy (Chan et al. 2001; Horter et al. 1997; Kramer 1998).

Over the period 1997–2001, 6.5% of all liveborn and stillborn babies were of low birthweight. A much greater proportion of stillborn babies than liveborn babies were of low birthweight—55.4% compared with 6.1%.

Table 1 shows that the proportion of liveborn low and very low birthweight babies has remained stable over this period. There has been an 11.8% increase in the proportion of liveborn babies weighing 4,500 grams or more over this period. In 2001, the most recent year that data are available, 6.1% of liveborn babies were low birthweight (less than 2,500 grams), 91.9% weighed 2,500–4,499 grams, and 1.9% weighed 4,500 grams or more.

Table 1: Proportion of liveborn babies, by birthweight category, 1997–2001

Birthweight (grams)	1997	1998	1999	2000	2001
Less than 1,500	1.0	1.0	1.0	1.1	1.0
1,500–2,499	5.1	5.1	5.1	5.2	5.1
2,500–4,499	92.1	92.0	91.9	91.7	91.9
4,500 and over	1.7	1.8	1.8	1.9	1.9
Not stated	0.1	0.1	0.1	0.1	0.1
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

In 2001, the mean birthweight of all liveborn and stillborn babies was 3,367 grams. For live births, the mean birthweight was 3,378 grams and for stillbirths 1,645 grams. Over the period 1997–2001, the mean birthweight for all births was 3,366 grams. For live births, the mean birthweight was 3,376 grams. Overall, male babies remained heavier than female babies, with mean birthweights of 3,436 grams and 3,312 grams respectively for live births.

The mean birthweights of liveborn babies of mothers identified as Aboriginal or Torres Strait Islander (3,177 grams) were lower than those reported for babies of mothers identified as non-Indigenous (3,381 grams) during 1997–2001. The proportion of

liveborn, low birthweight babies born to mothers identified as Aboriginal or Torres Strait Islander was 12.1% in 1997–2001, compared with 6.0% for babies of non-Indigenous mothers.[1]

Over the period 1997–2001, liveborn babies born after assisted reproductive technology (ART) had a lower mean birthweight compared to all liveborn babies (2,934 grams compared with 3,376 grams). This is partly due to the higher proportion of multiple births in ART mothers than in all mothers (35.0% compared with 3.0%).

Table 2 details characteristics of liveborn singletons by birthweight category. Mothers aged less than 20 years were more likely than mothers in the older age groups to have singleton babies of low birthweight (7.5% compared to 4.5% and 5.0%, respectively). Mothers aged 35 years and over were most likely to have singletons of 4,500 grams or more (2.1%). Mothers who had given birth previously were less likely to have a low birthweight baby (4.1%) compared with primiparous women (5.6%).

Table 2: Selected characteristics of liveborn singletons by birthweight category, 1997–2001

	400–1,499 grams		1,500–2,499 grams		2,500–4,499 grams		4,500 grams and over		Not stated		Total
	No.	%	No.	%	No.	%	No.	%	No.	%	No.
Maternal age (years)											
Less than 20	753	1.2	3,898	6.3	56,492	91.3	651	1.1	47	0.1	61,841
20–34	6,656	0.7	36,936	3.8	903,361	93.5	18,210	1.9	608	0.1	965,771
35 and over	1,728	0.9	8,253	4.1	186,666	92.8	4,365	2.1	153	0.1	201,165
Not stated	3	0.9	7	2.1	314	92.9	2	0.6	12	3.5	338
Parity[(a)]											
Primiparous	4,379	0.9	23,682	4.7	463,947	93.0	6,437	1.3	361	0.0	498,806
Multiparous	4,761	0.6	25,412	3.5	682,884	93.5	16,791	2.3	459	0.0	730,307
Not stated	0	0.0	0	0.0	2	100.0	0	0.0	0	0.0	2
Baby's sex											
Males	4,764	0.8	22,711	3.6	587,293	93.0	16,039	2.5	403	0.1	631,210
Females	4,369	0.7	26,369	4.4	559,366	93.6	7,186	1.2	405	0.1	597,695
Indeterminate/ not stated	7	3.3	14	6.7	174	82.9	3	1.4	12	5.7	210
Total	**9,140**	**0.7**	**49,094**	**4.0**	**1,146,833**	**93.3**	**23,228**	**1.9**	**820**	**0.1**	**1,229,115**

(a) Parity refers to the number of previous pregnancies resulting in live births or stillbirths. A primiparous woman has had no previous pregnancies resulting in a live birth or stillbirth; a multiparous woman has had at least one pregnancy resulting in a live birth or stillbirth.

1. Note that Indigenous figures exclude Tasmania. Please see *Australia's Mothers and Babies 2001* (Laws & Sullivan 2004) for further details.

There was also a higher proportion of male liveborn singletons in the 4,500 grams or more birthweight category (2.5%), compared with female singletons (1.2%) in the 1997–2001 period (Table 2).

The most favourable pregnancy outcome is to have a liveborn term singleton baby of normal birthweight. The mean birthweight of liveborn term singleton babies (37 weeks gestation or more) was 3,465 grams in 1997–2001, compared with 3,376 grams for all liveborn babies. Male term singleton babies were heavier than female babies, with mean birthweights of 3,531 grams and 3,396 grams respectively. Male preterm singleton babies were heavier than female babies, with mean birthweights of 2,381 grams and 2,293 grams respectively. The proportion of low birthweight was higher for liveborn ART singletons than for all liveborn singletons (9.1% compared with 4.7%).

Gestational age

Gestational age is a measure of the duration of pregnancy in completed weeks. Gestational age is recorded on the mother's record; therefore, all babies of a multiple pregnancy are recorded as having the same gestational age as the first born baby. Data are reported here for babies rather than mothers, which means that the gestational age of the first born baby of a multiple birth is reported for each baby of the multiple birth. Babies are categorised as either preterm (less than 37 weeks gestation), term (37–41 weeks) or post-term (42–45 weeks). Babies born at less than 32 weeks gestation are considered to be very preterm, and this category is a subset of the preterm category. Preterm birth is a major risk factor for perinatal mortality and disability, and results in increased hospital inpatient admissions and costs (Joseph et al. 1998; Petrou et al. 2003; Theunissen et al. 2000). Factors contributing to preterm birth include twin and higher order multiple pregnancies and obstetrical intervention (Joseph et al. 1998).

Figure 1: Baby's gestational age, 1997–2001