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## NATIONAL PERINATAL STATISTICS UNIT

The National Perinatal Statistics Unit, an external unit of the Australian Institute of Health based at the University of Sydney, collaborates with State and Territory health authorities and other groups to develop a national perinatal data system covering all births in Australia.

The Unit's activities include collection and analysis of data on congenital malformations, the health status of pregnant women and newborn babies, cesarean births, and pregnancies resulting from *in vitro* fertilisation and other methods of assisted conception.

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## CONTENTS

<i>Tables</i>	<i>Page</i>
.. Summary of findings	1
1. Perinatal deaths: fetal and neonatal deaths by sex of child, number and rate, Australia, 1982 to 1987	4
2. Perinatal deaths by State or Territory of usual residence of mother, number and rate, 1982 to 1987	4
3. Perinatal deaths by time of cessation of heartbeat, sex and State or Territory of usual residence of mother, 1987	5
4. Perinatal deaths by sex of child and main cause or condition in fetus/infant and mother, Australia, 1984 to 1987	6
5. Perinatal deaths: main cause or condition in fetus/infant and mother by State or Territory of usual residence of mother, 1987	8
6. Perinatal deaths: fetal and neonatal deaths by sex of child and main cause or condition in fetus/infant and mother, Australia, 1987	8
7. Perinatal deaths by age of mother, number and rate, Australia, 1982 to 1987	10
8. Perinatal deaths by age of mother and main cause or condition in fetus/infant and mother, Australia, 1987	10
9. Perinatal death rates: age of mother by cause or condition in fetus/infant and mother, Australia, 1987	11
10. Fetal deaths by time of cessation of heartbeat and main cause or condition in fetus and mother, Australia, 1987	12
11. Neonatal deaths by age at death and main cause or condition in infant and mother, Australia, 1987	13
12. Perinatal deaths: fetal and neonatal deaths by birthweight, Australia, 1982 to 1987	14
13. Perinatal deaths by birthweight and main cause or condition in fetus/infant and mother, Australia, 1987	14
14. Perinatal deaths: fetal and neonatal deaths by period of gestation, Australia, 1982 to 1987	16
15. Perinatal deaths: fetal and neonatal deaths by age of mother and period of gestation, Australia, 1987	16
16. Perinatal deaths by period of gestation and main cause or condition in fetus/infant and mother, Australia, 1987	17
.. Explanatory notes	19
<b>APPENDIX. BIRTHS REGISTERED (FOR USE IN CALCULATING RATES)</b>	
A1. Births by sex of child and State or Territory of usual residence of mother, Australia, 1987	21
A2. Births by sex of child and age of mother, Australia, 1987	21
A3. Births by sex, Australia, 1982 to 1987	21

### *Diagrams*

1. Perinatal, fetal and neonatal death rates, Australia, 1976 to 1987	1
2. Fetal deaths: time of cessation of heartbeat, Australia, 1987	2
3. Neonatal deaths by age of child, Australia, 1987	2
4. Perinatal deaths: main condition in fetus/infant, Australia, 1987	3

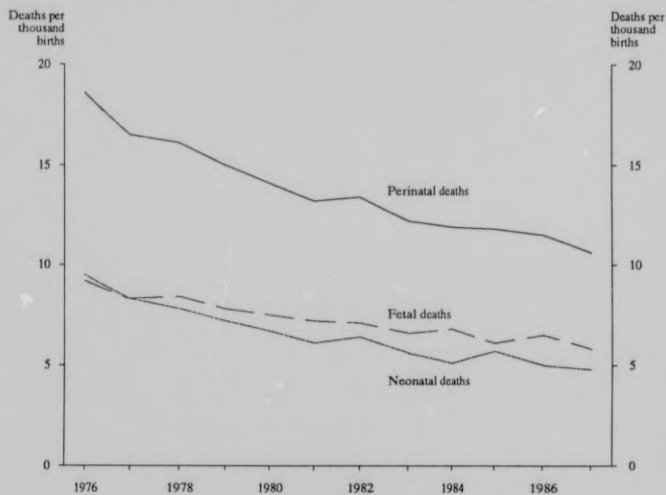
## SUMMARY OF FINDINGS

## General

In 1987, there were 2,591 perinatal deaths recorded in Australia – 1,432 fetal deaths (stillbirths) and 1,159 neonatal deaths (children born alive who died within 28 days of birth). This total represents a 7.9 per cent decrease from the number of deaths in 1986, and continues the downward trend in the number of perinatal deaths.

The rate of perinatal deaths to births was 10.6 per thousand in 1987. As illustrated below, in the period 1976 to 1987 this rate decreased by 43 per cent. The fetal and neonatal death rates decreased in this period by 37 per cent and 49.5 per cent respectively.

DIAGRAM 1. PERINATAL, FETAL AND NEONATAL DEATH RATES, AUSTRALIA 1976 TO 1987



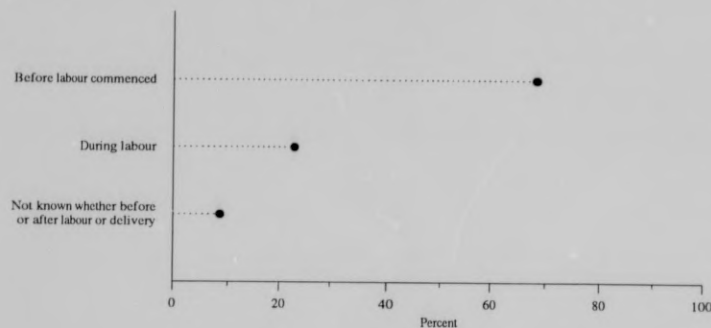
## Sex

There were more male fetal deaths than female, but the death rates for both sexes were comparable: 6.0 deaths per thousand births for males, and 5.6 for females. For neonatal deaths, males outnumbered females by 40 per cent (676 males compared with 483 females). However, because there were more male than female live births, the difference between the male and female neonatal death rates was less marked: 5.4 deaths per thousand live births for males, and 4.1 for females.

## Time of death

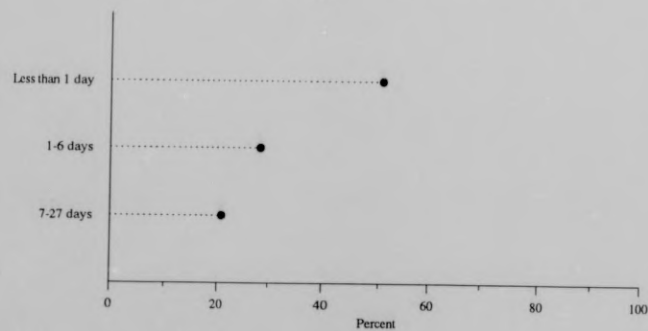
In 1987, 68.5 per cent of recorded fetal deaths occurred before the onset of labour. However care is needed in interpreting this figure. Due to the birthweight and period of gestation criteria applied in compiling these statistics, the fetal deaths recorded are only those which, in general, occurred in the latter stages of pregnancy. 329 deaths occurred during labour, representing 23.0 per cent of all fetal deaths.

DIAGRAM 2. FETAL DEATHS: TIME OF CESSATION OF HEARTBEAT, AUSTRALIA, 1987



For neonatal deaths 50.7 per cent occurred within one day of birth and 79.1 per cent within the first six days after birth.

DIAGRAM 3. NEONATAL DEATHS BY AGE OF CHILD, AUSTRALIA, 1987



### Birthweight

Most neonatal deaths (55.5 per cent) were for children who weighed less than 2,000 grams at birth. Of this group 61.4 per cent involved children weighing less than 1,000 grams at birth.

For fetal deaths 54.7 per cent involved fetuses weighing less than 2,000 grams at birth. A further 20 per cent of fetal deaths were at birthweights of 3,000 grams or more.

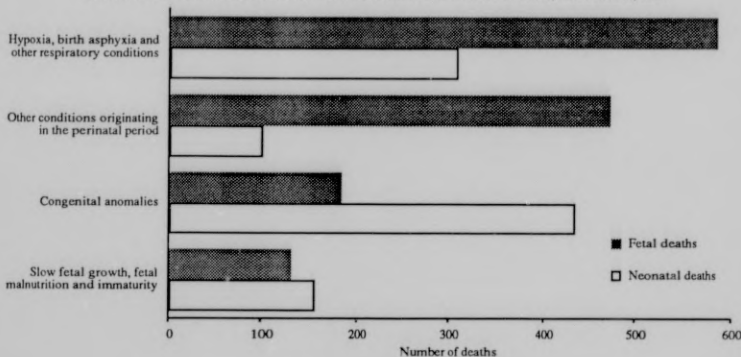
Some caution should be exercised in interpreting birthweight distribution as the perinatal statistics presented in this publication include only fetuses and infants weighing at least 500 grams.

### Causes of death

The three main causes of perinatal death in 1987 were *hypoxia, birth asphyxia and other respiratory conditions, congenital anomalies and other conditions originating in the perinatal period*. Collectively these conditions accounted for 80.5 per cent of all perinatal deaths.

The relative significance of these causes differed for fetal and neonatal deaths, as illustrated below. The main causes of fetal death were *asphyxia or anoxia before or during labour*, which accounted for 569 (39.7 per cent) fetal deaths. For neonatal deaths, the main cause of death was *congenital anomalies*, which accounted for 435 (37.5 per cent) deaths.

DIAGRAM 4. PERINATAL DEATHS: MAIN CONDITION IN FETUS/INFANT, AUSTRALIA, 1987



For 1,615 perinatal deaths (62.3 per cent), a maternal condition affecting the fetus or infant was reported. The most frequently reported main conditions in the mother were *complications of placenta, cord and membranes and maternal complications of pregnancy* (including conditions such as premature rupture of membranes and incompetent cervix).

### Maternal age

As in previous years, higher perinatal death rates were recorded among mothers in the younger (less than 20 years of age) and older (40 years and over) age groups: 14.0 and 17.6 deaths per thousand births respectively. The lowest perinatal death rate was recorded among mothers aged 25 to 29 years, 9.1 per thousand births.

The proportion of fetal deaths among mothers aged 40 years and over was higher than for any other age group. For this age group, one in 78 of all births were stillbirths. This compares with a ratio of one in 192 for the age group 20-29 years.

TABLE 1. PERINATAL DEATHS : FETAL AND NEONATAL DEATHS BY SEX OF CHILD, NUMBER AND RATE, AUSTRALIA, 1982 TO 1987

Year	Fetal deaths			Neonatal deaths			All perinatal deaths		
	Males	Females	Persons	Males	Females	Persons	Males	Females	Persons
NUMBER									
1982	889	816	1,705	859	670	1,529	1,748	1,486	3,234
1983	910	709	1,619	751	598	1,349	1,661	1,307	2,968
1984	833	760	1,593	718	486	1,204	1,551	1,246	2,797
1985	814	704	1,518	798	618	1,416	1,612	1,322	2,934
1986	823	762	1,585	727	500	1,227	1,550	1,262	2,812
1987	762	670	1,432	676	483	1,159	1,438	1,153	2,591
RATE(a)									
1982	7.2	6.9	7.1	7.0	5.7	6.4	14.1	12.7	13.4
1983	7.3	6.0	6.6	6.0	5.1	5.6	13.2	11.0	12.2
1984	6.9	6.6	6.8	6.0	4.3	5.1	12.9	10.8	11.9
1985	6.4	5.8	6.1	6.3	5.1	5.7	12.6	10.9	11.8
1986	6.5	6.4	6.5	5.8	4.2	5.0	12.3	10.6	11.5
1987	6.0	5.6	5.8	5.4	4.1	4.8	11.4	9.7	10.6

(a) Rates are per 1,000 of total relevant births - see also paragraphs 5-8 of the Explanatory Notes.

TABLE 2. PERINATAL DEATHS BY STATE OR TERRITORY OF USUAL RESIDENCE OF MOTHER, NUMBER AND RATE, 1982 TO 1987

Year	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	ACT.	Australia
NUMBER									
1982	1,140	872	511	247	260	78	80	46	3,234
1983	1,016	757	512	226	250	92	67	48	2,968
1984	974	700	464	208	260	90	63	38	2,797
1985	991	757	487	248	247	101	58	45	2,934
1986	975	707	441	200	269	110	66	44	2,812
1987	933	629	434	170	248	64	68	45	2,591
RATE(a)									
1982	13.5	14.5	12.5	12.8	11.6	11.0	27.1	11.1	13.4
1983	12.1	12.5	12.1	11.3	10.8	12.9	21.1	11.5	12.2
1984	12.4	11.7	11.4	10.3	12.0	12.5	19.5	9.2	11.9
1985	11.2	12.2	12.0	12.4	10.6	13.8	17.4	10.9	11.8
1986	11.5	11.7	10.9	10.1	11.0	15.7	19.7	10.7	11.5
1987	10.8	10.2	11.0	8.8	10.6	9.4	19.0	10.9	10.6

(a) Rates are per 1,000 of total relevant births - see also paragraphs 5-8 of the Explanatory Notes.

TABLE 3. PERINATAL DEATHS BY TIME OF CESSATION OF HEARTBEAT, SEX AND STATE OR TERRITORY OF USUAL RESIDENCE OF MOTHER, 1987

Time of cessation of heartbeat	Sex	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Australia	
										Number	Rate (b)
Before delivery -											
Before labour commenced	M	198	135	67	41	56	13	13	11	534	4.2
	F	161	107	80	32	40	6	13	8	447	3.7
During labour	M	62	39	31	1	12	7	7	6	165	1.3
	F	44	50	31	6	22	4	2	5	164	1.4
Not known whether before or during labour	M	16	22	3	8	3	1	1	-	54	0.4
	F	13	8	9	-	9	1	5	-	45	0.4
Not known whether before or after delivery (a)	M	4	1	2	1	-	-	-	1	9	0.1
	F	6	-	4	-	1	-	3	-	14	0.1
Total (fetal deaths) - number	M	280	197	103	51	71	21	21	18	762	..
	F	224	165	124	38	72	11	23	13	670	..
	P	504	362	227	89	143	32	44	31	1,432	..
- rate (b)	M	6.3	6.2	5.1	5.1	5.9	6.0	11.4	8.5	..	6.0
	F	5.3	8.2	6.5	4.1	6.3	3.3	13.3	6.4	..	5.6
	P	5.8	5.9	5.7	4.6	6.1	4.7	12.3	7.5	..	5.8
After delivery (neonatal deaths) - number	M	240	169	114	47	64	20	13	9	676	..
	F	189	98	93	34	41	12	11	5	483	..
	P	429	267	207	81	105	32	24	14	1,159	..
- rate (b)	M	5.5	5.3	5.6	4.8	5.3	5.7	7.2	4.3	..	5.4
	F	4.5	3.3	4.9	3.6	3.6	3.6	6.4	2.5	..	4.1
	P	5.0	4.3	5.3	4.2	4.5	4.7	6.8	3.4	..	4.8
Total perinatal deaths - number	M	520	366	217	98	135	41	34	27	1,438	..
	F	413	263	217	72	113	23	34	18	1,153	..
	P	933	629	434	170	248	64	68	45	2,591	..
- rate (b)	M	11.7	11.5	10.6	9.9	11.1	11.7	18.5	12.8	..	11.4
	F	9.8	8.7	11.3	7.7	10.0	6.9	19.6	8.9	..	9.7
	P	10.8	10.2	11.0	8.8	10.6	9.4	19.0	10.9	..	10.6

(a) Included as fetal deaths in this publication. (b) Rates are per 1,000 of relevant births - see also paragraphs 5-8 of the Explanatory Notes.

TABLE 4. PERINATAL DEATHS BY SEX OF CHILD AND MAIN CAUSE OR CONDITION IN FETUS/INFANT AND MOTHER, AUSTRALIA, 1984 TO 1987

<i>Cause of death and ICD code</i>	<i>Sex</i>	<i>1984</i>	<i>1985</i>	<i>1986</i>	<i>1987</i>
<b>All causes</b>	M	1,551	1,612	1,550	1,438
	F	1,246	1,322	1,262	1,153
MAIN CONDITION IN FETUS/INFANT					
<i>Slow fetal growth, fetal malnutrition and immaturity (764, 765)</i>	M	119	117	175	156
	F	111	113	125	130
<i>Slow fetal growth and fetal malnutrition (764)</i>	M	16	25	33	37
	F	17	26	30	40
<i>Extreme immaturity (765.0)</i>	M	96	90	127	111
	F	89	79	92	87
<i>Birth trauma (767)</i>	M	24	34	22	14
	F	7	15	9	10
<i>Birth injury to brain, spine or spinal cord (767.0, 767.4)</i>	M	20	26	16	13
	F	6	13	7	10
<i>Hypoxia, birth asphyxia and other respiratory conditions (768-770)</i>	M	566	509	590	524
	F	483	466	485	371
<i>Fetal death from asphyxia or anoxia before onset of labour or at unspecified time (768.0)</i>	M	283	280	288	251
	F	267	218	276	200
<i>Fetal death from asphyxia or anoxia during labour (768.1)</i>	M	71	66	80	65
	F	83	56	63	53
<i>Fetal distress or birth asphyxia in liveborn infant (768.2-768.6)</i>	M	29	46	45	53
	F	21	18	23	29
<i>Respiratory distress syndrome (769)</i>	M	82	107	89	76
	F	50	73	40	35
<i>Congenital pneumonia (770.0)</i>	M	27	13	9	17
	F	8	14	8	14
<i>Massive aspiration syndrome (770.1)</i>	M	12	17	14	11
	F	9	23	23	9
<i>Atelectasis (770.4-770.5)</i>	M	20	19	28	20
	F	15	20	30	12
<i>Fetal and neonatal haemorrhage (772)</i>	M	60	65	43	68
	F	43	56	46	41
<i>Intraventricular haemorrhage (772.1)</i>	M	43	52	34	38
	F	32	33	34	20
<i>Haemolytic disease of fetus or newborn (773)</i>	M	11	15	9	6
	F	12	12	11	5
<i>Other conditions originating in the perinatal period (766, 771, 774-779)</i>	M	332	320	321	307
	F	280	277	251	266
<i>Infections specific to the perinatal period (771)</i>	M	38	44	39	34
	F	36	34	25	37
<i>Hydrops fetalis not due to isoimmunization (778.0)</i>	M	14	18	21	20
	F	13	12	12	17
<i>Congenital anomalies (740-759)</i>	M	389	411	340	321
	F	282	335	299	296
<i>Anencephalus and similar anomalies (740)</i>	M	37	45	40	23
	F	55	55	54	46
<i>Spina bifida (741)</i>	M	26	33	28	13
	F	18	34	19	29
<i>Congenital hydrocephalus (742.3)</i>	M	36	28	16	28
	F	14	17	22	14
<i>Other deformities of central nervous system (742.0-742.2, 742.4-742.9)</i>	M	12	19	15	16
	F	15	13	25	13

TABLE 4. PERINATAL DEATHS BY SEX OF CHILD AND MAIN CAUSE OR CONDITION IN FETUS/INFANT AND MOTHER, AUSTRALIA, 1984 TO 1987 -continued

<i>Cause of death and ICD code</i>	<i>Sex</i>	<i>1984</i>	<i>1985</i>	<i>1986</i>	<i>1987</i>
MAIN CONDITION IN FETUS/INFANT					
Congenital anomalies of heart and circulatory system (745-747)	M	95	82	69	61
	F	61	53	55	55
Congenital anomalies of respiratory system (748)	M	30	42	31	37
	F	18	21	17	24
Congenital anomalies of digestive system (749-751)	M	5	9	6	5
	F	5	6	7	5
Congenital anomalies of genital organs and urinary system (752, 753)	M	37	32	29	33
	F	18	21	13	15
Congenital anomalies of musculoskeletal system and limbs (754-756)	M	38	42	37	46
	F	23	36	26	28
Chromosomal anomalies (758)	M	32	37	35	31
	F	27	50	40	41
<i>All other causes (001-739, 780-999)</i>	M	50	51	50	42
	F	28	48	36	34
MAIN CONDITION IN MOTHER					
<i>Maternal conditions which may be unrelated to present pregnancy (760)</i>	M	144	179	150	154
	F	152	157	142	147
Maternal hypertensive disorders (760.0)	M	85	96	76	65
	F	87	89	79	70
<i>Maternal complications of pregnancy (761)</i>	M	307	328	346	275
	F	230	245	213	190
Incompetent cervix (761.0)	M	52	47	42	33
	F	39	28	25	25
Premature rupture of membranes (761.1)	M	60	60	76	60
	F	55	46	41	42
Polyhydramnios (761.3)	M	16	26	27	20
	F	22	13	25	20
Multiple pregnancy (761.5)	M	40	39	56	44
	F	28	37	28	24
Other maternal complications of pregnancy (Remainder of 761)	M	139	156	145	118
	F	86	121	94	79
<i>Complications of placenta, cord and membranes (762)</i>	M	445	442	439	436
	F	379	342	372	336
Placenta praevia (762.0)	M	24	17	15	11
	F	14	8	16	10
Other placental separation and haemorrhage (762.1)	M	194	174	158	160
	F	129	141	135	113
Other and unspecified morphological and functional abnormalities of placenta (762.2)	M	77	101	106	107
	F	98	71	72	80
Prolapsed cord (762.4)	M	11	26	18	29
	F	17	10	14	9
Other compression of umbilical cord (762.5)	M	89	84	93	75
	F	84	65	78	74
Other complications of placenta, cord and membranes (Remainder of 762)	M	50	40	49	54
	F	37	47	57	50
<i>Other complications of labour and delivery (763)</i>	M	74	89	70	36
	F	49	51	45	41
Breech delivery and extraction (763.0)	M	16	20	11	8
	F	10	7	14	9
<i>No maternal condition reported</i>	M	581	574	545	537
	F	436	527	490	439

TABLE 5. PERINATAL DEATHS: MAIN CAUSE OR CONDITION IN FETUS/INFANT AND MOTHER,  
BY STATE OR TERRITORY OF USUAL RESIDENCE OF MOTHER, 1987

<i>Cause of death and ICD code</i>	<i>N.S.W.</i>	<i>Vic.</i>	<i>Qld</i>	<i>S.A.</i>	<i>W.A.</i>	<i>Tas.</i>	<i>N.T.</i>	<i>A.C.T.</i>	<i>Australia</i>
All causes	933	629	434	170	248	64	68	45	2,591
<b>Main condition in fetus/infant -</b>									
Slow fetal growth, fetal malnutrition and immaturity (764, 765)	80	89	66	13	21	4	5	8	286
Birth trauma (767)	12	3	7	-	2	-	-	-	24
Hypoxia, birth asphyxia and other respiratory conditions (768-770)	331	275	109	39	77	29	17	18	895
Fetal and neonatal haemorrhage (772)	30	36	22	10	4	2	4	1	109
Haemolytic disease of fetus or newborn (773)	3	2	3	-	1	2	-	-	11
Other conditions originating in the perinatal period (766, 771, 774-779)	238	67	103	52	69	9	27	8	573
Congenital anomalies (740-759)	202	148	109	48	72	18	10	10	617
All other causes (Remainder of 001-999)	37	9	15	8	2	-	5	-	76
<b>Main condition in mother -</b>									
Maternal conditions which may be unrelated to present pregnancy (760)	103	71	62	14	27	5	17	2	301
Maternal complications of pregnancy (761)	218	101	64	14	53	7	3	5	465
Complications of placenta, cord and membranes (762)	267	199	149	31	64	20	25	17	772
Other complications of labour and delivery (763)	45	19	5	-	5	2	-	1	77
No maternal condition reported	300	239	154	111	99	30	23	20	976

TABLE 6. PERINATAL DEATHS: FETAL AND NEONATAL DEATHS BY SEX OF CHILD AND MAIN CAUSE OR CONDITION IN FETUS/INFANT AND MOTHER, AUSTRALIA, 1987

<i>Cause of death and ICD code</i>	<i>Fetal deaths</i>		<i>Neonatal deaths</i>		<i>All perinatal deaths</i>		
	<i>Males</i>	<i>Females</i>	<i>Males</i>	<i>Females</i>	<i>Males</i>	<i>Females</i>	<i>Persons</i>
All causes	762	670	676	483	1,438	1,153	2,591
MAIN CONDITION IN FETUS/INFANT							
<i>Slow fetal growth, fetal malnutrition and immaturity (764, 765)</i>	63	67	93	63	156	130	286
Slow fetal growth and fetal malnutrition (764)	35	39	2	1	37	40	77
Extreme immaturity (765.0)	27	27	84	60	111	87	198
<i>Birth trauma (767)</i>	1	1	13	9	14	10	24
Birth injury to brain, spine or spinal cord (767.0, 767.4)	1	1	12	9	13	10	23
<i>Hypoxia, birth asphyxia and other respiratory conditions (768-770)</i>	325	260	199	111	524	371	895
Fetal death from asphyxia or anoxia before onset of labour or at unspecified time (768.0)	251	200	-	-	251	200	451
Fetal death from asphyxia or anoxia during labour (768.1)	65	53	-	-	65	53	118
Fetal distress or birth asphyxia in liveborn infant (768.2-768.6)	-	-	53	29	53	29	82
Respiratory distress syndrome (769)	-	-	76	35	76	35	111
Congenital pneumonia (770.0)	7	6	10	8	17	14	31
Massive aspiration syndrome (770.1)	2	1	9	8	11	9	20
Alelectasis (770.4-770.5)	-	-	20	12	20	12	32
<i>Fetal and neonatal haemorrhage (772)</i>	29	20	39	21	68	41	109
Intraventricular haemorrhage (772.1)	5	1	33	19	38	20	58
<i>Haemolytic disease of fetus or newborn (773)</i>	5	3	1	2	6	5	11
<i>Other conditions originating in the perinatal period (766, 771, 774-779)</i>	252	220	55	46	307	266	573
Infections specific to the perinatal period (771)	15	15	19	22	34	37	71
Hydrops fetalis not due to isoimmunization (778.0)	10	7	10	10	20	17	37

TABLE 6. PERINATAL DEATHS: FETAL AND NEONATAL DEATHS BY SEX OF CHILD AND MAIN CAUSE OR CONDITION IN FETUS/INFANT AND MOTHER, AUSTRALIA, 1987 -continued

Cause of death and ICD code	Fetal deaths		Neonatal deaths		All perinatal deaths		
	Males	Females	Males	Females	Males	Females	Persons
MAIN CONDITION IN FETUS/INFANT							
<i>Congenital anomalies (740-759)</i>	86	96	235	200	321	296	617
Anencephalus and similar anomalies (740)	10	28	13	18	23	46	69
Spina bifida (741)	5	14	8	15	13	29	42
Congenital hydrocephalus (742.3)	19	9	9	5	28	14	42
Other deformities of central nervous system (742.0-742.2, 742.4-742.9)	5	6	11	7	16	13	29
Congenital anomalies of heart and circulatory system (745-747)	6	5	55	50	61	55	116
Congenital anomalies of respiratory system (748)	-	-	37	24	37	24	61
Congenital anomalies of digestive system (749-751)	1	-	4	5	5	5	10
Congenital anomalies of genital organs and urinary system (752, 753)	6	5	27	10	33	15	48
Congenital anomalies of musculoskeletal system and limbs (754-756)	11	3	35	25	46	28	74
Chromosomal anomalies (758)	14	13	17	28	31	41	72
<i>All other causes (001-739, 780-999)</i>	1	3	41	31	42	34	76
MAIN CONDITION IN MOTHER							
<i>Maternal conditions which may be unrelated to present pregnancy (760)</i>	87	108	67	39	154	147	301
Maternal hypertensive disorders (760.0)	41	52	24	18	65	70	135
<i>Maternal complications of pregnancy (761)</i>	90	59	185	131	275	190	465
Incompetent cervix (761.0)	9	9	24	16	33	25	58
Premature rupture of membranes (761.1)	23	17	37	25	60	42	102
Polyhydramnios (761.3)	6	8	14	12	20	20	40
Multiple pregnancy (761.5)	21	6	23	18	44	24	68
Other maternal complications of pregnancy (Remainder of 761)	31	19	87	60	118	79	197
<i>Complications of placenta, cord and membranes (762)</i>	338	273	98	63	436	336	772
Placenta praevia (762.0)	2	5	9	5	11	10	21
Other placental separation and haemorrhage (762.1)	112	79	48	34	160	113	273
Other and unspecified morphological and functional abnormalities of placenta (762.2)	100	75	7	5	107	80	187
Prolapsed cord (762.4)	19	8	10	1	29	9	38
Other compression of umbilical cord (762.5)	72	72	3	2	75	74	149
Other complications of placenta, cord and membranes (Remainder of 762)	33	34	21	16	54	50	104
<i>Other complications of labour and delivery (763)</i>	9	16	27	25	36	41	77
Breech delivery and extraction (763.0)	1	5	7	4	8	9	17
<i>No maternal condition reported</i>	238	214	299	225	537	439	976

TABLE 7. PERINATAL DEATHS BY AGE OF MOTHER, NUMBER AND RATE, AUSTRALIA, 1982 TO 1987

Year	Age of mother (years)							Total
	Under 20	20-24	25-29	30-34	35-39	40 and over	Not stated	
NUMBER								
1982	322	879	1,032	632	242	46	81	3,234
1983	258	809	1,010	586	193	51	61	2,968
1984	222	740	914	579	231	59	52	2,797
1985	214	751	977	643	236	26	87	2,934
1986	206	674	942	591	254	54	91	2,812
1987	198	581	873	610	220	48	61	2,591
RATE(a)								
1982	18.4	12.8	11.4	12.8	17.8	22.6	..	13.4
1983	15.4	11.8	10.9	11.6	13.7	25.5	..	12.2
1984	15.1	11.7	10.1	11.4	15.8	28.1	..	11.9
1985	14.6	11.8	10.2	11.5	14.4	11.8	..	11.8
1986	14.3	11.3	9.9	10.5	14.8	23.9	..	11.5
1987	14.0	10.4	9.1	10.4	12.1	17.6	..	10.6

(a) Rates are per 1,000 of total relevant births - see also paragraphs 5-8 of the Explanatory Notes.

TABLE 8. PERINATAL DEATHS BY AGE OF MOTHER AND MAIN CAUSE OR CONDITION IN FETUS/INFANT AND MOTHER, AUSTRALIA, 1987

Cause of death and ICD code	Age of mother (years)							Total
	Under 20	20-24	25-29	30-34	35-39	40 and over	Not stated	
<b>All causes</b>	<b>198</b>	<b>581</b>	<b>873</b>	<b>610</b>	<b>220</b>	<b>48</b>	<b>61</b>	<b>2,591</b>
MAIN CONDITION IN FETUS/INFANT								
<i>Slow fetal growth, fetal malnutrition and immaturity (764, 765)</i>	30	73	83	62	31	4	3	286
Slow fetal growth and fetal malnutrition (764)	8	13	27	20	7	2	-	77
Extreme immaturity (765.0)	21	55	54	40	24	1	3	198
<i>Birth trauma (767)</i>	1	3	13	3	3	-	1	24
Birth injury to brain, spine or spinal cord (767.0, 767.4)	1	3	12	3	3	-	1	23
<i>Hypoxia, birth asphyxia and other respiratory conditions (768-770)</i>	61	199	291	229	84	20	11	895
Fetal death from asphyxia or anoxia before onset of labour or at unspecified time (768.0)	26	105	147	125	36	8	4	451
Fetal death from asphyxia or anoxia during labour (768.1)	7	19	37	31	18	4	2	118
Fetal distress or birth asphyxia in liveborn infant (768.2-768.6)	8	18	27	16	9	2	2	82
Respiratory distress syndrome (769)	7	21	39	31	9	2	2	111
Congenital pneumonia (770.0)	2	5	8	8	6	2	-	31
Massive aspiration syndrome (770.1)	-	6	9	4	1	-	-	20
Atelectasis (770.4-770.5)	3	7	8	8	5	1	-	32
<i>Fetal and neonatal haemorrhage (772)</i>	6	14	47	26	11	3	2	109
Intraventricular haemorrhage (772.1)	3	9	25	12	5	2	2	58
<i>Haemolytic disease of fetus or newborn (773)</i>	-	3	4	3	1	-	-	11
<i>Other conditions originating in the perinatal period (766, 771, 774-778)</i>								
Infections specific to the perinatal period (771)	52	130	181	134	47	11	8	573
Hydrops fetalis not due to isoimmunization (778.0)	5	18	17	20	9	1	1	71
	-	7	16	10	4	-	-	37
<i>Congenital anomalies (740-759)</i>	40	140	219	142	41	10	25	617
Anencephalus and similar anomalies (740)	7	9	31	17	4	1	-	69
Spina bifida (741)	2	9	12	15	-	-	4	42
Congenital hydrocephalus (742.3)	5	8	17	9	3	-	-	42
Other deformities of central nervous system (742.0-742.2, 742.4-742.9)	1	8	8	8	2	1	1	29
Congenital anomalies of heart and circulatory system (745-747)	6	23	35	28	10	3	11	116
Congenital anomalies of respiratory system (748)	6	13	20	15	5	-	2	61
Congenital anomalies of digestive system (749-751)	1	5	4	-	-	-	-	10
Congenital anomalies of genital organs and urinary system (752, 753)	1	15	17	10	3	1	1	48
Congenital anomalies of musculoskeletal system and limbs (754-756)	8	15	31	15	3	1	1	74
Chromosomal anomalies (758)	2	19	22	16	10	2	1	72
<i>All other causes (001-739, 780-999)</i>	<b>8</b>	<b>19</b>	<b>25</b>	<b>11</b>	<b>2</b>	<b>-</b>	<b>11</b>	<b>76</b>

**TABLE 8. PERINATAL DEATHS BY AGE OF MOTHER AND MAIN CAUSE OR CONDITION  
IN FETUS/INFANT AND MOTHER, AUSTRALIA, 1987 -continued**

Cause of death and ICD code	Age of mother (years)						Not stated	Total
	Under 20	20-24	25-29	30-34	35-39	40 and over		
<b>MAIN CONDITION IN MOTHER</b>								
<i>Maternal conditions which may be unrelated to present pregnancy (760)</i>								
Maternal hypertensive disorders (760.0)	39	68	83	68	30	7	6	301
	15	33	38	32	14	3	-	135
<i>Maternal complications of pregnancy (761)</i>								
Incompetent cervix (761.0)	27	98	151	123	53	7	6	465
Premature rupture of membranes (761.1)	-	12	16	15	14	1	-	58
Polyhydramnios (761.3)	3	21	32	27	13	3	3	102
Multiple pregnancy (761.5)	2	11	14	9	4	-	-	40
Other maternal complications of pregnancy (Remainder of 761)	-	12	27	23	5	1	-	68
	22	42	62	49	17	2	3	197
<i>Complications of placenta, cord and membranes (762)</i>								
Placenta praevia (762.0)	53	174	268	184	68	19	6	772
Other placental separation and haemorrhage (762.1)	2	3	7	-	-	2	-	21
Other and unspecified morphological and functional abnormalities of placenta (762.2)	18	67	90	66	27	3	2	273
Prolapsd cord (762.4)	17	36	73	35	16	8	2	187
Other compression of umbilical cord (762.5)	5	8	14	7	3	-	1	38
Other complications of placenta, cord and membranes (Remainder of 762)	6	37	48	40	14	3	1	149
	5	23	36	29	8	3	-	104
<i>Other complications of labour and delivery (763)</i>								
Breech delivery and extraction (763.0)	3	21	19	24	6	2	2	77
	-	5	5	2	2	1	2	17
No maternal condition reported	76	220	352	211	63	13	41	976

**TABLE 9. PERINATAL DEATH RATES (a) : AGE OF MOTHER BY MAIN CAUSE OR CONDITION  
IN FETUS/INFANT AND MOTHER, AUSTRALIA, 1987**

Cause of death and ICD code	Age of mother (years)						Total(b)
	Under 20	20-24	25-29	30-34	35-39	40 and over	
<b>All causes</b>	<b>14.0</b>	<b>10.4</b>	<b>9.1</b>	<b>10.4</b>	<b>12.1</b>	<b>17.6</b>	<b>10.6</b>
<b>Main condition in fetus/infant-</b>							
Slow fetal growth, fetal malnutrition and immaturity (764, 765)	2.1	1.3	0.9	1.1	1.7	1.5	1.2
Birth trauma (767)	0.1	0.1	0.1	0.1	0.2	-	0.1
Hypoxia, birth asphyxia and other respiratory conditions (768-770)	4.3	3.6	3.0	3.9	4.6	7.3	3.6
Fetal and neonatal haemorrhage (772)	0.4	0.3	0.5	0.4	0.6	1.1	0.4
Haemolytic disease of fetus or newborn (773)	-	0.1	(c)	0.1	0.1	-	(c)
Other conditions originating in the perinatal period (766, 771, 774-779)	3.7	2.3	2.0	2.3	2.6	4.0	2.3
Congenital anomalies (740-759)	2.8	2.5	2.3	2.4	2.3	3.7	2.5
All other causes (001-739, 780-999)	0.6	0.3	0.3	0.2	0.1	-	0.3
<b>Main condition in mother-</b>							
Maternal conditions which may be unrelated to present pregnancy (760)	2.8	1.2	0.9	1.2	1.7	2.6	1.2
Maternal complications of pregnancy (761)	1.9	1.8	1.6	2.1	2.9	2.6	1.9
Complications of placenta, cord and membranes (762)	3.8	3.1	2.8	3.1	3.8	7.0	3.1
Other complications of labour and delivery (763)	0.2	0.4	0.2	0.4	0.3	0.7	0.3
No maternal condition reported	5.4	3.9	3.7	3.6	3.5	4.8	4.0

(a) Rates are per 1,000 of total relevant births - see also paragraphs 5-8 of the Explanatory Notes. (b) Including age not stated. (c) Less than 0.05.

TABLE 10. FETAL DEATHS BY TIME OF CESSATION OF HEARTBEAT AND MAIN CAUSE OR CONDITION IN FETUS AND MOTHER, AUSTRALIA, 1987

Cause of death and ICD code	Heartbeat ceased									
	Before labour commenced					Total	During labour	Before delivery but unknown if before or during labour	Unknown if before or after delivery	Total
	Time dead in utero									
	Under 1 day	1-6 days	1-3 weeks	4 weeks or more	Not stated					
All causes	175	454	138	7	207	981	329	99	23	1,432
MAIN CONDITION IN FETUS										
Slow fetal growth, fetal malnutrition and immaturity (764, 765)	6	30	3	-	21	60	62	5	3	130
Slow fetal growth and fetal malnutrition (764)	6	30	3	-	21	60	9	5	-	74
Extreme immaturity (765.0)	-	-	-	-	-	-	52	-	2	54
Birth trauma (767)	-	-	-	-	-	-	2	-	-	2
Hypoxia, birth asphyxia and other respiratory conditions (768-770)	85	188	62	3	88	426	127	29	3	585
Fetal death from asphyxia or anoxia before onset of labour or at unspecified time (768.0)	84	185	61	3	87	420	-	28	3	451
Fetal death from asphyxia or anoxia during labour (768.1)	-	-	-	-	-	-	118	-	-	118
Fetal and neonatal haemorrhage (772)	9	11	-	-	12	32	14	2	1	49
Haemolytic disease of fetus or newborn (773)	-	3	-	-	3	6	2	-	-	8
Other conditions originating in the perinatal period (766, 771, 774-779)	62	185	61	4	58	370	51	39	12	472
Congenital anomalies (740-759)	13	37	12	-	24	86	69	24	3	182
Anencephalus and similar anomalies (740)	1	5	-	-	2	8	19	8	3	38
All other causes (001-739, 780-999)	-	-	-	-	1	1	2	-	-	4
MAIN CONDITION IN MOTHER										
Maternal conditions which may be unrelated to present pregnancy (760)	30	82	16	1	17	146	29	12	8	195
Maternal hypertensive disorders (760.0)	18	43	5	1	9	76	14	3	-	93
Maternal complications of pregnancy (761)	18	13	3	2	19	55	80	11	3	149
Incompetent cervix (761.0)	-	2	-	-	-	2	14	2	-	18
Premature rupture of membranes (761.1)	11	3	-	-	4	18	21	1	-	40
Polyhydramnios (761.3)	1	3	1	-	4	9	4	-	1	14
Complications of placenta, cord and membranes (762)	87	195	60	3	94	439	122	45	5	611
Placenta praevia (762.0)	2	-	-	-	2	4	3	-	-	7
Other placental separation and haemorrhage (762.1)	47	29	10	-	29	115	50	21	5	191
Other and unspecified morphological and functional abnormalities of placenta (762.2)	16	78	21	3	26	144	19	12	-	175
Prolapsed cord (762.4)	6	1	-	-	3	10	17	-	-	27
Other compression of umbilical cord (762.5)	11	64	24	-	25	124	12	8	-	144
Other complications of placenta, cord and membranes (Remainder of 762)	5	23	5	-	9	42	21	4	-	67
Other complications of labour and delivery (763)	-	-	-	-	2	2	21	2	-	25
No maternal condition reported	40	164	59	1	75	339	77	29	7	452

TABLE 1. NEONATAL DEATHS BY AGE AT DEATH AND MAIN CAUSE OR CONDITION IN INFANT AND MOTHER, AUSTRALIA, 1987

Cause of death and ICD code	Age at death								Total under 28 days
	Under 1 hour	1-11 hours	12-23 hours	Total under 1 day	1 day	2 days	3-6 days	7-27 days	
<b>All causes</b>	<b>236</b>	<b>265</b>	<b>87</b>	<b>588</b>	<b>118</b>	<b>79</b>	<b>132</b>	<b>242</b>	<b>1,159</b>
<b>MAIN CONDITION IN INFANT</b>									
<i>Slow fetal growth, fetal malnutrition and immaturity (764, 765)</i>	87	48	2	137	4	3	6	6	156
Extreme immaturity (765.0)	85	45	1	131	3	3	5	4	144
<i>Birth trauma (767)</i>	2	3	2	7	2	4	5	4	22
Birth injury to brain, spine or spinal cord (767.0, 767.4)	2	2	2	6	2	4	5	4	21
<i>Hypoxia, birth asphyxia and other respiratory conditions (768-770)</i>	50	73	38	161	41	25	40	43	310
Fetal distress or birth asphyxia in liveborn infant (768.2-768.6)	24	21	5	50	10	5	8	9	82
Respiratory distress syndrome (769)	2	23	21	46	18	13	19	15	111
Congenital pneumonia (770.0)	5	5	2	12	3	-	2	1	18
Massive aspiration syndrome (770.1)	2	4	1	7	-	2	3	5	17
Atelectasis (770.4-770.5)	15	9	4	28	2	-	2	-	32
<i>Fetal and neonatal haemorrhage (772)</i>	3	4	6	13	15	4	14	14	60
Intraventricular haemorrhage (772.1)	-	2	5	7	14	4	14	13	52
<i>Other conditions originating in the perinatal period (766, 771, 773-779)</i>	16	19	11	46	5	7	9	37	104
Infections specific to the perinatal period (771)	5	7	6	18	3	2	4	14	41
<i>Congenital anomalies (740-759)</i>	74	115	27	216	49	33	48	89	435
Anencephalus and similar anomalies (740)	18	8	2	28	2	-	1	3	31
Spina bifida (741)	1	5	2	8	-	1	2	13	23
Congenital hydrocephalus (742.3)	1	5	2	8	-	1	1	4	14
Congenital anomalies of heart and circulatory system (745-747)	1	7	5	13	15	16	22	39	105
Congenital anomalies of respiratory system (748)	12	28	7	47	9	3	-	2	61
Congenital anomalies of digestive system (749-751)	1	3	-	4	-	1	1	3	9
Congenital anomalies of genital organs and urinary system (752, 753)	7	21	5	33	1	-	-	3	37
Congenital anomalies of musculoskeletal system and limbs (754-756)	11	15	3	29	11	3	8	9	60
Chromosomal anomalies (758)	4	9	1	14	8	8	6	9	45
<i>All other causes (001-739, 780-999)</i>	4	3	1	8	2	3	10	49	72
<b>MAIN CONDITION IN MOTHER</b>									
<i>Maternal conditions which may be unrelated to present pregnancy (760)</i>	8	18	19	45	8	11	19	23	106
Maternal hypertensive disorders (760.0)	2	5	3	10	2	6	11	13	42
<i>Maternal complications of pregnancy (761)</i>	89	92	19	200	34	15	23	44	316
Incompetent cervix (761.0)	20	11	-	31	3	1	2	3	40
Premature rupture of membranes (761.1)	29	18	1	48	4	3	3	4	62
Polyhydramnios (761.3)	5	12	-	17	4	-	2	3	26
Multiple pregnancy (761.5)	11	4	4	19	7	2	3	10	41
Other maternal complications of pregnancy (Remainder of 761)	24	47	14	85	16	9	13	24	147
<i>Complications of placenta, cord and membranes (762)</i>	53	41	16	110	20	7	7	17	161
<i>Other complications of labour and delivery (763)</i>	11	11	5	27	5	6	7	7	52
<i>No maternal condition reported</i>	75	103	28	206	51	40	76	151	524

TABLE 12. PERINATAL DEATHS: FETAL AND NEONATAL DEATHS BY BIRTHWEIGHT, AUSTRALIA, 1982 TO 1987

Birthweight (grams)	1982	1983	1984	1985	1986	1987
FETAL DEATHS						
500-999	509	479	488	463	495	446
1000-1499	226	191	205	216	219	171
1500-1999	180	187	182	169	185	167
2000-2499	202	197	172	169	157	170
2500-2999	207	185	184	186	174	177
3000-3499	168	181	174	141	169	149
3500-3999	112	93	89	72	76	70
4000-4499	34	29	31	21	31	26
4500 or more	16	18	15	11	14	7
Not stated	51	59	53	70	65	49
Total	1,705	1,619	1,593	1,518	1,585	1,432
NEONATAL DEATHS						
500-999	512	457	402	478	464	395
1000-1499	212	164	177	193	142	142
1500-1999	131	135	110	151	102	106
2000-2499	133	114	118	105	83	88
2500-2999	166	156	118	140	136	140
3000-3499	179	141	127	157	130	129
3500-3999	109	88	78	84	78	77
4000-4499	27	31	19	25	20	24
4500 or more	10	6	6	9	2	6
Not stated	50	57	49	74	70	52
Total	1,529	1,349	1,204	1,416	1,227	1,159
ALL PERINATAL DEATHS						
500-999	1,021	936	890	941	959	841
1000-1499	438	355	382	409	261	313
1500-1999	311	322	292	320	287	273
2000-2499	335	311	290	274	240	258
2500-2999	373	341	302	326	310	317
3000-3499	347	322	301	298	299	276
3500-3999	221	181	167	156	154	147
4000-4499	61	60	50	46	51	50
4500 or more	26	24	21	20	16	13
Not stated	101	116	102	144	135	101
Total	3,234	2,968	2,797	2,934	2,812	2,591

TABLE 13. PERINATAL DEATHS BY BIRTHWEIGHT AND MAIN CAUSE OR CONDITION IN FETUS/INFANT AND MOTHER, AUSTRALIA, 1987

Cause of death and ICD code	Birthweight (grams)						Total
	500-999	1000-1999	2000-2999	3000-3999	4000 or more	Not stated	
All causes	841	586	575	425	63	101	2,591
MAIN CONDITION IN FETUS/INFANT							
<i>Slow fetal growth, fetal malnutrition and immaturity (764, 765)</i>	219	41	20	1	-	5	286
Slow fetal growth and fetal malnutrition (764)	25	28	20	1	-	3	77
Extreme immaturity (765.0)	193	3	-	-	-	2	198
<i>Birth trauma (767)</i>	13	1	2	6	1	1	24
Birth injury to brain, spine or spinal cord (767.0, 767.4)	13	1	1	6	1	1	23
<i>Hypoxia, birth asphyxia and other respiratory conditions (768-770)</i>	278	182	202	165	28	40	895
Fetal death from asphyxia or anoxia before onset of labour or at unspecified time (768.0)	91	109	126	90	14	21	451
Fetal death from asphyxia or anoxia during labour (768.1)	39	14	32	25	4	4	118
Fetal distress or birth asphyxia in liveborn infant (768.2-768.6)	24	7	15	23	5	8	82
Respiratory distress syndrome (769)	60	33	14	2	-	2	111
Congenital pneumonia (770.0)	14	3	7	6	1	-	31
Massive aspiration syndrome (770.1)	-	1	2	13	3	1	20
Atelectasis (770.4-770.5)	25	3	1	2	-	1	32

TABLE 13. PERINATAL DEATHS BY BIRTHWEIGHT AND MAIN CAUSE OR CONDITION  
IN FETUS/INFANT AND MOTHER, AUSTRALIA, 1987 -continued

Cause of death and ICD code	Birthweight (grams)						Total
	500-999	1000-1999	2000-2999	3000-3999	4000 or more	Not stated	
MAIN CONDITION IN FETUS/INFANT							
<i>Fetal and neonatal haemorrhage (772)</i>	38	34	19	11	3	4	109
Intraventricular haemorrhage (772.1)	32	21	-	3	1	1	58
<i>Haemolytic disease of fetus or newborn (773)</i>	3	2	5	1	-	-	11
<i>Other conditions originating in the perinatal period (766, 771, 774-779)</i>							
Infections specific to the perinatal period (771)	195	134	130	86	14	14	573
Hydrops fetalis not due to isoimmunization (778.0)	29	21	14	6	-	1	71
	8	12	8	6	2	1	37
<i>Congenital anomalies (740-759)</i>							
Anencephalus and similar anomalies (740)	91	182	180	126	13	25	617
Spina bifida (741)	19	28	18	2	-	2	69
Congenital hydrocephalus (742.3)	11	7	9	12	1	2	42
Other deformities of central nervous system (742.0-742.2, 742.4-742.9)	10	12	6	12	2	-	42
Congenital anomalies of heart and circulatory system (745-747)	7	8	8	4	2	-	29
Congenital anomalies of respiratory system (748)	4	16	42	43	3	8	116
Congenital anomalies of digestive system (749-751)	7	25	17	11	-	1	61
Congenital anomalies of genital organs and urinary system (752, 753)	-	2	4	4	-	-	10
Congenital anomalies of musculoskeletal system and limbs (754-756)	11	15	15	7	-	-	48
Chromosomal anomalies (758)	4	16	24	19	4	7	74
<i>All other causes (001-739, 780-999)</i>	9	32	17	9	1	4	72
	4	10	17	29	4	12	76
MAIN CONDITION IN MOTHER							
<i>Maternal conditions which may be unrelated to present pregnancy (760)</i>							
Maternal hypertensive disorders (760.0)	122	63	62	37	11	6	301
	61	27	27	15	3	2	135
<i>Maternal complications of pregnancy (761)</i>							
Incompetent cervix (761.0)	285	103	52	12	2	11	465
Premature rupture of membranes (761.1)	49	4	2	1	-	2	58
Polyhydramnios (761.3)	68	21	11	1	-	1	102
Multiple pregnancy (761.5)	7	16	11	4	1	1	40
Other maternal complications of pregnancy (Remainder of 761)	42	15	7	2	-	2	68
	119	47	21	4	1	5	197
<i>Complications of placenta, cord and membranes (762)</i>							
Placenta praevia (762.0)	253	173	185	124	17	20	772
Other placental separation and haemorrhage (762.1)	13	4	2	1	1	-	21
Other and unspecified morphological and functional abnormalities of placenta (762.2)	130	61	53	20	3	6	273
Prolapsed cord (762.4)	35	59	51	32	6	4	187
Other compression of umbilical cord (762.5)	16	3	8	8	1	2	38
Other complications of placenta, cord and membranes (Remainder of 762)	13	23	53	50	6	4	149
	46	23	18	13	-	4	104
<i>Other complications of labour and delivery (763)</i>							
Breech delivery and extraction (763.0)	12	14	21	17	9	4	77
	5	3	3	4	-	2	17
<i>No maternal condition reported</i>	169	233	255	235	24	60	976

TABLE 14. PERINATAL DEATHS: FETAL AND NEONATAL DEATHS BY PERIOD OF GESTATION, AUSTRALIA, 1982 TO 1987

Period of gestation (weeks)	Age of mother (years)							
	Under 20	20-24	25-29	30-34	35-39	40 and over	Not stated	Total
FETAL DEATHS								
Under 28	33	92	119	85	39	8	2	378
28-31	17	36	64	55	17	5	1	195
32-36	35	81	108	97	30	7	2	360
37-41	24	90	172	115	40	14	3	458
42 or more	1	9	12	2	3	1	-	28
Not stated	4	4	1	-	2	-	2	13
Total	114	312	476	354	131	35	10	1,432
NEONATAL DEATHS								
Under 28	34	86	117	103	46	5	6	397
28-31	12	36	54	22	7	3	4	138
32-36	14	46	79	49	12	2	4	206
37-41	16	83	131	72	24	2	15	343
42 or more	1	7	5	2	-	-	2	17
Not stated	7	11	11	8	-	1	20	58
Total	84	269	397	256	89	13	51	1,159
ALL PERINATAL DEATHS								
Under 28	67	178	236	188	85	13	8	775
28-31	29	72	118	77	24	8	5	333
32-36	49	127	187	146	42	9	6	566
37-41	40	173	303	187	64	16	18	801
42 or more	2	16	17	4	3	1	2	45
Not stated	11	15	12	8	2	1	22	71
Total	198	581	873	610	220	48	61	2,591

TABLE 15. PERINATAL DEATHS: FETAL AND NEONATAL DEATHS BY AGE OF MOTHER AND PERIOD OF GESTATION, AUSTRALIA, 1987

Period of gestation (weeks)	Age of mother (years)						Total	
	Under 20	20-24	25-29	30-34	35-39	40 and over		
FETAL DEATHS								
Under 28	33	92	119	85	39	8	2	378
28-31	17	36	64	55	17	5	1	195
32-36	35	81	108	97	30	7	2	360
37-41	24	90	172	115	40	14	3	458
42 or more	1	9	12	2	3	1	-	28
Not stated	4	4	1	-	2	-	2	13
Total	114	312	476	354	131	35	10	1,432
NEONATAL DEATHS								
Under 28	34	86	117	103	46	5	6	397
28-31	12	36	54	22	7	3	4	138
32-36	14	46	79	49	12	2	4	206
37-41	16	83	131	72	24	2	15	343
42 or more	1	7	5	2	-	-	2	17
Not stated	7	11	11	8	-	1	20	58
Total	84	269	397	256	89	13	51	1,159
ALL PERINATAL DEATHS								
Under 28	67	178	236	188	85	13	8	775
28-31	29	72	118	77	24	8	5	333
32-36	49	127	187	146	42	9	6	566
37-41	40	173	303	187	64	16	18	801
42 or more	2	16	17	4	3	1	2	45
Not stated	11	15	12	8	2	1	22	71
Total	198	581	873	610	220	48	61	2,591

TABLE 16. PERINATAL DEATHS BY PERIOD OF GESTATION AND MAIN CAUSE OR CONDITION IN FETUS/INFANT AND MOTHER, AUSTRALIA, 1987

Cause of death and ICD code	Period of gestation (weeks)						Total
	Under 28	28-31	32-36	37-41	42 and over	Not stated	
<b>All causes</b>	<b>775</b>	<b>333</b>	<b>566</b>	<b>801</b>	<b>45</b>	<b>71</b>	<b>2,591</b>
MAIN CONDITION IN FETUS/INFANT							
<i>Slow fetal growth, fetal malnutrition and immaturity (764, 765)</i>	206	29	18	32	-	1	286
Slow fetal growth and fetal malnutrition (764)	8	21	16	32	-	-	77
Extreme immaturity (765.0)	195	3	-	-	-	-	198
<i>Birth trauma (767)</i>	12	2	3	5	1	1	24
Birth injury to brain, spine or spinal cord (767.0, 767.4)	12	2	2	5	1	1	23
<i>Hypoxia, birth asphyxia and other respiratory conditions (768-770)</i>	256	116	186	295	23	19	895
Fetal death from asphyxia or anoxia before onset of labour or at unspecified time (768.0)	70	62	128	175	11	5	451
Fetal death from asphyxia or anoxia during labour (768.1)	39	8	15	51	4	1	118
Fetal distress or birth asphyxia in live-born infant (768.2-768.6)	24	2	10	36	3	7	82
Respiratory distress syndrome (769)	62	28	16	3	-	2	111
Congenital pneumonia (770.0)	14	1	7	8	1	-	31
Massive aspiration syndrome (770.1)	-	1	1	13	4	1	20
Atelectasis (770.4-770.5)	25	3	1	3	-	-	32
<i>Fetal and neonatal haemorrhage (772)</i>	45	24	17	22	-	1	109
Intraventricular haemorrhage (772.1)	35	17	2	4	-	-	58
<i>Haemolytic disease of fetus or newborn (773)</i>	5	-	5	1	-	-	11
<i>Other conditions originating in the perinatal period (766, 771, 774-779)</i>	175	78	147	151	10	12	573
Infections specific to the perinatal period (771)	32	13	14	10	-	2	71
Hydrops fetalis not due to isoimmunization (778.0)	16	6	12	3	-	-	37
<i>Congenital anomalies (740-759)</i>	71	79	183	259	7	18	517
Anencephalus and similar anomalies (740)	12	15	16	25	1	-	69
Spina bifida (741)	10	3	6	22	1	-	42
Congenital hydrocephalus (742.3)	9	11	11	11	-	-	42
Other deformities of central nervous system (742.0-742.2, 742.4-742.9)	7	2	9	11	-	-	29
Congenital anomalies of heart and circulatory system (745-747)	3	9	27	64	2	11	116
Congenital anomalies of respiratory system (748)	7	12	23	17	-	2	61
Congenital anomalies of digestive system (749-751)	-	2	4	4	-	-	10
Congenital anomalies of genital organs and urinary system (752, 753)	7	6	24	11	-	-	48
Congenital anomalies of musculoskeletal system and limbs (754-756)	5	6	18	42	-	3	74
Chromosomal anomalies (758)	6	6	25	31	3	1	72
<i>All other causes (001-739, 780-999)</i>	5	5	7	36	4	19	76

TABLE 16. PERINATAL DEATHS BY PERIOD OF GESTATION AND MAIN CAUSE OR CONDITION  
IN FETUS/INFANT AND MOTHER, AUSTRALIA, 1987 -continued

Cause of death and ICD code	Period of gestation (weeks)						Total
	Under 28	28-31	32-36	37-41	42 and over	Not stated	
MAIN CONDITION IN MOTHER							
<i>Maternal conditions which may be unrelated to present pregnancy (760)</i>	94	53	78	68	3	5	301
Maternal hypertensive disorders (760.0)	37	32	30	34	2	-	135
<i>Maternal complications of pregnancy (761)</i>	294	68	70	28	-	5	465
Incompetent cervix (761.0)	52	1	4	1	-	-	58
Premature rupture of membranes (761.1)	72	16	11	3	-	-	102
Polyhydramnios (761.3)	8	9	17	6	-	-	40
Multiple pregnancy (761.5)	40	11	10	7	-	-	68
Other maternal complications of pregnancy (Remainder of 761)	122	31	28	11	-	5	197
<i>Complications of placenta, cord and membranes (762)</i>	229	102	163	249	20	9	772
Placenta praevia (762.0)	13	3	2	1	-	2	21
Other placental separation and haemorrhage (762.1)	122	44	64	38	3	2	273
Other and unspecified morphological and functional abnormalities of placenta (762.2)	21	27	46	84	7	2	187
Prolapsed cord (762.4)	16	3	3	13	2	1	38
Other compression of umbilical cord (762.5)	10	11	32	90	6	-	149
Other complications of placenta, cord and membranes (Remainder of 762)	47	14	16	23	2	2	104
<i>Other complications of labour and delivery (763)</i>	12	5	19	37	3	1	77
Breech delivery and extraction (763.0)	5	1	3	6	1	1	17
<i>No maternal condition reported</i>	146	105	236	419	19	51	976

## EXPLANATORY NOTES

**Introduction**

This publication contains selected statistics of perinatal deaths in Australia. Perinatal deaths comprise *fetal deaths* (stillbirths) and *neonatal deaths* (deaths within 28 days of birth). These statistics have been compiled from Certificates of Cause of Perinatal Death supplied by medical practitioners to the Registrar of Births, Deaths and Marriages or the ABS in each State or Territory.

2. The primary purpose of this publication is to provide an overview of the nature of, and trends in perinatal deaths in Australia. Additional information is available on request.

**Scope and coverage**

3. The perinatal statistics shown in this publication include all fetuses and infants weighing at least 500 grams or (when birthweight is unavailable) the corresponding gestational age (22 weeks) or body length (25cm. crown-heel). This definition of perinatal deaths was adopted from 1979, in accordance with recommendations of the World Health Organization (WHO).

4. The 1984 and 1985 perinatal statistics have been affected by the abnormal delays in the registration process in the New South Wales Registry of Births, Deaths and Marriages in 1984. The delays reduced the number of births and deaths registered in New South Wales in 1984 and as the backlog was cleared in 1985, increased the number of births and deaths that normally would have been registered in 1985. This should be borne in mind in interpreting the statistics for 1984 and 1985 and comparing them with those of other years.

**Definitions**

5. The following definitions have been used in compiling these statistics:

*Perinatal death* is a fetal death or neonatal death, as defined below.

*Fetal death* relates to the delivery of a child weighing at least 500 grams at delivery (or, when birthweight is unavailable, of at least 22 weeks gestation) which did not, at any time after delivery, breathe or show any other evidence of life such as a heartbeat.

*Neonatal death* relates to any child weighing at least 500 grams at delivery (or, when birthweight is unavailable, of at least 22 weeks gestation) who is born alive (as defined under live birth below) and who dies within 28 days after birth.

*Live birth* is the delivery of a child weighing at least 500 grams at delivery (or, when birthweight is unavailable, of at least 22 weeks gestation) who after being born, breathes or shows any other evidence of life such as a heartbeat.

*Period of gestation* is measured from the first day of the last normal menstrual period to the date of birth and is expressed in completed weeks.

6. Where it is not known whether the time of cessation of heartbeat was before or after delivery, those deaths have been included with fetal deaths. In 1987 there were 9 males and 14 females in this category-- see Table 3.

**Perinatal death rates**

7. For comparison and measuring purposes, perinatal deaths in this publication have also been expressed as rates. These rates are defined as follows:

- (a) for fetal deaths and total perinatal deaths, the rates represent the number of deaths per 1,000 live births and fetal deaths combined.
- (b) for neonatal deaths, the rates represent the number of deaths per 1,000 live births.

8. The live birth statistics used to calculate the rates, and shown in the Appendix, differ from those published in *Births, Australia* (3301.0). The live births statistics used in this publication have been adjusted to exclude those known to have weighed under 500 grams (in accordance with the WHO definition-- see paragraph 3). However, infants who survived more than 28 days but weighed less than 500 grams at birth have not been excluded since figures for weight at birth are not available for those who survive more than 28 days. The adjusted birth figures shown in the tables (and the rates based on them), therefore, must be considered approximate.

**Classification of cause of death**

9. For perinatal deaths, both the main condition in the fetus/infant, and the main condition in the mother are coded to the full four-digit level of the Ninth Revision of the International Classification of Diseases (ICD). An abridged version of that classification designed for Australian use has been published in years prior to 1983. However, with the decline in perinatal mortality that has occurred, some categories of that classification are now responsible for few perinatal deaths. Causes selected for publication in this issue are those categories of this abridged classification which were responsible for a significant proportion of perinatal deaths.

10. Tables in this publication show the ICD codes in brackets which constitute the causes of death or conditions described, e.g. *Extreme immaturity (765.0)*, *Birth trauma (767)* and *Maternal complications of pregnancy (761)*.

#### Statistics for States and Territories

11. The statistics of perinatal deaths are presented only in respect of the State or Territory which was the usual residence of the mother. In the 1983 and earlier issues of this publication, statistics were also provided in respect of the State or Territory in which the death was registered (i.e. occurred). While these statistics are no longer published, they can be made available to users on request.

#### Data quality

12. Statistics of perinatal deaths are compiled from information supplied by the medical practitioner certifying the death, or by a coroner. This information, which is obtained as part of the death registration or notification process, is provided to the ABS by individual State or Territory Registrars, or in some cases by the certifying doctor. The aggregate statistics shown in this publication are compiled by the ABS from this information provided.

13. In compiling these statistics the ABS employs a variety of quality control measures to ensure the statistics are as reliable as possible. These measures include: coverage checks to ensure all relevant deaths are counted in the statistics; seeking further information from the certifying doctor or coroner where necessary to enable complete and accurate information about the death to be classified and coded; detailed computer editing of data; and checks on data output at the individual record and aggregate levels.

#### International comparability

14. For purposes of international comparison, WHO recommends that the definition of perinatal death excludes perinatal deaths at weights under 1,000 grams, or neonatal deaths at ages over 7 days. As the statistics shown in this publication exceed that recommended definition, care should be taken in comparing these statistics with those for other countries.

15. Perinatal tabulations for Australia based on the WHO criteria for international comparison are available on request from the ABS.

#### Related publications

16. Other ABS publications which may be of interest include:

*Births, Australia (3301.0)*  
*Deaths, Australia (3302.0)*  
*Causes of Death, Australia (3303.0)*

17. Current publications produced by the ABS are listed in the *Catalogue of Publications, Australia (1101.0)*. The ABS also issues, on Tuesdays and Fridays, a *Publications Advice (1105.0)* which lists publications to be released in the next few days. The Catalogue and Publications Advice are available from any ABS office.

#### Symbols and other usages

M males  
 F females  
 P persons  
 - nil or less than half the final digit shown  
 . . not applicable  
 ICD International Classification of Diseases  
 (produced by the World Health Organization)

18. Where figures have been rounded, discrepancies may occur between sums of the component items and totals.

#### Electronic services

VIATEL. Key \*656# for selected current economic, social and demographic statistics.

AUSSTATS. Thousands of up-to-date time series are available on this ABS on-line service through CSIRONET.

For further information phone the AUSSTATS Help Desk on (062) 52 6017.

TELESTATS. This service provides foreign trade statistics tailored to users' requirements.

Further information is available in (062) 52 5404.

## APPENDIX. BIRTHS REGISTERED (FOR USE IN CALCULATING RATES)

TABLE A1. BIRTHS(a) BY SEX OF CHILD AND STATE OR TERRITORY OF USUAL RESIDENCE OF MOTHER, AUSTRALIA, 1987

Births	Sex	State or Territory of usual residence									Australia
		N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.		
Live births	M	44,024	31,595	20,288	9,893	12,037	3,483	1,817	2,090	125,227	
	F	42,036	29,895	19,062	9,332	11,283	3,306	1,709	2,018	118,641	
Stillbirths(b)	M	280	197	103	51	71	21	21	18	762	
	F	224	165	124	38	72	11	23	13	670	
Total	M	44,304	31,792	20,391	9,944	12,108	3,504	1,838	2,108	125,989	
	F	42,260	30,060	19,186	9,370	11,355	3,317	1,732	2,031	119,311	
	P	86,564	61,852	39,577	19,314	23,463	6,821	3,570	4,139	245,300	

(a) See Explanatory Notes, paragraph 8. (b) Includes those where it was not known if the heartbeat ceased before or after delivery.

TABLE A2. BIRTHS(a) BY SEX OF CHILD AND AGE OF MOTHER, AUSTRALIA, 1987

Births	Sex	Age of mother (years)							Total
		Under 20	20-24	25-29	30-34	35-39	40 and over	Not stated	
Live births	M	7,277	28,564	48,682	30,086	9,164	1,405	49	125,227
	F	6,704	26,860	46,499	28,413	8,829	1,291	45	118,641
Stillbirths(b)	M	54	169	249	195	70	18	7	762
	F	60	143	227	159	61	17	3	670
Total	M	7,331	28,733	48,931	30,281	9,234	1,423	56	125,989
	F	6,764	27,003	46,726	28,572	8,890	1,308	48	119,311
	P	14,095	55,736	95,657	58,853	18,124	2,731	104	245,300

(a) See Explanatory Notes, paragraph 8. (b) Includes those where it was not known if the heartbeat ceased before or after delivery.

TABLE A3. BIRTHS(a) BY SEX, AUSTRALIA, 1982 TO 1987

Year	Live births			Stillbirths(b)			Total		
	Males	Females	Persons	Males	Females	Persons	Males	Females	Persons
1982	123,201	116,622	239,823	889	816	1,705	124,090	117,438	241,528
1983	124,513	117,948	242,461	910	709	1,619	125,423	118,657	244,080
1984	119,776	114,176	233,952	833	760	1,593	120,609	114,936	235,545
1985	126,753	120,480	247,233	814	704	1,518	127,567	121,184	248,751
1986	124,870	118,445	243,315	823	762	1,585	125,693	119,207	244,900
1987	125,227	118,641	243,868	762	670	1,432	125,989	119,311	245,300

(a) See Explanatory Notes, paragraph 8. (b) Includes those where it was not known if the heartbeat ceased before or after delivery.

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