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**PERINATAL DEATHS, AUSTRALIA,
1988**

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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, 1983 to 1988	3
2. Perinatal deaths by State or Territory of usual residence of mother, number and rate, 1983 to 1988	3
3. Perinatal deaths by time of cessation of heartbeat, sex and State or Territory of usual residence of mother, 1988	4
4. Perinatal deaths by sex of child and main cause or condition in fetus/infant and mother, Australia, 1985 to 1988	5
5. Perinatal deaths: main cause or condition in fetus/infant and mother by State or Territory of usual residence of mother, 1988	7
6. Perinatal deaths: fetal and neonatal deaths by sex of child and main cause or condition in fetus/infant and mother, Australia, 1988	7
7. Perinatal deaths by age of mother, number and rate, Australia, 1983 to 1988	9
8. Perinatal deaths by age of mother and main cause or condition in fetus/infant and mother, Australia, 1988	9
9. Perinatal death rates: age of mother by cause or condition in fetus/infant and mother, Australia, 1988	10
10. Fetal deaths by time of cessation of heartbeat and main cause or condition in fetus and mother, Australia, 1988	11
11. Neonatal deaths by age at death and main cause or condition in infant and mother, Australia, 1988	12
12. Perinatal deaths: fetal and neonatal deaths by birthweight, Australia, 1983 to 1988	13
13. Perinatal deaths by birthweight and main cause or condition in fetus/infant and mother, Australia, 1988	13
14. Perinatal deaths: fetal and neonatal deaths by period of gestation, Australia, 1983 to 1988	15
15. Perinatal deaths: fetal and neonatal deaths by age of mother and period of gestation, Australia, 1988	15
16. Perinatal deaths by period of gestation and main cause or condition in fetus/infant and mother, Australia, 1988	16
.. Explanatory Notes	18
APPENDIX. BIRTHS REGISTERED (FOR USE IN CALCULATING RATES)	
A1. Births by sex of child and State or Territory of usual residence of mother, Australia, 1988	20
A2. Births by sex of child and age of mother, Australia, 1988	20
A3. Births by sex, Australia, 1983 to 1988	20

Diagrams

1. Perinatal, fetal and neonatal death rates, Australia	1
2. Perinatal deaths: main condition in fetus/neonate, Australia, 1988	2

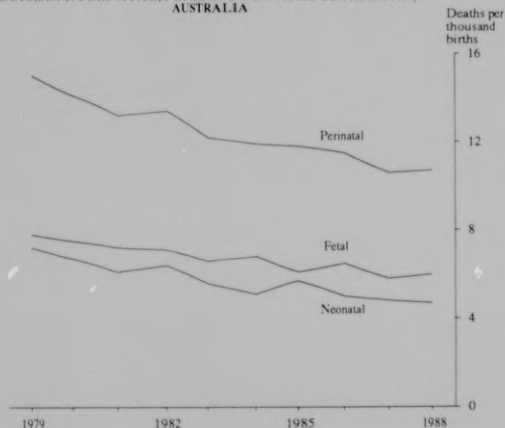
SUMMARY OF FINDINGS

General

In 1988, there were 2,637 perinatal deaths recorded in Australia, of which 1,473 were fetal deaths (stillbirths) and 1,164 were neonatal deaths (children born alive who died within 28 days of birth).

The 1988 perinatal death rate was 10.7 deaths per 1,000 births, compared to 10.6 in 1987. Diagram 1 illustrates the movement in perinatal death rates over the previous ten years.

DIAGRAM 1. PERINATAL, FETAL AND NEONATAL DEATH RATES, AUSTRALIA



Mothers resident in the Northern Territory had the highest perinatal death rate in 1988 at 19.9 deaths per 1,000 births, followed by mothers resident in Tasmania at 13. Western Australian mothers had the lowest perinatal death rate at 9 deaths per 1,000 births.

Sex

As in previous years there were more male perinatal deaths than female. Compared with the 1988 live birth ratio of 105 males to every 100 females, the ratio of perinatal deaths was 130 : 100. For fetal deaths the ratio was 126 : 100, while for neonatal deaths it was 135 : 100.

Male perinatal death rates increased from 11.4 per 1,000 births in 1987 to 11.7 in 1988, while female perinatal death rates decreased from 9.7 in 1987 to 9.5 in 1988.

Time of death

In 1988, 1,002 fetal deaths occurred before labour commenced. Of these deaths over half occurred 1 to 6 days prior to labour. A further 343 fetal deaths occurred during labour.

Fifty-one (51) per cent of neonatal deaths in 1988 occurred within one day of birth and 80 per cent within the first six days after birth.

Birthweight

Most perinatal deaths (55 per cent) in 1988 involved children who weighed less than 2,000 grams at birth. Of this group 57 per cent were children weighing less than 1,000 grams.

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

Maternal age

The highest perinatal death rate in 1988 was recorded among mothers aged 40 years and over, 17.8 deaths per 1,000 births. The second highest perinatal death rate (14.5) was recorded for mothers less than 20 years of age.

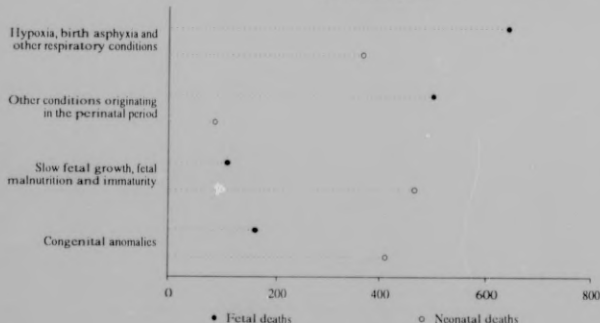
Mothers aged 25 to 29 years had the lowest perinatal death rate at 9.2 deaths per 1,000 births.

Causes of death

Hypoxia, birth asphyxia and other respiratory conditions continued to be the main cause of perinatal deaths in 1988, accounting for 977 deaths. *Other conditions originating in the perinatal period* was the second highest cause with 590 deaths followed by *congenital anomalies* with 573 deaths. Collectively these causes accounted for 81 per cent of all perinatal deaths.

The relative significance of the major causes differed for fetal and neonatal deaths. The main causes of fetal deaths in 1988 were *hypoxia, birth asphyxia and other respiratory conditions* which accounted for 641 deaths. For neonatal deaths, the leading cause was *congenital anomalies*, which accounted for 413 deaths. *Congenital anomalies of the heart and circulatory system* comprised 30 per cent of these deaths with *chromosomal anomalies* and *congenital anomalies of the respiratory system* accounting for a further 14 and 13 per cent respectively.

DIAGRAM 2. PERINATAL DEATHS: MAIN CONDITION IN FETUS/NEONATE, AUSTRALIA, 1988



A maternal condition affecting the fetus or infant was recorded in 60 per cent of total perinatal deaths in 1988. *Complications of placenta, cord and membranes* were the most frequently reported main maternal conditions.

TABLE 1. PERINATAL DEATHS: FETAL AND NEONATAL DEATHS BY SEX OF CHILD, NUMBER AND RATE, AUSTRALIA, 1983 TO 1988

Year	Fetal deaths			Neonatal deaths			All perinatal deaths		
	Males	Females	Persons	Males	Females	Persons	Males	Females	Persons
NUMBER									
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	801	619	1,420	1,615	1,323	2,938
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
1988	822	651	1,473	669	495	1,164	1,491	1,146	2,637
RATE(a)									
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	12.7	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
1988	6.5	5.4	6.0	5.3	4.1	4.7	11.7	9.5	10.7

(a) Rates are per 1,000 of total relevant births - see also paragraphs 6-9 of the Explanatory Notes.

TABLE 2. PERINATAL DEATHS BY STATE OR TERRITORY OF USUAL RESIDENCE OF MOTHER, NUMBER AND RATE, 1983 TO 1988

Year	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Australia
NUMBER									
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	251	101	58	45	2,938
1986	975	707	441	200	269	110	66	44	2,812
1987	933	629	434	170	248	64	68	45	2,591
1988	946	632	432	193	228	89	69	48	2,637
RATE(a)									
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	10.8	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
1988	11.1	10.1	10.6	10.0	9.0	13.0	19.9	11.0	10.7

(a) Rates are per 1,000 of total relevant births - see also paragraphs 6-9 of the Explanatory Notes.

TABLE 3. PERINATAL DEATHS BY TIME OF CESSATION OF HEARTBEAT, SEX AND STATE OR TERRITORY OF USUAL RESIDENCE OF MOTHER, 1988

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	203	122	95	47	51	20	13	10	561	4.4
	F	170	107	70	33	22	18	9	12	441	3.7
During labour	M	71	43	31	9	22	7	6	1	190	1.5
	F	50	54	20	9	15	3	1	1	153	1.3
Not known whether before or during labour	M	18	14	5	6	4	5	3	2	57	0.4
	F	19	13	8	2	5	2	2	1	52	0.4
Not known whether before or after delivery (a)	M	5	2	5	2	—	—	—	—	14	0.1
	F	2	1	—	1	—	—	—	—	5	(c)
Total (fetal deaths) - number	M	297	181	136	64	77	32	22	13	822	..
	F	241	175	98	45	43	23	12	14	651	..
	P	538	356	234	109	120	55	34	27	1,473	..
- rate (b)	M	6.8	5.7	6.5	6.4	6.0	9.2	12.1	5.9	..	6.5
	F	5.8	5.7	4.9	4.9	3.5	6.8	7.3	6.5	..	5.4
	P	6.3	5.7	5.7	5.7	4.8	8.1	9.8	6.2	..	6.0
After delivery (neonatal deaths) - number	M	228	167	106	54	64	21	17	12	669	..
	F	180	109	92	30	44	13	18	9	495	..
	P	408	276	198	84	108	34	35	21	1,164	..
- rate (b)	M	5.2	5.3	5.1	5.4	5.0	6.1	9.4	5.5	..	5.3
	F	4.4	3.6	4.7	3.3	3.6	3.9	11.0	4.2	..	4.1
	P	4.8	4.4	4.9	4.4	4.3	5.0	10.2	4.8	..	4.7
Total perinatal deaths - number	M	525	348	242	118	141	53	39	25	1,491	..
	F	421	284	190	75	87	36	30	23	1,146	..
	P	946	632	432	193	228	89	69	48	2,637	..
- rate (b)	M	12.0	10.9	11.6	11.8	10.9	15.3	21.4	11.3	..	11.7
	F	10.2	9.3	9.6	8.1	7.1	10.7	18.2	10.7	..	9.5
	P	11.1	10.1	10.6	10.0	9.0	13.0	19.9	11.0	..	10.7

(a) Included as fetal deaths in this publication. (b) Rates are per 1,000 of relevant births - see also paragraphs 6-9 of the Explanatory Notes. (c) Less than 0.05.

TABLE 4. PERINATAL DEATHS BY SEX OF CHILD AND MAIN CAUSE OR CONDITION IN FETUS/INFANT AND MOTHER, AUSTRALIA, 1985 TO 1988

Cause of death and ICD code	Sex	1985	1986	1987	1988
All causes	M	1,615	1,550	1,438	1,491
	F	1,323	1,262	1,153	1,146
MAIN CONDITION IN FETUS/INFANT					
<i>Slow fetal growth, fetal malnutrition and immaturity (764, 765)</i>	M	117	175	156	160
	F	113	125	130	119
Slow fetal growth and fetal malnutrition (764)	M	25	33	37	38
	F	26	30	40	28
Extreme immaturity (765.0)	M	90	127	111	118
	F	79	92	87	86
<i>Birth trauma (767)</i>	M	34	22	14	16
	F	15	9	10	13
Birth injury to brain, spine or spinal cord (767.0, 767.4)	M	26	16	13	15
	F	13	7	10	13
<i>Hypoxia, birth asphyxia and other respiratory conditions (768-770)</i>	M	599	590	524	563
	F	466	485	371	414
Fetal death from asphyxia or anoxia before onset of labour or at unspecified time (768.0)	M	280	288	251	273
	F	218	276	200	211
Fetal death from asphyxia or anoxia during labour (768.1)	M	66	80	65	78
	F	56	63	53	55
Fetal distress or birth asphyxia in liveborn infant (768.2-768.6)	M	46	45	53	47
	F	18	23	29	32
Respiratory distress syndrome (769)	M	107	89	76	81
	F	73	40	35	50
Congenital pneumonia (770.0)	M	13	9	17	11
	F	14	8	14	8
Massive aspiration syndrome (770.1)	M	17	14	11	15
	F	23	23	9	20
Atelectasis (770.4-770.5)	M	19	28	20	24
	F	20	30	12	15
<i>Fetal and neonatal haemorrhage (772)</i>	M	65	43	68	69
	F	56	46	41	38
Intraventricular haemorrhage (772.1)	M	52	34	38	40
	F	33	34	20	23
<i>Haemolytic disease of fetus or newborn (773)</i>	M	15	9	6	9
	F	12	11	5	3
<i>Other conditions originating in the perinatal period (766, 771, 774-779)</i>	M	320	321	307	323
	F	277	251	266	267
Infections specific to the perinatal period (771)	M	44	39	34	37
	F	34	25	37	33
Hydrops fetalis not due to isoimmunization (778.0)	M	18	21	20	19
	F	12	12	17	20
<i>Congenital anomalies (740-759)</i>	M	411	340	321	312
	F	335	299	296	261
Anencephalus and similar anomalies (740)	M	45	40	23	20
	F	55	54	46	44
Spina bifida (741)	M	33	28	13	20
	F	34	19	29	20
Congenital hydrocephalus (742.3)	M	28	16	28	20
	F	17	22	14	12
Other deformities of central nervous system (742.0-742.2, 742.4-742.9)	M	19	15	16	10
	F	13	25	13	15

TABLE 4. PERINATAL DEATHS BY SEX OF CHILD AND MAIN CAUSE OR CONDITION IN FETUS/INFANT AND MOTHER, AUSTRALIA, 1985 TO 1988 —continued

Cause of death and ICD code	Sex	1985	1986	1987	1988
MAIN CONDITION IN FETUS/INFANT					
Congenital anomalies of heart and circulatory system (745-747)	M	82	69	61	74
	F	53	55	55	55
Congenital anomalies of respiratory system (748)	M	42	31	27	42
	F	21	17	24	15
Congenital anomalies of digestive system (749-751)	M	9	6	5	5
	F	6	7	5	9
Congenital anomalies of genital organs and urinary system (752, 753)	M	32	29	33	25
	F	21	13	15	10
Congenital anomalies of musculoskeletal system and limbs (754-756)	M	42	37	46	26
	F	36	26	28	24
Chromosomal anomalies (758)	M	37	35	31	46
	F	50	40	41	37
All other causes (001-739, 780-999)	M	54	50	42	39
	F	49	36	34	31
MAIN CONDITION IN MOTHER					
Maternal conditions which may be unrelated to present pregnancy (760)	M	179	150	154	141
	F	157	142	147	121
Maternal hypertensive disorders (760.0)	M	96	76	65	79
	F	89	79	70	59
Maternal complications of pregnancy (761)	M	328	346	275	297
	F	245	213	190	199
Incompetent cervix (761.0)	M	47	42	33	38
	F	28	25	25	28
Premature rupture of membranes (761.1)	M	60	76	60	83
	F	46	41	42	52
Polyhydramnios (761.3)	M	26	27	20	25
	F	13	25	20	19
Multiple pregnancy (761.5)	M	39	56	44	34
	F	37	28	24	19
Other maternal complications of pregnancy (Remainder of 761)	M	156	145	118	117
	F	121	94	79	81
Complications of placenta, cord and membranes (762)	M	442	439	436	440
	F	342	372	336	315
Placenta praevia (762.0)	M	17	15	11	7
	F	8	16	10	5
Other placental separation and haemorrhage (762.1)	M	174	158	160	187
	F	141	135	113	106
Other and unspecified morphological and functional abnormalities of placenta (762.2)	M	101	106	107	108
	F	71	72	80	75
Prolapsed cord (762.4)	M	26	18	29	17
	F	10	14	9	12
Other compression of umbilical cord (762.5)	M	84	93	75	78
	F	65	78	74	63
Other complications of placenta, cord and membranes (Remainder of 762)	M	40	49	54	43
	F	47	57	50	54
Other complications of labour and delivery (763)	M	89	70	36	37
	F	51	45	41	25
Breech delivery and extraction (763.0)	M	20	11	8	7
	F	7	14	9	2
No maternal condition reported	M	577	545	537	576
	F	528	490	439	486

TABLE 5. PERINATAL DEATHS: MAIN CAUSE OR CONDITION IN FETUS/INFANT AND MOTHER, BY STATE OR TERRITORY OF USUAL RESIDENCE OF MOTHER, 1988

Cause of death and ICD code	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Australia
All causes	946	632	432	193	228	89	69	48	2,637
Main condition in fetus/infant -									
Slow fetal growth, fetal malnutrition and immaturity (764, 765)	86	65	61	23	24	10	7	3	279
Birth trauma (767)	9	4	7	—	3	3	2	1	29
Hypoxia, birth asphyxia and other respiratory conditions (768-770)	393	277	126	36	76	41	12	16	977
Fetal and neonatal haemorrhage (772)	25	41	15	16	5	3	2	—	107
Haemolytic disease of fetus or newborn (773)	5	1	4	—	2	—	—	—	12
Other conditions originating in the perinatal period (766, 771, 774-779)	222	75	115	71	53	11	26	17	590
Congenital anomalies (740-759)	182	154	90	45	55	20	17	10	573
All other causes (Remainder of 001-999)	24	15	14	2	10	1	3	1	70
Main condition in mother -									
Maternal conditions which may be unrelated to present pregnancy (760)	88	66	51	16	20	3	14	4	262
Maternal complications of pregnancy (761)	241	109	58	20	53	6	6	3	496
Complications of placenta, cord and membranes (762)	270	161	163	39	56	38	10	18	755
Other complications of labour and delivery (763)	21	24	10	2	3	—	2	—	62
No maternal condition reported	326	272	150	116	96	42	37	23	1,062

TABLE 6. PERINATAL DEATHS: FETAL AND NEONATAL DEATHS BY SEX OF CHILD AND MAIN CAUSE OR CONDITION IN FETUS/INFANT AND MOTHER, AUSTRALIA, 1988

Cause of death and ICD code	Fetal deaths		Neonatal deaths		All perinatal deaths		
	Males	Females	Males	Females	Males	Females	Persons
All causes	822	651	669	495	1,491	1,146	2,637
MAIN CONDITION IN FETUS/INFANT							
<i>Slow fetal growth, fetal malnutrition and immaturity (764, 765)</i>	70	43	90	76	160	119	279
Slow fetal growth and fetal malnutrition (764)	35	27	3	1	38	28	66
Extreme immaturity (765.0)	34	15	84	71	118	86	204
<i>Birth trauma (767)</i>	—	1	16	12	16	13	29
Birth injury to brain, spine or spinal cord (767.0, 767.4)	—	1	15	12	15	13	28
<i>Hypoxia, birth asphyxia and other respiratory conditions (768-770)</i>	361	280	202	134	563	414	977
Fetal death from asphyxia or anoxia before onset of labour or at unspecified time (768.0)	273	211	—	—	273	211	484
Fetal death from asphyxia or anoxia during labour (768.1)	78	55	—	—	78	55	133
Fetal distress or birth asphyxia in liveborn infant (768.2-768.6)	—	—	47	32	47	32	79
Respiratory distress syndrome (769)	—	—	81	50	81	50	131
Congenital pneumonia (770.0)	5	6	6	2	11	8	19
Massive aspiration syndrome (770.1)	3	6	12	14	15	20	35
Atelectasis (770.4-770.5)	—	—	24	15	24	15	39
<i>Fetal and neonatal haemorrhage (772)</i>	25	11	44	27	69	38	107
Intraventricular haemorrhage (772.1)	1	—	39	23	40	23	63
<i>Haemolytic disease of fetus or newborn (773)</i>	6	3	3	—	9	3	12
<i>Other conditions originating in the perinatal period (766, 771, 774-779)</i>	276	225	47	42	323	267	590
Infections specific to the perinatal period (771)	10	10	27	23	37	33	70
Hydrops fetalis not due to isoimmunization (778.0)	13	12	6	8	19	20	39

TABLE 6. PERINATAL DEATHS: FETAL AND NEONATAL DEATHS BY SEX OF CHILD AND MAIN CAUSE OR CONDITION IN FETUS/INFANT AND MOTHER, AUSTRALIA, 1988 —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>	80	80	232	181	312	261	573
Anencephalus and similar anomalies (740)	13	27	7	17	20	44	64
Spina bifida (741)	7	8	13	12	20	20	40
Congenital hydrocephalus (742.3)	10	9	10	3	20	12	32
Other deformities of central nervous system (742.0-742.2, 742.4-742.9)	3	3	7	12	10	15	25
Congenital anomalies of heart and circulatory system (745-747)	4	3	70	52	74	55	129
Congenital anomalies of respiratory system (748)	2	—	40	15	42	15	57
Congenital anomalies of digestive system (749-751)	—	1	5	8	5	9	14
Congenital anomalies of genital organs and urinary system (752, 753)	7	4	18	6	25	10	35
Congenital anomalies of musculoskeletal system and limbs (754-756)	6	8	20	16	26	24	50
Chromosomal anomalies (758)	17	9	29	28	46	37	83
<i>All other causes (001-739, 780-999)</i>	4	8	35	23	39	31	70
MAIN CONDITION IN MOTHER							
<i>Maternal conditions which may be unrelated to present pregnancy (760)</i>	102	76	39	45	141	121	262
Maternal hypertensive disorders (760.0)	57	40	22	19	79	59	138
<i>Maternal complications of pregnancy (761)</i>	97	56	200	143	297	199	496
Incompetent cervix (761.0)	11	7	27	21	38	28	66
Premature rupture of membranes (761.1)	27	14	56	38	83	52	135
Polyhydramnios (761.3)	13	9	12	10	25	19	44
Multiple pregnancy (761.5)	23	9	11	10	34	19	53
Other maternal complications of pregnancy (Remainder of 761)	23	17	94	64	117	81	198
<i>Complications of placenta, cord and membranes (762)</i>	331	254	109	61	440	315	755
Placenta praevia (762.0)	4	4	3	1	7	5	12
Other placental separation and haemorrhage (762.1)	123	69	64	37	187	106	293
Other and unspecified morphological and functional abnormalities of placenta (762.2)	97	73	11	2	108	75	183
Prolapsed cord (762.4)	11	10	6	2	17	12	29
Other compression of umbilical cord (762.5)	72	62	6	1	78	63	141
Other complications of placenta, cord and membranes (Remainder of 762)	24	36	19	18	43	54	97
<i>Other complications of labour and delivery (763)</i>	15	13	22	12	37	25	62
Breech delivery and extraction (763.0)	1	1	6	1	7	2	9
<i>No maternal condition reported</i>	277	252	299	234	576	486	1,062

TABLE 7. PERINATAL DEATHS BY AGE OF MOTHER, NUMBER AND RATE, AUSTRALIA, 1983 TO 1988

Age of mother (years)								
Year	Under 20	20-24	25-29	30-34	35-39	40 and over	Not stated	Total
NUMBER								
1983	258	809	1,010	586	193	51	61	2,968
1984	222	740	914	579	231	59	52	2,797
1985	214	751	978	643	236	26	90	2,938
1986	206	674	942	591	254	54	91	2,812
1987	198	581	873	610	220	48	61	2,591
1988	204	588	882	592	251	49	71	2,637
RATE(a)								
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
1988	14.5	11.0	9.2	9.6	12.9	17.8	..	10.7

(a) Rates are per 1,000 of total relevant births - see also paragraphs 6-9 of the Explanatory Notes.

TABLE 8. PERINATAL DEATHS BY AGE OF MOTHER AND MAIN CAUSE OR CONDITION IN FETUS/INFANT AND MOTHER, AUSTRALIA, 1988

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		
All causes	204	588	882	592	251	49	71	2,637
MAIN CONDITION IN FETUS/INFANT								
Slow fetal growth, fetal malnutrition and immaturity (764, 765)	17	60	94	73	27	4	4	279
Slow fetal growth and fetal malnutrition (764)	4	16	21	13	9	—	3	66
Extreme immaturity (765.0)	12	39	72	58	18	4	1	204
Birth trauma (767)	2	7	10	8	—	—	2	29
Birth injury to brain, spine or spinal cord (767.0, 767.4)	2	6	10	8	—	—	2	28
Hypoxia, birth asphyxia and other respiratory conditions (768-770)	71	226	325	229	89	18	19	977
Fetal death from asphyxia or anoxia before onset of labour or at unspecified time (768.0)	26	110	160	117	49	14	8	484
Fetal death from asphyxia or anoxia during labour (768.1)	15	37	44	25	11	1	—	133
Fetal distress or birth asphyxia in liveborn infant (768.2-768.6)	5	14	29	18	6	1	6	79
Respiratory distress syndrome (769)	13	32	43	35	7	—	1	131
Congenital pneumonia (770.0)	1	1	7	7	3	—	—	19
Massive aspiration syndrome (770.1)	5	7	12	8	2	—	1	35
Atelectasis (770.4-770.5)	3	8	8	11	8	1	—	39
Fetal and neonatal haemorrhage (772)	5	22	39	25	11	3	2	107
Intraventricular haemorrhage (772.1)	2	12	23	15	7	3	1	63
Haemolytic disease of fetus or newborn (773)	3	1	3	1	4	—	—	12
Other conditions originating in the perinatal period (766, 771, 774-779)	55	120	197	131	61	14	12	590
Infections specific to the perinatal period (771)	9	12	23	15	7	1	3	70
Hydrops fetalis not due to isoimmunization (778.0)	1	6	13	13	3	—	3	39
Congenital anomalies (740-759)	40	131	195	117	53	10	27	573
Anencephalus and similar anomalies (740)	4	13	30	13	1	1	2	64
Spina bifida (741)	2	12	11	11	1	—	3	40
Congenital hydrocephalus (742.3)	—	10	6	13	1	2	—	32
Other deformities of central nervous system (742.0-742.2, 742.4-742.9)	2	4	11	4	2	—	2	25
Congenital anomalies of heart and circulatory system (745-747)	10	29	43	25	12	1	9	129
Congenital anomalies of respiratory system (748)	3	14	23	9	5	—	3	57
Congenital anomalies of digestive system (749-751)	—	4	4	3	2	—	1	14
Congenital anomalies of genital organs and urinary system (752, 753)	6	10	14	3	1	—	1	35
Congenital anomalies of musculoskeletal system and limbs (754-756)	5	3	18	11	7	2	4	50
Chromosomal anomalies (758)	5	18	22	16	18	2	2	83
All other causes (001-739, 780-999)	11	21	19	8	6	—	5	70

TABLE 8. PERINATAL DEATHS BY AGE OF MOTHER AND MAIN CAUSE OR CONDITION IN FETUS/INFANT AND MOTHER, AUSTRALIA, 1988 —continued

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	
MAIN CONDITION IN MOTHER								
Maternal conditions which may be unrelated to present pregnancy (760)	24	63	81	58	27	5	4	262
Maternal hypertensive disorders (760.0)	9	27	45	34	18	3	2	138
Maternal complications of pregnancy (761)	29	98	163	133	51	11	11	496
Incompetent cervix (761.0)	2	9	27	21	7	—	—	66
Premature rupture of membranes (761.1)	7	27	43	33	17	5	3	135
Polyhydramnios (761.3)	—	4	17	10	9	—	4	44
Multiple pregnancy (761.5)	3	9	19	16	3	2	1	53
Other maternal complications of pregnancy (Remainder of 761)	17	49	57	53	15	4	3	198
Complications of placenta, cord and membranes (762)	60	162	268	165	76	14	10	755
Placenta praevia (762.0)	—	3	4	3	2	—	—	12
Other placental separation and haemorrhage (762.1)	28	68	97	60	30	7	3	293
Other and unspecified morphological and functional abnormalities of placenta (762.2)	17	40	62	37	20	4	3	183
Prolapsed cord (762.4)	3	5	13	6	1	—	1	29
Other compression of umbilical cord (762.5)	6	29	52	35	15	3	1	141
Other complications of placenta, cord and membranes (Remainder of 762)	6	17	40	24	8	—	2	97
Other complications of labour and delivery (763)	11	14	17	14	4	1	1	62
Breech delivery and extraction (763.0)	1	2	3	2	1	—	—	9
No maternal condition reported	80	251	353	222	93	18	45	1,062

TABLE 9. PERINATAL DEATH RATES (a): AGE OF MOTHER BY MAIN CAUSE OR CONDITION IN FETUS/INFANT AND MOTHER, AUSTRALIA, 1988

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	
All causes	14.5	11.0	9.2	9.6	12.9	17.8	10.7
Main condition in fetus/infant-							
Slow fetal growth, fetal malnutrition and immaturity (764, 765)	1.2	1.1	1.0	1.2	1.4	1.5	1.1
Birth trauma (767)	0.1	0.1	0.1	0.1	—	—	0.1
Hypoxia, birth asphyxia and other respiratory conditions (768-770)	5.0	4.2	3.4	3.7	4.6	6.5	3.9
Fetal and neonatal haemorrhage (772)	0.4	0.4	0.4	0.4	0.6	1.1	0.4
Haemolytic disease of fetus or newborn (773)	0.2	(c)	(c)	(c)	0.2	—	(c)
Other conditions originating in the perinatal period (766, 771, 774-779)	3.9	2.2	2.1	2.1	3.1	5.1	2.4
Congenital anomalies (740-759)	2.8	2.5	2.0	1.9	2.7	3.6	2.3
All other causes (001-739, 780-999)	0.8	0.4	0.2	0.1	0.3	—	0.3
Main condition in mother-							
Maternal conditions which may be unrelated to present pregnancy (760)	1.7	1.2	0.8	0.9	1.4	1.8	1.1
Maternal complications of pregnancy (761)	2.1	1.8	1.7	2.1	2.6	4.0	2.0
Complications of placenta, cord and membranes (762)	4.3	3.0	2.8	2.7	3.9	5.1	3.1
Other complications of labour and delivery (763)	0.8	0.3	0.2	0.2	0.2	0.4	0.3
No maternal condition reported	5.7	4.7	3.7	3.6	4.8	6.5	4.3

(a) Rates are per 1,000 of total relevant births - see also paragraphs 6-9 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, 1988

Cause of death and ICD code	Heartbeat ceased									
	Before labour commenced					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	187	513	165	11	126	1,002	343	109	19	1,473
MAIN CONDITION IN FETUS										
Slow fetal growth, fetal malnutrition and immaturity (764, 765)	6	23	9	—	15	53	53	5	2	113
Slow fetal growth and fetal malnutrition (764)	6	23	9	—	15	53	4	5	—	62
Extreme immaturity (765.0)	—	—	—	—	—	—	48	—	1	49
Birth trauma (767)	—	—	—	—	—	—	1	—	—	1
Hypoxia, birth asphyxia and other respiratory conditions (768-770)	102	241	61	4	35	443	146	48	4	641
Fetal death from asphyxia or anoxia before onset of labour or at unspecified time (768.0)	99	235	61	4	35	434	—	46	4	484
Fetal death from asphyxia or anoxia during labour (768.1)	—	—	—	—	—	—	133	—	—	133
Fetal and neonatal haemorrhage (772)	1	12	5	—	6	24	9	3	—	36
Haemolytic disease of fetus or newborn (773)	4	3	—	—	2	9	—	—	—	9
Other conditions originating in the perinatal period (766, 771, 774-779)	61	198	84	5	55	403	56	34	8	501
Congenital anomalies (740-759)	11	30	6	2	13	62	75	18	5	160
Anencephalus and similar anomalies (740)	2	3	1	1	2	9	22	7	2	40
All other causes (001-739, 780-999)	2	6	—	—	—	8	3	1	—	12
MAIN CONDITION IN MOTHER										
Maternal conditions which may be unrelated to present pregnancy (760)	29	64	22	—	17	132	33	12	1	186
Maternal hypertensive disorders (760.0)	21	38	13	—	7	79	13	5	—	97
Maternal complications of pregnancy (761)	11	24	8	3	14	60	72	16	5	153
Incompetent cervix (761.0)	1	2	—	—	—	3	13	2	—	18
Premature rupture of membranes (761.1)	4	7	—	—	5	16	20	4	1	41
Polyhydramnios (761.3)	3	5	1	—	4	13	6	2	1	22
Complications of placenta, cord and membranes (762)	99	220	55	4	44	422	119	40	4	585
Placenta praevia (762.0)	3	1	—	1	—	5	2	1	—	8
Other placental separation and haemorrhage (762.1)	48	39	9	—	18	114	54	21	3	192
Other and unspecified morphological and functional abnormalities of placenta (762.2)	17	86	29	2	17	151	12	6	1	170
Prolapsed cord (762.4)	1	4	—	—	—	5	15	1	—	21
Other compression of umbilical cord (762.5)	21	70	17	—	3	111	18	5	—	134
Other complications of placenta, cord and membranes (Remainder of 762)	9	20	—	1	6	36	18	6	—	60
Other complications of labour and delivery (763)	1	—	—	—	—	1	25	2	—	28
No maternal condition reported	47	205	80	4	51	387	94	39	9	529

TABLE 11. NEONATAL DEATHS BY AGE AT DEATH AND MAIN CAUSE OR CONDITION IN INFANT AND MOTHER, AUSTRALIA, 1988

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(a)	1 day	2 days	3-6 days	7-27 days	
All causes	239	259	99	599	118	80	139	228	1,164
MAIN CONDITION IN INFANT									
<i>Slow fetal growth, fetal malnutrition and immaturity (764, 765)</i>	109	49	2	161	2	1	1	1	166
<i>Extreme immaturity (765.0)</i>	103	46	2	152	1	1	—	1	155
<i>Birth trauma (767)</i>	—	5	4	9	5	5	8	1	28
<i>Birth injury to brain, spine or spinal cord (767.0, 767.4)</i>	—	5	3	8	5	5	8	1	27
<i>Hypoxia, birth asphyxia and other respiratory conditions (768-770)</i>	42	85	53	181	49	31	45	30	336
<i>Fetal distress or birth asphyxia in liveborn infant (768.2-768.6)</i>	21	24	5	50	10	5	10	4	79
<i>Respiratory distress syndrome (769)</i>	2	29	29	61	26	12	21	11	131
<i>Congenital pneumonia (770.0)</i>	1	5	1	7	—	—	—	1	8
<i>Massive aspiration syndrome (770.1)</i>	1	6	2	9	4	6	4	3	26
<i>Atelectasis (770.4-770.5)</i>	14	13	6	33	3	1	1	1	39
<i>Fetal and neonatal haemorrhage (772)</i>	1	7	5	13	15	8	17	18	71
<i>Intraventricular haemorrhage (772.1)</i>	1	4	5	10	13	8	16	15	62
<i>Haemolytic disease of fetus or newborn (773)</i>	1	—	1	2	—	—	1	—	3
<i>Other conditions originating in the perinatal period (766, 771, 774-779)</i>	17	13	8	38	5	3	11	32	89
<i>Infections specific to the perinatal period (771)</i>	10	7	4	21	4	1	8	16	50
<i>Congenital anomalies (740-759)</i>	68	97	25	190	41	29	53	100	413
<i>Anencephalus and similar anomalies (740)</i>	10	9	2	21	3	—	—	—	24
<i>Spina bifida (741)</i>	6	5	1	12	—	1	1	11	25
<i>Congenital hydrocephalus (742.3)</i>	5	4	—	9	1	—	—	3	13
<i>Congenital anomalies of heart and circulatory system (745-747)</i>	5	6	7	18	15	17	22	50	122
<i>Congenital anomalies of respiratory system (748)</i>	12	26	5	43	4	2	2	4	55
<i>Congenital anomalies of digestive system (749-751)</i>	—	2	1	3	—	1	3	6	13
<i>Congenital anomalies of genital organs and urinary system (752, 753)</i>	10	9	—	19	2	—	2	1	24
<i>Congenital anomalies of musculoskeletal system and limbs (754-756)</i>	3	15	7	25	6	2	2	3	36
<i>Chromosomal anomalies (758)</i>	5	10	1	16	7	6	16	12	57
<i>All other causes (001-739, 780-999)</i>	1	3	1	5	1	3	3	46	58
MAIN CONDITION IN MOTHER									
<i>Maternal conditions which may be unrelated to present pregnancy (760)</i>	14	20	9	43	5	7	15	14	84
<i>Maternal hypertensive disorders (760.0)</i>	4	5	4	13	2	6	12	8	41
<i>Maternal complications of pregnancy (761)</i>	103	84	36	223	32	19	31	38	343
<i>Incompetent cervix (761.0)</i>	28	14	3	45	—	—	1	2	48
<i>Premature rupture of membranes (761.1)</i>	27	19	6	52	18	5	8	11	94
<i>Polyhydramnios (761.3)</i>	8	6	2	16	3	—	3	—	22
<i>Multiple pregnancy (761.5)</i>	3	8	3	14	—	1	3	3	21
<i>Other maternal complications of pregnancy (Remainder of 761)</i>	37	37	22	96	11	13	16	22	158
<i>Complications of placenta, cord and membranes (762)</i>	61	40	15	117	22	6	13	12	170
<i>Other complications of labour and delivery (763)</i>	4	11	4	19	6	4	5	—	34
<i>No maternal condition reported</i>	57	104	35	197	53	44	75	164	533

(a) Includes 'hours, not stated'.

TABLE 12. PERINATAL DEATHS: FETAL AND NEONATAL DEATHS BY BIRTHWEIGHT, AUSTRALIA, 1983 TO 1988

<i>Birthweight (grams)</i>	1983	1984	1985	1986	1987	1988
FETAL DEATHS						
500-999	479	488	463	495	446	415
1000-1499	191	205	216	219	171	206
1500-1999	187	182	169	185	167	171
2000-2499	197	172	169	157	170	155
2500-2999	185	184	186	174	177	191
3000-3499	181	174	141	169	149	152
3500-3999	93	89	72	76	70	72
4000-4499	29	31	21	31	26	24
4500 or more	18	15	11	14	7	13
Not stated	59	53	70	65	49	74
Total	1,619	1,593	1,518	1,585	1,432	1,473
NEONATAL DEATHS						
500-999	457	402	479	464	395	412
1000-1499	164	177	193	142	142	154
1500-1999	135	110	151	102	106	95
2000-2499	114	118	105	83	88	90
2500-2999	156	118	140	136	140	122
3000-3499	141	127	157	130	129	132
3500-3999	88	78	84	78	77	82
4000-4499	31	19	25	20	24	24
4500 or more	6	6	9	2	6	9
Not stated	57	49	77	70	52	44
Total	1,349	1,204	1,420	1,227	1,139	1,164
ALL PERINATAL DEATHS						
500-999	936	890	942	959	841	827
1000-1499	355	382	409	361	313	360
1500-1999	322	292	320	287	273	266
2000-2499	311	290	274	240	258	245
2500-2999	341	302	326	310	317	313
3000-3499	322	301	298	299	278	284
3500-3999	181	167	156	154	147	154
4000-4499	60	50	46	51	50	48
4500 or more	24	21	20	16	13	22
Not stated	116	102	147	135	101	118
Total	2,968	2,797	2,938	2,812	2,591	2,637

TABLE 13. PERINATAL DEATHS BY BIRTHWEIGHT AND MAIN CAUSE OR CONDITION IN FETUS/INFANT AND MOTHER, AUSTRALIA, 1988

<i>Cause of death and ICD code</i>	<i>Birthweight (grams)</i>						<i>Total</i>
	500-999	1000-1999	2000-2999	3000-3999	4000 or more	Not stated	
All causes	827	626	558	438	70	118	2,637
MAIN CONDITION IN FETUS/INFANT							
<i>Slow fetal growth, fetal malnutrition and immaturity (764, 765)</i>	221	39	14	1	—	4	279
Slow fetal growth and fetal malnutrition (764)	23	30	12	1	—	—	66
Extreme immaturity (765.0)	198	1	1	—	—	4	204
<i>Birth trauma (767)</i>	8	3	10	6	—	2	29
Birth injury to brain, spine or spinal cord (767.0, 767.4)	8	3	10	6	—	1	28
<i>Hypoxia, birth asphyxia and other respiratory conditions (768-770)</i>	291	214	211	189	30	42	977
Fetal death from asphyxia or anoxia before onset of labour or at unspecified time (768.0)	86	134	144	85	11	24	484
Fetal death from asphyxia or anoxia during labour (768.1)	42	13	27	33	10	8	133
Fetal distress or birth asphyxia in liveborn infant (768.2-768.6)	15	6	16	21	5	6	79
Respiratory distress syndrome (769)	80	39	6	6	—	—	131
Congenital pneumonia (770.0)	9	3	3	4	—	—	19
Massive aspiration syndrome (770.1)	3	2	4	20	3	3	35
Atelectasis (770.4-770.5)	28	9	1	1	—	—	39

TABLE 13. PERINATAL DEATHS BY BIRTHWEIGHT AND MAIN CAUSE OR CONDITION
IN FETUS/INFANT AND MOTHER, AUSTRALIA, 1988 —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							
Fetal and neonatal haemorrhage (772)	47	34	7	15	2	2	107
Intraventricular haemorrhage (772.1)	34	25	3	—	1	—	63
Haemolytic disease of fetus or newborn (773)	3	6	3	—	—	—	12
Other conditions originating in the perinatal period (766, 771, 774-779)	180	159	121	84	16	30	590
Infections specific to the perinatal period (771)	30	19	12	8	—	1	70
Hydrops fetalis not due to isoimmunization (778.0)	6	12	7	7	5	2	39
Congenital anomalies (740-759)	74	162	168	120	17	32	573
Anencephalus and similar anomalies (740)	19	25	15	—	—	5	64
Spina bifida (741)	6	8	12	10	1	3	40
Congenital hydrocephalus (742.3)	6	7	8	8	2	1	32
Other deformities of central nervous system (742.0-742.2, 742.4-742.9)	1	8	11	3	2	—	25
Congenital anomalies of heart and circulatory system (745-747)	5	13	37	59	9	6	129
Congenital anomalies of respiratory system (748)	9	25	16	4	1	2	57
Congenital anomalies of digestive system (749-751)	2	2	7	2	—	1	14
Congenital anomalies of genital organs and urinary system (752, 753)	3	15	12	3	—	2	35
Congenital anomalies of musculoskeletal system and limbs (754-756)	4	12	14	13	1	6	50
Chromosomal anomalies (758)	12	35	23	9	—	4	83
All other causes (001-739, 780-999)	3	9	24	23	5	6	70
MAIN CONDITION IN MOTHER							
Maternal conditions which may be unrelated to present pregnancy (760)	95	70	50	29	10	8	262
Maternal hypertensive disorders (760.0)	50	43	26	15	2	2	138
Maternal complications of pregnancy (761)	300	131	39	15	1	10	496
Incompetent cervix (761.0)	60	1	1	—	—	3	66
Premature rupture of membranes (761.1)	91	32	8	2	—	2	135
Polyhydramnios (761.3)	11	15	8	5	1	4	44
Multiple pregnancy (761.5)	27	21	5	—	—	—	53
Other maternal complications of pregnancy (Remainder of 761)	111	62	17	7	—	1	198
Complications of placenta, cord and membranes (762)	251	171	169	118	18	28	755
Placenta praevia (762.0)	8	1	2	—	—	1	12
Other placental separation and haemorrhage (762.1)	138	74	43	23	3	12	293
Other and unspecified morphological and functional abnormalities of placenta (762.2)	38	58	48	27	5	7	183
Prolapsed cord (762.4)	11	4	8	3	1	2	29
Other compression of umbilical cord (762.5)	8	19	56	48	8	2	141
Other complications of placenta, cord and membranes (Remainder of 762)	48	15	12	17	1	4	97
Other complications of labour and delivery (763)	8	13	13	18	7	3	62
Breech delivery and extraction (763.0)	—	5	2	1	—	1	9
No maternal condition reported	173	241	287	258	34	69	1,062

TABLE 14. PERINATAL DEATHS: FETAL AND NEONATAL DEATHS BY PERIOD OF GESTATION, AUSTRALIA, 1983 TO 1988

Period of gestation (weeks)	1983	1984	1985	1986	1987	1988
FETAL DEATHS						
Under 28	386	400	390	405	378	363
28-31	213	243	228	235	195	245
32-36	421	408	373	402	360	352
37-41	556	491	475	471	458	472
42 or more	25	29	25	39	28	22
Not stated	18	22	27	33	13	19
Total	1,619	1,593	1,518	1,585	1,432	1,473
NEONATAL DEATHS						
Under 28	451	417	470	449	397	436
28-31	174	160	206	158	138	136
32-36	222	206	247	179	206	173
37-41	433	342	386	335	343	335
42 or more	25	26	25	25	17	21
Not stated	44	53	86	81	58	63
Total	1,349	1,204	1,420	1,227	1,159	1,164
ALL PERINATAL DEATHS						
Under 28	837	817	860	854	775	799
28-31	387	403	434	393	333	381
32-36	643	614	620	581	566	525
37-41	989	833	861	806	801	807
42 or more	50	55	50	64	45	43
Not stated	62	75	113	114	71	82
Total	2,968	2,797	2,938	2,812	2,591	2,637

TABLE 15. PERINATAL DEATHS: FETAL AND NEONATAL DEATHS BY AGE OF MOTHER AND PERIOD OF GESTATION, AUSTRALIA, 1988

	Age of mother (years)							
Period of gestation (weeks)	Under 20	20-24	25-29	30-34	35-39	40 and over	Not stated	Total
FETAL DEATHS								
Under 28	40	88	116	77	32	5	5	363
28-31	25	57	83	56	17	4	3	245
32-36	18	70	125	89	41	8	1	352
37-41	33	101	157	103	57	14	7	472
42 or more	1	7	7	5	1	1	—	22
Not stated	1	7	4	5	1	—	1	19
Total	118	330	492	335	149	32	17	1,473
NEONATAL DEATHS								
Under 28	28	94	142	122	41	5	4	436
28-31	12	23	53	27	13	2	6	136
32-36	11	42	71	24	15	4	6	173
37-41	24	75	108	70	29	5	24	335
42 or more	1	7	6	4	2	—	1	21
Not stated	10	17	10	10	2	1	13	63
Total	86	258	390	257	102	17	54	1,164
ALL PERINATAL DEATHS								
Under 28	68	182	258	199	73	10	9	799
28-31	37	80	136	83	30	6	9	381
32-36	29	112	196	113	56	12	7	525
37-41	57	176	265	173	86	19	31	807
42 or more	2	14	13	9	3	1	1	43
Not stated	11	24	14	15	3	1	14	82
Total	204	588	882	592	251	49	71	2,637

TABLE 16. PERINATAL DEATHS BY PERIOD OF GESTATION AND MAIN CAUSE OR CONDITION IN FETUS/INFANT AND MOTHER, AUSTRALIA, 1988

Cause of death and ICD code	Period of gestation (weeks)						Total
	Under 28	28-31	32-36	37-41	42 and over	Not stated	
All causes	799	381	525	807	43	82	2,637
MAIN CONDITION IN FETUS/INFANT							
<i>Slow fetal growth, fetal malnutrition and immaturity (764, 765)</i>	205	27	18	23	—	6	279
<i>Slow fetal growth and fetal malnutrition (764)</i>	6	19	17	23	—	1	66
<i>Extreme immaturity (765.0)</i>	197	2	—	—	—	5	204
<i>Birth trauma (767)</i>	9	2	5	11	—	2	29
<i>Birth injury to brain, spine or spinal cord (767.0, 767.4)</i>	9	2	4	11	—	2	28
<i>Hypoxia, birth asphyxia and other respiratory conditions (768-770)</i>	295	125	181	334	23	19	977
<i>Fetal death from asphyxia or anoxia before onset of labour or at unspecified time (768.0)</i>	72	74	139	184	10	5	484
<i>Fetal death from asphyxia or anoxia during labour (768.1)</i>	46	9	12	60	6	—	133
<i>Fetal distress or birth asphyxia in liveborn infant (768.2-768.6)</i>	17	2	8	47	2	3	79
<i>Respiratory distress syndrome (769)</i>	90	25	9	4	—	3	131
<i>Congenital pneumonia (770.0)</i>	9	3	1	6	—	—	19
<i>Massive aspiration syndrome (770.1)</i>	2	1	4	19	5	4	35
<i>Atelectasis (770.4-770.5)</i>	35	2	1	—	—	1	39
<i>Fetal and neonatal haemorrhage (772)</i>	47	28	16	14	—	2	107
<i>Intraventricular haemorrhage (772.1)</i>	37	20	4	1	—	1	63
<i>Haemolytic disease of fetus or newborn (773)</i>	6	2	2	1	—	1	12
<i>Other conditions originating in the perinatal period (766, 771, 774-779)</i>	162	112	134	165	5	12	590
<i>Infections specific to the perinatal period (771)</i>	33	9	11	13	2	2	70
<i>Hydrops fetalis not due to isoimmunization (778.0)</i>	10	10	12	6	—	1	39
<i>Congenital anomalies (740-759)</i>	70	79	158	234	14	18	573
<i>Anencephalus and similar anomalies (740)</i>	10	12	25	15	1	1	64
<i>Spina bifida (741)</i>	8	3	9	17	2	1	40
<i>Congenital hydrocephalus (742.3)</i>	7	7	3	13	2	—	32
<i>Other deformities of central nervous system (742.0-742.2, 742.4-742.9)</i>	1	7	7	8	—	2	25
<i>Congenital anomalies of heart and circulatory system (745-747)</i>	3	10	20	81	6	9	129
<i>Congenital anomalies of respiratory system (748)</i>	10	13	16	16	1	1	57
<i>Congenital anomalies of digestive system (749-751)</i>	3	1	4	4	—	2	14
<i>Congenital anomalies of genital organs and urinary system (752, 753)</i>	6	4	18	7	—	—	35
<i>Congenital anomalies of musculoskeletal system and limbs (754-756)</i>	6	3	16	23	1	1	50
<i>Chromosomal anomalies (758)</i>	11	13	25	33	—	1	83
<i>All other causes (001-739, 780-999)</i>	5	6	11	25	1	22	70

TABLE 16. PERINATAL DEATHS BY PERIOD OF GESTATION AND MAIN CAUSE OR CONDITION
IN FETUS/INFANT AND MOTHER, AUSTRALIA, 1988 —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							
Maternal conditions which may be unrelated to present pregnancy (760)	87	49	54	64	1	7	262
Maternal hypertensive disorders (760.0)	41	29	32	32	1	3	138
Maternal complications of pregnancy (761)	317	78	65	23	3	10	496
Incompetent cervix (761.0)	61	2	1	—	—	2	66
Premature rupture of membranes (761.1)	103	16	11	4	—	1	135
Polyhydramnios (761.3)	16	8	13	6	—	1	44
Multiple pregnancy (761.5)	23	15	6	6	—	3	53
Other maternal complications of pregnancy (Remainder of 761)	114	37	34	7	3	3	198
Complications of placenta, cord and membranes (762)	226	113	147	250	12	7	755
Placenta praevia (762.0)	7	1	2	1	—	1	12
Other placental separation and haemorrhage (762.1)	142	53	55	40	1	2	293
Other and unspecified morphological and functional abnormalities of placenta (762.2)	14	36	52	76	5	—	183
Prolapsed cord (762.4)	13	1	3	12	—	—	29
Other compression of umbilical cord (762.5)	4	7	27	96	5	2	141
Other complications of placenta, cord and membranes (Remainder of 762)	46	15	8	25	1	2	97
Other complications of labour and delivery (763)	9	9	8	32	3	1	62
Breech delivery and extraction (763.0)	2	1	3	3	—	—	9
No maternal condition reported	160	132	251	438	24	57	1,062

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 Organisation (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.

5. In 1988 revisions were made to Northern Territory legislation to enable the registration of a death prior to the certification of cause. As a result deaths registered in the Northern Territory during 1988 included a number of deaths which would not necessarily have been registered in 1988 under the former legislation. This should be borne in mind in interpreting statistics for 1988 and comparing them with earlier years.

Definitions

6. 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) 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 shown 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.

7. 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 1988 there were 14 males and 5 females in this category — see Table 3.

Perinatal death rates

8. 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.

9. 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

10. 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.

11. 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

12. 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

13. 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.

14. 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

15. 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.

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

Related publications

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

Births, Australia (3301.0)

Deaths, Australia (3302.0)

Causes of Death, Australia (3303.0)

18. Current publications produced by the ABS are listed in the *Catalogue of Publications and Products, 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 Organisation)

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

Electronic services

DISCOVERY 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 PAXUS COMNET. For further information phone the AUSSTATS Help Desk on (06) 252 6017.

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Floppy disk service

Selected ABS statistics are available on floppy disk. Further information is available on (06) 252 6684.

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, 1988

Births	Sex	State or Territory of usual residence								
		N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Australia
Live births	M	43,467	31,677	20,806	9,914	12,861	3,431	1,803	2,193	126,152
	F	41,129	30,437	19,730	9,230	12,264	3,345	1,636	2,141	119,912
Stillbirths(b)	M	297	181	136	64	77	32	22	13	822
	F	241	175	98	45	43	23	12	14	651
Total	M	43,764	31,858	20,942	9,978	12,938	3,463	1,825	2,206	126,974
	F	41,370	30,612	19,828	9,275	12,307	3,368	1,648	2,155	120,563
	P	85,134	62,470	40,770	19,253	25,245	6,831	3,473	4,361	247,537

(a) See Explanatory Notes, paragraph 9. (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, 1988

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	7,163	27,279	48,803	31,559	9,929	1,380	39	126,152
	F	6,789	25,860	46,393	30,064	9,419	1,346	41	119,912
Still births(b)	M	67	182	280	186	77	19	11	822
	F	51	148	212	149	72	13	6	651
Total	M	7,230	27,461	49,083	31,745	10,006	1,399	50	126,974
	F	6,840	26,008	46,605	30,213	9,491	1,359	47	120,563
	P	14,070	53,469	95,688	61,958	19,497	2,758	97	247,537

(a) See Explanatory Notes, paragraph 9. (b) Includes those where it was not known if the heartbeat ceased before or after delivery.

TABLE A3. BIRTHS(a) BY SEX, AUSTRALIA 1983 TO 1988

Year	Live births			Stillbirths(b)			Total		
	Males	Females	Persons	Males	Females	Persons	Males	Females	Persons
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
1988	126,152	119,912	246,064	822	651	1,473	126,974	120,563	247,537

(a) See Explanatory Notes, paragraph 9. (b) Includes those where it was not known if the heartbeat ceased before or after delivery.

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