Assisted reproductive technology in Australia and New Zealand 2011

Supplementary tables

December 2013

The University of New South Wales
Australia

Contents

Abbreviations and symbols

ANZARD	Australian and New Zealand Assisted Reproduction Database
ART	assisted reproductive technology
ICSI	intracytoplasmic sperm injection
IVF	in vitro fertilisation
OPU	oocyte pick-up
PESA	percutaneous epididymal sperm aspiration

Introductory notes

This document contains the supplementary on-line tables for the Assisted reproductive technology in Australia and New Zealand 2011 report. These supplementary tables should be read in conjunction with the report. A copy of the report can be found at the National Perinatal Epidemiology and Statistics Unit website:

http://www.npesu.unsw.edu.au/surveillance/assisted-reproductive-technology-australia-new-zealand-2011

The statistics in these supplementary tables are presented in two sections: section one presents data on assisted reproductive technology (ART) treatment cycles (Tables S1 to S21); and Section two presents data on women who undertook ART treatment cycles over a specified time period (Tables S22 to S27).

1 Treatment cycles undertaken in 2011 and resulting pregnancy and birth outcomes

This section presents information on ART treatment cycles undertaken in fertility clinics in Australia and New Zealand in 2011, along with the resulting pregnancy and birth outcomes (Tables S1 to S21).

The data presented are for autologous cycles, oocyte donation cycles and oocyte/embryo recipient cycles, and does not include information on insemination using donor sperm, gamete intrafallopian transfer or surrogacy arrangements. The data reflects treatment cycles, noting it is possible for an individual woman or couple to undergo more than one treatment cycle in a year and to experience more than one pregnancy. This means that the information reported about patient characteristics, such as age, parity and cause of infertility, is based on calculations in which individuals may be counted more than once.

The rates of clinical pregnancy and live delivery are measured per initiated ART cycle. However, where the number of initiated cycles is not available or not applicable, for example when reporting outcomes from blastocyst or cleavage stage embryos, rates are reported per embryo transfer cycle.

Table S1: Treatment cycles by cause of infertility, Australia and New Zealand, 2011

Cause of infertility	Autologous				Oocyte/embryo recipient	All
	Fresh IVF	Fresh ICSI	Fresh other[(a)]	Thaw		
			Number			
Male factor only	837	7,583	832	5,200	221	14,673
Female factor	5,173	4,840	1,626	5,949	981	18,569
Tubal disease only	*896*	*592*	*190*	*1,012*	*79*	*2,769*
Endometriosis only	*1,104*	*977*	*246*	*1,161*	*85*	*3,573*
Other female factor only	*2,392*	*2,810*	*974*	*3,102*	*765*	*10,043*
Combined female factor	*781*	*461*	*216*	*674*	*52*	*2,184*
Combined male/ female factor	820	4,654	731	2,761	381	9,347
Unexplained	3,621	4,563	1,017	5,275	346	14,822
Not stated	1,121	2,701	577	3,183	205	7,787
All causes	**11,572**	**24,341**	**4,783**	**22,368**	**2,134**	**65,198**
			Per cent			
Male factor only	7.2	31.2	17.4	23.2	10.4	22.5
Female factor	44.7	19.9	34.0	26.6	46.0	28.5
Tubal disease only	*7.7*	*2.4*	*4.0*	*4.5*	*3.7*	*4.2*
Endometriosis only	*9.5*	*4.0*	*5.1*	*5.2*	*4.0*	*5.5*
Other female factor only	*20.7*	*11.5*	*20.4*	*13.9*	*35.8*	*15.4*
Combined female factor	*6.7*	*1.9*	*4.5*	*3.0*	*2.4*	*3.3*
Combined male/ female factor	7.1	19.1	15.3	12.3	17.9	14.3
Unexplained	31.3	18.7	21.3	23.6	16.2	22.7
Not stated	9.7	11.1	12.1	14.2	9.6	11.9
All causes	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

(a) Fresh other includes cycles in which oocytes were not retrieved, cycles with oocyte retrieval but no fertilisation and cancelled oocyte pick-up (OPU).

Note: Percentages in the table were calculated including the 'Not stated' category in the denominator. Totals and subtotals may not equal 100.0 due to rounding. Data should be interpreted with caution due to small numbers in certain cells.

Table S2: Autologous treatment cycles by cause of infertility and source of sperm, Australia and New Zealand, 2011

	Source of sperm							
	Husband/partner		Donor		Not stated		Total	
Cause of infertility	Number	Per cent	Number	Per cent	Number	Per cent	Number	Per cent
Male factor only	12,673	87.7	983	6.8	796	5.5	14,452	100.0
Female factor	13,863	78.8	2,225	12.7	1,500	8.5	17,588	100.0
Tubal disease only	*2,390*	*88.8*	*117*	*4.3*	*183*	*6.8*	*2,690*	*100.0*
Endometriosis only	*3,092*	*88.6*	*158*	*4.5*	*238*	*6.8*	*3,488*	*100.0*
Other female factor only	*6,568*	*70.8*	*1,830*	*19.7*	*880*	*9.5*	*9,278*	*100.0*
Combined female factor	*1,813*	*85.0*	*120*	*5.6*	*199*	*9.3*	*2,132*	*100.0*
Combined male/female factor	7,946	88.6	403	4.5	617	6.9	8,966	100.0
Unexplained	12,363	85.4	1,165	8.0	948	6.5	14,476	100.0
Not stated	6,239	82.3	716	9.4	627	8.3	7,582	100.0
All causes	**53,084**	**84.2**	**5,492**	**8.7**	**4,488**	**7.1**	**63,064**	**100.0**

Note: Percentages in the table were calculated including the 'Not stated' category in the denominator. Totals and subtotals may not equal 100.0 due to rounding. Data should be interpreted with caution due to small numbers in certain cells.

Table S3: Outcome of embryo transfer cycles by technique of sperm retrieval, Australia and New Zealand, 2011

	Site of sperm extraction				
Stage/outcome of treatment	Ejaculate	Epididymis[(a)]	Testicular	Other	Not stated
Embryo transfers	50,474	656	2,171	147	240
Clinical pregnancies	14,338	206	643	36	61
Live deliveries[(b)]	10,884	154	507	24	49
Clinical pregnancies per transfer cycle (%)	*28.4*	*31.4*	*29.6*	*24.5*	*25.4*
Live deliveries per transfer cycle (%)	*21.6*	*23.5*	*23.4*	*16.3*	*20.4*

(a) Epididymal sperm is extracted by either open biopsy or percutaneous epididymal sperm aspiration (PESA).

(b) A live delivery is the delivery of one or more liveborn infants, with the birth of twins or higher order multiples counted as one live delivery.

Note: Data should be interpreted with caution due to small numbers in certain cells.

Table S4: Embryo transfer cycles by number of embryos transferred, treatment type and procedure, Australia and New Zealand, 2011

Number of embryos	Autologous			Oocyte/embryo recipient	All
	Fresh IVF	Fresh ICSI	Thaw		
			Number		
One	7,212	14,119	16,567	1,392	39,290
Two	2,767	6,638	4,067	525	13,997
Three or more	60	257	76	8	401
Total	**10,039**	**21,014**	**20,710**	**1,925**	**53,688**
			Per cent		
One	71.8	67.2	80.0	72.3	73.2
Two	27.6	31.6	19.6	27.3	26.1
Three or more	0.6	1.2	0.4	0.4	0.7
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

Note: Data should be interpreted with caution due to small numbers in certain cells.

Table S5: Outcome of embryo transfer cycles by stage of embryo development, Australia and New Zealand, 2011

Stage/outcome of treatment	Fresh		Thaw		
	Cleavage embryos	Blastocysts	Thawed and transferred cleavage embryos	Thawed cleavage embryos and transferred blastocysts	Thawed and transferred blastocysts
Embryo transfers	14,793	17,020	7,930	1,260	12,685
Clinical pregnancies	3,367	5,973	1,584	379	3,981
Live deliveries[(a)]	2,478	4,634	1,193	273	3,040
Clinical pregnancies per transfer cycle (%)	*22.8*	*35.1*	*20.0*	*30.1*	*31.4*
Live deliveries per transfer cycle (%)	*16.8*	*27.2*	*15.0*	*21.7*	*24.0*

(a) A live delivery is the delivery of one or more liveborn infants, with the birth of twins or higher order multiples counted as one live delivery.

Note: Data should be interpreted with caution due to small numbers in certain cells.

Table S6: Early pregnancy losses by cause of infertility, Australia and New Zealand, 2011

	Pregnancy outcome							
	Miscarriage		Termination or fetal reduction		Ectopic/heterotopic pregnancy		Total	
Cause of infertility	**Number**	**Per cent**	**Number**	**Per cent**	**Number**	**Per cent**	**Number**	**Per cent**
Male factor only	701	90.9	18	2.3	52	6.7	771	100.0
Female factor	891	91.0	41	4.2	47	4.8	979	100.0
Tubal disease only	*131*	*92.3*	*3*	*2.1*	*8*	*5.6*	*142*	*100.0*
Endometriosis only	*169*	*88.0*	*10*	*5.2*	*13*	*6.8*	*192*	*100.0*
Other female factor only	*486*	*91.9*	*24*	*4.5*	*19*	*3.6*	*529*	*100.0*
Combined female factor	*105*	*90.5*	*4*	*3.4*	*7*	*6.0*	*116*	*100.0*
Combined male/female factor	439	90.9	15	3.1	29	6.0	483	100.0
Unexplained	736	91.9	25	3.1	40	5.0	801	100.0
Not stated	300	86.7	0	0.0	46	13.3	346	100.0
All causes	**3,067**	**90.7**	**99**	**2.9**	**214**	**6.3**	**3,380**	**100.0**

Note: Totals and subtotals may not equal 100.0 due to rounding. Data should be interpreted with caution due to small numbers in certain cells.

Table S7: Deliveries by cause of infertility and delivery outcome, Australia and New Zealand, 2011

	Delivery outcome					
	Live delivery[(a)]		Stillbirth (fetal death)[(b)]		Total[(c)]	
Cause of infertility	**Number**	**Per cent**	**Number**	**Per cent**	**Number**	**Per cent**
Male factor only	2,901	99.0	22	0.8	2,930	100.0
Female factor	3,188	98.5	41	1.3	3,236	100.0
Tubal disease only	*494*	*98.6*	*5*	*1.0*	*501*	*100.0*
Endometriosis only	*654*	*98.5*	*10*	*1.5*	*664*	*100.0*
Other female factor only	*1,669*	*98.4*	*23*	*1.4*	*1,697*	*100.0*
Combined female factor	*371*	*99.2*	*3*	*0.8*	*374*	*100.0*
Combined male/female factor	1,749	98.9	13	0.7	1,769	100.0
Unexplained	2,756	98.4	36	1.3	2,802	100.0
Not stated	1,024	99.2	4	0.4	1,032	100.0
All causes	**11,618**	**98.7**	**116**	**1.0**	**11,769**	**100.0**

(a) A live delivery is the delivery of one or more liveborn infants, with the birth of twins or higher order multiples counted as one live delivery.

(b) A stillbirth (fetal death) is the birth of an infant after 20 or more weeks gestation or 400 grams or more birthweight that shows no signs of life. Stillbirths (fetal deaths) are reported by patients to fertility centre staff. These data are not official vital statistics.

(c) Total includes deliveries where birth outcome was unknown.

Note: Percentages in the table were calculated including the 'Not stated' category in the denominator. Totals and subtotals may not equal 100.0 due to rounding. Data should be interpreted with caution due to small numbers in certain cells.

Table S8: Deliveries by gestational age and cause of infertility, Australia and New Zealand, 2011

Gestational age (weeks)	Male factor only	Female factor				Combined male/female factor	Un-explained	Not stated	All causes
		Tubal disease only	Endom-etriosis only	Other female factor only	Combined female factor				
Mean (weeks)	*38.2*	*38.2*	*37.9*	*38.0*	*37.7*	*38.2*	*38.1*	*38.2*	*38.1*
					Number				
≤ 27	40	9	15	30	14	31	49	9	197
28–31	48	3	12	32	4	18	45	15	177
32–36	277	51	88	204	47	171	296	114	1,248
≥ 37	2,565	438	549	1,431	309	1,549	2,412	894	10,147
Total	**2,930**	**501**	**664**	**1,697**	**374**	**1,769**	**2,802**	**1,032**	**11,769**
≤ *36*[(a)]	365	63	115	266	65	220	390	138	1,622
					Per cent				
<27	1.4	1.8	2.3	1.8	3.7	1.8	1.7	0.9	1.7
28–31	1.6	0.6	1.8	1.9	1.1	1.0	1.6	1.5	1.5
32–36	9.5	10.2	13.3	12.0	12.6	9.7	10.6	11.0	10.6
≥ 37	87.5	87.4	82.7	84.3	82.6	87.6	86.1	86.6	86.2
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
≤ *36*[(a)]	12.5	12.6	17.3	15.7	17.4	12.4	13.9	13.4	13.8

(a) A gestation of less than 37 weeks (≤ 36) is defined as a preterm delivery.

Note: Totals and subtotals may not equal 100.0 due to rounding. Data should be interpreted with caution due to small numbers in certain cells.

Table S9: Deliveries by gestational age and maternal age, Australia and New Zealand, 2011

Gestational age (weeks)	Age group (years)[a]						
	≤ 24	25–29	30–34	35–39	40–44	≥ 45	Total
Mean (weeks)	*38.3*	*37.9*	*38.2*	*38.2*	*37.9*	*37.6*	*38.1*
				Number			
≤ 27	3	35	65	54	38	2	197
28–31	2	28	47	62	31	7	177
32–36	9	133	415	490	178	23	1,248
≥ 37	94	1,029	3,420	3,916	1,543	145	10,147
Total	**108**	**1,225**	**3,947**	**4,522**	**1,790**	**177**	**11,769**
≤ 36[b]	14	196	527	606	247	32	1,622
				Per cent			
≤ 27	2.8	2.9	1.6	1.2	2.1	1.1	1.7
28–31	1.9	2.3	1.2	1.4	1.7	4.0	1.5
32–36	8.3	10.9	10.5	10.8	9.9	13.0	10.6
≥ 37	87.0	84.0	86.6	86.6	86.2	81.9	86.2
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
≤ 36[b]	13.0	16.0	13.4	13.4	13.8	18.1	13.8

(a) Age at time of delivery.

(b) A gestation of less than 37 weeks (≤ 36) is defined as a preterm delivery.

Note: Totals and subtotals may not equal 100.0 due to rounding. Data should be interpreted with caution due to small numbers in certain cells.

Table S10: Early pregnancy loss and maternal age, Australia and New Zealand, 2011

Early pregnancy loss	Age group (years)[a]						
	≤ 24	25–29	30–34	35–39	40–44	≥ 45	Total
				Number			
Miscarriage	13	273	841	1,145	740	55	3,067
Termination or fetal reduction	0	6	19	37	34	3	99
Ectopic or heterotopic pregnancy	0	29	51	89	41	4	214
Total	**13**	**308**	**911**	**1,271**	**815**	**62**	**3,380**
				Per cent			
Miscarriage	100.0	88.6	92.3	90.1	90.8	88.7	90.7
Termination or fetal reduction	0.0	1.9	2.1	2.9	4.2	4.8	2.9
Ectopic or heterotopic pregnancy	0.0	9.4	5.6	7.0	5.0	6.5	6.3
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

(a) Age at end of pregnancy.

Note: Totals and subtotals may not equal 100.0 due to rounding. Data should be interpreted with caution due to small numbers in certain cells.

Table S11: Deliveries by gestation and maternal age, Australia and New Zealand, 2011

	Age group (years)[a]						
Gestation	**≤ 24**	**25–29**	**30–34**	**35–39**	**40–44**	**≥ 45**	**Total**
				Number			
Singleton	101	1,129	3,662	4,197	1,699	167	10,955
Twin	7	92	281	319	90	9	798
High order multiple	0	4	4	6	1	1	16
Total	**108**	**1,225**	**3,947**	**4,522**	**1,790**	**177**	**11,769**
				Per cent			
Singleton	93.5	92.2	92.8	92.8	94.9	94.4	93.1
Twin	6.5	7.5	7.1	7.1	5.0	5.1	6.8
High order multiple	0.0	0.3	0.1	0.1	0.1	0.6	0.1
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

(a) Age at time of delivery.

Note: Totals and subtotals may not equal 100.0 due to rounding. Data should be interpreted with caution due to small numbers in certain cells.

Table S12: Deliveries by delivery outcomes and maternal age, Australia and New Zealand, 2011

	Age group (years)[a]						
Delivery outcome	**≤ 24**	**25–29**	**30–34**	**35–39**	**40–44**	**≥ 45**	**Total**
				Number			
Live delivery[b]	105	1,206	3,899	4,466	1,766	176	11,618
Stillbirth (fetal death)[c]	2	15	40	40	18	1	116
Not stated	1	4	8	16	6	0	35
Total	**108**	**1,225**	**3,947**	**4,522**	**1,790**	**177**	**11,769**
				Per cent			
Live delivery[b]	97.2	98.4	98.8	98.8	98.7	99.4	98.7
Stillbirth (fetal death)[c]	1.9	1.2	1.0	0.9	1.0	0.6	1.0
Not stated	0.9	0.3	0.2	0.4	0.3	0.0	0.3
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

(a) Age at time of delivery.

(b) A live delivery is the delivery of one or more liveborn infants, with the birth of twins or higher order multiples counted as one live delivery.

(c) A stillbirth (fetal death) is the birth of an infant after 20 or more weeks gestation or 400 grams or more birthweight that shows no signs of life. Stillbirths (fetal deaths) are reported by patients to fertility centre staff. These data are not official vital statistics.

Note: Percentages in the table were calculated including the 'Not stated' category in the denominator. Totals and subtotals may not equal 100.0 due to rounding. Data should be interpreted with caution due to small numbers in certain cells.

Table S13: Early pregnancy loss by number of embryos transferred, Australia and New Zealand, 2011

	Number of embryos transferred			
Early pregnancy loss	**One**	**Two**	**Three or more**	**All**
		Number		
Miscarriage	2,170	867	30	3,067
Termination or fetal reduction	72	27	0	99
Ectopic or heterotopic pregnancy	131	80	3	214
Total	**2,373**	**974**	**33**	**3,380**
		Per cent		
Miscarriage	91.4	89.0	90.9	90.7
Termination or fetal reduction	3.0	2.8	0.0	2.9
Ectopic or heterotopic pregnancy	5.5	8.2	9.1	6.3
Total	**100.0**	**100.0**	**100.0**	**100.0**

Note: Totals and subtotals may not equal 100.0 due to rounding. Data should be interpreted with caution due to small numbers in certain cells.

Table S14: Deliveries by delivery outcome and number of embryos transferred, Australia and New Zealand, 2011

	Number of embryos transferred			
Delivery outcome	**One**	**Two**	**Three or more**	**All**
		Number		
Live delivery[(a)]	8,806	2,772	40	11,618
Stillbirth (fetal death)[(b)]	82	34	0	116
Not stated	26	9	0	35
Total	**8,914**	**2,815**	**40**	**11,769**
		Per cent		
Live delivery[(a)]	98.8	98.5	100.0	98.7
Stillbirth (fetal death)[(b)]	0.9	1.2	0.0	1.0
Not stated	0.3	0.3	0.0	0.3
Total	**100.0**	**100.0**	**100.0**	**100.0**

(a) A live delivery is the delivery of one or more liveborn infants, with the birth of twins or higher order multiples counted as one live delivery.

(b) A stillbirth (fetal death) is the birth of an infant after 20 or more weeks gestation or 400 grams or more birthweight that shows no signs of life. Stillbirths (fetal deaths) are reported by patients to fertility centre staff. These data are not official vital statistics.

Note: Percentages in the table were calculated including the 'Not stated' category in the denominator. Totals and subtotals may not equal 100.0 due to rounding. Data should be interpreted with caution due to small numbers in certain cells.

Table S15: Deliveries by gestational age and number of embryos transferred, Australia and New Zealand, 2011

	Number of embryos transferred			
Gestational age (weeks)	**One**	**Two**	**Three or more**	**All**
Mean (weeks)	*38.3*	*37.4*	*37.9*	*38.1*
		Number		
≤ 27	122	75	0	197
28–31	100	76	1	177
32–36	746	494	8	1,248
≥ 37	7,946	2,170	31	10,147
Total	**8,914**	**2,815**	**40**	**11,769**
≤ 36[(a)]	*968*	*645*	*9*	*1,622*
		Per cent		
≤ 27	1.4	2.7	0.0	1.7
28–31	1.1	2.7	2.5	1.5
32–36	8.4	17.5	20.0	10.6
≥ 37	89.1	77.1	77.5	86.2
Total	**100.0**	**100.0**	**100.0**	**100.0**
≤ 36[(a)]	10.9	22.9	22.5	13.8

(a) A gestation of less than 37 weeks (≤ 36) is defined as preterm.

Note: Totals and subtotals may not equal 100.0 due to rounding. Data should be interpreted with caution due to small numbers in certain cells.

Table S16: Deliveries by gestation, treatment type and procedure, Australia and New Zealand, 2011

	Autologous				
Gestation	**Fresh IVF**	**Fresh ICSI**	**Thaw**	**Oocyte/embryo recipient**	**All**
			Number		
Singleton	2,335	4,196	4,048	376	10,955
Twin	173	312	286	27	798
Higher order multiple	4	9	2	1	16
Total	**2,512**	**4,517**	**4,336**	**404**	**11,769**
			Per cent		
Singleton	93.0	92.9	93.4	93.1	93.1
Twin	6.9	6.9	6.6	6.7	6.8
Higher order multiple	0.2	0.2	0.0	0.2	0.1
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

Note: Totals and subtotals may not equal 100.0 due to rounding. Data should be interpreted with caution due to small numbers in certain cells.

Table S17: Gestational age of babies by birth outcomes, Australia and New Zealand, 2011

	Live delivery[a]		Stillbirth (fetal death)[b]		Total[c]	
Gestational age (weeks)	**Number**	**Per cent**	**Number**	**Per cent**	**Number**	**Per cent**
Mean (weeks)	*38.0*		*26.0*		*37.9*	
≤ 27	134	1.1	97	67.8	244	1.9
28–31	239	1.9	15	10.5	254	2.0
32–36	1,662	13.4	13	9.1	1,677	13.3
≥ 37	10,385	83.6	18	12.6	10,424	82.7
Total[d]	**12,420**	**100.0**	**143**	**100.0**	**12,599**	**100.0**
≤ 36[e]	*2,035*	16.4	*125*	87.4	2,175	17.3

(a) A live delivery is the delivery of one or more liveborn infants, with the birth of twins or higher order multiples counted as one live delivery.

(b) A stillbirth (fetal death) is the birth of an infant after 20 or more weeks gestation or 400 grams or more birthweight that shows no signs of life. Stillbirths (fetal deaths) are reported by patients to fertility centre staff. These data are not official vital statistics.

(c) Total includes babies where birth outcome was unknown.

(d) Total includes babies where gestational age was unknown.

(e) A gestation of less than 37 weeks (≤ 36) is defined as preterm.

Note: Totals and subtotals may not equal 100.0 due to rounding. Data should be interpreted with caution due to small numbers in certain cells.

Table S18: Birthweight of babies by birth outcomes, Australia and New Zealand, 2011

	Live delivery[a]		Stillbirth (fetal death)[b]		Total[c]	
Birthweight (grams)	**Number**	**Per cent**	**Number**	**Per cent**	**Number**	**Per cent**
Mean (grams)	*3,207*		*1,160*		*3,193*	
< 1,000	115	0.9	53	37.1	170	1.3
1,000–1,499	190	1.5	6	4.2	196	1.6
1,500–1,999	355	2.9	4	2.8	359	2.8
2,000–2,499	961	7.7	1	0.7	962	7.6
2,500–2,999	2,215	17.8	6	4.2	2,222	17.6
3,000–3,499	4,051	32.6	6	4.2	4,059	32.2
3,500–3,999	3,190	25.7	4	2.8	3,194	25.4
≥ 4,000	1,193	9.6	1	0.7	1,195	9.5
Not stated	150	1.2	62	43.4	242	1.9
Total	**12,420**	**100.0**	**143**	**100.0**	**12,599**	**100.0**
< 2,500[d]	*1,621*	13.1	*64*	44.8	*1,687*	13.4

(a) A live delivery is the delivery of one or more liveborn infants, with the birth of twins or higher order multiples counted as one live delivery.

(b) A stillbirth (fetal death) is the birth of an infant after 20 or more weeks gestation or 400 grams or more birthweight that shows no signs of life. Stillbirths (fetal deaths) are reported by patients to fertility centre staff. These data are not official vital statistics.

(c) Total includes babies where birth outcome was unknown.

(d) A birthweight of less than 2,500 grams is defined as low birthweight.

Note: Percentages in the table were calculated including the 'Not stated' category in the denominator. Totals and subtotals may not equal 100.0 due to rounding. Data should be interpreted with caution due to small numbers in certain cells.

Table S19: Birthweight of liveborn babies by treatment type and procedure, Australia and New Zealand, 2011

Birthweight (grams)	Autologous			Oocyte/embryo recipient	All
	Fresh IVF	Fresh ICSI	Thaw		
Mean (grams)	*3,130*	*3,161*	*3,309*	*3,113*	*3,207*
			Number		
< 1,000	35	51	28	1	115
1,000–1,499	47	71	62	10	190
1,500–1,999	92	130	105	28	355
2,000–2,499	207	419	286	49	961
2,500–2,999	524	915	712	64	2,215
3,000–3,499	896	1,602	1,410	143	4,051
3,500–3,999	633	1,128	1,337	92	3,190
≥ 4,000	182	397	578	36	1,193
Not stated	33	55	57	5	150
Total	**2,649**	**4,768**	**4,575**	**428**	**12,420**
< 2,500[(a)]	*381*	*671*	*481*	*88*	*1,621*
			Per cent		
< 1,000	1.3	1.1	0.6	0.2	0.9
1,000–1,499	1.8	1.5	1.4	2.3	1.5
1,500–1,999	3.5	2.7	2.3	6.5	2.9
2,000–2,499	7.8	8.8	6.3	11.4	7.7
2,500–2,999	19.8	19.2	15.6	15.0	17.8
3,000–3,499	33.8	33.6	30.8	33.4	32.6
3,500–3,999	23.9	23.7	29.2	21.5	25.7
≥ 4,000	6.9	8.3	12.6	8.4	9.6
Not stated	1.2	1.2	1.2	1.2	1.2
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
< 2,500[(a)]	14.4	14.1	10.5	20.6	13.1

(a) A birthweight of less than 2,500 grams is defined as low birthweight.

Note: Percentages in the table were calculated including the 'Not stated' category in the denominator. Totals and subtotals may not equal 100.0 due to rounding. Data should be interpreted with caution due to small numbers in certain cells.

Table S20: Perinatal mortality by treatment type and procedure, Australia and New Zealand, 2011

Perinatal deaths[a]	Autologous			Oocyte/embryo recipient	All
	Fresh IVF	Fresh ICSI	Thaw		
Live births[b]	**2,649**	**4,768**	**4,575**	**428**	**12,420**
Stillbirths (fetal deaths)	34	64	40	5	143
Neonatal deaths	13	8	17	1	39
Perinatal deaths[a]	**47**	**72**	**57**	**6**	**182**
Total births	**2,693**	**4,847**	**4,626**	**433**	**12,599**
Stillbirths (fetal deaths) per 1,000 births[c]	12.6	13.2	8.6	11.5	11.4
Neonatal deaths per 1,000 live births[d]	0.5	0.2	0.4	0.2	0.3
Perinatal deaths per 1,000 births[c]	17.5	14.9	12.3	13.9	14.4

(a) Perinatal deaths (neonatal deaths and fetal deaths) are reported by patients to fertility centre staff. These data are not official vital statistics.

(b) Live births include neonatal deaths.

(c) Stillbirths (fetal deaths) and perinatal death rates were calculated using all births (live births and fetal deaths) as the denominator.

(d) Neonatal death rates were calculated using all live births as the denominator.

Note: The birth status was not available for 36 babies: 10 following fresh IVF, 15 following fresh ICSI and 11 following thaw. Data should be interpreted with caution due to small numbers in certain cells.

Table S21: Perinatal mortality by maternal age, Australia and New Zealand, 2011

Perinatal deaths[b]	Age group (years)[a]						
	≤ 24	25–29	30–34	35–39	40–44	≥ 45	Total
Live births[c]	**111**	**1,301**	**4,180**	**4,786**	**1,855**	**187**	**12,420**
Stillbirths (fetal deaths)	2	20	48	51	21	1	143
Neonatal deaths	0	6	21	8	4	0	39
Perinatal deaths[b]	**2**	**26**	**69**	**59**	**25**	**1**	**182**
Total births	**115**	**1,325**	**4,236**	**4,853**	**1,882**	**188**	**12,599**
Stillbirths (fetal deaths) per 1,000 births[d]	*17.4*	*15.1*	*11.3*	*10.5*	*11.2*	*5.3*	*11.4*
Neonatal deaths per 1,000 live births[e]	*0.0*	*4.6*	*5.0*	*1.7*	*2.2*	*0.0*	*3.1*
Perinatal deaths per 1,000 births[d]	*17.4*	*19.6*	*16.3*	*12.2*	*13.3*	*5.3*	*14.4*

(a) Age at time of delivery.

(b) Perinatal deaths (neonatal deaths and fetal deaths) are reported by patients to fertility centre staff. These data are not official vital statistics.

(c) Includes neonatal deaths.

(d) Stillbirths (fetal deaths) and perinatal death rates were calculated using all births (live births and fetal deaths) as the denominator.

(e) Neonatal death rates were calculated using all live births as the denominator.

Note: The birth status was not reported for 36 babies: 2 from women aged ≤ 24 years, 4 from women aged 25–29 years, 8 from women aged 30–34 years, 16 from women aged 35–39 years and 6 from women aged 40–44 years. Data should be interpreted with caution due to small numbers in certain cells.

2 Progress of treatment cycles and resulting live deliveries for women who started their first autologous ART treatment in 2009

This section presents information on all women who started their first autologous fresh ART treatment cycle between 1st January 2009 and 31st December 2009. Women were followed from the start of their first autologous fresh cycle through subsequent fresh and thaw cycles until 31st December 2011 or until they achieved a live delivery until they achieved a live delivery (a delivery of at least one liveborn baby) up to and including 31st October 2012. This longitudinal perspective provides a measure of the outcomes of successive ART treatment cycles undertaken by the same woman. These women might have had additional treatment cycles after 2011 and their treatment information and resulting outcomes will be captured in subsequent annual reports. Therefore, in this dynamic cohort of women undergoing their first autologous fresh ART treatment between 1st January 2009 and 31st December 2009, the cumulative success rates may increase over time as more women return for treatment at a later date.

ART treatment cycles presented in Tables S22 to S27 include all initiated autologous fresh and thaw cycles. Cycles which were cancelled at any stage and did not proceed to oocyte collection or embryo transfer are included. The following types of cycles were out of scope and were not included in Tables S22 to S27: donor sperm insemination cycles, oocyte/embryo recipient cycles, oocyte/embryo donation cycles, surrogacy arrangement cycles and gamete intrafallopian transfer cycles. A pregnancy that ended before 20 weeks or stillbirth (fetal death) are not counted as a live delivery.

Table S22 presents the number of cycles by women's age group. Tables S23 to S27 present cycle-specific live delivery rates, non-progression rates and cumulative live delivery rates for all women (Table S23) and women aged < 30, 30-34, 35-39 and 40-44 (Tables S24 to S27). Women aged 45 or older (191 women and 4 live deliveries) are not presented in an age specific table due to the small number of cycles. Only the first ten cycles are presented in Tables S23 to 27 due to the small number of women (123 women and 22 live deliveries) undertaking eleven or more treatment cycles between 1st January 2009 and 31st December 2011.

The cycle-specific live delivery rate for a specific 'cycle number' is calculated as the number of live deliveries resulting from a specific 'cycle number' divided by the number of women who undertook that same 'cycle number'. For example, the cycle specific rate of 15.6% for cycle number 3 measures the proportion of women who undertook a third cycle and achieved a live delivery in that cycle (Table S23).

The non-progression rate for a specific 'cycle number' is calculated as the number of women who did not return for further ART treatment cycles before 31st December 2011 divided by the number of women who did not have a live delivery in that 'cycle number'. For example, the non-progression rate of 26.7% for cycle number 3 measures the proportion of women who did not achieve a live delivery in cycle number 3, and did not progress to a fourth cycle (Table S23). Reasons why a woman/couple did not progress for further treatment, such as poor prognosis, natural pregnancy, migration, financial, psychological and other unrelated

reasons are not collected by The Australian and New Zealand Assisted Reproduction Database (ANZARD).

The cumulative live delivery rate for a specific 'cycle number' is calculated as the total number of live deliveries following this 'cycle number' and all previous cycles divided by the total number of women who started their first autologous fresh ART treatment cycle between 1st January 2009 and 31st December 2009. For example, the cumulative live delivery rate of 36.9% for cycle number 3 measures the proportion of women who started ART treatment in 2009 and achieved a live delivery following their first 3 cycles (Table S23). Note, the denominator used in the cumulative live delivery rate includes all women who started treatment in 2009 irrespective of whether they had future ART treatment up until 31st December 2011.

Table S22: Number of cycles by women's age group for all women who started their first autologous fresh cycle between 1st January 2009 and 31st December 2009, Australia and New Zealand[(a)]

	Age group (years)[(a)]					
Cycle number[(b)]	**< 30**	**30–34**	**35–39**	**40–44**	**≥ 45**	**All**
			Number			
1	1,050	2,161	2,278	1,066	102	6,657
2	590	1,107	1,357	707	34	3,795
3	304	657	881	469	20	2,331
4	202	417	537	283	18	1,457
5	118	230	354	185	8	895
6	70	148	200	111	4	533
7	33	109	126	73	2	343
8	31	68	74	59	2	234
9	15	35	47	35	0	132
10	9	11	27	17	1	65
≥ 11	9	22	49	43	0	123
Total	**2,431**	**4,965**	**5,930**	**3,048**	**191**	**16,565**
			Per cent			
1	43.2	43.5	38.4	35.0	53.4	40.2
2	24.3	22.3	22.9	23.2	17.8	22.9
3	12.5	13.2	14.9	15.4	10.5	14.1
4	8.3	8.4	9.1	9.3	9.4	8.8
5	4.9	4.6	6.0	6.1	4.2	5.4
6	2.9	3.0	3.4	3.6	2.1	3.2
7	1.4	2.2	2.1	2.4	1.0	2.1
8	1.3	1.4	1.2	1.9	1.0	1.4
9	0.6	0.7	0.8	1.1	0.0	0.8
10	0.4	0.2	0.5	0.6	0.5	0.4
≥ 11	0.4	0.4	0.8	1.4	0.0	0.7
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

(a) Age at start of first autologous fresh ART treatment cycle.

(b) Women who started their first autologous fresh ART treatment cycle between 1st January 2009 and 31st December 2009 and were followed through subsequent fresh and thaw cycles until 31st December 2011 or delivery of a liveborn baby up to 31st October 2012.

Note: Totals and subtotals may not equal 100.0 due to rounding. Data should be interpreted with caution due to small numbers in certain cells.

Table S23: Cycle-specific and cumulative live delivery rates for all women who started their first autologous fresh cycle between 1st January 2009 and 31st December 2009, Australia and New Zealand

Cycle number	Number of women starting cycle[a]	Number of women who had a live delivery[b]	Cycle-specific live delivery rate (%)[c]	Number of women who did not progress to next treatment	Non-progression rate (%)[d][e]	Cumulative live delivery rate (%)[a][f]
1	16,565	3,493	21.1	3,164	24.2	21.1
2	9,908	1,661	16.8	2,134	25.9	31.1
3	6,113	952	15.6	1,379	26.7	36.9
4	3,782	545	14.4	912	28.2	40.2
5	2,325	347	14.9	548	27.7	42.2
6	1,430	206	14.4	327	26.7	43.5
7	897	140	15.6	203	26.8	44.3
8	554	69	12.5	165	34.0	44.8
9	320	36	11.3	96	33.8	45.0
10	188	14	7.4	51	29.3	45.1

(a) Women who started their first autologous fresh ART treatment cycle between 1st January 2009 and 31st December 2009 and were followed through subsequent fresh and thaw cycles until 31st December 2011 or delivery of a liveborn baby up to 31st October 2012.

(b) A live delivery is the delivery of one or more liveborn infants, with the birth of twins or higher order multiples counted as one live delivery.

(c) The cycle-specific live delivery rate is calculated as the number of live deliveries resulting from a specific 'cycle number' divided by the number of women who undertook that same 'cycle number'.

(d) The non-progression rate for a specific 'cycle number' is calculated as the number of women who did not return for further ART treatment cycles before 31st December 2011 divided by the number of women who did not have a live delivery in that 'cycle number'.

(e) Reasons that a woman did not progress for further treatment, such as poor prognosis, natural pregnancy, migration, financial, psychological and other unrelated reasons were not collected in ANZARD.

(f) The cumulative live delivery rate for a specific 'cycle number' is calculated as the total number of live deliveries following this 'cycle number' and all previous cycles divided by the total number of women who started their first autologous fresh ART treatment cycle between 1st January 2009 and 31st December 2009. Note, the denominator used in the cumulative live delivery rate includes all women who started treatment in 2009 irrespective of whether they had future ART treatment until 31st December 2011.

Note: Further treatment cycles after the 10th cycle and resulting live deliveries are not presented in this table due to small numbers. Data should be interpreted with caution due to small numbers in certain cells.

Table S24: Cycle-specific and cumulative live delivery rates for women aged less than 30 years who started their first autologous fresh cycle between 1st January 2009 and 31st December 2009, Australia and New Zealand

Cycle number	Number of women starting cycle[(a)]	Number of women who had a live delivery[(b)]	Cycle-specific live delivery rate (%)[(c)]	Number of women who did not progress to next treatment	Non-progression rate (%)[(d)(e)]	Cumulative live delivery rate (%)[(a)(f)]
1	2,431	663	27.3	387	21.9	27.3
2	1,381	307	22.2	283	26.4	39.9
3	791	163	20.6	141	22.5	46.6
4	487	96	19.7	106	27.1	50.6
5	285	49	17.2	69	29.2	52.6
6	167	34	20.4	36	27.1	54.0
7	97	20	20.6	13	16.9	54.8
8	64	15	23.4	16	32.7	55.4
9	33	4	12.1	11	37.9	55.6
10	18	5	27.8	4	30.8	55.8

(a) Women who started their first autologous fresh ART treatment cycle between 1st January 2009 and 31st December 2009 and were followed through subsequent fresh and thaw cycles until 31st December 2011 or delivery of a liveborn baby up to 31st October 2012.

(b) A live delivery is the delivery of one or more liveborn infants, with the birth of twins or higher order multiples counted as one live delivery.

(c) The cycle-specific live delivery rate is calculated as the number of live deliveries resulting from a specific 'cycle number' divided by the number of women who undertook that same 'cycle number'.

(d) The non-progression rate for a specific 'cycle number' is calculated as the number of women who did not return for further ART treatment cycles before 31st December 2011 divided by the number of women who did not have a live delivery in that 'cycle number'.

(e) Reasons that a woman did not progress for further treatment, such as poor prognosis, natural pregnancy, migration, financial, psychological and other unrelated reasons were not collected in ANZARD.

(f) The cumulative live delivery rate for a specific 'cycle number' is calculated as the total number of live deliveries following this 'cycle number' and all previous cycles divided by the total number of women who started their first autologous fresh ART treatment cycle between 1st January 2009 and 31st December 2009. Note, the denominator used in the cumulative live delivery rate includes all women who started treatment in 2009 irrespective of whether they had future ART treatment until 31st December 2011.

Note: Further treatment cycles after the 10th cycle and resulting live deliveries are not presented in this table due to small numbers. Data should be interpreted with caution due to small numbers in certain cells.

Table S25: Cycle-specific and cumulative live delivery rates for women aged 30–34 years who started their first autologous fresh cycle between 1st January 2009 and 31st December 2009, Australia and New Zealand

Cycle number	Number of women starting cycle[a]	Number of women who had a live delivery[b]	Cycle-specific live delivery rate (%)[c]	Number of women who did not progress to next treatment	Non-progression rate (%)[d][e]	Cumulative live delivery rate (%)[a][f]
1	4,965	1,432	28.8	729	20.6	28.8
2	2,804	627	22.4	480	22.0	41.5
3	1,697	355	20.9	302	22.5	48.6
4	1,040	205	19.7	212	25.4	52.7
5	623	119	19.1	111	22.0	55.1
6	393	78	19.8	70	22.2	56.7
7	245	61	24.9	48	26.1	57.9
8	136	26	19.1	42	38.2	58.5
9	68	14	20.6	21	38.9	58.8
10	33	3	9.1	8	26.7	58.8

(a) Women who started their first autologous fresh ART treatment cycle between 1st January 2009 and 31st December 2009 and were followed through subsequent fresh and thaw cycles until 31st December 2011 or delivery of a liveborn baby up to 31st October 2012.

(b) A live delivery is the delivery of one or more liveborn infants, with the birth of twins or higher order multiples counted as one live delivery.

(c) The cycle-specific live delivery rate is calculated as the number of live deliveries resulting from a specific 'cycle number' divided by the number of women who undertook that same 'cycle number'.

(d) The non-progression rate for a specific 'cycle number' is calculated as the number of women who did not return for further ART treatment cycles before 31st December 2011 divided by the number of women who did not have a live delivery in that 'cycle number'.

(e) Reasons that a woman did not progress for further treatment, such as poor prognosis, natural pregnancy, migration, financial, psychological and other unrelated reasons were not collected in ANZARD.

(f) The cumulative live delivery rate for a specific 'cycle number' is calculated as the total number of live deliveries following this 'cycle number' and all previous cycles divided by the total number of women who started their first autologous fresh ART treatment cycle between 1st January 2009 and 31st December 2009. Note, the denominator used in the cumulative live delivery rate includes all women who started treatment in 2009 irrespective of whether they had future ART treatment until 31st December 2011.

Note: Further treatment cycles after the 10th cycle and resulting live deliveries are not presented in this table due to small numbers. Data should be interpreted with caution due to small numbers in certain cells.

Table S26: Cycle-specific and cumulative live delivery rates for women aged 35–39 years who started their first autologous fresh cycle between 1st January 2009 and 31st December 2009, Australia and New Zealand

Cycle number	Number of women starting cycle[(a)]	Number of women who had a live delivery[(b)]	Cycle-specific live delivery rate (%)[(c)]	Number of women who did not progress to next treatment	Non-progression rate (%)[(d)(e)]	Cumulative live delivery rate (%)[(a)(f)]
1	5,930	1,160	19.6	1,118	23.4	19.6
2	3,652	602	16.5	755	24.8	29.7
3	2,295	364	15.9	517	26.8	35.9
4	1,414	200	14.1	337	27.8	39.2
5	877	147	16.8	207	28.4	41.7
6	523	80	15.3	120	27.1	43.1
7	323	50	15.5	76	27.8	43.9
8	197	25	12.7	49	28.5	44.3
9	123	13	10.6	34	30.9	44.5
10	76	6	7.9	21	30.0	44.6

(a) Women who started their first autologous fresh ART treatment cycle between 1st January 2009 and 31st December 2009 and were followed through subsequent fresh and thaw cycles until 31st December 2011 or delivery of a liveborn baby up to 31st October 2012.

(b) A live delivery is the delivery of one or more liveborn infants, with the birth of twins or higher order multiples counted as one live delivery.

(c) The cycle-specific live delivery rate is calculated as the number of live deliveries resulting from a specific 'cycle number' divided by the number of women who undertook that same 'cycle number'.

(d) The non-progression rate for a specific 'cycle number' is calculated as the number of women who did not return for further ART treatment cycles before 31st December 2011 divided by the number of women who did not have a live delivery in that 'cycle number'.

(e) Reasons that a woman did not progress for further treatment, such as poor prognosis, natural pregnancy, migration, financial, psychological and other unrelated reasons were not collected in ANZARD.

(f) The cumulative live delivery rate for a specific 'cycle number' is calculated as the total number of live deliveries following this 'cycle number' and all previous cycles divided by the total number of women who started their first autologous fresh ART treatment cycle between 1st January 2009 and 31st December 2009. Note, the denominator used in the cumulative live delivery rate includes all women who started treatment in 2009 irrespective of whether they had future ART treatment until 31st December 2011.

Note: Further treatment cycles after the 10th cycle and resulting live deliveries are not presented in this table due to small numbers. Data should be interpreted with caution due to small numbers in certain cells.

Table S27: Cycle-specific and cumulative live delivery rates for women aged 40–44 years who started their first autologous fresh cycle between 1st January 2009 and 31st December 2009, Australia and New Zealand

Cycle number	Number of women starting cycle[(a)]	Number of women who had a live delivery[(b)]	Cycle-specific live delivery rate (%)[(c)]	Number of women who did not progress to next treatment	Non-progression rate (%)[(d)(e)]	Cumulative live delivery rate (%)[(a)(f)]
1	3,048	235	7.7	831	29.5	7.7
2	1,982	125	6.3	582	31.3	11.8
3	1,275	70	5.5	399	33.1	14.1
4	806	44	5.5	239	31.4	15.6
5	523	32	6.1	153	31.2	16.6
6	338	13	3.8	98	30.2	17.0
7	227	9	4.0	64	29.4	17.3
8	154	3	1.9	56	37.1	17.4
9	95	5	5.3	30	33.3	17.6
10	60	0	0.0	17	28.3	17.6

(a) Women who started their first autologous fresh ART treatment cycle between 1st January 2009 and 31st December 2009 and were followed through subsequent fresh and thaw cycles until 31st December 2011 or delivery of a liveborn baby up to 31st October 2012.

(b) A live delivery is the delivery of one or more liveborn infants, with the birth of twins or higher order multiples counted as one live delivery.

(c) The cycle-specific live delivery rate is calculated as the number of live deliveries resulting from a specific 'cycle number' divided by the number of women who undertook that same 'cycle number'.

(d) The non-progression rate for a specific 'cycle number' is calculated as the number of women who did not return for further ART treatment cycles before 31st December 2011 divided by the number of women who did not have a live delivery in that 'cycle number'.

(e) Reasons that a woman did not progress for further treatment, such as poor prognosis, natural pregnancy, migration, financial, psychological and other unrelated reasons were not collected in ANZARD.

(f) The cumulative live delivery rate for a specific 'cycle number' is calculated as the total number of live deliveries following this 'cycle number' and all previous cycles divided by the total number of women who started their first autologous fresh ART treatment cycle between 1st January 2009 and 31st December 2009. Note, the denominator used in the cumulative live delivery rate includes all women who started treatment in 2009 irrespective of whether they had future ART treatment until 31st December 2011.

Note: Further treatment cycles after the 10th cycle and resulting live deliveries are not presented in this table due to small numbers. Data should be interpreted with caution due to small numbers in certain cells.

List of tables