

# Fertility treatment in 2006

a statistical analysis



**Authors:** Jennifer J. Kurinczuk and Chris Hockley

**Date of Publication:** 2010

**Citation for this report:** Kurinczuk JJ, Hockley C.  
Fertility Treatment in 2006 - a statistical analysis.  
London: Human Fertilisation and Embryology Authority; 2010.



	Page no:
<b>Executive Summary</b>	<b>8-9</b>
<b>Section 1: Overview of fertility treatment in 2006</b>	<b>10-34</b>
• How we gathered the data	10
• Understanding the 2006 data analysis	10
• How many clinics provide treatment?	11
• How many women receive treatment in different areas?	12
• How many women had fertility treatment in 2006?	13
• How old were women who had treatment in 2006?	14
• What types of infertility were treated?	15
• What types of treatment cycles were carried out?	16-18
• How many fresh and frozen cycles of IVF/ICSI were performed?	19
• How many treatment cycles involved donor eggs, embryos and sperm?	20
• How many women became pregnant following fertility treatment in 2006?	20-22
• What were the outcomes of pregnancies following fertility treatment?	23-27
• How many babies were born following fertility treatment?	28
• How many treatment cycles involved donated eggs, embryos or sperm?	29
• How many babies were born following treatment involving donated eggs, embryos or sperm?	30
• How many embryos were created in 2006?	31
• How many embryos were transferred?	32
• How many embryos were transferred in each treatment cycle?	33
• How many embryos were stored by women for later use?	34
<b>Section 2: IVF results – involving fresh embryo transfers for women using their own eggs for treatment cycles started in 2006</b>	<b>35-75</b>
Introduction	35
Summary	35-36
How are treatment results calculated?	36
1. How many women were treated with IVF and what were the outcomes?	37-38
Results relating to treatment cycles	38
Results relating to embryo transfers	38
2. Why were treatment cycles cancelled?	39
3a. How many embryos were transferred in each treatment cycle?	40-41
3b. At what stage of development were embryos transferred?	42
4a. How does the woman's age affect the chances of pregnancy following IVF?	43-45
4b. Which women are most likely to conceive a multiple pregnancy?	46
5a. What can happen to a pregnancy conceived by IVF – will a baby always be born?	47-50
Outcomes for singleton pregnancies	48-49
Outcomes for multiple pregnancies	49-50
5b. What is the risk of miscarriage following IVF?	51-52

Risk of miscarriage by the woman's age	51-52
Risk of miscarriage in singleton and multiple pregnancies	52
<b>6. How does a woman's age affect birth outcomes following IVF?</b>	53-58
Results starting from the point a treatment cycle begins	53-55
Results starting from the point of embryo transfer	56-58
<b>7. Good prognosis patient outcomes</b>	59-61
<b>8. Are the outcomes of treatment affected by whether the sperm used comes from the woman's partner or a donor?</b>	62-63
<b>9. What is the effect of the number of embryos transferred on the number of babies born?</b>	64-67
<b>10. How many boys and girls are born following IVF?</b>	68
<b>11a. How did babies born following IVF in 2006 fare?</b>	69
<b>11b. Chances of being born preterm (&lt;37 weeks gestation)</b>	70-71
The outcome of pregnancies	70
The outcome of births	70-71
<b>11c. Chances of being born low birthweight (&lt;2.5kg or 5½lbs)</b>	72
The outcome of pregnancies	72
The outcome of births	72
<b>11d. How many IVF babies were stillborn and how many died in the first month after birth?</b>	73-74
Stillbirths	73
Neonatal deaths	73-74
<b>Appendix A</b>	75
How we gathered the data	75
Understanding the results presented	75
<b>Section 3: IVF results – involving frozen embryo transfers for women using their own eggs for treatment cycles started in 2006</b>	
<b>Introduction</b>	76
<b>Summary</b>	76-77
<b>How are treatment results calculated?</b>	77
<b>1. How many women were treated with frozen embryo IVF and what were the outcomes?</b>	78-79
Results relating to treatment cycles	79
Results relating to frozen embryo transfers	79
<b>2. Why were treatment cycles cancelled?</b>	80
<b>3. How many embryos were transferred in each treatment cycle?</b>	80-82
<b>4a. How does the woman's age affect the chances of pregnancy following IVF?</b>	83-84
<b>4b. Which women are most likely to conceive a multiple pregnancy?</b>	85
<b>5a. What can happen to a pregnancy conceived by frozen embryo IVF – will a baby always be born?</b>	86-89
Outcomes for singleton pregnancies	87-88
Outcomes for multiple pregnancies	88-89
<b>5b. What is the risk of miscarriage following frozen embryo IVF?</b>	90-91
Risk of miscarriage by the woman's age	90-91
Risk of miscarriage in singleton and multiple pregnancies	91
<b>6. How does a woman's age affect birth outcomes following IVF?</b>	92-95
Results starting from the point a treatment cycle begins	92-93
Results starting from the point of embryo transfer	93-95
<b>7. Are the outcomes of treatment affected by whether the sperm used comes from the woman's partner or a donor?</b>	96-97

8. What is the effect of the number of embryos transferred on the number of babies born?	98-101
9. How many boys and girls are born following frozen embryo IVF?	102
10a. How did babies born following frozen embryo IVF in 2006 fare?	103
10b. Chances of being born preterm (<37 weeks gestation)	104
The outcome of pregnancies	104
The outcome of births	104
10c. Chances of being born low birthweight (<2.5kg or 5½lbs)	105-106
The outcome of pregnancies	105-106
The outcome of births	106
<b>Appendix B</b>	107
How we gathered the data	107
Understanding the results presented	107
<b>Section 4: ICSI results – involving fresh embryo transfers for women using their own eggs for treatment cycles started in 2006</b>	<b>108-148</b>
Introduction	108
Summary	108-109
How are treatment results calculated?	109
1. How many women were treated with ICSI and what were the outcomes?	110-111
Results relating to treatment cycles	111
Results relating to embryo transfers	111
2. Why were treatment cycles cancelled?	112
3a. How many embryos were transferred in each treatment cycle?	113-114
3b. At what stage of development were embryos transferred?	115
4a. How does the woman's age affect the chances of pregnancy following ICSI?	116-118
4b. Which women are most likely to conceive a multiple pregnancy?	119
5a. What can happen to a pregnancy conceived by ICSI – will a baby always be born?	120-123
Outcomes for singleton pregnancies	121-122
Outcomes for multiple pregnancies	122-123
5b. What is the risk of miscarriage following ICSI?	124-126
Risk of miscarriage by the woman's age	124-125
Risk of miscarriage in singleton and multiple pregnancies	126
6. How does a woman's age affect birth outcomes following ICSI?	127-131
Results starting from when a treatment cycle begins	127-128
Results starting from the point of embryo transfer	129-131
7. Good prognosis patient outcomes	132-134
8. Are the outcomes of treatment affected by whether the sperm used comes from the woman's partner or a donor?	135-136
9. What is the effect of the number of embryos transferred on the number of babies born?	137-140
10. How many boys and girls are born following ICSI?	141
11a. How did babies born following ICSI in 2006 fare?	142
11b. Chances of being born preterm (<37 weeks gestation)	143-144
The outcome of pregnancies	143
The outcome of births	143-144
11c. Chances of being born low birthweight (<2.5kg or 5½lbs)	145
The outcome of pregnancies	145
The outcome of births	145

11d. How many ICSI babies were stillborn and how many died in the first month after birth?	146-147
Stillbirths	146
Neonatal deaths	146-147
<b>Appendix C</b>	148
How we gathered the data	148
Understanding the results presented	148
<b>Section 5: ICSI results – involving frozen embryo transfers for women using their own eggs for treatment cycles started in 2006</b>	<b>149-172</b>
Introduction	149
Summary	149-150
How are treatment results calculated?	150
1. How many women were treated with frozen embryo ICSI and what were the outcomes?	151-152
Results relating to treatment cycles	152
Results relating to frozen embryo transfers	152
2. Why were treatment cycles cancelled?	152
3. How many embryos were transferred in each treatment cycle?	153-154
4a. How does the woman's age affect the chances of pregnancy following ICSI?	155-156
4b. Which women are most likely to conceive a multiple pregnancy?	157
5a. What can happen to a pregnancy conceived by frozen embryo ICSI – will a baby always be born?	158
5b. What is the risk of miscarriage following frozen embryo ICSI?	159-160
Risk of miscarriage by the woman's age	159-160
Risk of miscarriage in singleton and multiple pregnancies	160
6. How does a woman's age affect birth outcomes following ICSI?	161-164
Results starting from the point a treatment cycle begins	161-162
Results starting from the point of embryo transfer	162-164
7. Are the outcomes of treatment affected by whether the sperm used comes from the woman's partner or a donor?	164
8. What is the effect of the number of embryos transferred on the number of babies born?	165-167
9. How many boys and girls are born following frozen embryo ICSI?	168
10a. How did babies born following frozen embryo ICSI in 2006 fare?	169
10b. Chances of being born preterm (<37 weeks gestation)	170-171
10c. Chances of being born low birthweight (<2.5kg or 5½lbs)	171
<b>Appendix D</b>	172
How we gathered the data	172
Understanding the results presented	172
<b>Section 6: IVF &amp; ICSI results – involving fresh embryo transfers for women using donor eggs for treatment cycles started in 2006</b>	<b>173-193</b>
Introduction	173
Summary	173-174
How are treatment results calculated?	174
1. How many women were treated with fresh donor IVF or ICSI and what were the outcomes?	175-176
Results relating to treatment cycles	176
Results relating to embryo transfers	176

2. Why were treatment cycles cancelled?	176
3. How many embryos were transferred in each treatment cycle?	177-178
4a. How does the woman's age affect the chances of pregnancy following fresh donor IVF or ICSI?	179-180
4b. Which women are most likely to conceive a multiple pregnancy?	181
5a. What can happen to a pregnancy conceived by fresh donor IVF or ICSI– will a baby always be born?	182
5b. What is the risk of miscarriage following fresh donor IVF or ICSI?	183-184
Risk of miscarriage by the woman's age	183-184
Risk of miscarriage in singleton and multiple pregnancies	184
6. How does a woman's age affect birth outcomes following fresh donor IVF or ICSI?	185-187
Results starting from the point a treatment cycle begins	185-186
Results starting from the point of embryo transfer	186-187
7. Are the outcomes of treatment affected by whether the sperm used comes from the woman's partner or a donor?	188
8. What is the effect of the number of embryos transferred on the number of babies born?	189-191
9. How many boys and girls are born following fresh donor IVF or ICSI?	192
Appendix E	193
How we gathered the data	193
Understanding the results presented	193
<b>Section 7: IVF &amp; ICSI results – involving frozen embryo transfers for women using donor eggs for treatment cycles started in 2006</b>	
<b>Introduction</b>	<b>194</b>
<b>Summary</b>	<b>194-195</b>
How are treatment results calculated?	195
1. How many women were treated with frozen donor IVF or ICSI and what were the outcomes?	196-197
Results relating to treatment cycles	197
Results relating to embryo transfers	197
2. Why were treatment cycles cancelled?	197
3. How many embryos were transferred in each treatment cycle?	198-199
4. How does the woman's age affect the chances of pregnancy following frozen donor IVF or ICSI?	200-201
5. What can happen to a pregnancy conceived by frozen donor IVF or ICSI– will a baby always be born?	202
6. How does a woman's age affect birth outcomes following frozen donor IVF or ICSI?	203-205
Results starting from the point a treatment cycle begins	203-204
Results starting from the point of embryo transfer	204-205
7. Are the outcomes of treatment affected by whether the sperm used comes from the woman's partner or a donor?	205
8. What is the effect of the number of embryos transferred on the number of babies born?	206-207
9. How many boys and girls are born following frozen donor IVF or ICSI?	208
Appendix F	209
How we gathered the data	209
Understanding the results presented	209

<b>Section 8: Other treatments</b>	<b>210-219</b>
Treatment involving donor sperm	210-211
<b>Egg sharing arrangements</b>	211-213
a. Treatment outcomes for the women who donate eggs in an egg sharing arrangement (the egg donor)	211-212
b. Treatment outcomes for the women who are the recipients of donated eggs (the egg recipient)	213
<b>Surrogacy</b>	214
<b>Storage of eggs and embryos</b>	214
a. Egg storage	214
b. Embryo storage	214
<b>Donor insemination (DI)</b>	214
<b>Stimulated donor insemination</b>	215
<b>Un-stimulated, natural cycle donor insemination</b>	216
<b>Natural cycle un-stimulated IVF</b>	217
<b>Pre-implantation genetic diagnosis (PGD)</b>	217-218
<b>Pre-implantation genetic screening (PGS)</b>	218-219
<b>Glossary</b>	<b>220</b>