

REPORT OF THE COLLEGE OF PHYSICIANS  
FOR ASSISTED REPRODUCTION THERAPY


BELGIUM 2005

## SUMMARY

- OVERVIEW
- PICK-UP CYCLES (OWN'S)
- CRYOCYCLES
- RECIPIENTS
- DONORS

# OVERVIEW

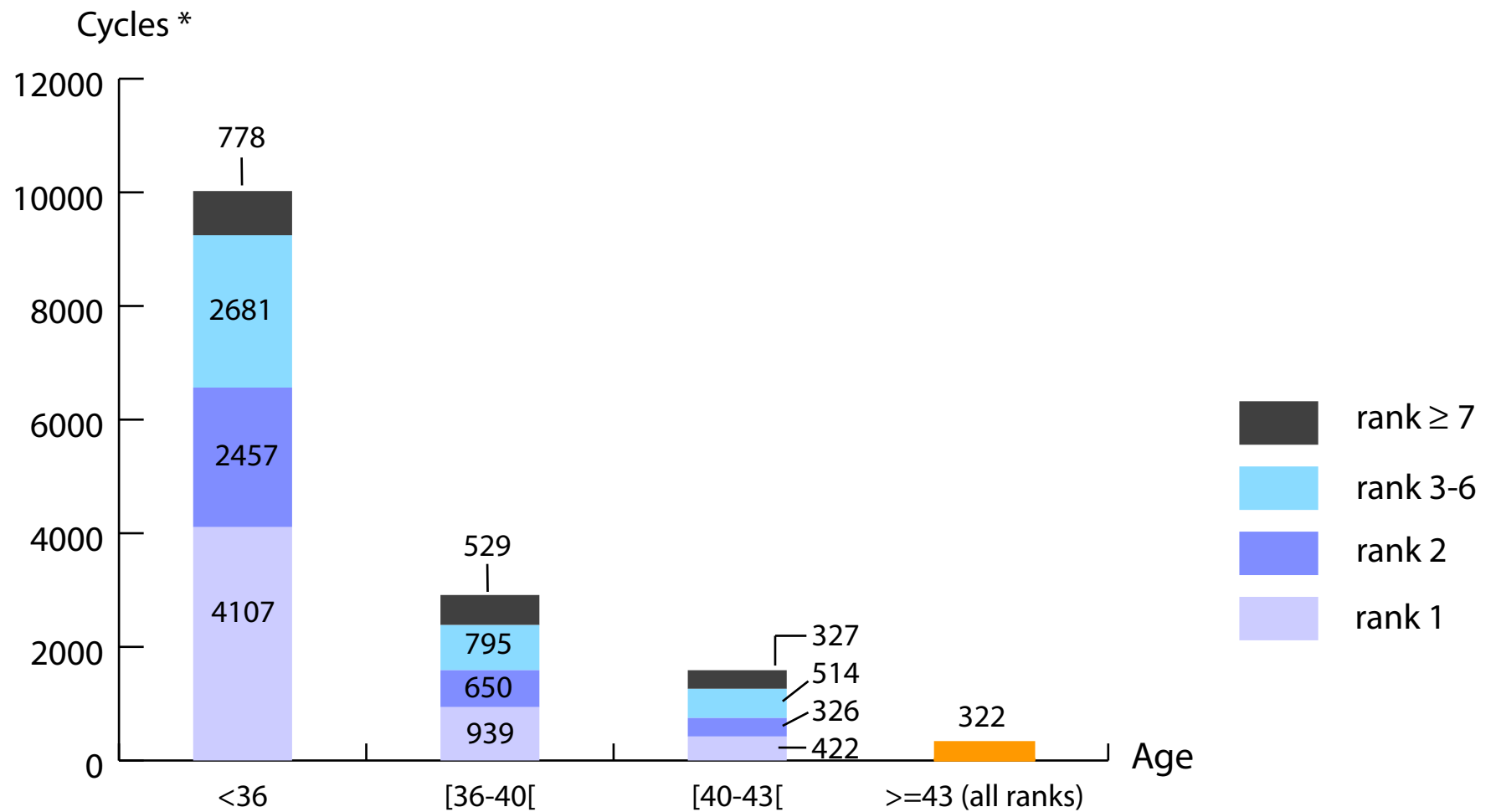
## Pick-up cycles (includes own's & donors cycles)

	<i>Total</i>	<b>With Social Security</b>	<b>Without Social Security</b>
Initiated cycles	17268 (100%)	13943 (80.7%)	3325 (19.3%)
Cancellations	1270 (7.4%)	950 (74.8%)	320 (25.2%)
Retrievals	15998 (92.6%)	12993 (81.2%)	3005 (18.8%)
	 from which 396 donors cycles		

## Number of Laboratory Treatment Cycles (includes 15602 own's & 552 recipients cycles)

	<b>Patients with Social security</b>	<b>Patients without Social Security</b>	<b><i>Total</i></b>
All ages & all ranks	13078 (81.0%)	3076 (19.0%)	<i>16154</i>
< 43 years old & rank<7	12278 (95.2%)	613 (4.8%)	<i>12891</i>
≥ 43 years old	173 (38.9%)	272 (61.1%)	<i>445</i>
< 43 years old & rank ≥7	469 (28.7%)	1165 (71.3%)	<i>1634</i>

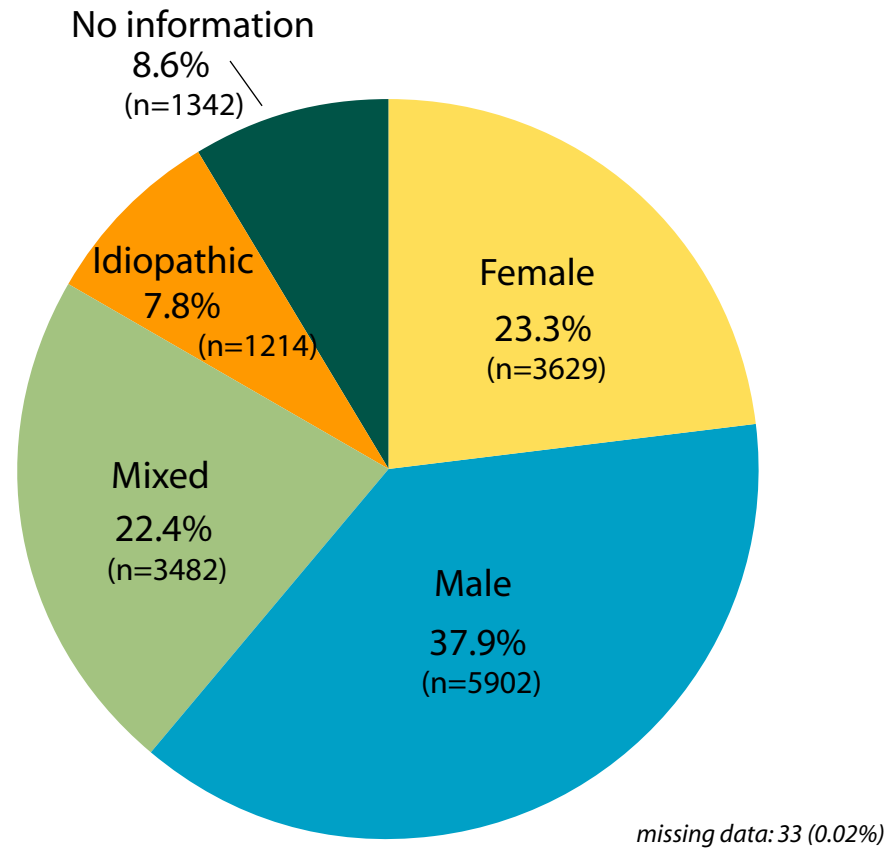
## Female age and labo rank



\* includes own's & recipients

## PICK-UP CYCLES PART

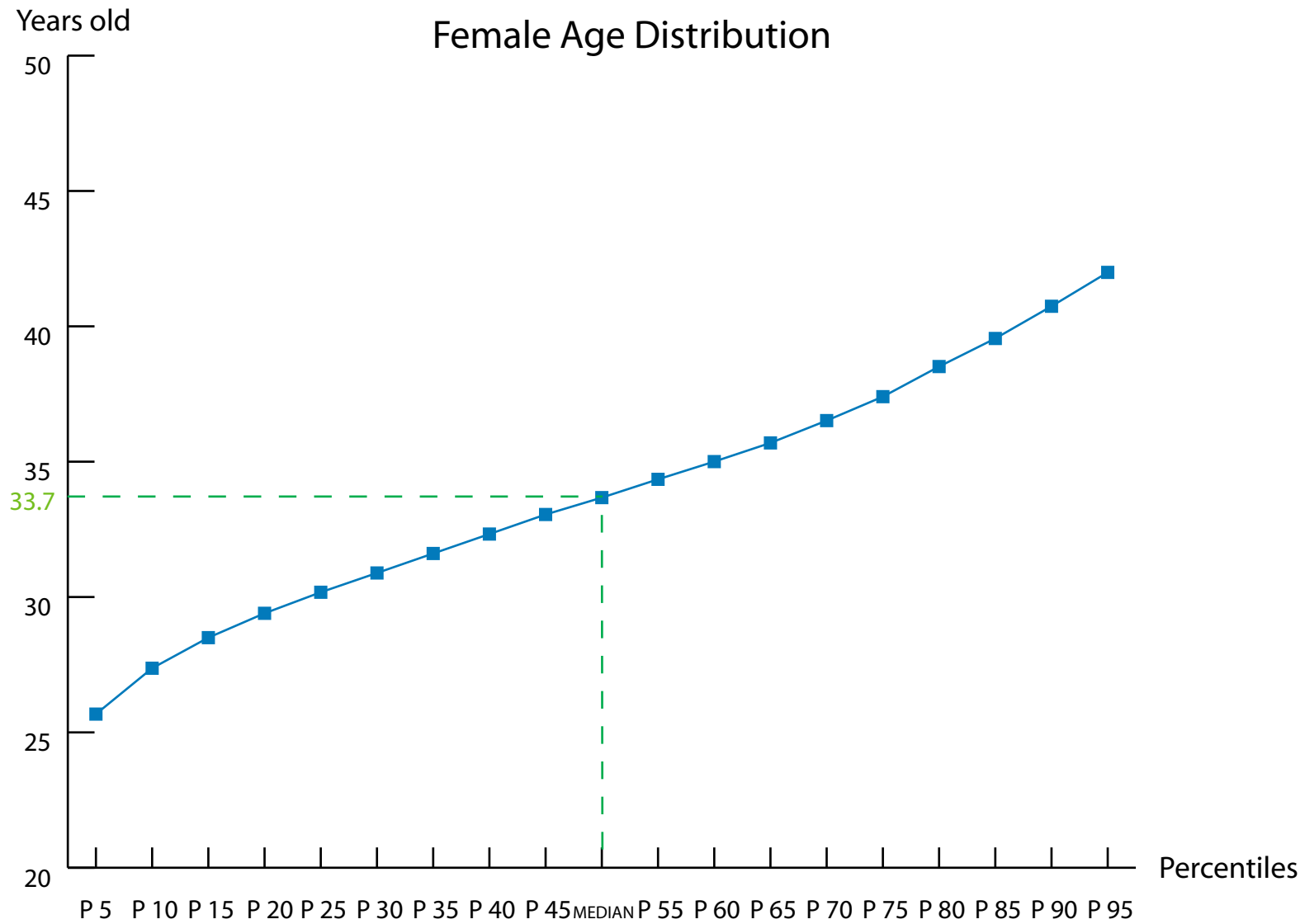
## Indications of ART



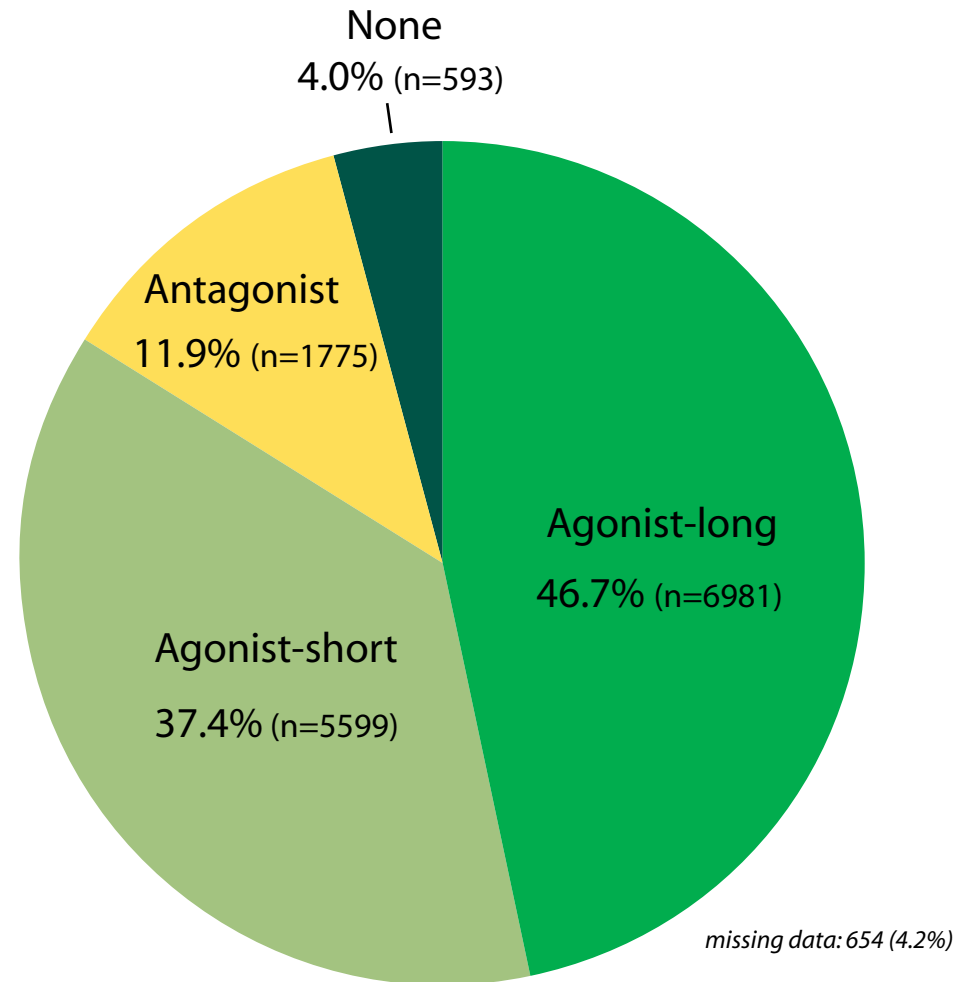


<b>Indications of ART: Female Causes*</b>		
	n	%
Tubal	2936	34.6%
Endometriosis	1986	23.4%
Ovulatory	1682	19.8%
Other	1316	15.5%
Premature Ovarian Failure	279	3.3%
Genetic Anomaly	260	3.1%
Immunological	33	0.4%
Total	8492	100%
<i>* some patients have more than one cause identified</i>		

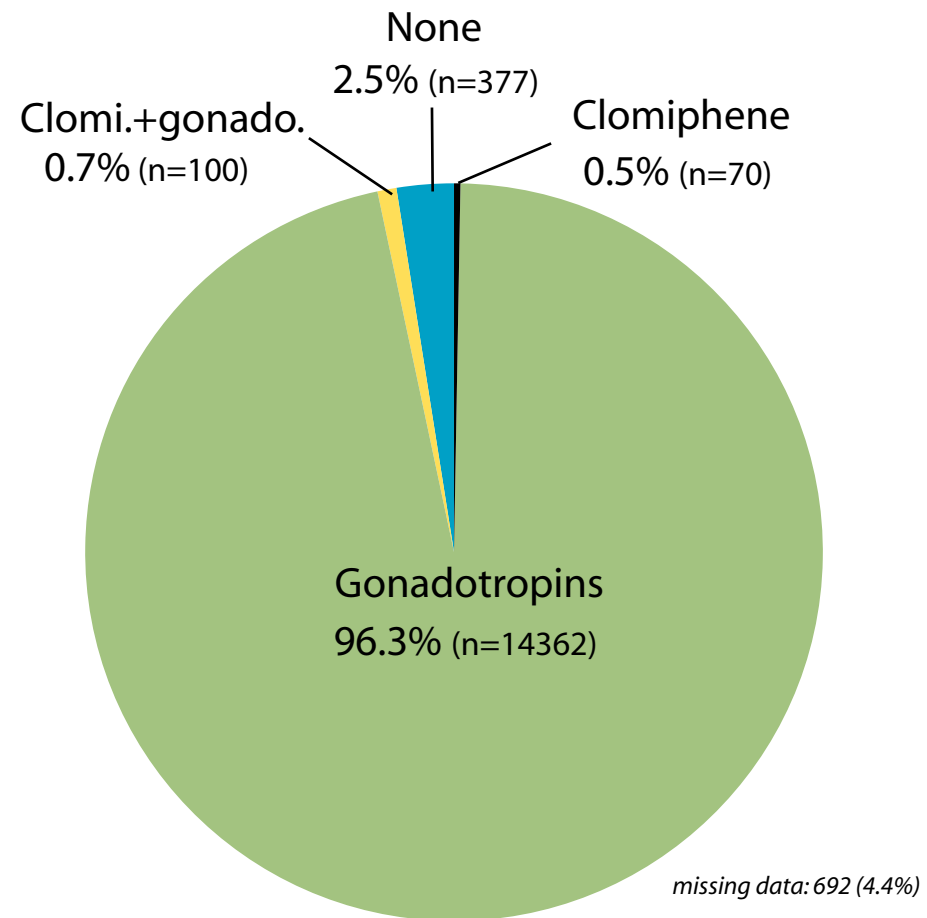
<b>Indications of ART: Male Causes*</b>		
	n	%
Sperm Abnormality	9417	95.4%
Genetic Anomaly	323	3.3%
Immunological	129	1.3%
Total	9869	100%
<i>* some patients have more than one cause identified</i>		

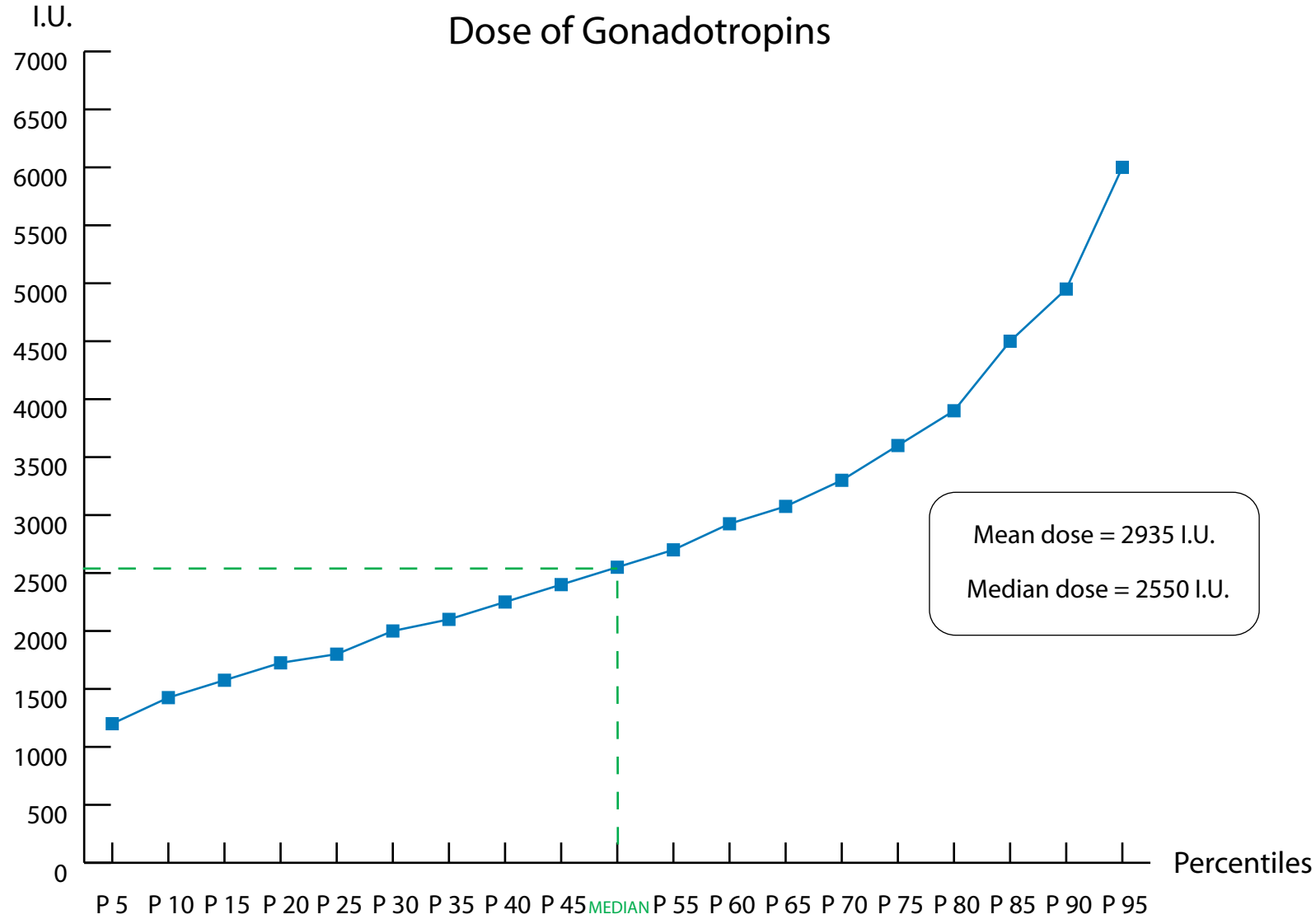


## Pituitary Inhibition

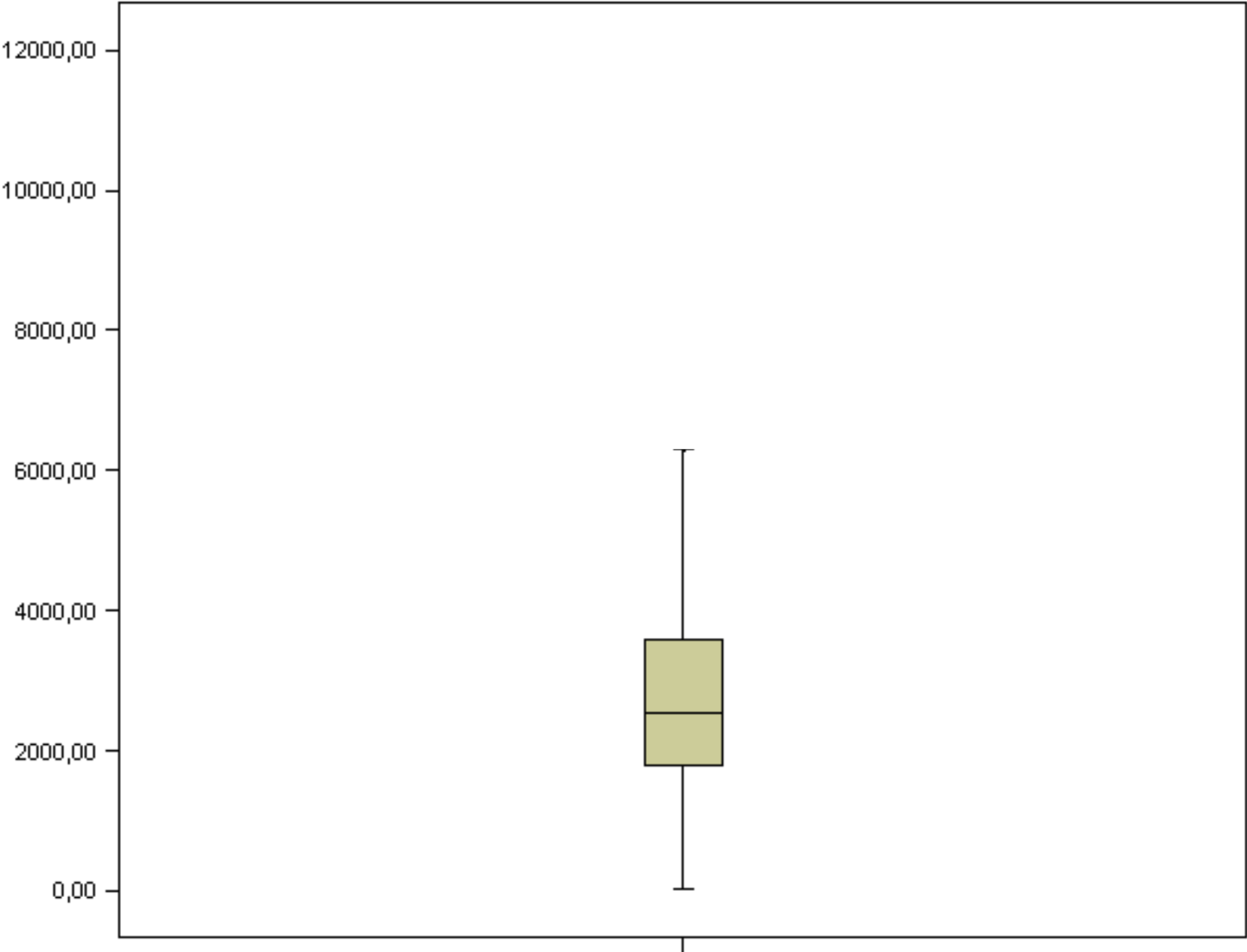


## Stimulation Protocol





Dose of Gonadotropins (I.U.)



Gonadotropins Levels (I.U.)

Methods of Fertilization		
	n	%
IVF <sup>(1)</sup>	3796	25.0%
ICSI <sup>(1)</sup>	10566	69.6%
Mixed <sup>(1)</sup> (IVF + ICSI)	823	5.4%
<i>Total</i> <sup>(1)</sup>	<i>15185</i>	<i>100</i>

(1) sperm of partner or from a donor are both included.

missing data: 417 (2.7%)

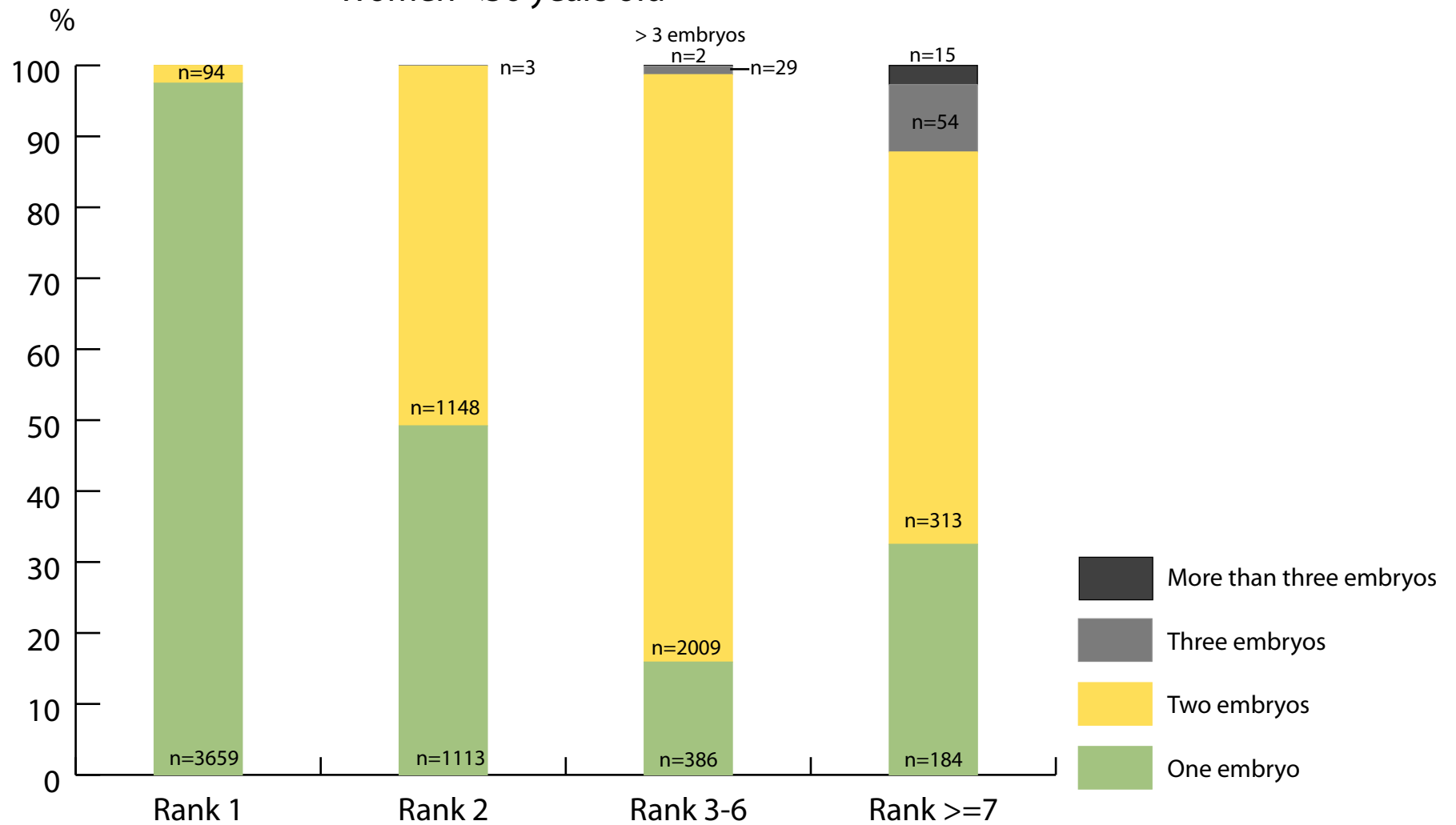
ICSI Method - Sperm from Partner			
SPERM	Fresh	Thawed	<i>Total</i>
Ejaculated	7594	319	7913 (93.1%)
Surgically Retrieved	182	400	582 (6.9%)
<i>Total</i>	7776 (91.6%)	719 (8.4%)	8495

	< 36 years old					[36 - 40 [ years old					[40 - 43 [ years old					≥ 43 years old	<i>Total all ages</i>
	Rank 1	Rank 2	Ranks 3 - 6	Rank ≥ 7	<i>Total</i>	Rank 1	Rank 2	Ranks 3 - 6	Rank ≥ 7	<i>Total</i>	Rank 1	Rank 2	Ranks 3 - 6	Rank ≥ 7	<i>Total</i>	All ranks	<i>All ranks</i>
n° of cycles	4061	2431	2631	714	9837	921	642	773	464	2800	410	314	501	285	1510	216	14363
n° of transfers	3758	2269	2431	567	9025	828	590	690	380	2488	356	263	422	211	1252	148	12913
n° of embryos transferred																	
1	3659	1113	386	184	5342	289	145	119	81	634	108	69	106	54	337	39	6352
2	94	1148	2009	313	3564	526	433	350	204	1513	126	86	123	64	399	38	5514
3	0	3	29	54	86	10	10	216	85	321	111	98	151	67	427	39	873
> 3	0	0	2	15	17	1	1	3	9	14	11	10	41	26	88	32	151

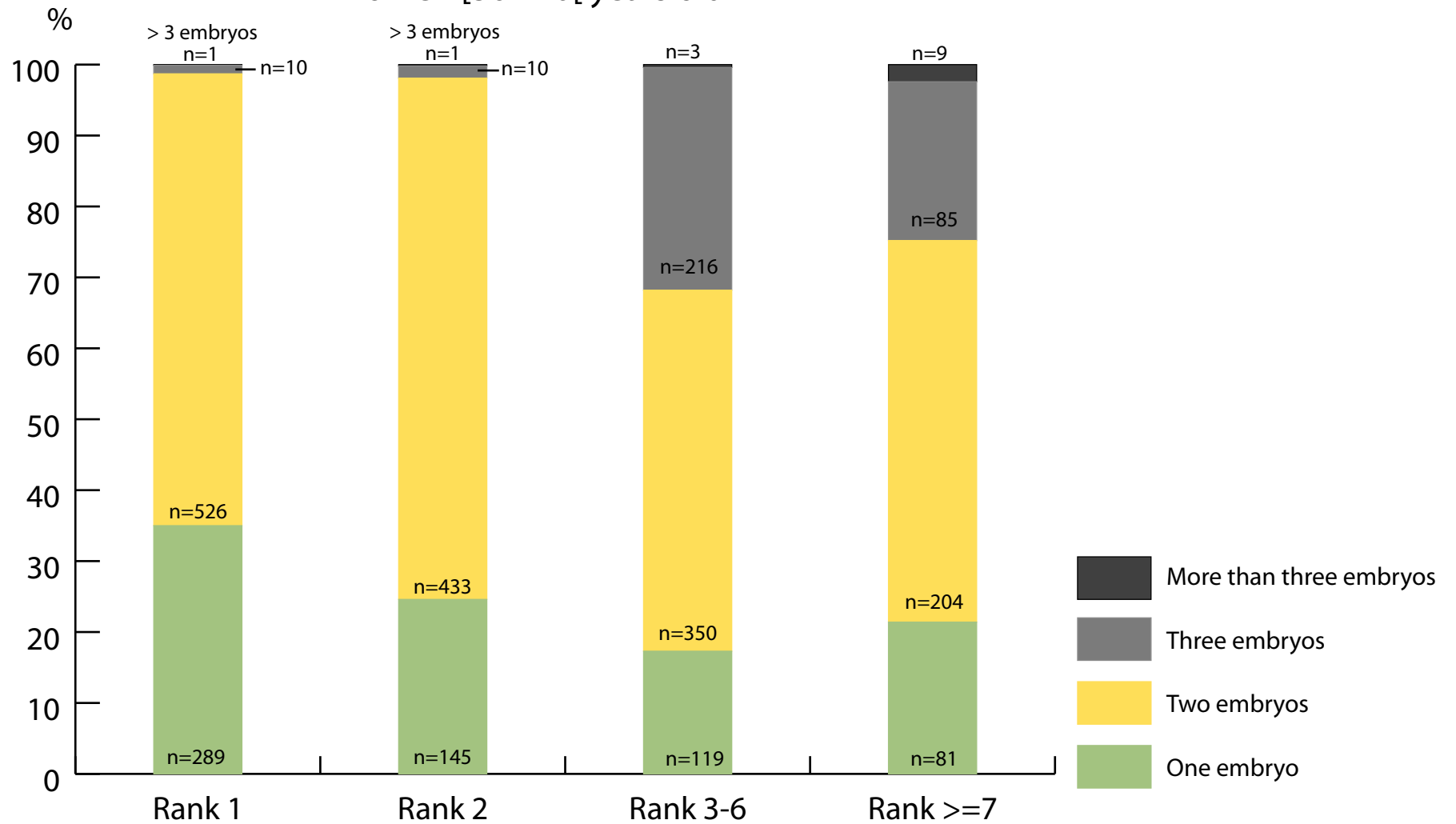


	<b>With social security</b>	<b>Without so- cial security</b>	<b><i>Total</i></b>
n° of cycles	12793	2809	<i>15602</i>
n° of transfers	11522	2424	<i>13946</i>
n° of embryos transferred			
1	5886	792	<i>6678</i>
2	4838	1178	<i>6016</i>
3	683	346	<i>1029</i>
> 3	93	98	<i>191</i>

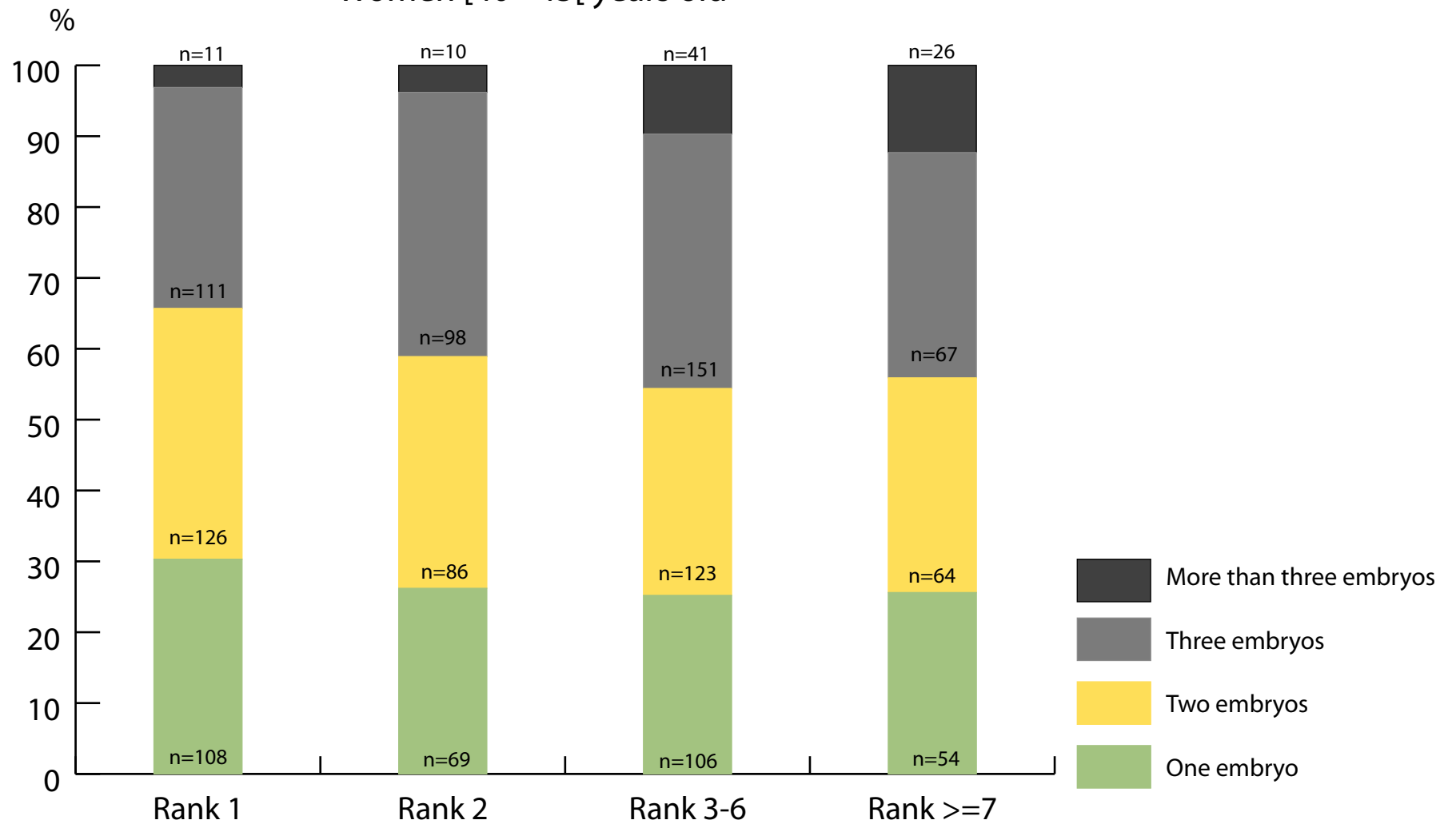
## Embryo(s) Transferred Women <36 years old



## Embryo(s) Transferred Women [36 - 40[ years old



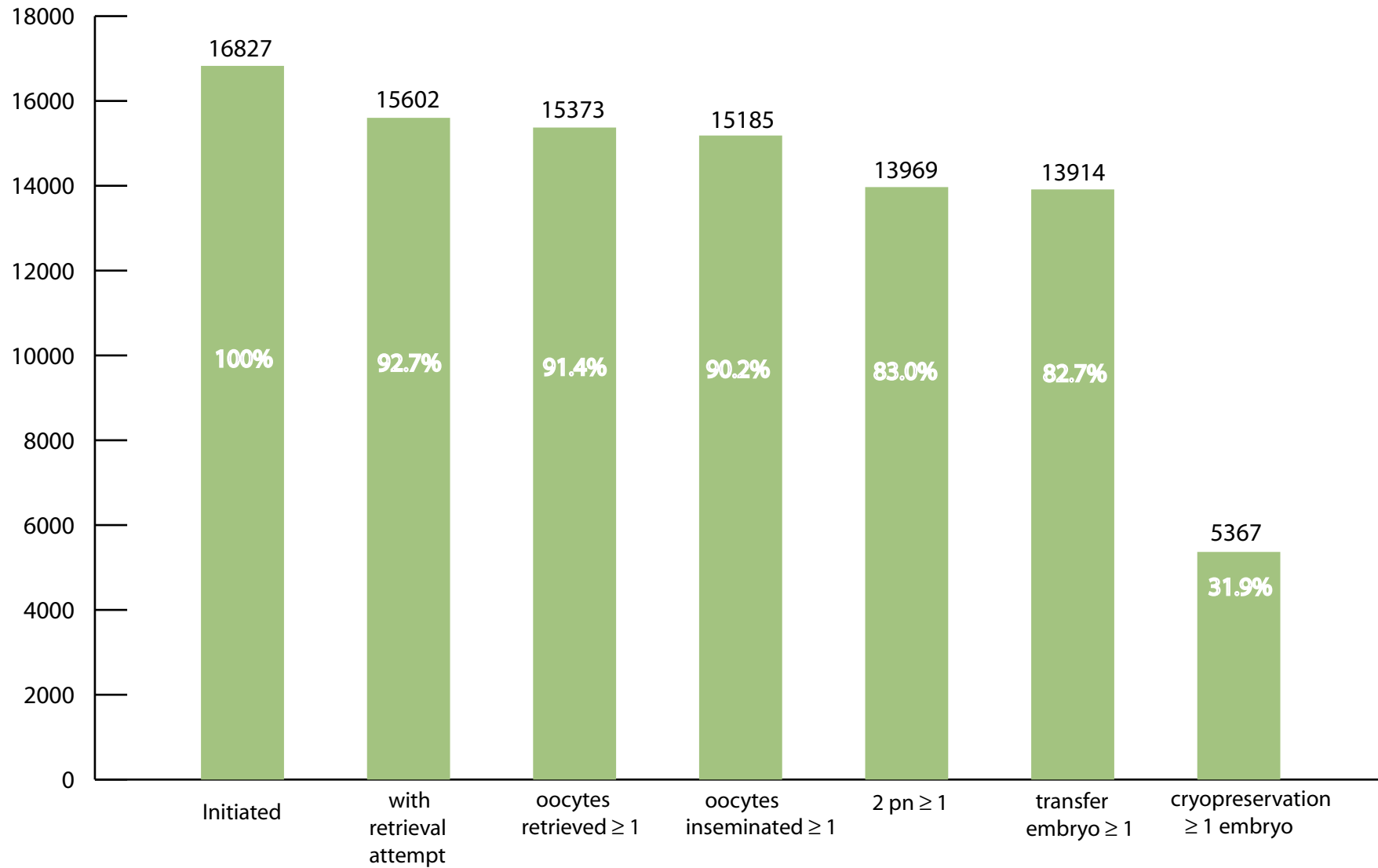
## Embryo(s) Transferred Women [40 - 43[ years old



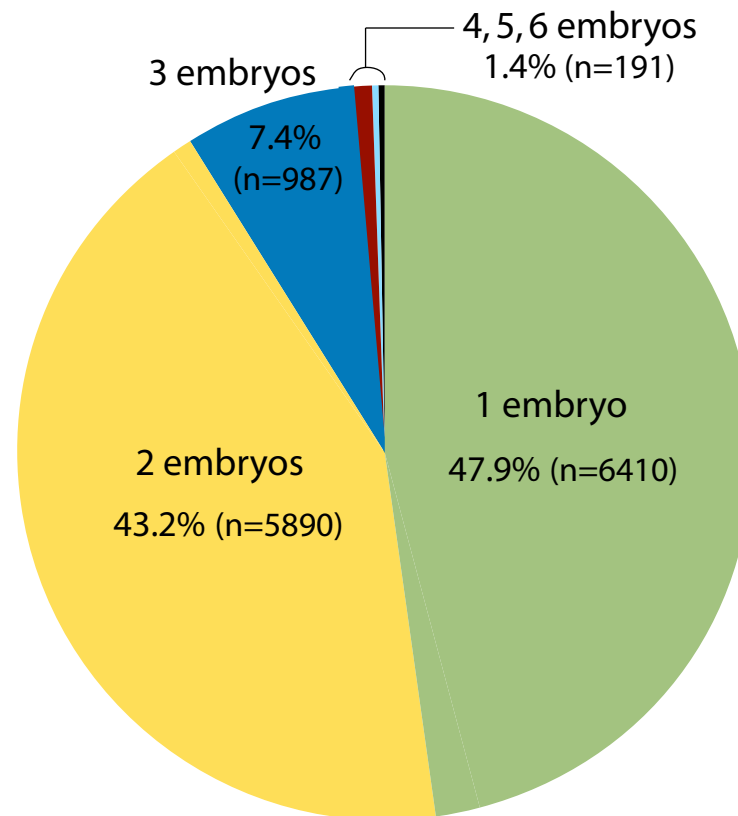
## Laboratory Data

	<b>Oocytes retrieved</b>	<b>Oocytes inseminated (IVF, ICSI or Mixed)</b>	<b>2 PN oocytes</b>	<b>Transferred embryos</b>	<b>Cryopreserved embryos</b>
<b>n</b>	154575	135003	84099	22626	21212
<b>%</b>	100%	87.3%	54.4%	14.6%	13.7%
<b>per cycle</b>	9.9	8.9	5.5	1.6	1.4

## Summary Pick-up Cycles



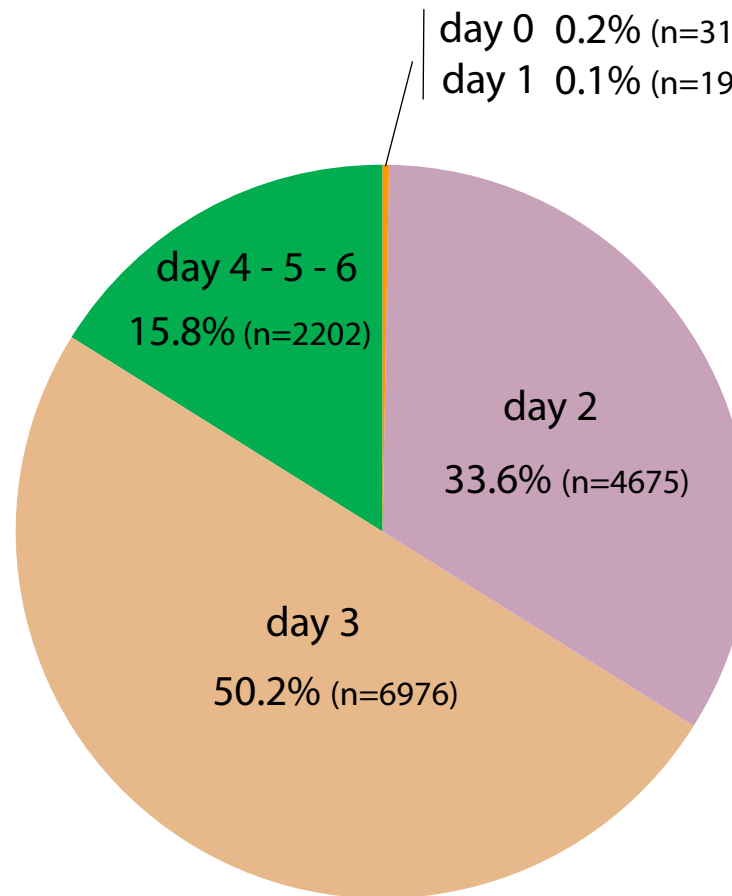
## Distribution of Embryo Transfers



<b>Causes of No Transfer (n=1618)</b>		
	n	%
No oocyte	275	13.6
No sperm	153	7.6
No embryo available	1120	55.4
OHSS risk	149	7.4
Other	323	16.0
<i>Total*</i>	<i>2020*</i>	<i>100.0</i>
<i>* total exceeds 1618 because some subjects have more than one reason for no transfer</i>		



## Day of Embryos Transfers



<b>Cycles with Cryopreservation</b>		
Number of cycles	5364	
Number of embryos cryopreserved	21203	
Mean number of embryos cryopreserved per cryopreservation procedure	3.9	
Stages of the cryopreserved embryos	n	%
2 PN	698	3.3
Cleaved	17349	81.8
Blastocysts	3156	14.9
Percent freezing of non transferred embryos (%)	33.9	

## Number of Clinical Pregnancies

	< 36 years old					[36 - 40 [ years old					[40 - 43 [ years old				
	Rank 1	Rank 2	Ranks 3 - 6	Rank ≥ 7	Total	Rank 1	Rank 2	Ranks 3 - 6	Rank ≥ 7	Total	Rank 1	Rank 2	Ranks 3 - 6	Rank ≥ 7	Total
no of ET <sup>1</sup>	3758	2269	2431	567	9025	828	590	690	380	2488	356	263	422	211	1252
hCG +	1401	817	833	249	3300	296	177	214	135	822	74	50	88	62	274
Percent of hCG + per ET <sup>1</sup>	37.3%	36.0%	34.3%	43.9%	36.6%	35.7%	30.0%	31.0%	35.5%	33.0%	20.8%	19.0%	20.9%	29.4%	21.9%
One FHB <sup>2</sup>	1067	522	444	111	2144	164	104	118	46	432	55	30	43	22	150
Two FHB	16	99	149	43	307	43	29	26	21	119	1	3	6	6	16
Three FHB	2	2	3	3	10	1	0	2	2	5	3	1	0	1	5
Total	1085	623	596	157	2461	208	133	146	69	556	59	34	49	29	171
Clinical Pregnancy <sup>3</sup> Rate per ET <sup>1</sup> (in %)	28.8%	27.5%	24.5%	27.5%	27.2%	25.1%	22.5%	21.2%	18.2%	22.3%	16.6%	12.2%	11.6%	13.7%	13.3%

## Number of Deliveries

	< 36 years old					[36 - 40 [ years old					[40 - 43 [ years old				
	Rank 1	Rank 2	Ranks 3 - 6	Rank ≥ 7	Total	Rank 1	Rank 2	Ranks 3 - 6	Rank ≥ 7	Total	Rank 1	Rank 2	Ranks 3 - 6	Rank ≥ 7	Total
Singleton	887	463	368	111	1829	140	80	98	43	361	28	19	33	22	102
Twins	16	67	109	39	231	33	18	18	20	89	1	3	3	4	11
Triplets	1	1	3	2	7	1	0	0	2	3	1	0	0	1	2
Total	904	531	480	152	2067	174	98	116	65	453	30	22	36	27	115
Delivery Rate per ET <sup>1</sup> (in %)	24.1%	23.4%	19.7%	26.8%	22.9%	21.0%	16.6%	16.8%	17.1%	18.2%	8.4%	8.4%	8.5%	12.8%	9.2%

<sup>1</sup> ET = Embryo Transfer Cycle

<sup>2</sup> abbrev. for Fetal Heart Beat

<sup>3</sup> Clinical Pregnancy is defined by the presence of FHB seen on ultrasonography

### Number of Clinical Pregnancies

	≥ 43 years old					<i>All ranks &amp; all ages</i>
	Rank 1	Rank 2	Ranks 3 - 6	Rank ≥ 7	Total	
no of ET <sup>1</sup>	7	4	2	135	148	<b>12913</b>
hCG +	0	0	0	17	17	<b>4413</b>
Percent of hCG + per ET <sup>1</sup>	0%	0%	0%	12.6%	11.5%	<b>34.2%</b>
One FHB <sup>2</sup>	0	0	0	7	7	<b>2733</b>
Two FHB	0	0	0	1	1	<b>443</b>
Three FHB	0	0	0	0	0	<b>20</b>
<i>Total</i>	0	0	0	8	8	<b>3196</b>
Clinical Pregnancy <sup>3</sup> Rate per ET <sup>1</sup> (in %)	0%	0%	0%	5.9%	5.4%	<b>24.7%</b>

### Number of Deliveries

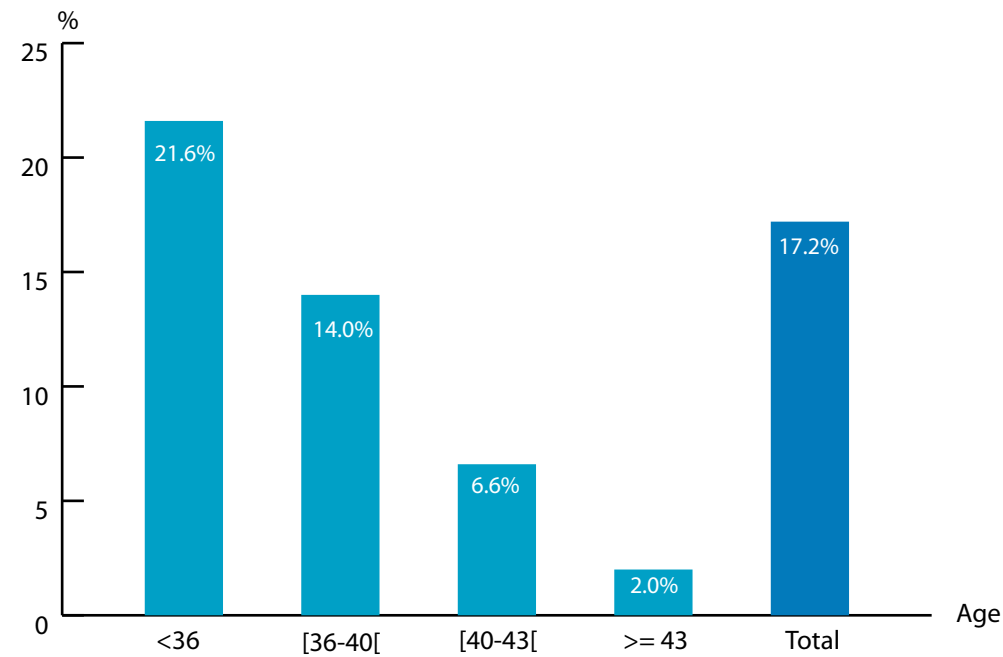
	≥ 43 years old					<i>All ranks &amp; all ages</i>
	Rank 1	Rank 2	Ranks 3 - 6	Rank ≥ 7	Total	
Singleton	0	0	0	5	5	<b>2297</b>
Twins	0	0	0	0	0	<b>331</b>
Triplets	0	0	0	0	0	<b>12</b>
<i>Total</i>	0	0	0	0	5	<b>2640</b>
Delivery Rate per ET <sup>1</sup> (in %)	0%	0%	0%	3.7%	3.4%	<b>20.4%</b>

<sup>1</sup> ET = Embryo Transfer Cycle

<sup>2</sup> abbrev. for Fetal Heart Beat

<sup>3</sup> Clinical Pregnancy is defined by the presence of FHB seen on ultrasonography

## Clinical Implantation Rate <sup>(1)</sup> per Transferred Embryo (in%) According to Age

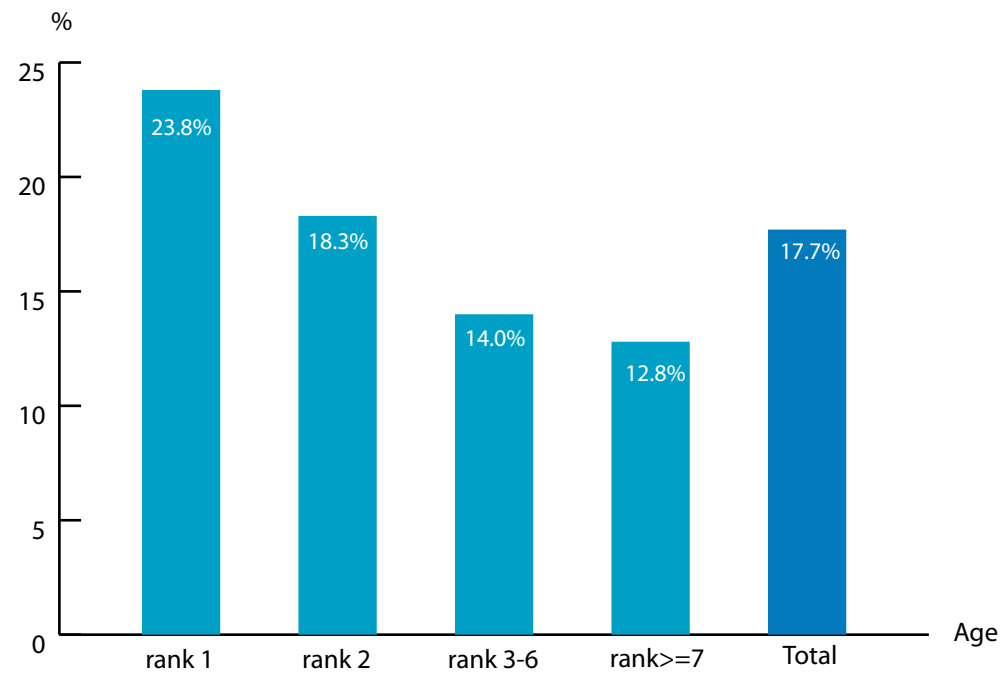


	< 36 years old	[36 - 40 [ years old	[40 - 43 [ years old	≥ 43 years old	<i>All ages</i>
Sum of FHB <sup>2</sup>	2953	727	211	11	<b>3902</b>
Sum of embryos transferred	13650	5207	3212	557	<b>22626</b>
Clinical implantation rate per transferred embryo (in %)	21.6%	14.0%	6.6%	2.0%	<b>17.2%</b>

(1) the implantation rate was defined as the number of clinical pregnancies (presence of fetal heart beat detected by ultrasonography) divided by the number of embryos transferred

(2) FHB is abbrev. for Fetal Heart Beat

## Clinical Implantation Rate <sup>(1)</sup> per Transferred Embryo (in%) According to Rank

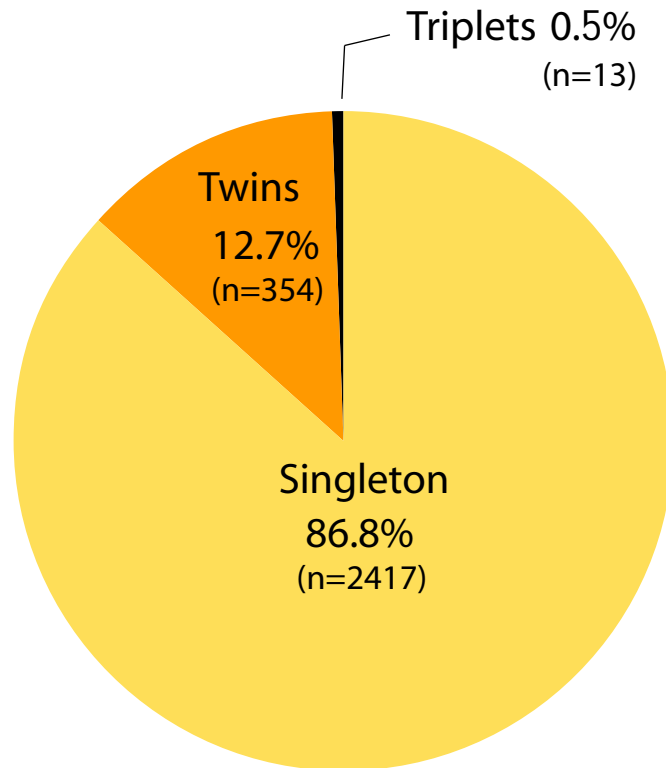


	Rank 1	Rank 2	Rank 3-6	Rank ≥ 7	All ranks
Sum of FHB <sup>2</sup>	1422	923	979	341	<b>3665</b>
Sum of embryos transferred	5937	5053	6969	2662	<b>20657</b>
Clinical implantation rate per transferred embryo (in %)	23.8%	18.3%	14.0%	12.8%	<b>17.7%</b>

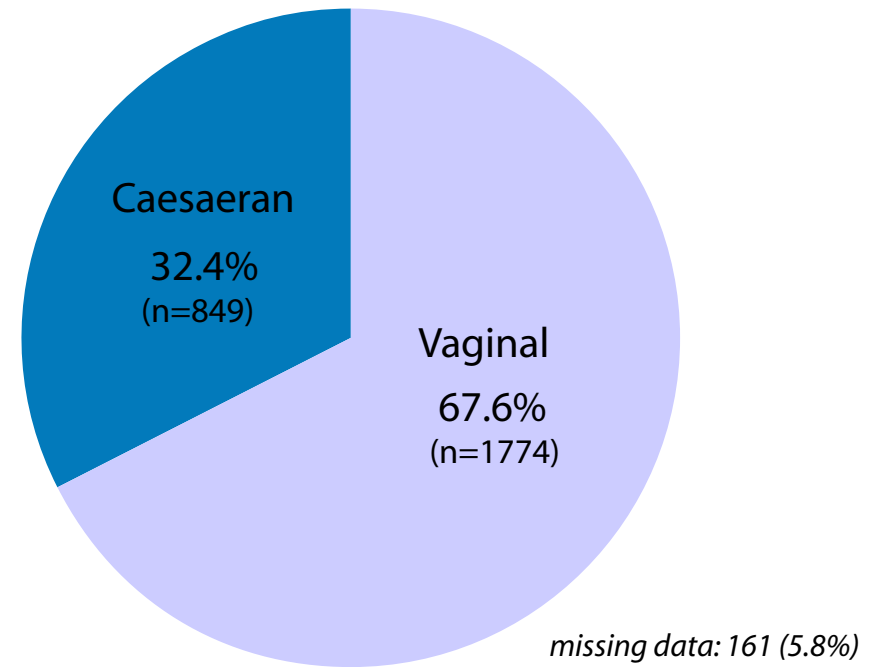
(1) the implantation rate was defined as the number of clinical pregnancies (presence of fetal heart beat detected by ultrasonography) divided by the number of embryos transferred

(2) FHB is abbrev. for Fetal Heart Beat

## Deliveries



## Type of Deliveries



<b>Deliveries: Sex of Babies</b>		
Male	1545	48.9%
Female	1566	49.6%
Unknown	49	1.6%
<i>Total</i>	<i>3160</i>	<i>100%</i>

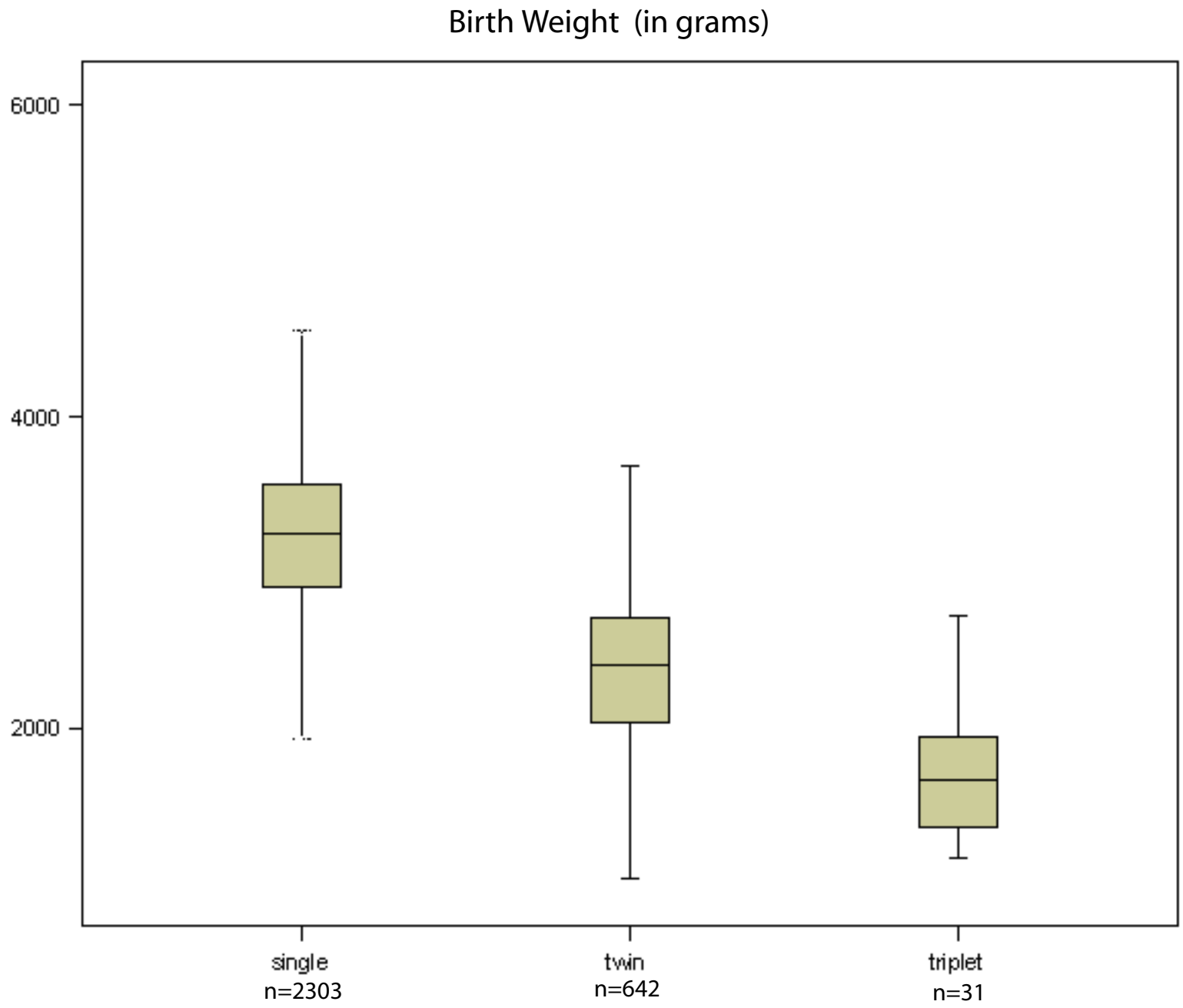
*missing data: 4 (0.1%)*

	<b>n</b>	<b>Birthweight Mean in grams (<math>\pm</math>S.D.)</b>	<b>n</b>	<b>Gestational age at delivery Mean in weeks (<math>\pm</math>S.D.)</b>
Singletons	2303	3220 ( $\pm$ 552)	2290	38.6 ( $\pm$ 2.5)
Twins	642	2351 ( $\pm$ 539)	690	35.3 ( $\pm$ 3.4)
Triplets	31	1732 ( $\pm$ 451)	39	31.4 ( $\pm$ 3.3)

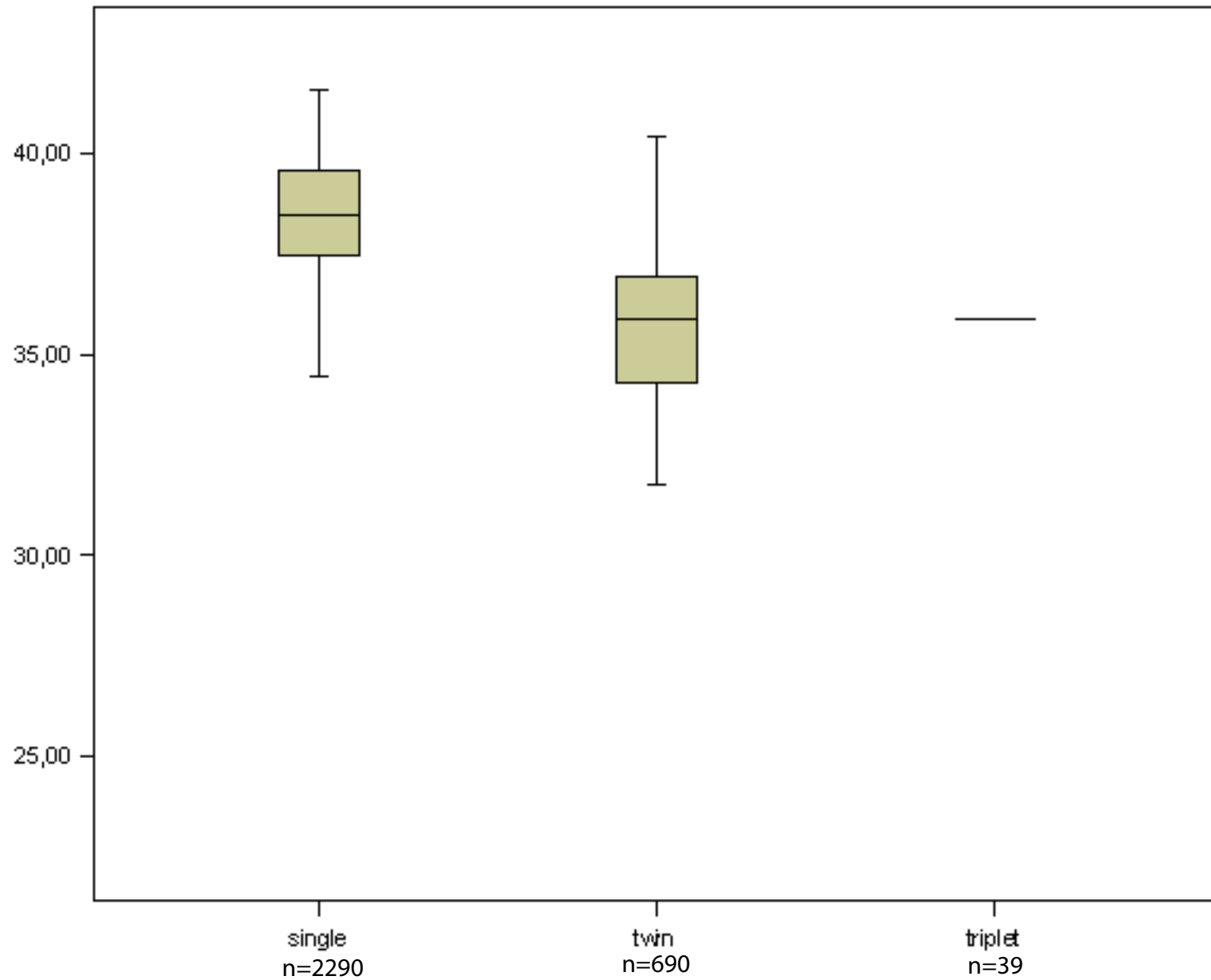
*missing data: 188 (5.9%)*

*missing data: 145 (4.6%)*





## Gestational Age (in weeks)



## Prevalence of Preterm birth

Duration of Gestation (all babies)		
< 32 weeks	166	5.5%
[32-37[ weeks	570	18.9%
≥ 37 weeks	2283	75.6%
<i>Total</i>	<i>3019</i>	<i>100%</i>

missing data: 145 (4.6%)



## Duration of Gestation

	Singletons		Twins	
< 32 weeks	51	2.2%	94	13.6%
[32-37[ weeks	247	10.8%	308	44.6%
≥ 37 weeks	1992	87.0%	288	41.7%
<i>Total</i>	<i>2290</i>	<i>100%</i>	<i>690</i>	<i>100%</i>

## Prevalence of Low Birthweight

Birthweight (all babies)		
< 1500 grams	91	3.1%
[1500-2500[ grams	498	16.7%
≥ 2500 grams	2389	80.2%
<i>Total</i>	<i>2978</i>	<i>100%</i>

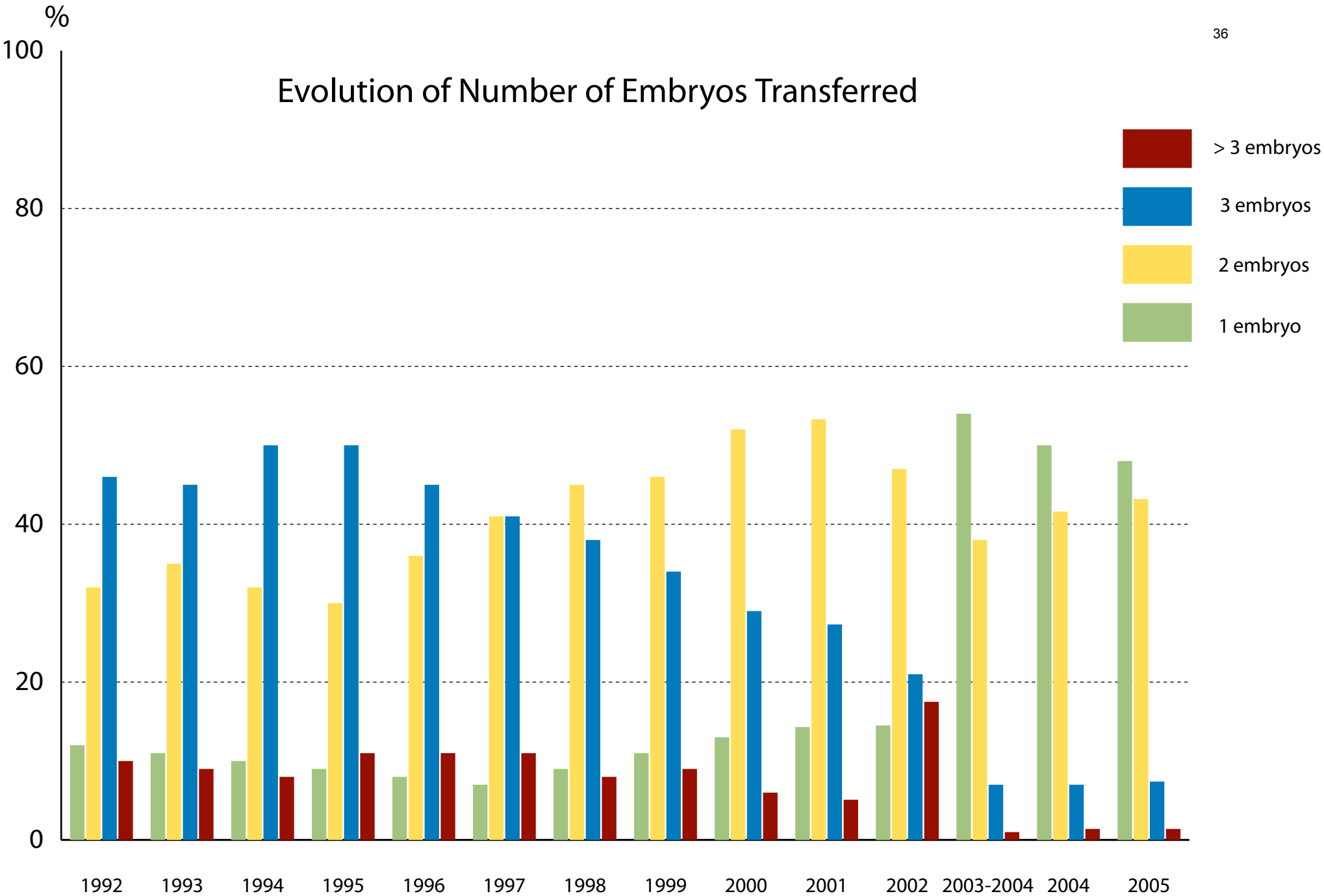
missing data: 186 (5.9%)

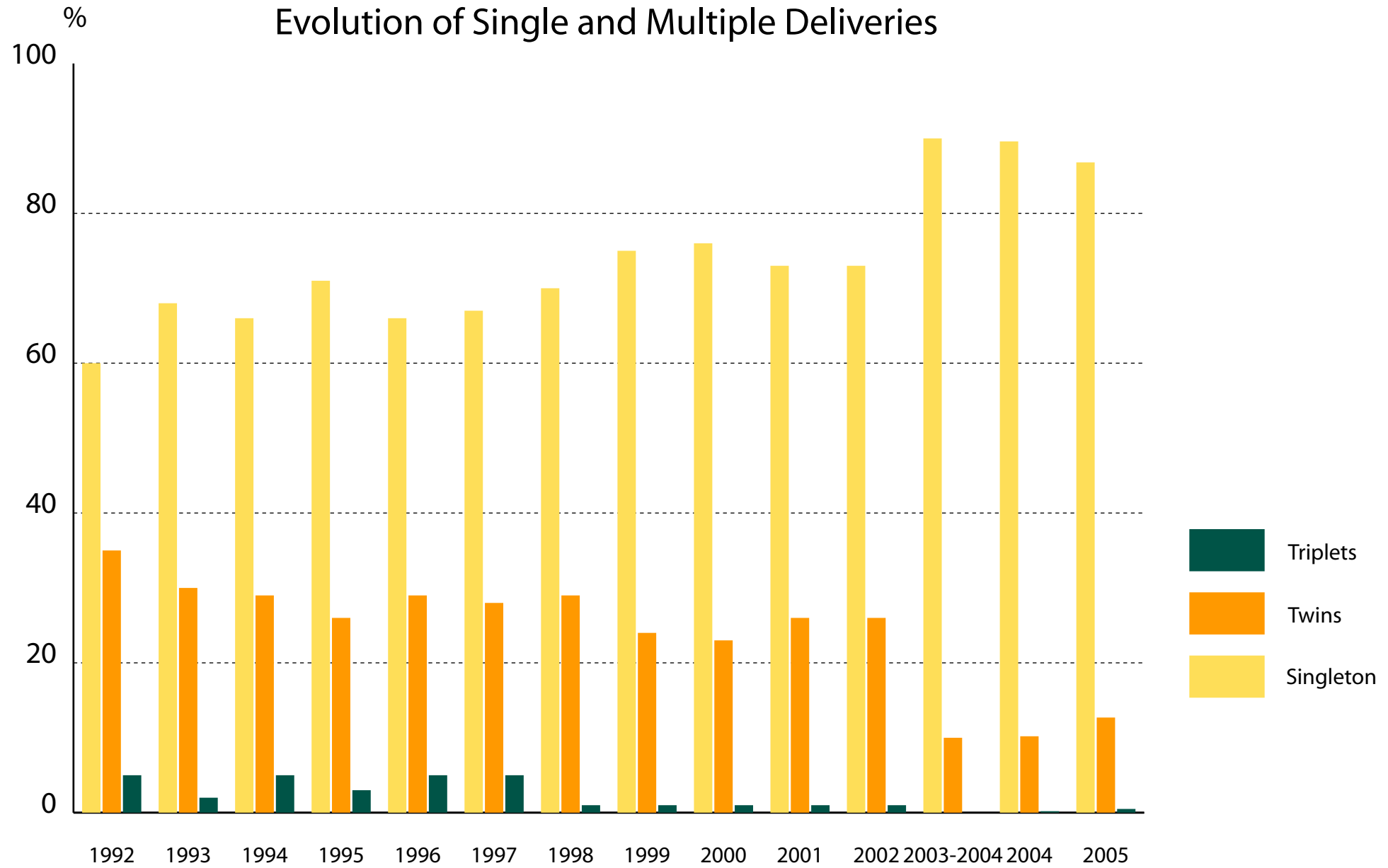


## Birthweight

	Singletons		Twins	
< 1500 grams	25	1.1%	56	8.7%
[1500-2500[ grams	159	6.9%	322	50.1%
≥ 2500 grams	2120	92.0%	265	41.2%
<i>Total</i>	<i>2304</i>	<i>100%</i>	<i>643</i>	<i>100%</i>

# Evolution of Number of Embryos Transferred





# CRYOCYCLES PART

<b>Initiated cryocycles</b>	n= 5854
<b>Cancelled cryocycles</b>	n= 267 (4.7%)
<b>Thawing cryocycles</b>	n= 5587
<b>Thawing cycles with transfer</b>	n= 4486 (80.3%)

<b>Number of Embryos Replaced</b>		
One embryo	1602	36.0%
Two embryos	2710	60.9%
Three embryos	120	2.7%
Four embryos & more	18	0.4%
Total number of embryos replaced	7460	

Pituitary Inhibition		
Yes	209	5.0%
No	4008	95.0%

*missing data: 1370 (24.5%)*

Stimulation		
Clomifene	832	15.6%
Gonadotrophins	396	7.4%
Substitution	1800	33.8%
None	2291	43.1%

*missing data: 255 (4.6%)*



### Number of Clinical Pregnancies

	< 36 years old	[36 - 40 [ years old	[40 - 43 [ years old	≥ 43 years old	<i>All ranks &amp; all ages</i>
no of ET <sup>1</sup>	3411	721	271	83	<b>4486</b>
hCG +	786	156	42	13	<b>997</b>
Percent of hCG + per ET <sup>1</sup>	23.0%	21.6%	15.5%	15.7%	<b>22.2%</b>
One FHB <sup>2</sup>	456	89	25	5	<b>575</b>
Two FHB	84	11	5	1	<b>101</b>
Three FHB	1	1	0	0	<b>2</b>
<i>Total</i>	<i>541</i>	<i>101</i>	<i>30</i>	<i>6</i>	<i>678</i>
Clinical Pregnancy <sup>3</sup> Rate per ET <sup>1</sup> (in %)	15.9%	14.0%	11.1%	7.2%	<b>15.1%</b>

### Number of Deliveries

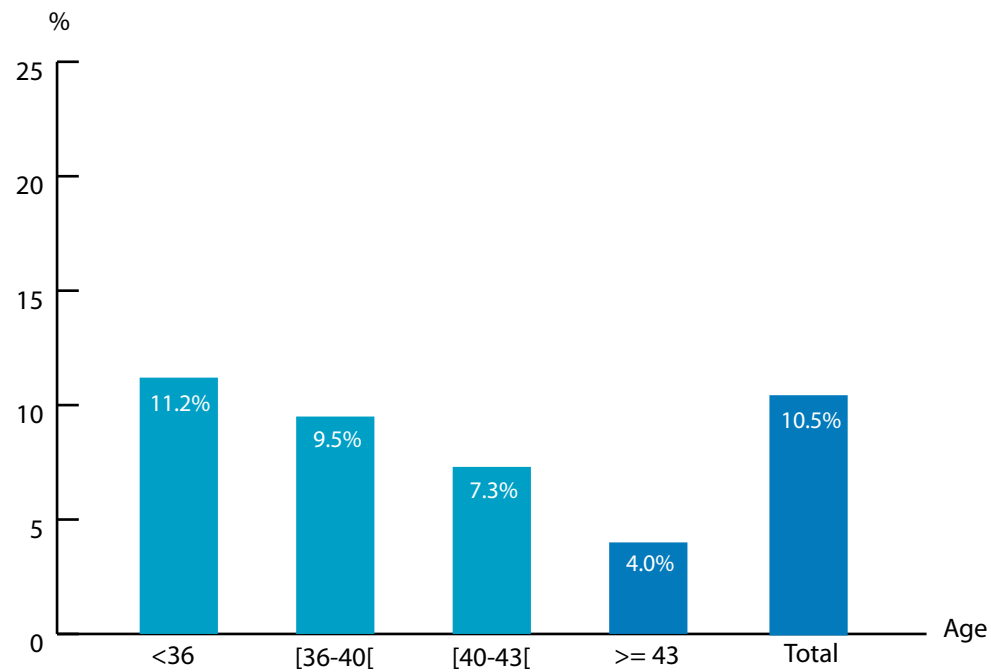
	< 36 years old	[36 - 40 [ years old	[40 - 43 [ years old	≥ 43 years old	<i>All ranks &amp; all ages</i>
Singleton	382	78	18	5	<b>483</b>
Twins	65	8	4	1	<b>78</b>
Triplets	0	1	0	0	<b>1</b>
<i>Total</i>	<i>447</i>	<i>87</i>	<i>22</i>	<i>6</i>	<i>562</i>
Delivery Rate per ET <sup>1</sup> (in %)	13.1%	12.1%	8.1%	7.2%	<b>12.5%</b>

<sup>1</sup> ET = Embryo Transfer Cycle

<sup>2</sup> abbrev. for Fetal Heart Beat

<sup>3</sup> Clinical Pregnancy is defined by the presence of FHB seen on ultrasonography

## Clinical Implantation Rate <sup>(1)</sup> per Transferred Embryo (in%) According to Age

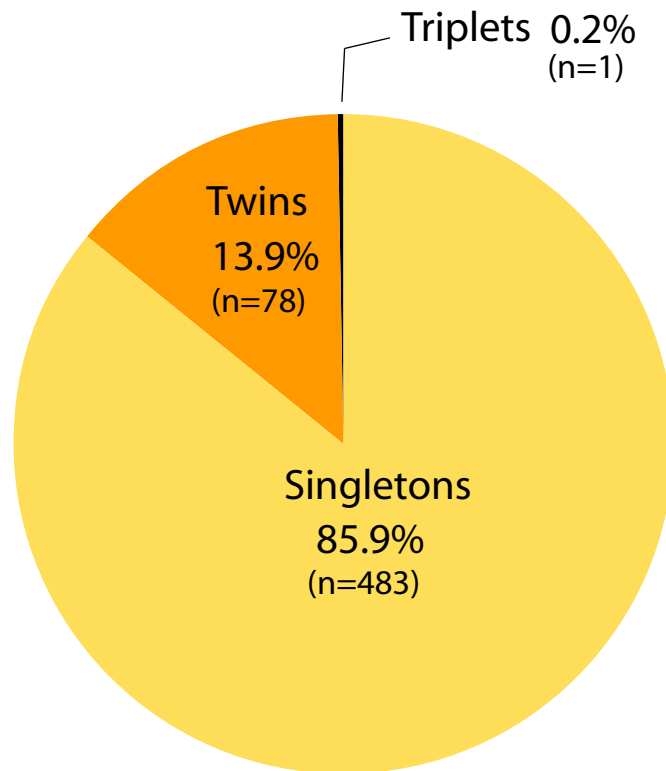


	< 36 years old	[36 - 40 [ years old	[40 - 43 [ years old	≥ 43 years old	<i>All ages</i>
Sum of FHB <sup>2</sup>	627	114	35	7	<b>783</b>
Sum of embryos transferred	5609	1198	480	173	<b>7460</b>
Clinical implantation rate per transferred embryo (in %)	11.2%	9.5%	7.3%	4.0%	<b>10.5%</b>

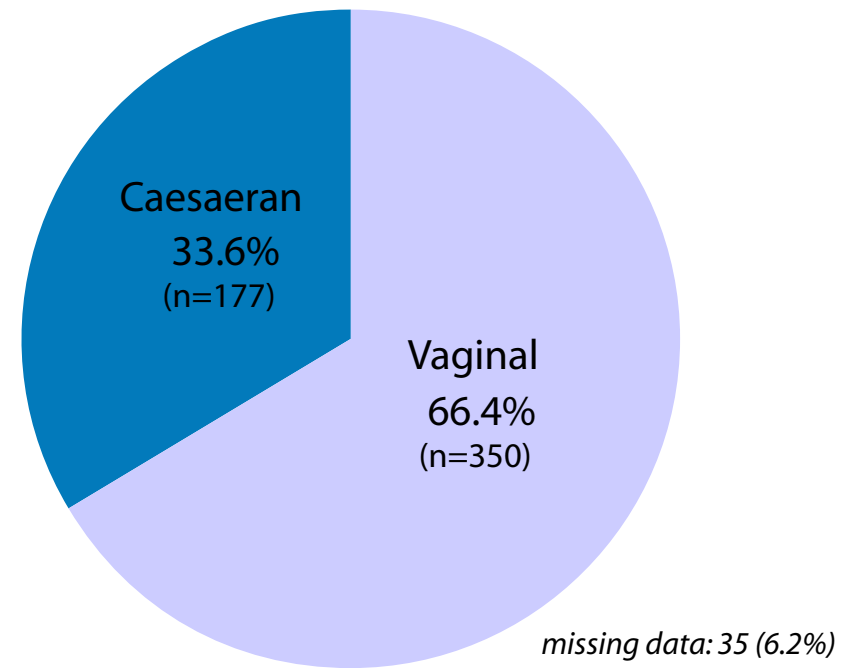
(1) the implantation rate was defined as the number of clinical pregnancies (presence of fetal heart beat detected by ultrasonography) divided by the number of embryos transferred

(2) FHB is abbrev. for Fetal Heart Beat

## Deliveries



## Type of Deliveries



<b>Deliveries: Sex of Babies</b>		
Male	311	48.4%
Female	319	49.7%
Unknown	12	1.9%
<i>Total</i>	<i>642</i>	<i>100%</i>

missing data: none

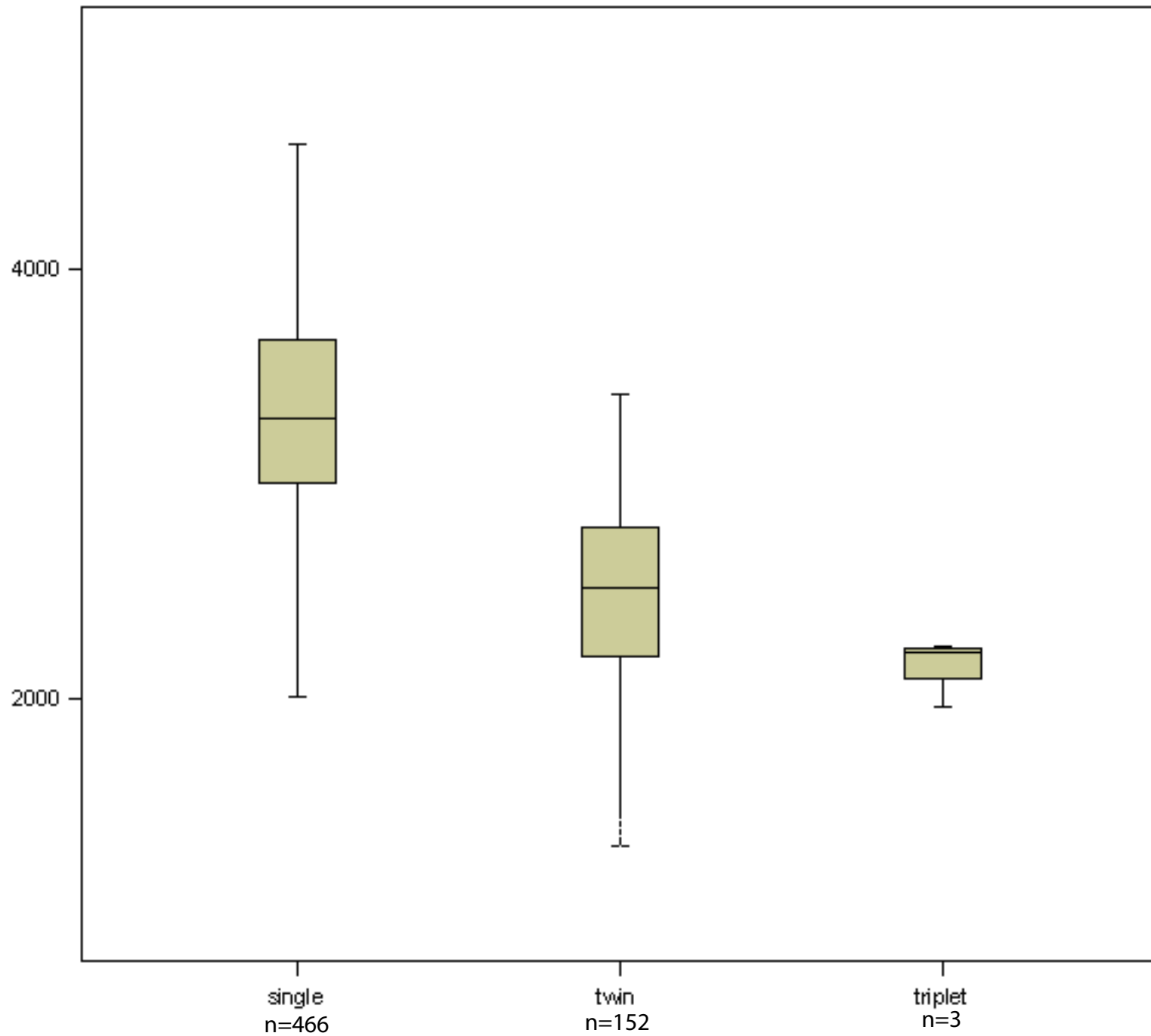
	<b>n</b>	<b>Birthweight Mean in grams (<math>\pm</math>S.D.)</b>	<b>n</b>	<b>Gestational age at delivery Mean in weeks (<math>\pm</math>S.D.)</b>
Singletons	466	3307 ( $\pm$ 538)	400	38.3 ( $\pm$ 2.1)
Twins	152	2524 ( $\pm$ 482)	128	35.7 ( $\pm$ 1.8)
Triplets	3	2140 ( $\pm$ 156)	3	35.9

missing data: 21 (3.3%)

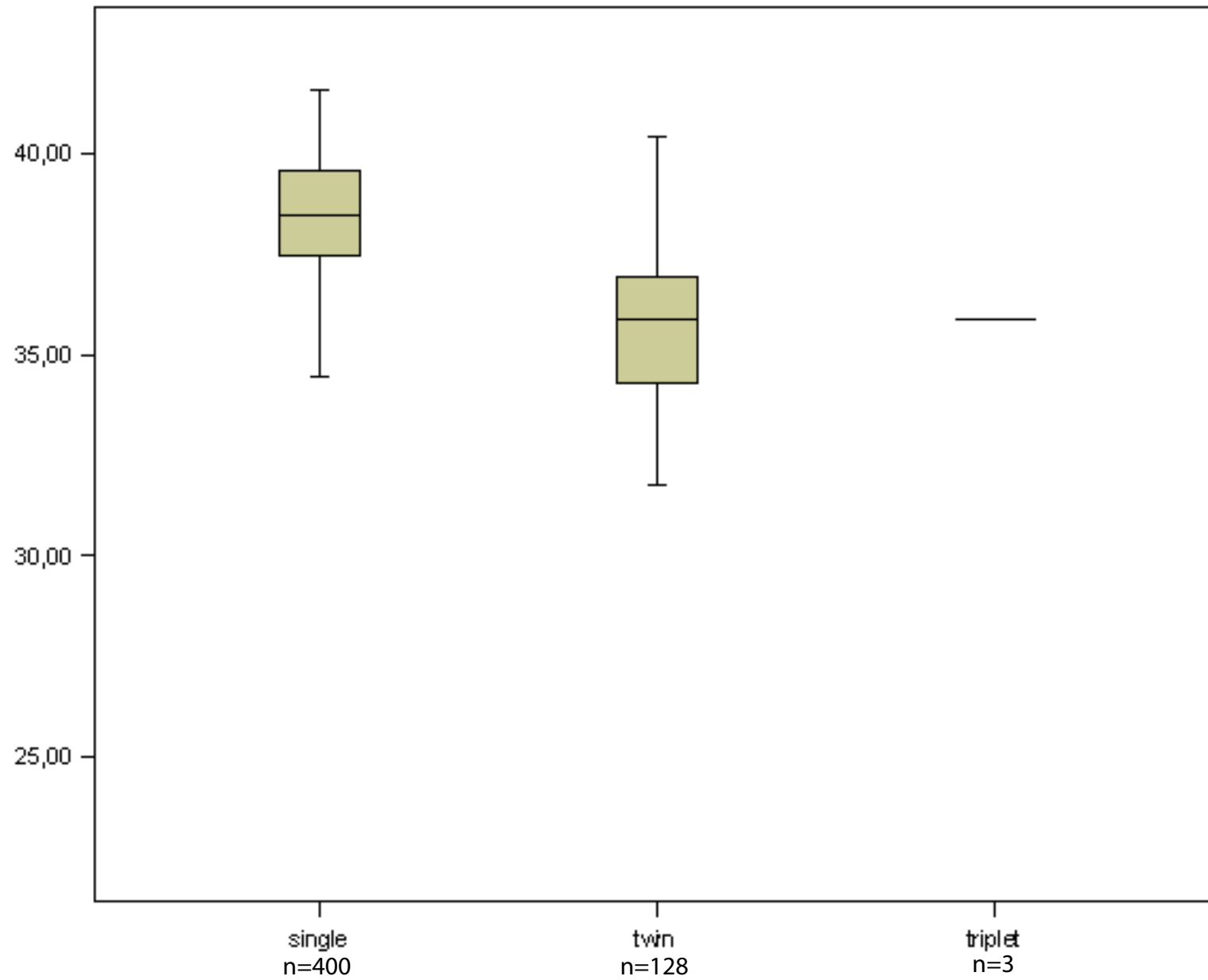
missing data: 111 (17.3%)

## Birth Weight (in grams)

45



## Gestational Age (in weeks)



## Prevalence of Preterm birth

Duration of Gestation (all babies)		
< 32 weeks	10	1.9%
[32-37[ weeks	163	30.7%
≥ 37 weeks	358	67.4%
<i>Total</i>	<i>531</i>	<i>100%</i>

missing data: 111 (17.3%)



## Duration of Gestation

	Singletons		Twins	
< 32 weeks	6	1.5%	4	3.1%
[32-37[ weeks	68	17.0%	92	71.9%
≥ 37 weeks	326	81.5%	32	25.0%
<i>Total</i>	<i>400</i>	<i>100%</i>	<i>128</i>	<i>100%</i>

## Prevalence of Low Birthweight

Birthweight (all babies)		
< 1500 grams	5	0.8%
[1500-2500[ grams	96	15.5%
≥ 2500 grams	520	83.7%
<i>Total</i>	<i>621</i>	<i>100%</i>

missing data: 21 (3.3%)



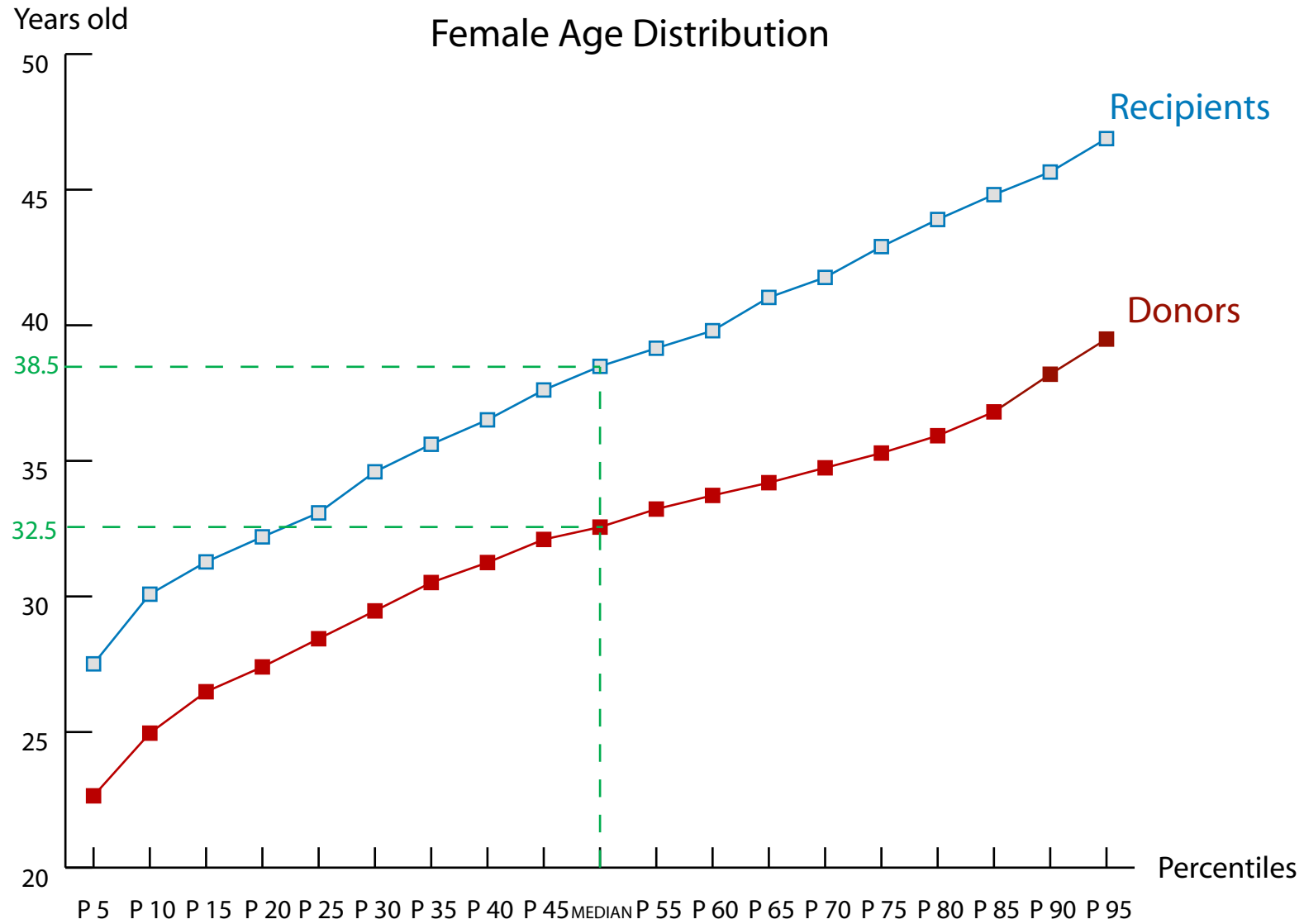
## Birthweight

	Singletons		Twins	
< 1500 grams	2	0.4%	3	2.0%
[1500-2500[ grams	23	4.9%	70	46.1%
≥ 2500 grams	441	94.6%	79	52.0%
<i>Total</i>	<i>466</i>	<i>100%</i>	<i>152</i>	<i>100%</i>

## RECIPIENTS & DONORS PART

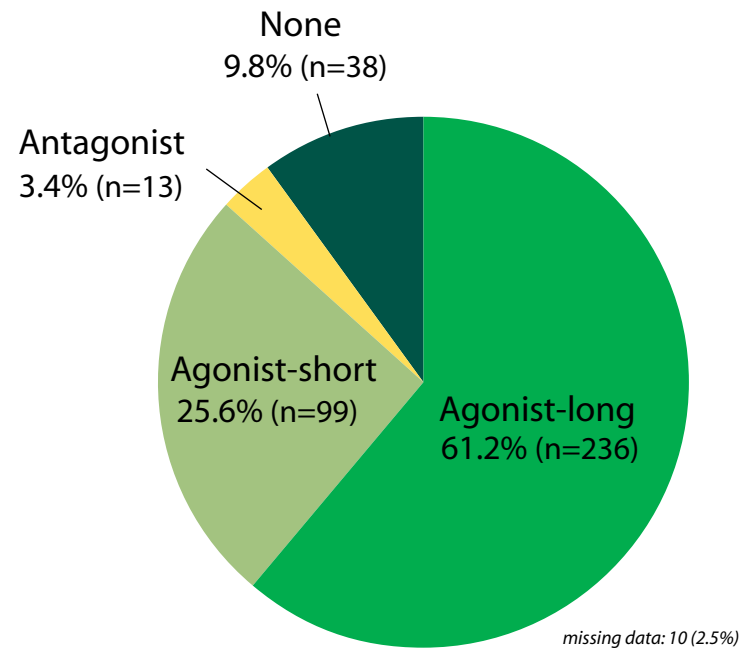


<b>DONORS</b>	n=	<b>RECIPIENTS</b>	n=
<b>Initiated Cycles</b>	441	<b>Initiated Cycles</b>	632
<b>Cancelled Cycles</b>	45	<b>Cancelled Cycles</b>	80
<b>Retrieval Cycles</b>	396	<b>Cycles with Replacement</b>	552
<b>Total Amount of Oocytes retrieved</b>	3958		

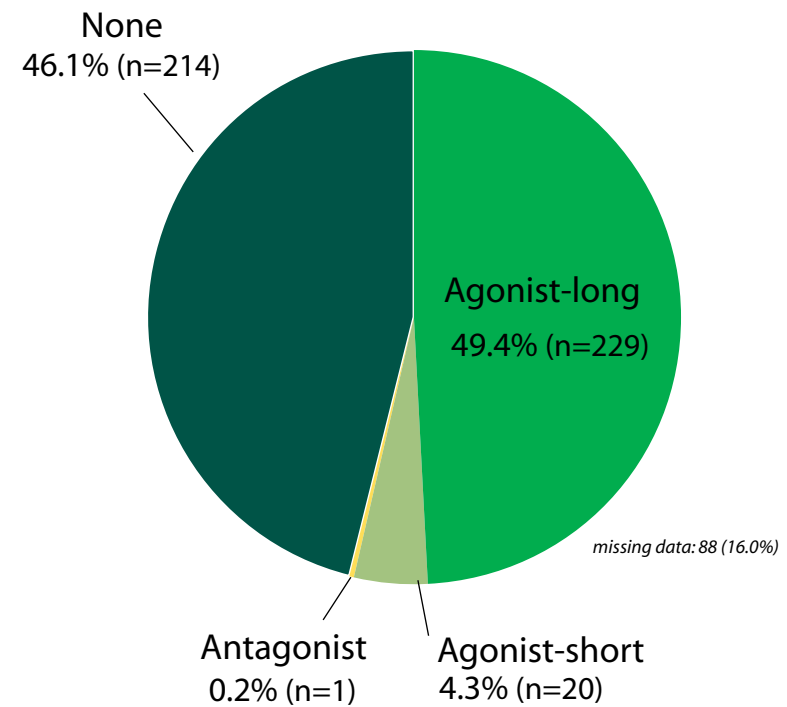


## PITUITARY INHIBITION

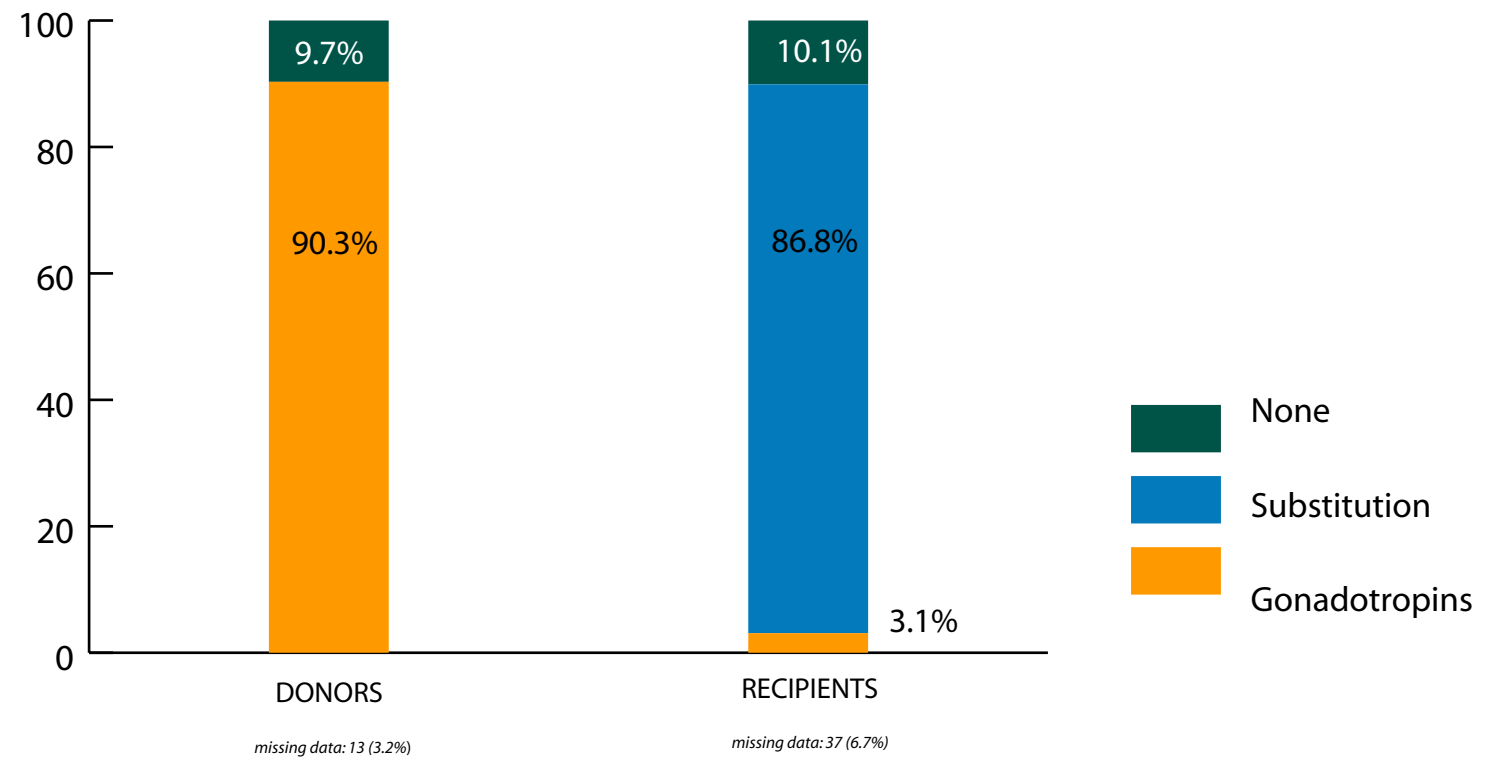
DONORS

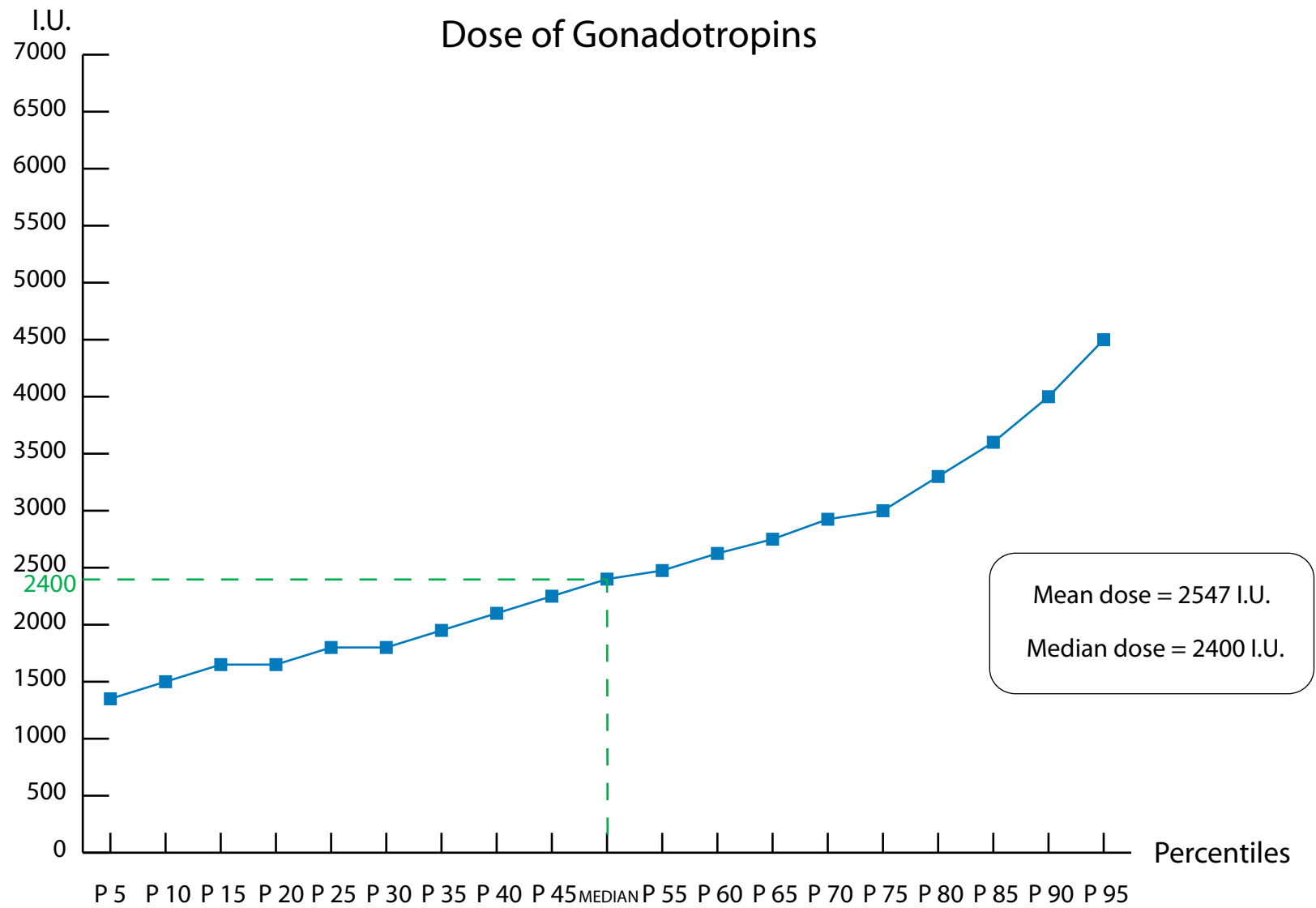


RECIPIENTS



## Stimulation Protocol





REPORT OF THE COLLEGE OF PHYSICIANS  
FOR ASSISTED REPRODUCTION THERAPY

BELGIUM 2005

*THIS REPORT WILL BE AVAILABLE AT  
[WWW.BELRAP.BE](http://WWW.BELRAP.BE)*