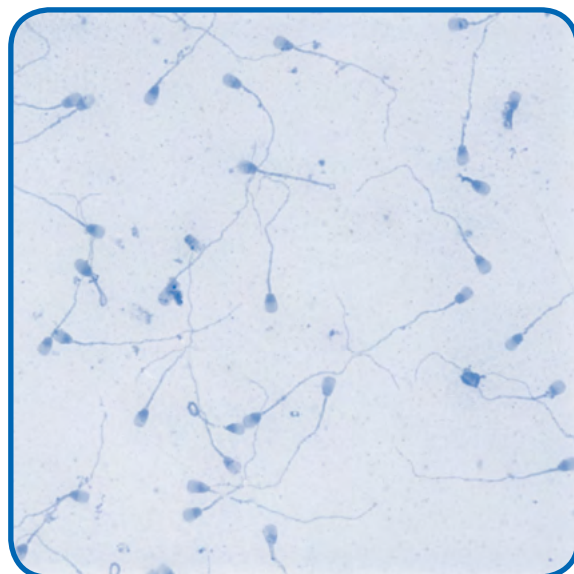


# SARA 2010



**SOUTH AFRICAN REGISTER OF  
ASSISTED REPRODUCTIVE TECHNIQUES**



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# INTRODUCTION



Dear Colleagues

Our Southern African Society of Reproductive Medicine and Gynaecological Endoscopy, SASREG, has achieved a great deal over the past few years. One of the most important projects that we launched was the national program to collect anonymous IVF data by SARA - the South African Register of Assisted Reproductive Techniques. SARA is chaired by Prof Silke Dyer, and we congratulate her and her team on a job well done!!

It is impossible to measure change without adequately defining the status quo. Our mission at SASREG, to implement new programs to improve fertility care in South Africa, must be done in conjunction with a national ART monitoring system to evaluate whether the desired effects are achieved. The first SARA publication, incorporating the 2009 IVF data, provided us with an understanding of the status quo in South Africa. It was the first time that an accurate count of IVF procedures and pregnancy rates had been done on a national level. We were also able to compare our South African data with the international ICMART data, and it was gratifying to see that we had achieved similar success rates.

We are now happy to announce the release of the 2<sup>nd</sup> SARA report containing the 2010 IVF data. Thank you to everyone who has contributed.

**Dr Paul le Roux**

SASREG President: 2011 - 2014



Dear Colleagues

It gives me great pleasure to introduce the 2<sup>nd</sup> report of the South African Registry of ART. I am particularly happy to welcome three new ART clinics as members of SARA bringing the total number of participating units in this report to 14. This number indicates that within a very short period of time SARA has gained acceptance and the support of the majority of ART clinics in South Africa. Undoubtedly annual reporting of ART procedures performed in South Africa is an important component as well as reflection of the quality of care that we render to our patients.

Our 1<sup>st</sup> report comprising 2009 data was well received by many stakeholders. The report was also published in the South African Medical Journal (Dyer and Kruger, S Afr Med J 2012; 102: 167-170), and all participating units were duly named and acknowledged. The publication brought our work, both in terms of actual ART performed and in terms of national anonymous ART data monitoring, to the attention of our colleagues within our discipline and profession. At an international level, our 1<sup>st</sup> report was welcomed by ICMART, the International Committee Monitoring ART, signalling, finally, the participation of sub-Saharan Africa in ART monitoring. Our 2009 data will be incorporated into the 2009 World Report in due course, and we will of course continue to submit our South African data going forward.

Our next challenge is to move on to more comprehensive reporting, including reporting data pertaining to patient safety, on-going pregnancies and live births. The SARA on-line programme is ready for use (<http://www.rla-online.cl/sara>), and staff of ART clinics around the country are familiarising themselves with the program at this moment in time. I truly hope that next year's report comprising 2011 procedures will show extended data submitted by at least some of the SARA member clinics.

Together we have come far in a relatively short period of time. My sincere gratitude goes to all participating clinical and laboratory directors and to each and every member of their team. Thank you for your trust, for allowing your data to be pooled, and for all the extra work that your SARA membership entails. I am grateful for the ongoing support from our SASREG committee, and I wish to commend Ms Virosha Basdeo and Mr Dudley Randall from our SASREG secretariat, representing Turner's Conferences, for their highly professional handling of all data and SARA requirements. Dr Fernando-Zegers Hochschild and his team of the Latin American Register continue to stand by us, giving selflessly of their time and their years of experience in ART monitoring, which is deeply appreciated. Last but not least I wish to thank all patients who underwent ART in 2009 for seeking our care, often under difficult personal circumstances.

**A/Prof Silke Dyer**

Chair: SASREG sub-committee ART Data Monitoring

# GENERAL

## COMMENTS

- The data presented on page 5 and 9 were reported by 14 centres.  
The data presented on page 10, 11 and 13 were reported by 13 centres.  
The data presented on page 12 and 14 were reported by 12 centres.
- If both IVF and ICSI were done in one cycle the cycle was captured according to which embryo(s) were transferred; if 'mixed' embryos were transferred (ie embryos from IVF and ICSI), the cycle was captured under ICSI.
- Embryo Transfers            Only fresh embryo transfers were captured
- Egg Donations               Aspirations and transfers were entered according to the age of the DONOR not the recipient.

## ABBREVIATIONS

- CPR                            Clinical Pregnancy Rate
- ET                              Embryo Transfer
- IVF                             In Vitro Fertilisation
- ICSI                            Intracytoplasmic Sperm Injection

## DEFINITIONS

- Aspirations                 The number of cycles resulting in attempted oocyte retrieval irrespective of whether oocytes were successfully retrieved or not.
- Clinical Pregnancy        Any pregnancy with clinical products of conception (ectopic, miscarriage, termination, birth) or ultrasound evidence of pregnancy (irrespective of presence of fetal heart); includes clinical miscarriage, ectopic pregnancy, missed abortion, viable ongoing pregnancy, birth (live or still birth); excludes biochemical pregnancy.

Note: all recorded pregnancies are clinical pregnancies only.

# PARTICIPATING ART CENTRES

14 CENTRES REPORTING

DISTRIBUTION OF CENTRES ACCORDING TO NUMBER OF ASPIRATIONS	
No. of Aspirations per Year	No. of Centres
< 50	1
50 - 100	2
101 - 200	3
201 - 350	2
351 - 500	0
> 500	6

# SARA: PARTICIPATING ART CENTRES

## BIOART

4 Park Lane, Parktown, Jhb

**Phone** 011 484 5119  
**Fax** 011 484 5180  
**Email** Aziza@bioartfertility.co.za  
**Website** www.bioartfertility.co.za  
**Clinicians** Dr MI Cassim, Dr YM Dasoo  
**Embryologists** Mrs Elsie Mcdonald, Ms Nasreen Bassa  
**Nurses** Sr Ruwaida Moola, Sr Beverly Gosani  
**Counsellors** Dr S Ebrahim

## CAPE FERTILITY CLINIC

209 Library Square, 1 Wilderness Road, Claremont 7708 - Cape Town

**Phone** 021 674 2088  
**Fax** 021 671 2709  
**Email** info@capefertilityclinic.co.za  
**Website** www.capefertilityclinic.co.za  
**Clinicians** Dr Paul le Roux, Dr Sulaiman Heylen, Dr Klaus Wiswedel, Dr Nomathamsanqa Matebese, Dr Razak Dhansay  
**Embryologists** Ms Kimenthra Raja, Ms Gloria Raidani, Mrs Zulaigha Williams, Mrs Hughlene Baker, Ms Kerith Ferreira, Ms Liezel Potgieter  
**Nurses** Sr Karin Schwenke, Sr Heidi Clark, Sr Liz Carter, Sr Di Davids, Sr Florence Rodrigues, Mrs Elaine Brenkman, Cyndi Nel, Jenny Loverock  
**Receptionists** Sonia Van Rooyen, Janine Pasquall, Nazeema Abrahams, Roshaan Sheldon, Desire Heyburgh, Jennifer Parrish  
**Counsellors** Ms L van der Westhuizen

## DRS AEVITAS INCORPORATED

Vincent Pallotti Hospital, Park Road, Pinelands - Cape Town

**Phone** 021 531 6999  
**Fax** 021 531 7919  
**Email** medici@aevitas.co.za  
**Website** www.aevitas.co.za  
**Clinicians** Dr JP Van der Merwe, Prof TF Kruger, Prof TI Siebert, Dr V Hulme  
**Embryologists** Dr ML Windt, Mr GM Tinney, Ms N Lans, Ms C Thwaites  
**Nurses** Sr S Botha, Sr T Fourie, Sr A Mans, Sr L Zonneveld

## DURBAN FERTILITY CLINIC

607 Kingsway Rd, Kingsway Hospital, Amanzimtoti, 4125 - KwaZulu Natal

**Phone** 031 904 3980  
**Fax** 031 904 3980  
**Email** sags@intekom.co.za, mahesh@mbhana.co.za, neville@durbanfertilityclinic.co.za  
**Clinicians** Dr Sagie Naidu, Dr Mahesh Bhana  
**Embryologists** Mr Neville S Moodley

## GENESIS REPRODUCTIVE CENTRE

Suite G15 Kloof Medi-Clinic, 511 Jochemus Street, Erasmus Kloof Ext 3, Pretoria - Gauteng

**Phone** 012 367 4378  
**Fax** 012 367 4379  
**Email** lourensjt@mweb.co.za, drabri@webmail.co.za  
**Clinicians** Dr Abri de Bruin, Dr Johan Pentz  
**Embryologists** Mr J Lourens

# SARA: PARTICIPATING ART CENTRES

## GYNOMED

Suite 11, Block B, Wilgeheuwel Hospital, Amplifier road, Honeydew,

**Phone** 011 796 1100

**Fax** 011 794 2987

**Email** info@gynomed.co.za

**Website** www.gynomed.co.za

**Clinicians** Dr HW Lindeque, Dr MVK Giesteira, Dr DS Schulz

**Embryologists** Ms Cecile Booyse, Ms Bianca Faber

**Nurses** Sr Sharon Uren, Sr Nicky Labuschagne

**Counsellors** Dr Kobus van Biljon (011 794 2159)

## MEDFEM CLINIC

Corner Peter Place and Nursery Road, 1st Floor, Bryanston - Gauteng

**Phone** 011 540 3440

**Fax** 011 463 1875 / 0866 521 977

**Email** ivflab@medfem.co.za

**Website** www.medfem.co.za

**Clinicians** Dr Van Rensburg, Dr Van Schouwenburg, Dr Rodrigues, Dr Clark, Dr Divanovic

**Embryologists** Dr Aldo Esterhuizen, Ms Edolene Bosman, Ms Vicky Wolf

**Intern Embryologist** Ms Esmari du Plessis

**Nurses** Sr Pam, Sr Heather, Sr Krina, Sr Hanlie, Sr B du Plessis

**Counsellors** Dr Mandy Wolf (Clinical Psychologist)

## PARKLANE FERTILITY CENTRE

Cnr. Junction Ave & Parklane, Parktown, 2193 - Gauteng

**Phone** 011 480 4143

**Fax** 011 480 4316

**Email** sacide@parklanefertility.co.za, drherman@parklanefertility.co.za

**Website** www.parklanefertilitycentre.co.za

**Clinicians** Dr NH Netshidvhani

**Embryologists** Ms Elsie SA McDonald, Ms Sacide Karadasli

**Nurses** Sr Dorren Donny Leseka

## PORT ELIZABETH INFERTILITY UNIT

40A Park Drive, Central Port Elizabeth - Eastern Cape

**Phone** 041 373 0771

**Fax** 041 374 2006

**Email** reception@fertilityunit.com

**Website** www.fertilityunit.com

**Clinicians** Dr P Dalmeyer, Dr D Botha

**Embryologists** Ms Michelle Rijdsdijk, Mr Wilhelm Schoeman

**Nurses** Sr Roneh Jubber

**Counsellors** Ms Lynette Dean, Mr Robin Farrington

## PRETORIA FERTILITY CENTER

Suite M19 Pretoria East Hospital, Pretoria - Gauteng

**Phone** 012 998 8854/5

**Fax** 012 998 8856

**Email** info@ptafertilitycen.co.za

**Website** www.ptafertility.co.za

**Clinicians** Dr MA Trouw

**Embryologists** Ms Elmarie Prinsloo, Ms Linmarié Venter

**Nurses** Sr Lizette White

# SARA: PARTICIPATING ART CENTRES

## REPRODUCTIVE MEDICINE UNIT

Department of Obstetrics & Gynaecology,  
Groote Schuur Hospital and Faculty of Health Sciences, UCT  
Maternity Building F Floor, Observatory, 7925 - Western Cape

**Phone** 021 404 6027/8

**Fax** 021 404 6016

**Clinicians** Prof S Dyer, Prof Z van der Spuy, Dr M Patel, Dr L Walmsley, Dr F Olarogun

**Embryologists** Mrs M Vienings, Ms L Cindi, Ms B Wager

## SANDTON FERTILITY CENTRE

Suite 310, East Wing, Morningside Mediclinic, cnr Rivonia and Hill Road, Sandton - Gauteng

**Phone** 011 883 1776, 0861 442 211

**Fax** 011 784 6886

**Email** info@sandtonfertility.com

**Website** www.sandtonfertility.com

**Clinicians** Dr GH Mohamed, Dr M Faesen, Dr R Patel

**Embryologists** Mr Prashan Maharaj

**Nurses** Sr Iris Davids

## STEMBA FERTILITY CENTRE

145 A Kruger street, Rustenburg CBD, North West

**Phone** 014 592 4625, 014 594 0210

**Fax** 014 594 0210

**Email** barth@sthemba fertility.co.za

**Website** www.sthemba fertility.co.za

**Clinicians** Dr HM Moatshe, Dr TJ Mshamba

**Embryologists** Mr Barth M Tambwe

**Nurses** Sr Loraine Sekhu

**Counsellors** Mrs Angelique M Tambwe

## VITALAB FERTILITY UNIT

Inner Circle, 159 Rivonia Road, Morningside, Sandton - Gauteng

**Phone** 011 911 4700

**Fax** 011 911 4744

**Email** stephanv@vitalab.com

**Website** www.vitalab.com

**Clinicians** Dr Stephan Volschenk & Partners, Dr MJ Jacobson, Dr L Gobetz

**Embryologists** Ms Jane Meintjies & Colleagues

**Nurses** Sr Anne Hacking & Colleagues

**Counsellors** Ms Bernice Lits, Ms Tanya Rubin



# SUMMARY DATA

14 CENTRES REPORTING

## SUMMARY DATA: IVF & ICSI

- Total no. aspirations: 4923
- Total no. fresh embryo transfers: 4319
- Total no. clinical pregnancies: 1595
- Clinical PR / aspiration: 32.4%
- Clinical PR / ET: 36.9%

## NATIONAL COVERAGE: IVF & ICSI

4923 aspirations/ 49.9 million people<sup>1</sup>/year  
= 98 aspirations/ million people/year  
= **6.5% of estimated optimal ART coverage**

Estimated need for ART: 1500 cycles/million population/year<sup>2</sup>

## ART COVERAGE: INTERNATIONAL COMPARISON

IVF CYCLES /MILLION POPULATION /YEAR	% OPTIMAL COVERAGE	COUNTRIES
< 15	< 1%	China, India, Egypt
< 150	< 10%	USA, Japan, Argentina, India, <b>South Africa</b>
< 500	< 33%	Many European countries
< 750	< 50%	Netherlands, Sweden, Denmark
> 1500	> 100%	Israel

Nachtigall 2006, Fertil Steril, 85(4):871

<sup>1</sup> According to Census 2001

<sup>2</sup> Collins, Hum Reprod Update 2002: 8, 265

# IVF & ICSI: PROCEDURES & OUTCOME

13 CENTRES REPORTING

## NUMBER OF PROCEDURES: IVF & ICSI

### IVF

- Total no. aspirations: 1432
- Total no. fresh embryo transfers: 1198

### ICSI

- Total no. aspirations: 2920
- Total no. fresh embryo transfers: 2583

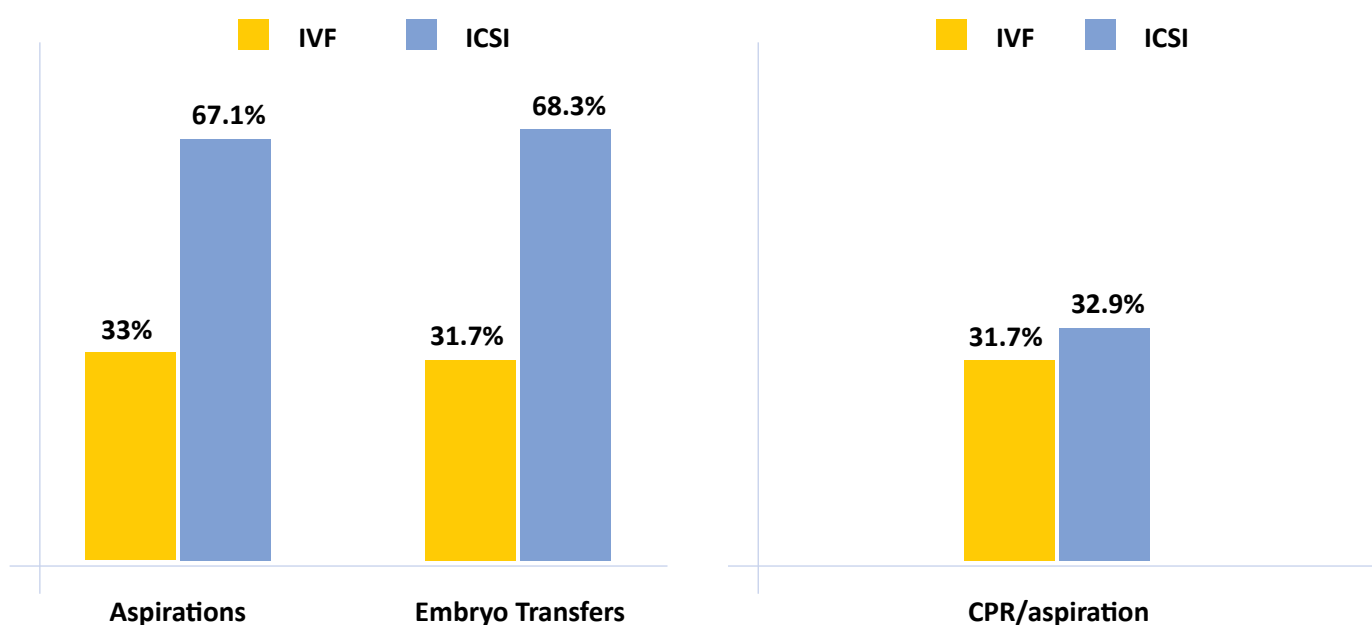
## CLINICAL PREGNANCIES: IVF & ICSI

### IVF

- Total no. clinical pregnancies: 441
- CPR/aspiration: 30.8%
- CPR/ET: 36.8%

### ICSI

- Total no. clinical pregnancies: 943
- CPR/aspiration: 32.3%
- CPR/ET: 36.5%



## CLINICAL PREGNANCY RATES: INTERNATIONAL COMPARISON

COUNTRY	IVF CPR/ASPIRATION (%)	ICSI CPR/ASPIRATION (%)	YEAR
South Africa	30.8	32.3	2010
Egypt	32.7	36.7	2003
Argentina	26.8	20.8	2003
Brazil	34.0	33.0	2003
Netherlands	29.3	32.5	2003
UK	27.4	28.5	2003
USA	41.6	33.6	2003

ICMART, World Report 2003; Fertil Steril 2011,95(7): 2209

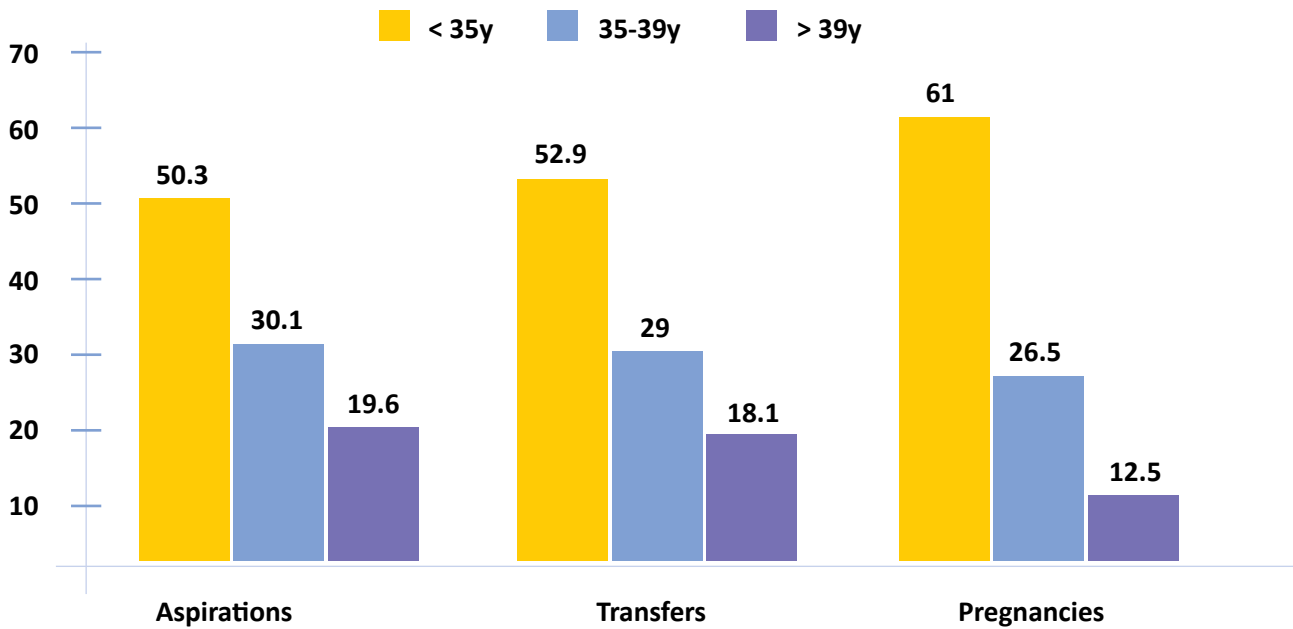
# IVF: AGE

13 CENTRES REPORTING

## IVF: AGE OF FEMALE PARTNER

CATEGORY	< 35 YRS	35 - 39 YRS	> 39 YRS	TOTAL
Aspirations	720 (50.3)*	431 (30.1)	281 (19.6)	1432 (100)
Embryo Transfers	634 (52.9)	347 (29)	217 (18.1)	1198 (100)
Clinical Pregnancies	269 (61)	117 (26.5)	55 (12.5)	441 (100)

\* Values in brackets are percentage distribution of all procedures and pregnancies by age



Y axis: Distribution (%) of procedures and pregnancies by age

## IVF: AGE & OUTCOME

CATEGORY	< 35 YRS	35 - 39 YRS	> 39 YRS	TOTAL
No. clinical pregnancies	269	117	55	441
CPR/aspiration	37.4%	27.1%	19.6%	
CPR/embryo transfer	42.4%	33.7%	25.3%	

# IVF: EMBRYO TRANSFERS

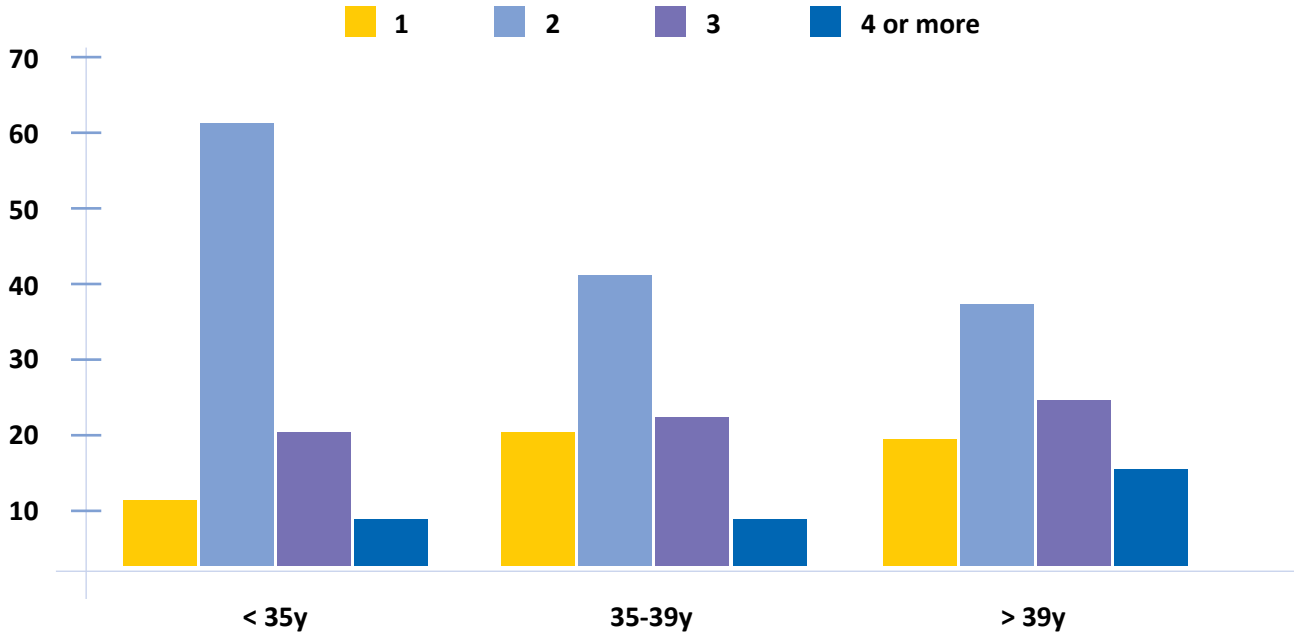
12 CENTRES REPORTING

## IVF: NO. TRANSFERS WITH 1, 2, 3, $\geq$ 4 EMBRYOS OR BLASTOCYSTS

CATEGORY	< 35 YRS	35 - 39 YRS	> 39 YRS
Single embryo or blastocyst	69 (11.4)*	77 (21.8)	40 (18.9)
2 embryos or blastocysts	370 (61)	163 (48.1)	87 (41.2)
3 embryos or blastocysts	127 (20.9)	79 (23.3)	51 (24.2)
$\geq$ 4 embryos or blastocysts	40 (6.6)	23 (6.8)	33 (15.6)
Total	606 (100)	339 (100)	211 (100)

\*Values in brackets are percentages of different number embryo/blastocyst transfers in each age category

## IVF: DISTRIBUTION OF TRANSFERS WITH DIFFERENT NUMBER EMBRYOS/BLASTOCYSTS BY AGE



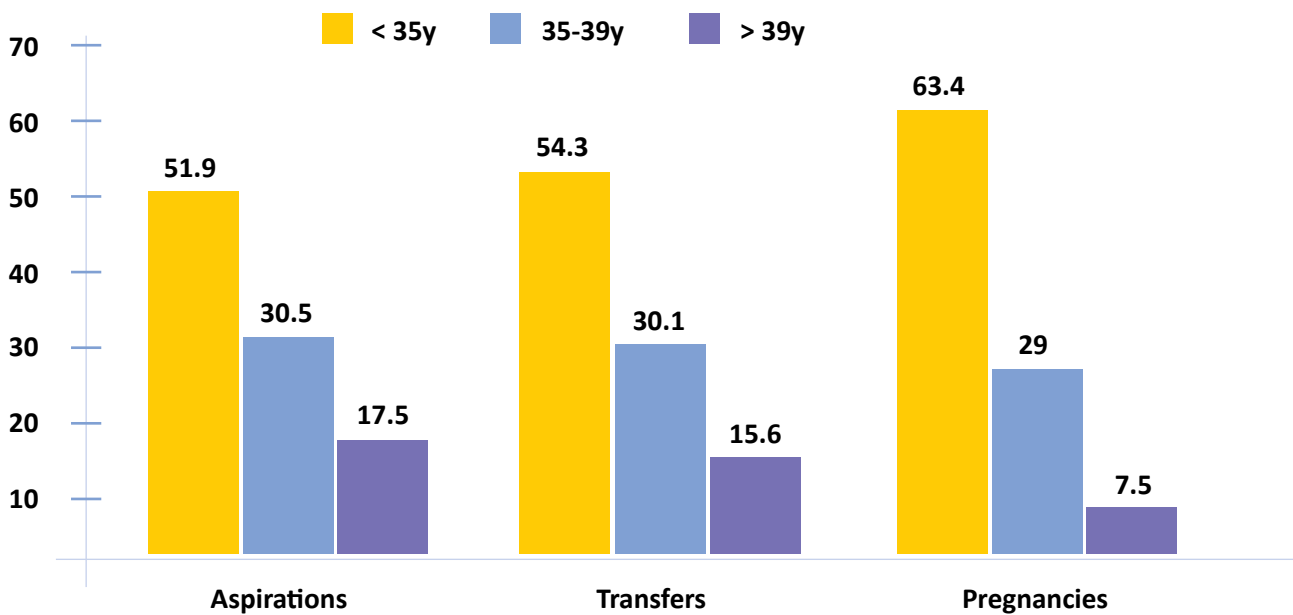
Y axis: Transfers (%) with different number of embryos/blastocysts in each age category

## ICSI: AGE OF FEMALE PARTNER

CATEGORY	< 35 YRS	35 - 39 YRS	> 39 YRS	TOTAL
Aspirations	1516 (51.9)*	892 (30.5)	512 (17.5)	2920 (100)
Fresh Embryo Transfers	1402 (54.3)	779 (30.1)	402 (15.6)	2583 (100)
Clinical Pregnancies	598 (63.4)	274 (29)	71 (7.5)	943 (100)

\* Values in brackets are percentage distribution of all procedures and pregnancies by age

## ICSI: AGE OF FEMALE PARTNER



Y axis : Distribution (%) of procedures and pregnancies by age

## ICSI: AGE & OUTCOME

CATEGORY	< 35 YRS	35 - 39 YRS	> 39 YRS	TOTAL
No. clinical pregnancies	598	274	71	943
CPR/aspiration	39.4%	30.7%	13.9%	
CPR/embryo transfer	42.6%	35.2%	17.7%	

# ICSI: EMBRYO TRANSFERS

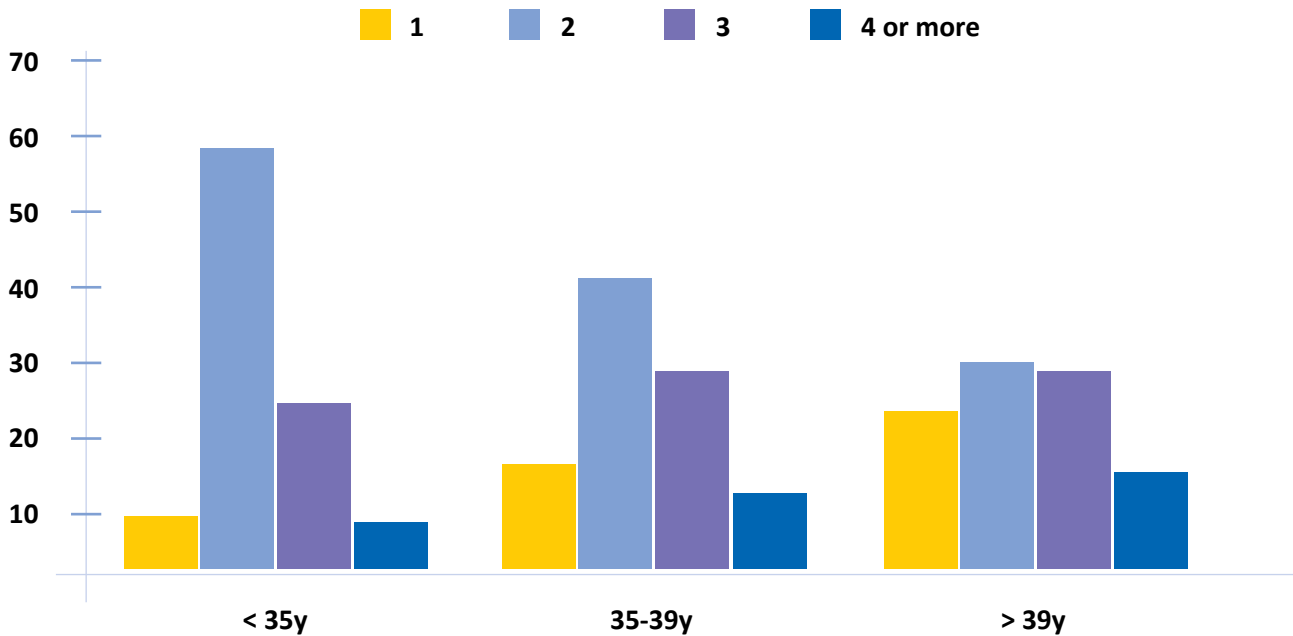
12 CENTRES REPORTING

## ICSI: NO. TRANSFERS WITH 1, 2, 3, $\geq$ 4 EMBRYOS OR BLASTOCYSTS

CATEGORY	< 35 YRS	35 - 39 YRS	> 39 YRS
Single embryo or blastocyst	126 (9.8)*	122 (16.8)	90 (23.8)
2 embryos or blastocysts	733 (57.2)	313 (43.2)	115 (30.4)
3 embryos or blastocysts	322 (25.1)	201 (27.7)	113 (29.9)
$\geq$ 4 embryos or blastocysts	101 (7.9)	89 (12.3)	60 (15.9)
Total	1282 (100)	725 (100)	378 (100)

\*Values in brackets are percentages of different number embryo/blastocyst transfers in each age category

## ICSI: DISTRIBUTION OF TRANSFERS WITH DIFFERENT NUMBER EMBRYOS/BLASTOCYSTS BY AGE

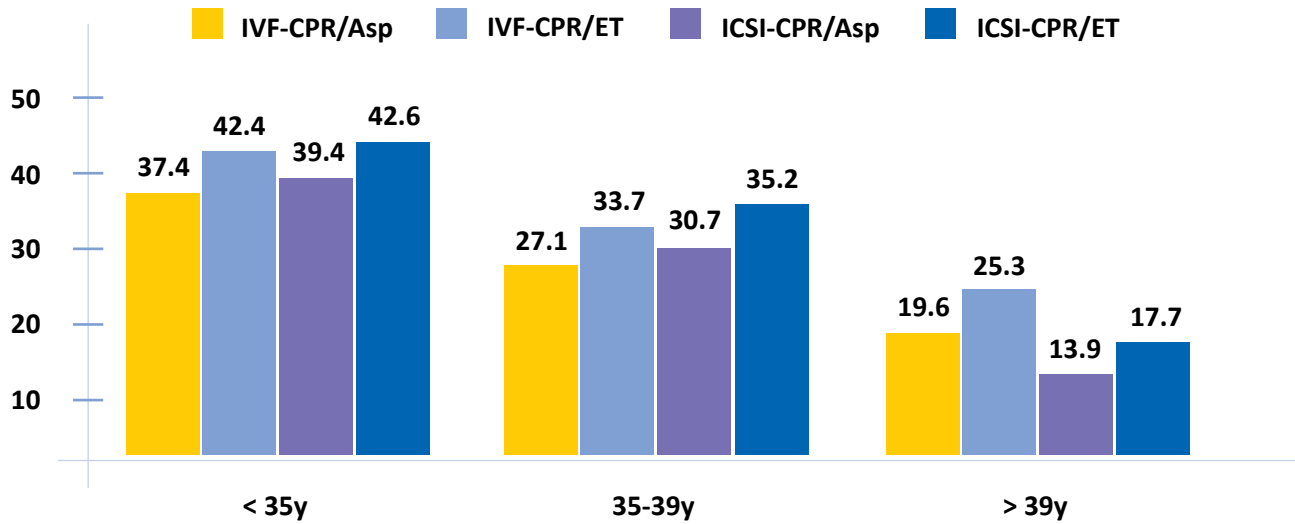


Y axis: transfers (%) with different number of embryos/ blastocysts in each age category

# IVF & ICSI: OUTCOME BY AGE

13 CENTRES REPORTING

## IVF & ICSI: CLINICAL PREGNANCY RATE PER ASPIRATION AND PER EMBRYO TRANSFER BY AGE OF FEMALE PARTNER



## Overview: 2009 - 2010

	2009	2010
<b>Total no. centres</b>	<b>12</b>	<b>14</b>
No. aspirations	4512	4923
No. fresh embryo transfers	3872	4319
Clinical PR/ aspiration	28.9%	32.4%
Clinical PR/ aspiration IVF	31.9%	30.8%
Clinical PR/ aspiration ICSI	27.9%	32.3%
ICSI: % of ETs	63.2%	68.3%



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