

Council on Human Reproductive Technology 2021 Annual Statistics

published in July 2023*

* Statistics on live birth events in relation to reproductive procedures performed in 2021 are covered in this final version.

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Introduction

The Council on Human Reproductive Technology was established under section 4 of the Human Reproductive Technology Ordinance (Cap. 561) ("the Ordinance") in April 2001 to regulate the provision of reproductive technology (RT) procedures, the conducting of embryo research, the handling, storing or disposing of gametes or embryos used or intended to be used in connection with a RT procedure or embryo research, and surrogacy arrangement.

According to section 5(1) of the Ordinance, the Council shall keep under review information about RT activities and publish statistics and summaries concerning relevant activities which have been carried on. To this end, the *Annual Statistics* has been published since 2009.

This 2021 Annual Statistics lists out different RT activities carried out by the licensed centres in operation in the year. It provides graphs, charts and tables that summarize information about the RT activities and its outcomes in 2021. The figures in this publication are based only on RT cycles performed in 2021 and cannot be used to calculate cumulative success rates.

As at 31.12.2021, there were a total of 39 valid licences issued by the Council, including 22 Artificial Insemination by Husband (AIH) licences, 16 Treatment licences and 1 Research licence. This publication provides information on the reported outcomes of all RT cycles started in the licensed AIH and treatment centres.

RT cycles include any process in which (1) a RT procedure is performed or (2) frozen embryos have been thawed with the intent of transferring them to a woman. For example, while a RT cycle could include an embryo transfer, another cycle could include egg retrieval and storage of embryos.

Of the 9,018 non-donor in vitro fertilization (IVF) and frozen-thawed embryo transfer (FET) cycles reported in 2021, a total of 5,774 (64%) were started with the intent to transfer at least one embryo. These 5,774 cycles resulted in 2,061 pregnancies, 1,741 live-birth events (delivery of one or more living babies), and 1,836 babies. The other 3,244 cycles (36%) were banking cycles, where eggs or embryos were cryopreserved (frozen) and stored for potential future use.

A patient's chances of having a pregnancy and live-birth delivery when using RT are influenced by many factors. Some of these factors are patient-related, such as the patient's age or the cause of infertility. The *Annual Statistics* includes the figures on infertility diagnosis of patients for the reference of readers.

The *Annual Statistics* also includes information on live birth event rate, which can give potential RT users an idea of the average chances of success. However, the average live birth event rate in the *Annual Statistics* should be viewed as a general reference only and couples should discuss with their doctor about their treatment plan and potential for success under their specific circumstances.

The figures in this report provide data on pregnancy and live birth event outcomes and trends of the types of procedures performed and pregnancy outcomes. The figures also include RT cycles that used fresh or frozen oocytes (for non-donor IVF cycles only).

Key Terms used in the Annual Statistics

Terms	Description
Artificial insemination by husband (AIH)	The placing of sperm inside a woman's vagina or uterus (i.e. womb) by means other than sexual intercourse. In artificial insemination by husband (AIH), the husband's sperm is used.
Clinical pregnancy	A pregnancy documented by one or more gestational sacs on ultrasound or the histological confirmation of gestational products in miscarriages or ectopic pregnancies.
Clinical pregnancy rate	Clinical pregnancy rate is expressed as number of clinical pregnancies per 100 treatment cycles started/commenced or per 100 cycles reaching the stage of attempted oocyte recovery/retrieval or embryo transfer (ET).
Donor insemination (DI)	Also known as artificial insemination by donor (AID). DI is an artificial insemination whereby sperm collected from a man who is not the woman's husband is used.
Ectopic pregnancy	A pregnancy in which implantation has taken place outside the uterine cavity.
Heterotopic pregnancy	Simultaneous existence of intrauterine and ectopic pregnancy.
In vitro fertilisation (IVF)	In vitro fertilization (a) means the fertilization of an egg by sperm outside the human body, whether or not the egg was originally removed from the body of that or any other woman; (b) includes any procedure involving the induction or aspiration of an egg, or the culture of an egg for the purposes of any such fertilization. It includes IVF without ICSI and IVF with ICSI.
Intracytoplasmic sperm injection (ICSI)	A method of gamete micromanipulation by which a single sperm is injected into the inner cellular structure of the egg.
Live birth event	For the purposes of the Code of Practice on Reproductive Technology and Embryo Research issued by the Council, live birth event shall mean an event of the birth of one or more than one live child from one single pregnancy. The birth of live twins, triplets and so on will therefore be considered as a single "live birth event".
Live birth event rate	Unless otherwise specified, live birth event (single and multiple live births included) rate is expressed per 100 treatment cycles started, i.e. live birth event rate = Number of live birth events/Number of treatment cycles x 100%

Terms	Description
Microsurgical epididymal sperm aspiration/extraction (MESA/MESE)	A surgical procedure performed with the assistance of an operating microscope to retrieve sperm from the epididymis of men with obstructive azoospermia. In the absence of optical magnification, any surgical procedure to retrieve sperm from the epididymis should also be registered as MESE.
Miscarriage (Spontaneous abortion)	A loss of an intrauterine pregnancy detected clinically or by ultrasound, and less than 24 weeks' gestation (as estimated by the day of embryo transfer or day of ovulation).
Multiple live birth event rate	Unless otherwise specified, multiple live birth event rate is expressed per 100 treatment cycles started, i.e. Multiple live birth event rate = Number of multiple live birth events/Number of treatment cycles x 100%
No. of no pregnancy	The number of treatment cycles started and reported by the licensed centre with an outcome of "no pregnancy", including those abandoned and those ending with elective cryopreservation of embryos.
Ongoing pregnancy	Ongoing pregnancy with foetal cardiac activity during the period of the year being reported on.
Ongoing pregnancy rate	Ongoing pregnancy rate is expressed as number of ongoing pregnancies per 100 treatment cycles started /commenced or per 100 cycles reaching the stage of attempted oocyte retrieval or embryo transfer.
Testicular sperm aspiration/extraction (TESA/TESE)	A surgical procedure involving one or more testicular biopsies or needle aspirations to obtain sperm for use in IVF and/or ICSI.
Treatment cycle	The process in which a reproductive technology (RT) procedure is carried out, where a woman has undergone ovarian stimulation or monitoring with the intent of having RT procedure, or frozen embryos have been thawed with the intent of transferring them to a woman. A treatment cycle starts (a) on the day when superovulatory drugs are commenced or (b) from the date of the last menstrual period. This annual statistics only covered treatment cycles that led to (1) Gamete transfer/embryo replacement/insemination, or stopped because of (2) Elective cryopreservation of all embryos or (3) Cycle abandonment.

Key Statistics and Charts

Key Statistics for 2021

A (for non-donor IVF cycles only)

1 Type of RT procedures (%)	2 Patient diagn	osis ³ (%,)						
(Please refer to Chart A1)	(Please refer to	Chart A	2)						
			Single	cause				Multiple	causes
<i>IVF</i> ¹ (with <i>ICSI</i> ²) 37.49	Endometriosis	2.7	Male fa	ctor 22.7	Tubal	problem	3.7 F	emale & ma facto	
IVF (without ICSI) 10.18	Immunologi problen		Ovula prob	-	Othe	r Causes	14.6 F	emale facto or	ors 7.2 ly:
Frozen-thawed ET 52.33			Tubo-perito prot		Une	xplained	12.1		
					Age G	iroup ⁴			
Pregnancy & Live Birth Outcome	S	25 or below	26-30	31-35	36-40	41-45	46-50	51 or above	All/ <i>Overall%</i>
B Fresh embryos from patien	t couple's own ga i	metes							
a Number of patients		9	163	1161	1687	502	48	1	3571
b Number of treatment cycles	S ⁵	10	169	1269	2000	778	71	2	4299
c Number of treatment cycles transferred	s with embryo	1	32	289	543	199	20	0	1084
d Average number of embryo	transferred	1.00	1.16	1.14	1.20	1.53	1.75	NA	1.25
e Clinical pregnancy rate ⁶ (%))	0.0	8.3	8.9	9.2	3.3	2.8	NA	7.9
f Live birth event rate ⁷ (%)		0.0	5.9	6.5	6.2	1.8	0.0	NA	5.3
g Singleton live birth event ra	Singleton live birth event rate ⁸ (%)		5.9	6.1	5.8	1.7	0.0	NA	5.0
h Multiple live birth event rate	e ⁹ (%)	0.0	0.0	0.4	0.4	0.1	0.0	NA	0.3
Frozen embryos from patie	nt couple's own g a	ametes							
a Number of patients		9	149	1124	1656	465	35	0	3438
b Number of treatment cycles	5	11	203	1500	2325	634	46	NA	4719
c Number of treatment cycles transferred	s with embryo	11	201	1492	2308	632	46	NA	4690
d Average number of embryo	transferred	1.09	1.20	1.13	1.19	1.35	1.52	NA	1.20
e Clinical pregnancy rate ⁶ (%))	45.5	58.6	53.9	42.1	27.6	15.2	NA	44.3
f Live birth event rate ⁷ (%)		45.5	38.9	43.2	29.0	16.2	4.3	NA	32.0
g Singleton live birth event ra	te ⁸ (%)	45.5	34.5	41.1	27.5	15.8	2.2	NA	30.3
h Multiple live birth event rate	e ⁹ (%)	0.0	4.4	2.1	1.5	0.5	2.2	NA	1.7
5 Trends of RT Procedures									
a Number of patients and tre	atment cycles					Ple	ase refe	er to Chart A	5(a)
b Proportion of ICSI cycles (%)					Ple	ase refe	er to Chart A	5(b)
c Number of live birth events	and babies born					Ple	ase refe	er to Chart A	.5(c)
d Live birth event rate (%)						Ple	ase refe	er to Chart A	5(d)
e Percentage of treatment cy events by one, two and three				ng in live l	birth	Ple	ase refe	er to Chart A	5(e)
B									

- Storage of Gametes and Embryos 1
 - a Number of gametes and embryos stored by licensed centres
 - b Number of gametes or embryos stored or used for research

Please refer to Chart B1(a) Please refer to Chart B1(b)

Remarks:

- NA Not applicable
- In vitro fertilization (IVF) (a) means the fertilization of an egg by sperm outside the human body, whether or (1)not the egg was originally removed from the body of that or any other woman; (b) includes any procedure involving the induction or aspiration of an egg, or the culture of an egg for the purposes of any such fertilization.

It includes Conventional IVF (IVF without ICSI) and IVF with ICSI.

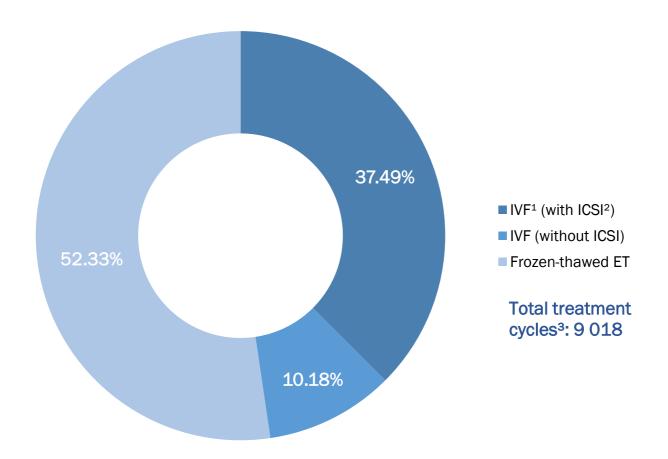
- (2) **Intracytoplasmic sperm injection (ICSI)** means a method of gamete micromanipulation by which a single sperm is injected into the inner cellular structure of the egg.
- (3) Total patient diagnosis percentages may be greater than 100% because more than one diagnosis can be reported for each treatment cycle.
- (4) The age of wife has been used in calculating the age of patient.
- (5) (i) Treatment cycles refers to the process in which a reproductive technology (RT) procedure is carried out, where a woman has undergone ovarian stimulation or monitoring with the intent of having RT procedure, or frozen embryos have been thawed with the intent of transferring them to a woman. A treatment cycle starts (a) on the day when superovulatory drugs are commenced or (b) from the date of the last menstrual period.

This annual statistics only covered treatment cycles that led to (1) Gamete transfer/embryo replacement/insemination, or stopped because of (2) Elective cryopreservation of all embryos or (3) Cycle abandonment.

- (ii) In this Key Statistics, the treatment cycles for (a) RT procedures involving donated gametes/embryos and
 (b) involving artificial insemination (i.e. AlH and DI) are <u>excluded</u> in the above table and separately shown in Table 2. To avoid double counting, treatment cycles in which one patient engages in more than one type of RT procedure in one cycle (e.g. IVF and FET) are also <u>excluded</u> in the above table.
- (6) (i) **Clinical pregnancy** means a pregnancy documented by one or more gestational sacs on ultrasound or the histological confirmation of gestational products in miscarriages or ectopic pregnancies.
 - (ii) **Clinical pregnancy rate** is expressed as number of clinical pregnancies per 100 treatment cycles started /commenced or per 100 cycles reaching the stage of attempted oocyte retrieval or embryo transfer. i.e. Clinical pregnancy rate = Number of clinical pregnancies/Number of treatment cycles x 100%
- (7) (i) **Live birth event** means an event of the birth of one or more than one live child from one single pregnancy. The birth of live twins, triplets and so on will therefore be considered as a single "live birth event".
 - (ii) Live birth event rate (single and multiple live births included) is expressed per 100 treatment cycles started,
 i.e. Live birth event rate [3(f) or 4(f)] = Number of live birth events/Number of treatment cycles [3(b) or 4(b)]
 x 100%
- (8) (i) **Singleton live birth event** means an event of the birth in Hong Kong of <u>one live child from one single</u> <u>pregnancy</u>.
 - (ii) Singleton live birth event rate is expressed per 100 treatment cycles started, i.e. Singleton live birth event rate[3(g) or 4(g)] = Number of live birth events with one live child born/Number of treatment cycles [3(b) or 4(b)] x 100%
- (9) (i) **Multiple live birth event** means an event of the birth in Hong Kong of <u>more than one live child from one single</u> <u>pregnancy</u>.
 - (ii) Multiple live birth event rate is expressed per 100 treatment cycles started, i.e. Multiple live birth event rate[3(h) or 4(h)] = Number of live birth events with more than one live child born/Number of treatment cycles [3(b) or 4(b)] x 100%

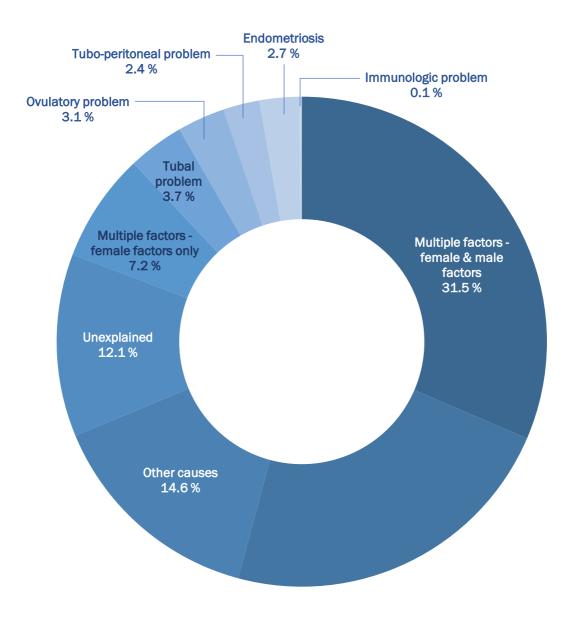
Charts for selected Key Statistics

Chart A1 - Type of RT Procedures taken by Patients (%) (for non-donor IVF cycles only)



- (1) In vitro fertilization (IVF) (a) means the fertilization of an egg by sperm outside the human body, whether or not the egg was originally removed from the body of that or any other woman; (b) includes any procedure involving the induction or aspiration of an egg, or the culture of an egg for the purposes of any such fertilization. It includes IVF without ICSI and IVF with ICSI.
- (2) **Intracytoplasmic sperm injection (ICSI)** means a method of gamete micromanipulation by which a single sperm is injected into the inner cellular structure of the egg.
- (3) (i) Treatment cycles refers to the process in which a reproductive technology (RT) procedure is carried out, where a woman has undergone ovarian stimulation or monitoring with the intent of having RT procedure, or frozen embryos have been thawed with the intent of transferring them to a woman. A treatment cycle starts (a) on the day when superovulatory drugs are commenced or (b) from the date of the last menstrual period.
 - (ii) In this chart, the treatment cycles for (a) RT procedures involving donated gametes/embryos and (b) involving artificial insemination (i.e. AIH and DI) are <u>excluded</u> in the above chart and separately shown in Table 2. To avoid double counting, treatment cycles in which one patient engages in more than one type of RT procedure in one cycle (e.g. IVF and FET) are also <u>excluded</u> in the above chart.

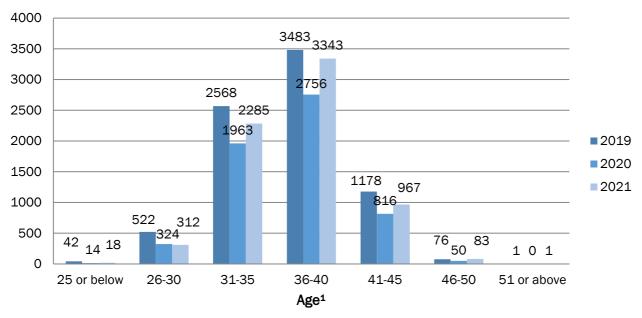
Chart A2 - Patients Diagnosis (%) (for non-donor IVF cycles only)



Remarks:

(1) "Other causes" of infertility diagnosis reported by licensed centres included advanced maternal age, reduced ovarian reserve, coital problem, polycystic ovary syndrome, etc.

Chart A5(a) - Number of Patients and Treatment Cycles (for non-donor IVF cycles only)



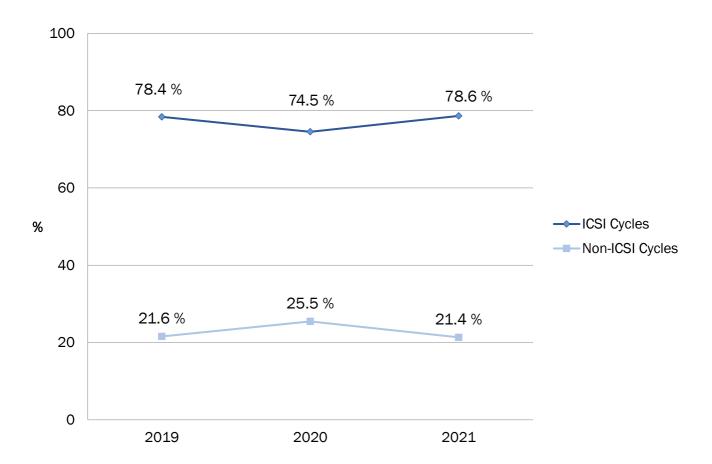
Number of Patients

5000 4488 4325 4500 4000 **3**488 3266 3500 2769 3000 <mark>2</mark>384 2500 2019 2020 2000 1654 1412 2021 1500 1160 1000 609 372 392 500 115 70 117 52 17 21 102 0 25 or below 26-30 31-35 36-40 41-45 46-50 51 or above Age

Number of Treatment Cycles²

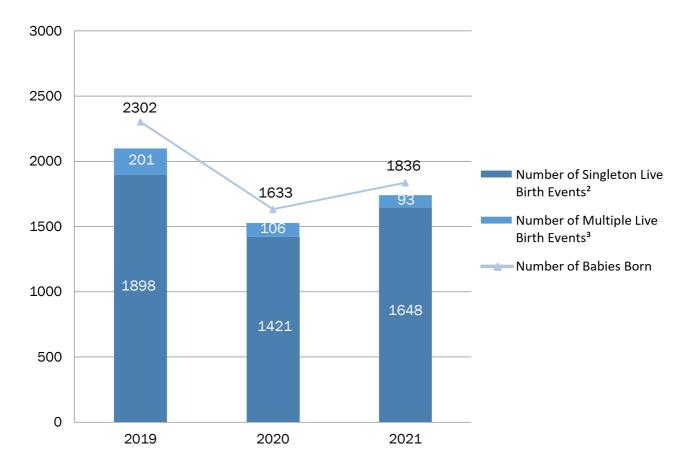
- (1) The age of wife has been used in calculating the age of patient.
- (2) (i) **Treatment cycles** refers to the process in which a reproductive technology (RT) procedure is carried out, where a woman has undergone ovarian stimulation or monitoring with the intent of having a RT procedure, or frozen embryos have been thawed with the intent of transferring them to a woman. A treatment cycle starts (a) on the day when superovulatory drugs are commenced or (b) from the date of the last menstrual period.
 - (ii) In this chart, the treatment cycles for (a) RT procedures involving donated gametes/embryos and (b) involving artificial insemination (i.e. AlH and DI) are <u>excluded</u> from the above chart and separately shown in Table 2. To avoid double counting, treatment cycles in which one patient engages in more than one type of RT procedure in one cycle (e.g. IVF and FET) are also <u>excluded</u> from the above chart.

Chart A5(b) - Proportion of ICSI¹ Cycles (%) (amongst all non-donor IVF cycles²)



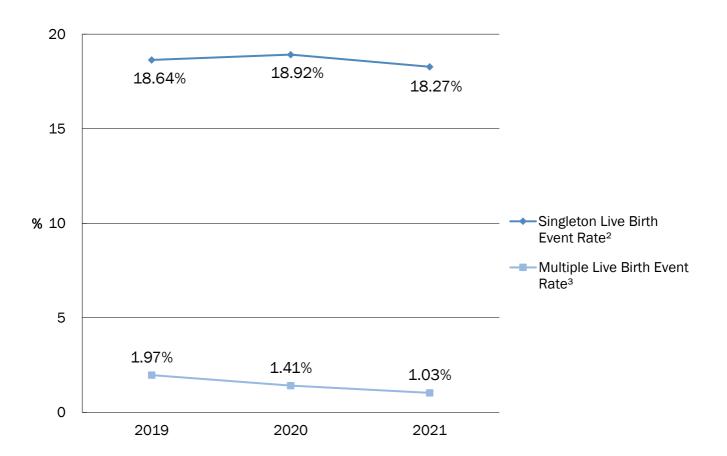
- (1) **Intracytoplasmic sperm injection (ICSI)** means a method of gamete micromanipulation by which a single sperm is injected into the inner cellular structure of the egg.
- (2) (i) Treatment cycles refers to the process in which a reproductive technology (RT) procedure is carried out, where a woman has undergone ovarian stimulation or monitoring with the intent of having RT procedure, or frozen embryos have been thawed with the intent of transferring them to a woman. A treatment cycle starts (a) on the day when superovulatory drugs are commenced or (b) from the date of the last menstrual period.
 - (ii) In this chart, the treatment cycles for (a) RT procedures involving donated gametes/embryos and (b) involving artificial insemination (i.e. AIH and DI) are <u>excluded</u> from the above chart and separately shown in Table 2. To avoid double counting, treatment cycles in which one patient engages in more than one type of RT procedure in one cycle (e.g. IVF and FET) are also <u>excluded</u> from the above chart.

Chart A5(c) - Number of Live Birth Events¹ and Babies Born (for non-donor IVF cycles only)



- (1) **Live birth event** means an event of the birth of one or more than one live child from one single pregnancy. The birth of live twins, triplets and so on will therefore be considered as a single "live birth event".
- (2) **Singleton live birth event** means an event of the birth of <u>one live child from one single pregnancy</u>.
- (3) Multiple live birth event means an event of the birth of more than one live child from one single pregnancy.

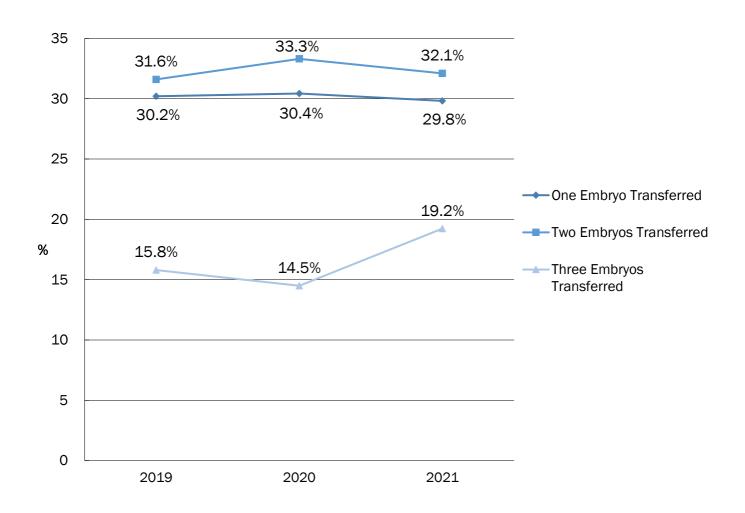
Chart A5(d) - Live Birth Event¹ Rate (%) (for non-donor IVF cycles only)



- (1) (i) **Live birth event** means an event of the birth of <u>one or more than one live child from one single pregnancy</u>. The birth of live twins, triplets and so on will therefore be considered as a single "live birth event".
 - (ii) **Live birth event rate** (single and multiple live births included) is expressed per 100 treatment cycles started, i.e. Live birth event rate = Number of live birth events/Number of treatment cycles x 100%
- (2) (i) **Singleton live birth event** means an event of the birth of <u>one live child from one single pregnancy</u>.
 - (ii) **Singleton live birth event rate** is expressed per 100 treatment cycles started, i.e. Singleton live birth event rate = Number of live birth events with one live child born/Number of treatment cycles x 100%
- (3) (i) Multiple live birth event means an event of the birth of more than one live child from one single pregnancy.
 - (ii) **Multiple live birth event rate** is expressed per 100 treatment cycles started, i.e. Multiple live birth event rate = Number of live birth events with more than one live child born/Number of treatment cycles x 100%

Chart A5(e) - Percentage of Treatment Cycles (with Embryo Transferred) Resulting in Live Birth Events¹ by One, Two and Three Embryos Transferred (%)

(for non-donor IVF cycles only)



- (1) (i) **Live birth event** means an event of the birth of one or more than one live child from one single pregnancy. The birth of live twins, triplets and so on will therefore be considered as a single "live birth event".
 - (ii) **Live birth event rate** (single and multiple live births included) is expressed per 100 treatment cycles started, i.e. live birth event rate = Number of live birth events/Number of treatment cycles x 100%

Chart B1(a) - Number of Gametes and Embryos Stored by Licensed Centres

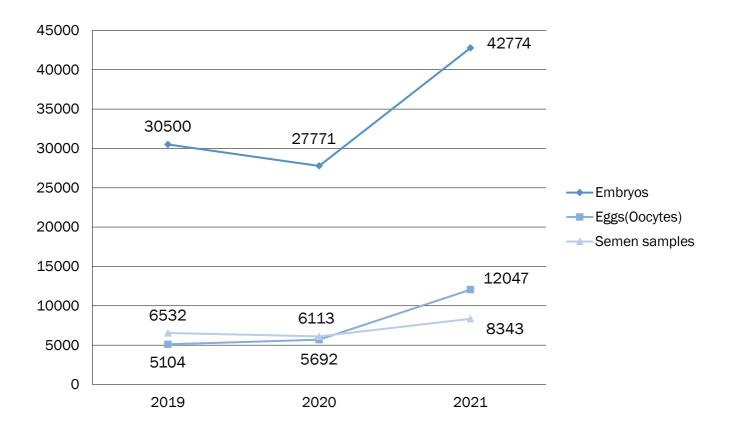
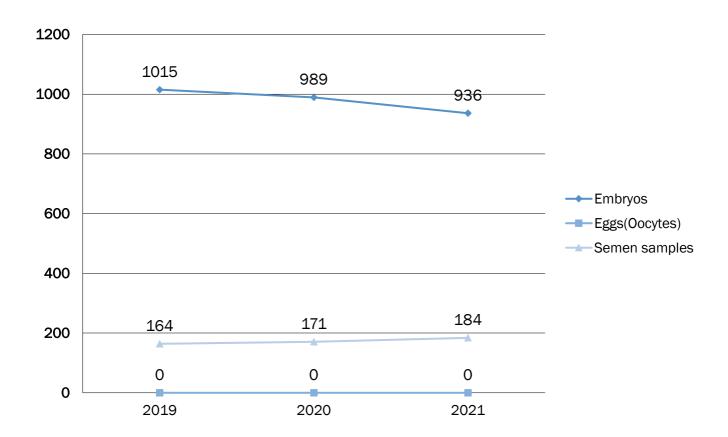


Chart B1(b) - Number of Donated Gametes or Embryos Stored or Used for Research



	Number of Do	Number of Donated Embryos Used for Research						
	2019	2020	2021					
Embryos	96	75	0					

Detailed Statistics Tables

Table 1 - Gamete and Embryo Donations Made in 2021

(Based on the information on Annual Statistics Forms received in the calendar year)

	Gam	nete	Emt	Total	
Age Group	Female Donors	Male Donors	Female Donors	Male Donors	TOLAT
25 or below	3	2	0	0	5
26-30	5	8	0	0	13
31-35	3	6	0	0	9
36-40	2	2	0	0	4
41-45	0	0	0	0	0
46-50	0	0	0	0	0
51 or above	0	0	0	0	0
Total	13	18	0	0	31

a) Gamete and Embryo Donors by Age Group and Sex

b) Donors and Donated Materials

Donated Materials	Number of Donors	Number of Donations Made
Semen	18	25
Eggs (oocytes)	13	16
Embryos ¹	0	0

Remark:

(1) Both the female and male donors of the couple will be counted for an embryo donation.

Source (for licensed centres) AS Form 8

Table 2 - Pregnancy and Birth Outcomes for Main Types of RTProcedures in 2021

(Based on the information on Data Collection Forms received in the calendar year)

			RT proc	RT procedures <u>involving patients' own</u> gametes/embryos				RT procedures involving donated gametes/embryos		
			IV	F1				RT		
Item		with ICSI ²	without ICSI	Frozen- thawed ET	AIH ³	DI3	procedures other than DI			
1		Number of patients	2731	840	3438	2367	7	52		
2		Number of treatment cycles ⁴	3381	918	4719	3941	12	62		
3		Number of treatment cycles with embryo transferred	700	384	4690	NA	NA	53		
4		Number of cycles of insemination	NA	NA	NA	3902	12	NA		
Tre	atr	nent Outcome ⁵								
5a		Number of clinical pregnancy ⁶⁽ⁱ⁾	214	124	2092	450	2	33		
	i	Number of ongoing pregnancy ⁷⁽ⁱ⁾	177	103	1781	399	2	30		
	ii	Number of miscarriage ⁸	35	19	295	40	0	3		
	iii	Number of hydatidiform mole	0	0	0	0	0	0		
	iv	Number of ectopic pregnancy ⁹	2	2	15	10	0	0		
	v	Number of heterotopic pregnancy ¹⁰	0	0	0	0	0	0		
	vi	Number of termination of pregnancy	0	0	1	1	0	0		
5b		Number of no pregnancy ¹¹	3167	794	2627	3447	10	29		
5c		Number of lost to follow up ¹²	0	0	0	44	0	0		
5d	i	Clinical pregnancy rate ⁶⁽ⁱⁱ⁾ (per treatment cycle) (%)	6.3	13.5	44.3	11.4	16.7	53.2		
	ii	Clinical pregnancy rate (per treatment cycle with embryo transferred) (%)	30.6	32.3	44.6	NA	NA	62.3		
	iii	Clinical pregnancy rate (per cycle of insemination) (%)	NA	NA	NA	11.5	16.7	NA		
5e	i	Ongoing pregnancy rate ⁷⁽ⁱⁱ⁾ (per treatment cycle) (%)	5.2	11.2	37.7	10.1	16.7	48.4		
	ii	Ongoing pregnancy rate (per treatment cycle with embryo transferred) (%)	25.3	26.8	38.0	NA	NA	56.6		
		Ongoing pregnancy rate (per cycle of insemination) (%)	NA	NA	NA	10.2	16.7	NA		
Pre	gn	ancy Outcome								
6a		Number of lost to follow up	1	7	39	38	0	1		
6b		Number of live birth events ¹³⁽ⁱ⁾	139	90	1512	284	2	24		
	i	Number of singleton live birth events ¹⁴⁽ⁱ⁾	131	85	1432	246	2	22		
	ii	Number of multiple live birth events ¹⁵⁽ⁱ⁾	8	5	80	38	0	2		
6c		Live birth event rate ¹³⁽ⁱⁱ⁾ (%)	4.1	9.8	32.0	7.2	16.7	38.7		
	i	Singleton live birth event rate ¹⁴⁽ⁱⁱ⁾ (%)	3.9	9.3	30.3	6.2	16.7	35.5		
	ii	Multiple live birth event rate ¹⁵⁽ⁱⁱ⁾ (%)	0.2	0.5	1.7	1.0	0.0	3.2		
6d		Total number of babies born	148	95	1593	322	2	26		

Remarks:

- NA Not applicable
- (1) In vitro fertilization (IVF) (a) means the fertilization of an egg by sperm outside the human body, whether or not the egg was originally removed from the body of that or any other woman; (b) includes any procedure involving the induction or aspiration of an egg, or the culture of an egg for the purposes of any such fertilization. It includes IVF without ICSI and IVF with ICSI.
- (2) **Intracytoplasmic sperm injection (ICSI)** means a method of gamete micromanipulation by which a single sperm is injected into the inner cellular structure of the egg.
- (3) Artificial insemination refers to the placing of sperm inside a woman's vagina or uterus (i.e. womb) by means other than sexual intercourse. In artificial insemination by husband (AIH), the husband's sperm is used. In artificial insemination by donor (AID or DI), sperm collected from a man who is not the woman's husband is used.
- (4) (i) Treatment cycles refers to the process in which a reproductive technology (RT) procedure is carried out, where a woman has undergone ovarian stimulation or monitoring with the intent of having RT procedure, or frozen embryos have been thawed with the intent of transferring them to a woman. A treatment cycle starts (a) on the day when superovulatory drugs are commenced or (b) from the date of the last menstrual period.

This annual statistics only covered treatment cycles that led to (1) Gamete transfer/embryo replacement/insemination, or stopped because of (2) Elective cryopreservation of all embryos or (3) Cycle abandonment.

- (ii) In this table, the treatment cycles for RT procedures involving donated gametes/embryos and those involving artificial insemination (i.e. AIH and DI) are shown. To avoid double counting, treatment cycles in which one patient engages in more than one type of RT procedure in one cycle (e.g. IVF and FET) are excluded from the above table.
- (5) Figures on **treatment outcome** reported in the interim statistics will be replaced when outcome of pregnancy is available in the final statistics. Licensed centres are required to report the details concerning **pregnancy outcome** within 12 months after treatment.
- (6) (i) **Clinical pregnancy** means pregnancy documented by one or more gestational sacs on ultrasound or the histological confirmation of gestational products in miscarriages or ectopic pregnancies.
 - (ii) **Clinical pregnancy rate** is expressed as number of clinical pregnancies per 100 treatment cycles started /commenced or per 100 cycles reaching the stage of attempted oocyte retrieval or embryo transfer.
 - Clinical pregnancy rate per treatment cycles [Item 5d(i)] = Number of clinical pregnancies [Item 5a]/Number of treatment cycles[Item 2] x 100%
 - **Clinical pregnancy rate per treatment cycles with embryo transferred** [Item 5d(ii)] = Number of clinical pregnancies [Item 5a]/Number of treatment cycles with embryo transferred [Item 3] x 100%
 - Clinical pregnancy rate per cycles of insemination [Item 5d(iii)] = Number of clinical pregnancies [Item 5a]/ Number of cycles of insemination [Item 4] x 100%
- (7) (i) Ongoing pregnancy means ongoing pregnancy with foetal cardiac activity during the period of the year being reported on.
 - (ii) **Ongoing pregnancy rate** is expressed as number of ongoing pregnancies per 100 treatment cycles started /commenced or per 100 cycles reaching the stage of attempted oocyte retrieval or embryo transfer.
 - **Ongoing pregnancy rate per treatment cycles** [Item 5e(i)] = Number of ongoing pregnancies [Item 5a(i)]/ Number of treatment cycles [Item 2] x 100%
 - **Ongoing pregnancy rate per treatment cycles with embryo transferred** [Item 5e(ii)] = Number of ongoing pregnancies [Item 5a(i)]/Number of treatment cycles with embryo transferred [Item 3] x 100%
 - **Ongoing pregnancy rate per cycles of insemination** [Item 5e(iii)] = Number of ongoing pregnancies [Item 5a(i)]/Number of cycles of insemination [Item 4] x 100%
- (8) Miscarriage (Spontaneous abortion) refers to loss of an intrauterine pregnancy detected clinically or by ultrasound, and less than 24 weeks' gestation (as estimated by the day of embryo transfer or day of ovulation).
- (9) Ectopic pregnancy refers to a pregnancy in which implantation has taken place outside the uterine cavity.
- (10) Heterotopic pregnancy refers to simultaneous existence of intrauterine and ectopic pregnancy.

- (11) Number of no pregnancy refers to the number of treatment cycles started and reported by the licensed centre with an outcome of "no pregnancy", including those abandoned and those ending with elective cryopreservation of embryos.
- (12) Figures on number of lost to follow up cases will be reported in the interim statistics and it will be updated when pregnancy outcome is available in the final statistics.
- (13) (i) Live birth event means an event of the birth of one or more than one live child from one single pregnancy. The birth of live twins, triplets and so on will therefore be considered as a single "live birth event".
 - (ii) Live birth event rate (single and multiple live births included) is expressed per 100 treatment cycles started,
 i.e. Live birth event rate [Item 6c] = Number of live birth events [Item 6b]/Number of treatment cycles [Item 2] x 100%
- (14) (i) Singleton live birth event means an event of the birth of one live child from one single pregnancy.
 - (ii) Singleton live birth event rate is expressed per 100 treatment cycles started,

i.e. Singleton live birth event rate [Item 6c(i)] = Number of live birth events with one live child born [6b(i)]/Number of treatment cycles [Item 2] x 100%

- (15) (i) Multiple live birth event means an event of the birth of more than one live child from one single pregnancy.
 - (ii) Multiple live birth event rate is expressed per 100 treatment cycles started,

i.e. Multiple live birth event rate [Item 6c(ii)] = Number of live birth events with more than one live child born [6b(ii)]/Number of treatment cycles [Item 2] x 100%

Source (for licensed centres) DC Form 1, 2, 3, 4 & 7

Table 3 - Pregnancy and Birth Outcomes by Age Group and Main Type ofRT Procedures in 2021

(for non-donor treatment cycles only)

(Based on the information on Data Collection Forms received in the calendar year)

IVF ¹ (with ICSI ²)									
Age Group ⁴	Number of Patients	Number of Treatment Cycles ⁵	Number of Treatment Cycles with Embryo Transferred	Ongoing Pregnancy ⁶ n ⁶⁽ⁱ⁾ (%) ⁶⁽ⁱⁱ⁾		Live Birth Event ⁷ n ⁷⁽ⁱ⁾ (%) ⁷⁽ⁱⁱ			
25 or below	7	7	0	0	(0.0)	0	(0.0)		
26-30	137	142	21	7	(4.9)	7	(4.9)		
31-35	875	973	182	63	(6.5)	49	(5.0)		
36-40	1222	1491	316	94	(6.3)	73	(4.9)		
41-45	442	696	162	13	(1.9)	10	(1.4)		
46-50	47	70	19	0	(0.0)	0	(0.0)		
51 or above	1	2	0	0	(0.0)	0	(0.0)		
Total	2731	3381	700	177	(5.2)	139	(4.1)		
		IVF (v	without ICSI)						

Age Group	Number of Patients	Number of Treatment Cycles	Number of Treatment Cycles with Embryo	Ongoing Pregnancy		Live Birth Event	
		0,0100	Transferred	n	(%)	n	(%)
25 or below	2	3	1	0	(0.0)	0	(0.0)
26-30	26	27	11	4	(14.8)	3	(11.1)
31-35	286	296	107	36	(12.2)	33	(11.1)
36-40	465	509	227	58	(11.4)	50	(9.8)
41-45	60	82	37	5	(6.1)	4	(4.9)
46-50	1	1	1	0	(0.0)	0	(0.0)
51 or above	0	NA	NA NA		NA		NA
Total	840	918	384	103	(11.2)	90	(9.8)

All IVF (Fresh cycles)

Age Group	Number of Patients Cycles		Number of Treatment Cycles with Embryo		oing nancy	Live Birth Event		
		.,	Transferred	n	(%)	n	(%)	
25 or below	9	10	1	0	(0.0)	0	(0.0)	
26-30	163	169	32	11	(6.5)	10	(5.9)	
31-35	1161	1269	289	99	(7.8)	82	(6.5)	
36-40	1687	2000	543	152	(7.6)	123	(6.2)	
41-45	502	778	199	18	(2.3)	14	(1.8)	
46-50	48	71	20	0	(0.0)	0	(0.0)	
51 or above	1	2	0	0	(0.0)	0	(0.0)	
Total	3571	4299	1084	280	(6.5)	229	(5.3)	

	Frozen-thawed ET								
Age Group	Number of Patients	Number of Treatment Cycles	Number of Treatment Cycles with Embryo		going Inancy	Live Birth Event			
			Transferred	n	(%)	n	(%)		
25 or below	9	11	11	5	(45.5)	5	(45.5)		
26-30	149	203	201	97	(47.8)	79	(38.9)		
31-35	1124	1500	1492	720	(48.0)	648	(43.2)		
36-40	1656	2325	2308	818	(35.2)	675	(29.0)		
41-45	465	634	632	137	(21.6)	103	(16.2)		
46-50	35	46	46	4	(8.7)	2	(4.3)		
51 or above	0	NA	NA	1	NA	٩	IA		
Total	3438	4719	4690	1781	(37.7)	1512	(32.0)		
			AIH ³			L			
Age Group	Number of Patients	Number of Treatment Cycles	Number of cycles of insemination		going Inancy	Live Birth Event			
				n	(%)	n	(%)		
25 or below	5	7	7	2	(28.6)	1	(14.3)		
26-30	192	312	308	34	(10.9)	24	(7.7)		
31-35	1107	1903	1878	211	(11.1)	156	(8.2)		
36-40	845	1353	1347	144	(10.6)	97	(7.2)		
41-45	197	314	310	8	(2.5)	6	(1.9)		
46-50	21	52	52	0	(0.0)	0	(0.0)		
51 or above	0	NA	NA	1	NA	NA			
Total	2367	3941	3902	399	(10.1)	284	(7.2)		

- NA Not applicable
- (1) In vitro fertilization (IVF) (a) means the fertilization of an egg by sperm outside the human body, whether or not the egg was originally removed from the body of that or any other woman; (b) includes any procedure involving the induction or aspiration of an egg, or the culture of an egg for the purposes of any such fertilization. It includes IVF without ICSI and IVF with ICSI.
- (2) **Intracytoplasmic sperm injection (ICSI)** means a method of gamete micromanipulation by which a single sperm is injected into the inner cellular structure of the egg.
- (3) Artificial insemination refers to the placing of sperm inside a woman's vagina or uterus (i.e. womb) by means other than sexual intercourse. In artificial insemination by husband (AIH), the husband's sperm is used. In artificial insemination by donor (AID or DI), sperm collected from a man who is not the woman's husband is used.
- (4) The age of wife has been used in calculating the age of patient.
- (5) (i) Treatment cycles refers to the process in which a reproductive technology (RT) procedure is carried out, where a woman has undergone ovarian stimulation or monitoring with the intent of having RT procedure, or frozen embryos have been thawed with the intent of transferring them to a woman. A treatment cycle starts (a) on the day when superovulatory drugs are commenced or (b) from the date of the last menstrual period.

This annual statistics only covered treatment cycles that led to (1) gamete transfer/embryo replacement/insemination, or stopped because of (2) elective cryopreservation of all embryos or (3) cycle abandonment.

- (ii) In this table, the treatment cycles for RT procedures involving donated gametes/embryos are excluded from the above table and separately shown in Table 2. To avoid double counting, treatment cycles in which one patient engages in more than one type of RT procedure in one cycle (e.g. IVF and FET) are also excluded from the above table.
- (6) **Ongoing pregnancy** means ongoing pregnancy with foetal cardiac activity during the period of the year being reported on.
 - (i) n = Number of ongoing pregnancies
 - (ii) Ongoing pregnancy rate is expressed as number of ongoing pregnancies per 100 treatment cycles started /commenced or per 100 cycles reaching the stage of attempted oocyte retrieval or embryo transfer. i.e.
 Ongoing pregnancy rate = number of ongoing pregnancies [n]/Number of treatment cycles x 100%
- (7) **Live birth event** means an event of the birth of one or more than one live child from one single pregnancy. The birth of live twins, triplets and so on will therefore be considered as a single "live birth event".
 - (i) n = Number of live birth events
 - (ii) Live birth event rate (single and multiple live births included) is expressed per 100 treatment cycles started, i.e. live birth event rate = Number of live birth events [n]/Number of treatment cycles x 100%

Source (for licensed centres)

DC Form 1, 4 & 7

Table 4 - Effect of One/Two/Three Embryo(s) Transferred (Fresh/FrozenCycle with or without ICSI1) on Pregnancy and Birth Outcomes2 in 2021(For non-donor IVF cycles only)

(Based on the information on Data Collection Forms received in the calendar year)

	One Embryo Transferred												
Age Group ³	Number of Patients	Number of Treatment Cycles ⁴ with Embryo Transferred		oing nancy ⁵	Pregnancy		Live Birth Events ⁶		Singleton Live Birth Events ⁷		Multiple Birth Events ⁸		Number of Babies born
			n ⁵⁽ⁱ⁾	(%) ⁵⁽ⁱⁱ⁾	n	(%)	n ⁶⁽ⁱ⁾	<i>(%)</i> 6(ii)	n ⁷⁽ⁱ⁾	<i>(%)</i> 7 ⁽ⁱⁱ⁾	n ⁸⁽ⁱ⁾	<i>(%)</i> ^{B(ii)}	
25 or below	9	11	5	(45.5)	0	(0.0)	5	(45.5)	5	(45.5)	0	(0.0)	5
26-30	153	188	85	(45.2)	1	(0.5)	67	(35.6)	66	(35.1)	1	(0.5)	68
31-35	1256	1547	697	(45.1)	10	(0.6)	617	(39.9)	607	(39.2)	10	(0.6)	627
36-40	1808	2325	747	(32.1)	10	(0.4)	613	(26.4)	605	(26.0)	8	(0.3)	622
41-45	433	533	108	(20.3)	0	(0.0)	80	(15.0)	80	(15.0)	0	(0.0)	80
46-50	28	34	3	(8.8)	0	(0.0)	1	(2.9)	1	(2.9)	0	(0.0)	1
51 or above	0	NA	Ν	IA	NA		NA		NA		NA		NA
Total	3687	4638	1645	(35.5)	21	(0.5)	1383	(29.8)	1364	(29.4)	19	(0.4)	1403

	Two Embryos Transferred												
Age Group ³	Number of Patients	Number of Treatment Cycles ⁴ with Embryo Transferred	Pregr	going nancy ⁵	Pregnancy Events ⁶ I				ents ⁸	Number of Babies born			
			n ⁵⁽ⁱ⁾	(%) ⁵⁽ⁱⁱ⁾	n	(%)	n ⁶⁽ⁱ⁾	<i>(%)</i> 6(ii)	n ⁷⁽ⁱ⁾	<i>(%)</i> 7(ii)	n ⁸⁽ⁱ⁾	<i>(%)</i> ⁸⁽ⁱⁱ⁾	
25 or below	1	1	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	0
26-30	42	45	23	(51.1)	8	(17.8)	22	(48.9)	14	(31.1)	8	(17.8)	30
31-35	212	231	119	(51.5)	32	(13.9)	110	(47.6)	83	(35.9)	27	(11.7)	137
36-40	447	512	220	(43.0)	40	(7.8)	182	(35.5)	148	(28.9)	34	(6.6)	216
41-45	230	270	42	(15.6)	5	(1.9)	33	(12.2)	30	(11.1)	3	(1.1)	37
46-50	23	25	1	(4.0)	1	(4.0)	1	(4.0)	0	(0.0)	1	(4.0)	2
51 or above	0	NA	٦	١A	NA		NA		NA		NA		NA
Total	955	1084	405	(37.4)	86	(7.9)	348	(32.1)	275	(25.4)	73	(6.7)	422

				Three	Emt	oryos T	ran	sferred					
Age Group ³	Number of Patients	Number of Treatment Cycles ⁴ with Embryo Transferred		ngoing gnancy⁵	Ongoing Multiple Pregnancy		Live Birth Events ⁶		Singleton Live Birth Events ⁷		Multiple Birth Events ⁸		Number of Babies born
			n ⁵⁽ⁱ) <i>(%)</i> 5(ii)	n	(%)	n ⁶⁽ⁱ⁾	<i>(%)</i> 6(ii)	n7(i)) <i>(%)</i> 7(ii)	n ⁸⁽ⁱ⁾	<i>(%)</i> ^{B(ii)}	
25 or below	0	NA		NA	NA			NA	NA		NA		NA
26-30	0	NA		NA		NA		NA	NA		NA		NA
31-35	3	3	3	(100.0)	0	(0.0)	3	(100.0)	3	(100.0)	0	(0.0)	3
36-40	12	14	3	(21.4)	0	(0.0)	3	(21.4)	3	(21.4)	0	(0.0)	3
41-45	27	28	5	(17.9)	1	(3.6)	4	(14.3)	3	(10.7)	1	(3.6)	5
46-50	5	7	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	0	(0.0)	0
51 or above	0	NA		NA	NA		NA		NA		NA		NA
Total	47	52	11	(21.2)	1	(1.9)	10	(19.2)	9	(17.3)	1	(1.9)	11

Remarks:

- NA Not applicable
- (1) **Intracytoplasmic sperm injection (ICSI)** means a method of gamete micromanipulation by which a single sperm is injected into the inner cellular structure of the egg.
- (2) Figures on **treatment outcome** reported in the interim statistics will be replaced when pregnancy outcome is available in the final statistics. Licensed centres are required to report the details concerning **pregnancy outcome** within 12 months after treatment.
- (3) The age of wife has been used in calculating the age of patient.
- (4) (i) Treatment cycles refers to the process in which a reproductive technology (RT) procedure is carried out, where a woman has undergone ovarian stimulation or monitoring with the intent of having RT procedure, or frozen embryos have been thawed with the intent of transferring them to a woman. A treatment cycle starts (a) on the day when superovulatory drugs are commenced or (b) from the date of the last menstrual period.

This annual statistics only covered treatment cycles that led to (1) gamete transfer/embryo replacement/insemination, or stopped because of (2) elective cryopreservation of all embryos or (3) cycle abandonment.

- (ii) In this table, treatment cycles for (a) RT procedures involving donated gametes/embryos and (b) involving artificial insemination (i.e. AlH and DI) are excluded from the above table and separately shown in Table 2. To avoid double counting, treatment cycles in which one patient engages in more than one type of RT procedure in one cycle (e.g. IVF and FET) are also excluded from the above table.
- (5) **Ongoing pregnancy** means ongoing pregnancy with foetal cardiac activity during the period of the year being reported on.
 - (i) n = Number of ongoing pregnancies with single foetus and multiple foetuses.
 - (ii) Ongoing pregnancy rate is expressed as number of ongoing pregnancies per 100 treatment cycles started /commenced or per 100 cycles reaching the stage of attempted oocyte retrieval or embryo transfer. i.e. Ongoing pregnancy rate = number of ongoing pregnancies [n]/Number of treatment cycles with embryo transferred x 100%
- (6) **Live birth event** means an event of the birth of one or more than one live child from one single pregnancy. The birth of live twins, triplets and so on will therefore be considered as a single "live birth event".
 - (i) n = Number of live birth events
 - (ii) Live birth event rate (single and multiple live births included) is expressed per 100 treatment cycles started, i.e. live birth event rate = Number of live birth events [n]/Number of treatment cycles with embryo transferred x 100%

- (7) **Singleton live birth event** means an event of the birth of one live child from one single pregnancy.
 - (i) n = Number of live birth events of one live child from one single pregnancy.
 - (ii) Singleton live birth event rate is expressed per 100 treatment cycles started, i.e. Singleton live birth event rate = Number of live birth events with one live child born [n]/Number of treatment cycles with embryo transferred x 100%
- (8) **Multiple live birth event** means an event of the birth of more than one live child from one single pregnancy.
 - (i) n = Number of live birth events of more than one live child from one single pregnancy.
 - (ii) Multiple live birth event rate is expressed per 100 treatment cycles started, i.e. Multiple live birth event rate = Number of live birth events with more than one live child born [n] /Number of treatment cycles with embryo transferred x 100%

Source (for licensed centres) DC Form 1 & 4

Table 5 - Pregnancy and Birth Outcomes by Age Group usingFresh/Frozen Oocytes (Fresh Cycles) in 2021(For non-donor IVF cycles only)

(Based on the information on Data Collection Forms received in the calendar year)

	Fresh Cycles Using Fresh Oocytes								
Age Group ¹	Number of Patients	Number of Treatment Cycles ²	Number of Treatment Cycles with Embryo		ioing nancy ³	Live Birl	th Event ⁴		
			Transferred	n ³⁽ⁱ⁾	<i>(%)</i> ^{B(ii)}	n ⁴⁽ⁱ⁾	<i>(%)</i> 4(ii)		
25 or below	5	6	1	0	(0.0)	0	(0.0)		
26-30	157	163	32	11	(6.7)	10	(6.1)		
31-35	1107	1205	286	97	(8.0)	80	(6.6)		
36-40	1557	1844	540	149	(8.1)	121	(6.6)		
41-45	453	680	194	17	(2.5)	13	(1.9)		
46-50	41	60	19	0	(0.0)	0	(0.0)		
51 or above	0	NA	NA	NA		NA			
Total	3320	3958	1072	274	(6.9)	224	(5.7)		

	Fresh Cycles Using Frozen Oocytes								
Age Group	Number of Patients	Number of Treatment Cycles	Number of Treatment Cycles with Embryo		going (nancy	Live Bi	rth Event		
			Transferred	n	(%)	n	(%)		
25 or below	0	NA	NA	NA			NA		
26-30	0	NA	NA	NA		NA			
31-35	6	6	3	2	(33.3)	2	(33.3)		
36-40	18	18	3	3	(16.7)	2	(11.1)		
41-45	13	16	6	1	(6.3)	1	(6.3)		
46-50	6	7	2	0	(0.0)	0	(0.0)		
51 or above	1	2	0	0	(0.0)	0	(0.0)		
Total	44	49	14	6	(12.2)	5	(10.2)		

Remarks:

NA Not applicable

(1) The age of wife has been used in calculating the age of patient.

- (2) (i) Treatment cycles refers to the process in which a reproductive technology (RT) procedure is carried out, where a woman has undergone ovarian stimulation or monitoring with the intent of having RT procedure, or frozen embryos have been thawed with the intent of transferring them to a woman. A treatment cycle starts (a) on the day when superovulatory drugs are commenced or (b) from the date of the last menstrual period.
 - (ii) In this table, treatment cycles for (a) RT procedures involving donated gametes/embryos and (b) involving artificial insemination (i.e. AIH and DI) are excluded from the above table and separately shown in Table 2. To avoid double counting, treatment cycles in which one patient engages in more than one type of RT procedure in one cycle (e.g. IVF and FET) are also excluded from the above table.

- (3) **Ongoing pregnancy** means ongoing pregnancy with foetal cardiac activity during the period of the year being reported on.
 - (i) n = Number of ongoing pregnancies
 - (ii) **Ongoing pregnancy rate** is expressed as number of ongoing pregnancies per 100 treatment cycles started /commenced or per 100 cycles reaching the stage of attempted oocyte retrieval or embryo transfer.

i.e. Ongoing pregnancy rate = number of ongoing pregnancies [n]/Number of treatment cycles x 100%

- (4) **Live birth event** means an event of the birth of one or more than one live child from one single pregnancy. The birth of live twins, triplets and so on will therefore be considered as a single "live birth event".
 - (i) n = Number of live birth events
 - (ii) Live birth event rate (single and multiple live births included) is expressed per 100 treatment cycles started, i.e. live birth event rate = Number of live birth events [n]/Number of treatment cycles x 100%

Source (for licensed centres) DC Form 1 & 4

Table 6 - Infertility Diagnosis of Patients in 2021

(Based on the information on Data Collection Forms received in the calendar year)

A) Infertility Diagnosis by Age of Wives Receiving RT Procedures (other than DI and AIH)

	Age Group (Number of Patients)								
Diagnosis	25 or below	26-30	31-35	36-40	41-45	46-50	51 or above	All	
Male factor	3	43	484	592	72	5	0	1199	
Tubal problem	2	23	77	82	12	0	0	196	
Endometriosis	0	6	53	74	7	0	0	140	
Immunologic problem	0	0	2	3	2	0	0	7	
Tubo-peritoneal problem	0	3	46	65	12	0	0	126	
Ovulatory problem	0	9	68	76	13	0	0	166	
Unexplained	0	17	198	347	71	3	0	636	
Other causes ³	9	41	174	324	192	28	0	768	
Multiple causes - female & male factors	2	53	450	789	333	32	1	1660	
Multiple causes - female factors only	0	18	103	192	63	3	0	379	
Total	16	213	1655	2544	777	71	1	5277	

Remark:

(1) All treatment cycles for RT procedures involving donated gametes/embryos are excluded.

B) Infertility Diagnosis by Age of Wives Receiving AIH

		Age Group (Number of Patients)								
Diagnosis	25 or below	26-30	31-35	36-40	41-45	46-50	51 or above	All		
Male factor	3	75	380	234	33	2	0	727		
Endometriosis	0	1	36	18	1	0	0	56		
Ovulatory problem	1	28	86	69	11	0	0	195		
Unexplained	0	23	227	145	24	3	0	422		
Other causes ³	1	19	97	137	65	8	0	327		
Multiple causes - female & male factors	0	41	235	188	52	7	0	523		
Multiple causes - female factors only	0	5	46	54	11	1	0	117		
Total	5	192	1107	845	197	21	0	2367		

C) Reasons for Treatment by Age of Husbands - DI

			Age Gro	oup (Num	nber of P	atients)		
Reasons	25 or below	26-30	31-35	36-40	41-45	46-50	51 or above	All
Obstructive azoospermia	0	0	0	0	0	0	0	0
Non-obstructive azoospermia	0	0	2	2	2	1	0	7
Severe deficits in semen quality in couples who do not wish to undergo ICSI	0	0	0	0	0	0	0	0
Genetic	0	0	0	0	0	0	0	0
Infectious disease in the male partner (such as HIV)	0	0	0	0	0	0	0	0
Severe rhesus isoimmunisation	0	0	0	0	0	0	0	0
Others	0	0	0	0	0	0	0	0
Multiple causes	0	0	1	0	0	0	0	1
Total	0	0	3	2	2	1	0	8

Remarks:

- (1) Age of wife is used in calculating the age of patient in Infertility Diagnosis by Age of Patients Receiving RT Procedures (other than DI and AIH) and receiving AIH procedures while the age of husband is used in calculating the age of patient in Reasons for Treatment by Age of Patients DI.
- (2) One patient may undergo more than one type of RT procedure during the calendar year (e.g. both IVF and AIH).
- (3) "Other causes" of infertility diagnosis reported by licensed centres included advanced maternal age, reduced ovarian reserve, coital problem, polycystic ovary syndrome, etc.

Source (for licensed centres) DC Form 1, 7 and 3 respectively

Table 7 - Current Research Projects ending December 2021

Name of Licensed Centre	Name of Project	Project Duration (in months)
(IVFHK), Prince of Wales Hospital /	A case-series study to establish preimplantation genetic screening (PGS) and its clinical application	36
Assisted Reproductive Technology Unit (IVFHK), Prince of Wales Hospital / The Chinese University of Hong Kong	Molecular analysis of culture medium samples from embryos of in-vitro fertilisation (IVF) patients	36

Remark:

(1) The full list of all research projects approved by the Council on Human Reproductive Technology ("the Council") could be accessed at the Council's website https://www.chrt.org.hk/english/embryo/embryo app.html