



IVF sector: Fertile ground for growth and consolidation

August 2024

Table of contents

I.	Executive summary & introduction	p. 3
II.	Industry overview	p. 6
III.	Country overview	p. 12
IV.	Business model overview	p. 20
V.	Valuation environment	p. 23



Executive summary

The purpose of this report is to provide our perspective on the fertility services landscape in Asia, which is garnering significant global investor interest due to surging demand and attractive characteristics of the business model

Summary of the report

- The global fertility services market is expected to grow at a **CAGR of 7%** from **US\$35bn in 2023** to over **US\$70bn in 2033**, driven by:
 - 1 **Market demand tailwinds:** Couples are increasingly seeking fertility treatment as they experience challenges conceiving (due to several factors, including age of childbirth, health, and lifestyle) and are comfortable with the effectiveness / safety of IVF treatment
 - 2 **Public policies and corporate benefits:** Governments are implementing policies to encourage couples to undergo fertility treatment to bolster the birth rate and tackle an aging population. Corporations are also beginning to offer employee benefits to support fertility treatment
 - 3 **Provider ecosystem and technology:** Scaled players are beginning to consolidate the highly fragmented market, taking advantage of scale economies, standardised procedures, and technology to drive better patient outcomes / success rates
- Market demand tailwinds are even more pronounced in Asia and the fertility market ecosystem is relatively nascent compared to the West
 - **Asia Pacific** is expected to grow at a **CAGR of 10%** over the next 10 years, **significantly outpacing global growth**
- **Fertility tourism** is also increasingly common, as individuals look to escape long waiting times and take advantage of a wider array of treatment options, more affordable care, and/or higher success rates
 - Asia continues to serve as a large outbound and inbound destination for fertility tourism
- The fertility services market has attracted considerable **interest from both strategic and financial investors**
 - The business model has attractive characteristics such as high barriers to entry (due to license requirements, brand reputation, access to talent, ability to achieve high success rates), robust EBITDA margins, and low capital intensity relative to hospitals
 - SEA has been a particular focus for global investors due to the high fragmentation of providers and large under-served populations with growing local demand for fertility services
 - India has also attracted significant interest as the IVF sector is expected to grow at a CAGR of 16% over the next 10 years, and scaled players start to emerge with the backing of financial sponsors
 - Going forward, we expect significant M&A activity in the fertility services sector across Asia, with a particular acceleration in SEA and India

What are assisted reproductive technologies (ART)?

ART include all fertility treatments to help patients with infertility achieve pregnancy

ART overview

- ART refer to the types of medical technologies and treatments complemented with laboratory technologies to assist individuals in overcoming infertility
- Infertility is broadly defined as the inability to achieve a clinical pregnancy after at least 12 months of trying naturally
- ART are often offered in a clinical setting along with other support services such as assessment, diagnostics and testing, monitoring, preconception care, and counselling
- There are three main types of ART:

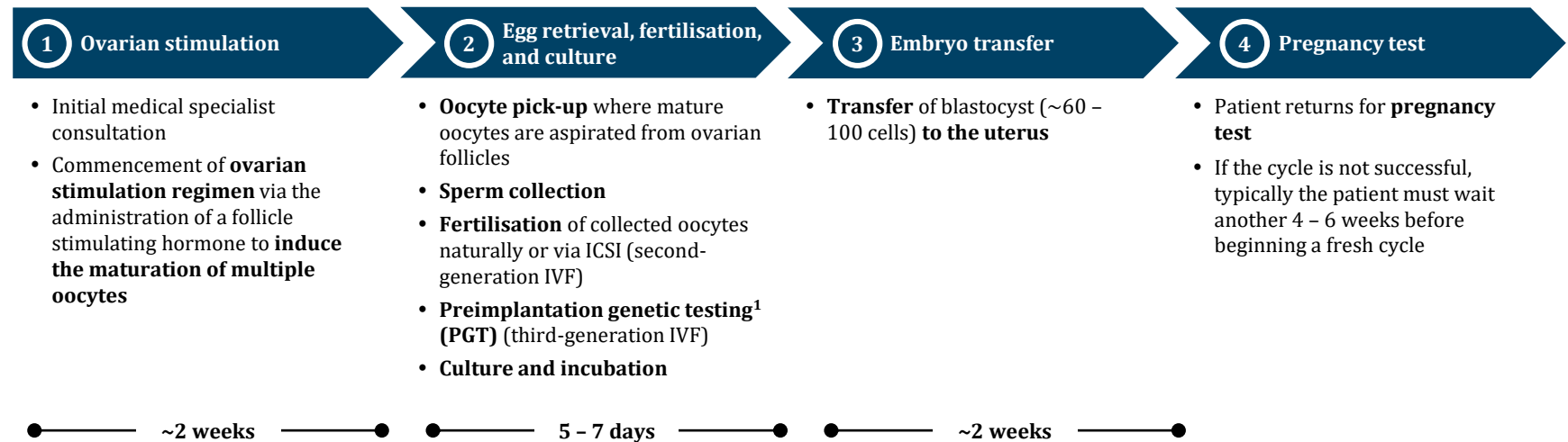
Procedure	Overview
<p><i>Key focus of the report</i></p> <p>In-vitro fertilisation (IVF)</p>	<ul style="list-style-type: none"> • Fertilisation of extracted oocytes and sperm outside of the body in a laboratory • Can be used alongside other ART including intracytoplasmic sperm injection (ICSI), where a single sperm is injected into an egg instead of natural sperm penetration (typically recommended for male-factor infertility treatment)
<p>Intrafallopian transfer (IFT)</p>	<ul style="list-style-type: none"> • Gamete IFT (GIFT): Gametes are placed directly into the fallopian tubes via laparoscopy • Zygote IFT (ZIFT): Combination of IVF and GIFT • Pronuclear stage tubal transfer (PROST): Transfer of a fertilised egg to a fallopian tube before cell division occurs
<p>Intrauterine insemination (IUI) / artificial insemination</p>	<ul style="list-style-type: none"> • Collection, washing, and concentration of sperm, which is transferred to the uterus around ovulation

What is IVF?

IVF is the most common fertility treatment offered today due to its high success rates, safety, and relative affordability

IVF overview

- IVF consists of a set of procedures that involves the in-vitro handling of human oocytes and sperm or embryos to establish a pregnancy
- IVF is most often utilised when other, less expensive / complex fertility techniques have failed
- First performed in 1978 in England and over 8 million babies worldwide have now been born via IVF
- A typical fresh IVF cycle requires **4 – 5 weeks** and involves the following steps:



Why IVF is the most used ART

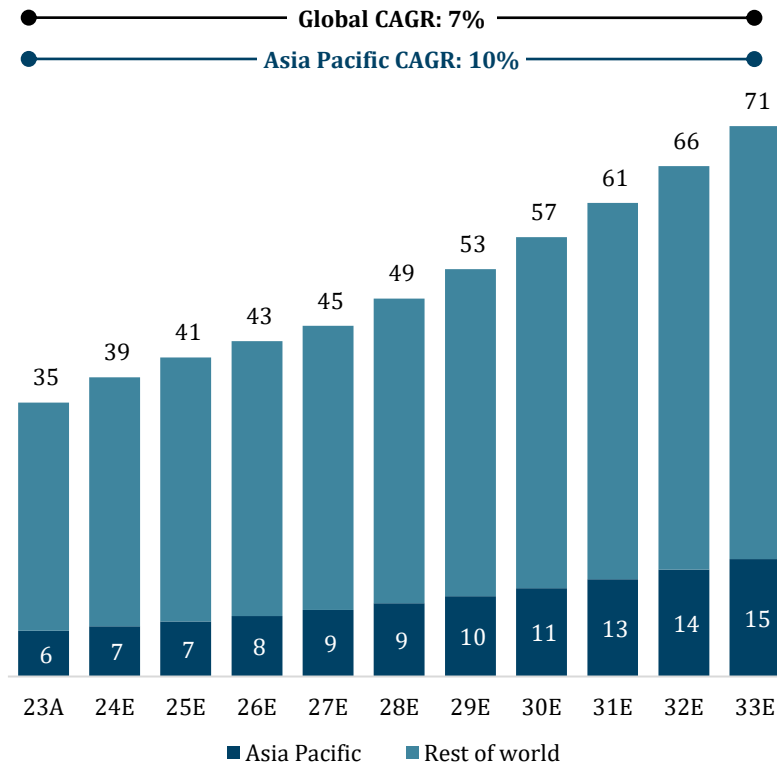
- ✓ **High success rates** relative to other ART
- ✓ Established **track record of safety**
- ✓ Used to **address a wide range of fertility issues**
- ✓ **Accessible and relatively affordable**

Global fertility services market overview

The global fertility services market is expected to grow at a CAGR of 7% over the next 10 years, driven by significant demand tailwinds, broader corporate and government support, and an expanding ecosystem with advanced technologies

A high growth market driven by...

Global fertility market size, US\$bn



The IVF market growth rate in Asia Pacific is expected to outpace the global average by 3pp

Source: Precedence Research

...robust market demand, policies, and provider ecosystem

Market demand tailwinds



Lifestyle changes

- Women are prioritising education and careers, pushing back the average age of having children



Health conditions

- Rising infertility rate due to health conditions driven by stress, poor dietary habits, alcohol consumption, and environmental pollution



Awareness & acceptance

- Increasing awareness and comfort in fertility treatment, driven by an established track record and growing societal acceptance

Corporate and government policies



Public policies

- Governments are introducing policies to encourage couples to have children and help fund fertility treatment



Corporate benefits

- Corporations are expanding their benefit policies to provide support to individuals seeking fertility treatment

Provider ecosystem and technologies



Industry consolidation

- The clinic ecosystem is highly fragmented, with market leaders beginning to consolidate the market and improve the quality of care



Technological advancements

- New technology, such as next generation sequencing (NGS) / PGT are contributing to better patient outcomes

Industry tailwinds: market demand tailwinds

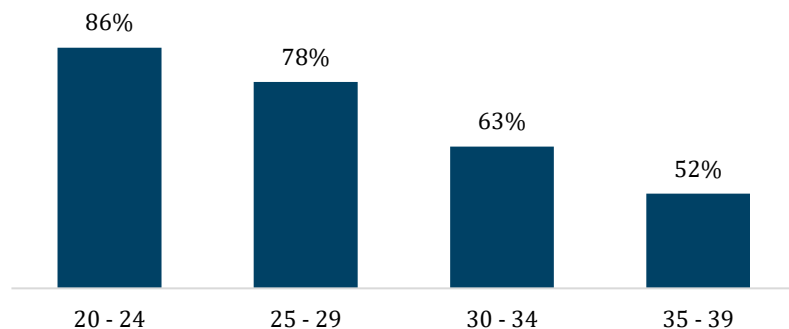
Delayed childbirth and increasing prevalence of health conditions have contributed to rising infertility rates, driving significant demand for IVF services

Commentary

- Women are **prioritising higher education and career opportunities**
 - **Delayed parenthood increases the risk of infertility**, prompting couples to seek fertility services
- **Environmental pollution** and **changing lifestyles** including greater stress, obesity, poor dietary habits, excessive alcohol consumption, and a sedentary lifestyle have negatively impacted fertility
- **Increased social acceptance** of IVF due to safety, effectiveness, and affordability has resulted in people being aware of and comfortable to consider such options
- **Growing number of single mothers by choice** and **LGBTQ+ couples having children** have led to a greater adoption of ART services

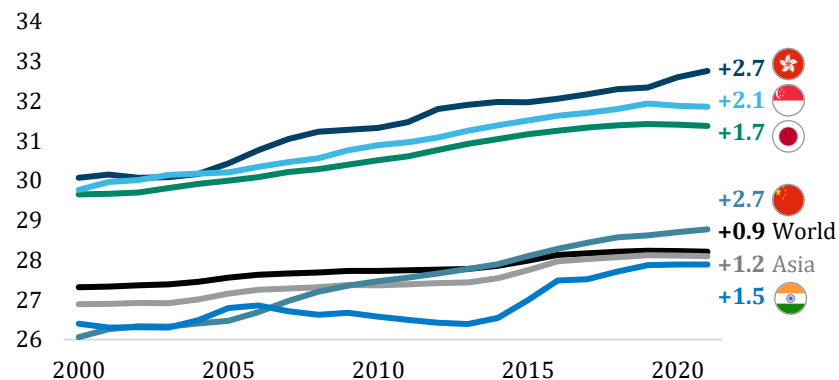
Chances of a natural pregnancy decrease significantly with age

Likelihood of a natural pregnancy by age within 1 year, %



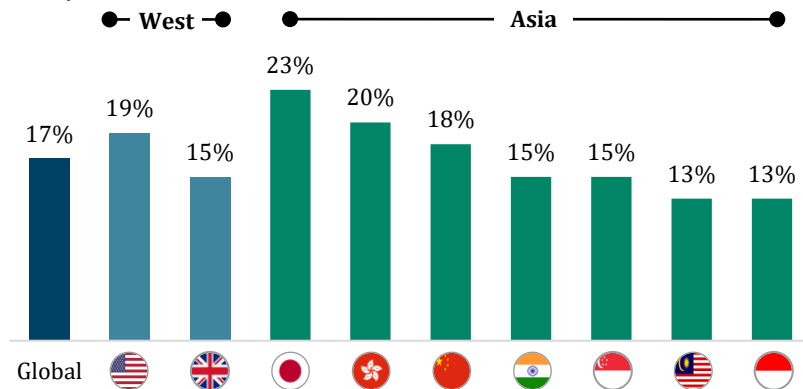
Couples are delaying childbirth, especially in Asia

Average age of women at birth of first child, Years



1 in 6 couples worldwide are affected by infertility

Infertility rates, %



Industry tailwinds: corporate and public policies

The public and private sectors are increasing support for couples seeking fertility services

Growing government support and improved funding

- Governments have **introduced new policies to encourage childbirth**, offering **greater flexibility on treatment plans**
- These measures have led to **additional support and funding for fertility treatment**, including IVF, embryo transplantation, and cryopreservation
- Government coverage is **typically applicable only for public hospitals**, which can have **lower success rates** and **longer waiting times**, resulting in patients seeking care from the private sector

“Soon, govt hospitals to offer expensive IVF treatment valued at over Rs 2 lakh [~US\$2.4k], for free to infertile couples in state”

- Feb 2024



“Beijing to cover IVF, other fertility treatments for couples from July 2023”

- Jul 2023



“Singapore to allow women, including singles, to freeze their eggs for non-medical reasons”

- Mar 2022

THE STRAITS TIMES 

“China has formally revised its laws to allow couples to have up to three children, to boost the birth rate”

- Aug 2021



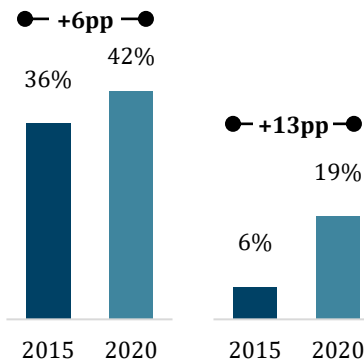
Private sector is increasingly covering fertility services

- Companies are offering fertility coverage as they **focus on diversity, equity, and inclusion**, and seek to **attract and retain talent**
 - 43% of surveyed UK employees aged 24 – 34 have indicated a willingness to consider switching jobs due to a lack of workplace support for fertility services¹
- Providing fertility coverage creates a **win-win situation** for both employees and employers:
 - Employers benefit as employees exhibit **greater loyalty, productivity**, and **lower absenteeism** from reduced stress
 - Employees benefit as they have **reduced financial stress** given the cost of treatment and have **increased access to care**

Fertility coverage is growing

% of companies (20k+ US employees) with coverage

IVF Egg-freezing



Select companies with coverage



Sources: Peppy, British Infertility Counselling Association (BICA), Fertility Matters At Work (FMAW)

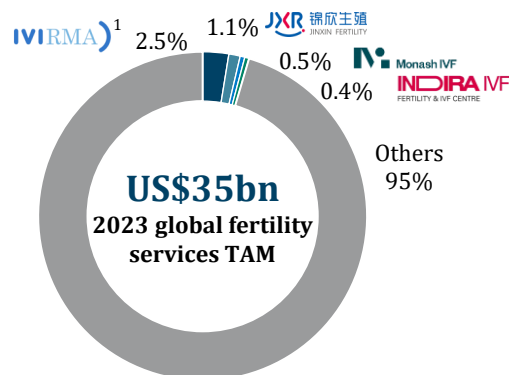
Note: (1) Survey of 1,031 employees in the UK conducted in 2023 by Peppy, FMAW, and BICA. Peppy is a UK-based fertility-focused and menopause employee benefits platform



Industry tailwinds: provider ecosystem and technologies

Market consolidation and broader developments in technology support fertility market growth through improved techniques, efficacy, and reputation amongst consumers, attracting greater patient volumes

The global fertility services market remains fragmented...



Technological advancements drive better patient outcomes

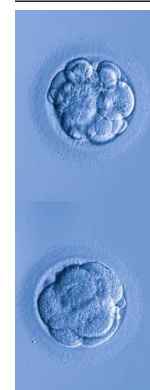
- Advancements in technology have supported **improved outcomes**, thereby **increasing acceptance and awareness for fertility services**
- Key technologies include:
 - **AI:** Enhances **embryo selection** through **assessing the likelihood of embryos that will lead to pregnancy**
 - **NGS:** Enables DNA / RNA sequencing and **variants / mutations detection**, **improving embryo selection** and successful implantation chances
 - **Vitrification: Rapid freezing technique** that improves the success rates of cryopreservation by **preventing ice crystal formation**

...though larger players have started consolidation

Selected acquisitions



Case study: AI adoption to enhance outcomes



- Alpha IVF utilises AI technologies to optimise embryo selection and outcomes
- Selected approaches include:
 - ⌚ **Time-series AI:** Time-series images analysed to identify success patterns, creating a model to rate likelihood of successful pregnancy, refined by participating clinic data
 - 🧬 **Genetic AI:** Images analysed to identify chromosomally normal embryos, creating an embryonic genetic assessment, indicating the likelihood of being chromosomally normal
- Embryos with the highest score are selected for transfer
- **Use of AI has contributed to Alpha IVF being able to achieve above-average success rates relative to its peers²**

Larger players have more resources to provide quality services and attract patients, creating a virtuous cycle of growth

Improved technologies boost safety, efficacy, and success rates, encouraging previously hesitant individuals to seek fertility services

Sources: Precedence Research, Company filings, Mergermarket, BDA research

Note: (1) Proforma 2023 revenue including acquisition of Eugin; (2) Above-average clinical success rates for IVF for patients aged 35 and above for selected peers (e.g. SAFE Fertility, Sunfert International, Monash International, Sincere International, and Virtus Fertility)

Global medical tourism for fertility services is on the rise

Thousands of people cross international borders every year in search of fertility services

Key reasons for travel



Navigate regulatory limitations and access services that may be **restricted** in home country



High cost of fertility treatments in home country



Intentionally seeking out clinics with **higher success rates**



Improved and more **comprehensive quality of medical service**



Extended waiting times due to limited supply in public hospitals

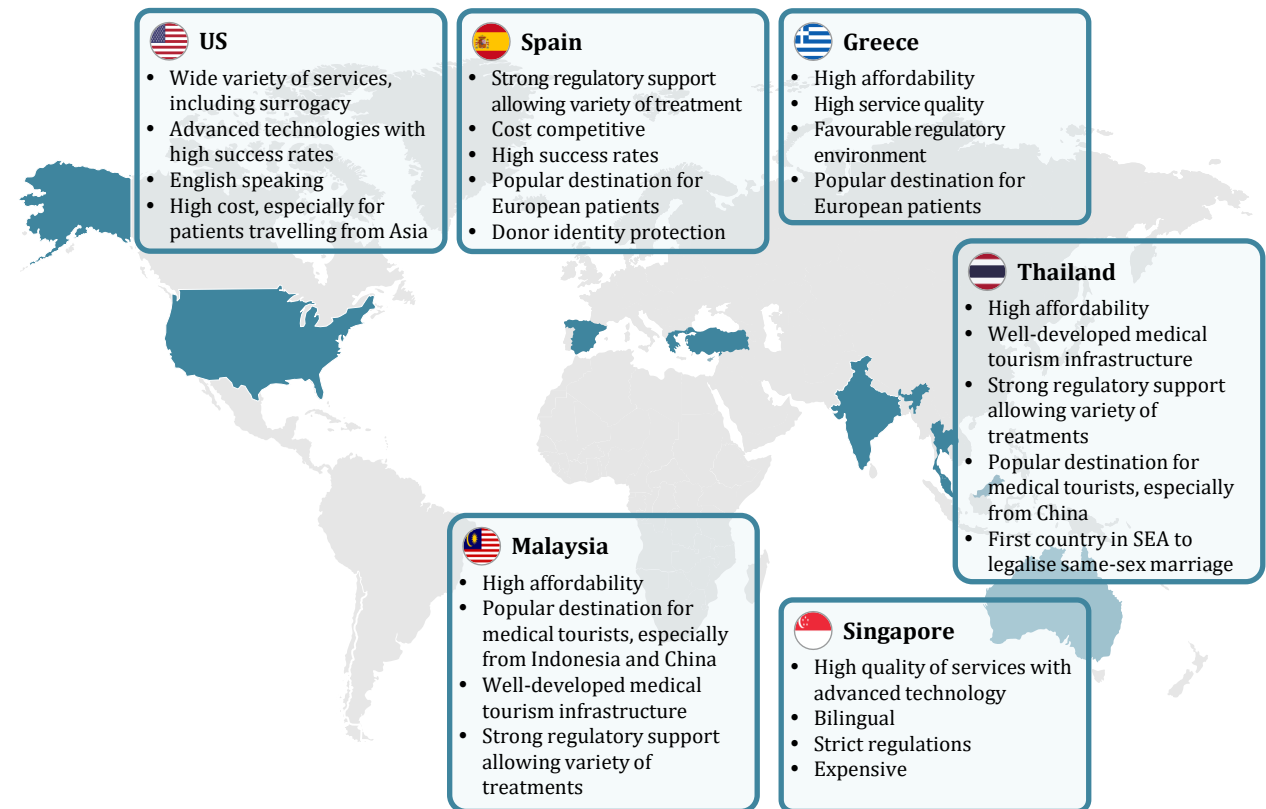


Wider treatment options, and availability of more advanced treatments



Donor availability

Selected major destinations for fertility services medical tourism

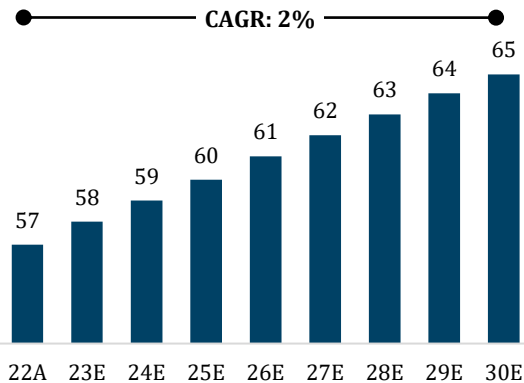


Significant demand for fertility services in Mainland China, which has historically been met abroad

Mainland China has significant unmet demand for fertility services, leading many Chinese to spend over US\$1bn annually on treatments abroad

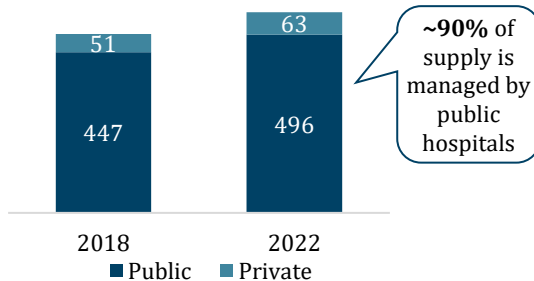
Infertility continues to increase

Number of infertile couples, millions



Domestic fertility sector is mainly public

Assisted reproductive centres by private and public sector, 2022



Long waiting times at public hospitals with an average duration of ~1 year

Key reasons why Chinese patients are travelling overseas for fertility treatments



End of the One Child Policy, thereby allowing couples to have additional children



Strict domestic regulations limiting services available (e.g. IVF access restricted to married couples diagnosed with infertility)



Fertility-related **medical infrastructure and resources** are substantially **under-developed and inadequate** because of the limited institutions for IVF and even less with PGT licenses



High patient volumes and **limited medical resources** resulting in public hospitals having **long waiting times** and only being able to provide **relatively basic ART services**



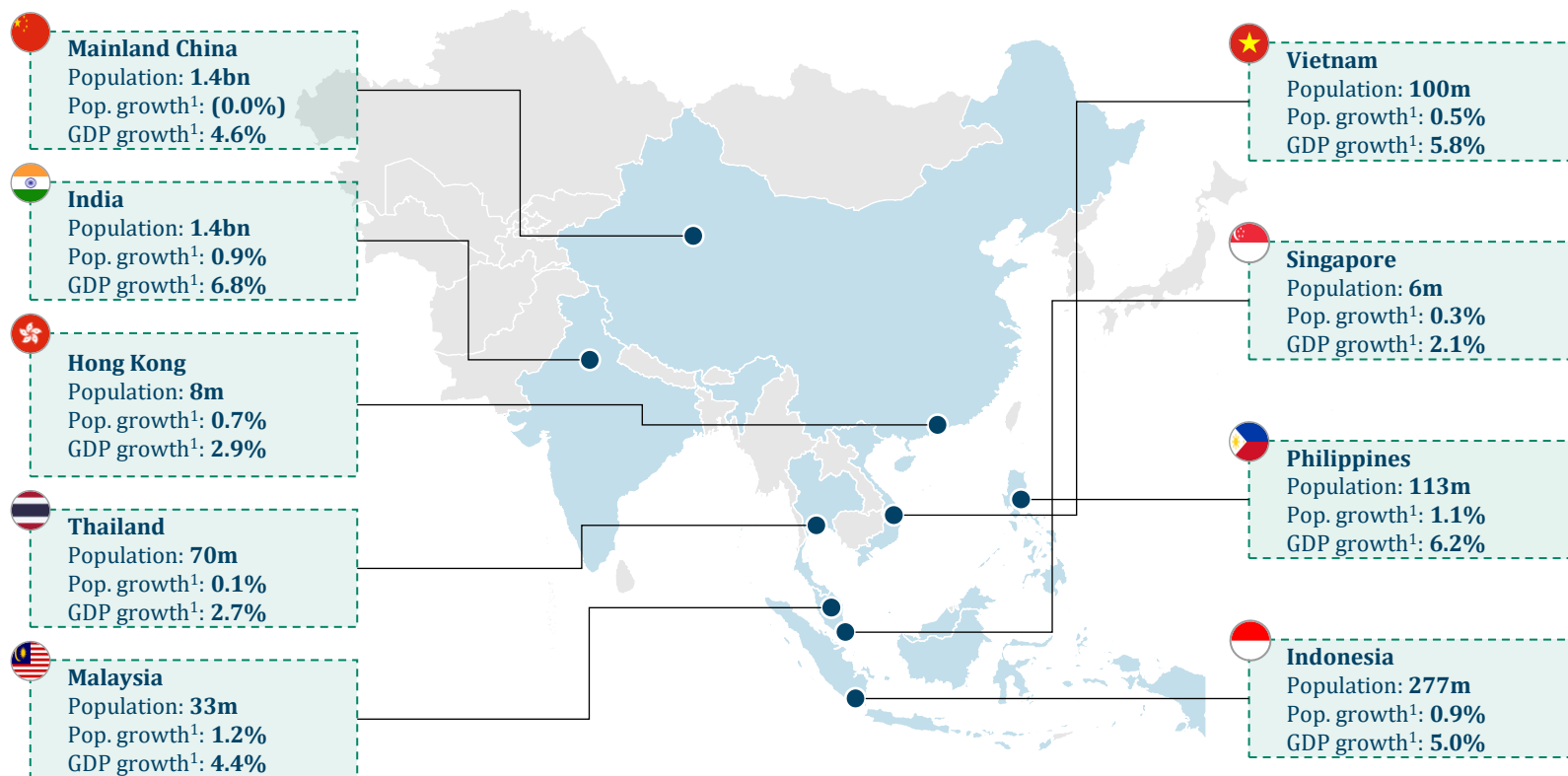
Individuals are increasingly seeking out **fertility preservation services** as they delay parenthood

Preferred destinations for Chinese tourists

Pros	<ul style="list-style-type: none"> Proximity to Mainland China High quality services Similar language and cultural background 	<ul style="list-style-type: none"> Wider variety of services available High affordability VISA free Well-developed medical tourism infrastructure 	<ul style="list-style-type: none"> High quality services Similar language and cultural background VISA free 	<ul style="list-style-type: none"> High quality services Wider variety of services available High success rates 	<ul style="list-style-type: none"> High affordability Similar language and cultural background VISA free
Cons	<ul style="list-style-type: none"> Expensive 	<ul style="list-style-type: none"> Language barriers Quality of service varies by provider 	<ul style="list-style-type: none"> Expensive Limited services available 	<ul style="list-style-type: none"> Language barriers Expensive Long travel distance 	<ul style="list-style-type: none"> Limited services available

Large, fast-growing and highly attractive economies

Greater China, India, and SEA are home to sizeable, emerging economies that are key drivers of global growth



~3.4bn
Total population (2023)



+17m
Total population growth (2024)



US\$25.3tr
Total GDP (2023)



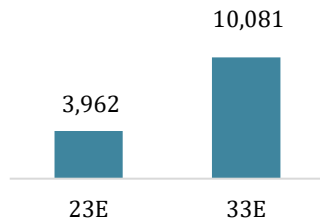
Fertility services market overview – Mainland China

Mainland China has Asia's largest fertility services market, predominantly served by public hospitals with long waiting times

Market overview

Fertility services market size (US\$m)

● CAGR: 10%



- One million annual IVF cycles performed
- Recent developments:
 - **2024:** Certain provinces (e.g. Shanghai, Qinghai) expanded health insurance coverage of fertility treatment
 - **2023:** The government pledged to improve pre- and post-natal services to boost childbirth

Private-sector competitive landscape

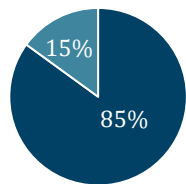
of facilities

Average price: ~US\$4,000 – US\$7,000

# of facilities	10	4	4	1
Logo				
Annual IVF cycles ¹	22,000+	~13,000	6,700	40,000+
Price	\$\$	\$\$	\$\$\$	NA

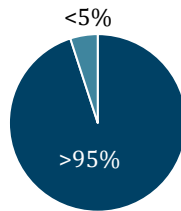
Market insights

Fertility services market by provider type



- Public
- Private

Fertility services market by patient base



- Domestic demand
- Medical tourism

Recent M&A / expansion activities

- **Apr 2024:** Jinxin Fertility acquired a 30% stake in Morula, the leading IVF player in Indonesia
- **Aug 2022:** Bytedance acquired Am-Sino, which has a highly regarded IVF hospital, for US\$1.4bn
- **Apr 2022:** Jinxin Fertility acquired Yunnan Jiuzhou Hospital, and Kunming Hewanjia OBGYN Hospital, for US\$152m
- **Dec 2018:** Jinxin Fertility acquired HRC Management to expand into the US IVF market

Regulatory overview

Technology	IVF	✓
	Elective egg freezing	
	PGT	✓ ²
Donor regulation	Commercial surrogacy	
	Sperm donation	✓
International	Egg/embryo donation	–
	Import/export gametes	
Maximum foreign ownership		70%
Public health insurance coverage		🔄

Sources: BDA research, Company websites, Company filings, LEK, Frost & Sullivan, Reuters, Mergermarket, Xinhua

Notes: (1) Annual IVF cycles per latest disclosed data. If such data is not disclosed, the number of IVF cycles is estimated via revenue and approximate pricing; (2) PGT can only be used to detect genetic disorders (e.g. thalassemia)



Fertility services market overview – Hong Kong

Greater legislative support expected to translate to an uptick in demand for fertility services in Hong Kong

Market overview

Market size ~US\$130m

Annual IVF cycles ~8,500

Pop. of birth-age women¹ 22%

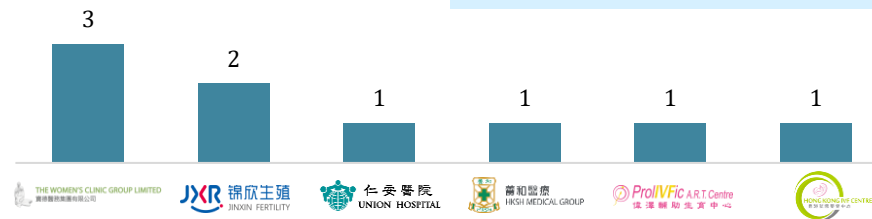
Health exp. as % of GDP 9%

- Recent developments:
 - 2024:** Legislative proposal announced tax breaks of up to HK\$100k (US\$13k) per year for couples seeking ART
 - 2023:** Announced a 3-year program where parents whose babies born from 25 Oct 2023 will receive a one-off payment of HK\$20,000 (~US\$2,600)
 - 2023:** Hospital Authority to increase ARS² quota for IVF by 60% over next 5 years³

Private-sector competitive landscape

of facilities

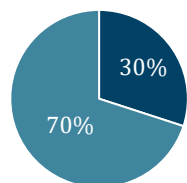
Average price: ~US\$10,000 – US\$20,000



Annual IVF cycles ⁴	~2,500	~300	NA	NA	NA	NA
Price	\$	\$	\$	\$	\$	\$

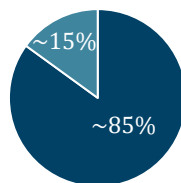
Market insights

Fertility services market by provider type



Public
Private

Fertility services market by patient base



Domestic demand
Medical tourism

Recent M&A / expansion activities

- Aug 2021:** Jinxin Fertility acquired a 51% stake in Hong Kong Reproductive Health Centre (RHC or “Gratia Medical Centre”) and Hong Kong Assisted Reproduction Centre (ARC) to further expand its presence
- Mar 2021:** Lunar Capital acquired a 47% stake in Women’s Clinic Group, the leading IVF clinic chain in Hong Kong, for US\$34m
- May 2018:** The Women’s Clinic and Reproductive Healthcare merged to form Hong Kong’s largest fertility chain

Regulatory overview

Technology	IVF	✓
	Elective egg freezing	✓
	PGT	✓ ⁵
	Commercial surrogacy	
Donor regulation	Sperm donation	✓
	Egg/embryo donation	✓
International	Import/export gametes	✓
	Full foreign ownership	✓
	Public health insurance coverage ⁶	⬇

Sources: BDA research, Company websites, LEK, Hugill & Ip Solicitors, South China Morning Post, Government websites, Hong Kong Censure and Statistics Department

Notes: (1) Females aged between 20 and 49; (2) Assisted reproductive services (3) Treatment cycles to increase from 1,100 cycles annually to 1,800 cycles; (4) Annual IVF cycles per latest disclosed data. If such data is not disclosed, the number of IVF cycles is estimated via revenue and approximate pricing; (5) PGT can only be used to detect genetic disorders (e.g. thalassemia); (6) Subsidised cost from public hospitals

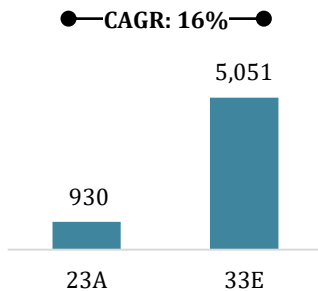


Fertility services market overview – India

Growth driven by increase in awareness and acceptance of infertility, expansion in access to fertility treatments and acceptance of assisted reproductive technologies

Market overview

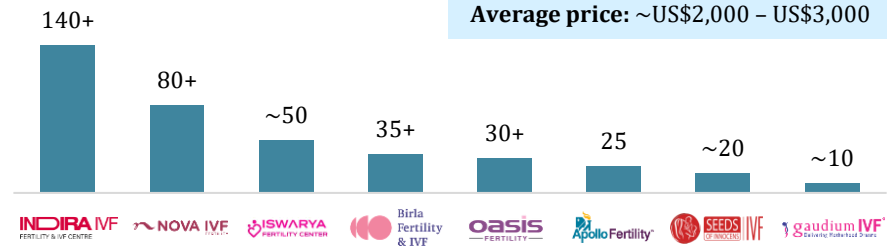
IVF services market size (US\$m)



- Rapidly expanding market with ~300,000 annual IVF cycles
- Recent developments:
 - **2024:** Central government modified surrogacy rules and announced that couples with medical conditions can use donor gametes
 - **2023:** The health ministry tightened regulations, reminding clinics to follow compliance procedures and limiting oocytes in a cycle

Private-sector competitive landscape

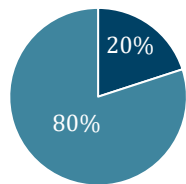
of facilities



Provider	Annual IVF cycles ¹	Price
INDIRA IVF	40,000	\$\$
NOVA IVF	18,000	\$\$
ISWARYA FERTILITY CENTER	NA	\$\$
Birla Fertility & IVF	NA	\$
oasis FERTILITY	NA	\$\$
Apollo Fertility	NA	\$\$\$
SEEDS IVF	NA	\$\$
gaudium IVF	2,500+	\$\$

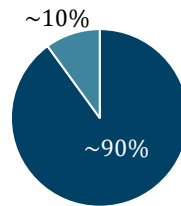
Market insights

Fertility services market by provider type



■ Public
■ Private

Fertility services market by patient base



■ Domestic demand
■ Medical tourism

Recent M&A / expansion activities

- **Jun 2024:** CX Partners acquired a majority stake in Sabine Hospital, an IVF services provider, for US\$50m
- **May 2024:** Birla Fertility & IVF acquired an 86% stake in ARMC IVF, for US\$11m
- **Nov 2023:** EQT acquired a 66% stake in India's largest fertility clinic chain, Indira IVF, for US\$700m
- **Apr 2023:** Verlinvest committed US\$50m to build fertility platform through its investment in Ferty9

Regulatory overview

Technology	IVF	✓
	Elective egg freezing	✓
	PGT	✓ ²
	Commercial surrogacy	
Donor regulation	Sperm donation	✓
	Egg/embryo donation	✓
International	Import/export gametes	✓
	Full foreign ownership	✓
	Public health insurance coverage	ⓘ ³

Sources: BDA research, Company websites, LEK, Custom Market Insights

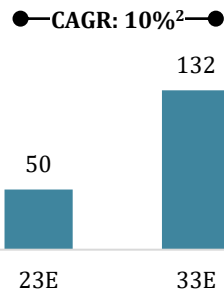
Notes: (1) Annual IVF cycles per latest disclosed data. If such data is not disclosed, the number of IVF cycles is estimated via revenue and approximate pricing; (2) PGT can only be used to detect genetic disorders (e.g. thalassemia); (3) Private insurers and select states are starting to provide reimbursement for IVF

Fertility services market overview – Malaysia

Malaysia remains a relatively popular destination for fertility tourism, lured by lower costs, high success rates, and cultural familiarity

Market overview

Fertility services market size¹ (US\$m) ~10,000 annual IVF cycles performed

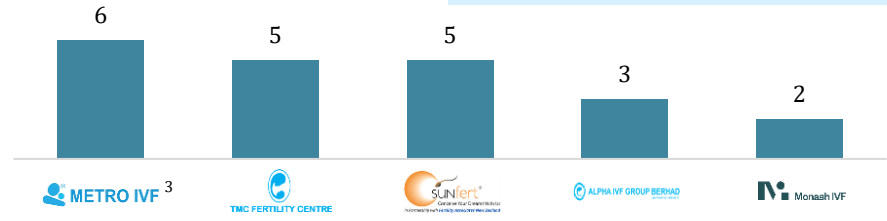


- Recent developments:
 - **2023:** The government announced the construction of its first national subfertility centre, and is expected to be operational in 2029

Private-sector competitive landscape

of facilities

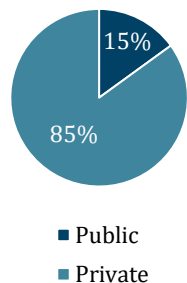
Average price: ~US\$3,000 – US\$5,000



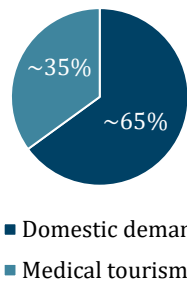
Company	Annual IVF cycles ⁴	Price
METRO IVF ³	~1,000	\$\$
TMC FERTILITY CENTRE	NA	\$\$\$
SUNfert	~1,750	\$\$\$
ALPHA IVF GROUP BERHAD	~2,800	\$\$\$
Monash IVF	NA	\$\$ / \$\$\$

Market insights

Fertility services market by provider type



Fertility services market by patient base



Recent M&A / expansion activities

- **May 2024:** Metro Healthcare, a fertility and OBGYN services provider, filed for an IPO on the ACE Market of the Bursa Malaysia to raise capital (transfer listing from LEAP Market)
- **Mar 2024:** Alpha Group (KLSE:ALPHA) began trading on the KLSE. Shares available for public subscription were oversubscribed by 2.7x. Alpha Group has reaffirmed its commitment to both domestic and international expansion
- **2016:** Fertility Associates entered a partnership with Sunfert to expand in Malaysia

Regulatory overview

Technology	IVF	✓
	Elective egg freezing	✓
	PGT	✓ ⁵
	Commercial surrogacy	
Donor regulation	Sperm donation	✓
	Egg/embryo donation	– ⁶
International	Import/export gametes	✓
Full foreign ownership		✓ ⁷
Public health insurance coverage		📄

Sources: BDA research, Company websites, LEK, The Star Malaysia, The Edge Malaysia, Bernama, Malay Mail, Malaysian Investment Development Authority

Notes: (1) Market size for fertility and OBGYN services; (2) Assumed to grow at 11% until 2026, and at the Asia fertility market growth rate of 10% thereafter; (3) Metro IVF has 6 fertility clinics, in addition to 3 maternity hospitals, 6 clinics and 1 diagnostic imaging centre; (4) Annual IVF cycles per latest disclosed data. If such data is not disclosed, the number of IVF cycles is estimated via revenue and approximate pricing. Alpha Group calculated as number of IVF cases; (5) PGT can only be used to detect genetic disorders (e.g. thalassemia); (6) Permitted for non-Muslims only; (7) Foreign ownership for private healthcare facilities is subject to approval



Fertility services market overview – Singapore

Singapore has seen a sustained growth in demand for IVF services, backed by government initiatives. This demand has historically been met by public hospitals

Market overview

Market size ~US\$150m

Annual IVF cycles ~11,000

Pop. of birth-age women¹ ~20%

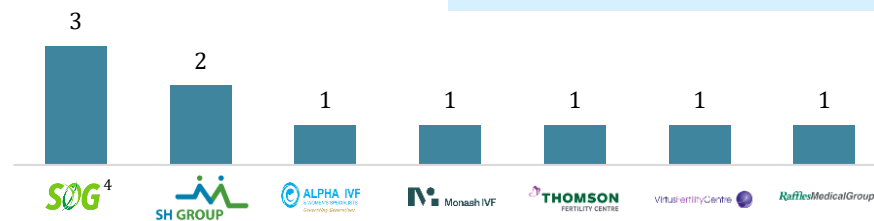
Health exp. as % of GDP ~6%

- Recent developments:
 - **2024:** Public hospitals (KKH² & SGH³) are increasing IVF capacity (~20%) in response to growing demand
 - **2023:** Women regardless of marital status, are allowed to freeze eggs. Age limit also raised from 35 to 37 years
 - **2022:** Couples to receive funding support from government for certain PGTs

Private-sector competitive landscape

of facilities

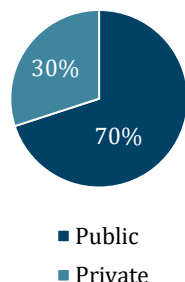
Average price: ~US\$12,000 – US\$18,000



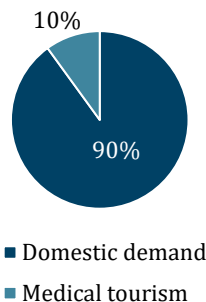
Annual IVF cycles ⁵	NA	NA	~300	NA	NA	NA	NA
Price	\$ ⁴	\$\$\$	\$\$	\$\$\$	\$\$\$	\$\$\$	\$\$\$

Market insights

Fertility services market by provider type



Fertility services market by patient base



Recent M&A / expansion activities

- **Apr 2022:** Monash IVF further its SEA expansion with the opening of its first clinic in Singapore
- **Mar 2022:** Dymon Asia acquired Singapore O&G, a women and children's health service provider, for US\$96m
- **Feb 2019:** CHA Healthcare invested ~US\$37m into Singapore Medical Group (SMG), increasing its stake to 24%. SMG has an OBGYN clinic group in Singapore and a fertility business in Australia

Regulatory overview

Technology	IVF	✓
	Elective egg freezing	✓
	PGT	✓ ⁶
	Commercial surrogacy	
Donor regulation	Sperm donation	✓
	Egg/embryo donation	✓
International	Import/export gametes	✓
Full foreign ownership		✓
Public health insurance coverage		🔄

Sources: BDA research, Company websites, LEK, The Straits Times, Mergermarket, Zico Law, World Bank

Notes: (1) Singapore female citizens aged between 20 and 49; (2) KK Women's and Children's Hospital; (3) Singapore General Hospital; (4) SOG clinics only offer IUI services; (5) Annual IVF cycles per latest disclosed data. If such data is not disclosed, the number of IVF cycles is estimated via revenue and approximate pricing. Alpha Group calculated as number of IVF cases; (6) PGT can only be used to detect genetic disorders (e.g. thalassemia)

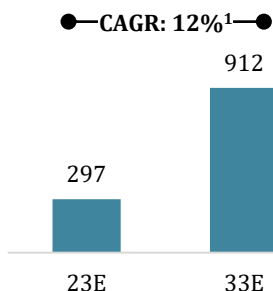


Fertility services market overview – Thailand

Thailand is a leading destination for fertility tourism, with recent legislation changes and proposals that can help support an above-average market growth

Market overview

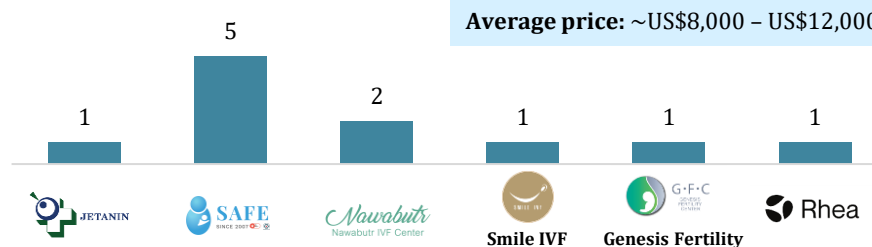
Fertility services market size (US\$bn)



- ~30,000 IVF cycles performed annually
- Recent developments:
 - **2024:** Local demand has markedly increased, and foreign patient flows are diversifying from China to other countries
 - **2024:** Legalisation of same-sex marriage
 - **2024:** Health ministry announced plans to end the ban on commercial surrogacy

Private-sector competitive landscape

of facilities

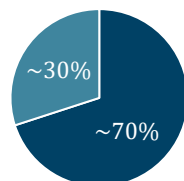


Average price: ~US\$8,000 – US\$12,000

	JETANIN	SAFE	Nawabutr	Smile IVF	Genesis Fertility	Rhea
Annual IVF cycles ²	~2,000 ³	~1,300	NA	NA	~2,000	NA
Price	\$\$	\$\$\$	NA	\$	\$	\$\$

Market insights

Fertility services market by patient base



- Domestic demand
- Medical tourism

Recent M&A / expansion activities

- **Nov 2023:** SAFE Fertility debuted on the Stock Exchange of Thailand
- **Aug 2019:** TPG acquired a minority stake in Jetanin Institute, a hospital specialising in fertility treatments, for an undisclosed sum
- **Jul 2019:** MSPE acquired a minority stake in SAFE Fertility, a leading IVF clinic operator in Thailand

Regulatory overview

Technology	IVF	✓
	Elective egg freezing	✓
	PGT	✓
	Commercial surrogacy	
Donor regulation	Sperm donation	✓
	Egg/embryo donation	✓
International	Import/export gametes	
Maximum foreign ownership		<50%
Public health insurance coverage		📌



Fertility services market overview – Vietnam, Indonesia & Philippines

Vietnam is currently the largest market in SEA for completed IVF cycles. Indonesia and the Philippines represent significant growth markets given under-penetration

Market overview – Vietnam

Market size	~US\$140m
Number of facilities	50+
Price	US\$3,000 – US\$5,000
Annual IVF cycles ¹	~50,000

Key players



Regulatory overview

Technology	IVF	✓
	Elective egg freezing	✓
	PGT	✓ ²
	Commercial surrogacy	
Donor regulation	Sperm donation	✓
	Egg/embryo donation	✓
International	Import/export gametes	
Full foreign ownership		✓
Public health insurance coverage		○

Market overview – Indonesia

Market size	~US\$40m
Number of facilities	50+
Price	US\$2,000 – US\$4,000
Annual IVF cycles ¹	~12,000

Key players



Regulatory overview

Technology	IVF	✓
	Elective egg freezing	✓
	PGT	✓ ²
	Commercial surrogacy	
Donor regulation	Sperm donation	
	Egg/embryo donation	
International	Import/export gametes	
Full foreign ownership		✓
Public health insurance coverage		○

Market overview – Philippines

Market size	~US\$40m
Number of facilities	~10
Price	US\$5,000 – US\$7,000
Annual IVF cycles ¹	~7,000

Key players







Regulatory overview

Technology	IVF	✓
	Elective egg freezing	✓
	PGT	✓ ²
	Commercial surrogacy	
Donor regulation	Sperm donation	✓
	Egg/embryo donation	✓
International	Import/export gametes	
Full foreign ownership		✓
Public health insurance coverage		○

Characteristics that make the IVF business model attractive

IVF clinic operators experience high barriers to entry as the business gains scale, including robust revenue growth and EBITDA margins, while employing less capital compared to other healthcare service specialties

Key characteristics

 <p>Resilient demand</p>	<ul style="list-style-type: none"> • IVF effectiveness declines with age, creating a sense of urgency for patients to seek treatment regardless of macroeconomic conditions • Patients are highly motivated and often willing to travel internationally to the doctors and clinics with the best success rates, reputation, and treatment options
 <p>High barriers to entry</p>	<ul style="list-style-type: none"> • Regulatory licenses: The IVF market is highly regulated, making it difficult for new players to attain the required licenses • Brand reputation: Patients seek leading clinics with a proven track record of high success rates and reputation of quality. It takes many years to build a strong brand / reputation, making it difficult for new entrants to gain market share from incumbents • Access to talent: Doctors are the key asset for IVF clinics and can have a significant impact on the treatment outcomes and reputation of the clinics. Attracting and retaining key doctors is key for incumbents and a large barrier to entry for new players • Access to capital: New entrants require capital to acquire the medical equipment and build out the clinics. While capital can be a barrier to entry, it can often be overcome by doctors with meaningful financial resources or private-equity sponsors
 <p>High profitability</p>	<ul style="list-style-type: none"> • High level of specialisation and barriers to entry allow clinics to charge a premium price for services, and the ability to pass on any cost increases to customers with minimal change in demand • Improved technology can reduce overall treatment costs by reducing the number of cycles required for success • Fertility clinics generally have a median EBITDA margin of 33%¹
 <p>Significant growth potential</p>	<ul style="list-style-type: none"> • Fast-growing market with a CAGR of 7% from 2023 – 2033, and accelerated growth in Asia with a CAGR of 10% over the same period • Significant runway for growth given lifestyle changes and rising infertility to persist, ensuring patient flows for fertility services • Market remains highly fragmented, with the largest player globally having a ~3% market share – further opportunity for consolidation to build regional fertility services businesses

Benefits of scale in the IVF sector



Greater breadth of services available to patients leveraging regulatory differences across markets



Superior margins due to economies of scale and patient volumes



Capacity for investment in new technologies, training, marketing, and recruitment
























Stronger brand recognition and success rate, attracting larger patient volumes

Fertility services investment landscape

Strategics and financial sponsors are interested in the fertility services sector in Asia

Financial sponsors have reiterated their confidence in the sector

Date	Buyer	Target	HQ	# of clinics ¹
Jun 2024	CXpartners 	Sabine 		1
May 2024	THIEL ²	Rhea 		2
Nov 2023	KKR / IVIRMA) G E D	eugin 		~69
Oct 2023	Driv 	MEDICUS 		4
Jul 2023	IEQT 	INDIRA IVF FERTILITY & IVF CENTRE		116
Aug 2022	KEDAARA 	oasis FERTILITY		26
May 2022	Liverpool Partners 	genea 		12
Mar 2022	KKR	IVIRMA)		75+
Mar 2022	Liverpool Partners 	adora fertility 		4

Select financial sponsors with current and / or prior investments in ARS



Case study: Strategic expansion into SEA

- SEA has been garnering strategics' particular interest in setting up / acquiring fertility clinics in the region
- In April 2024, Jinxin Fertility announced an investment into Morula, and noted the sizable untapped potential of SEA IVF markets
- This follows a wider trend of strategics expanding into SEA, including Monash and Fertility Associates. Sponsors-backed platforms are also seeking to build such businesses (e.g. Rhea Fertility)
- We believe establishing a SEA platform is attractive as:
 - Underserved market**, with low penetration rate compared to the West
 - Patients have access to a **wider variety** of treatments
 - Quality services** with **relatively lower cost**
 - Enhanced patient experience** given consistent branding
 - Capture medical tourism flows**, particularly within SEA






Sources: Mergermarket, Company websites

Notes: (1) Number of clinics at the time of acquisition; (2) Lead investor, other investors include LifeX Ventures, Blue Lion Global, and FJ Labs

Case study: KKR and IVIRMA

KKR has built a scaled, cross-border fertility clinics platform

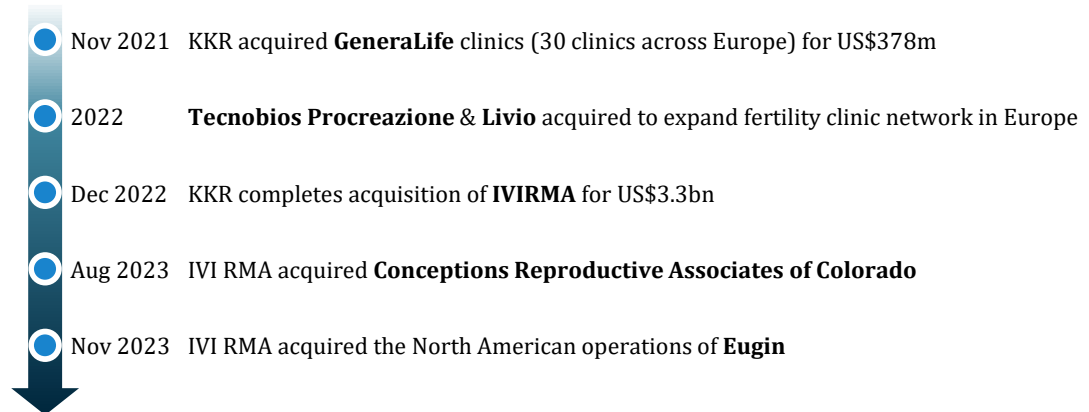
At a glance

	2023 Proforma revenue ¹	~US\$900m
	ART cycles 2023	150,000+
	Success rate ²	75%
	Babies born daily	100+
	Physicians & embryologists	465+
	Employees	4,400+

Acquisition rationale

- Integration of business with existing investment, GeneralLife (European fertility clinic group)
 - Creation of a pan-regional, vertically integrated fertility group with in-house procurement and leading genetic capabilities
 - Combined resources can enhance efficiency, service quality, and patient outcomes (e.g. larger gamete bank to allow for faster egg-donation, reducing waiting times)
- Strong industry and demand tailwinds
- Expand geographical presence within Europe and the Americas

KKR timeline to building a trans-continental fertility clinics platform













Geographical presence



Trading comparables

Listed IVF clinics are trading at **3.7x – 4.5x LTM Revenue** and **12.0x – 13.0x LTM EBITDA**














Trading comparables

Company	HQ	Enterprise Value (US\$m)	Market Cap. (US\$m)	EV / Revenue			EV / EBITDA ¹			CAGR			Margins			Capital intensity
				LTM	2024E	2025E	LTM	2024E	2025E	Revenue	EBITDA ¹	NI	20-24	20-24	20-24	Gross
 Jinxin Fertility		1,176	890	3.3x	2.9x	2.5x	12.0x	10.4x	9.2x	22.3%	24.5%	21.0%	42.1%	27.5%	12.4%	6.2%
 Monash IVF		429	351	2.8x	2.5x	2.3x	12.3x	9.6x	9.0x	13.4%	16.3%	14.4%	34.1%	22.7%	10.2%	11.4%
 Alpha IVF		317	346	8.6x	7.7x	6.1x	19.0x	16.4x	13.1x	NA ²	NA ²	NA ²	58.1%	45.5%	31.6%	5.0%
 SAFE Fertility		94	136	3.7x	3.2x	2.7x	10.2x	8.6x	7.2x	18.6%	30.1%	57.7%	55.8%	36.1%	25.5%	4.3%
 Genesis Fertility		41	49	3.9x	3.3x	2.7x	11.7x	10.3x	8.4x	20.2%	NA ²	12.8%	49.0%	33.4%	23.1%	12.8%
Mean				4.5x	3.9x	3.3x	13.0x	11.1x	9.4x	18.7%	23.6%	26.5%	47.8%	33.0%	20.5%	8.0%
Median				3.7x	3.2x	2.7x	12.0x	10.3x	9.0x	19.4%	24.5%	17.8%	49.0%	33.4%	23.1%	6.2%

Transaction comparables

IVF clinics transacted at **3.7x – 4.4x LTM Revenue** and **18.8x – 20.0x LTM EBITDA**

Transaction comparables









Date ann.	Target company	Target country	Target description	Buyer company	Percent acquired	Implied EV (US\$m)	EV/Revenue	EV/EBITDA	
Apr-24	Morula IVF		Fertility clinic chain	Jinxin Fertility	30%	NA ¹	NA ¹	NA ¹	
Nov-23	Eugin Group		International fertility clinic chain	IVI RMA, GED	100%	526	2.2x	NA ¹	
Jul-23	Indira IVF		Chain of specialty fertility clinics	EQT	66%	1,100	7.2x	23.0x ²	
Jan-23	IVI RMA		Fertility clinic chain	KKR	100%	3,225	NA ¹	20.0x	
Aug-22	Oasis Fertility		Chain of IVF clinics	Kedaara Capital	<50%	100	NA ¹	NA ¹	
May-22	Genea Limited		Provider of integrated IVF services	Liverpool Partners	100%	142	2.2x	17.1x	
Apr-22	Jiuzhou / Hewanjia Hospital		Two hospitals with IVF licenses	Jinxin Fertility	90%	167	3.5x	NA ¹	
Dec-21	Virtus Health Group		Provider of fertility and medical diagnostic services	BGH Capital	100%	620	2.6x	10.4x	
Nov-21	GeneraLife		Fertility clinic chain	KKR	100%	378	6.0x	NA ¹	
Dec-20	Eugin Group		International fertility clinic chain	Frensenius	100%	525	2.7x	13.9x	
Jun-20	Wuhan Huangpu OBGYN Hospital		Maternity hospital specialised in IVF	Jinxin Fertility	75%	61	3.9x	NA ¹	
Aug-19	Jetanin Institute		Leading IVF clinic operator in Thailand	TPG Capital	30%	800	NA ¹	22.5x ³	
Mar-19	Igenomix S.L.		Genetic testing services and IVF clinics	EQT Partners	100%	450	6.7x	20.0x	
Mean								4.4x	18.8x
Median								3.7x	20.0x

Sources: MergerMarket, Capital IQ, BDA Intelligence, press releases

Notes: (1) Figures are not publicly available; (2) Estimated multiple of 22.0x – 24.0x EBITDA; (3) Estimated multiple of 20.0x – 25.0x EBITDA

Summary of IVF M&A opportunities in APAC

BDA is currently tracking several actionable M&A opportunities in the IVF sector in APAC

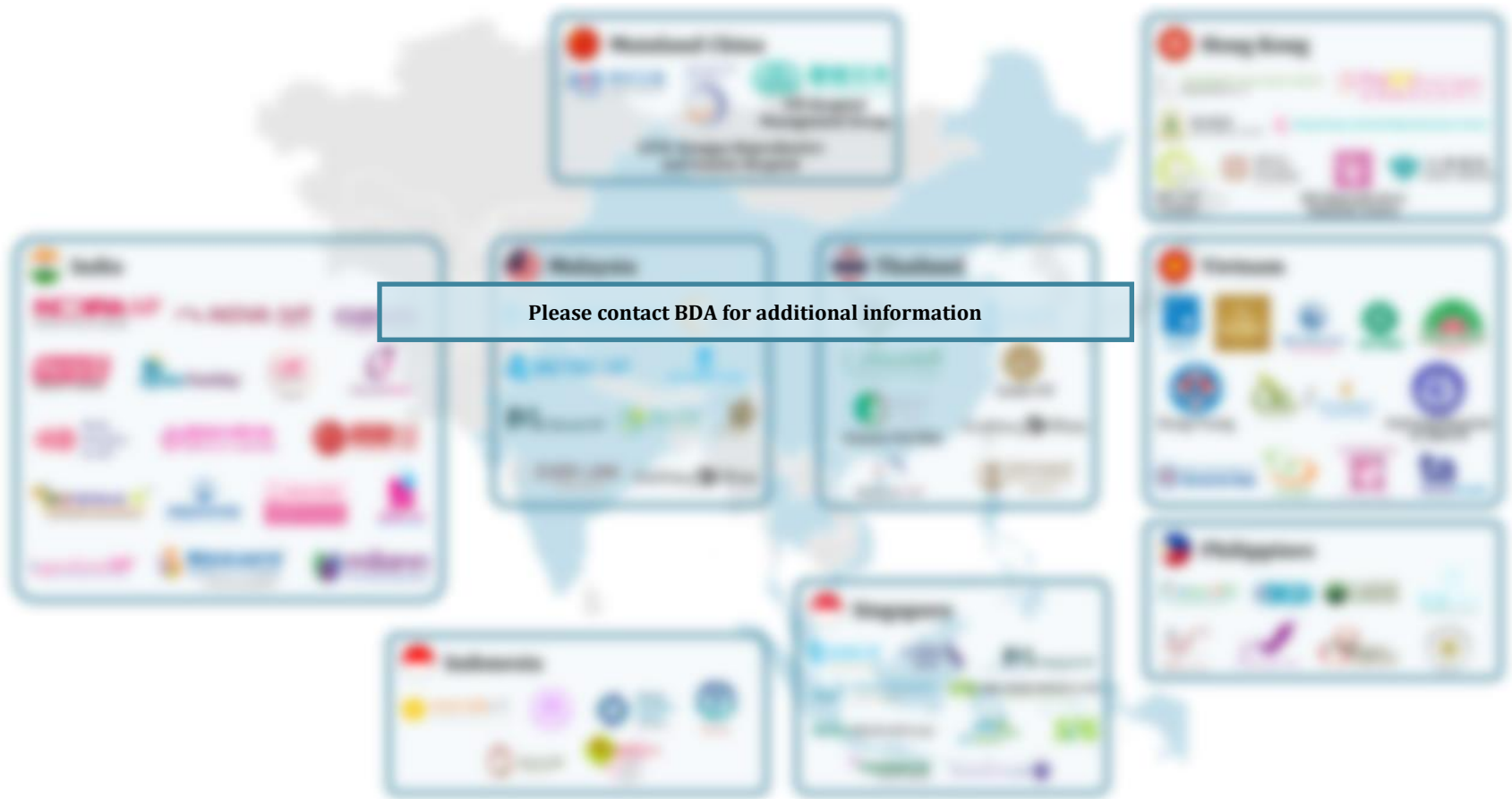
Company	HQ	Key shareholders	Business description
The Women's Clinic Group		China Capital Group	Leading fertility and gynaecology services provider
Fertility Associates		Private Equity	Provider of fertility diagnosis, support, and treatment through its portfolio of 10 clinics across New Zealand and Australia
IVF Asia		Private Equity	Leading fertility clinic in Thailand with new facilities in Bangkok
IVF Health		Private Equity	Specialist consulting in women and children's health
IVF Asia		Private Equity	Leading fertility consulting firm providing clinical services and software products, operating in 10 APAC markets
Shanghai Medical Group		Private Equity	Leading provider of specialist fertility services, gynaecology, and health consulting with 100 clinics across mainland China and Hong Kong
IVF Asia		Private Equity	Leading network of IVF centres in private hospitals in Thailand
The Asia Hospital of Fertility, Reproductive and Endocrinology		Private Equity	Specialist and integrally focused IVF hospital in Thailand capital

Please contact BDA for additional information

Fertility services market landscape in Asia

The fertility services market is highly fragmented, dominated by local players in each country

Key market players¹



Note: (1) List is non-exhaustive

BDA healthcare team



Andrew Huntley
*Managing Partner,
Head of Global Healthcare*
London, Ho Chi Minh City
ahuntley@bdapartners.com



Sanjay Singh
*Partner, Head of India, Co-
Head of Healthcare, Asia*
Mumbai
ssingh@bdapartners.com



Sophia Wu
*Managing Director, Head of
Healthcare, China*
Shanghai
swu@bdapartners.com



Claire Zhen
Director
Shanghai
czhen@bdapartners.com



Yan Xia
Director
Singapore
xyan@bdapartners.com



Aditya Jaju
Vice President
Mumbai
ajaju@bdapartners.com



Yen Pham
Vice President
Ho Chi Minh City
ypham@bdapartners.com



Eddie Kuo
Vice President
Shanghai
ekuo@bdapartners.com



Mai Truong
Vice President
Tokyo
mtruong@bdapartners.com



Mark Cerelli
Vice President
Singapore
mcerelli@bdapartners.com



Meng Zhang
Vice President
Shanghai
mzhang@bdapartners.com

Report authors

Andrew Huntley

Managing Partner, Head of Global Healthcare

ahuntley@bdapartners.com

Yan Xia

Director

yan@bdapartners.com

Mark Cerelli

Vice President

mcerelli@bdapartners.com

John Chui

Analyst

jochui@bdapartners.com

The information contained in this document is for informational purposes only and is not intended to be relied upon in any way. Statements contained in this document are made in good faith and have been derived from information believed to be reliable as of the date of this document. None of BDA Partners or any of its respective directors, officers, corporate partners, affiliates, employees or advisors (collectively, "Associates") makes any representation or warranty as to the fairness, accuracy or completeness of the information or opinions in this document. This document contains certain statements, financial data, projections, forecast, estimates and targets that are based upon assumptions and subjective judgments. There will be differences between such statements, financial data, projections, forecast, estimates and targets and actual results since events and circumstances frequently do not occur as expected, and such differences may be material. The targeted, estimated, forecasted and projected financial results contained in this document should not be considered to be a presentation of actual results. There can be no assurance that any targeted, estimated, forecasted or projected results are obtainable or will be realised.

None of BDA Partners or any of their respective Associates has independently verified, nor will independently verify, any part of this document. BDA Partners and its Associates expressly disclaim any and all liability for any loss or damage (whether foreseeable or not) suffered by any person or entity acting on, or refraining from acting because of, anything contained in or omitted from this document, whether the loss or damage arises in connection with any negligence, default, lack of care or misrepresentation, in contract or in equity, on the part of BDA Partners or its Associates or any other cause. Each recipient of this document agrees that it shall not seek to sue or hold BDA Partners or its Associates so liable in any respect for the provision of this document and the information or opinions contained herein. The receipt of this document by any recipient is not to be taken as constituting the giving of legal, accounting, tax or investment advice by BDA Partners to that recipient, nor to constitute such person a client of BDA Partners.

Neither BDA Partners nor any of its respective Associates accept any responsibility to inform the recipients of this document of any matter arising or coming to any of their notice which may affect any matter referred to in this document (including but not limited to any error or omission which may become apparent after this document has been issued). BDA Partners does not undertake or expect to update or otherwise revise this document.



bdapartners.com

NEW YORK

1270 Avenue of the Americas
Suite 2901
New York, NY 10020,
United States
Tel +1 (212) 265 5300

LONDON

2nd floor 17 Waterloo Place
St James's London
SW1Y 4AR
United Kingdom
Tel +44 (0) 20 3327 3360

MUMBAI

B-902, One BKC, G Block,
Bandra Kurla Complex,
Mumbai, Maharashtra 400051
India
Tel +91 (22) 6140 3800

HO CHI MINH CITY

Level 19, Deutsches Haus
33 Le Duan Street, Ben Nghe Ward
District 1, Ho Chi Minh City,
Vietnam
Tel +84 (28) 3620 8806

SINGAPORE

50 Collyer Quay
OUE Bayfront, #08-01
Singapore 049321
Singapore
Tel +65 6958 1200

HONG KONG

Suite 2002 20/F, 100QRC
100 Queen's Road
Central
Hong Kong SAR
Tel +852 3698 1700

SHANGHAI

HKRI Centre Two, Units 1704-1706
288 Shimen Road (No.1)
Shanghai, 200031
China
Tel +86 (21) 3217 8222

SEOUL

2F, Youngpoong Building
41, Cheonggyecheon-ro, Jongno-gu
Seoul, 03188
Republic of Korea
Tel +82 (2) 735 4220

TOKYO

27F Atago Green Hills Mori Tower
2-5-1 Atago, Minato-ku
Tokyo, 105-6201
Japan
Tel +81 (3) 3433 5800