

GTM4Health

Market Insights



India's (IVF) In-Vitro Fertilization Service Market Insights:

An Overview

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Introduction

In vitro fertilization (IVF) is a process of fertilization that takes place outside the body. IVF is considered to be an optimal medical intervention after other methods of assisted reproductive technologies have failed. ‘In vitro’ literally translates into ‘in glass’ which refers to the biological procedure being carried out outside the organism in glass containers such as petri dishes, beakers and test tubes. This is in contrast with ‘in vivo’ procedures which are carried out inside the living organism.

IVF process involves monitoring and stimulating a woman's ovulatory process, removing ovum or ova (egg or eggs) from the woman's ovaries and letting sperm fertilize them in a fluid medium in a laboratory. The fertilized egg (zygote) is cultured for 2–6 days in a growth medium and is then transferred to the patient's uterus with the intention of establishing a successful pregnancy.

The first successful birth of a ‘test tube baby’, Louise Brown, occurred in 1978 in Britain. Robert Edwards and Patrick Steptoe were the brains behind this endeavour and were endowed with due credit and recognition. In fact, Robert Edwards won the Nobel Prize in Medicine in 2010 for his work on in-vitro fertilization.



Picture 1: Process of In-vitro Fertilization

Market Overview

The India in-vitro fertilization (IVF) services market size was valued at \$883.50 Million in 2022 and is estimated to surpass \$4667.80 Million by 2032, exhibiting a CAGR of 18.08% from 2023-2032.

Market Drivers enabling Growth:

The India In-vitro fertilization services market is driven by several factors that contribute to its growth and development.

- Rise in the median age of first-time mothers drives the growth of the market. It is observed that, there has been a noticeable trend towards women delaying childbirth for various reasons, such as pursuing higher education, career advancement, and financial stability.
- As women age, their fertility declines, and the chances of natural conception decrease. This delay in starting a family has led to an increase in demand for IVF treatments, as these technologies offer hope and options for achieving pregnancy even at an older age.
- The increasing number of fertility clinics and the improving success rates of fertility treatments are significant drivers for the growth of the market.
- As the demand for fertility services rises, more clinics are entering the market to cater to the growing needs of individuals and couples seeking fertility treatments.
- advancements in assisted reproductive technologies and continuous R&D contribute to higher success rates in fertility treatments. This includes improved embryo selection methods, better culture media, and enhanced techniques for cryopreservation, leading to higher chances of successful pregnancies.

Therefore, a combination of these factors, including the rise in fertility clinics and the increasing success rates, creates a positive perception of fertility treatments among potential patients.

Factors hindering Growth:

However, factors that restrain the market growth include complications related to IVF treatment, such as

- Ovarian hyper stimulation syndrome,
- Multiple pregnancies, ectopic pregnancies,
- Risk of miscarriages.
- fertility drugs used during treatment may cause side effects, and
- Egg retrieval can pose risks like bleeding or infection.

COVID-19 pandemic adversely affected the IVF services market. Lockdown measures and disruptions in healthcare services had a temporary impact on the accessibility and availability of IVF treatments in India.

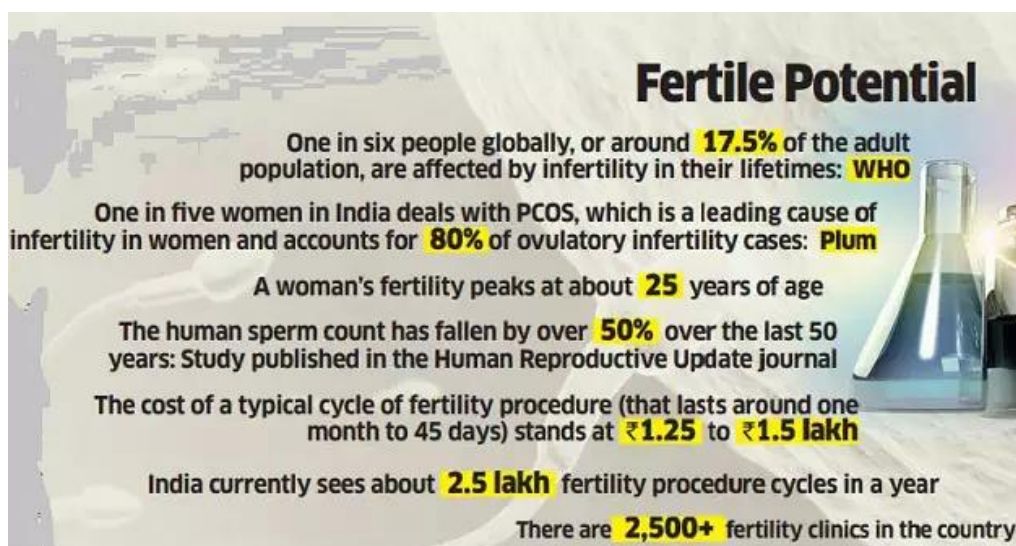
Many clinics suspended or limited their operations, resulting in a decline in the number of treatment cycles. Travel restrictions and financial uncertainties also led some individuals and couples to postpone their fertility plans. However, as restrictions eased and safety protocols were implemented, the market began showing signs of recovery.

The pandemic underscored the significance of maintaining strong healthcare systems and ensuring the uninterrupted provision of reproductive healthcare services during challenging times.

Key Segmental Overview

The India in-vitro fertilization (IVF) services market is segmented on the basis of:

- **By Gender:** It is divided into female infertility, male infertility, and others. The female infertility segment held the highest market share in terms of revenue is expected to maintain its dominance during the forecast period, owing to rising prevalence of female infertility and rise in numerous medical conditions, such as fibroid development, endometriosis, polycystic ovarian syndrome, ovulation disorders, damage to the fallopian tubes and uterus, as well as complications associated with the cervix. There have been significant improvements in diagnosing male infertility factors, leading to more precise and personalized treatment approaches for the treatment.



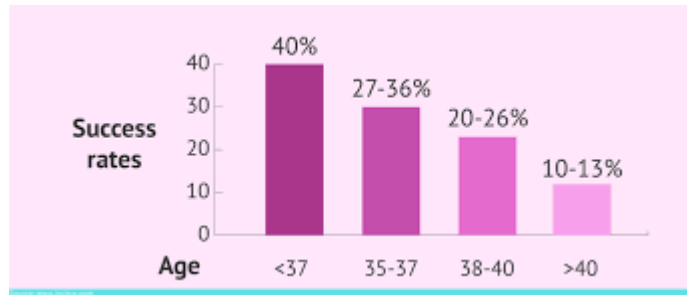
Picture 2: Reports on IVF

Reference: <https://economictimes.indiatimes.com/industry/healthcare/biotech/healthcare/whats-behind-the-babymaking-boom-in-india/articleshow/100215863.cms>

- **By Procedure:** It is classified into intracytoplasmic sperm injection (ICSI-IVF), non-ICSI-IVF, and intrauterine insemination (IUI). The ICSI-IVF segment held the highest market share in terms of revenue in year 2022 and is expected to maintain its dominance during the forecast period. The benefits of the ICSI-IVF technique are attributed to several factors. It allows for better fertilization outcomes since only one sperm and one egg is directly involved in the process, increasing the chances of successful fertilization.
- **By Cycle type:** The market is categorized into fresh cycle (non-donor), thawed cycle (non-donor), and donor egg IVF cycle. The fresh cycle segment held the highest market share in terms of revenue in 2022 and is expected to maintain its dominance during the forecast period, owing to enhanced success rates observed in fresh cycle IVF treatments.

They have become more favoured by couples seeking infertility solutions. Furthermore, fresh cycle IVF provides increased flexibility since it permits multiple attempts if the initial cycle is unsuccessful, without requiring additional expensive freezing and storage processes. However, the thawed cycle segment is expected to witness highest CAGRs during the forecast period, owing to the increasing adoption of cryopreservation techniques.

- **By End user:** It is segmented into fertility clinics, hospitals, surgical centers, and clinical research institutes. The fertility clinics segment held the highest market share and is expected to maintain its dominance during the forecast period. This is attributed to the availability of multiple fertility clinics. In addition, fertility clinics are specialized centers equipped with advanced technology and skilled medical professionals, offering a comprehensive range of fertility services, including in vitro fertilization (IVF), intrauterine insemination (IUI), egg freezing, and gamete donation.



Picture 3: Success rate of IVF vis à vis

Reference:<https://www.drhrishikeshpai.com/ivf-success-rates-in-india-what-are-your-chances-of-a-successful-ivf/>

- **By Offering:** It is divided into IVF drugs, IVF media & reagents, and IVF and IUI services. The IVF and IUI services segment held the highest market share in terms of revenue in year 2022 and is expected to maintain its dominance during the forecast period. This is attributed to the rising adoption of IVF and IUI services, which has been driven by increase in infertility cases among both, men and women.

In addition, the growing awareness and acceptance of assisted reproductive technologies (ART) has played a significant role in boosting the popularity of this segment.

Government Policies for IVF Treatment in India

- Matrutva Yojana scheme provide financial assistance to carry out IVF treatment. Monetary assistance from the government of up to five lakh rupees per married couple. The benefit will be given to help with the birth of one surviving child. An amount of Rs 25,000 will be given as advance for medical examination/test, doctor's fees, etc.
- Jiyo Parsi is a Government of India supported scheme to arrest the decline in population of the Parsi Zoroastrian Community in India. The Jiyo Parsi Scheme comprises of three components: Advocacy Component, Health of the Community Component and Medical Component.

IVF Market Challenges in India

- Lack of Knowledge regarding IVF facilities
- IVF facilities are expensive and are not affordable by many people
- Inadequate number of skilled IVF Specialist to handle the cases
- Couples hesitate to go for the treatment

City Name	IVF Cost Per Cycle
Mumbai	Rs. 1,35,000 - 3, 50000
Delhi	Rs. 1,30,000 - 2, 60000
Hyderabad	Rs. 1,25,000 - 2, 40000
Bangalore	Rs. 1,40,000 - 2, 75000
Kolkata	Rs. 1,15,000 - 2, 10000
Chandigarh	Rs. 1,28,000 - 2, 50000
Nagpur	Rs. 1,10,000 - 2, 00000
Jaipur	Rs. 1,24,000 - 2, 20000

Picture 4: Cost of IVF per cycle

Reference: <https://www.mcurefertility.com/how-much-does-ivf-cost-in-delhi/>

Key Market Players

With current market scenario, at international and national level multiple start-ups have come up with an AI based platforms that is specifically designed to enable simpler systems for fertility clinics, lesser hassles for doctors and an effortless experience for patients that can provide a standard protocol and maintain database that will be safe, secure and accurate.

Global Start- ups

- **Gaia**- London-based startup focusing on de-risking the whole IVF fertility treatment with tailored products such as payment plans or personalised insurance.
- **Kindbody**- is a leading fertility clinic network and family-building benefits provider for employers offering comprehensive virtual and in-person care. Kindbody delivers a seamless, integrated experience at a lower cost, making fertility care more affordable and accessible for all. They offer a full suite of fertility and wellness coaching services, and provide fertility consultation, egg freezing, IVF, IUI, donor services, embryo banking, and embryo storage. Additionally, the company offers coaching appointments such as nutrition counselling and therapy sessions.
- **ImVitro**- France based start-up, personalises the embryo assessment based on each patient's clinical context — instead of the more "basic" datasets that have been used to evaluate embryos to date. This enables more precise evaluations that can enhance IVF success rates per cycle by 15%, according to the startup.

Indian Start-ups

- **Baby Ready**- a Mumbai-based startup, Founded in 2020 with affordability in mind, many of the customer's hail from tier II and III cities. Claiming to be the “Practo for infertility and other reproductive problems,” it helps couples find the right doctor and clinics, offer loans, and connect them with others going through similar processes. The startup hopes to diversify offerings to aid couples in their journey of pregnancy and parenthood.

- **Elawomen**-Delhi-based data-driven fertility platform that provides video-teleconsultation, emotional and family counselling, legal support, medical loans, and medical tourism to couples who are trying to conceive. It leverages artificial intelligence technology and deploys patient-doctor matching algorithms to increase the success rate of pregnancies. Founded in 2016, Elawoman has more than 5,400 doctors and fertility clinics listed in more than 32 cities with over 2.5 lakh users and receives more than 1,100 inquiries each day.
- **Subhag**- Bangalore based start bring all the services related to infertility on a single platform where couples can consult doctors online, get tests done at their convenience, perform IUI at home, receive recommendations to best infertility centers and make the whole journey more credible and efficient.

Summary :

India has witnessed a significant surge in In-Vitro Fertilization (IVF) services, attributed to various factors such as late marriages, increased pregnancy age, growing infertility rates, rising disposable income, and greater awareness about infertility treatments.

With a success rate of 60-70 percent, the demand for IVF procedures has contributed to a remarkable 20 percent growth in the Indian fertility market over the past five years. Experts believe that the market holds immense potential for further expansion.

Abbreviations

Abbreviation	Meaning
ART	Assisted Reproductive Technology
CAGR	Compound Annual Growth Rate
ICSI	Intracytoplasmic Sperm Injection
IUI	Intrauterine Insemination
IVR	In-Vitro Fertilization
R&D	Research & Development

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