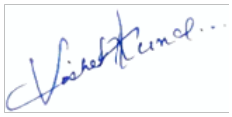
Market Intelligence
& Analytics

CRISIL
An S&P Global Company

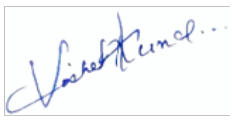
Assessment of the healthcare delivery sector in India with focus on eye care specialty

January 2025



Consulting

Contents



1 Global and Indian macroeconomic overview

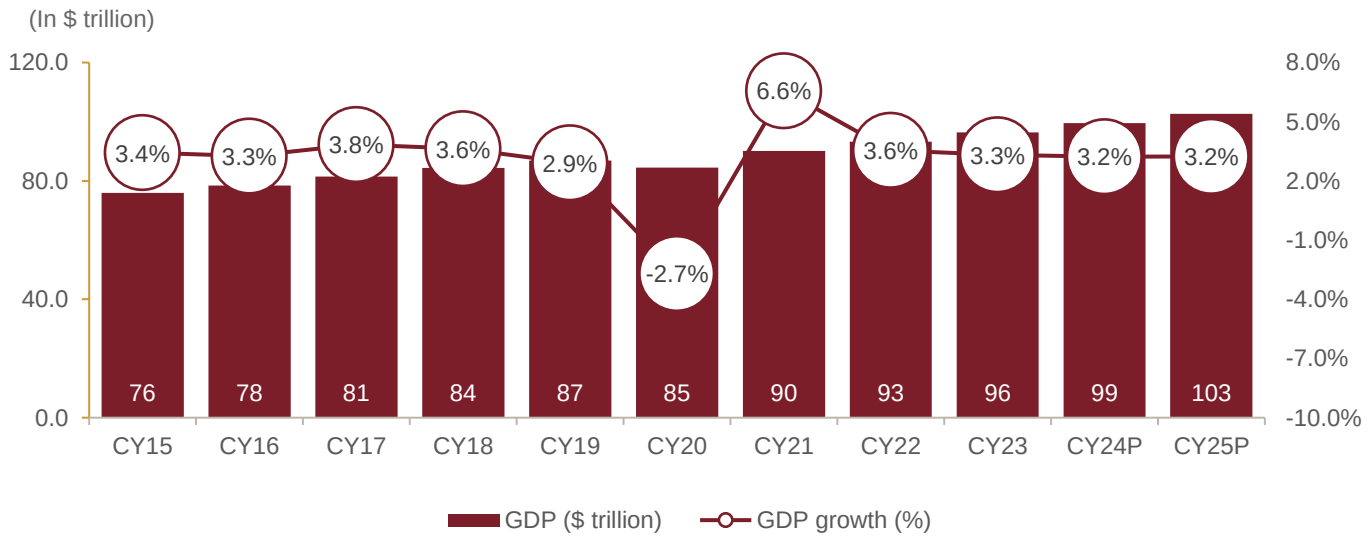
1.1 Macroeconomic indicators

Global GDP is estimated to grow at 3.2% in 2025 supported by dip in inflation and steady growth in key economies

The International Monetary Fund (IMF), in its October 2024 update, estimated global gross domestic product (GDP) growth at 3.3% for calendar 2023 and projected the growth rate of 3.2% for 2024. Emerging market and developing economies are also expected to experience stable growth through 2024 and 2025, with regional differences. The rate of growth is slightly lower compared to historical norms due to current factors such as high borrowing costs and reduced fiscal support, as well as longer longer-term impacts from Covid-19, Russia-Ukraine war, weak productivity growth and growing geoeconomic fragmentation.

Global headline inflation is expected to fall from 6.7% in 2023 (annual average) to 5.8% in 2024 and 4.3% in 2025. By late 2023, the headline inflation approached pre pandemic level in most economies. In the fourth quarter of 2023, advanced economies recorded a 2.3% quarter-over-quarter annualized headline inflation, down from the peak of 9.5% in the second quarter of 2022. In the emerging economies, inflation stood at 9.9% in last quarter of 2023, down from a peak of 13.7% in the first quarter of 2022.

Global GDP trend and outlook (2015-2025P, $ trillion)



Note: E: Estimated, P: Projection
Source: IMF economic database, CRISIL MI&A

India's GDP is expected to grow at 6.8% in fiscal 2025

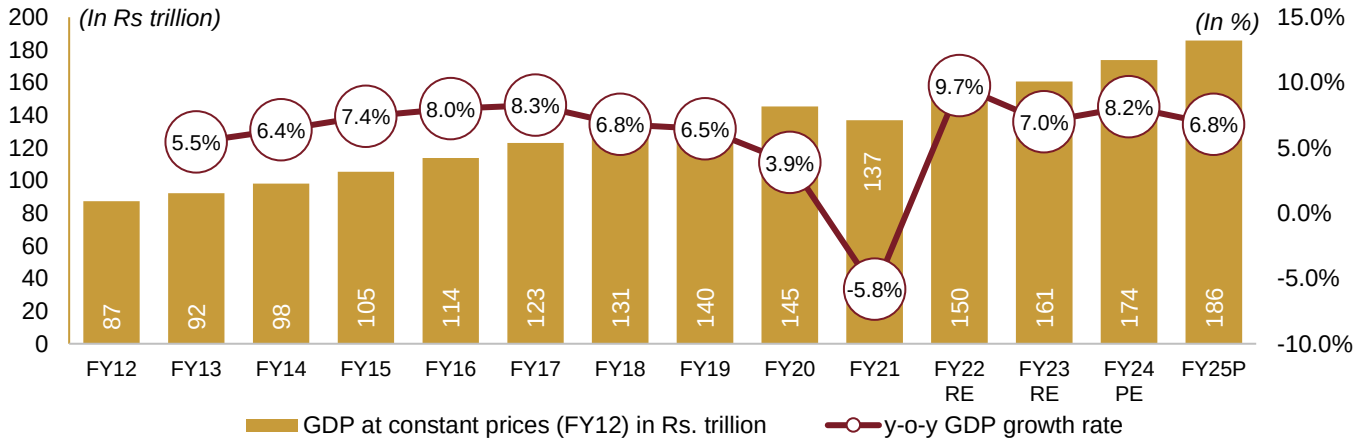
India's GDP grew at 5.9% compounded annual growth rate (CAGR) between FY12 and FY24 to Rs 173.8 trillion in FY24. In FY21, the economy was impacted by due to covid-19 pandemic but in FY22, the economy recovered with the abating of the pandemic and subsequent easing of restrictions and resumption in economic activity.

In FY23, GDP rose 7% on continued strong growth momentum, propelled by investments and private consumption. The share of investments in GDP was at 33.3% and that of private consumption was at 58.0%.

The National Statistics Office (NSO) in its provisional estimates of Annual Gross Domestic Product (GDP) for FY24, estimated India's real GDP growth to be 8.2% which is higher than its Second Advanced Estimate of 7.6%. Even as the agricultural economy slowed sharply following a weak monsoon, the surge in non-agricultural economy has more than made up for it. The government's investment push, along with easing input cost pressures for industry, has also played a major role in shoring up growth. However, services have been slowing owing to waning pent-up demand (post the pandemic), with the exception of financial, real estate, professional and healthcare services.

Analyses of the FY24 year's growth reveal notable dichotomies. Growth has primarily been fueled by fixed investments, exhibiting a robust 9% expansion, while private consumption growth lagged at 4%, trailing overall GDP growth. On the supply side, the manufacturing sector experienced the most substantial growth at 9.9%, while the agriculture and Electricity, Gas, Water Supply & Other Utility services sectors exhibited more modest growth rates of 1.4% and 7.5%, respectively. These trends underscore the varied performance across sectors, highlighting the nuanced dynamics shaping India's economic landscape in FY24. Overall, real GDP of India is estimated to have grown at 8.2% in FY24 compared with 7.0% in FY23.

Real GDP growth in India (new series) – constant prices



Note: PE: Provisional Estimates, RE: Revised Estimates, P: Projected
These values are reported by the government under various stages of estimates
Only actuals and estimates of GDP are provided in the bar graph

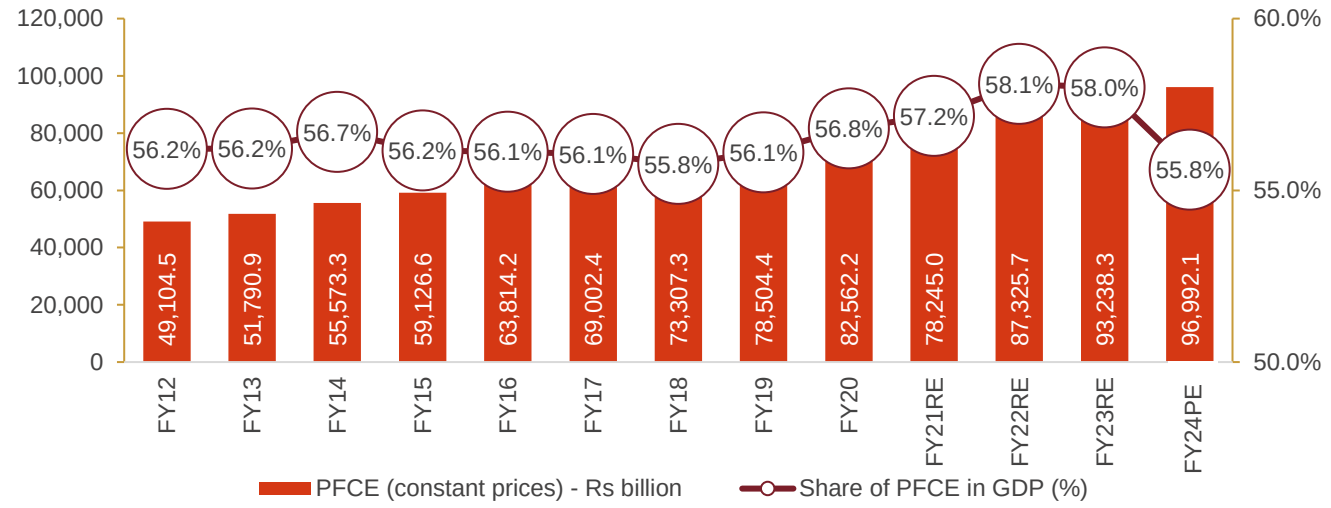
Source: Provisional estimates of annual GDP for 2023-24, quarterly estimates of GDP for the fourth quarter (January - March) of 2023-24, Central Statistics Office (CSO), Ministry of Statistics and Program Implementation (MoSPI), CRISIL MI&A

PFCE has dominant share in India's GDP

Private final consumption expenditure (PFCE) at constant prices clocked 6% CAGR between FY12-23, maintaining its dominant share of ~58.0% in FY23 (~Rs 93,238 billion in absolute terms, up 6.8% year-on-year). Growth was led by healthy monsoon, wage revisions due to the implementation of the Seventh Central Pay Commission's (CPC) recommendations, benign interest rates, growing middle age population and low inflation. As of FY24, PFCE is estimated to have further increased to Rs 96,992.1 billion, registering a y-o-y growth of ~4% and forming ~56% of India's GDP.

The increasing share of discretionary spending from FY12 suggests rising disposable incomes and spending capacity of households.

PFCE (at constant prices)

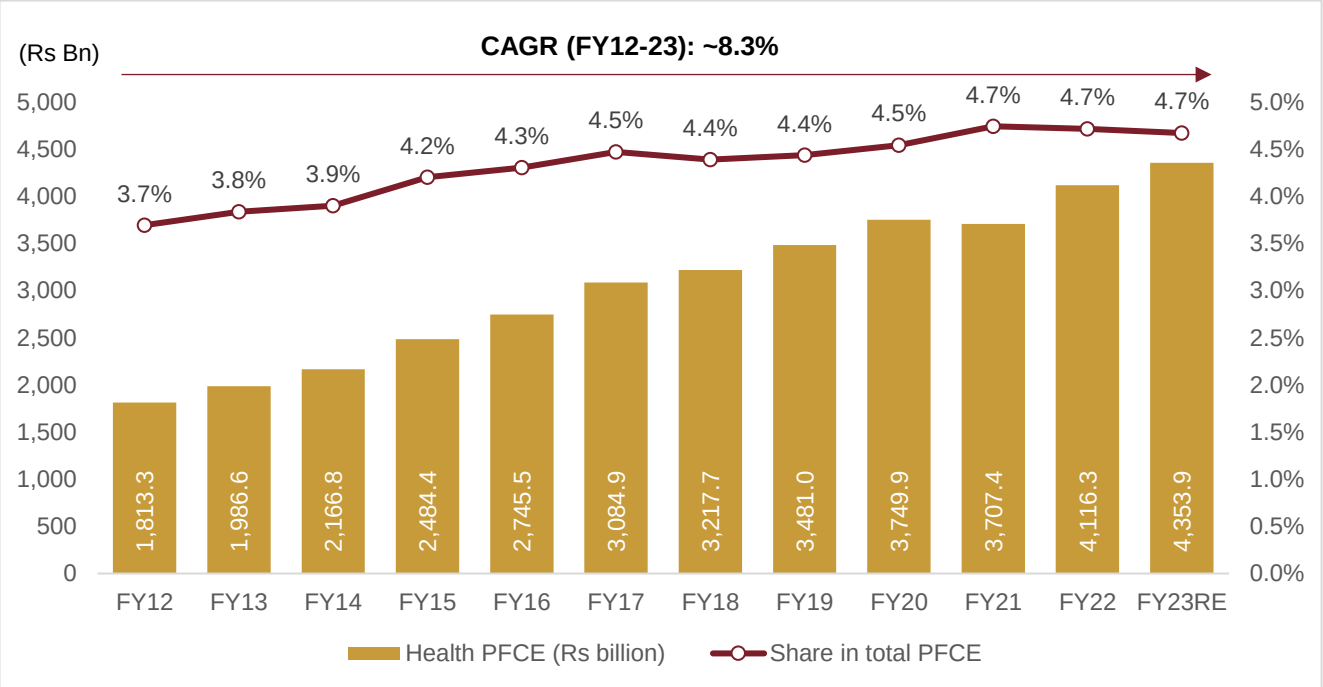


Note: RE: Revised estimates; PE: Provisional estimates
Source: Provisional Estimates of Annual GDP for 2023-24, MOSPI, CRISIL MI&A

Share of health expenditure in total PFCE consistently increasing

The share of health expenditure in total PFCE has been consistently increasing; it rose from 3.7% in FY12 to 4.7% in FY23. In absolute terms, health expenditure increased at a CAGR of ~8.3% from Rs 1,813.3 billion in FY12 to Rs 4,353.9 billion in FY23.

Share of health expenditure in total PFCE



Note: RE: Revised estimates
Source: MoSPI, CRISIL MI&A

India saw robust growth in per capita income between FY12 and FY24

India's per capita income, a broad indicator of living standards, rose to Rs 99,404 in FY23 from Rs 63,462 in FY12, i.e., 4.2% CAGR. Growth was led by better job opportunities, propped up by overall economic growth. Moreover, population growth was stable at ~1% CAGR. Also, as per the provisional estimates of annual GDP for 2023-24, per capita net national income (constant prices) was estimated to have increased to Rs 106,744, thereby registering an on-year growth of ~7.4%.

With per capita income rising to upper middle-income category by FY31, the share of PFCE is expected to be dominant in India's GDP growth.

Per capita net national income at constant (2011-12) prices

	FY12	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20	FY21RE	FY22RE	FY23RE	FY24PE
Per-capita NNI (Rs)	63,462	65,538	68,572	72,805	77,659	83,003	87,586	92,133	94,270	86,054	94,054	99,404	106,744
Y-o-Y growth (%)		3.3	4.6	6.2	6.7	6.9	5.5	5.2	2.3	-8.7	9.3	5.7	7.4

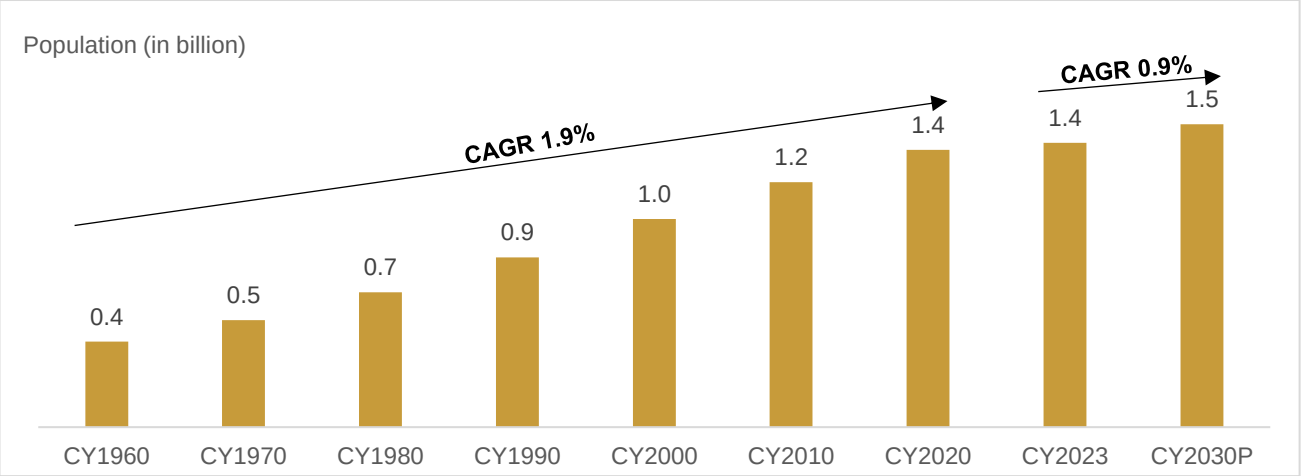
RE – revised estimates, PE –Provisional estimates of NNI, NNI – net national income

Source: Provisional Estimates of Annual GDP for 2023-24, CSO, MOSPI, CRISIL MI&A

Population to clock 0.9% CAGR between 2023 and 2030

India's population grew to ~1.4 billion in 2023 as per World Population Prospects 2024, compared to just 0.4 billion in 1960, thereby registering a CAGR of ~1.9%. Additionally, as per World Population Prospects 2024, the population of India is expected to remain the world's largest throughout the century and will likely reach its peak in the early 2060s at about 1.7 billion.

India's population growth



P: Projected

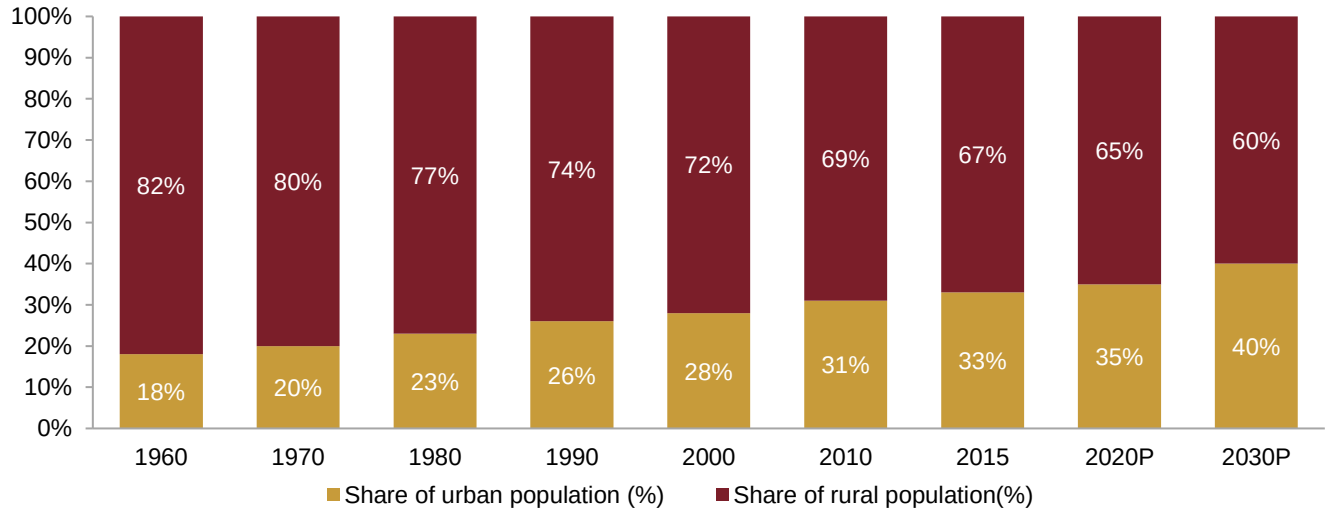
Source: UN Department of Economic and Social Affairs, World Population Prospects 2024, CRISIL MI&A

Urbanisation likely to reach 40% by 2030

According to 'World Urbanization Prospects: The 2018 Revision by the United Nations', in 2018, China had the largest urban population, with 837 million urban dwellers, accounting for 20% of the global total. China was followed by India, with 461 million urban dwellers, and the US, with 269 million urban dwellers. The share of India's urban population has been rising over years and accounted ~31% of the total in 2010. This trend will continue, with the UN report projecting nearly 35% of the country's population will live in urban areas by 2020 and nearly 40% of the country's population will live in urban areas by 2030.

People from rural areas move to cities for better job opportunities, education, and quality of life. Typically, migration can be of the entire family or a few individuals (generally an earning member or students).

India's urban versus rural population



P: Projected

Source: World Urbanization Prospects: The 2018 Revision, United Nations, CRISIL MI&A

Budget for health and wellbeing hiked by 7.0% in fiscal 2025 compared to that in fiscal 2024

Key budget proposals

Health and Wellbeing – Expenditure

Ministry/departments	Actuals FY22 (Rs billion)	Actuals FY23 (Rs. billion)	RE FY24 (Rs. billion)	BE FY25 (Rs. billion)
Healthcare	**844.7**	**757.3**	**805.2**	**906.6**
D/o health & family welfare	817.8	733.1	776.2	876.6
D/o health research	26.9	24.2	28.9	30.0
Well-being	686.1	621.0	800.3	811.0
M/o Ayush	23.6	24.5	30.0	37.1
D/o drinking water & sanitation	662.5	596.6	770.3	773.9
Overall (health and wellbeing)	**1530.8**	**1378.3**	**1605.5**	**1717.6**

BE: Budget Estimates; RE: Revised Estimates;

Source: Budget document, CRISIL MI&A

Key budget proposals for FY2024-25

- An estimated Rs. 877 billion has been allocated to the department of health and family welfare for the fiscal year 2025
- Ministry of Ayush saw an increase of 16.3% in budget allocation for fiscal 2025 compared to fiscal 2024

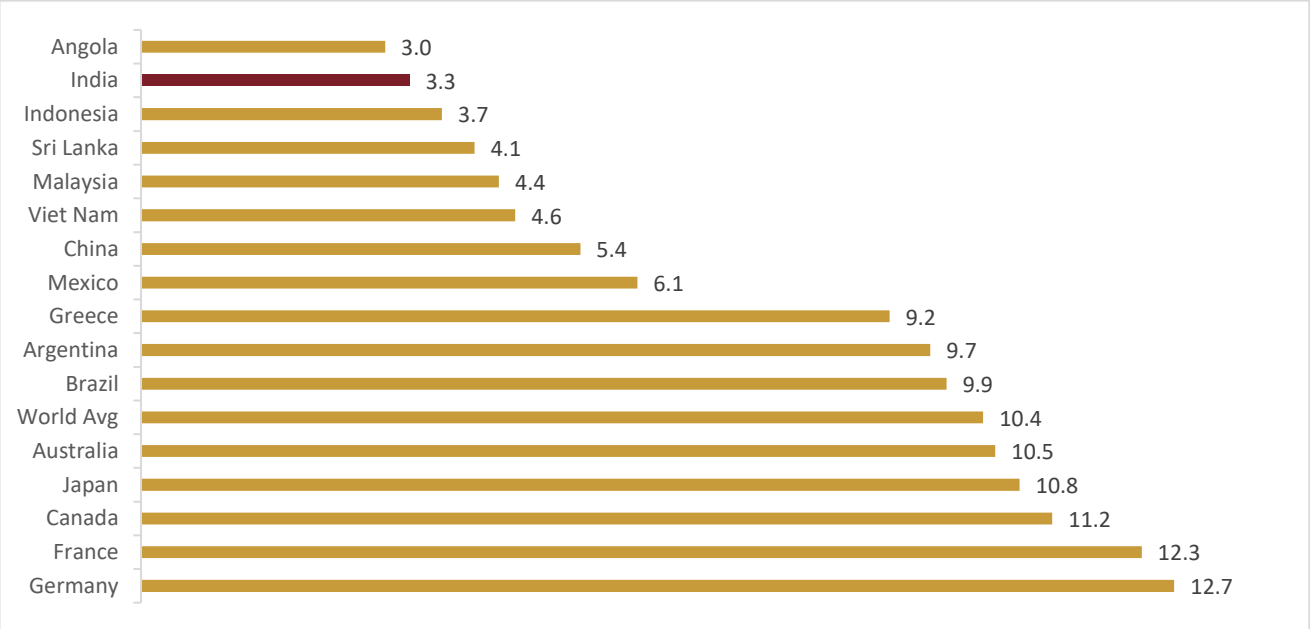
1.2 Social and healthcare related parameters

Along with the structural demand existing in the country and the potential opportunity it provides for growth, provision of healthcare in India is still riddled with many challenges. The key challenges are inadequate health infrastructure, unequal quality of services provided based on affordability and healthcare financing. But these challenges also provide significant headroom for growth in the healthcare industry in India.

India lags peers in healthcare expenditure

Global healthcare spending has been rising faster in keeping with the economic growth. As the economy grows, public and private spending on health increases, too. Also, greater sedentary work is giving rise to chronic diseases, which is also pushing up healthcare spending. Fast-growing economies with low spending on health are seeing chronic diseases increase dramatically as they move up the income ladder. Developed economies such as United states, Germany, France, Japan, United Kingdom, spend higher on healthcare as compared to developing nations such as India, Vietnam, Indonesia, etc.

Current healthcare expenditure as % of GDP (2021)



Note: Latest data has been considered. Data for Canada, Germany is as of 2022, rest 2021
Source: Global Health Expenditure Database accessed in November 2024, World Health Organization; CRISIL MI&A

According to the Global Health Expenditure Database compiled by the WHO, in CY2021, India's expenditure on healthcare was 3.3% of GDP. As of CY2021, India’s healthcare spending as a percentage of GDP trails not just developed countries, such as the US and UK, but also developing countries such as Brazil, Vietnam, Sri Lanka and Malaysia.

Government expenditure on healthcare and Out-of-pocket expenditure on healthcare as % of current health expenditure (2021)

Countries	Government Expenditure on healthcare as % of Current Health Expenditure	Out-of-pocket spending as % of Current Heath Expenditure
Angola	57.81%	23.41%
India	**34.27%**	**49.82%**
Indonesia	59.41%	27.49%
Sri Lanka	46.45%	43.64%
Malaysia	56.21%	32.08%
Vietnam	42.72%	40.0%
China	54.07%	34.39%
Mexico	50.10%	41.37%
Greece	59.21%	33.33%
Argentina	63.21%	22.37%
Brazil	45.54%	22.65%
Australia	76.04%	13.82%
Japan	84.72%	12.03%
Canada*	71.31%	14.89%
France	75.62%	8.92%
Germany	79.05%	12.16%

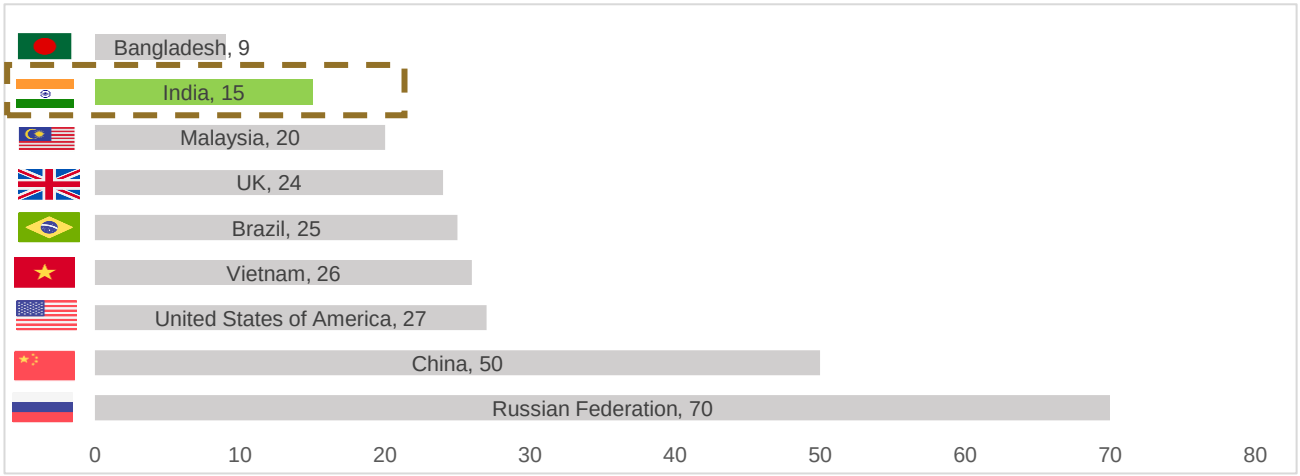
Note: Data for all the countries except Canada is for the year 2021
** For Canada, data is for the year 2022*
Source: Global Health Expenditure Database accessed in December 2024, World Health Organization; CRISIL MI&A

For the year 2021, among the considered countries, India had the least share of government spending on healthcare as percentage of Current Health Expenditure (CHE) and the highest out-of-pocket spending as percentage of CHE. Government of India's' healthcare spending as a percentage of CHE trails not just the developed countries, such as the France, Japan, Germany etc. but also developing countries such as Brazil, Vietnam, Sri Lanka, Indonesia and Malaysia. India's current healthcare expenditure (CHE) is skewed more towards private expenditure compared with public expenditure.

Health infrastructure of India needs improvement

The adequacy of a country's healthcare infrastructure and personnel is a barometer of its quality of healthcare. India accounts for nearly a fifth of the world's population but has an overall bed density of merely 15 per 10,000 people, with the situation being far worse in rural than urban areas. India has potential to grow its healthcare infrastructure as India's bed density not only falls far behind the global median of 33 beds, but it also lags that of other developing countries such as Brazil (25 beds), Malaysia (20 beds), and Vietnam (26 beds).

Bed densities across countries - hospital beds (per 10,000 population)



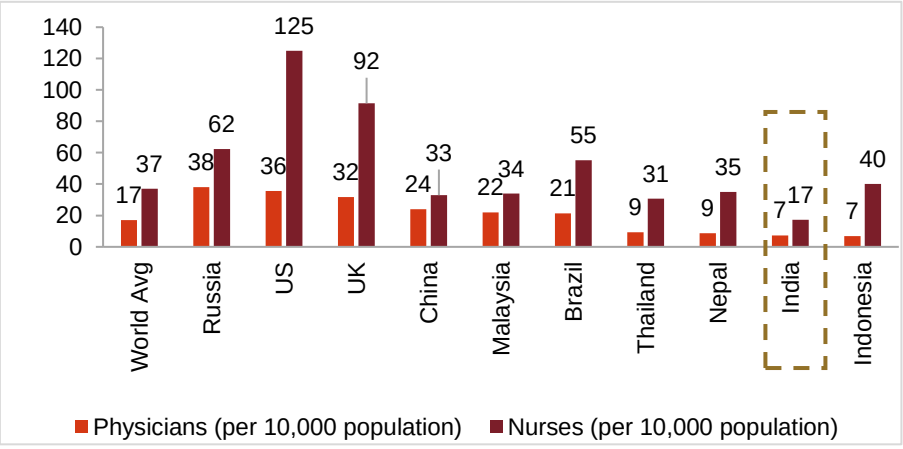
Note: India bed density is estimated by CRISIL MI&A for FY 2022, CY2019 figure for Bangladesh, CY2020 figures for China and United States, CY2021 figures for Russian Federation, Brazil, UK and Malaysia, CY2017 for Vietnam

CY2020 bed density data for World has taken form the World Bank Databank

Source: World Health Organization Database, The World Bank, CRISIL MI&A

Healthcare personnel: India vs other countries (latest as reported by each country) **Healthcare personnel: India vs other countries (latest as reported by each country)**

India's healthcare personnel landscape presents a nuanced picture characterized by disparities in distribution and shortages in critical areas. While the country boasts a rich pool of medical professionals, including physicians, nurses, and allied health workers, the density per capita falls below the global average and lags significantly behind that of developed nations. This shortage, particularly pronounced in rural and underserved areas, underscores persistent challenges in ensuring widespread access to quality healthcare services. Efforts to address these gaps are underway, with initiatives aimed at bolstering training programs, enhancing infrastructure, and promoting innovative models of care delivery. However, the journey toward achieving equitable healthcare access for all remains an ongoing endeavor, requiring continued investment and strategic interventions to strengthen the healthcare workforce and improve health outcomes across the nation.



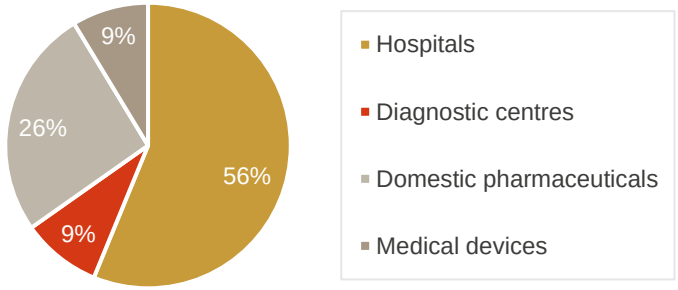
Paucity of healthcare personnel compounds the problem. At 7 physicians and 17 nursing personnel per 10,000 population as of CY20, India trails the global median of 17 physicians and 37 nursing personnel. India even lags developing countries such as Brazil (21 physicians, 55 nurses), Malaysia (22 physicians, 34 nurses) and other Southeast Asian countries.

Note: CY21 figures for both physicians and Nurses data of UK, Brazil, Nepal and Physicians data of Indonesia; CY20 figures for both physicians and Nurses data of India, China, Russia, US and Nurses data of Indonesia; CY19 figures for both physicians and Nurses data of Malaysia, Thailand; CY19 figures for both physicians and Nurses data of World average

Source: World Health Organization, World Bank database as assessed in December 2024, CRISIL MI&A

2 Structure of the healthcare industry in India

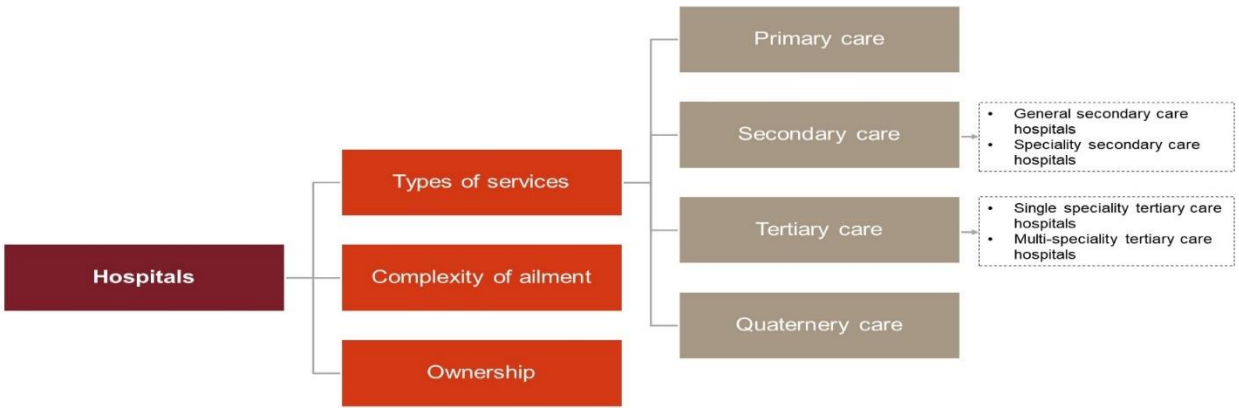
2.1 Overview of healthcare industry



Healthcare market, which consists of hospitals, diagnostic centres, domestic pharmaceuticals and medical devices, is estimated around Rs 9.5-10.5 trillion in fiscal 2024. CRISIL MI&A Research estimates show hospitals account for a major share of the healthcare pie (56%), followed by domestic pharmaceuticals (26%), medical devices market (9%) and diagnostics (9%) as of fiscal 2024.

Source: CRISIL MI&A

Classification of hospitals



Classification of hospitals based on services offered

2.1.1.1 Primary care/ dispensaries/ clinics

Primary care facilities are outpatient units that offer basic, point-of-contact medical and preventive healthcare services, where patients come for routine health screenings and vaccinations. These do not have intensive care units (ICU) or operation theatres. Primary care centres also act as feeders for secondary care/ tertiary hospitals, where patients are referred to for treatment of chronic/ serious ailments.

2.1.1.2 Secondary care

Secondary care facilities diagnose and treat ailments that cannot be treated in primary care facilities. These act as the second point of contact in the healthcare system. There are two types of secondary care hospitals - general and specialty care. Typically, healthcare services in the secondary care centres include general consultations and basic surgical procedures.

2.1.1.3 Tertiary care

Tertiary care hospitals provide advanced healthcare services, usually on referral from primary or secondary medical care providers.

- **Single-specialty tertiary care hospitals**

  These hospitals provide end to end specialised care for specific set of ailments under a roof. These centres have infrastructure, technology and manpower, which are proficient to provide for various needs for patients with a single set of ailments. Prominent facilities in India include: Escorts Heart Institute & Research Centre (New Delhi); Tata Memorial Cancer Hospital (Mumbai); HCGEL Oncology (Bengaluru); Sankara Nethralaya (Chennai); Dr. Agarwal's Health Care (Chennai): National Institute of Mental Health & Neuro Sciences (NIMHANS, Bengaluru); and Hospital for Orthopaedics, Sports Medicine, Arthritis and Trauma (HOSMAT, Bengaluru.

- **Multi-specialty tertiary care hospitals**

  These hospitals offer all medical specialities under one roof and treat complex cases such as multi-organ failure, high-risk, and trauma cases. Most of these hospitals derive a majority of their revenue through referrals. Such hospitals are located in state capitals or metropolitan cities and attract patients staying within a 500 km radius. They have a minimum of 150 in-patient beds, which can go up to 1,500 beds. About one-fourth of the total beds are reserved for patients in need of critical care. Medical specialties offered include cardio-thoracic surgery, neurosurgery, nephrology, surgical oncology, neonatology, endocrinology, plastic and cosmetic surgery, and nuclear medicine. In addition, these hospitals have histopathology and immunology laboratories as a part of its diagnostic facilities. Lilavati Hospital and Hiranandani Hospital in Mumbai, Apollo Multispecialty Hospital in Kolkata are examples of multi-specialty tertiary care hospitals.

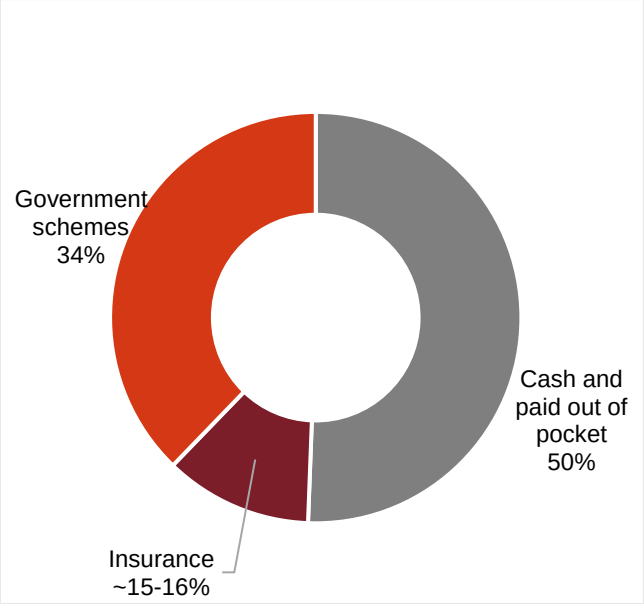
2.1.1.4 Quaternary care hospitals

Quaternary care hospitals are an extension of tertiary care in reference to advanced levels of medicine which are highly specialised and not widely accessed, and usually only offered in a very limited number of hospitals. Experimental medicine and some types of uncommon diagnostic or surgical procedures are considered quaternary care.

2.2 Payment modes in current Indian healthcare

Government schemes accounted for 34% of the current Indian healthcare expenditure in 2022, with Pradhan Mantri Jan Arogya Yojana (PMJAY) contribution being less than 5%. Insurance accounted for 15-16%, while the major chunk came from cash/out of pocket expenses. Key factors which influence the patient's decision for selecting a hospital for treatment are competent medical staff, reputation of the hospital, cost of services, hospital location etc.

Payor mix (India) 2021



Source: CRISIL MI&A

2.3 Regulatory framework for hospitals and healthcare in India

Government framework for healthcare delivery

Central	• Department of Health and Family Welfare • Department of Ayurveda, Yoga & Naturopathy, Unani, Siddha and Homeopathy (AYUSH, formerly ISM&H)
State	• State health ministries
District	• Chief medical officer • District medical superintendent • District controller

Implementing agencies	• Key agency: Ministry of Health and Family Welfare (MoHFW) • Ministry of AYUSH • Repository of technical knowledge: Directorate General of Health Services (DGHS)
Policy makers	• Primary advisory and policy-making body: Central Council of Health and Family Welfare • NITI Aayog
Key policies	• National Health Mission • Pradhan Mantri Swasthya Suraksha Yojana • National Health Policy, 2017 • Rashtirya Swasthya Bima Yojana

Source: Industry, CRISIL MI&A

Key government healthcare schemes and programs for healthcare in India

Government of India has launched various health schemes and programs such as National Health Mission, Ayushman Bharat Digital Mission, Pradhan Mantri Ayushman Bharat Health Infrastructure Mission, Ayushman Bharat, National Programme for Control blindness and Visual Impairment (NPCB&VI) to increase the access, affordability, and quality of healthcare services in India.

Regulations pertaining to the healthcare delivery infrastructure.

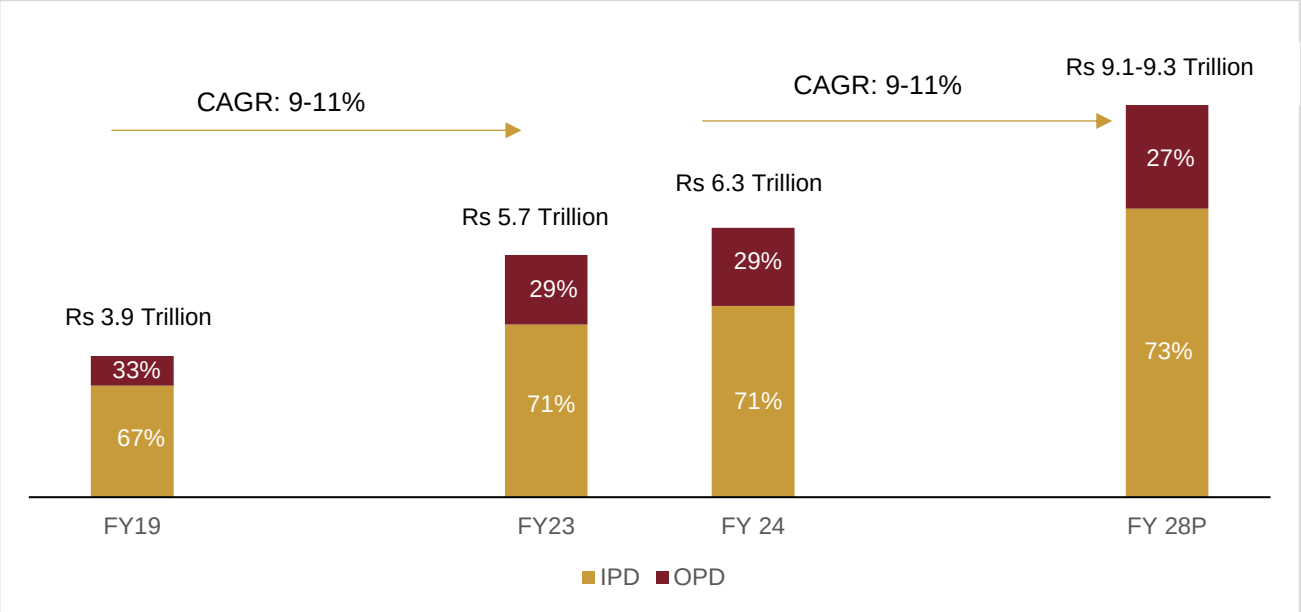
The regulations for setting up a hospital in India are stringent with several approvals required to be taken. Moreover, hospitals are also covered under the purview of the policies such as the Clinical Establishment Act, 2010, and the Bio-Medical Waste Management & Handling Rules, 1998, which provide guidelines for registering hospitals and clinics and regulate their day-to-day operations as far as their environmental impact is considered.

2.4 Review and outlook of healthcare delivery market in India

Indian healthcare delivery market poised for robust growth in the medium term

Barring the momentary hiccup in fiscal 2021, CRISIL MI&A estimates the Indian healthcare delivery industry to post healthy 9-11% compound annual growth rate between fiscals 2024 and 2028, driven by long term structural factors, strong fundamentals, increasing affordability and potential of the Ayushman Bharat scheme.

Overall healthcare delivery market in India



Note: IPD stands for in-patient department and OPD stands for out-patient department. According to CRISIL MI&A out-patients are those who are not required to stay at the hospital overnight. It includes consultancy, day surgeries at eye care centres, and diagnostics, and excludes pharmaceuticals purchased from standalone outlets.

Source: CRISIL MI&A

Healthcare delivery industry grew to ~Rs 6.3 trillion in fiscal 2024

CRISIL MI&A Research estimates the Indian healthcare delivery market to have reached ~Rs 6.3 trillion in value terms in fiscal 2024, with growth being contributed by continuation of regular treatments, surgeries and out-patient department (OPD) including ARPOB expansion for the sector. Medical tourism, with high realization, is expected to

grow more and contribute more to the industry. Within the overall healthcare delivery market, the in-patient department (IPD) is expected to account for nearly ~71% (in value terms), while the balance is to be catered by the out-patient department (OPD). Though in terms of volumes, OPD volumes outweigh IPD volumes, with the latter contributing the bulk of the revenues to healthcare facilities.

The share of in-patient department (IPD) in the healthcare delivery market in India increased from 67% (in value terms) in fiscal 2019 to 71% in fiscal 2023. Going forward, CRISIL MI&A projects the share of IPD healthcare delivery market to increase to 73% of the overall Indian health care delivery market by fiscal 2028.The growth drivers for rise in share of IPD healthcare delivery market includes rise in per capita income, increase in health insurance penetration, government initiatives to improve healthcare in India etc.

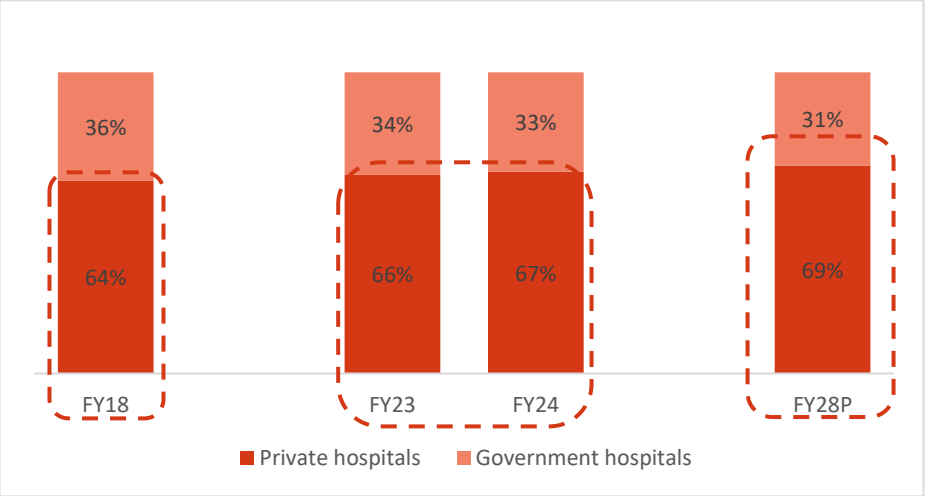
Healthcare delivery industry to grow at a CAGR of 9-11% over next four years

With long term structural factors supporting growth, renewed impetus from PMJAY and government focus shifting onto healthcare sector, the healthcare delivery market is expected to grow at 9-11% compounded annual growth rate (CAGR) from Rs 6.3 trillion in FY24 and reach Rs 9.1-9.3 trillion in fiscal 2028.

The other contributors to the demand are more structural in nature, like, increase in lifestyle-related ailments, increasing medical tourism, rising incomes and changing demography.

In India, healthcare services are provided by the government and private players, and these entities provide both IPD and OPD services. However, the provision of healthcare services in India is skewed towards the private players (both for IPD and OPD). This is mainly due to the lack of healthcare spending by the government and the high burden on the existing state health infrastructure. The share of treatments (in value terms) by the private players is expected to increase from 64% in fiscal 2018 to ~69% in fiscal 2028.

Share of treatments in value terms (government hospitals versus private hospitals/clinics)



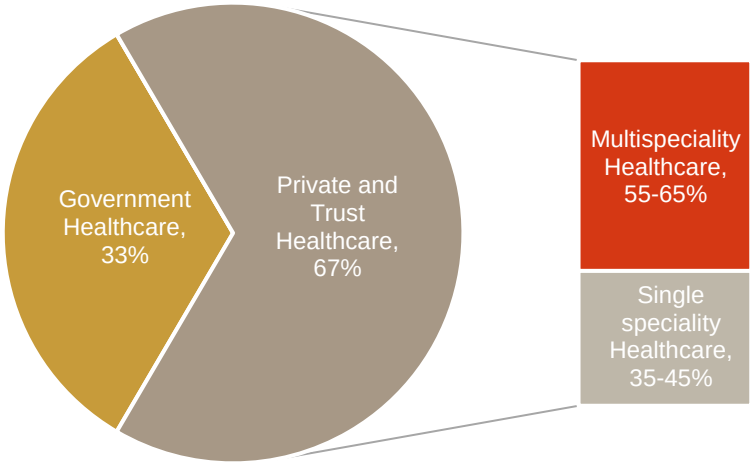
Source: CRISIL MI&A

2.5 Segmentation of Indian healthcare delivery market by single specialty and multispecialty centres

The Indian healthcare delivery market is estimated to have reached Rs 6.3 trillion in fiscal 2024. The healthcare delivery market in India is broadly categorised by two types of healthcare speciality centres- single speciality and multispeciality. In single speciality centres, the treatments are provided to patients with a specific set of ailments, while in multispeciality healthcare centres, treatment related to various health specialities such as oncology,

orthopedic, cardiology etc are provided to the patients. In India, the government healthcare centres are predominantly mutlispeciality centres. The share of multispeciality centres in private and trust-based healthcare market is 55-65% while the share of single speciality centres is about 35-45% of the private and trust-based healthcare market. In value terms, the market size of single speciality healthcare centres is Rs 1.5 to 1.9 trillion for fiscal 2024.

Split of Indian healthcare delivery market by value (fiscal 2024)



Source: CRISIL MI&A
Note: Healthcare delivery market in India include the overall healthcare delivery segment in India, including clinic/physician consultations and also includes the pharmaceuticals and diagnostic market for IPD and OPD at hospitals

Single specialty centres in the healthcare industry focus on single type of ailments and have lower capex than multi-specialty centres

The single specialty centers in the hospital industry are healthcare facilities that provide comprehensive specialized care for patients with a particular illness, integrating all supportive medical fields under one roof. These centers build their infrastructure, budget, and other key developments based on the needs of patients suffering from a specific illness. These facilities have the resources and operational capabilities to address urgent patient needs.

Single specialty centers have, typically, lower capital expenditure (capex) than that of multi-specialty hospitals, which cater to a broad range of conditions and specialties. Consequently, these centers are capex light, scalable, and replicable. They have the distinct advantage of delivering highly specialized therapeutic care and implementing superior clinical protocols, due to their extensive expertise and experience in their field, thereby providing high-quality care.

Additionally, focusing on single specialty centers requires investment in specialized medical equipment, which may not be relevant in general healthcare centers. This specialization is a key reason why patients often prefer single specialty centers. These centers are more agile in decision-making, avoid complex management issues, and may also have higher capital for investing in advanced technology and equipment.

Growth drivers for single specialty centres in India

CUSTOMER CENTRICITY

Patient centric approach

In a single specialty care hospital, patients may get various services under a single roof. If a patient requires multiple doctors with different specialties in a single set of ailments, the single specialty hospitals may provide the patient with the same under the same centre. Patient experience is a key parameter across all stages of operations in the eye care services industry. Also, patients in single specialty hospitals may not have to wait for medical attention from doctors, as the doctors in single specialty hospitals do not have to provide services to patients with varying sets of medical conditions like in multispecialty hospitals.

Efficiency

By focusing on specific set of ailments, single specialty centres enhance efficiency. Their focused approach allows for a standardized level of care throughout the entire healthcare process, from admission to discharge. This standardization of process and protocols leads to faster turnaround of patients and more efficient use of resources. Thus, the focus on a single specialization of health care not only streamlines healthcare delivery but also drives higher efficiency.

Innovation and advanced technology

Single specialty centres drive innovation by concentrating expertise, resources and efforts on a specific set of ailments. This focus allows these centres to attract top specialists and foster a deep pool of specialized knowledge and skills. By streamlining operations and investing in specialized equipments, these single specialty centres offer more personalized treatments. Also, these centres provide an opportunity for their doctors to fully develop their individual talents and acquire a unique position in the healthcare delivery market. Thus, skilled doctors, higher specialized knowledge and investment in technology and equipment, drive higher innovation at single specialty centres.

Clinical expertise to cater complex ailments

Since single specialty centres focus on a single set of ailments, the staff working at these healthcare centres engage in particular set of work. As the staff performs a particular set of work, their efficiency increases over a period. This leads to refinement of the staff working in these healthcare centres to specialist staff. Thus, in addition to clinical knowledge, such staff also build administrative capabilities for a particular specialty of healthcare. This may lead to a dip in the need to hire additional administrative related staff to manage healthcare centres, thus decreasing the cost.

Lower costs

The single specialty centres have, typically, lower capex and opex compared to multi-specialty hospitals as these hospitals focus on patients with a single set of ailments. The lower costs enable the single specialty centres to be more agile in decision making. Thus, making services in the single specialty centres easier to predict and plan.

Scalability

Single specialty hospitals are scalable as their focused expertise and streamlined operations allow for the replication of their successful models. By concentrating on one area of specialty, they can standardize procedure, training and equipment, which simplifies the expansion process. Also, in terms of management, these centers are more agile in decision making and avoid complex management issues. Some of the single specialty hospitals also work on hub and spoke model.

Additional growth drivers for single specialty service chains in India

Brand equity

Brand equity is a significant growth driver for single specialty service chains in India. Strong brand recognition builds patient trust, attracting more patients seeking specialized care. Positive brand perception enhances patient loyalty, leading to repeat visits and referrals. These centers can expand more rapidly, leveraging their strong brand to enter new markets.

Network presence

Network presence is one of the key growth drivers for single specialty service chains in India due to brand recognition, economies of scale, and centralized management. Multiple centers enable effective marketing and cross-referrals for these chains. A strong network attracts top medical talent and facilitates investment in advanced technologies. Centralized regulatory compliance promotes adherence to standards, while multiple locations offer patient convenience. These factors lead to operational efficiencies, consistent patient care, driving the growth for these centers in the competitive healthcare market.

Standard operating procedures (SOPs)

Standard operating procedures (SOPs) are vital growth drivers for single speciality service chains in India. SOPs ensure consistent, high-quality patient care across all centers, building trust and reputation. They streamline operations, reducing errors and inefficiencies, leading to cost savings and improved patient outcomes. SOPs facilitate staff training and integration, enabling quicker scaling and expansion into new locations. By maintaining uniform standards, these centers can offer reliable services, attract more patients, and foster loyalty. This operational consistency supports sustainable growth, enhancing overall efficiency and profitability across the network.

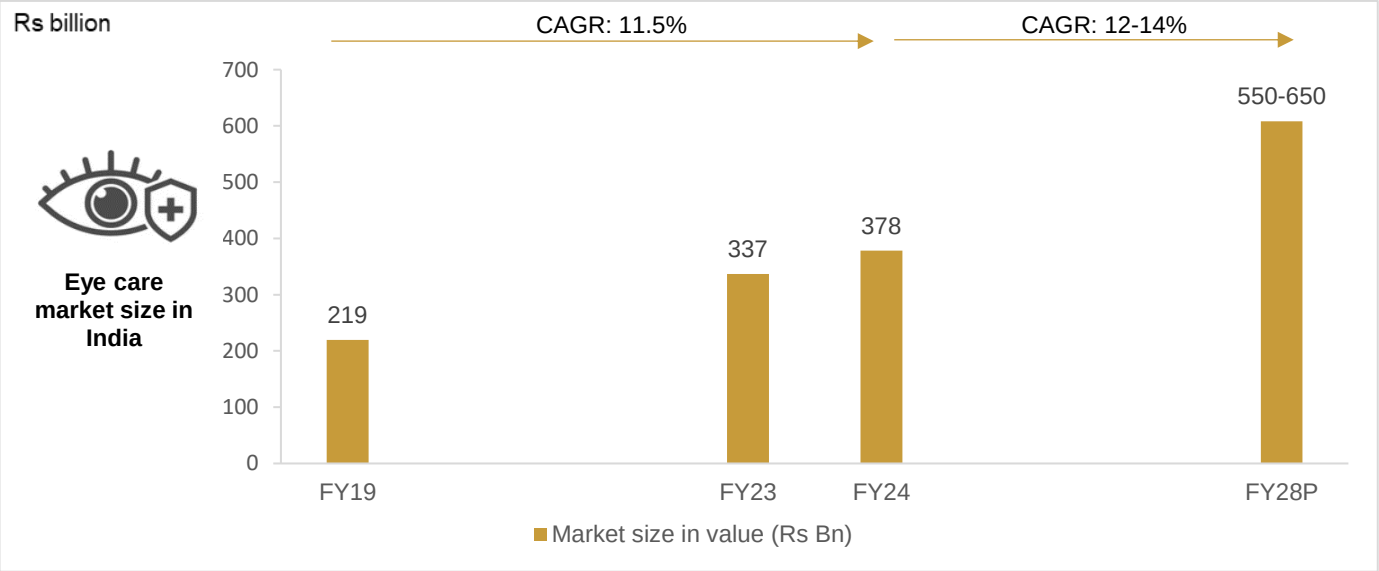
3 Structure of the eye care industry in India

3.1 Overview of eye care industry in India

The Indian eye care industry is projected to grow at CAGR of 12-14% between fiscal 2024 to 2028 to reach market size of Rs 550-650 Bn

According to IAPB, India has the highest number of visually impaired people in the world as nearly 1 out of every 5 individuals in India face vision loss disorder. There is a high burden across eye related ailments/ diseases in India with increasing need for medical intervention. Because of high prevalence of eye disorder in India population, eye care is an integral part of the Indian health care system. The eye care market in India has grown at Compounded Annual Growth Rate (CAGR) of 11.5% between fiscals 2019 and 2024 to reach the value of Rs 378 Bn in fiscal 2024. This market includes surgical and non-surgical treatments for patients suffering from various eye disorders. Surgical treatments in this industry includes cataract surgery, glaucoma, retina surgeries, refractive surgeries, cornea and other eye related surgeries. Cataract surgery has the largest share of eye care surgery in India. Non-surgical treatments in the industry includes general checkups, pre-treatment assessment, post-treatment follow ups, diagnostics etc. In the eye care industry, qualified staff and experienced ophthalmologists is one of the key critical factors patients consider while selecting a hospital for treatment. Additionally, patient-focused approach is a key factor in how patients choose their eye care services provider.

Indian eye care industry – market size trends



Source: CRISIL MI&A

The growth in the industry is led by factors such as high prevalence of eye related disorders in India, rise in incomes levels, shifting age demographics, lifestyle changes, emerging eye care service chains, government and non-government organisation initiatives to promote awareness about eye health in India. Rise in income levels enable higher spending by the individuals on the health care, including eye care. With changing lifestyle such as increase in time spent on electronic devices may increase the eye disorders. With rise in diabetic patients in India, there will be higher prevalence of diabetic eye diseases such as cataract, glaucoma, diabetic retinopathy etc. Eye care is a critical healthcare need in India today, with increasing requirements for healthcare providers to tackle the problem of vision impairment and blindness. Emerging eye care service chains enable access to quality eye care treatments with standard operating procedures to maintain high quality services to their patients. These eye care

service chains have multiple branches in or across cities to ease the eye care treatment procedure for their patients. In India, government is playing a key role in promoting eye care treatments with multiple initiatives to support patients suffering from eye related disorders. Basis these factors, the eye care industry in India is projected to grow at CAGR of 12-14% between fiscal 2024 to 2028. This growth is higher than the CAGR growth rate of 9-11% projected for the healthcare delivery market in India during the same period. The size of the Indian eye care services industry was approximately Rs. 378 billion in fiscal 2024 and is projected to grow to Rs 550-650 Bn in fiscal 2028. As of FY24, eye care formed ~6% of the overall healthcare delivery market in India.

3.2 Comparison of visually impaired population of India vs other key countries

According to The International Agency for Prevention of Blindness (IAPB), India had the highest number of citizens with vision loss in the world as of 2020 with 275 million individuals with vision loss

In India, blindness and vision loss are part of the key challenges in the nation's healthcare system. Nearly 1 out every 5 persons in India faces vison loss disorder, which stood at 275 million people as of 2020. Compared to India, nearly 1 out of 20 persons in United States have vision loss disorder.

Top 10 countries with the highest number of persons with vision loss, 2020

Country	Total with vision loss	Blindness	Moderate to severe	Mild	Near	Population
India	275.0M	9.2M	79.0M	49.1M	137.7M	1,422M
China	274.3M	8.9M	51.9M	57.7M	155.7M	1,426M
Indonesia	34.9M	3.7M	10.8M	11.5M	8.9M	265M
Russia	28.6M	0.6M	8.0M	3.7M	18.5M	146M
Brazil	26.6M	1.8M	10.0M	8.3M	8.6M	217M
Bangladesh	26.3M	0.9M	7.5M	4.2M	14.0M	161M
Pakistan	26.3M	1.8M	8.5M	6.0M	10.1M	226M
Nigeria	24.3M	1.3M	5.3M	7.8M	9.9M	226M
USA	16.4M	0.6M	6.7M	4.6M	4.4M	331M
Mexico	16.0M	0.5M	4.7M	4.4M	6.4M	132M

Note: M stands for million
Source: The International Agency for Prevention of Blindness (IAPB), CRISIL MI&A

According to WHO, globally there are at least 2.2 billion individuals with near or distance vision impairment and in 1 billion individuals among these, vision impairment could have been prevented or is yet to be addressed.

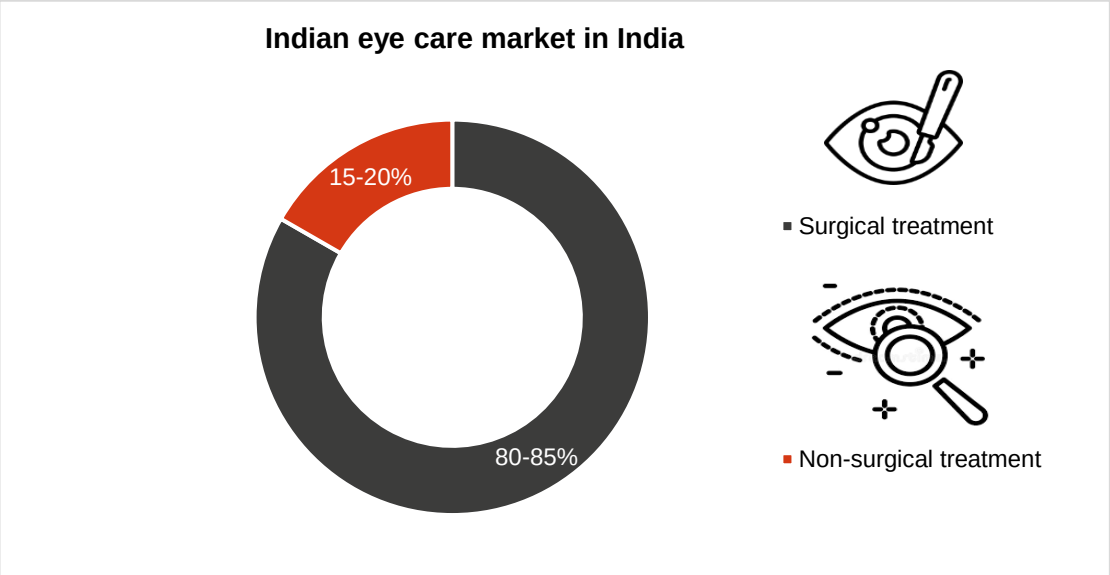
3.3 Segmentation of the eye care industry

Surgical treatments occupy the majority share in Indian eye care industry

The surgical treatments in the eye care industry are the majority contributor to revenues for eye care hospitals as about 80-85% of revenue in the industry comes through these treatments. Key surgical treatments in the eye care industry include the cataract surgery, retina surgery, refractive surgery, glaucoma and cornea-based surgery. The non-surgical treatment in the eye care industry is essential for regular check-ups, proper screening and timely

identification of key eye disorders which may require a surgical procedure to prevent vision loss. The non-surgical treatments also support the patient in the recovery post-surgical procedures with regular check-ups and monitoring of healing process.

Split of Indian eye care market (in value) by surgical and non-surgical treatments (fiscal 2024)



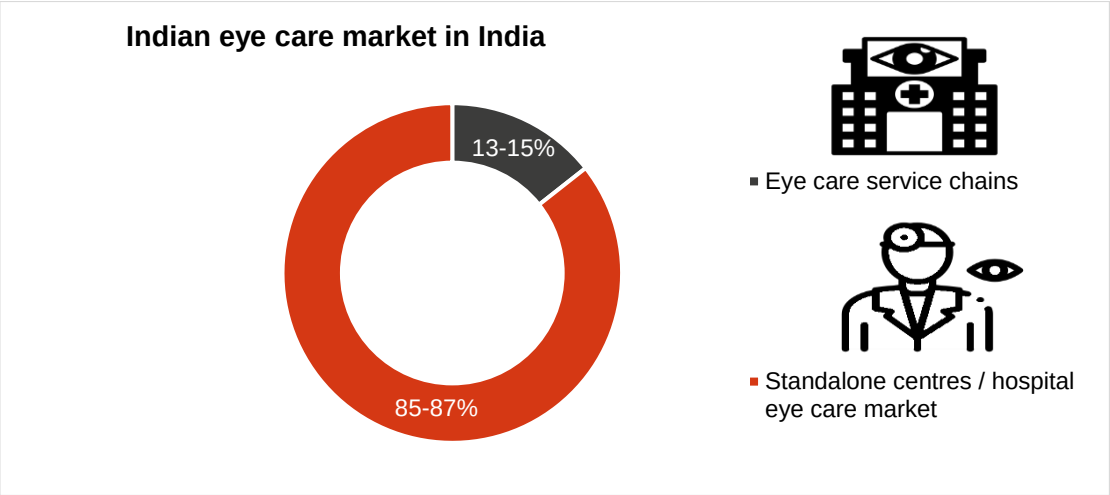
Source: CRISIL MI&A

The eye care service chains in India contribute to about 13-15% of the total eye care market in India

The Indian eye care industry consist of government-based hospitals, charitable/trust-based hospitals, single speciality hospitals, multi-speciality hospitals and standalone clinics. The eye care service chains are part of single speciality and multi-speciality hospitals with network of eye care centres within/across various cities. These eye care service chains have strong brand equity as these hospitals work on standard operating procedures, offering reliable and quality treatment of patients at their centres. While standalone hospitals/clinics are, typically, doctor owned hospitals/clinics rather than large corporations or healthcare networks. These hospitals/clinics are located in a single location and focus on performing high volume procedures. These hospitals and clinics can also be single or multi-speciality healthcare centres. Consistent clinical outcomes are a key success factor for eye care service providers. The eye care industry is highly fragmented with presence of few eye care service chains. The share of eye care service chains in India is about 13-15 % of the total eye market as of fiscal 2024, which was estimated to be 12-14% in fiscal 2023, signifying the headroom for growth for organised eye care service chain market in India.

With rise in income levels and awareness about the eye care health, the share of these eye care service chains is expected to rise as more individual would prefer convenience and reliability offered by these eye care service chains. This industry is also witnessing merger and acquisitions activities along with investments for growth.

Split of Indian eye care market (in value) by eye care service chains and standalone eye hospitals/clinics (fiscal 2024)



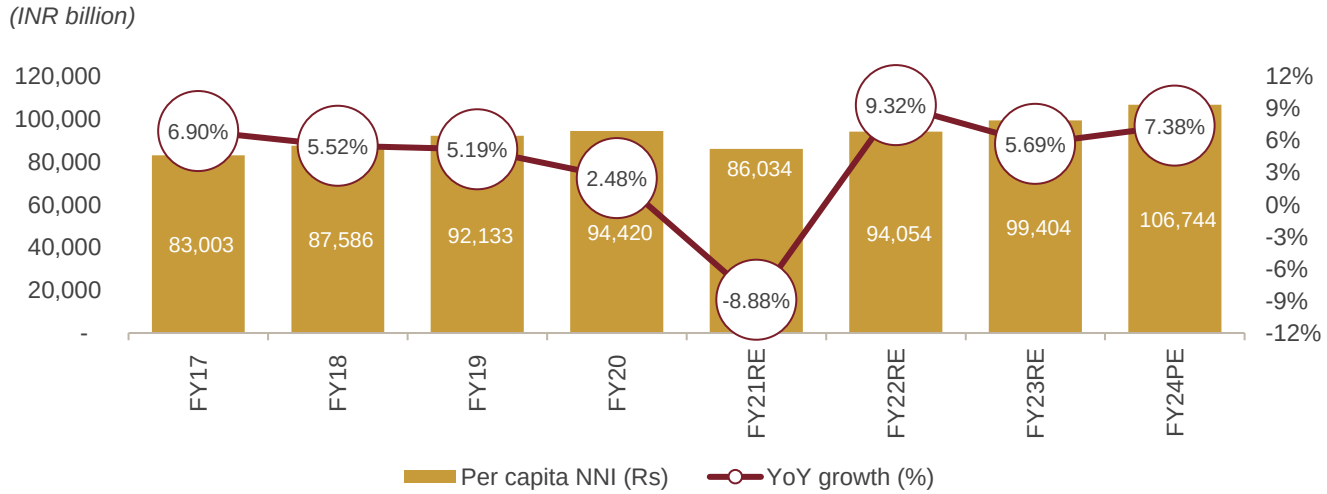
Source; CRISIL MI&A

3.4 Overview of key growth drivers for eye care industry

Rising income levels

India's per capita income, a broad indicator of living standards, rose to Rs 99,404 in fiscal 2023 from Rs 63,462 in fiscal 2012 at a CAGR of 4.2%. Growth was led by better job opportunities, propped up by overall economic growth. Additionally, population growth was stable at ~1% CAGR. Also, as per the provisional estimates, the per capita net national income (constant prices) was estimated to have increased to Rs 106,744, thereby registering an on-year growth of ~7.4%.

Per capita NNI



RE: Revised estimates, AE: Advance estimates; PE: Provisional estimates

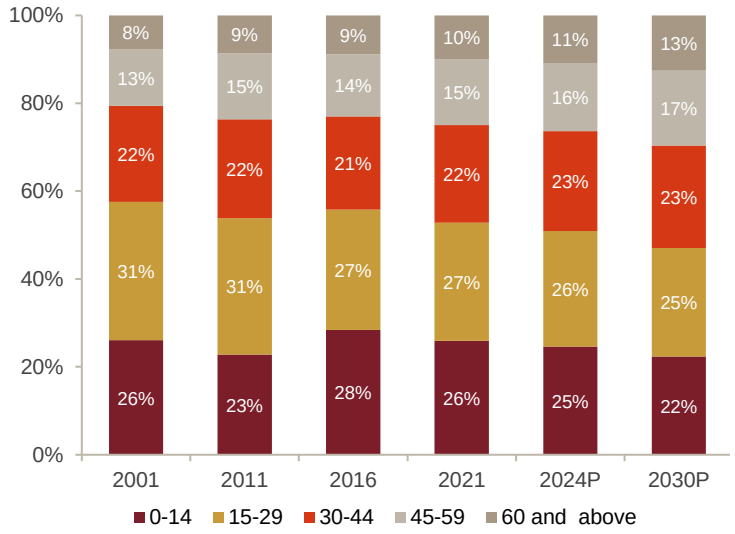
Source: Provisional Estimates of Annual National Income, 2023-24, CSO, MoSPI, CRISIL MI&A

Rising incomes have resulted in increasing affordability for better medical services and high-end procedures. For instance, in urban India, the number of people who do not want to wear eyeglasses or lenses is increasing and are opting for corrective surgeries like LASIK in order to correct refractive errors.

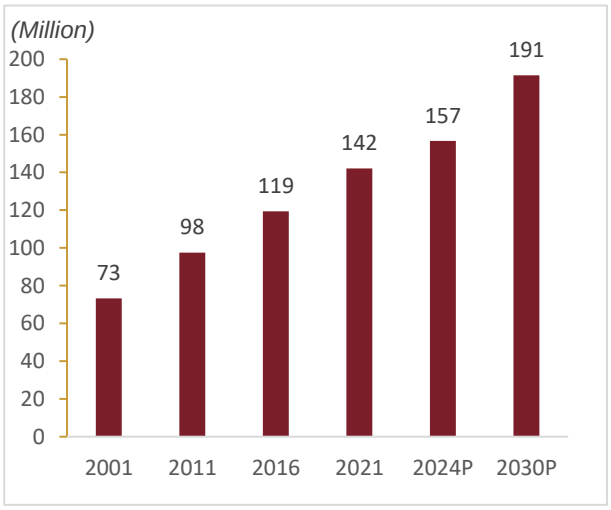
Ageing population

India is experiencing a demographic shift, with more people entering the older age bracket. The share of the population in the above 60-year age bracket, which was just 8% in 2001, is expected to increase to 13% by 2030. This trend is driven by factors such as increased life expectancy, owing to improved healthcare infrastructure and advancements in medical care.

Break-up of India's population by age



India's population of 60 and above years



P: Projected

Source: World Population Prospects 2024,UN Department of Economic and Social Affairs Population Division, CRISIL MI&A

Increasing prevalence of eye disorders such as myopia, cataract and glaucoma

In India, there are several key factors which lead to rise in the prevalence of eye disorders in India. Aging population and rise in share of population with age 60 and above are key factors which will lead to rise in prevalence of eye disorders in India. Prevalence of refractive and cataract disorder increases with age. Changing lifestyles and increase of screen time will also promote prevalence of eye disorders such as refractive issue.

Rise of other diseases or conditions may also lead to higher prevalence of eye disorders in India. The rise in cases of diabetes is linked with retina disorder known as diabetic retinopathy. When an individual has diabetes for a long time, changes in the glucose levels may cause blood vessels in the retina to weaken and get damaged. When blood vessels in the retina gets damaged, it may lead to the growth of abnormal blood vessels in the eye. This leads to glaucoma as the growth of abnormal blood vessels leads to block in the eye's natural drainage system and this blockage may lead to higher intraocular pressure.

Government initiatives such as NPCB&VI and Ayushman Bharat promote growth in eye industry in India

The eye care forms an integral part of the Indian healthcare system and government of India runs various initiatives such as NPCB&VI, Ayushman Bharat etc. to promote eye related health in India. The goal of the NPCB&VI program is to reduce the prevalence of avoidable blindness to 0.25% by 2025.Under this program, about 8.3 Mn cataract surgeries were operated in India in fiscal 2023, compared to 6.7 Mn surgeries in fiscal 2019.

Launched in 2018, Ayushman Bharat is a government scheme to provide affordable healthcare to economically vulnerable sections of society. It seeks to address gaps in healthcare access by strengthening primary healthcare infrastructure and offering financial protection to the poor by providing health insurance coverage. Under this scheme, there are Health Benefit Package (HBP), in which there are packages with procedures/surgeries for various eye related disorders.

Growing health insurance penetration in India

Low health-insurance penetration is one of the major impediments to the growth of the healthcare delivery industry in India, as affordability of quality healthcare facilities by the lower-income groups remain an issue. Health insurance coverage has increased from 17% in fiscal 2012 to ~38% in fiscal 2022. As per the Insurance Regulatory and Development Authority (IRDA), more than 520 million people have health insurance coverage in India (as of fiscal 2022), as against 288 million (in fiscal 2015), but despite this robust growth, the penetration in fiscal 2022 stood at only 38%. CRISIL MI&A sees that while low penetration is a key concern, it also presents a huge opportunity for the growth of healthcare delivery industry in India. With the PMJAY scheme and other growth drivers, the insurance coverage in the country is expected to increase to 47-50% by FY27.

With health insurance coverage in India set to increase, hospitalisation rates are likely to go up. In addition, health check-ups, which form a mandatory part of health insurance coverage, are also expected to increase, boosting demand for a robust healthcare delivery platform. Covid-19 has also accelerated the coverage and also online channels which make it easier to get insurance.

Medical tourism in India

Medical value travel, which is also referred to as ‘medical tourism’, has gained momentum over the years and India is fast emerging as a major tourist destination, owing to the relatively low cost of surgery and critical care, along with the presence of technologically advanced hospitals with specialized doctors and facilities, such as e-medical visa.

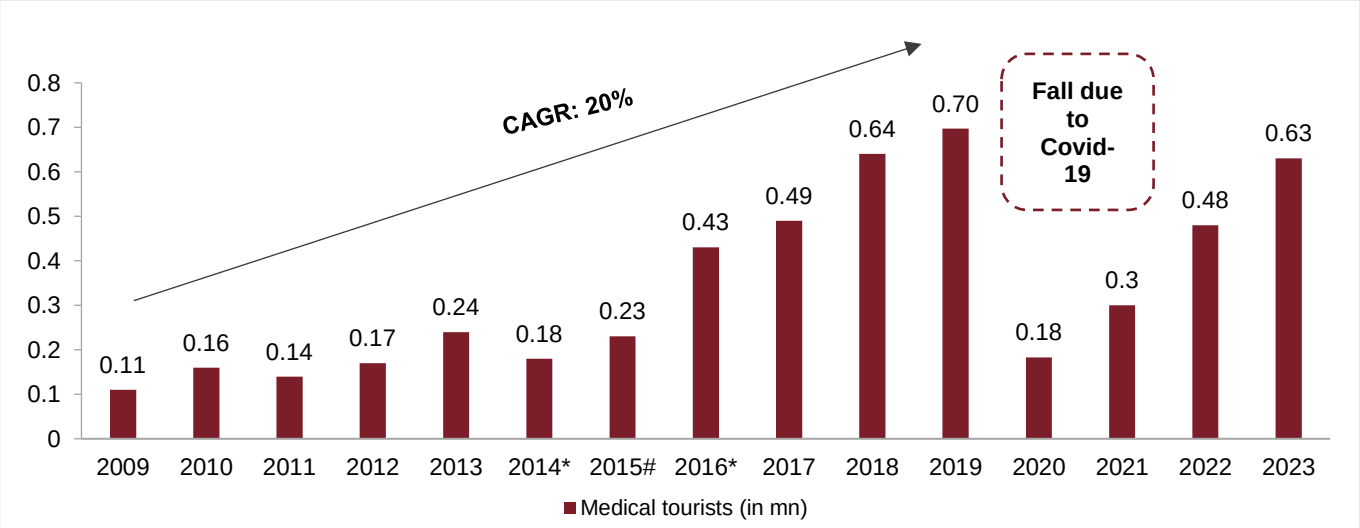
India benefits from medical value travel stemming from neighboring countries such as Bangladesh, Nepal and Bhutan. Eastern India is geographically well positioned for medical value travel from Bangladesh, Nepal and Bhutan, from patients who prefer to obtain quality healthcare services in India.

Neighboring countries (like Bangladesh – which sees the highest footfall of medical tourists to India and some parts of Nepal and Bhutan) come to India as they don’t have quality care in their countries. Eastern India is also a more accessible region for these neighboring countries. Medical tourism is not just driven by cheaper prices. Kolkata and Northeast cities such as Agartala in Tripura are well placed to capture volumes from adjoining markets such as Bangladesh, also given cultural similarities which is a key driver for Kolkata attracting medical tourists from Bangladesh.

As per the Ministry of tourism, countries like Singapore, Malaysia and Thailand also offer medical care facilities to foreigners but what differentiates India apart from state-of-the-art infrastructure with reputed healthcare professionals is traditional healthcare therapies like Ayurveda and Yoga combined with allopathic treatments providing holistic wellness.

According to the latest data available with the Ministry of Tourism, of the total foreign tourist arrivals in India, the proportion of medical tourists has grown from 2.2% (0.11 million tourists) in 2009 to 6.4% (0.7 million tourists) in 2019. However, the number of medical tourists fell sharply in 2020(0.18 million tourists) because of international travel restrictions due to Covid-19. The number of medical tourists has recovered well to 0.63 million tourists in 2023 (January-December 2023). The government has constituted a National Medical and Wellness Tourism Board along with provision of financial assistance to the tune of Rs 1.7 million to medical tourism service providers under market development assistance (MDA) scheme during the last four fiscal years to develop medical tourism in India as of July 2022. The government had estimated medical tourism to be worth 9 billion USD by 2020 garnering 20% of the global share, up from the 3 billion USD in 2015, however we might have fallen short of this figure in the year 2020 owing to travel restrictions put in place due to Covid-19 pandemic.

Growth in medical tourists*

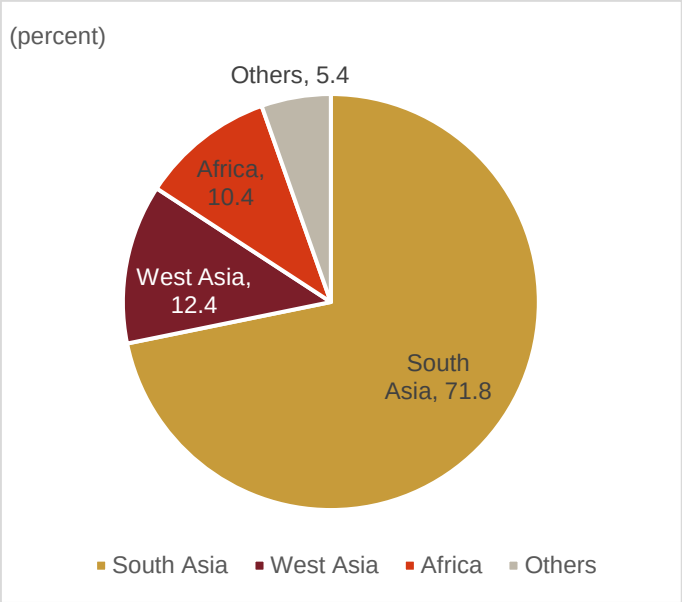


*Note: * includes all types of medical and medical attendant visa; #includes medical visa and medical attendant visa*
Source: Ministry of Tourism

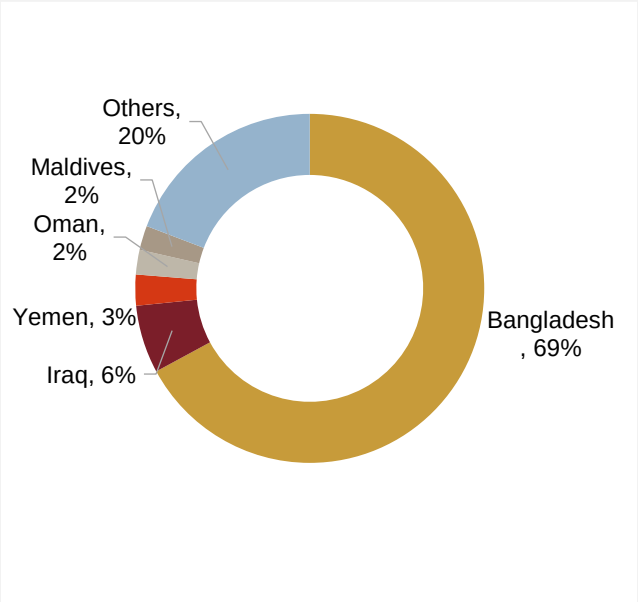
About two-thirds of medical tourism demand from South Asia

More than 94% of medical tourists are from countries in Africa, west and south Asia. Medical tourists from countries like United Kingdom and Canada are also seeing an increase, given long waiting periods for availing of treatments in these regions.

Break-up of medical tourists* by major region of origin



Break-up of medical tourists* by major country of origin



*Note: * Data as of CY22*

Source: Ministry of Tourism, CRISIL MI&A

Bangladesh makes up absolute majority when it comes to medical tourists visiting India

69% of medical tourists who visited India in 2022, were from Bangladesh. This was followed by Iraq, who made up 6% of medical tourists, while Yemen and Oman accounted for 3% and 2% of medical tourists respectively. Maldives accounted for almost 2% medical tourists in 2022. India did see some medical tourists coming from Sri Lanka which accounted for 0.5% of all medical tourists in the country.

Medical tourism will continue to grow and offer opportunities

Medical tourism is witnessing rise in demand benefitting the healthcare sector on account of the following growth drivers:

- Demand from Countries with Aging population – Many developed countries are witnessing high proportion of ageing population leading to rise in demand for healthcare facilities and homecare
- Demand for alternate cures and wellness therapies
- Waiting period and higher costs in developed countries
- Demand from countries with undeveloped medical facilities
- Tourists visiting home countries – India has a huge diaspora which combine their visit to India with medical treatment

Compared to other economies, India has lower average cataract surgery rates

In India, on average, the cost for cataract eye surgery ranges from USD 300 to 400, per eye, which is significantly lower to the average cost for cataract surgery in other countries

Country-wise cost of cataract surgery

Ailments ($)	USD
United States	3,000-7,000
United Kingdom	1,500-3500
France	1,500-3,500
India	300-400
Australia	500-1700

Note: the cost of cataract surgeries is considered for paid surgeries

Source: Secondary research, CRISIL MI&A

Rise in awareness about eye health in India

In India, nearly 1 out of 5 persons has vision loss disorder, making blindness and vision loss a key challenge for the nation's healthcare system. To a common person, occurrence of eye symptoms such as blurred vision, unattended eye injury etc., may seem simple but timely diagnosis of these symptoms can resolve the issue and prevent vision loss. For the same, mass public awareness about eye health in India is essential for timely diagnosis and treatment of eye related disorders.

In India, the awareness about eye related health is increasing due to various factors such as rise in income levels, trust/charitable eye hospitals and government initiatives to promote eye health in India, initiatives by various NGOs, increase in eye care service chains, rise in literacy levels etc. With rise in income revels in India, people give higher priority to their health care in India including eye care. The rise of eye care service chains is playing a crucial role in spreading awareness about the eye diseases in India. These hospital chains with their network of hospitals across cities make eye care more accessible. These hospitals also often conduct awareness programs, eye screening and community initiatives to educate people about common eye diseases, their symptoms, and importance of regular eye check-ups. Various NGOs and trust-based hospitals in India are working across the country to deliver quality eye care to various communities and spreading awareness about eye health. Government of India also promotes awareness about eye related disorder. Government of India collaborated with World Health Organization (WHO) and International Agency for the Prevention of Blindness (IAPB) to develop 'Vision 2020: Right to Sight-India' with the aim to eliminate avoidable blindness in the country.

Lifestyle related changes to increase demand for eye care

Indians, especially those in urban regions, are moving towards a more sedentary lifestyle with a sizable proportion of adults working in front of computer screens or watching television for long hours. Even children are increasingly spending time playing video games or watching television. Computer vision syndrome or digital eye strain which causes eye strain, headaches, blurred vision, dry eyes etc is becoming increasingly common among users of computers in urban areas and can be a pre curser to eye disorders like reduced visual abilities etc. Such lifestyle related changes that impact the eye will also act as one of the drivers for the growth of eye care treatments.

Value added services and products in eye care industry in India

In the eye care industry, there are various pre and post treatment services provided by eye care hospitals to the patients. Pre-treatment services includes check-ups, scans, test and other services, which are essential before eye treatment is given to the patient. Patients with cataract disorders have to undergo preoperative assessment to

understand requirements and expected surgical problems of the patient. Under the preoperative assessment of cataract surgery, a full ocular examination is conducted. This examination checks for eye anatomy and inflation, state of dry eye, abnormalities in cornea, type of cataract, measurement of intra ocular pressure, and other key checks. Apart from the ocular examination, biometry test, corneal topography, blood sugar and blood pressure measurement and other key tests and checkups are conducted to increase the chance of successful cataract surgery. In the eye care industry, post-treatment services include follow up check-ups, optical and pharma products. Post-treatment checks enable the ophthalmologist to monitor the healing progress and adjust medications as needed. These pre and post treatment services and products are essential part of the value chain of the eye care treatment and adds to revenue streams for eye care hospitals and clinics.

High brand equity, network presence, standard operating procedures (SOPs) and comprehensive set of treatments to promote growth for eye care service chains in India

The eye care industry in India, though dominated by the standalone eye clinic and hospitals, is witnessing a surge in eye care service chains. Key factors driving growth of eye care service chains are as follows:

Higher brand equity

High brand equity plays a crucial role in fostering trust among customers in the eye care service chain industry in India. In the eye care industry, where issues of vision and health are paramount, trust is particularly vital. Brands with strong equity are perceived as reliable, offering quality services and products, which are essential in a field as sensitive as eye care. In a market as competitive as India's eye care sector, where numerous eye care service chains and standalone players are striving for customers' attention, high brand equity can be a significant differentiator, helping companies stand out and build lasting relationships with their customers.

Network presence

Eye care service chains benefit from their network of hospitals within and across cities as it establishes a brand's visibility and credibility, as a widespread presence implies reliability and trustworthiness. A strong network of hospitals allows for better coordination between different branches, facilitating seamless patient care and referral systems. In a competitive Indian eye market, where accessibility and convenience are crucial factors for consumers, a high network presence gives eye care service chains a competitive edge, enabling them to cater effectively to the growing demand for quality eye care services across the country.

Standard operating procedures (SOPs) and comprehensive set of treatments

Standard Operating Procedures (SOPs) are vital growth drivers for eye care service chains in India. SOPs ensure consistent, high-quality patient care across all centers, building trust and reputation. This consistency builds trust among patients, as they know they will receive the same quality of care regardless of the location they visit. Also, SOPs streamline processes and workflows, leading to increased efficiency and productivity. By clearly outlining the steps to be followed, SOPs help in minimizing errors, reducing wastage of time and resources, and maximizing output. Also, set SOPs help in delivering complex healthcare services and in attracting clinical talent.

Due to presence of comprehensive set of treatments, standard operating procedures, ability to provide complex healthcare services, quality standards, ability to attract clinical talent, standard operating procedures and network of centres across various regions, the eye care service chains in India are positioned to grab the market share from standalone eye care centres in India.

3.5 Overview of key eye disorders in India

Cataract

It is an eye disorder where the clear lens of the eye becomes cloudy leading to deterioration in vision. Age is the most common cause of this disease. As people age, the protein in the lens breaks down due to which it becomes rigid and cloudy. Around 70 percent of the Indian population above the age of 60 years suffer from this disorder.

Refractive errors

Refractive error is one of the most common eye problems which can start at any age and occurs due to the alteration in length or shape of eyes. In India, it is prevalent amongst 40-50 percent of the population. The most common types of refractive errors include vision impediments such as myopia (near-sightedness), hyper-metropia (far-sightedness) and astigmatism (blurring of vision due to inability of eye to focus an object into a sharp focused image on the retina). Glasses or contact lenses can usually correct refractive errors and surgeries are not necessary. However, laser-based procedures or intra ocular surgeries can be used to change the shape of the cornea or replace the lens and correct the refractive error.

Glaucoma

Glaucoma is another eye disorder disease in which the optic nerve (which transmits images to the brain) gets damaged on account of increased pressure within the eye, also known as intraocular pressure (IOP). Due to the lack of obvious symptoms a majority of the people suffering from glaucoma do not realize that they are suffering from this disorder until the disease reaches advanced stages. Without treatment, glaucoma can lead to permanent blindness within a few years. According to Indian Journal of Clinical and Experimental Ophthalmology, glaucoma affected 12 million people in India as of 2020. The treatment for glaucoma is medical (i.e., through drugs or eye-drops) or surgical, depending upon the stage of glaucoma.

Retina based disorders

The retina is the light sensitive lining at the back of the eye that transmits images to the brain through the optic nerve. One of the major types of retinal disorders is diabetic retinopathy which is the damage to the retina caused by prolonged and inadequate blood glucose control and it is one of the leading retinal disorders in India. Other common retinal diseases are retinal detachment, age related macular degeneration etc.

Cornea based disorders

The cornea is the clear front part of the eye. It lets light into the eye and helps in focusing light rays on the retina. Common corneal diseases are Keratitis (caused mainly by bacterial/fungal infections) and keratoconus. When the cornea becomes cloudy, light cannot penetrate the eye to reach the light-sensitive retina, which results in poor vision or even blindness in some cases. In such a case, a corneal transplant is required which involves replacing the diseased or scarred cornea with a new one.

Pterygium:

A pterygium is a fleshy, triangular or wing-shaped growth of the conjunctiva of the eye. It usually occurs on the inner corner of the eye but can also appear on the outer corner.

Cataract is the leading cause of blindness and visual impairment for adults 50 and above in age

Among the principal causes for blindness and visual impairment, cataract have majority of the share for population in India for population above the age of 50 and above. Based on National Blindness and Visual Survey in India- 2015-2019, untreated cataract was the cause of 66.2% cases of blindness and of 71.2 % cases of visually impairment cases. Since uncorrected refractive error does not, typically, lead to blindness, so share of cases of blindness from uncorrected refractive error was 0.1% but the share of this disorder in visual impairment cases was 13.4%. Corneal opacity eye disorder is scarring of cornea which makes it hard for light to pass from cornea to the retina. Typically, this eye disorder is caused by injury, infection or swelling in the eye. This eye disorder was the cause of 7.2% of cases of blindness and 5.9% of the cases of visual impairment in India. Glaucoma was the cause of 5.5% of cases of blindness and 1.4% of cases of visual impairment.

Causes of blindness & visual impairment in population with age above 50

Principal cause	Share in blindness	Share in visual impairment
Untreated cataract	66.2%	71.2%
Corneal opacity	8.2%	1.8%
Cataract surgical complications	7.2%	5.9%
Glaucoma	5.5%	1.4%
Uncorrected refractive error	0.1%	13.4%
Others	12.8%	6.3%

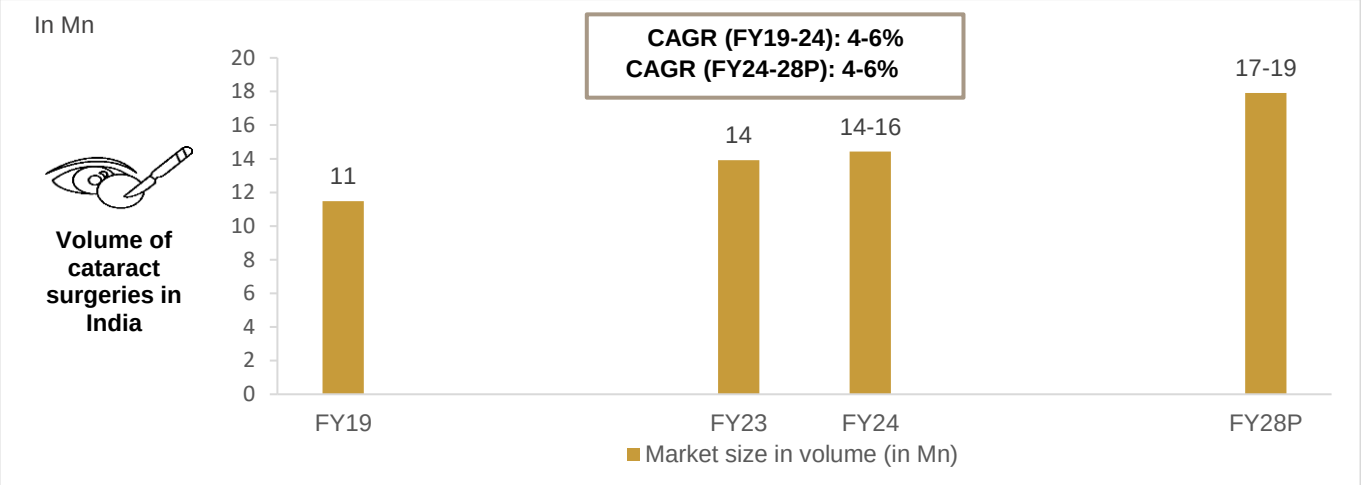
Source: National Blindness and Visual Impairment Survey in India- 2015 to 2019, Ministry of Health and Family Welfare, CRISIL MI&A

3.6 Overview of cataract treatment industry in India

The volume of cataract surgeries in India grew by a CAGR of 4-6% between fiscal 2019 and 2024

As per the National Programme for Control of Blindness and Visual Impairment (NPCB&VI), cataract is the most common cause of blindness amongst Indians, with about 62.6 percent of blindness resulting from cataract. NPCB&VI launched the 'Netra Jyoti Abhiyan' to clear the backlog in the cataract surgeries in India. Under this campaign, each state and union territory has been allotted yearly targets for cataract surgeries. Cataract surgeries under the NPCB&VI, increased from 6.7 Mn in fiscal 2019 to 8.3 Mn in fiscal 2023, against a target of 7.5 Mn the fiscal 2023. Apart from NPCB&VI, cataract surgeries are performed at trust/charitable hospitals operating across India. These hospitals provide paid and free cataract surgeries facilities for their patients.

Volume of cataract surgeries in India

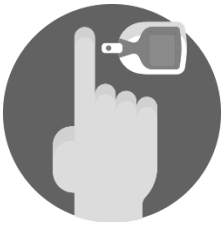


Source: CRISIL MI&A

The total volume of cataract surgeries in India grew at a CAGR of 4-6% between fiscal 2019 to fiscal 2024 to reach 14-16 Mn in fiscal 2024. Going forward, the volume of the cataract surgery in India is projected to grow at CAGR of 4-6% between fiscal 2024 and 2028 to reach the surgery volume of ~17-19 Mn in fiscal 2028.

Growth drivers for cataract surgeries in India

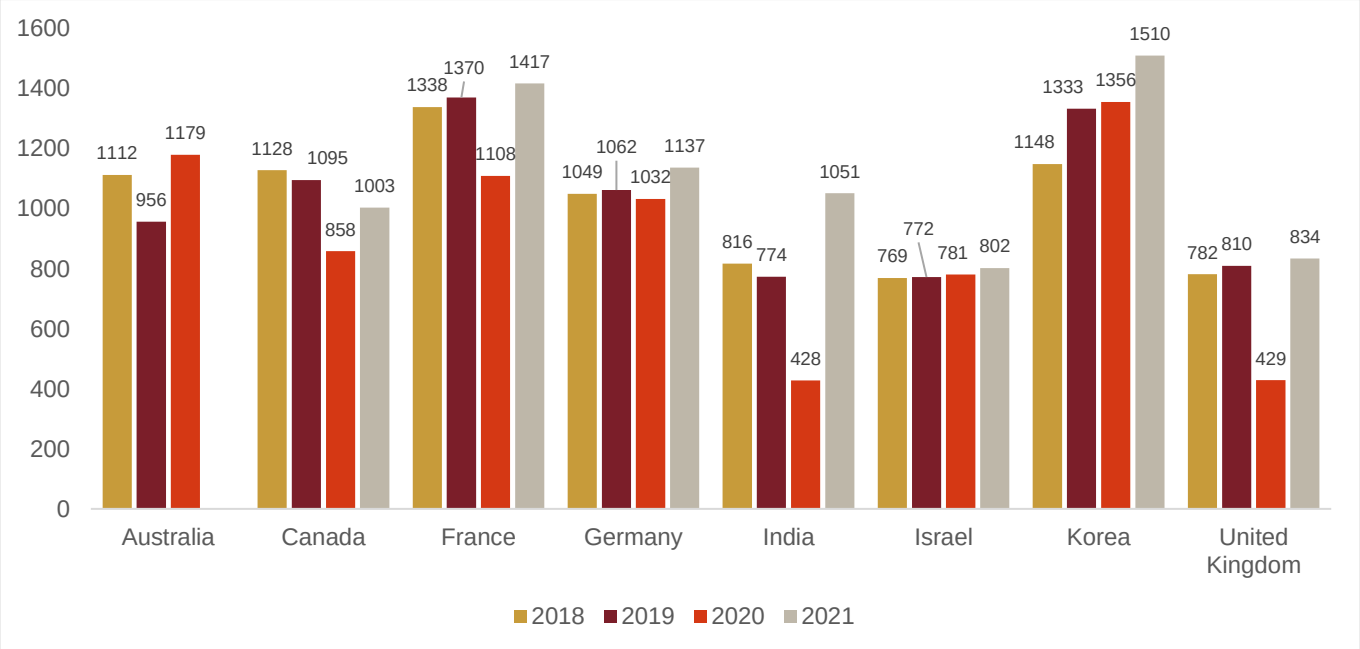
Key growth drivers	Description
Aging population	In 2018, about 8.9% of the Indian population was aged above 60 and above, and this proportion is projected to grow to 21.4% of the overall Indian population in 2028. Since the prevalence of cataract is high among the individual with age 60 and above, rise in population would lead to higher cases of cataract patients in the country
Rise in income levels	In fiscal 2023, India's per capita income increase from Rs 63,462 in fiscal 2012 to Rs 99,404 in fiscal 2023, growing at a CAGR of 4.2%. With higher income levels in India, more individual can afford healthcare services, including cataract surgeries. This leads to increased demand for such procedures, resulting in more individual seeking treatment for cataracts to improve their vision and thus, quality of life. Also, rise in income levels may lead to increase in number of patients who choose premium packages for respective surgeries.
Government and non government initiatives	Government launched the NPCB (later re-designed to NPCB&VI) in the year 1976 to reduce the prevalence of blindness from 1.4% to 0.3% in India. Under this program, the government arranged for 8.3 Mn cataract surgery in fiscal 2023. Other non-government organizations such as charitable and trust-based hospital also provide support for performing cataract surgery in India

Key growth drivers	Description
 Rise in diabetic patients	When blood glucose for any individual stays high over a period, it may damage the tiny blood vessels which are located at the back of the eye. These damaged tiny blood cells may leak fluid, causing swelling and may lead to growth of other weak blood cells. These blood vessels may start serious diabetic eye diseases for an individual. Since the number of diabetic patients in India is rising, this may lead to higher cases of diabetic case diseases.

Among the key global economies, India has one of the lowest number of cataract surgeries per 100,000 people for 2018 to 2020

Among the countries under consideration, India has one of lowest number of cataract surgeries across 2018 to 2020. In 2018, Israel had the least number of cataract surgeries performed per 100,000 people followed by UK and India. In 2019 too, Israel has the least number of cataract surgeries per 100,000 people followed by India. In 2020, India has the least number of cataract surgeries performed per 100,000 people.

Comparison of cataract surgeries performed per 100,000 people across various countries as reported by OECD (in Mn)



Note:

NA: Not Available

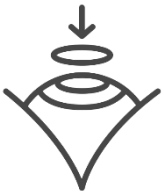
Values for all the countries except India are represented for their respective calendar year

For India, the cataract data is basis CRISIL's estimates

For India, FY19 values are represented in 2018, FY20 in 2019, FY21 in 2020, FY22 in 2021 and FY23 in 2022

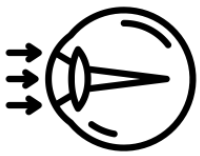
Source: The Organization for Economic Co-operation and Development (OECD), CRISIL MI&A

3.7 Overview of refractive, cornea and glaucoma treatment industry in India



Cornea based treatment

Cornea is the transparent part of the eye which covers the iris and pupil. The cornea allows the light to pass through the eye and plays a crucial role to focus the light on retina. There are several conditions that can affect the cornea and lead to vision disorder. Abrasions on the cornea may cause vision problems. Small abrasions in the cornea get healed on their own while the deeper abrasions may cause scarring of the cornea and result in vision disorder. Another condition which causes cornea related eye disorder is inflammation of cornea due to bacterial infection. This condition is called corneal ulcer. Keratoconus is another cornea related condition in which shape of the cornea changes. In this condition, the cornea becomes thin and bulge outwards, resulting in vision disorders. Cornea transplant is one of the common eye related surgeries in which partial thickness of the diseased cornea or entire cornea is removed and replaced with health donor cornea layer. Among the various eye related surgeries operated in India, cornea related surgeries contribute to about 3-5% of the surgeries.



Refractive based treatment

The refractive eye disorder is the most prevalent eye disorder in India with 40-50% of the Indian population affected by the same. Though refractive issue has most prevalence under eye disorder in the country, majority population in India resolves their refractive eye disorder with use of eye spectacles. But with rise in per capita income, growing awareness about refractive disorder and advancement in eye care technology, there is increase in patients with refractive eye disorder, who choose refractive eye surgery to resolve their eye disorder. Of the total eye surgery operated in India, the refractive surgeries contribute to about 8-10% of the surgeries.

Glaucoma

Glaucoma is an eye related disease in which optic nerve of the eye is damaged leading to vision disorder. The optic nerve is essential for good vision as it carries information from the eye to the brain. In this disorder, an increase in intraocular pressure leads to optic nerve damage. Since glaucoma is a serious eye disorder it requires

fast and effect treatment to preserve the vision. There are various eye treatments for glaucoma, depending on severity of the disorder. The treatment of glaucoma starts using eye drops which decreases the intraocular pressure. If the eye drops do not cure the disorder, then laser therapy is a common treatment. Under this therapy, a laser is used to open drained channel in the eye. In the advanced cases of glaucoma, typically, surgery is necessary, in which a new drainage channel is created for the eye. Among the eye surgeries operated in India, glaucoma contributes to 3-5% of the surgeries.

3.8 Overview of eye care delivery structure in India

	Primary	Secondary	Tertiary
Facilities	Screening and consulting	Consultation and basic surgeries	Consultation and complex surgeries
Reach	40,000-60,000	Up to 1 Mn	Can serve more than 5 Mn
Investment (Rs million)	Up to 20 Mn	Rs 40-80 Mn	Rs 80-100 Mn

Source: Secondary research, CRISIL MI&A

Primary eye care

The primary eye care centres are facilities with outpatient services for screening and consultations. These centres provide affordable and accessible eye care treatment to the patients, serving as their initial point of contact and ensuring lifelong support. These centres are essential for timely identification of eye diseases such as cataract and refractive errors. Services in primary eye care include examination of the visual system, diagnosing for any abnormalities in the visual system, prescribing aids such as glasses and contact lenses, counselling the patients for maintaining healthy vision, checking for key eye related diseases that may be asymptomatic. These centres also decide on the plan for the treatment of the patient and may also prescribe their patients, which are diagnosed with complex eye diseases, for secondary and tertiary care centre for further treatment.

Secondary eye care

The secondary eye care centres offer facilities for diagnosis of various eye related diseases and simple procedures and surgeries. Services provided by the ophthalmologist in these centres include cataract surgeries, simple glaucoma surgeries and other minor surgical procedures. These centres also offer non-surgical management of the other conditions and may also refer to tertiary eye care for cases in which treatment requires more advanced facilities and subspecialties in the ophthalmology.

Tertiary eye care

The tertiary eye care centres play a pivotal role in eye care delivery. These centres provide eye care for complete set of eye related diseases. Ophthalmologists with sub specialities in eye care diseases are staffed at these centres. These centres may also perform research and provide training to secondary centres.

Community eye care

This eye care model has been essential to increase the access of eye care services in India, particularly in rural areas where access to quality eye care is limited. Centres in the community eye care engages with local communities by establishing eye care centres or camps in their vicinity. These centres are typically arranged by Non-Governmental Organisations (NGOs), trust based hospitals and government initiatives. These centres provide

services such as vision screening, and diagnosis of eye disorders. For any serious and complex eye disorders, the patients in the community eye care are referred to secondary or tertiary eye care centres.

3.9 Overview of different operating models adopted in the eye care industry in India

The eye care industry in India is delivered through various operating models across primary, secondary and tertiary centres. Broadly the eye care operating model can be classified into hospitals and clinics models and these hospitals and clinics are further classified into eye care service chains and standalone centres.

Classification of eye care industry's operating model by clinics and hospitals

Clinics

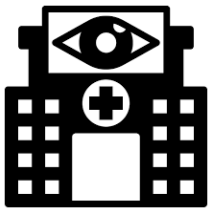
In the eye care industry, clinics are primary centre of eye care which provide basic diagnostic and consultation to their patients. These centres provide services for routine check-ups, eye examination, vision correction, medicine prescription. For complex diagnostic and procedures, these clinics refer the patient to hospitals

Hospitals

In the eye care industry, hospitals are centres of secondary and tertiary care which provide comprehensive eye care diagnostic and procedure services to their patients. These centres are equipped with advanced diagnostic and procedure equipment with skilled medical professionals to carry out advanced eye care procedures.

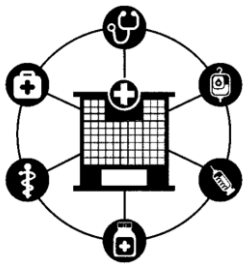
Hospitals in the eye care industry are further classified into single speciality hospitals, multi-specialty and trust-based hospitals.

Classification of eye care industry's hospitals by single speciality, multi-speciality and trust-based hospitals



Single speciality hospitals

Such type of hospitals focuses exclusively on treatment and care of single type of eye related illness. These hospitals are known for specialization in high quality treatment and care for as their focus is only on single set of diseases in eye care. As these hospitals work on single set of diseases, they are agile in decision making and, require less capital compared to multi-speciality hospitals.



Multi-speciality Hospitals

These hospitals provide broad spectrum of medical services and treatments for diverse illness and conditions. These hospitals are centres with facilities and workforce to attend patients across specialities such as Cardiology, Ophthalmology, Orthopaedics etc.

Trust/charity based hospitals

These hospitals are institutions which operate to provide eye care services to underserved communities in India. Such hospitals are run by charitable organisations, trusts or non-for-profit organisations. These centres offer both free and paid services to their patients.

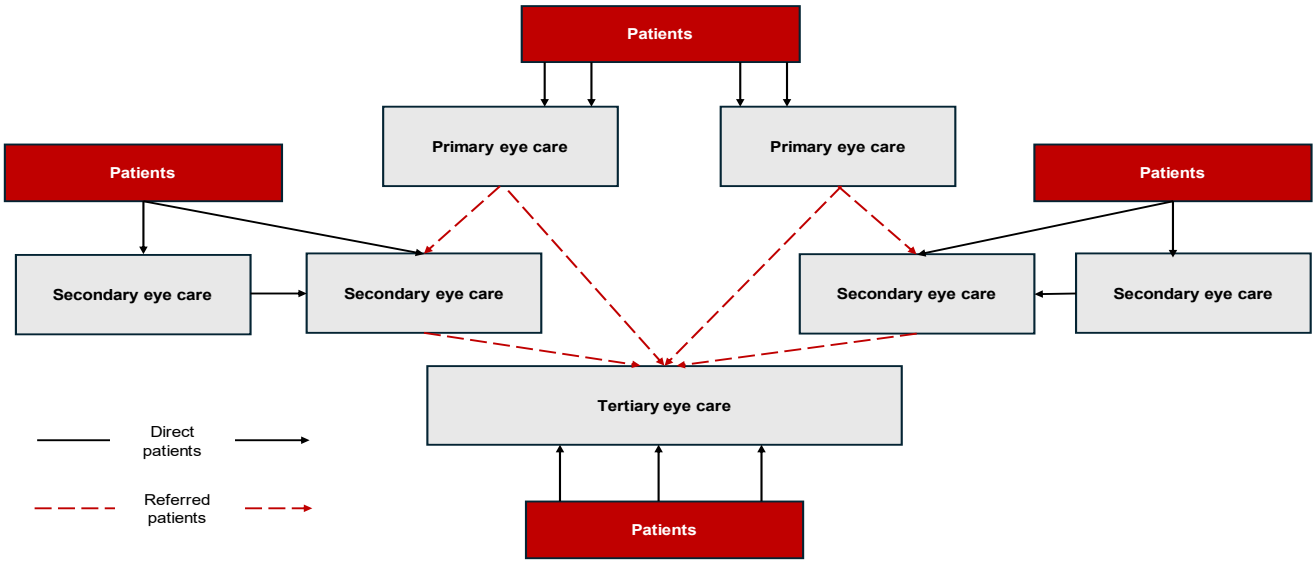
Further, the hospitals and clinics in the eye care industry are also classified basis the number of centres for each eye care hospital and clinics.

3.10 Overview of hub and spoke model in the eye care industry and its advantages

The hub and spoke model in the healthcare industry is a model with multiple practising sites. In this model, a hub acts as a site of speciality area and the spoke are the connecting secondary centres. The hub and spoke arranges service delivery assets into a network with central hub providing a full range of services, supported by satellite spokes offering limited services, directing patients requiring intensive care to the hub for treatment.

In the eye care industry in India, the hub and spoke model works across the network of primary, secondary and tertiary centres. The primary centres provide outpatients services such as screening and consultation services, including eye examination, medicine prescription, foreign body removal, intraocular pressure measurement etc. These primary centres provide affordable eye treatment at the patient doorstep in the rural and smaller towns. These primary centres also reduce overcrowding of patients in the secondary and tertiary centres by conducting primary screening and filtering tasks.

Value chain for hub and spoke model in the eye care industry



Source: CRISIL MI&A

Secondary centres offer diagnoses of range of eye related diseases. These centres have the facilities and equipments to perform simple eye procedures and surgeries. Among various procedures and surgeries, these centres mostly perform cataract surgeries and for any complicated surgery, these centres refer the patient to the tertiary centres of eye care located in the city.

The tertiary centres in the eye care industry provide comprehensive range of eye related services including general consultations, simple and complex eye procedures. Complex medical surgeries, which require intensive technology and skills are performed at these centres as these centres have all the sophisticated equipment for eye related treatments such as LASIK machine.

Benefits of hub and spoke model in the eye care industry

- Primary care centre in the hub and spoke model enable basic diagnostic and consultation for patients in smaller towns and villages at their nearby locations.
- The primary centres reduce the flux of patients in secondary and tertiary centre of eye care as primary centres perform initial screening and only the patients which require complex eye care treatments are referred to secondary and tertiary eye care.
- Secondary eye care centres perform cataract surgeries for the patients which provides the tertiary eye care centres with more resources for complex eye care related procedures.
- Higher cost efficiency due to higher volumes and utilisation across primary, secondary and tertiary centres
- Each type of centre is able to provide higher quality care to patients due to specialisation of treatment in each type of centre
- This model increases the access of eye care for patients as it drives deeper penetration of eye care services across various geographical areas
- Rise in consumer satisfaction as they can refer to different type of eye care centres basis their requirements

Overview of cataract surgeries and refractive surgeries

Cataract Surgeries:

Cataract is the clouding of the eye's natural lenses. It is the most common cause of vision loss in people over the age of 40. As a result of cataract, the eye lens becomes hazy and does not allow light to enter the eye and hence a hazy image is seen. Cataract patients typically suffer from increased sensitivity to light, glare, double vision, dim vision, poor night vision and frequent change of glasses. Cataract results from aging, congenital factors, trauma (i.e., an eye injury) or from other health issues (such as diabetes or exposure to steroids). Cataract surgeries are aimed at removal of the cloudy natural lens and replacing it with an artificial lens called an intraocular lens. Some of the surgical procedures to treat cataract are:

- **Small incision cataract surgery**: In this procedure, the cataract is removed manually using keratome (a surgical instrument used for making an incision in the cornea in cataract operations) and an IOL is placed in the eye.

- **Phacoemulsification:** In this procedure, ultrasonic energy is used to emulsify and aspirate the cataractous lens and an IOL is inserted.

- **Robotic cataract surgery:** In this procedure, many steps of cataract surgery that have been traditionally performed with handheld surgical instruments in phacoemulsification are done with a computer controlled high speed laser for added precision. The high speed laser is used to break the lens into pieces enabling the procedure to be done with significantly less ultrasound energy than used in traditional phacoemulsification. Although robotic cataract can be done in all types of cataract, it is the preferred procedure for patients with dense cataract, mature cataract, weak corneas and high astigmatism.

- **Glued IOL:** Glued IOL treatment is a technique where the IOL is placed in the normal anatomical position by using biological glue to fix the optics of the eye. This method is utilized when there is insufficient capsular support to hold the IOL. As the IOL is fixed to the eye using glue, no stitches are used.

Refractive Surgeries:

Light rays are bent (refracted) as they pass through the cornea and the lens. The light is then focused exactly on the retina, which results in clear vision. Any error in this refraction may result in light rays being focused either in the front of the retina or behind the retina. This is called refractive error. Patients suffering from refractive errors see clearly with the help of spectacles or contact lenses or refractive surgery, which help to focus the light exactly on the retina. Refractive treatments include surgical procedures to correct the refractive error of the eye to get rid of or reduce dependence on glasses and contact lens. Primary refractive treatments include the following:

- **Laser-assisted in-situ keratomileusis surgery:** LASIK procedures involve using advanced laser technology to reshape the cornea, addressing common refractive errors such as near-sightedness, far-sightedness, and astigmatism. LASIK surgery can be of two types: zyoptix and intra-lase. Zyoptix eye surgery involves using a computer-controlled excimer laser (a cold, ultraviolet laser) and a microkeratome (a highly specialized motorized blade). The cornea has six layers. With a blade, a surgeon creates a thin flap of the first few layers. Subsequently, an excimer laser is fired on the underlying layer to reshape the cornea in order to correct the refractive error. The flap is then replaced without using sutures, and it adheres back to the cornea within minutes. In intra-lase surgery, the flap of the first two layers is created with a laser and the remaining procedure remains the same.

- **Small incision lenticule extraction:** This is a minimally invasive refractive surgery that corrects vision by creating a small, lens-shaped piece of tissue inside the cornea, which is then removed through a small incision. It targets refractive errors by reshaping the cornea which corrects the refractive error and improves vision clarity.

- **Implantable collamer lens treatment:** It is a type of refractive procedure to help correct myopia, and is an alternative to LASIK and other refractive procedures. In this procedure, an implantable collamer lens or an IOL is implanted into the eye over the natural lens for power correction. This is suitable for patients with high power and a thin cornea.

- **Photo refractive keratectomy:** In this process, an excimer laser is used to precisely re-shape the curvature of the cornea's surface. A bandage-like soft contact lens is then placed on the cornea to help protect the eye as it heals.

Other key surgical treatments

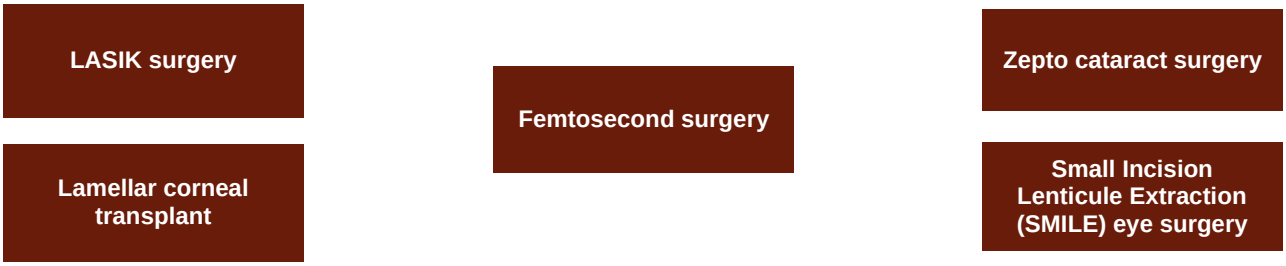
Retinal treatments:
The retina is the innermost layer of the eye. It consists of 10 layers including specialised cells called hotoreceptors. Common retinal disorders include diabetic retinopathy (i.e., damage to the retina as a result of having too much blood sugar), age-related macular degeneration (damage to the macula, the part of the eye that controls sharp, straight-ahead vision), retinal detachment (an emergency situation in which the retina pulls away from the layer of blood vessels that provides it with oxygen and nutrients), vitreous haemorrhage (blood floating in the vitreous humor, which lies between the lens and the retina, clouding the view of retina variably) and myopic retinal degeneration (a severe form of near-sightedness that causes damage to the retina).
Primary retinal treatments include the following:

- **Intra-vitreal injections:** This is an injection into the vitreous, used to deliver drugs to the retina and other structures in the back of the eye. These injections are given mainly to reduce the swelling in the macula.
- **Vitrectomy:** A vitrectomy is a surgical procedure undertaken by a specialist where the vitreous humour gel is cleared to provide better access to the retina.
- **Retinal Laser Photocoagulation:** During this process, laser is used to generate heat energy to achieve retinal coagulation.
- **Scleral buckle surgery:** Scleral buckle surgery is one of the surgeries done to re-attach a detached retina.

Corneal transplantation and pinhole pupilloplasty:
The cornea is the transparent outermost layer of the eye. Corneal transplantation involves surgically removing a patient's diseased cornea and replacing it with a donated corneal tissue. This improves the vision in conditions where blurring is due to a corneal pathology. Pinhole pupilloplasty is used to treat corneal astigmatism by creating a pinhole aperture that allows passage of rays of light through the central aperture and blocks the rays emanating from the peripheral irregular cornea, so that the impact of higher order aberrations caused by irregular corneal astigmatism is minimized.

Oculoplasty:
Oculoplasty covers a variety of procedures that involve eyelids, eyebrows, orbits, tears ducts, and the face, and covers both medically necessary procedures and cosmetic procedures. The scope of oculoplasty extends across a wide range of procedures from correcting droopy eyelids to fitting artificial eye prosthesis. Oculoplastic surgeries are carried out by specially trained surgeons and are often highly customized.

3.11 Qualitative overview of advanced technologies in the eye care delivery



Source: CRISIL MI&A

LASIK surgery

LASIK is eye surgery procedure, which is used to treat visions problems caused by the refractive errors. For a person to see clearly, the light must pass through the cornea and the lens, which refract the light, so it lands on retina. But for a person suffering from the refractive errors, the shape of his/her cornea and lens changes and do not properly bend and refract light on retina, resulting in a blurry vision. To fix the disorder, an ophthalmologist performs LASIK eye surgery procedure, which includes using a laser light to change the shape of the patient's cornea, resulting in better focus of light rays on retina. This surgery is used to treat myopia, hyperopia and astigmatism.

Femtosecond surgery

This eye surgery procedure includes use of infrared laser, which provides laser energy at high rate with pulse duration in the range of one quadrillionth of a second. Through this procedure, instead of cutting eye tissues by a blade, the tissues are broken apart at the molecular level. The tissue, which is targeted, is vapourised resulting in a split at the tissue where a cut would be made. Through this procedure, there is minimal damage to surrounding tissues, resulting in faster healing and recovery for the patient after the surgery. This technology is used in the cataract surgeries.

Zepto cataract surgery

Zepto cataract surgery is an advanced automated cataract surgery procedure. For this surgery, 'Zepto Capsulotomy Device' is used, which is disposable and attached to a console. An Ophthalmologist inserts this device in the patient eye by creating a 2mm incision in the cornea. This procedure helps in easier removal of the cataract and higher accuracy placement of the intraocular lens. Also, for patients suffering from the corneal opacities or with small pupils, femtosecond surgery cannot be practised but Zepto capsulotomy device can be used for surgeries in such cases.

Lamellar corneal transplant

Patients which suffer from eye disorder such as corneal opacity, may have to undergo corneal transplant surgery to restore their vision. Earlier, for corneal transplant, full thickness corneal transport surgery was conducted by the ophthalmologist to restore the vision of the patient. Nowadays, with advancements in technology, the ophthalmologists perform the lamellar corneal transplant surgery, in which only the selective part of the cornea, which are damaged/scarred, is transplanted. Based on which part of the cornea is damaged/scarred, an ophthalmologist can perform the corneal transplant surgery for that part of cornea without replacing the entire cornea. DALK surgery is performed when the stroma, part of the cornea, is damaged and endothelium, which is innermost layer of the cornea, is not damaged/scarred. Similarly, if the endothelium is damaged then the DSEK surgery is performed to replace that layer in the cornea.

Small Incision Lenticule Extraction (SMILE) eye surgery

SMILE eye surgery is also a type of laser-based refractive surgery to modify the shape of cornea to solve refractive eye disorder. Under this procedure, a very fast and short pulse-based laser is used to make cuts in the cornea, creating a thin disc shaped piece of tissue. This piece of tissue is called lenticule, which must be cut to precise specifications as required by desired refractive correction. Once the lenticule is created it is removed from the corneal bed, resulting in modification in the shape of the cornea. This change in the shape of the cornea corrects the refractive issue in the patient's eye.

3.12 Key threats and challenges for the eye care industry

Set out below are the key threats and challenges faced by players in the eye care industry

Paucity of healthcare personnel in eye care industry in India

In India, the availability of ophthalmologist and optometrists is very low compared to national need of these professionals. As of 2024, India has about 26,000-27,000 ophthalmologist which is about 1.8 to 1.9 ophthalmologist for 100,000 persons. Compared to the available ophthalmologist, India need about 125,000 ophthalmologists to serve eye patients in India, which is ~8.7 ophthalmologist for 100,000 persons, signifying workforce shortage in the eye care health services in the country.

The issue of shortage of workforce in the eye care health services in India is further increased by the uneven distribution of eye care workforce in urban and rural India. Large portion of the eye care workforce practice in the urban areas and majority share for health care infrastructure and resource is also concentrated in the urban areas while majority of the population still resides in rural areas of the country. This results in rural population having lack of easy access to diagnostic facilities and advanced treatment, when facing major eye illness.

Insufficient infrastructure in rural areas in India

In rural areas of the country, not only shortage of workforce is a challenge, but insufficient infrastructure is a serious concern. Since eye care facilities in India are concentrated in urban areas of the country, rural population have to travel long distances to access quality eye care facilities in India. With poor road infrastructure, transit facilities and distances from the remote communities to quality eye care centres, the delivery of quality eye care services for the rural population remains a challenge.

Directions by Supreme Court of India to regulate prices of hospitals procedure in private healthcare sector

In February 2024, the Supreme Court of India has directed the central government to find ways to fix price bands for all medical treatments offered by hospitals in India. During a Public Interest Litigation (PIL) hearing this year, the Apex court highlighted the high procedure rates and large variations in the procedure prices for healthcare treatments in India. The Supreme court directed the Union government to report back or the court would impose medicate rates for health care procedure charged under the Central Government Health Scheme (CGHS) as an interim measure.

Healthcare financing has been a pain point

In India, out-of-pocket (OOP) expenditure on health accounted for nearly 50% of total health expenditure as of 2021 as insurance earlier did not cover out-patient treatments (Insurance companies started covering OPD treatments under health insurance only recently). Hence, OOP expenditure on out-patient treatments is greater than in-patient treatments.

Nearly 17% of the rural population and 13% of the urban population are dependent on borrowings for funding their healthcare expenditure for July 2017- June 2018 as per NSS 75th Round Health in India Report. And nearly 80% of the rural population and 84% of the urban population use their household savings on healthcare-related expenditure as per “Health in India – 2018, NSS 75th Round”. Health expenditure contributes to nearly 3.6% and 2.9% of rural and urban poverty, respectively. And annually, an estimated 60 to 80 million people fall into poverty due to healthcare-related expenditure. However, with Pradhan Mantri Jan Arogya Yojana (PMJAY), the affordability

aspect of healthcare expenditure is expected to be taken care of to some degree, especially for the deprived population.

Outstanding receivables affecting fiscal profile of hospitals

The financial profile of many hospitals empanelled under state schemes became weak due to rising outstanding receivables from the government (state and Centre) for providing treatments to beneficiaries under health insurance schemes. However, this challenge is expected to be dealt with on priority under the PMJAY, by fixing a particular timeline for reimbursements of claims.

Mitigations to the challenges faced by the industry

One of the ways to manage paucity of eye care healthcare personal in India is to leverage the technologies such as tele-ophthalmology. In tele-ophthalmology, eye care services are provided to the patients through telecommunications and digital medical equipment. Through these technologies eye care services can be provided to people living in remote areas, which have limited access to quality eye care facilities.

The rise in healthcare infrastructure, especially in rural India, is another the key measures to increase the access to eye care for Indian population. Rise in infrastructure for healthcare in rural areas of the country will also reduce the uneven distribution of eye care workforce in the country. Along with healthcare infrastructure, improvements in general infrastructure such as better roads and transit facilities would also lead to better access of eye care to rural population in India.

3.13 Key entry barriers for eye care service chains

- To scale eye care service chains to a national chain, high quality talent and institutional capabilities may be required to continuously upskill and train the manpower
- To scale nationally, eye care service chains may need strong operational expertise to design stand operating procedures (SOPs)
- Due to continuously evolving technologies, eye care service chains may have to upgrade their technology in line with industry trends, which may lead to higher capex

3.14 Overview of key government policies and regulatory framework for the eye care industry in India

National Programme for Control of Blindness and Visual Impairment (NPCB&VI)

This programme was launched by the government of India in the year 1976 with the goal to reduce the prevalence of blindness from 1.4% to 0.3%. At the time of the launch of the scheme, it was 100% centrally sponsored scheme but now the scheme is sponsored 60% by the central government and 40% by the state governments for all states except for Northeastern states where the scheme is 90% sponsored by the central government and rest 10% is sponsored by the state government. Key objectives of the scheme are as follows:

- Identification and treatment of curable blindness at primary, secondary and tertiary healthcare levels to reduce the backlog of avoidable blindness
- Enhance and fortify NPCB&VI approach to 'Eye Health for ALL' and the prevention of visual impairment by provision of comprehensive universal eye care services and ensuring quality service delivery
- Enhancing and upgrading Regional Institutes of Ophthalmology (RIOs) to achieve Centre of Excellence (COE) status in various ophthalmology sub-specialties, in addition to collaborating with other partners such as Government Medical Colleges, District Hospitals, Sub-district Hospitals and Vision Centres
- Enhancing current infrastructure and expanding human resources to deliver high quality comprehensive eye care in every district nationwide
- Increase public awareness about the eye care and emphasize on preventive eye care measures
- To secure involvement of voluntary organisation and private practitioners in delivering eye care services

After its launch in 1976, the NPCB program was re-designed in 2017 and renamed to National Programme for Control of Blindness and Visual Impairment (NPCB&VI) to cover all kind of visual impairment in India and with a goal to reduce the prevalence of avoidable blindness by 2025 to 0.25%. Under NPCB&VI, government launched the 'National Netra Jyoti Abhiyan', which is a mission mode cataract campaign for 3 years from 2022 to 2025. The aim of this campaign to clear backlog of eligible cataract cases in India. Under this campaign, each state and union territory has been given a yearly target for completing cataract surgeries.

To achieve the targeted number of cataract surgeries, various states have started campaigns for cataract surgeries

State	Initiatives taken to clear backlog and achieved the targeted number of cataract surgeries
Maharashtra	In Maharashtra, the health department of the state launched the special cataract surgery campaign from 19th February to 4th March 2024, which was later extended to 9th March 2024. Under this campaign, the state made district wise plans to achieve 0.1 Mn cataract surgeries across Maharashtra. The state has a target of achieving 2.7 Mn cataract surgeries from 2022 to 2025.
Odisha	The Odissa government aimed to operate 0.32 Mn cataract surgery in the year 2022-23, of which 0.33 Mn cataract surgery were operated in this period. In 2023-24, the Odissa government has aimed to operate 0.39 Mn cataract surgeries and target for 2024-25 is to operate 0.46 Mn cataract surgery in the state.
Gujarat	In 2022, the Government of Gujarat launched the 'Cataract-Blindness Free Gujarat' campaign to make Gujarat state cataract blind backlog free. As of Oct 2022, the Gujarat state achieved more than 150% of yearly target for year 2022-23 as the state achieved 316,694 cataract surgeries against the target of 126.300.

Source: State Health Departments, CRISIL MI&A

Ayushman Bharat- Pradhan Mantri Jan Arogya Yojana (AB-PMJAY)

Ayushman Bharat was launched in September 2018 to provide affordable healthcare to economically vulnerable sections of society. It seeks to address gaps in healthcare access by strengthening primary healthcare infrastructure and offering financial protection to the poor by providing health insurance coverage.

Ayushman Bharat comprises two interrelated components — health and wellness centers (HWCs) and Pradhan Mantri Jan Arogya Yojana (PM-JAY). In February 2018, the government announced the setting up of 150,000 HWCs by transforming the existing sub-centers and primary health centers. HWCs are expected to deliver comprehensive primary healthcare by bringing healthcare closer to the people's homes. These provide maternal and child health services, treat NCDs, and provide free essential drugs and diagnostic services.

The PM-JAY aims to provide Rs 0.5 million health cover per family per year for secondary and tertiary care hospitalization. The scheme is expected to benefit over 107.4 million poor and vulnerable families (~500 million individuals). All existing central and state health insurance schemes are subsumed under Ayushman Bharat. The model of implementation of the scheme (via insurance company, trust or mixed model) is the state's prerogative.

Since its inception in 2018, more than 340 million Ayushman Cards have been issued, approximately 30,000 hospitals have been empanelled and more than Rs 800 billion is spent under this scheme to cover various diseases. Till March 2024, about 1.8 million claims related to ophthalmology have been submitted to PMJAY. The amount paid for these claims is about Rs 13.91 billion, which is about 1.7% of the total amount re-imbursed under PMJAY scheme.

Beneficiaries under the Ayushman Bharat can undergo a medical treatment/ surgical procedure in any empanelled hospital but they will have to seek a pre-authorisation for the treatment. Under this scheme, there are Health Benefit Package (HBP), in which there are packages with procedures/surgeries for various medical specialities. When a beneficiary of this scheme undergoes a medical treatment/ surgical procedure then if the treatment is listed in the package for the specialisation, then the fixed package rate will be applied for the policy covered period. But when the medical treatment/surgical procedure is not listed in HBP, then the insurer may pre-authorize suitable amount, either according to rates for similar procedures outlined in the HBP or based on relevant national or state health insurance scheme.

Mahatma Jyotiba Phule Jan Arogya Yojana (MJPJAY)

MJPJAY scheme, earlier known as Rajiv Gandhi Jeevandayee Arogya Yojana, was started in July 2012 in eight districts. This scheme is health insurance scheme by the Government of Maharashtra and offers comprehensive cashless services for specified diseases via a network of providers from both public and private sectors. In November 2013, the scheme was expanded to 28 districts. AB-PMJAY was launched in Maharashtra with integration of MPJAY. Both schemes were integrated and launched in April 2020. The integrated scheme was implemented on insurance and assurance services.

The health insurance coverage to beneficiaries covered under this integrated scheme is provided by United India Insurance Company Limited (Public sector Undertaking Company) and State Health Assurance Society provides assurance coverage for the beneficiaries. The AB-PMJAY is funded by the Government of India and Government of Maharashtra in the ratio of 60:40 while the MJPJAY is funded solely by the Government of Maharashtra.
The State health Assurance Society pays a premium of Rs 797 per family per year to the insurance company on behalf of the beneficiary families.

The MJPAY scheme covers all the medical expenses for hospitalization of its beneficiaries, with limit up to Rs 1,50,000 per family per policy year. In the case of renal transplant, the limit for medical expenses for hospitalization increases to Rs 2,50,000 per family per policy year. The medical expenses are covered for every member of the family on a floater basis, in which the total amount can be used by single members or by all members of the family in a policy year.

DNB Programs for eye care in India

Diplomate of National Board (DNB) is a medical qualification awarded by the National Board of Examination (NBE). It is a 3-year program approved by the government of India and is deemed equivalent to the postgraduate and post-doctoral programs offered by the medical institutes in India. The prerequisite for the DNB program is an MBBS degree with 50% marks from an accredited university. Applicants must have completed a full year of internship by March 31st of the current academic year, at the latest. DNB has specializations like general medicine, ENT, Pediatrics, Ophthalmology etc.

DNB Ophthalmology or DNB in Ophthalmology is a specialization which focuses on the study of concepts related to the diagnosis, treatment, and prevention of all eye disorders. Admission to 3-years post MBBS DNB Ophthalmology course is only through Entrance Examination conducted by NBE and Centralized Merit Based Counseling conducted by National Board of Examination as per prescribed guidelines. The program aims to generate competent ophthalmic surgeons with suitable level of current subject knowledge combined with adequate surgical and diagnostic abilities by standardizing ophthalmology training at a postgraduate level, hence achieving uniformity in postgraduate teaching.

National Board of Examination (NBE) was setup by government of India in 1976 to improve the quality of medical education. NBE administers postgraduate and post- doctoral exams in recognized fields, granting Diplomate of National Broad (DNB) and Fellow of National Board (FNB) titles. It accredits institutions and hospitals with sufficient infrastructure, faculty, and patient volume, meeting accreditation standards for training in approved medical specialties. Based on the NBE's website as accessed on 3rd May 2024, following are number of NBE accredited seats for DNB in India.

Number of NBE accredited seats in India

DNB broad specialty		DNB broad specialty (Post Diploma)		DNB (Super Specialty)		DNB (super specialty)	Post MBBS diploma	Total seats
Non-sponsored seats	Sponsored Seats	Non-sponsored seats	Sponsored Seats	Non-sponsored seats	Sponsored Seats			
5290	162	2797	45	2708	87	540	3129	14758

Source: National Board of Examination, CRISIL MI&A

Number of NBE accredited seats in India for ophthalmology

Number of accredited seats	DNB-Post diploma seats
293	275

Source: National Board of Examination, CRISIL MI&A

3.15 Rise in interest of private equity players in eye care market in India

The players in eye care industry are attracting investments from various private equity (PE) firms, indicating high growth potential in the eye care market in India. In May 2024, Centre For Sight announced ~Rs 8.3 Bn investment from ChrysCapital. In 2023, Quadria Capital, which is a private equity firm, announced investment in Maxivision Hospitals. The PE firm planned to invest Rs 13 Bn to acquire stake in the eye care service chain company. Dr. Agarwal's Health Care raised about Rs 6.5 Bn in 2023 and Rs 10.5 Bn in 2022 from TPG and Temasek Holdings (Private) Limited. In 2022, ASG Eye Hospitals raised Rs 15 Bn from General Atlantic and Kedaara Capital. In 2020, private equity firm InvAsent invested Rs 700 Mn in Sharp Sight Group of Eye Hospitals.

3.16 Overview of the eye care industry in Africa

Dearth of medical workforce and eye health training institutions in African region

Globally, there are 285 million people living with visual impairments, comprising 39 million who are blind and 246 million with low vision. In Africa, there are 4.8 million blind individuals and 16.6 million with visual impairments. The high rate of visual impairment in the region not only impacts the people's life but also the economy of the region. Despite the considerable burden of eye disorders in Africa, less than 1% of the world's ophthalmologists practice there. Among the African countries, only 13 has one eye health professional for every 55,000 people, meeting minimum requirement of eye health professional. Ophthalmologists and optometrists primarily work in urban areas, while allied ophthalmic personnel (AOP) tend to serve smaller towns outside of capital cities.

Need assessment of eye health care professionals in Africa

Category	Needs assessment				Capacity of eye health training institutions in the WHO African region		
	Recommended ratios	Number required	Total existing	Existing gap	Total number of institutions	Annual intake	Number of years to targets
Ophthalmologists	1/250,000	4,000	2,075	1,925 (48%)	51	250	8
Optometrists	1/250,000	4,000	8,900	90%	27	500	7
Allied ophthalmic professionals	1/100,000	10,000	6,390	3,610 (36%)	30	763	6
	AOP (clinicians)				24	277	
	AOP (nurses)				6	486	

Source: IAPB Vision Atlas and Training Institutions Database, World Health Organisation WHO, CRISIL MI&A

In Africa, the shortage of human resources for eye health (HReH) is worsened by the limited capacity of eye health training institutions in the African Region. This crisis significantly impacts the African Region. Adequate skilled human resources for eye health are necessary to make a significant impact on cataract surgical rates, coverage, and the correction of refractive errors, thus reducing vision impairment and blindness.

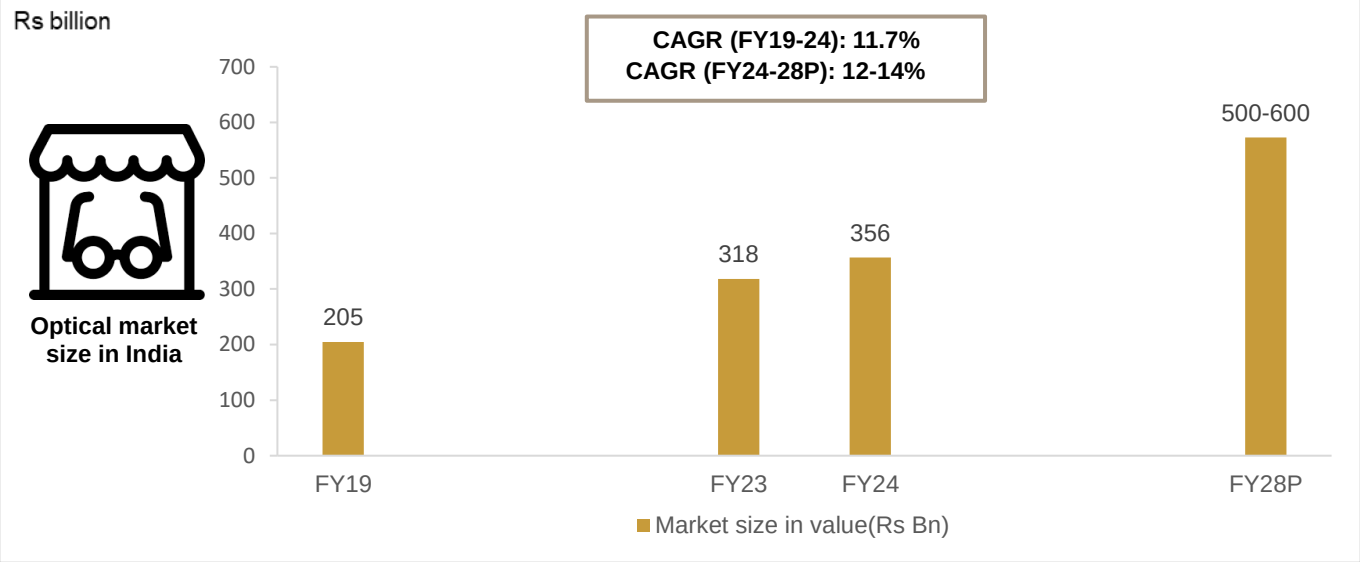
In 2011, the WHO Regional Office for Africa responded to the needs of the WHO African Region by crafting a roadmap spanning from 2012 to 2025, aiming to bolster the health workforce to enhance service accessibility. This roadmap encompasses all sectors of the health workforce and delves into the challenges confronting the region. Recognizing the significance of eye health, the WHO issued a global appeal for attaining top-notch care, emphasizing people-centricity and integration. The WHO's global action plan for 2014–2019, "Towards Universal Eye Health," aims to decrease visual impairment by 25% till 2019, from the 2010 baseline by integrating eye care services into the broader health system. The cornerstone for enhancing the quality, quantity, and pertinence of the eye health workforce lies in fortifying training institutions to produce more proficient professionals adhering to appropriate standards and ensuring their seamless integration into the health system.

4 Overview of optical industry in India

The Indian optical industry is projected to grow at a CAGR of 12-14% between fiscal 2024 to 2028

CRISIL MI&A has considered the Indian optical industry to consist of spectacles and contact lenses used by people with refractive eye disorders. As nearly half of the Indian population faces refractive disorders, there is high demand for optical industry in India. As the awareness and access to optical products is increasing in India, the demand for these products is not limited to only urban areas but have extended to rural areas as well. The value of the Indian optical industry increased from Rs 205 Bn in fiscal 2019 to Rs 356 Bn in fiscal 2024, growing at a CAGR of 11.7%.

Indian optical industry – market size trends



Source: CRISIL MI&A

Going forward, the Indian optical industry is projected to grow at CAGR of 12-14% to reach Rs 500-600 Bn by fiscal 2028.There are various factors which are driving the growth of Indian optical industry such as rise in geriatric population, increase in income levels, increased use of electronic gadgets, rise in awareness regarding refractive eye disorder, increasing chains of optical stores etc.

Traditionally, the Indian optical market is dominated by standalone optical stores in the form of independent opticians and small retail shops. These standalone optical stores have been the primary point of contact for customers who are seeking personalised products. But the landscape of this industry is changing with rise of chained offline and online optical stores in India. The chain of online optical players are emerging with rise in internet penetration and smartphone users. These online chain of online optical players offer various discounts and wider range of options for optical products.

Key growth drivers for optical industry in India

Rise in geriatric population

In India, the share of geriatric individuals in total population was 8.9% in 2018 which is projected to increase to 11.4% by the year 2028. In elderly population the prevalence for refractive disorder is higher and this population need optical correction in form of either spectacles or contact lenses. As the awareness about the eye health grows and accesses to affordable optical solutions improves, more elderly individuals will seek optical products for vision correction.

Use of electronic gadgets

With rise in internet penetration in India, the increasing use of electronic gadgets such as smartphones, computers, tablets etc have led to rise in refractive issue in India. Prolonged exposure to the lighted emitted by these devices may impact eye health of their user. With widespread adoption of electronic devices in work, education and entertainment, the prevalence of refractive issues is expected to continue rising, leading to demand for optical products in India.

Rise in income levels

India's per capita income, a broad indicator of living standards, rose to Rs 99,404 in fiscal 2023 from Rs 63,462 in fiscal 2012 at a CAGR of 4.2%. As income levels rise in India, more people have disposable income to spend on healthcare including optical products. Higher income allows people to afford regular eye check-ups, leading to increased diagnostic of refractive disorder, leading to subsequent purchase of optical products.

Increase in awareness about refractive eye disorder

The rise in awareness about the refractive eye disorder plays a key role in the growth of optical products in India. Through various awareness programs by government and non-government institutions, more people in India are becoming aware about conditions such as myopia, hyperopia and astigmatism. As a result, more individuals seeking solutions to correct their vision, driving demand for spectacles and contact lenses

Increase in optical stores chains

The chains of optical stores in India offer standardized services, easier access to eye care professionals and competitive pricing. These stores attract customers through the quality, convenience and wide range of optical products. The online chains of optical companies are further enhancing the customer experience by working on omnichannel model, integrating online and offline experiencing for the customer. These online optical companies also provide services such as virtual try on and home eye test.

5 Overview of eye pharma industry in India

The eye pharma market in India is estimated to be around Rs 33-38 billion in fiscal 2024

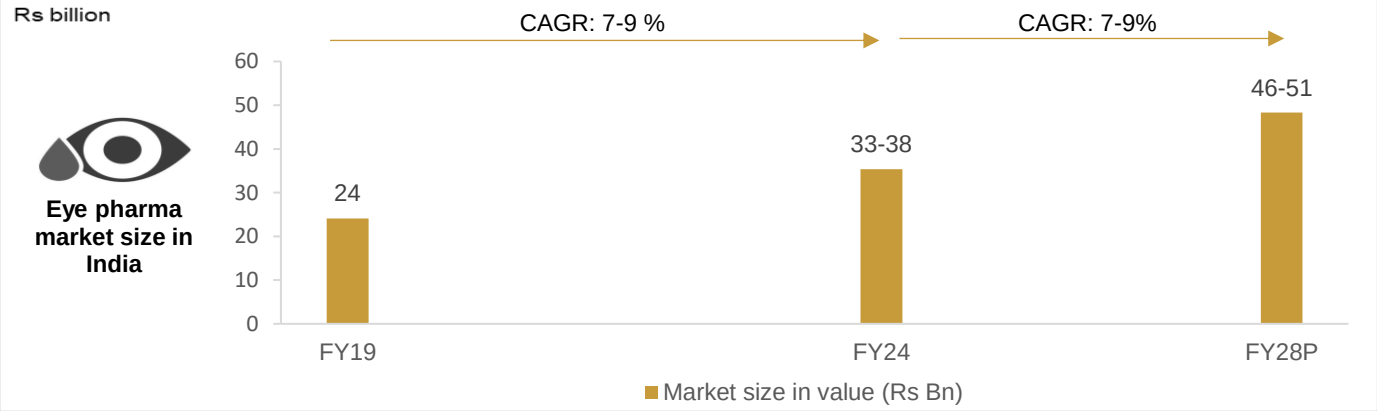
The Indian eye pharma market has grown at a CAGR of 7-9% between the fiscals 2019 and 2024, reaching a value of ~ Rs 33-38 billion in fiscal 2024. Many domestic as well as foreign players have invested in capabilities in eye care pharma market in India. Allergan India, Sun pharma, Ajanta pharma, Novartis India, Cipla are among the key pharma players for the eye care market in India domestic formulation market. Medications for ailments such as dry eyes, glaucoma, etc. are among the key medications in the Indian eye care pharma market.

Some of the key players and brands in the ophthalmology therapy area in the Indian domestic market

Company Name	Key brands in eye pharma
Allergen India (a joint venture between Allergen and Piramal Pharma)	Refresh tears, Combigan, Lumigan, Refresh Liquigel
Sun pharma	Careprost, Eyemist, Teardrops
Ajanta pharma	Soft Drops, Olopat, Brinzox
Novartis India	Systane Ultra, Genteal, Travatan
Cipla	Ciplox, Moxicip, Dorzox

Source: CRISIL MI&A

Indian eye pharma industry – market size trends



Source: CRISIL MI&A

The growth in the eye care pharma market is driven by rise in income levels, increasing prevalence of eye care disorders such as myopia, cataract, glaucoma etc., increase in penetration health insurance and increased awareness about eye health. Rising income levels in India enhance affordability and awareness of eye care, driving demand for ophthalmic medications. Increase in prevalence of various eye related disorders promotes the growth of eye care pharma market in India. Rise in population in India with age 60 and above will lead to higher prevalence of eye disorders in India as prevalence for disorders such as cataract and refractive disorder increases with age. Change in lifestyle and rise in screen time also leads to eye related disorders such as refractive issues. There are several other conditions which leads to higher prevalence of eye related disorders in India, such as the rise in cases of diabetes may lead to higher cases of diabetic retinopathy. Rising medical insurance also supports the growth of eye care pharma in India as insurance reduce out of pocket expenses for patients, encouraging them for opting for various eye related procedures. Going forward CRISIL MI&A projects the eye care pharma market to grow at a CAGR of 7-9% to reach market size of Rs 46-51 billion in fiscal 2028.

6 Assessment of select healthcare specialties in India

In the following section CRISIL MI&A has analyzed eye care, dental care, mother and child (IVF included), orthopedic and oncology markets in India. We have compared the market sizes, growth rates, unit economics, financial feasibility (internal rate of returns-IRR) for these select healthcare specialties.

6.1 Overview of eye care and other select healthcare specialties

The eye care specialty market had the highest CAGR growth, among the specialties considered, between fiscal 2019 and 2024

The eye care market in India had the highest growth rate, among the specialties considered, between fiscals 2019 and 2024 of ~11-13%, followed by oncology and dental care market with growth rate of around 10-12%. The growth drivers for the eye care market included rise in income levels, aging population, initiatives by government and non-government organization to promote awareness about eye health in India, rise in prevalence of eye related ailments, changing lifestyles etc.

Comparison of market size and growth rates of eye care and other select specialties

Key healthcare specialties	Market size in fiscal 2019 (Rs Bn)	Market size in Fiscal 2024 (Rs Bn)	Market size in Fiscal 2028P (Rs Bn)	Growth between fiscals 2019 and 2024	Growth between fiscals 2024 and 2028P
Eye care	215-225	360-390	550-660	11-13%	12-14%
Dental care	145-155	240-270	330-430	10-12%	9-11%
Mother and child (including IVF)	355-365	530-560	750-850	8-10%	9-11%
Oncology	195-205	330-360	500-600	10-12%	12-14%
Orthopedic	365-375	590-620	900-1000	9-11%	11-13%

Source: CRISIL MI&A

Oncology and eye care markets are expected to grow the fastest between fiscals 2024 and 2028, among the specialties considered

Going forward, oncology and eye care specialties are expected to have the highest CAGR growth, among the specialties considered, between fiscals 2024 and 2028. The growth in the eye care industry would be continued to be driven by rise in income levels, awareness, and aging population. The growth in the industry would also be led by changing lifestyles and growth in eye care service chains.

6.2 Overview of dental care market in India

The Indian dental care industry grew at a CAGR of 10-12% between fiscal 2019 and 2024

In India, for dental care industry, visits to a dentist are categorized in three categories- general consultations, general dentistry procedures and other key procedures. General dentistry procedures include root canal treatment, filling, cleaning, bridging etc., while other key procedures include braces, dentures, tooth implants, smile surgery etc.

CRISIL MI&A estimates the dental care market in India ~ Rs 240-270 billion in fiscal 2024, which has grown at a CAGR of 10-12% between fiscal 2019 and 2024. The growth in the dental care market is driven by rise in awareness and knowledge among the Indian population regarding the dental care treatments, rise in elderly population, consumption of tobacco, sugary foods and drinks etc.

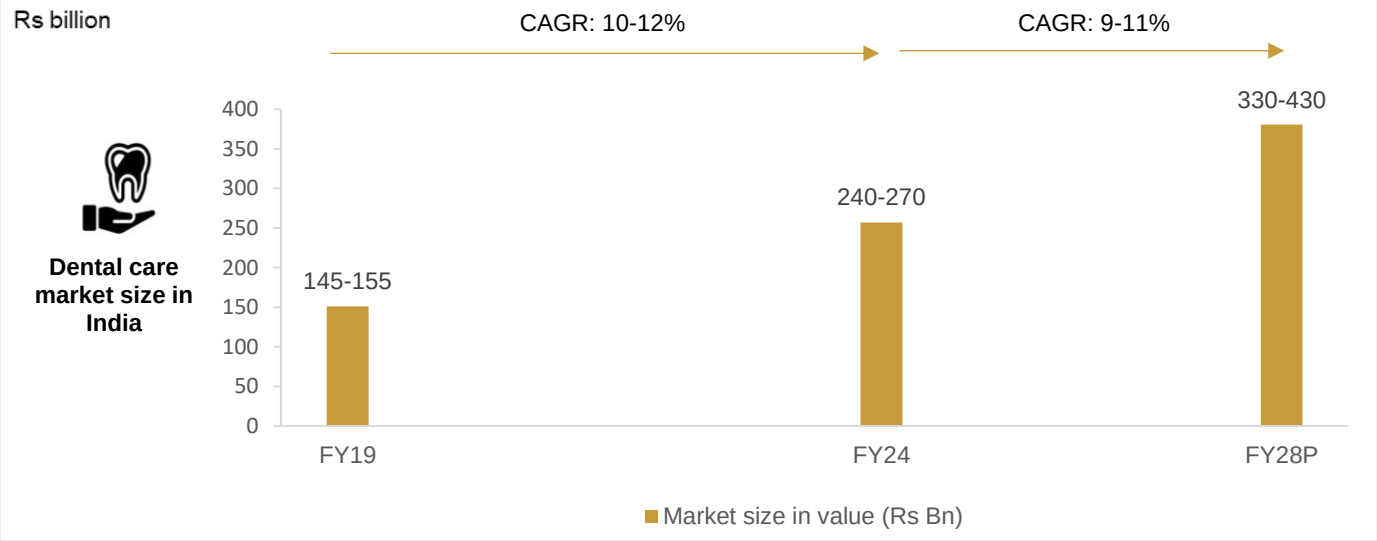
Some of the key growth drivers in the industry are:

- **Higher consumption of sugary foods and drinks:** Higher consumption of sugar foods and drinks such as candy, soda etc. may lead to erosion of enamel and development of cavities in Indian population. So, higher consumption of such sugary foods and drinks would require more frequent dental check-ups and treatments, leading to higher demand for preventive and corrective dental care in India

- **Use of tobacco:** Consumption of tobacco is associated as one of the leading causes of oral cancer and other key oral problems, which results in demand for dental care services. Thus, consumption of tobacco is one of the key growth drivers for the demand of dental care in India

- **Rise in preventive check-ups:** The rise in awareness about dental care in India is leading to more people opting for preventive check-ups. Increased knowledge about importance of oral hygiene and early detection of dental issues encourages dental care visits. This proactive approach enables in identifying and addressing problems before they become severe, thus boosting the demand for dental care market in India

Indian dental care industry – market size trends



Source: CRISIL MI&A

Indian dental care market to grow at a CAGR of 9 to 11% between fiscals 2024 and 2028

CRISIL MI&A projects the market to grow at a CAGR of 9-11% between fiscals 2024 and 2028, to reach ~Rs 330-430 billion in fiscal 2028. The growth in the dental care sector will be continued to be led to by rising awareness about dental care services, rise in aging population and lifestyle changes such as consumption of tobacco, sugary foods and drinks. The advancement in technology in the treatment of dental care speciality will also promote the growth of the market. Technologies such as 3D imaging, laser treatments etc, will lead to better dental procedures for patients, thus promoting the growth in the market. Going forward, rise in urbanisation will lead to growth in the dental care industry as urban areas have better infrastructure and technologies for dental care compared to rural

areas, thus more individuals would have better access to dental care services in India. The growth of dental care chains will also promote growth in the industry as these centres provide standardized dental care across various locations, which increases the access to dental care for patients.

6.3 Overview of orthopedic market in India

The Indian orthopedic industry grew at a CAGR of 9-11% between fiscal 2019 and 2024

The orthopedic healthcare in India includes surgical and non-surgical treatment of orthopedic related ailments. Non-surgical treatments are used to treat ailments such as low trauma fractures, arthritis, back pain etc. Surgical treatments in the industry are used to treat high trauma fractures, knee and hip replacement surgeries and other key surgeries.

CRISIL MI&A estimates orthopedic market in India around Rs 590-620 billion in fiscal 2024, which has grown at a CAGR of 9-11% between fiscals 2019 and 2024. The growth in the orthopedic market size in India is driven by rise in aging population, rise in sedentary lifestyle, rise in sports related injuries etc.

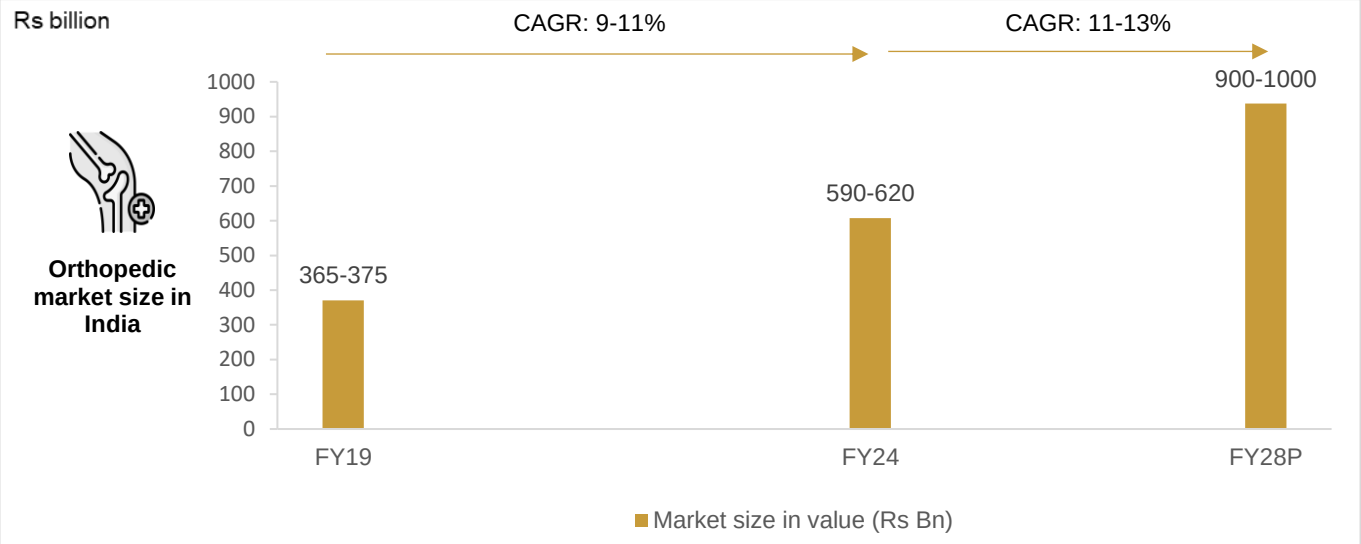
Some of the key growth drivers in the industry are:

- **Rise in elderly population:** Aging elevates the risk of orthopedic conditions such as osteoarthritis and other orthopedic related ailments. As the elderly population rise in India, the prevalence of age-related orthopedic conditions will grow, consequently increasing the demand for orthopedic treatments in India.

- **Rise in sedentary lifestyle:** In India, there is rise in sedentary lifestyle due to desk bound jobs, increased digital screen time, and reduced physical activities. The lack of exercise and prolonged sitting can lead to musculoskeletal issues such as back pain, neck pan, joint stiffness etc, which require orthopedic visits for treatments and healing. So, rise in sedentary lifestyle in India leads to increase in the demand for orthopedic healthcare services in India.

- **Increase in sports related injuries:** In India with more people engaging and physical and sports related activities, there is a rise in injuries such as fractures, ligament, tears etc. This is leading to higher demand for orthopedic consultations, surgeries and rehabilitation services.

Indian orthopedic industry- market size trends



Source: CRISIL MI&A

Indian orthopedic market to grow at a CAGR of 11 to 13% between fiscals 2024 and 2028

Going forward, the orthopedic treatment industry in India is projected to grow at 11-13% between fiscals 2024 and 2028 to reach Rs 900-1000 billion in fiscal 2028. The rise in Indian orthopedic industry will be promoted by rise in awareness among the Indian population to maintain healthy and active lifestyle. Many individuals are seeking for orthopedic treatments to relieve pain and restore mobility, thus improving their quality of life. Technological advancement in orthopedic industry will promote growth in the industry as it helps healthcare providers in orthopedic industry to deliver healthcare effectively and efficiently to their patients. Key technologies such as 3D printing, enhanced imaging technology, smart implants and wearables, online orthopedic consultations etc, enhance treatment outcomes and experience for the patients, thus driving the orthopedic market in India.

6.4 Overview of mother and child (including IVF) market in India

The Indian mother and child (including IVF) market grew at a CAGR of 8-10% between fiscal 2019 to 2024

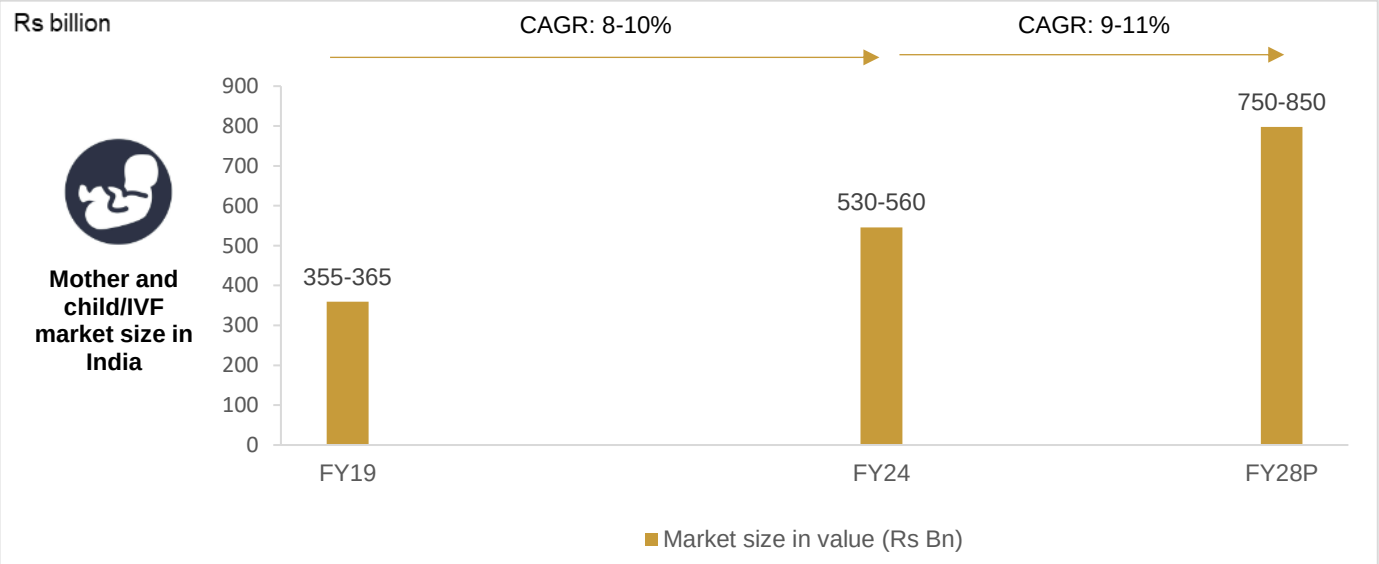
CRISIL MI&A estimates the mother and child (including IVF) market ~Rs. 530-560 billion in fiscal 2024, which has grown at a CAGR of 8 to 10% between fiscals 2019 and 2024. The mother and child (including IVF) market in India is mainly driven by rise in average expenditure on childbirth, increasing institutional pregnancies, rise in rural market and increase in adoption of IVF services in India.

Some of the key growth drivers in the industry are:

- **Rise in average healthcare expenditure on childbirth:** The growth in the Indian mother and child (including IVF) market is largely driven by urban market with increase in average health expenditure on childbirth and related antenatal care and increased penetration of institutional pregnancies. This growth is driven by India's increasing aspirational middle-class population, increase in per capita income of urban India with considerable amount disposable income, increasing participation of women in the workforce which in turn has given rise to the count of dual income household and availability of multiple financing options increasing spending on insurance plans and medical services related to birthing.

- **Growth in the rural Indian mother and child (including IVF market):** The rural market for Indian mother and child (including IVF) is driven by increased penetration of healthcare services and moderate increase in expenditure supported by growth in per capita income.
- **Increase in adoption of IVF services**: In India, rise in infertility issues in Indian couples due to various factors such as sedentary lifestyle, high stress levels, prevalence of late parenthood and other medical reasons, and advancement in technology for IVF procedures, the number of IVF cycles in India are growing rapidly.

Indian mother and child (including IVF) industry – market size trends



Source: CRISIL MI&A

Indian mother and child (including IVF) market to grow at a CAGR of 9 to 11% between fiscals 2024 and 2028

Going forward CRISIL MI&A projects the mother and child (including IVF) market in India to grow at a CAGR of 9 to 11% between fiscals 2024 and 2028 to reach Rs. 750-850 billion in fiscal 2028. Birthing is an important moment in a couple's life, with increasing workload and sedentary activities, couples want to ensure the birthing experience is smooth, hassle-free, comfortable as well as memorable. New-age couples want to experience the birthing journey by having the best that is available in terms of treatment, hospital facilities, doctor consultancy, antenatal and post-natal physical well-being, etc. These factors are expected to drive the demand of comprehensive high risk obstetrics units where the couples can avail quality services such as high-risk pregnancy care with maternal intensive care with 24x7 coverage, full-fledged foetal medicine department with capabilities of foetal interventions, along with blood bank facilities within the hospital care. Drift towards demand of such higher quality services is expected to add to the maternity care market growth.

6.5 Overview of oncology market in India

The oncology market size in India grew at a CAGR of 10-12% between fiscals 2019 and 2024

Globally, according to the World Health Organization (WHO), cancer is the second leading cause of deaths with an estimate of 9.6 million deaths due to cancer in 2018. In India, the cancer cases are also increasing due to rise in tobacco consumption, dietary changes, food adulteration and environment changes. Rise of sedentary lifestyle has also contributed to rise in cancer cases in India.

CRISIL MI&A estimates the oncology market in India to be around Rs 330-360 billion in fiscal 2024, which has grown at a CAGR of 10-12% between fiscals 2019 and 2024. The oncology market in India is driven by rise in cancer patients in India due to lifestyle changes, increase in awareness among the Indian population about cancer disease, government programs and initiatives, rise in healthcare infrastructure etc.

Some of the key growth drivers in the industry are:

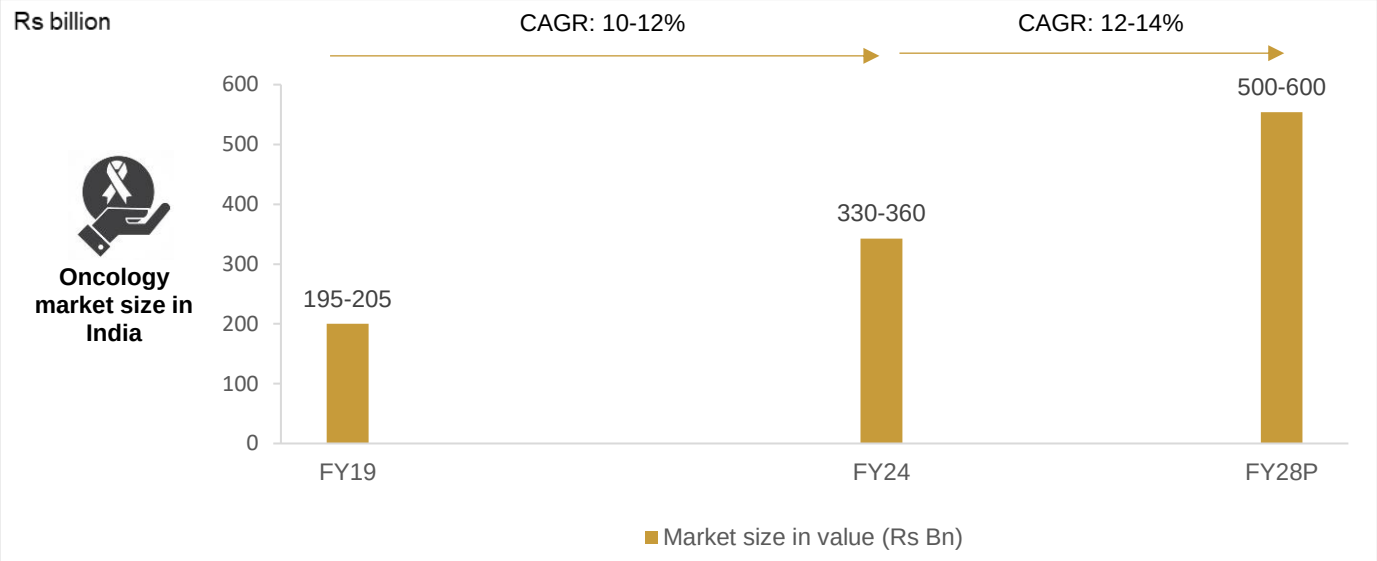
- **Lifestyle changes:** In India, lifestyle changes such tobacco and alcohol consumption, unhealthy diet, sedentary lifestyle, increased pollution levels may lead to higher prevalence of cancer disease in India, thus creating a demand for oncology services in India

- **Increase in screening and detection for cancer ailments**: Due to various government and non-government initiatives, there is a rise in awareness about the cancer in India leading to higher screening and detection of cancer patients. With rise in detection of cancer patients, higher number of cancer patients avail various cancer related treatments, thus driving the market.

- **Government programs:** Apart from the cancer awareness campaign, there are other various initiatives taken by the government of India such as Ayushman Bharat and National Cancer Control Programme, which have promoted growth in the industry. Ayushman Bharat has increased the affordability of the cancer patients to avail various cancer related treatments. Under PMJAY, oncology is one of the most used specialties for tertiary treatment in India. National Cancer Control Programme was started by Indian government in 1982 with objectives of primary prevention of cancer by health education, early detection and diagnosis of cancer, strengthening of cancer treatment facilities and providing palliative care for patients with terminal stage of cancer.

- **Rise in healthcare infrastructure for cancer treatment:** Since the number of cancer patients in India is rising, there is rise in investment in the oncology market in India to increase number of beds and other healthcare infrastructure for cancer treatment. Corporate hospitals are focusing on increasing their infrastructure to provide for rise in demand for cancer related treatments, especially in non-metro cities. Rise in healthcare infrastructure increases the accessibility for cancer treatments in India, thus promoting the growth in oncology market in India

Indian oncology industry – market size trends



Source: CRISIL MI&A

Indian oncology market to grow at a CAGR of 12 to 14% between fiscals 2024 and 2028

Going forward, the oncology care market in India is expected to grow at a CAGR of 12-14% between fiscals 2024 and 2028 to reach Rs 500-600 billion. The rise in health insurance penetration in India will contribute to the growth of cancer treatment market in India. With more people having access to health insurance, financials barriers to complex and expensive cancer treatments will get reduced, allowing more patients to seek and afford necessary care. The technological advancement in the oncology industry would also promote the industry with safer and more effective treatments for cancer care. Various corporate hospital chains are investing in the advanced technology for cancer care treatment in India, thus driving the market.

6.6 Internal rate of returns (IRR) for select specialties in India

In the following section, CRISIL MI&A has analysed the financial feasibility of a typical tertiary eye care centre over a fifteen-year period in order to understand the returns generated. We have also compared these returns with those generated by a typical orthopedic, oncology, mother & child hospital and dental centre for the same time period. This exercise has been done separately for metro and non-metro locations.

Key assumptions for calculations of IRR

Particulars	Details
Metro	Gurgaon (Delhi-NCR) region has been considered for metro IRR calculations
Non-metro	Ahmedabad has been considered for non-metro IRR calculations
Land	For eye care & dental, the centre sizes required are small, hence land is not purchased and is rented. For other specialties, land purchase has been considered in capex as per current prevalent commercial land rates
Construction period	For eye care hospitals, the construction period considered is 1 year. For dental, 6 months has been considered. For other specialties, 3 years construction period has been considered
Centre / Hospital size	Eye care: 5,000 square feet secondary plus / tertiary centre

	Dental: Each centre with 2 seats. Total area 1,000 square feet
	Oncology: 100 bedded hospitals with 75 beds for inpatients and 25 beds for day-care therapies such as chemotherapy and radiology. Built-up area of ~600 square feet per bed for metro and ~800 square feet per bed for non-metro location
	Orthopedic: 100 bedded hospital. Built-up area of ~500 square feet per bed for metro and ~600 square feet per bed for non-metro location.
	Mother & child: 40 bedded hospital. Built-up area of ~600 square feet per bed for metro and ~750 square feet per bed for non-metro location.
Revenue and costs	Players have been analysed in each segment, and prevalent occupancy rates, ARPOB, ALOS have been used to arrive at revenues. Similarly, cost structure of players operating in each specialty have been analysed and basis those, costs have been assumed to build the P&L statement for each specialty

Source: CRISIL MI&A

Internal rate of returns (IRR) for eye care centre to be around 17-18% for a metro city

CRISIL MI&A estimates the IRR for eye care centre to be around 17-18% for a secondary/tertiary centre in a metro city and 16.5-17.5% in a non-metro city. Compared to IRR of other considered specialties, the eye care market has the second highest IRR for a metro city and highest IRR for a non-metro city (eye care and dental have highest IRR for non-metro city). For a metro city, dental care centre has the highest IRR of 18-19%. However, capital expenditure required to start a dental centre is very low compared to eye care centre (Rs 3 million for dental centre vs Rs 80 million for eye care centre in a metro city). Additionally, revenue per centre for dental specialty is very low compared to eye care specialty (Rs 7 million in one year for dental centre with 2 seats in a metro city vs 80 million in one year for a tertiary eye care centre in a metro city).

The eye care and dental care treatments, typically, do not require overnight hospitalization compared to other considered specialties. This leads to less requirement of land for these specialties and consequently lower expenditure as centres for both these specialties usually operate on a rent / lease model.

IRR for various healthcare specialties

Type of healthcare specialty	IRR in metro city	IRR in non-metro city
Eye care	17-18%	16.5-17.5%
Dental care	18-19%	16.5-17.5%
Mother and child (including IVF)	10-11%	16-17%
Oncology	10.5-11.5%	14.5-15.5%
Orthopedic	10-11%	10-11%

Source: CRISIL MI&A

6.7 Unit economics comparison of eye care and other select healthcare specialties

Among the eye care, dentalcare, mother and child, oncology and orthopedic specialties, oncology has the highest operating revenue per centre for fiscal 2023. This is due to complex cancer treatment procedures such as surgeries, chemotherapy, radiotherapy, and other key procedures which require complex technological equipment and expertise resulting in high surgical and non-surgical expenses for patients. The eye care market had the highest OPBDIT and lowest cost of sales as a percentage of the operating revenue among the specialties considered for fiscal 2023 due to lower capital and operating cost in the industry.

Unit economics comparison for eye care, dentalcare, mother and child, oncology and orthopedic

Unit economics-fiscal 2023	Eye care	Dental care	Mother and child	Oncology	Orthopedic
Operating revenue per centre (Rs million)	57.1	4.5	344.4	482.0	57.0
Cost of sales per centre (Rs million)	42.3	4.1	264.7	399.3	51.9
Cost of sales as % of operating revenue	74.2%	91.3%	76.9%	82.8%	91.1%
OPBDIT per centre (Rs million)	14.7	0.4	79.7	82.7	5.1
OPBDIT as a % of operating revenue	25.8%	8.7%	23.1%	17.2%	8.9%

Note:
Companies considered for eye care: ASG Hospital Pvt. Ltd, Disha Eye Hospitals Pvt. Ltd, Dr. Agarwal's Health Care Ltd, Eye 7 Hospitals Pvt. Ltd, Eye-Q Vision Pvt. Ltd, Lotus Eye Hospital & Institute Ltd, Maxivision Eye Hospitals Pvt Ltd and New Delhi Centre for Sight Ltd
Companies considered for Dental Care: Orthosquare Multispeciality Dental Clinic Pvt Ltd, Alliance Dental Care Ltd, S. J Healthcare Pvt Ltd, Signature Smiles Dental Clinic Private limited, and Partha Dental Care India Pvt Ltd.
Companies considered for Mother and child (Including IVF): Rainbow Childrens Medicare Limited, Kids Clinic India Private Limited and DSR Healthcare Private Limited
Companies considered for Oncology: Healthcare Global Enterprises Limited, Cytocure Medicare Pvt Ltd and Hyderabad Institute of Oncology Private Limited
Companies considered for Ortho care: Lokmanya Hospitals Private Limited, QI Lifecare Private Limited, Orthocure Healthcare Private Limited, and Mewar Hospitals Pvt Ltd
Source: Company reports, CRISIL MI&A

6.8 Qualitative comparison of eye care specialty with other select healthcare specialties

Key players in eye care and other select healthcare specialties

Specialties	Treatment preference	Key procedures	Some of the key players
Eye Care	Mainly treated at single specialty eye hospitals/clinics	Cataract, glaucoma, refractive, retina and cornea-based surgeries, etc.	Dr. Agarwal's Health Care, Maxivision Eye Hospitals, New Delhi Centre for Sight, ASG Hospitals
Dental Care	Mainly treated at single specialty dental clinics and hospitals	Root canal treatment, extraction, filling cleaning etc.	Clove Dental, OrthoSquare, Dentzz
Mother and child (including IVF)	More dominant in single specialty centres	Hospitalization for child delivery, IVF cycles etc.	Cloudnine Hospital, Rainbow Hospitals, Indira IVF
Oncology	Similar share of treatments done in both multispecialty and single specialty centres	Cancer treatment through surgery, chemotherapy, radiotherapy etc.	Narayana Hrudayalaya, Omega Hospitals, Healthcare Global
Orthopedic	Low trauma cases and general non-surgical treatments, typically, are treated at single specialty centres while high trauma and other key surgeries are, typically, treated at a multi-specialty centre	Low and high trauma/fractures, knee, and hip replacement surgery etc.	Mewar Hospitals, Shalby Multi-specialty Hospitals, Lokmanya Hospitals

Source: CRISIL MI&A

7 Assessment of competitive environment of key players in India

In this section, CRISIL has analysed key players present in Eye care industry in India. Data has been obtained from publicly available sources, including annual reports and investor presentations of listed players, regulatory filings by players with ministry of corporate affairs (MCA), rating rationales, and/or company websites and other relevant document published by the company.

Note:

1. The peer set considered is an indicative and not exhaustive list of players present in Indian information technology services industry.
2. Financial ratios used in this report may not match with the reported financial ratios by the players on account of standardisation and re-classification done by CRISIL.

The following nomenclature has been used in further section of report as legal entity name: representative company name

- ASG Hospital Pvt. Ltd: ASG Hospitals
- Disha Eye Hospitals Pvt. Ltd.: Disha Eye Hospitals
- Dr. Agarwal's Health Care Ltd.: Dr. Agarwal's Health Care
- Eye 7 Hospitals Pvt. Ltd.: Eye 7 Hospitals
- Eye-Q Vision Pvt. Ltd.: Eye-Q Vision
- Lotus Eye Hospital & Institute Ltd.: Lotus Eye Hospitals & Institute
- Maxivision Eye Hospitals Pvt Ltd.: Maxivision Eye Hospitals
- New Delhi Centre for Sight Ltd.: New Delhi Centre for Sight

7.1 Operational overview

Vintage of the players

Company	Year of incorporation
ASG Hospitals	2007
Disha Eye Hospitals	1996
Dr. Agarwal's Health Care*	2010
Eye 7 Hospitals	2009
Eye-Q Vision	2006
Lotus Eye Hospitals & Institute	1997
Maxivision Eye Hospitals	2010
New Delhi Centre for Sight	2002

Note: Dr. Agarwal's Eye Hospital Ltd, a subsidiary of Dr. Agarwal's Health Care Ltd, was incorporated in 1994

Source: Company reports, Website, CRISIL MI&A

Geographical presence of eye care facilities in terms of zones

Geographical Presence	India				International	Total
	North	South	East	West		
ASG Hospitals	20	87	17	23	2	149
Disha Eye Hospitals	0	0	17	0	-	17
Dr. Agarwal's Health Care	16	135	6	36	16	209
Eye 7 Hospitals	6	0	0	0	-	6
Eye-Q Vision	24	0	0	5	-	29
Lotus Eye Hospitals & Institute	0	9	0	0	-	9
Maxivision Eye Hospitals	0	32	0	8	-	40
New Delhi Centre for Sight	32	10	7	17	-	66

Note:

For players apart from Dr. Agarwal's Health Care and Lotus Eye Hospital & Institute, the number of hospitals is from their website as accessed on 18th December 2024

The number of hospitals for Lotus Eye Hospital & Institute is from its fiscal 2024 annual report

For ASG Hospitals,

The total number of facilities has been arrived at by adding up individual centers available for booking appointments on websites of Vasan Eye Care and ASG Hospitals accessed on December 18, 2024. However, the 'About' section on ASG website mentions 160+ super specialty eye hospitals in India across 83+ cities

For Dr. Agarwal's Health care, the number of facilities is as of September 30, 2024

Source: Company reports, Website, CRISIL MI&A

Geographical Presence of eye care facilities in terms of tier-1, other cities and international

Geographical Presence	India		International	Total
	Tier-1	Other		
ASG Hospitals	44	103	2	149
Disha Eye Hospitals	5	12	-	17
Dr. Agarwal's Health Care	70	123	16	209
Eye 7 Hospitals	6	0	-	6
Eye-Q Vision	10	19	-	29
Lotus Eye Hospitals & Institute	0	9	-	9
Maxivision Eye Hospitals	13	27	-	40
New Delhi Centre for Sight	36	30	-	66

Note:

Tier-1 cities are based on city category classification followed by 7th Pay Commission, Tier I – X cities (top 8 cities)- Delhi NCR, Mumbai Metropolitan Region, Bengaluru, Hyderabad, Chennai, Kolkata, Ahmedabad and Pune.

Delhi NCR comprises of Faridabad, Gurugram, Nuh, Rohtak, Sonipat, Rewari, Jhajjhar, Panipat, Palwal, Bhiwani, Charkhi Dadri, Mahendragarh, Jind, Karnal, Meerut, Ghaziabad, Gautam Budh Nagar, Bulandshahr, Baghpat, Hapur,Shamli, Muzaffarnagar, Alwar, Bharatpur and whole of NCT Delhi.

Mumbai Metropolitan Region comprises of Greater Mumbai, Thane, Kalyan-Dombivali, Navi Mumbai, Ulhasnagar, Bhhiwandi-Nizamapur, Vasai-Virar, Mira-Bhayandar and Panvel

For players apart from Dr. Agarwal's Health Care and Lotus Eye Hospital & Institute, the number of hospitals is from their website as accessed on December 18, 2024

The number of hospitals for Lotus Eye Hospital & Institute is from its fiscal 2024 annual report

For Dr. Agarwal's Health care, the number of facilities is as of September 30, 2024

For ASG Hospitals,

The total number of facilities has been arrived at by adding up individual centers available for booking appointments on websites of Vasan Eye Care and ASG Hospitals accessed on December 18, 2024. However, the 'About' section on ASG website mentions 160+ super specialty eye hospitals in India across 83+ cities
Source: Company reports, Website, CRISIL MI&A

National Accreditation Board for Hospitals & Healthcare Providers (NABH) accredited facilities

Geographical Presence	Number of NABH accredited facilities	Number of facilities with renewal assessment in process
ASG Hospitals**	23	0
Disha Eye Hospitals	3	0
Dr. Agarwal's Health Care*	29	1
Eye 7 Hospitals	1	2
Eye-Q Vision	4	0
Lotus Eye Hospitals & Institute	NA	NA
Maxivision Eye Hospitals	3	0
New Delhi Centre for Sight^	28	3

Note:
**Includes 2 hospitals of Thind Eye Hospitals, 1-J P Eye hospital, Mohali, 1- A-One Creations Pvt. Ltd, Panchkula and 1-Laser Eye clinic, Chandigarh but excludes 1- Aditya Jyot Eye Hospital, Mumbai because of the expired NABH validity*
***Includes 1- Prakash Netra Kendr, Lucknow, 1-Narang Eye Hospital,Delhi, 1-Kapil Eye Hospital, Ambala and 1-Jethwa Eye Hospital*
From National Accreditation Board for Hospitals & Healthcare Providers (NABH) website as accessed on December 18, 2024
^Centre for Sight, Indirapuram has been excluded in the count because of the expired NABH validity
Source: NABH, CRISIL MI&A

7.2 Financial overview

Revenue from Operations

Revenue from Operations (Rs. Million)	FY22	FY23	FY24	H1FY24	H1FY25	YoY Growth (H1FY24-H1FY25)	CAGR (FY22-24)
ASG Hospitals	2,649	4,367	7,923	NA	NA	NA	73.0%
Disha Eye Hospitals[#]	2,629	3,473	3,621	NA	NA	NA	17.4%
Dr. Agarwal's Health Care	6,961	10,180	13,322	6,506	8,201	26.1%	38.3%
Eye-7 Hospitals[#]	384	734	1,082	NA	NA	NA	67.8%
EyeQ Vision	992	1,176	1,286	NA	NA	NA	13.8%
Lotus Eye Hospitals & Institute[#]	389	470	482	253	258	2.0%	11.3%
Maxivision Eye Hospitals	1,426	2,426	3,162	NA	NA	NA	48.9%
New Delhi Centre for Sight	2,870	3,954	4,721	NA	NA	NA	28.3%

Note: NA: Not Available
 # Financials are considered on standalone basis, for the rest of the companies the financials are considered on a consolidated basis
Source: Company reports, CRISIL MI&A

Operating profit before depreciation, interest, and tax (OPBDIT)

OPBDIT (Rs. Million)	FY22	FY23	FY24	H1FY24	H1FY25	YoY Growth (H1FY24-H1FY25)	CAGR (FY22-24)
ASG Hospitals	-5,195	1,108	1,685	NA	NA	NA	NM

Disha Eye Hospitals#	687	870	777	NA	NA	NA	6.3%
Dr. Agarwal's Health Care	1,821	2,703	3,623	1,662	2,106	26.7%	41.0%
Eye-7 Hospitals#	167	367	449	NA	NA	NA	63.9%
EyeQ Vision	155	265	252	NA	NA	NA	27.4%
Lotus Eye Hospitals & Institute#	58	76	65	42	28	-33.0%	5.7%
Maxivision Eye Hospitals	300	638	545	NA	NA	NA	34.8%
New Delhi Centre for Sight	575	794	948	NA	NA	NA	28.4%

Note: NA: Not Available
 # Financials are considered on standalone basis, for the rest of the companies the financials are considered on a consolidated basis
NM: Not meaningful as OPBDIT for the company in FY22 was negative
OPBDIT = Revenue from operations - total expenses before interest tax, depreciation and extraordinary items
Source: Company reports, CRISIL MI&A

Profit After Tax (PAT)

PAT (Rs. Million)	FY22	FY23	FY24	H1FY24	H1FY25	YoY Growth (H1FY24-H1FY25)	CAGR (FY22-24)
ASG Hospitals	-5,883	107	-748	NA	NA	NA	NM
Disha Eye Hospitals#	433	637	549	NA	NA	NA	12.6%
Dr. Agarwal's Health Care	432	1,032	951	311	396	27.1%	48.4%
Eye-7 Hospitals#	117	275	328	NA	NA	NA	67.2%
EyeQ Vision	-36	121	26	NA	NA	NA	NM
Lotus Eye Hospitals & Institute#	30	41	29	22	7	-67.5%	-1.2%
Maxivision Eye Hospitals	142	273	110	NA	NA	NA	-12.0%
New Delhi Centre for Sight	147	127	-101	NA	NA	NA	NM

Note: NA: Not Available
 # Financials are considered on standalone basis, for the rest of the companies the financials are considered on a consolidated basis
NM: Not Meaningful, as PAT for the companies in FY22 or FY24 is negative
Source: Company reports, CRISIL MI&A

OPBDIT Margin

OPBDIT Margin (%)	FY22	FY23	FY24	H1FY24	H1FY25
ASG Hospitals	-196.2%	25.4%	21.3%	NA	NA
Disha Eye Hospitals#	26.1%	25.1%	21.4%	NA	NA
Dr. Agarwal's Health Care	26.2%	26.6%	27.2%	25.5%	25.7%
Eye-7 Hospitals#	43.5%	49.8%	41.5%	NA	NA
EyeQ Vision	15.6%	22.5%	19.6%	NA	NA
Lotus Eye Hospitals & Institute#	15.0%	16.1%	13.5%	16.6%	10.9%
Maxivision Eye Hospitals	21.0%	26.3%	17.2%	NA	NA
New Delhi Centre for Sight	20.0%	20.1%	20.1%	NA	NA

Note: NA: Not Available
 # Financials are considered on standalone basis, for the rest of the companies the financials are considered on a consolidated basis
Operating margin = OPBDIT / Revenue from Operations
Source: Company reports, CRISIL MI&A

PAT Margin

PAT Margin (%)	FY22	FY23	FY24	H1FY24	H1FY25
ASG Hospitals	-217.2%	2.4%	-9.1%	NA	NA
Disha Eye Hospitals#	16.1%	18.0%	14.9%	NA	NA
Dr. Agarwal's Health Care	6.0%	10.0%	6.9%	4.7%	4.7%
Eye-7 Hospitals#	30.2%	36.4%	29.4%	NA	NA
EyeQ Vision	-3.6%	10.2%	2.0%	NA	NA
Lotus Eye Hospitals & Institute#	7.5%	8.5%	5.9%	8.6%	2.8%
Maxivision Eye Hospitals	9.9%	11.1%	3.3%	NA	NA
New Delhi Centre for Sight	4.9%	3.2%	-2.1%	NA	NA

Note: NA: Not Available
 # Financials are considered on standalone basis, for the rest of the companies the financials are considered on a consolidated basis
PAT margin = PAT / Total Income
Source: Company reports, CRISIL MI&A

Return on Equity (RoE)

ROE (%)	FY22		FY23		FY24	
	RoE@	RoE@@	RoE@	RoE@@	RoE@	RoE@@
ASG Hospitals	NM	N.M.	NM	11.7%	N.Ap	-7.9%
Disha Eye Hospitals#	17.0%	16.5%	20.8%	20.2%	15.0%	14.6%
Dr. Agarwal's Health Care	77.0%	20.0%	96.2%	23.1%	23.3%	9.3%
Eye-7 Hospitals#	92.2%	92.2%	85.0%	85.0%	52.6%	52.5%
EyeQ Vision	-9.8%	-9.5%	29.1%	28.6%	5.3%	5.2%
Lotus Eye Hospitals & Institute#	5.6%	5.6%	7.3%	7.3%	5.0%	5.0%
Maxivision Eye Hospitals	28.6%	19.7%	65.9%	24.3%	4.5%	2.8%
New Delhi Centre for Sight	6.9%	5.8%	7.1%	5.0%	-8.2%	-4.0%

Note: N.Ap: Not Applicable
NM: Not Meaningful as Average tangible networth is negative
N.M. Not Meaningful as Average total equity is negative
@ considering tangible networth
ROE@= PAT / Average tangible net worth
@@ considering total networth
ROE@@= PAT / Average total equity (incl. NCI)
 # Financials are considered on standalone basis, for the rest of the companies the financials are considered on a consolidated basis
Values are as per CRISIL MI&A standards and may not match company reported numbers
Source: Annual reports, Investor presentations, CRISIL MI&A

Return on Capital Employed (RoCE)

ROCE (%)	FY22		FY23		FY24	
	RoCE@	RoCE@@	RoCE@	RoCE@@	RoCE@	RoCE@@
ASG Hospitals	NM	N.M.	N.Ap	7.3%	-0.9%	-1.1%

ROCE (%)	FY22		FY23		FY24	
	RoCE@	RoCE@@	RoCE@	RoCE@@	RoCE@	RoCE@@
Disha Eye Hospitals#	25.5%	24.6%	27.2%	25.6%	19.5%	18.8%
Dr. Agarwal's Health Care	17.2%	15.0%	19.0%	15.2%	18.5%	14.6%
Eye-7 Hospitals#	123.3%	84.0%	112.2%	79.1%	70.6%	55.8%
EyeQ Vision	5.8%	4.1%	28.1%	15.4%	16.9%	13.1%
Lotus Eye Hospitals & Institute#	7.9%	7.6%	10.2%	9.9%	7.0%	6.8%
Maxivision Eye Hospitals	31.0%	26.0%	49.1%	37.8%	9.6%	5.9%
New Delhi Centre for Sight	10.4%	9.7%	9.1%	8.7%	4.9%	8.1%

Note: N.Ap: Not Applicable

NM: Not meaningful as (average total debt + average tangible networth + average deferred tax liability) is coming out to be negative

N.M.: Not Meaningful as (total debt+ total equity- intangible assets) is coming out to be negative

@: considering average capital employed

RoCE@ = Profit before interest and tax (PBIT) / (Average total debt +average tangible networth + average deferred tax liability)

@@:not considering average capital employed

RoCE= PBIT (before exceptional items) / (Total debt+ total equity- intangible assets)

 # Financials are considered on standalone basis, for the rest of the companies the financials are considered on a consolidated basis

Values are as per CRISIL MI&A standards and may not match company reported numbers

Source: Annual reports, Investor presentations, CRISIL MI&A

Asset Turnover Ratio

Asset turnover ratio (%)	FY22	FY23	FY24
ASG Hospitals	1.0	1.0	1.1
Disha Eye Hospitals#	1.8	2.1	2.0
Dr. Agarwal's Health Care	0.9	1.0	1.0
Eye-7 Hospitals#	5.2	7.3	6.9
EyeQ Vision	1.4	1.5	1.4
Lotus Eye Hospitals & Institute#	0.5	0.5	0.5
Maxivision Eye Hospitals	1.5	2.0	1.9
New Delhi Centre for Sight	0.6	0.8	0.8

Note: NA: Not Available

 # Financials are considered on standalone basis, for the rest of the companies the financials are considered on a consolidated basis

Values are as per CRISIL MI&A standards and may not match company reported numbers

Asset turnover ratio = Revenue from Operations / Average gross block

Source: Company reports, CRISIL MI&A

Working capital cycle (FY23)

FY23	Inventory Days	Debtor Days	Payable Days	Working Capital Cycle
	Days	Days	Days	Days
ASG Hospitals	38.1	33.2	224.4	(153.1)
Disha Eye Hospitals#	3.1	12.8	53.8	(37.9)
Dr. Agarwal's Health Care	17.6	27.4	158.1	(113.1)
Eye-7 Hospitals#	5.8	13.2	228.0	(209.0)
EyeQ Vision	21.7	62.4	330.2	(246.1)

Lotus Eye Hospitals & Institute#	25.8	9.1	76.7	(41.8)
Maxivision Eye Hospitals	19.8	57.7	107.5	(30.0)
New Delhi Centre for Sight	21.5	39.1	194.5	(133.8)

Note:
 # Financials are considered on standalone basis, for the rest of the companies the financials are considered on a consolidated basis
Values are as per CRISIL MI&A standards and may not match company reported numbers
*Inventory Days = Total Inventories / Cost of Sales * 365*
*Debtor Days = Total Receivables / Revenue from Operations * 365*
*Payable Days = Total Payables / Material costs * 365*
Working Capital Cycle = Inventory days + Debtor days – Payable days
Source: Company reports, CRISIL MI&A

Working capital cycle (FY24)

FY24	Inventory Days	Debtor Days	Payable Days	Working Capital Cycle
	Days	Days	Days	Days
ASG Hospitals	34.7	22.5	191.2	(134.0)
Disha Eye Hospitals#	4.0	9.7	39.3	(25.5)
Dr. Agarwal's Health Care	19.5	26.5	161.2	(115.2)
Eye-7 Hospitals#	4.1	10.1	63.7	(49.5)
EyeQ Vision	20.5	57.4	245.3	(167.4)
Lotus Eye Hospitals & Institute#	28.1	9.5	82.4	(44.7)
Maxivision Eye Hospitals	18.2	42.1	133.5	(73.1)
New Delhi Centre for Sight	21.8	33.5	105.6	(50.3)

Note: NA: Not Available
 # Financials are considered on standalone basis, for the rest of the companies the financials are considered on a consolidated basis
Values are as per CRISIL MI&A standards and may not match company reported numbers
*Inventory Days = Total Inventories / Cost of Sales * 365*
*Debtor Days = Total Receivables / Revenue from Operations * 365*
*Payable Days = Total Payables / Material costs * 365*
Working Capital Cycle = Inventory days + Debtor days – Payable days
Source: Company reports, CRISIL MI&A

Gross Block and Capex

Rs million	FY22		FY23		FY24	
	Gross Block	Capex	Gross Block	Capex	Gross Block	Capex
ASG Hospitals	3,316	1,112	5,595	2,280	9,367	3,943
Disha Eye Hospitals#	1,555	118	1,788	233	1,877	90
Dr. Agarwal's Health Care	8,463	1,505	12,168	3,704	15,446	3,278
Eye-7 Hospitals#	59	-31	177	118	171	29
EyeQ Vision	754	105	837	84	947	110
Lotus Eye Hospitals & Institute#	865	56	895	29	970	75
Maxivision Eye Hospitals	1,013	148	1,421	408	1,987	566
New Delhi Centre for Sight	4,790	557	5,669	879	6,585	917

Note: NA: Not Available
 # Financials are considered on standalone basis, for the rest of the companies the financials are considered on a consolidated basis
Values are as per CRISIL MI&A standards and may not match company reported numbers
Capex for the respective years = gross block of the respective year – gross block of previous year
Source: Company reports, CRISIL MI&A

Key Costs as percentage of Revenue from operations

FY23	Material Costs as % of revenue from operations	Employee Costs as % of revenue from operations	Power and Fuel Costs as % of revenue from operations	Other expenses as % of revenue from operations
ASG Hospitals	21.8%	17.2%	1.9%	33.7%
Disha Eye Hospitals#	52.9%	11.8%	1.0%	9.2%
Dr. Agarwal's Health Care	23.0%	18.7%	1.4%	30.4%*
Eye-7 Hospitals#	22.3%	6.1%	0.9%	21.0%
EyeQ Vision	22.4%	17.6%	1.6%	35.9%
Lotus Eye Hospitals & Institute#	31.8%	18.9%	1.8%	31.3%
Maxivision Eye Hospitals	25.7%	13.1%	1.0%	33.9%
New Delhi Centre for Sight	24.6%	17.5%	1.5%	36.3%

Note:
 # Financials are considered on standalone basis, for the rest of the companies the financials are considered on a consolidated basis
Values are as per CRISIL MI&A standards and may not match company reported numbers
Material Costs include Purchases of stock-in-trade, Changes in inventories of finished goods, work-in-progress and stock-in-trade and changes in inventories of finished goods
Other Expenses include Rent, Maintenance, Travelling Conveyance, Printing and Stationery, Legal Professional Charges, Advertising Promotional Expenses Etc.
** For Dr. Agarwal's Health care, Other expenses is inclusive of consultancy charges for doctors*
Employee costs include doctor costs along with employee benefit expenses
Source: Company reports, CRISIL MI&A

Key Costs as percentage of Revenue from Operations

FY24	Material Costs as % of revenue from operations	Employee Costs as % of revenue from operations	Power and Fuel Costs as % of revenue from operations	Other expenses as % of revenue from operations
ASG Hospitals	21.0%	20.0%	2.4%	35.2%
Disha Eye Hospitals#	53.0%	12.8%	1.0%	11.7%
Dr. Agarwal's Health Care	22.6%	18.2%	1.5%	30.5%*
Eye-7 Hospitals#	28.4%	6.6%	0.7%	22.8%
EyeQ Vision	23.5%	16.8%	1.7%	38.4%
Lotus Eye Hospitals & Institute#	31.8%	20.3%	2.5%	31.8%
Maxivision Eye Hospitals	24.8%	15.2%	1.3%	41.6%
New Delhi Centre for Sight	24.5%	17.8%	1.5%	36.1%

Note: NA: Not Available
 # Financials are considered on standalone basis, for the rest of the companies the financials are considered on a consolidated basis
Material Costs include Purchases of stock-in-trade, Changes in inventories of finished goods, work-in-progress and stock-in-trade and changes in inventories of finished goods
Other Expenses include Rent, Maintenance, Travelling Conveyance, Printing and Stationery, Legal Professional Charges, Advertising Promotional Expenses Etc.
** For Dr. Agarwal's Health care, Other expenses is inclusive of consultancy charges for doctors*
Employee costs include doctor costs along with employee benefit expenses
Source: Company reports, CRISIL MI&A

Key Observations

- Among the players considered, Dr. Agarwal's Health Care had the highest number of eye care service facilities as of September 30, 2024. As of September 30, 2024, Dr. Agarwal's Healthcare had 193 facilities in India and 16 facilities in Africa

- The partnership firm Dr. Agarwal's Eye Institute has been in existence for the past seven decades and it has 4.62% equity share in Dr. Agarwal's Health Care Limited as of 31st March 2023

- Dr. Agarwal's Health Care was the largest eye care service chain in India by revenue from operations for FY24 with a revenue from operations of Rs. 13,322 million. Dr. Agarwal's Health Care revenue from operations was ~1.7 times the revenue from operations of the second largest eye care service chain in the country in FY24

- Among the peers considered, New Delhi Centre for Sight and Dr. Agarwal's Healthcare have the most diversified presence across the cities, with New Delhi Centre for Sight having 36 facilities in tier-1 cities and 30 facilities in other cities while Dr. Agarwal's Healthcare has 70 facilities in tier-1 cities and 123 facilities in other cities of India

- Dr. Agarwal's Healthcare had a market share of ~23% of the total eye care service chain market in India as of FY23

- Dr. Agarwal's Healthcare had a market share of ~25% of the total eye care service chain market in India as of FY24

- Among the peers considered, Dr. Agarwal's Healthcare had the highest number of National Accreditation Board for Hospitals (NABH) accredited eye care facilities (excluding accreditations under renewal) with 29 accredited eye care facilities, Dr. Agarwal's Healthcare was followed by New Delhi Centre for Sight which had 28 accredited eye care facilities as of December 2024

- Among the players considered, Dr. Agarwal's Health Care had the highest revenue for operations for FY22, FY23 and FY24

- Among the players considered, Dr. Agarwal's Health Care was the only player which had seen an increase in OPBDIT margin over FY23 to FY24

- From FY22 to FY24, Dr. Agarwal's Health Care had the highest OPBDIT among the compared peers, rising from Rs.1,821 million in FY22 to Rs 3,623 million in FY24 registering a CAGR of 41.0%

- Dr. Agarwal's Health Care had the highest PAT in FY24 among the considered peers at Rs. 951 million followed by Disha Eye Hospitals at Rs 549 million

- For FY23 and FY24, Dr. Agarwal's Health Care had the second highest OPBDIT margin of 26.6% and 27.2% respectively among the players considered

- From FY22 to FY24 among the players considered, Dr. Agarwal's Health Care had the highest gross block. The company's gross block rose from Rs. 8,463 million in FY22 to Rs. 15,446 million in FY24

- Among the considered peers, Dr. Agarwal's Health Care had the second highest capex in FY24 at Rs.3,278 million

8 Assessment of key players in healthcare delivery industry in India

In this section, CRISIL has analysed key players present in healthcare delivery industry in India. Data has been obtained from publicly available sources, including annual reports and investor presentations of listed players, regulatory filings by players with ministry of corporate affairs (MCA), rating rationales, and/or company websites and other relevant document published by the company.

Note:

1. The peer set considered is an indicative and not exhaustive list of players present in healthcare delivery industry in India
2. Financial ratios used in this report may not match with the reported financial ratios by the players on account of standardisation and re-classification done by CRISIL.

Some of the key healthcare delivery players in India

Company	Year of Incorporation	Geographic Presence
Some of the key healthcare delivery players		
Apollo Hospitals Enterprise Limited (AHEL)	1988	Pan India
Aster DM Healthcare Limited (ADHL)	2008	South and West India
Fortis Healthcare Ltd (FHL)	1996	Pan India
Global Health Ltd (GHL)	2004	Pan India
Krishna Institute of Medical Sciences Limited (KIMS)	1973	South India
Max Healthcare Group (MHIL)	2001	North and West India
Narayana Hrudayalaya Limited (NHL)	2000	Pan India
Rainbow Childrens Medicare Limited (RCML)	1998	North and South India

Key financial parameters

Revenue from operations

Revenue from Operations (Rs Million)	FY22	FY23	FY24	H1FY24	H1FY25	YoY growth (FY22-23)	YoY growth (FY23-24)	YoY Growth (H1FY24-H1FY25)	CAGR (FY22-24)
ADHL***	NA	29,941	36,989	17,706	20,883	NA	23.5%	17.9%	NA
AHEL	146,626	166,125	190,592	92,647	1,06,749	13.3%	14.7%	15.2%	14.0%
FHL	57,176	62,976	68,929	34,274	38,473	10.1%	9.5%	12.3%	9.8%
GHL	21,673	27,099	32,751	16,300	18,176	25.0%	20.9%	11.5%	22.9%
KIMS	16,508	21,977	24,981	12,585	14,657	33.1%	13.7%	16.5%	23.0%
MHIL**	52,180	59,040	68,490	33,610	40,600	13.1%	16.0%	20.8%	14.6%
NHL	37,013	45,248	50,182	25,387	27,410	22.2%	10.9%	8.0%	16.4%
RCML	9,738	11,736	12,969	6,198	7,477	20.5%	10.5%	20.6%	15.4%

Note:

All values have been considered on a consolidated basis

*** For MHIL, Total operating income for the whole group is considered from the investor presentation*

**** For ADHL, the company bifurcated their GCC and India business in fiscal 2024 and released reclassified financials only for fiscals 2023 and 2024. So, the financials for fiscal 2022, would not be comparable to fiscals 2023 and 2024.*

Source: Annual reports, Investor presentations, CRISIL MI&A

Operating profit before depreciation, interest, and tax (OPBDIT)

OPBDIT (Rs Million)	FY22	FY23	FY24	H1FY24	H1FY25	YoY growth (FY22-23)	YoY growth (FY23-24)	YoY Growth (H1FY24-H1FY25)	CAGR (FY22-24)
ADHL***	NA	4,491	5,780	2,669	3,833	NA	28.7%	43.6%	NA
AHEL	21,851	20,496	23,907	11,365	14,906	-6.2%	16.6%	31.2%	4.6%
FHL	10,690	11,013	12,676	6,026	7,774	3.0%	15.1%	29.0%	8.9%
GHL	4,512	6,278	7,991	4,038	4,146	39.1%	27.3%	2.7%	33.1%
KIMS	5,158	6,040	6,404	3,343	3,975	17.1%	6.0%	18.9%	11.4%
MHIL**	13,900	16,360	19,070	9,330	10,640	17.7%	16.6%	14.0%	17.1%
NHL	6,535	9,658	11,524	5,788	6,123	47.8%	19.3%	5.8%	32.8%
RCML	3,049	3,964	4,289	2,053	2,408	30.0%	8.2%	17.3%	18.6%

Note:

All values have been considered on a consolidated basis

*** For MHIL, Operating EBITDA from the investor presentation is considered in the above table*

**** For ADHL, the company bifurcated their GCC and India business in fiscal 2024 and released reclassified financials only for fiscals 2023 and 2024. So, the financials for fiscal 2022, would not be comparable to fiscals 2023 and 2024.*

OPBDIT = Revenue from Operations - total expenses before interest tax, depreciation and extraordinary items

Source: Annual reports, Investor presentations, CRISIL MI&A

Earnings before interest, tax, depreciation, and amortisation (EBITDA)

EBITDA (Rs Million)	FY22	FY23	FY24	H1FY24	H1FY25	YoY growth (FY22-23)	YoY growth (FY23-24)	YoY Growth (H1FY24-H1FY25)	CAGR (FY22-24)
ADHL***	NA	4,860	6,028	2,785	4,672	NA	24.0%	67.8%	NA
AHEL	22,633	21,399	24,970	11,869	15,660	-5.5%	16.7%	31.9%	5.0%
FHL	10,963	11,631	13,059	6,243	8,036	6.1%	12.3%	28.7%	9.1%
GHL	4,898	6,771	8,737	4,329	4,548	38.3%	29.0%	5.0%	33.6%
KIMS	5,360	6,299	6,535	3,403	4,071	17.5%	3.7%	19.6%	10.4%
MHIL**	13,900	16,360	19,070	9,330	10,640	17.7%	16.6%	14.0%	17.1%
NHL	6,881	10,313	12,275	6,123	6,594	49.9%	19.0%	7.7%	33.6%
RCML	3,238	4,272	4,659	2,209	2,640	31.9%	9.1%	19.5%	20.0%

Note:

All values have been considered on a consolidated basis

*** For MHIL, Operating EBITDA from the investor presentation is considered in the above table*

**** For ADHL, the company bifurcated their GCC and India business in fiscal 2024 and released reclassified financials only for fiscals 2023 and 2024. So, the financials for fiscal 2022, would not be comparable to fiscals 2023 and 2024.*

EBITDA = Total Income - total expenses before interest tax, depreciation and extraordinary items

Source: Annual reports, Investor presentations, CRISIL MI&A

Profit After Tax (PAT)

PAT (Rs Million)	FY22	FY23	FY24	H1FY24	H1FY25	YoY growth (FY22-23)	YoY growth (FY23-24)	YoY Growth (H1FY24-H1FY25)	CAGR (FY22-24)
ADHL***	NA	4,755	2,116	45^	52,580^	NA	-55.5%	116,484.5%^^	NA
AHEL	11,084	8,443	9,350	4,222	7,112	-23.8%	10.7%	68.5%	-8.2%
FHL	7,899	6,330	6,452	3,079	3,671	-19.9%	1.9%	19.2%	-9.6%
GHL	1,962	3,261	4,781	2,272	2,371	66.2%	46.6%	4.4%	56.1%
KIMS	3,438	3,658	3,360	1,879	2,159	6.4%	-8.1%	14.9%	-1.1%
MHIL**	8,370	10,840	12,780	6,280	6,440	29.5%	17.9%	2.5%	23.6%
NHL	3,421	6,066	7,896	4,107	4,003	77.3%	30.2%	-2.5%	51.9%
RCML	1,387	2,124	2,183	1,046	1,187	53.1%	2.8%	13.5%	25.5%

Note:

All values have been considered on a consolidated basis

*** For MHIL, PAT for the whole group is considered from the investor presentation*

**** For ADHL, the company bifurcated their GCC and India business in fiscal 2024 and released reclassified financials only for fiscals 2023 and 2024. So, the financials for fiscal 2022, would not be comparable to fiscals 2023 and 2024.*

^ For ADHL, H1FY25 and H1FY24 PAT is inclusive of PAT from discontinued operations of Rs. 50,712.0 million and Rs. -930.6 million respectively, Without the PAT from discontinued operations, PAT for H1FY25 and H1FY24 is Rs. 1,867.6 million and Rs. 975.8 million respectively

^^ For ADHL, H1FY25 and H1FY24 PAT is inclusive of PAT from discontinued operations of Rs. 50,712.0 million and Rs. -930.6 million respectively, Without the PAT from discontinued operations, PAT for H1FY25 and H1FY24 is Rs. 1,867.6 million and Rs. 975.8 million respectively, having a YoY growth (H1FY24-H1FY25) of 91.4%

Source: Annual reports, Investor presentations, CRISIL MI&A

OPBDIT Margin

OPBDIT Margin (%)	FY22	FY23	FY24	H1FY24	H1FY25
ADHL***	NA	15.0%	15.6%	15.1%	18.4%
AHEL	14.9%	12.3%	12.5%	12.3%	14.0%
FHL	18.7%	17.5%	18.4%	17.6%	20.2%
GHL	20.8%	23.2%	24.4%	24.8%	22.8%
KIMS	31.2%	27.5%	25.6%	26.6%	27.1%
MHIL**	26.6%	27.7%	27.8%	27.8%	26.2%
NHL	17.7%	21.3%	23.0%	22.8%	22.3%
RCML	31.3%	33.8%	33.1%	33.1%	32.2%

Note:

All values have been considered on a consolidated basis

*** For MHIL, Operating EBITDA margin is considered as OPBDIT margin as reported by the company in its Q4FY24 investor presentation*

**** For ADHL, the company bifurcated their GCC and India business in fiscal 2024 and released reclassified financials only for fiscals 2023 and 2024. So, the financials for fiscal 2022, would not be comparable to fiscals 2023 and 2024.*

Operating margin = OPBDIT / Revenue from Operations

Source: Annual reports, Investor presentations, CRISIL MI&A

EBITDA Margin

EBITDA Margin (%)	FY22	FY23	FY24	H1FY24	H1FY25
ADHL***	NA	16.0%	16.2%	15.6%	21.5%

EBITDA Margin (%)	FY22	FY23	FY24	H1FY24	H1FY25
AHEL	15.4%	12.8%	13.0%	12.7%	14.6%
FHL	19.1%	18.3%	18.8%	18.1%	20.7%
GHL	22.2%	24.5%	26.1%	26.1%	24.5%
KIMS	32.1%	28.3%	26.0%	26.9%	27.6%
MHIL**	26.6%	27.7%	27.8%	27.8%	26.2%
NHL	18.4%	22.5%	24.1%	23.8%	23.7%
RCML	32.6%	35.5%	34.9%	34.8%	34.2%

Note:

All values have been considered on a consolidated basis

*** For MHIL, EBITDA margin is considered for the whole group as reported by the company in its Q4FY24 investor presentation. Additionally, it is calculated basis revenue from operations as total income is not reported in the investor presentation*

*** For ADHL, the company bifurcated their GCC and India business in fiscal 2024 and released reclassified financials only for fiscals 2023 and 2024. So, the financials for fiscal 2022 would not be comparable to fiscals 2023 and 2024.*

EBITDA margin =EBITDA / Total Income (Revenue from Operations + Other income)

Source: Annual reports, Investor presentations, CRISIL MI&A

PAT Margin

PAT Margin (%)	FY22	FY23	FY24	H1FY24	H1FY25
ADHL***	NA	15.7%	5.7%	0.3%^	242.0%^
AHEL	7.5%	5.1%	4.9%	4.5%	6.6%
FHL	13.8%	10.0%	9.3%	8.9%	9.5%
GHL	8.9%	11.8%	14.3%	13.7%	12.8%
KIMS	20.6%	16.5%	13.4%	14.9%	14.6%
MHIL**	16.0%	18.4%	18.7%	18.7%	15.9%
NHL	9.2%	13.2%	15.5%	16.0%	14.4%
RCML	14.0%	17.6%	16.4%	16.5%	15.4%

Note:

All values have been considered on a consolidated basis

** For MHIL, PAT margin is considered for the whole group as reported by the company in its Q4FY24 investor presentation*

*** For ADHL, the company bifurcated their GCC and India business in fiscal 2024 and released reclassified financials only for fiscals 2023 and 2024. So, the financials for fiscal 2022 would not be comparable to fiscals 2023 and 2024.*

^ For ADHL, H1FY25 and H1FY24 PAT is inclusive of PAT from discontinued operations of Rs. 50,712.0 million and Rs. -930.6 million respectively, Without the PAT from discontinued operations, PAT for H1FY25 and H1FY24 is Rs. 1,867.6 million and Rs. 975.8 million, having a PAT margin of 8.6% and 5.5% respectively

PAT margin = PAT / Total Income

Source: Annual reports, Investor presentations, CRISIL MI&A

Return on Equity (RoE)

ROE (%)	FY22		FY23		FY24	
	RoE@	RoE@@	RoE@	RoE@@	RoE@	RoE@@
ADHL***	NA	NA	NA	NA	5.9%	4.3%
AHEL	24.1%	20.7%	16.4%	13.6%	16.1%	13.5%
FHL	28.9%	11.5%	20.9%	8.4%	17.3%	7.7%

GHL	13.3%	13.2%	16.2%	16.1%	18.0%	17.9%
KIMS	33.4%	30.1%	25.7%	21.8%	20.5%	16.7%
MHIL	66.4%	10.2%	66.4%	16.1%	42.5%	13.4%
NHL	28.7%	26.2%	37.6%	33.5%	35.2%	31.5%
RCML	26.6%	26.3%	25.6%	25.4%	18.9%	18.7%

Note:

[@] considering tangible networth

ROE[@]= PAT / Average tangible net worth

[@@] considering total networth

ROE[@@]= PAT/ Average total equity (incl. NCI)

All values have been considered on a consolidated basis

Values are as per CRISIL MI&A standards and may not match company reported numbers

**** For ADHL, the company bifurcated their GCC and India business in fiscal 2024 and released reclassified financials only for fiscals 2023 and 2024. So, the financials for fiscal 2022, would not be comparable to fiscals 2023 and 2024.*

Source: Annual reports, Investor presentations, CRISIL MI&A

Asset Turnover Ratio

Asset Turnover Ratio	FY22	FY23	FY24
ADHL***	NA	0.3	0.4
AHEL	1.5	1.5	1.6
FHL	0.9	1.0	1.0
GHL	0.9	1.0	1.1
KIMS	1.4	1.5	1.1
MHIL	1.6	1.7	1.6
NHL	1.3	1.5	1.4
RCML	0.9	1.0	0.8

Note:

All values have been considered on a consolidated basis

**** For ADHL, the company bifurcated their GCC and India business in fiscal 2024 and released reclassified financials only for fiscals 2023 and 2024. So, the financials for fiscal 2022, would not be comparable to fiscals 2023 and 2024.*

Values are as per CRISIL MI&A standards and may not match company reported numbers

Asset turnover ratio = Revenue from Operations / Average gross block

Source: Annual reports, Investor presentations, CRISIL MI&A

Return on Capital Employed (RoCE)

ROCE (%)	FY22		FY23		FY24	
	RoCE[@]	RoCE[@@]	RoCE[@]	RoCE[@@]	RoCE[@]	RoCE[@@]
ADHL***	NA	NA	NA	3.3%	5.1%	6.3%
AHEL	21.6%	18.6%	15.1%	15.6%	16.5%	15.7%
FHL	27.7%	20.9%	22.6%	19.0%	20.3%	18.9%
GHL	14.6%	13.2%	16.9%	14.9%	19.5%	18.9%
KIMS	35.0%	29.9%	27.0%	22.4%	19.0%	16.5%
MHIL	32.9%	40.7%	38.0%	37.8%	36.0%	34.6%
NHL	24.8%	24.0%	33.0%	30.0%	27.7%	23.1%

RCML	22.6%	20.4%	24.3%	20.7%	19.7%	17.5%

Note:

@: considering average capital employed

RoCE@ = Profit before interest and tax (PBIT) / (Average total debt +average tangible networth + average deferred tax liability)

@@: not considering average capital employed

RoCE= PBIT (before exceptional items) / (Total debt+ total equity- intangible assets)

All values have been considered on a consolidated basis

**** For ADHL, the company bifurcated their GCC and India business in fiscal 2024 and released reclassified financials only for fiscals 2023 and 2024. So, the financials for fiscal 2022 would not be comparable to fiscals 2023 and 2024.*

Values are as per CRISIL MI&A standards and may not match company reported numbers

Source: Annual reports, Investor presentations, CRISIL MI&A

Net Debt / EBITDA

Net Debt / EBITDA	FY22	FY23	FY24
ADHL***	NA	10.8	2.1
AHEL	1.4	1.7	1.8
FHL	0.8	0.5	0.4
GHL	1.2	NM	NM
KIMS	0.1	1.0	2.0
MHIL	0.3	NM	0.1
NHL	0.8	0.5	1.0
RCML	1.2	1.2	1.6

Note: NA: Not Available

NM: Not meaningful as Net debt was negative

**** For ADHL, the company bifurcated their GCC and India business in fiscal 2024 and released reclassified financials only for fiscals 2023 and 2024. So, the financials for fiscal 2022 would not be comparable to fiscals 2023 and 2024.*

Net debt = Total Debt – Cash and Bank balances

Source: Annual reports, Investor presentations, CRISIL MI&A

CFO / EBITDA

CFO / EBITDA	FY22	FY23	FY24	H1FY24	H1FY25
ADHL***	NA	3.8	0.3	2.9	0.4
AHEL	0.7	0.6	0.8	0.8	0.4
FHL	0.8	0.7	0.8	0.8	0.7
GHL	0.6	1.0	0.7	0.7	0.7
KIMS	0.6	0.7	0.8	0.8	0.6
MHIL	0.5	0.8	0.6	0.6	0.7
NHL	0.7	1.1	0.9	0.9	0.9
RCML	0.7	0.8	0.7	0.7	0.7

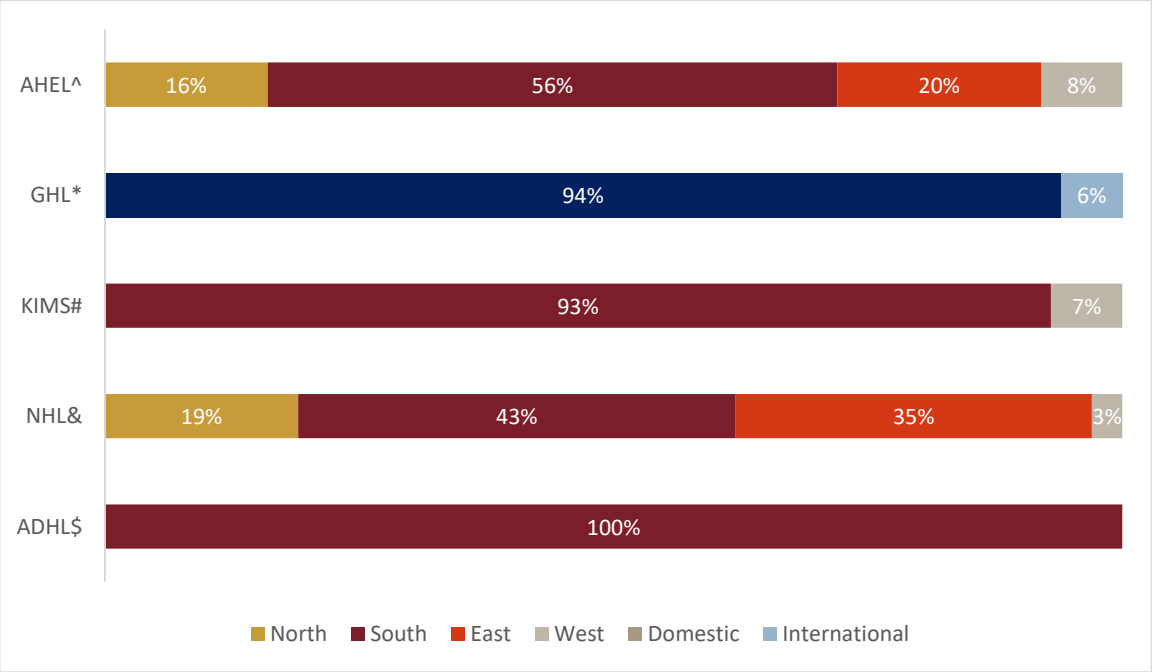
Note: NA: Not Available

**** For ADHL, the company bifurcated their GCC and India business in fiscal 2024 and released reclassified financials only for fiscals 2023 and 2024. So, the financials for fiscal 2022 would not be comparable to fiscals 2023 and 2024.*

Source: Annual reports, Investor presentations, CRISIL MI&A

Key operational parameters

Geographical revenue mix of key players as of FY24



Note:

West region consists of states like Maharashtra, Goa, Gujarat, Madhya Pradesh, Union territories of Daman, Diu and Dadra Nagar Haveli

East region consists of states like Bihar, Jharkhand, West Bengal, Odisha, Chhattisgarh, Arunachal Pradesh, Assam, Mizoram, Meghalaya, Manipur, Nagaland, Sikkim and Tripura

North regions consists of states like Jammu and Kashmir, Himachal Pradesh, Punjab, Uttarakhand, Haryana, Delhi, Uttar Pradesh, Chandigarh and Rajasthan

South region consists of Kerala, Telangana, Tamil Nadu, Karnataka, Andhra Pradesh and Union territories of Andaman Nicobar, Puducherry and Lakshadweep

^ For AHEL, Geographical revenue contribution of TN region, AP-Telangana region and Karnataka region has been considered under South

** For GHL, Geographical revenue mix is as defined by the company*

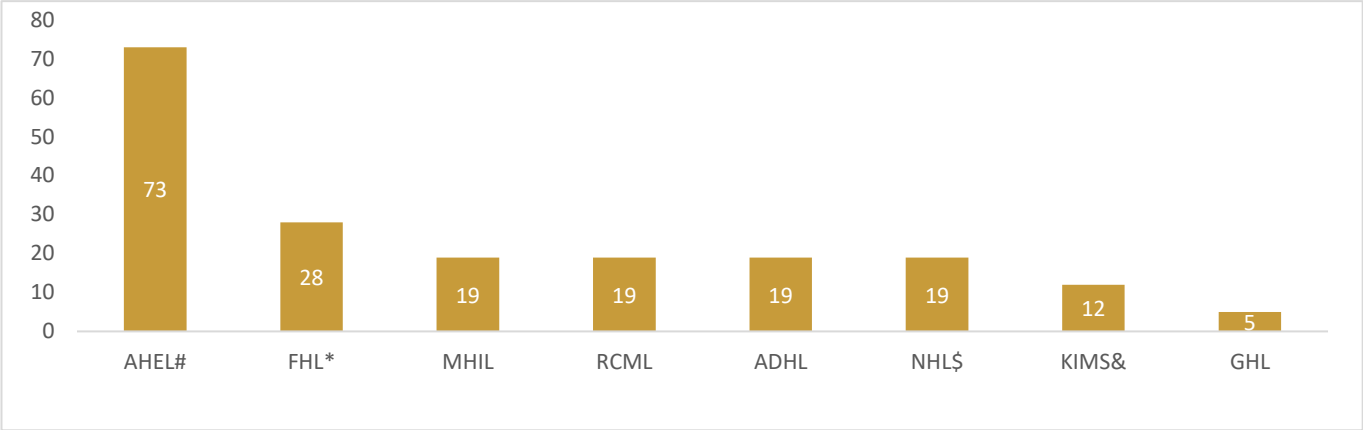
#For KIMS, Cluster Total revenue of Andhra Pradesh and Telangana has been considered under South and Cluster total revenue of Maharashtra has been considered under West

& For NHL, Southern Peripheral + Bangalore revenue has been considered under South and Kolkata + Eastern Peripheral revenue has been considered under East, Northern a Western geographical revenue mix is as defined by the company

$ For ADHL, all their centers are in South India, except for 1 in Maharashtra. The company have not given the split of revenue for this center in their investor presentation.

Source: Investor presentation, CRISIL MI&A

Total number of hospitals (FY24)



Note: The numbers include only owned and managed hospitals in India; primary healthcare centers and clinics are not considered.

 # For Apollo Hospital Enterprise Ltd.(AHEL), The total number of hospitals includes hospitals of Apollo Hospitals Enterprise Ltd (Hospitals) and Apollo Health and Life Style Ltd. (Retail Healthcare Format)

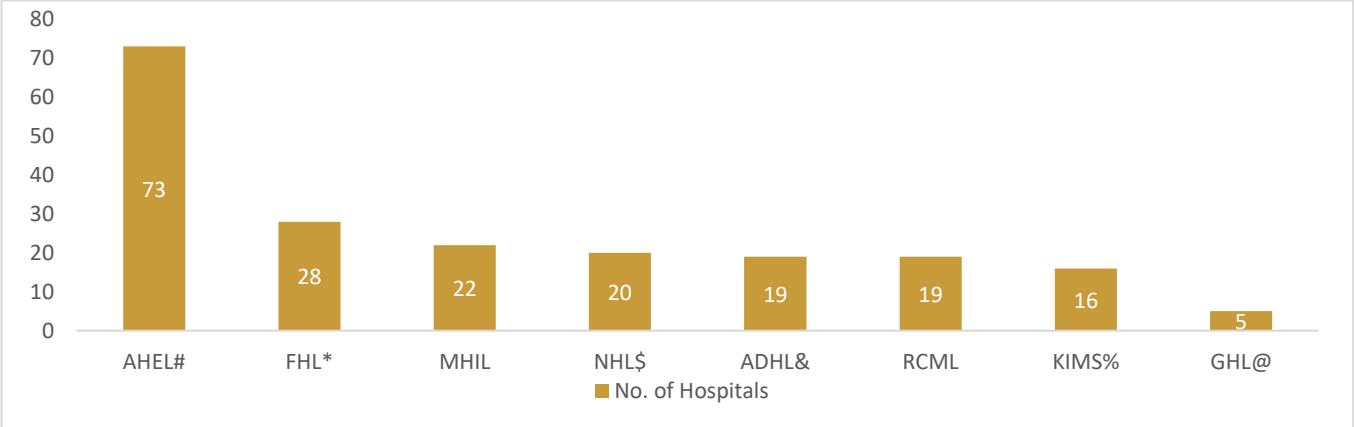
** For Fortis Healthcare Ltd. (FHL), The total number of hospitals includes the Manesar facility which is yet to be operationalised*

$ For Narayana Hrudayalaya Ltd. (NHL), The total number of hospitals is excluding 3 - Heart Centre, 17 – Clinics & Dialysis Centre but inclusive of 1 hospital in Cayman Islands

& For Krishna Institute of Medical Sciences Ltd. (KIMS), The total number of hospitals is excluding 1- under construction hospital in Nashik, 1- under construction hospital in Thane and 1- under construction hospital in Bengaluru

Source: Investor Presentation, CRISIL MI&A

Total number of hospitals (H1FY25)



Note: The numbers include only owned and managed hospitals in India; primary healthcare centers and clinics are not considered.

 # For Apollo Hospital Enterprise Ltd. (AHEL), The total number of hospitals includes hospitals of Apollo Hospitals Enterprise Ltd (Hospitals) and Apollo Health and Life Style Ltd. (Retail Healthcare Format)

** For Fortis Healthcare Ltd. (FHL), The total number of hospitals includes the Manesar facility which is operationalised*

$ For Narayana Hrudayalaya Ltd. (NHL), The total number of hospitals is excluding 2 - Heart Centre, 18 – Clinics & Dialysis Centre but inclusive of 1 hospital in Cayman Islands

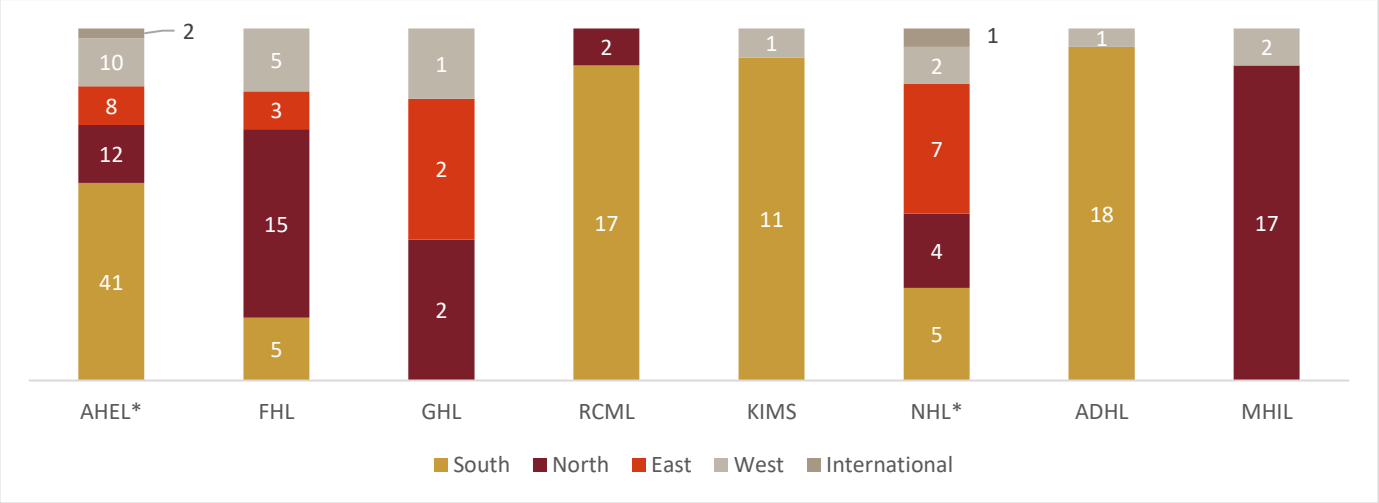
& For Aster DM Healthcare Ltd. (ADHL), The total number of hospitals is including Wayanad Institute of Medical Sciences (WIMS)

% For Krishna Institute of Medical Sciences Ltd. (KIMS), The total number of hospitals is excluding 2- under construction hospitals in Bengaluru and 1- under construction hospital in Thane

@ For Global Health Ltd. (GHL), The total number of hospitals is excluding the under-construction hospital in Noida

Source: Company Documents, Investor Presentation, CRISIL MI&A

Regionwise number of hospitals (FY24)



Note: The numbers include only owned and managed hospitals in India; primary healthcare centers and clinics are not considered.

** For AHEL and NHL, the regionwise split of hospitals is as defined by the company*

East region is defined as: Bihar, Jharkhand, Odisha, West Bengal, Chhattisgarh, Sikkim, Arunachal Pradesh, Assam, Tripura, Mizoram, Nagaland, Manipur, Meghalaya

North region is defined as: J&K, Himachal Pradesh, Punjab, Chandigarh, Uttarakhand, Haryana, Delhi and Uttar Pradesh

West region is defined as: Rajasthan, Madhya Pradesh, Gujarat, Daman & Diu, Dadra & Nagar Haveli, Maharashtra and Goa

South region is defined as: Andhra Pradesh, Karnataka, Lakshadweep, Kerala, Tamil Nadu, Telangana, Puducherry, Andaman & Nicobar

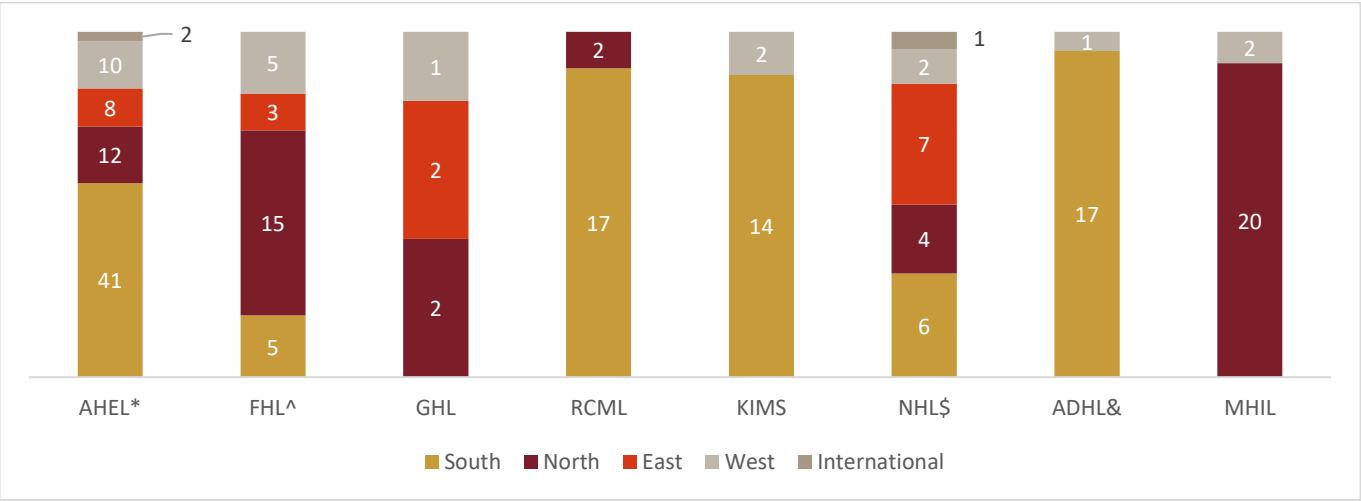
For Apollo Hospital Enterprise Ltd.(AHEL), The total number of hospitals includes hospitals of Apollo Hospitals Enterprise Ltd (Hospitals) and Apollo Health and Life Style Ltd. (Retail Healthcare Format)

For Fortis Healthcare Ltd. (FHL), The total number of hospitals includes the Manesar facility which is yet to be operationalised

For Narayana Hrudayalaya Ltd. (NHL), The total number of hospitals is excluding 3 - Heart Centre, 17 – Clinics & Dialysis Centre but inclusive of 1 hospital in Cayman Islands

Source: Investor Presentation, CRISIL MI&A

Regionwise number of hospitals (H1FY25)



Note: The numbers include only owned and managed hospitals in India; primary healthcare centers and clinics are not considered.

For AHEL and NHL, the regionwise split of hospitals is as defined by the company

East region is defined as: Bihar, Jharkhand, Odisha, West Bengal, Chhattisgarh, Sikkim, Arunachal Pradesh, Assam, Tripura, Mizoram, Nagaland, Manipur, Meghalaya

North region is defined as: J&K, Himachal Pradesh, Punjab, Chandigarh, Uttarakhand, Haryana, Delhi and Uttar Pradesh

West region is defined as: Rajasthan, Madhya Pradesh, Gujarat, Daman & Diu, Dadra & Nagar Haveli, Maharashtra and Goa

South region is defined as: Andhra Pradesh, Karnataka, Lakshadweep, Kerala, Tamil Nadu, Telangana, Puducherry, Andaman & Nicobar

** For Apollo Hospital Enterprise Ltd.(AHEL), The total number of hospitals includes hospitals of Apollo Hospitals Enterprise Ltd (Hospitals) and Apollo Health and Life Style Ltd. (Retail Healthcare Format)*

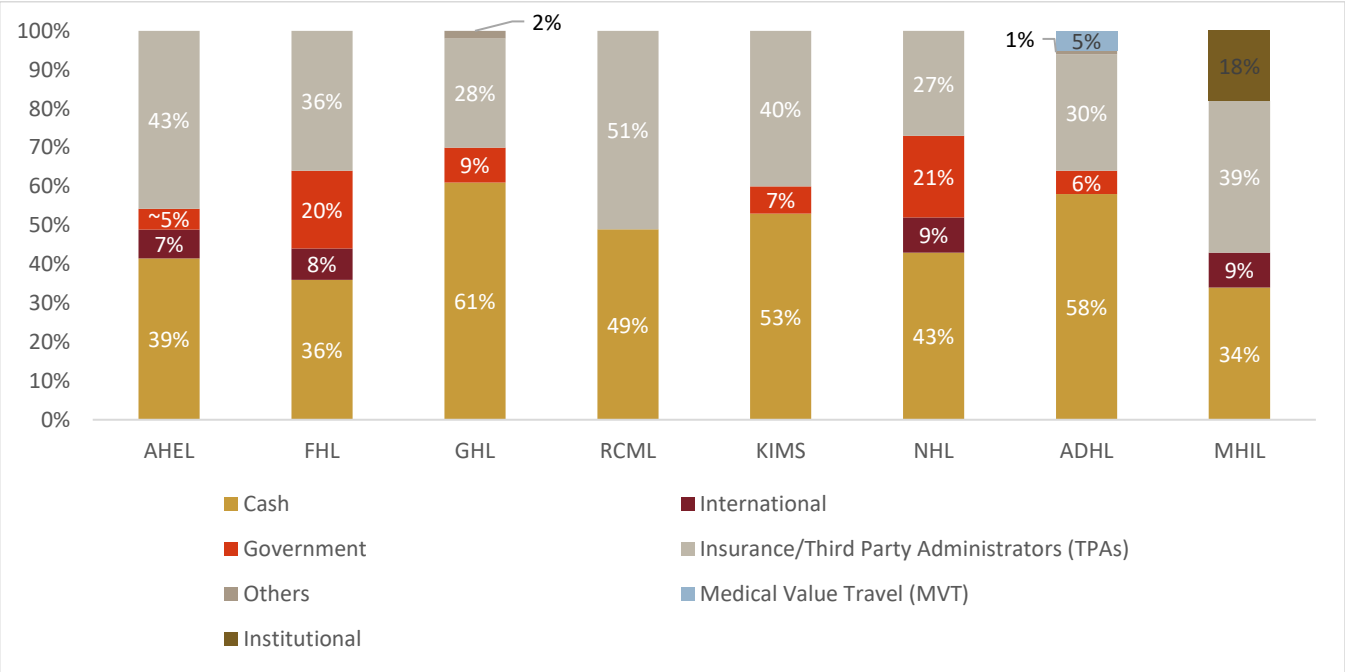
^ For Fortis Healthcare Ltd. (FHL), The total number of hospitals includes the Manesar facility which is operationalized

$ For Narayana Hrudayalaya Ltd. (NHL), The total number of hospitals is excluding 2 - Heart Centre, 18 – Clinics & Dialysis Centre but inclusive of 1 hospital in Cayman Islands

& For Aster DM healthcare Ltd. (ADHL), The total number of hospitals defined by the company is 19, but the regionwise data is available for only 18 hospitals in the H1FY25 investor presentation

Source: Investor Presentation, CRISIL MI&A

Payor Mix (FY24)



Note:

For FHL, Central Government Health Scheme (CGHS), Ex-Servicemen Contributory Health Scheme (ECHS) and Government & PSUs have been included under Government. Third Party Administrators (TPAs) and Pvt. Corps have been included under Insurance/Third Party Administrators (TPAs).

For GHL, CGHS/ECHS/Indian Railways have been included under Government, TPA and PSU & Corporate has been included under Insurance/TPAs

For RCML, the payor profile represents only Inpatient Income (IP); Outpatient Income is excluded

For KIMS, Insurance and Corporate have been included under Insurance/TPAs and Aarogyasri has been included under Government

For NHL, Domestic Walk-in patients as defined by the company has been include under Cash, Insured Patients which include insurance-covered patients, corporate patients (including PSUs) have been considered under Insurance/TPAs, Schemes which include CGHS, Employee State Insurance Schemes (ESIS), other state government schemes have been considered under Government and International patients as defined by the company has been considered under International

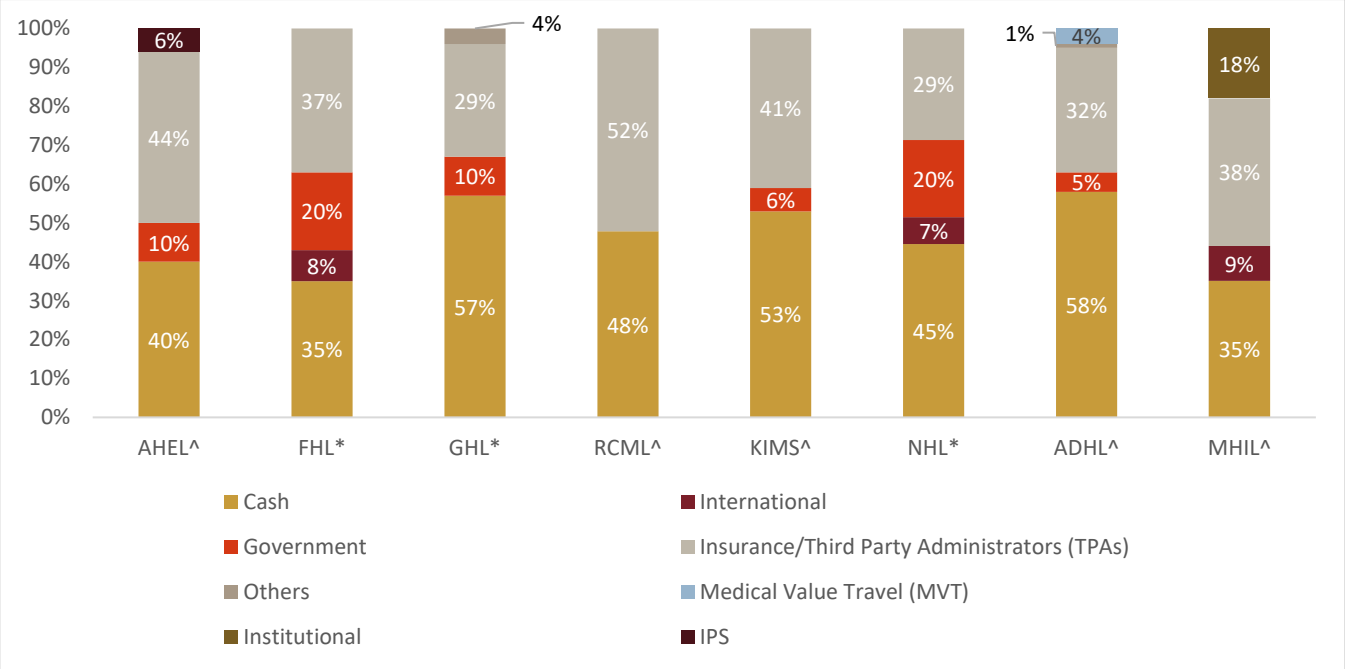
For ADHL, Walk-in is considered under Cash, ESI/ECHS/CGHS and Central/State Schemes have been included under Government, TPA/ Insurance and Corporate have been included under Insurance/TPAs

For MHIL, Self-pay has been considered under Cash and TPA & Corporates have been considered under Insurance/ TPAs

All the percentages have been rounded off for consistency

Source: Investor Presentation, Concall Transcripts, Annual Reports, CRISIL MI&A

Payor Mix (H1FY25)



Note: ^H1FY25 Values

** Q2FY25 Values*

For AHEL, Inpatient Payor Mix is considered. Additionally, Self Pay has been included under Cash, PSU & Govt has been included under Government and IPS is as reported by the company

For FHL, Central Government Health Scheme (CGHS), Ex-Servicemen Contributory Health Scheme (ECHS) and Government & PSUs have been included under Government. Third Party Administrators (TPAs) and Pvt. Corps have been included under Insurance/Third Party Administrators (TPAs).

For GHL, CGHS/ECHS/Indian Railways have been included under Government, TPA and PSU & Corporate has been included under Insurance/TPAs

For RCML, the payor profile represents only Inpatient Income (IP); Outpatient Income is excluded

For KIMS, Insurance and Corporate have been included under Insurance/TPAs and Aarogyasri has been included under Government

For NHL, Domestic Walk-in patients as defined by the company has been include under Cash, Insured Patients which include insurance-covered patients, corporate patients (including PSUs) have been considered under Insurance/TPAs, Schemes which include CGHS, Employee State Insurance Schemes (ESIS), other state government schemes have been considered under Government and International patients as defined by the company has been considered under International

For ADHL, Walk-in is considered under Cash, ESI/ECHS/CGHS and Central/State Schemes have been included under Government, TPA/ Insurance and Corporate have been included under Insurance/TPAs

For MHIL, Self-pay has been considered under Cash and TPA & Corporates have been considered under Insurance/ TPAs

All the percentages have been rounded off for consistency

Source: Investor Presentation, Annual Reports, CRISIL MI&A

Revenue Mix (FY24) (Rs. Million)

Key operational parameters (FY24)	India	Outside India
AHEL	NA	NA
FHL	68,573	356
GHL	32,751	-
KIMS	24,740	-
MHIL	53,095	-
NHL	39,921	10,261

Key operational parameters (FY24)	India	Outside India
RCML	12,969	-
ADHL	36,989	-

Note: NA: Not Available

For MHIL, the company reports Rs. 53,095 million as its revenue in India which does not include other operating income of Rs. 965 million. Additionally, as per investor presentation, MHIL reports a total operating income of Rs. 68,490 million for the whole group

For KIMS, the company reports Rs. 24,740 million as its revenue in India which does not include other operating income of Rs. 241.49 million. The company reports a total operating income of Rs 24,981 million

For ADHL, Post the bifurcation of its GCC business, the company reports only India revenue at a consolidated level. Apart from this the GCC revenue reported by the company for FY24 was Rs. 1,02,792.7 million

Patient volumes of key players (FY24 and H1FY25)

Key operational parameters	FY24		H1FY25	
	Inpatient Volume	Outpatient Volume	Inpatient Volume	Outpatient Volume
AHEL	5,69,988	19,22,696[1]	3,06,830	10,86,113[1]
FHL	NA	NA	NA	NA
GHL	1,55,915	26,83,293	86,462	14,99,087
KIMS	1,91,167	15,87,997	1,05,415	8,95,356
MHIL	2,31,625[2]	25,05,000[3]	1,37,545[2]	15,20,000[3]
NHL	2,38,449[4]	25,79,851[5]	1,22,108[6]	13,77,567[7]
RCML	87,736[8]	12,77,087[9]	49,815[8]	7,15,583[9]
ADHL	2,54,200	~3,050,000	1,40,970	17,00,000

Note: NA: Not Available

1 For Apollo Hospitals Enterprise Ltd. (AHEL), Outpatient volume represents new registrations only.

2 For Max healthcare institute Ltd. (MHIL), Inpatient Volume is calculated basis number of patients discharged.

3 For Max healthcare institute Ltd. (MHIL), Outpatient volume refers to outpatient consults

4 For Narayana Hrudayalaya Ltd. (NHL), For FY24 Inpatient volume refers to IP footfalls which corresponds to discharges and the discharges in the company's hospital in Cayman Islands

5 For Narayana Hrudayalaya Ltd. (NHL), For FY24, Outpatient volume refers to OP footfalls which includes day-care business and Out-patient volumes of the company's hospital in Cayman Islands

6 For Narayana Hrudayalaya Ltd. (NHL), For H1FY25, IP footfalls of India and discharges of Cayman Islands for Q1FY25 and Q2FY25 are added to arrive at Inpatient volume number for H1FY25

7 For Narayana Hrudayalaya Ltd. (NHL), For H1FY25, OP footfalls of India and Outpatients of Cayman Islands for Q1FY25 and Q2FY25 are added to arrive at Outpatient volume number for H1FY25

8 For Rainbow Childrens Medicare Limited (RCML), For FY24 and H1FY25, Inpatient Volume refers to IP Discharges

9 For Rainbow Childrens Medicare Limited (RCML), For FY24 and H1FY25, Outpatient Volume refers to OP Consultations

Source: Investor Presentation, CRISIL MI&A

Number of doctors of key players for FY24 and H1FY25

Number of doctors	FY24	H1FY25
AHEL	10,000+	10,000+
FHL	6,237	6,700+
GHL	1,700+	1,750+
KIMS	NA	NA

Number of doctors	FY24	H1FY25
MHIL	NA	NA
NHL	4,224	4,243
RCML*	800+	835+
ADHL	2,649	NA

Note: NA: Not Available

** Including full time residents and DNB*

Source: Investor Presentation, CRISIL MI&A

About CRISIL Limited

CRISIL Limited (CRISIL) is a leading, agile and innovative global analytics company driven by its mission of making markets function better. CRISIL, along with its subsidiaries, is India's foremost provider of ratings, data, research, analytics and solutions with a strong track record of growth, culture of innovation, and global footprint. It is majority owned by S&P Global Inc, a leading provider of transparent and independent ratings, benchmarks, analytics and data to the capital and commodity markets worldwide. It has delivered independent opinions, actionable insights, and efficient solutions to over 100,000 customers through businesses that operate from India and globally.

About CRISIL Market Intelligence & Analytics

CRISIL Market Intelligence & Analytics (CRISIL MI&A), a division of CRISIL Limited, provides independent research, consulting, risk solutions, and data & analytics to its clients. CRISIL MI&A operates independently of CRISIL's other divisions and subsidiaries, including, CRISIL Ratings Limited. CRISIL MI&A's informed insights and opinions on the economy, industry, capital markets and companies drive impactful decisions for clients across diverse sectors and geographies. CRISIL MI&A's strong benchmarking capabilities, granular grasp of sectors, proprietary analytical frameworks and risk management solutions backed by deep understanding of technology integration, makes it the partner of choice for public & private organisations, multi-lateral agencies, investors and governments for over three decades.

For the preparation of this report, CRISIL MI&A has relied on third party data and information obtained from sources which in its opinion are considered reliable. Any forward-looking statements contained in this report are based on certain assumptions, which in its opinion are true as on the date of this report and could fluctuate due to changes in factors underlying such assumptions or events that cannot be reasonably foreseen. This report does not consist of any investment advice and nothing contained in this report should be construed as a recommendation to invest/disinvest in any entity. This industry report is intended for use only within India.

For more information, visit www.crisil.com

Connect with us: LINKEDIN | TWITTER | YOUTUBE | FACEBOOK | INSTAGRAM

CRISIL Privacy Notice

CRISIL respects your privacy. We may use your personal information, such as your name, location, contact number and email id to fulfil your request, service your account and to provide you with additional information from CRISIL. for further information on CRISIL's privacy policy please visit www.crisil.com/privacy.