



Healthcare IT

Executive Summary Report

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Report

PREPARED BY
Pukka Partners

ABOUT PUKKA PARTNERS



Pukka Partners provide customized intelligence solutions to C-suite executives and functional growth leaders, with sound expertise in business research, strategy consulting, advisory, business intelligence, and data analytics.

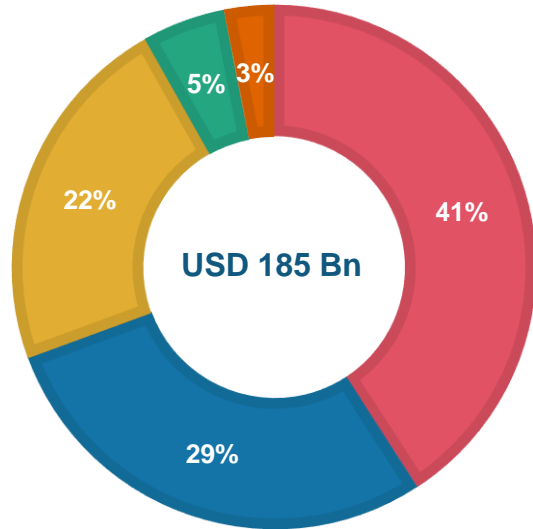
We offer advisory and actionable insights around public policies, investment tracking along with the obstacles faced by investors, innovation and strategy impact monitoring, identification of industry potential, and technology mapping through comprehensive and standardized research methodology and tools.

We deploy our solutions to solve prioritized and critical business challenges by leveraging our in-house expertise as well as continuous engagement with industry thought leaders in the business ecosystem.

In a short span of time, our consultants have had the opportunity to engage and deliver domain & sector specific tailor-made strategic projects to top executives and functional growth leaders, empowering them to make informed business decisions.

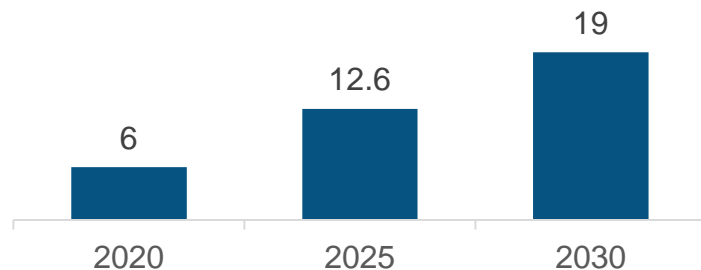
Our success is directly linked to our client's growth and we ensure to exceed it every time we engage with our existing clients and future prospects. We aim to be a knowledge partner for our customers and gradually become their trusted intelligence provider.

Global Market Share, 2020

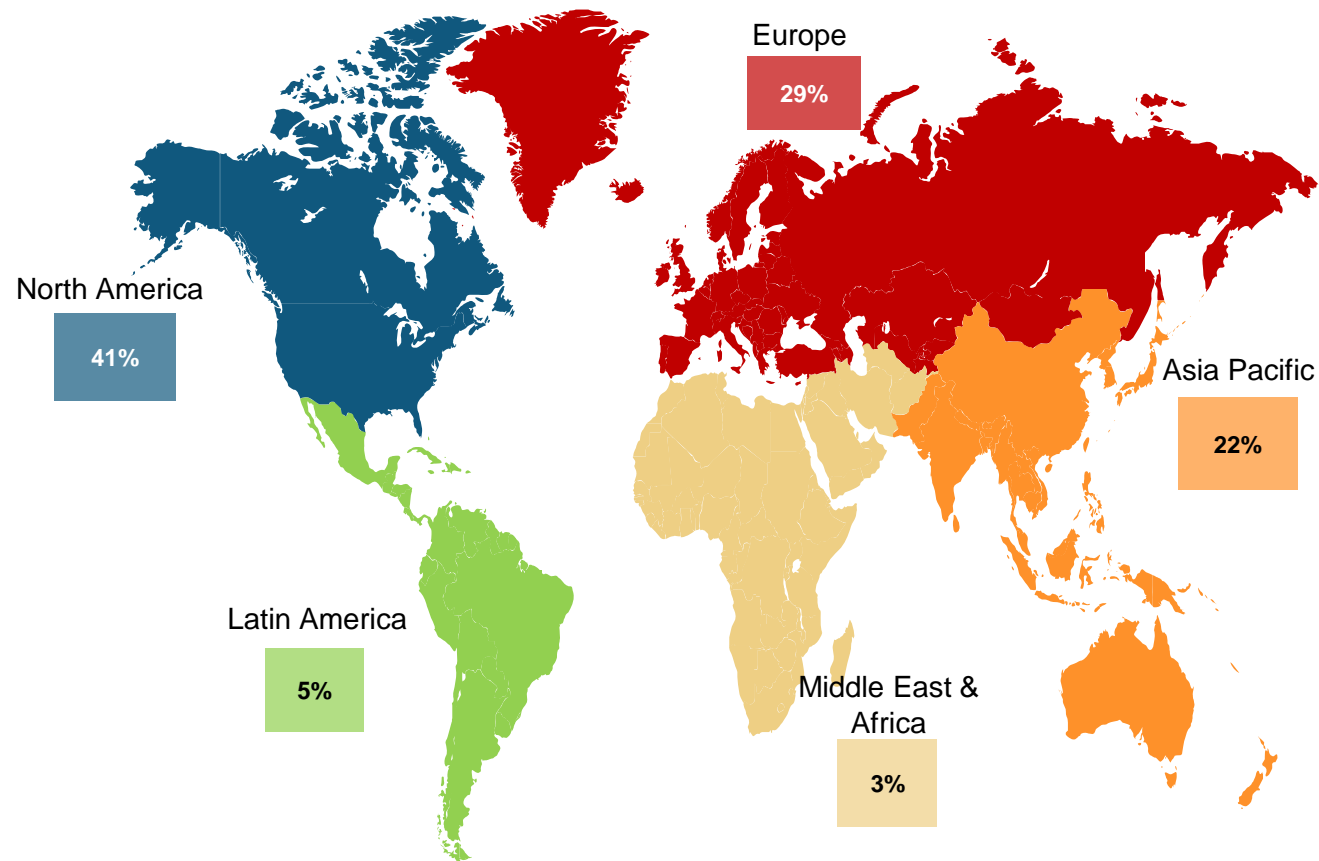


■ North America ■ Europe ■ Asia Pacific ■ Latin America ■ Middle East & Africa

Indian Healthcare IT Market (USD Bn)

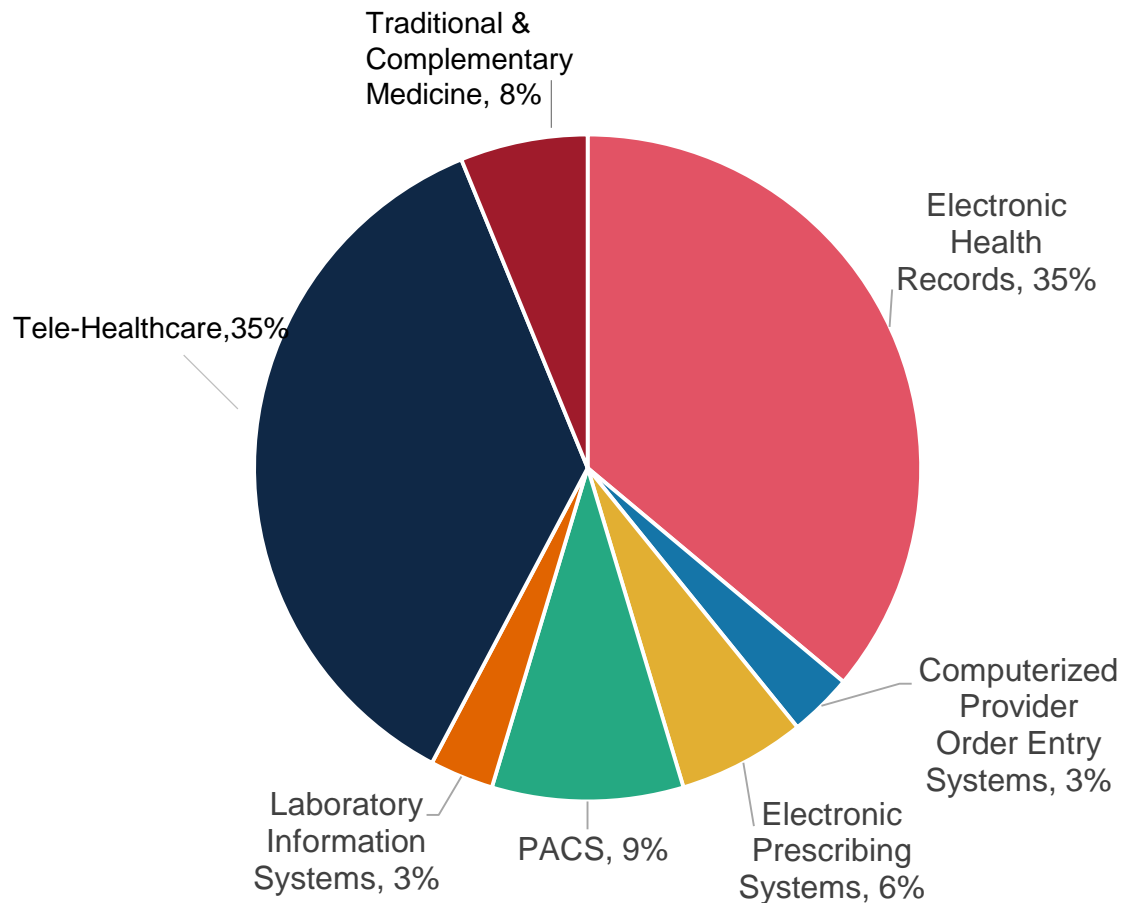


- The Global Healthcare in IT Market is estimated at USD 185 Bn in 2020 and is expected to reach USD 372 Bn by 2025 growing at a CAGR of 15%.
- In 2020, North America accounted for the largest market share of over 40%. The rising adoption and implementation of IT services and solutions by healthcare providers for delivering enhanced patient care at lower expenses are the key factors driving the regional market.
- Asia-Pacific is expected to maintain its dominance in growth rate during the forecast period due to three major countries of Asia-Pacific which include the India, Japan and China.
- The prominent players operating in the healthcare IT market include Optum (US), Cerner (US), Cognizant (US), Change Healthcare (US), Philips Healthcare (Netherlands), Epic Systems (US), Dell Technologies (US), Allscripts (US), GE Healthcare (US), IBM (US), Athenahealth (US), Oracle Corporation (US), Conduent (US), Infor (US), Tata Consultancy Services (India), Wipro Limited (India).
- The retail value of the Healthcare IT market in India amounted to approximately \$6 Bn in 2020. This was forecast to reach nearly \$12.6 Bn by 2025. The CAGR for this sector of the retail market is expected to be around 22% between 2020 and 2025.
- Significant players are undertaking various strategies including mergers & acquisitions and collaborations & partnerships to gain a competitive share in the global health and wellness industry. The most frequent approaches followed by key players are regional expansions and displaying product portfolio.



- North America had the largest share of the global market in 2020, and this trend is expected to continue during the forecast period. The increasing use and deployment by healthcare providers of IT services and solutions to provide quality patient care at lower cost drive the regional market. In addition, specialized personnel and the rise of the number of hospitals, research centers, and universities drive market growth.
- Europe Healthcare IT market is expected to gain market growth in the forecast period of 2020 to 2025. Expectations of the market to account to USD 115 Bn by 2025 growing at a CAGR of 15.62% in the above-mentioned forecast period.
- The Asia Pacific market is estimated to grow at the highest CAGR of about 18.5% during the forecast period. Factors such as large population, especially in China and India, growing per capita income, increasing investments in the healthcare industry by key market players, and rising awareness of advanced technologies are driving the growth of the APAC market.
- In addition, presence of major IT solution providers such as Wipro Limited and Tata Consultancy Services Limited in countries in the region is expected to drive growth of the Asia Pacific market to a significant extent during the forecast period.

Global Healthcare IT Market Share by type, 2020



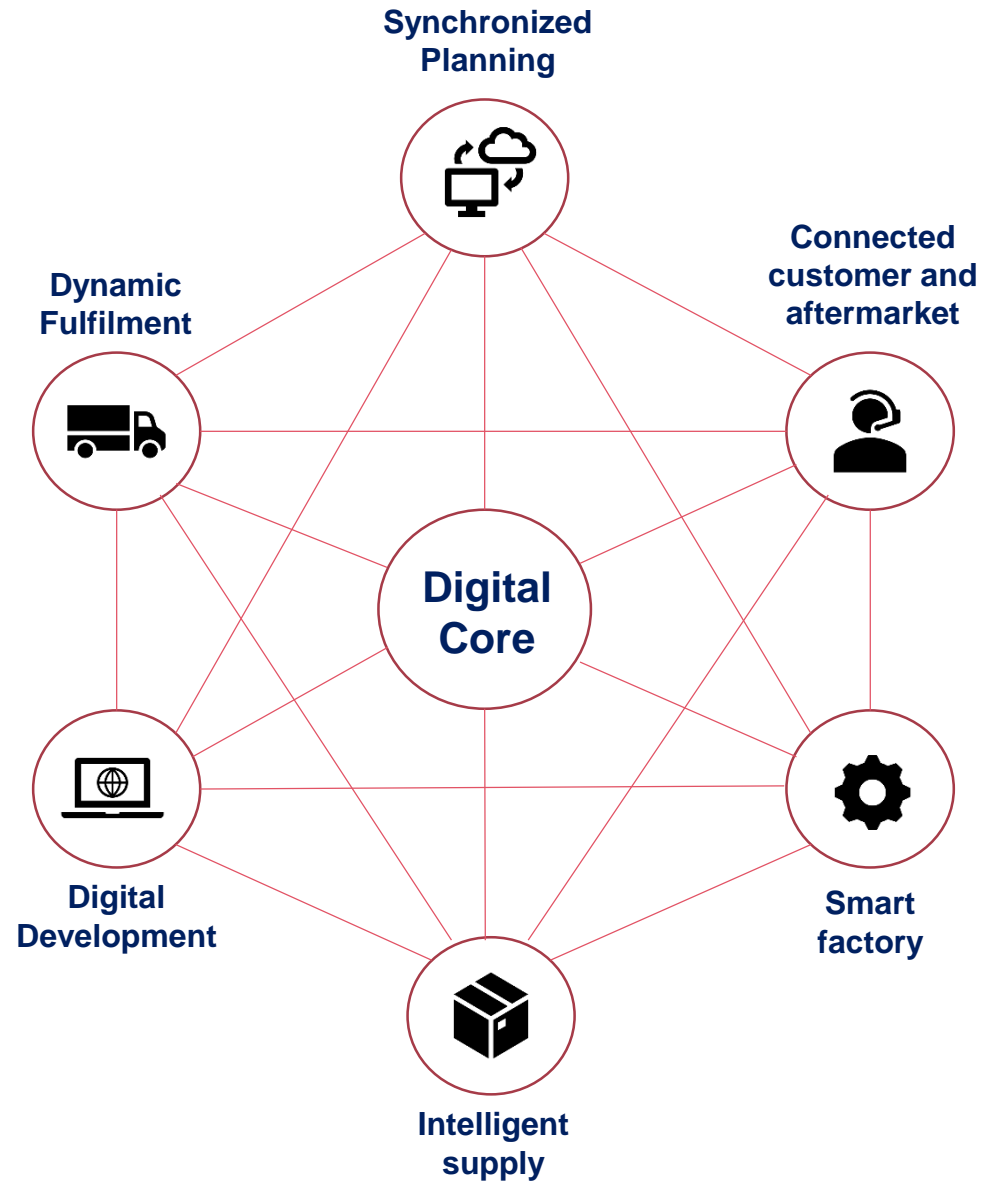
Global Healthcare IT Market End Users

81%
Healthcare Providers

- Hospitals
- Ambulatory Care Centers
- Home Healthcare Agencies,
- Nursing Homes and Assisted Living Facilities
- Diagnostic and Imaging Centers
- Pharmacies

19%
Healthcare Payers

- Private Payers
- Public Payers



Traditional, linear supply chain nodes are collapsing into a set of dynamic networks, allowing dramatically increased differentiation



Synchronized planning
Provide significant efficiencies through synchronization



Connected customer
Create seamless customer, engagement from inspiration to service



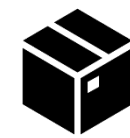
Dynamic fulfillment
Boost customer service through new levels of speed and agility



Smart factory
Unlock new efficiencies by a more connected, agile, and proactive factory



Digital development
Optimize product lifecycle management with advanced digital tactics



Intelligent supply
Reduce costs through new advanced technologies, models, and capabilities



- Koninklijke Philips N.V.
- Logical Images Inc.
- M*Modal
- Massachusetts General Hospital
- Mckesson Corp.
- Medrx
- Merge Healthcare Inc.
- Ncd Medical Corp.
- Nuance Communications Inc.
- OBS Medical Ltd.
- Conifer Health



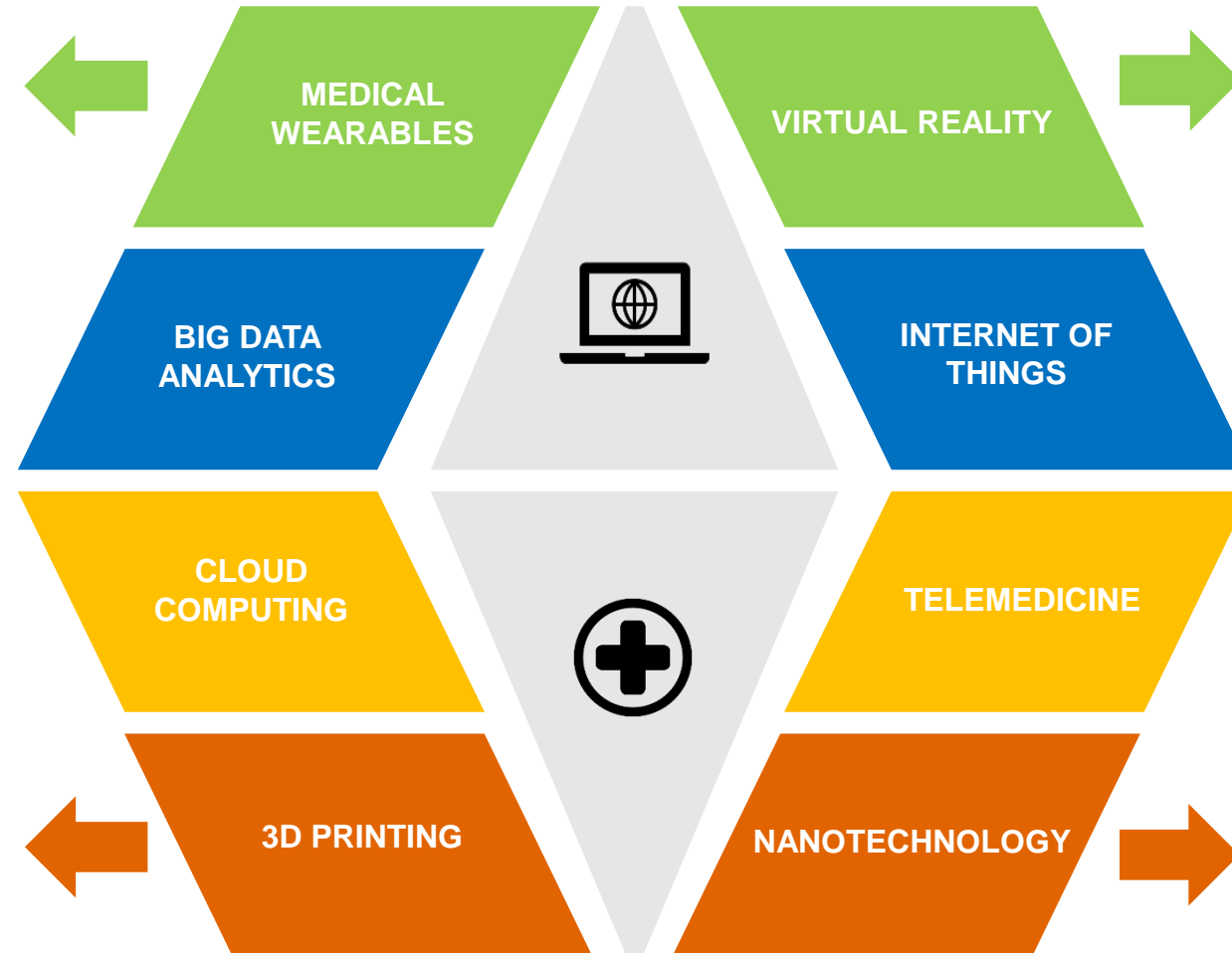
- AGFA Healthcare
- Allscripts Healthcare Solutions Inc.
- Cerner Corp.
- Cybernet Systems Corp.
- Drfirst
- Epic Systems Corp.
- General Electric
- Hewlett-Packard Enterprise
- Carestream Health
- Philips Healthcare
- Conduent



- Polycom Inc.
- Positiveid Corp.
- Scottcare Corp.
- Surescripts Llc
- Televital
- Theradoc Inc.
- United Therapeutics Corp.
- Unitedhealth Group
- Zynx Health Inc.
- Athenahelath, Inc
- E-MDS, Inc
- eClinicalworks
- Oracle Corporation



- Highfleet Inc.
- Infor Inc.
- International Business Machines Corp. (IBM)
- Isabel Healthcare Inc.
- Cognizant Technology Solutions Corporation
- Dell Technologies
- Change Healthcare
- Tata Consultancy Services
- Wipro Limited
- Leidos
- Ciox Health



- Wearables are assisting people with tracking their health details and can take fundamental measures whenever required. The wearables are recording from the heartbeat till your blood pressure to the anxiety.
- Stress management and sleep monitoring is something each individual is searching for and are working persistently in this bustling life.

- The future go for medical services is comprehensively observed with 3D printing technology with printing the body tissue till the artificial appendages, veins, pills, and some more.
- Organizations are delivering skin tissues with the platelets that help in supplanting the skin burn, and other skin related issues faced by patients. Medications printed from 3D printing advances have been used since 2015 that are endorsed by the FDA.

- The patient and doctor's lives are overhauled with virtual reality. Later on, while you get worked on and to divert the pain patients taken to a vacation location. The development and the effect are failing to meet expectations for virtual reality innovation starting in 2020, yet the coming years will consistently be productive.
- The technologies are helpful for patients in pain management. Additionally, women are furnished with virtual reality headset to forget the labor pain.
- The future in the healthcare industry is about nanotechnology, the headway in nanotechnology will help streamline the treatments. Organizations are giving a nano-pill camera that is utilized to study inside part of the body and assists with treating patients better.
- The coming years will assist us with better nanotechnology pills, nano-particles will go about as the drug delivery system, especially in treating cancer.

A new age of cybersecurity

IT teams will need to effectively communicate good cyber hygiene to staff members to prevent attacks and troubleshoot vulnerabilities as more work goes permanently remote. In 2021, it won't be surprising to see more health systems investing in cybersecurity technology and talent as a top priority and planning for cyberattacks as a "when" and not "if" scenario.

Blossoming of AI & ML

Organizations have used artificial intelligence and machine learning in hospital administration and operations for years, specifically in the revenue cycle process. Before the pandemic, researchers began testing AI models to read medical images, yielding mixed results and leaving some wondering whether AI & ML would live up to the hype.

Telehealth and remote care expansion

While CMS and big payers relaxed regulations on telehealth to help providers continue safely offering care during the pandemic, hospitals and health systems will continue addressing how to incorporate virtual care as part of their long-term care strategy after the public health emergency ends.

Clinical IT advancements

AR, wearable technologies and IoT devices in clinical care are steadily advancing within the hospital's four walls. With COVID-19 limiting direct contact, health systems have turned to robotics for tasks from facilitating video chat communications for patients to virtual reality headsets that display a clinician's first-person point of view from inside patient rooms remotely.

Big data management becomes a need

Data-gathering and reporting efforts sped up during the pandemic, and even small organizations are eyeing cloud implementations to securely store and coordinate data. Microsoft, Amazon and Google all have healthcare-specific clouds.

Power Shifting to the Consumer

Customers wield the wherewithal to shape their healthcare experiences through technological and structural changes.



Presence of Key Hubs

The presence of major manufacturing hubs, hospitals & research centers, the tendency to adopt IT solutions to streamline workflow, and boost efficiency in healthcare



Market Potential

Growing adoption rate of Computerized Physician Order Entry (CPOE)



Healthcare IT



Government Interventions

The volatile political, legislative, regulatory and competitive landscape challenges require healthcare delivery organizations to develop agile and adaptable business and IT strategies.



Technological advancements

For improving the IT infrastructure, such as the implementation of AI, IoT, and big data in healthcare processes, are also fueling the market growth.



Market Potential

Growing network coverage and rising improvements in network infrastructure are supporting the growth of this market.

Covid-19

The Covid-19 pandemic is further offering new opportunities to market players to gain a competitive edge. In this regard, telemedicine and mHealth represents an attractive, effective, and affordable option.

Prevalence of Diseases

Rapid increase in the prevalence of infectious diseases as well as the increasing prevalence of chronic diseases will support the global healthcare market's growth.



The rise of on-demand healthcare

Consumers want things at their own convenience, on their own time, and wherever they happen to be. More than 4 Bn people globally are on the Internet and they want access to healthcare facilities on their fingertips.

Enhancing Healthcare Services

Improving clinical outcomes, reducing human errors, improving practice efficiencies, facilitating care coordination, and tracking data over time.

A website is healthcare's new front door. It's the first thing patients often see, and if it's not optimized for user experience, it may also be the last time a person considers your hospital or healthcare practices.

Accelerating digital initiatives by demonstrating the business value of IT in enabling growth objectives such as new digital business models.

Amplifying digital leverage by modernizing data and analytics architecture.

Supporting the macro trends of population health and value-based care by prioritizing investments around data, analytics, and the patient experience.

Preparing for a "borderless" industry by adopting a digital platform architecture that engages the broader health ecosystem for value creation and delivery.

Global players need local knowledge to gain a firm foothold in emerging markets, while small local players can benefit greatly from strategic partnerships forged with large companies.

Cerebro – AI for Nurse Staffing – hospitals require high-quality clinical staff for their patients. It offers a solution: faster, responsive healthcare labor marketplace-one that connects healthcare facilities with verified, ready-to-work clinicians.

Optum acquired DaVita Medical Group (US). The acquisition of DaVita enhanced Optum's physician-led primary, specialty, in-home, and surgery-care delivery services business.

Cognizant acquired TMG Health (US) to expand its business process-as-a-service solutions for government and public health programs.

Optum collaborated with Humana (US), MultiPlan (US) and Quest Diagnostics (US) to form a group to explore the blockchain technology to improve data quality and reduce administrative costs in healthcare.

The COVID-19 pandemic has accelerated the development and adoption of technology solutions for healthcare e.g. Telemedicine.

Athenahealth, Inc. announced the launch of its Telehealth Solution named athenaTelehealth. This solution provides secure scheduling of the billing process for clinicians and patients.

Growing Population

India's population is set to touch 1.5 Bn by 2028, making it the world's most populous nation

Life Expectancy

From the current 67.5 years, life expectancy in India is expected to increase to 70 years by 2025

Shifting Disease Burden

Non-Communicable Diseases (NCDs) account for 50% of the disease burden and 60% of all deaths in India

Changing Preferences

Growing health awareness, changing attitude towards preventive healthcare, increasing lifestyle diseases

Growing Middle Class

A rapidly growing middle class has contributed to the growth of private players in healthcare

Increasing disposable income

8% Indians will earn more than \$ 12,000 p.a. by 2025

Health Insurance

Approx 20% of Indians have health insurance cover. This number is expected to increase with rising incomes and growing urbanization



India digital transformation in healthcare market is expected to grow at a noteworthy CAGR of 22% during the forecast period. Factors such as growing demand from various industries, adoption of new technologies, among others are expected to drive the digital transformation in healthcare in India. The healthcare sector as an industry is expanding rapidly in India and has not been as severely impacted by the economic slowdown as some of the other industries.

India, one of the biggest emerging markets, is currently an important destination for Foreign Direct Investment ("FDI"). Moreover, the digital health mission announced by the government is an ambitious plan to address India's public health crisis. The key components of the mission include a health ID, telemedicine, health records, and health registry, along with digi-doctor and e-pharmacy services.

Electronic Health Records (EHRs) of citizens are envisaged to be created for ensuring continuity of care and other associated benefits. In addition, Major I.T. initiatives by the Ministry of Health & Family Welfare include various mHealth initiatives for improving efficiency and efficacy of public healthcare across the country under the digital India program. This is expected to further fuel the market demand for digital transformation in healthcare in India.

The global healthcare IT market size was valued at USD 185 Bn in 2020 and is expected to grow at a compound annual growth rate (CAGR) of 15% over the forecast period. High demand and adoption of preventive care along with increasing funding for various mobile health startups is advancing the market growth. In addition, growing network coverage and rising improvements in network infrastructure are supporting the growth of this market. Technological advancements, with respect to healthcare, for improving the IT infrastructure, such as the implementation of AI, IoT, and big data in healthcare processes, are also fueling the market growth. Furthermore, growing consumer demand for effective & efficient treatment coupled with increasing awareness regarding new and upgraded technologies is anticipated to boost market growth over the forecast period.

Growing geriatric population; rising hospital equipment costs, especially for advanced treatment and care; and growing demand for home healthcare services are all expected to boost IT service adoption. Furthermore, the increasing prevalence of chronic diseases such as cancer, diabetes, and heart failure is driving demand for a variety of IT-based services in this market. Healthcare IT benefits such as reducing errors in a medical facility, lowering operating costs, and increasing the rate of good results are expected to drive business growth.

An article published in Healthcare IT News in 2020 says the acceptance of healthcare IT services has increased in recent years. According to the survey, remote monitoring for better treatment increased from 13% in 2016 to 22% in 2020. Furthermore, increasing mobile penetration and internet access is expected to drive IT adoption and development in the healthcare sector.

According to the Mobile Economy 2020, the number of unique mobile subscribers was about 5.2 Bn in 2020 and is projected to hit 5.8 Bn by 2025. Furthermore, the number of internet users rose from 250 Mn in 2018 to nearly 4.2 Bn in 2020. Furthermore, advances in mobile and internet-related technology for enhancing disease detection, care, and patient interaction and satisfaction are expected to drive the industry.

The digitization in the healthcare industry, as well as demand for value-based care and increasing costs of providing healthcare services, will likely accelerate the growth of the healthcare IT market during the forecast period of 2020-2025. On the other hand, the high integration of the healthcare IT sector to solve issues with big data management and its security would further fuel the numerous opportunities that will lead to the growth of the healthcare IT market during the forecast period.

— **THANK YOU** —

Asia Pacific

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