SUMMER TRAINING REPORT

As Marketing Intern

At Heal Health Connect, Delhi NCR

(08th April-30th June 2020)

ADVANCEMENT OF START-UPS IN HEALTHCARE SECTOR

By- Leela Atmaram Leema

IIHMR-U/02/2019-21/0190

Under The Guidance Of

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2019-2021

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ACKNOWLEDGEMENT

“This wouldn't have been possible without remembering people supporting and motivating. There is obviously no exception.”

I would like to extend my sincere and heartfelt gratitude to the everyone who has supported me in this project right from the very beginning of the study. I would not have made headway in the project without their support and motivation,

First of all, I am indebted ineffably to our Director, Dr. S.D Gupta, and the Chairman, Dr. P. R. Sodani, and Dean of SPM Dr. Saurabh Kumar, IIHMR University, Jaipur.

I am extremely thankful and pay my gratitude to Dr. Swadeep Srivastava, CEO Heal Health Connect Solutions for giving me this opportunity learn and develop professionally.

I would like to express my sincere gratitude for my corporate mentor Ms. Chhavi Auplish.

I also want to thank my faculty mentor Mr. Rahul Sharma, Assistant professor,IIHMR University.

I am profoundly grateful to all of them for providing their precious time, support, and constant motivation, without which this project could not have been completed.

With a deep sense of reverence, I also acknowledge my gratitude to respondents for saving their precious time, helping them, and providing the relevant information.

Last but not the least, heartfelt thanks to all my teachers for having groomed me and my classmates who helped me direct or indirect to complete this project.

Ref – HHC20-21-11 **Date:18-07-2020**

<u>To Whomever it May Concern,</u>

This is to certify that Ms**. Leela Atmaram Leema**, a student of IIHMR University, Jaipur has successfully completed three months (01st April 2020-30th June 2020) of summer training programme as 'Healthcare Marketing intern' at **HEAL Health Connect Solutions Pvt. Ltd.**

During this period of her training programme with us, she was found to be dedicated, hardworking, enthusiastic and inquisitive.

We wish her every success in life.

For HEAL Health Connect

Solutions Dr Swadeep

Srivastava
Founder & CEO

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Executive Summary

The Project assigned was **"ADVANCEMENT OF START-UPS IN HEALTHCARE SECTOR"** with objectives being:

1. Research and collect information about Indian healthcare startups.
2. Explore challenges and start-up markets in future approaches.
3. Understand small and medium-sized healthcare pharmaceutical companies, medium-sized pharmaceutical machine manufacturers and raw material / pharmaceutical manufacturers, pharmaceutical and nutritional supplement raw material companies / API companies, device / packaging companies related to the HC sector.

The project was carried out in 3 stages:

- The first phase was conducted through desk research, which reviews various articles about Health tech start-ups.
- The second phase consisted of collecting data to build a robust database connecting the startups of this ecosystem with MSME, followed by identifying their respective value markets and the funding provided to them.
- The final phase was organizational development. In this phase, we created several PowerPoint presentations, various edits and edits to the document, and questions asked in the organization-run webinar (Women in the Block: Coping Strategy, eHealth Summit: Love of Crisis). How to create values and mental health in the spiritual pandemic era, COVID-19 Heroes frontline and home health caretakers, what to do and should not do during and after the blockade, stigma and discrimination in COVID19 How to Avoid, Immune Booster Conclave and Life After Blockage: Health Samwaad). I actively tweeted about the webinar that was being held.

Key Findings:

• India ranks 145th out of 195 countries in terms of HC quality and accessibility. The IHC sector is projected to exceed 19.57 Lak lore (US $ 280 billion) by 2022 and the Indian Brand Equity Foundation (IBEF) also predicts that the Indian HC market will grow to 372 by US $ 202.2 billion. This is three times (8.6 million rupees). The Government of India plans to raise medical costs to 3% of gross domestic product (GDP) by 2022.

- With EU budget 15 in 2014, the Government of India introduced a Rs 100 billion startup fund to strengthen India's technology ecosystem.
- In 2018, there were 4,892 health tech startups in India $ 504 million in FY 14-18.
- India's pharmaceutical industry accounts for about 60% of MSME manufacturing, with annual sales of about $ 9 billion (US $ 60,000 million), an integral part of primarily formulated products, mostly in the middle. Essential for the body sector
- Coronavirus disease (COVID 19) is an infectious disease caused by the SARSCoV2 virus. It is a spectral disease that rarely extends from symptomatic treatment to serious illness. The first case of COVID19 was reported in Kerala on January 30, 2020. From that day to the present, the country has seen many changes in politics, and leaders face the challenges of their lives. It is very empirical to analyze and learn from pandemics in order to effectively and efficiently use the strategies learned to reduce all kinds of losses caused by the global crisis in the future.

COMPANY PROFILE

HEAL Health Connect Solutions is a public relations and communications company with a deep understanding of the HC ecosystem and excellent execution.

HHCS develops out-of-the-box strategies by delving deeper into potential audience demographics and psychographics that best fit a list of requirements and intelligently leveraging preferred communication channels.

It brings the know-how to work throughout the HC Delivery value chain, whether it's a product or a service. Whether it's a product or a service, we have experience working along the HC delivery value chain.

BUSINESS BELIEFS

- PR & Media Advocacy
- Strategy Content
- Influencer Marketing
- Integrated Campaigns
- Credentialing Solutions
- Advocacy
- Professional Development Programs
- Medico Marketing
- Knowledge Support

INTRODUCTION

A brief profile of India's healthcare and start-up sector

The Indian Healthcare Sector (IHS) includes hospitals, medical equipment, clinical trials, outsourcing, distance medicine, medical tourism, health insurance and medical equipment. This sector is growing at a tremendous pace as both the government and private sectors expand their involvement and spending opportunities.

The emergence of lifestyle illnesses, rising demand for accessible HC delivery systems due to rising HC costs, technological advances, the emergence of telemedicine, exponential stimulation of health insurance, e-health, and tax incentives Markets where government initiatives such as and incentives are driving HC in India

By 2023, India is expected to be in the top three healthcare markets in terms of growth.

- By 2023, the ITHC industry is expected to grow 1.5 times the current $ 1 billion.
- By 2023, the diagnostics market is expected to grow by 20.4%. 32 billion dollars compared to 5 billion dollars in 2012.
- The inpatient market is expected to grow at a combined annual growth rate of 13% in 2018-23.
- By 2023, India's telemedicine market is expected to grow 20% from $ 15 million to $ 32 million.

The Automatic Greenfield Project Route allows 100% foreign direct investment. Under government path, up to 100% foreign direct investment is permitted for investment in brownfield projects

- 370% increase in medical expenses (2000-2014)
- 45.06% — Growth in total investment in HC start-ups.
- 40% hospital bed sharing (Pvt)
- 22.9% CAGR (2018-23) industry

- India 's hospital sector, which accounts for 80 per cent of the overall HC market, is experiencing a huge demand from both foreign and domestic investors. It is estimated that the hospital industry will hit $132 billion by 2023 from $61.8 billion in 2017, rising at a CAGR of 16-17%.

- The Indian Medical Tourism market is expected to grow from $3billion to $7-8billion by 2020.

- India's diagnostics industry is reportedly worth $4 bn. The organized sector 's share in this segment is close to 25 per cent (15 per cent in laboratories and 10 per cent in radiology).

- Primary treatment is currently estimated at $13 trillion. In this case the proportion of the organized sector is practically negligible.

Expansion Drivers

- By 2023, life expectancy will reach 70 years, requiring more medical services.
- 20% coverage for Indians. It is expected to increase with increasing income and urbanization.
- In addition, the emergence of government initiatives such as e-health, coupled with telemedicine and tax incentives and incentives, is driving the Indian healthcare market.
- Health infrastructure Spend more than $ 200 billion on healthcare infrastructure by 2024

Challenges faced by HC sector:

- India's HC sector is largely disorganized and unequally distributed.
- There are few medical records and history.

• The ratio of patients and doctors is high, and the difference in care rate

• Medical education and lack of awareness

• All the need for faster diagnosis and treatment contributed to the accumulation of system stress.

• Inadequate product logistics

• Imbalances and deficiencies in certain specialty classes such as Neurosurgeon, psychiatrists.

• Very low availability in Tier 2 and Tier 3 cities.

These gaps have led to a rise in consumer-driven HC startups, and it appears to be anobvious solution to India's complex HC problem.

Today, the HC Starup ecosystem is considered third in terms of the birth of start-ups and their efforts to play a key role in India's "HC ecosystem."
Discovery, care delivery, specialty care, digitization, diagnostic tools, monitoring and e-commerce are the startup categories for this room. HC innovation is happening faster than most people realize. Some of these startups are listed below:

1. General Healthcare Startups

General Health-tech Startups in India includes :

- **Telemedicine Startups**

As patients and healthcare providers turn to telemedicine to stay connected over social distances, they will move to telemedicine and telemedicine platforms. In telemedicine using applications or web-based video clips, conversations, and voice guidance, startups basically help patients see a doctor in effect.

These companies are primarily focused on addressing the shortage of qualified physicians in Tier 2 and Tier 3 cities in India.

According to a McKinsey report, India can save up to $ 10 billion in 2025 by using telemedicine instead of seeing a direct doctor. Practo, mfine, Lybrate and Docsapp are the top telemedicine startups in India.

- **Online Pharmacy Startups**

These startups are e-commerce websites that only match pharmaceutical companies and pharmacies. This category also includes players such as 1MG, Pharmaasy, Netmeds, MyraMed and SastaSr.

According to the 2018 Research and Markets report, India currently has more than 850,000 independent pharmacy retailers, which can only supply 60% of aggregate demand. This reflects the vast untapped business potential of Indian start-ups. The study predicts that online pharmacy space will grow at a CAGR of over 20%, reaching $ 3 billion by 2024. Marquee investors such as Sequoia Capital, Kae Capital, Eight Roads Ventures India and Nandan Nilekani-backed Fundamentum Advisors have been able to draw attention from the field of electronic pharmacies.

- **Startups for personal health care**

As the understanding of health issues and habits grows, Indians are becoming more and more health conscious. It also contributes to the rise of health advice content aggregators such as MyUpchar and CureJoy. This includes personal health monitoring apps such as Maya to help women track their period and pregnancy.

- **Fitness and wellness startups**

In addition to providing health-related awareness, its numbers have increased in India. From fitness and nutrition startups such as Fitternity, Cure.fit, HealthifyMe, GoQii, HealthKart, and mental health and wellness startups such as Yourstost and InnerHour.

Both take different approaches-Cure.fit manages the entire fitness system, but GoQii comes with a tracking app and a dedicated remote trainer-a common goal is for people to exercise and eat better to be healthier.

- **Home HC Startup**

One of the major setbacks in India's traditional HC framework is the lack of appropriate and critical care for many patients, especially those who exclude metro and Tier 1 cities. Many health tech start-ups solve this problem by providing HC services to their patients at home.

In fact, India's home health sector has evolved from basic assessments of elderly care, cancer support, appointment of doctors in the residential field, collection and recording of clinical tests, physiotherapy workshops, home health care and more.

Startups active in this area include Healthians (by cricket player Yuvraj Singh), CallHealth, Portea Medical and HCAtHome.

The IBEF predicts that the domestic HC sector will reach US $ 6.21 billion by next year. India has a population of 87.6 million over the age of 60 and is known to have the second largest population of the elderly in the world. Second, stressful urban lifestyles also help improve home health care.

- **Diagnostics Startups**

Indians suffer from several illnesses, but without their discovery they lose valuable lives. This is also a major problem that chronic illnesses are not diagnosed. The main goals of startups working in the medical diagnostics ecosystem are to develop medical devices, software for diagnostic centers, artificial intelligence, and machine learning tools to help detect illness, and equipment for remote or on-site diagnostic services. did.

Indian testing companies include Qure.ai, SigTuple and NIRAMAI Medical Analytix. These are others use Deeptech to enable radiation, medical imaging, and pathology reports to make diagnosis faster and easier.

In the HC industry, commercial use of AI is estimated to reach US $ 36.1 billion by 2025 and a CAGR of 52% between 2018 and 2025. The technology-centric approach sought to build a foothold among the enablers of the startup ecosystem.

- **Medical Devices Startup**

MedTech's companies cover the medical needs and requirements of Indian customers from start to finish.

India's medical device industry is valued at US $ 5.2 billion, the fourth largest in Asia for early detection of breast cancer, intelligent infusion pumps for intravenous drug delivery, eye care equipment, wearable equipment, diabetes treatment and management, and diabetic patients. It has become a large medical device segment for blood pressure measurement, blood sample analyzer and digital imaging device.

In 2018, $ 9.5 billion was raised by people setting up medical device start-ups in the country.

Indian medical device startups include Wrig Nanosystems, LabsAdvisor, Forus and Bagmo.

- **Biotech R&D Startups**

Biotechnology research is patient centric. The Government of India's Biotechnology Division predicts that India's biotechnology segment will reach $ 25 billion by fiscal year. India's biotechnology industry was the third largest industry in the Asia-Pacific region, accounting for 2% of the world market share in 2017.

New biotechnology start-ups are emerging each year. Biotechnology startups are high-risk ventures that are different from traditional technology startups. Biotechnology usually requires years of thorough testing and burning of money before the first product hits the market. Examples include MitraBiotech, CANscript, and Pandorum Technologies.

- **Healthcare IT/Data Startups**

Many HCs are based on patient and physician data. Here, HC IT companies make a big difference in their software products in terms of accessibility, health insurance, and care.

Start-ups such as Innovacer, HealthPlix, Pharmamarack, Attune, CareStack, Live Health, and Practo operate in the same ecosystem, collecting, processing, and organizing data from different sources of business.

NASSCOM valued the Indian IT industry at $ 167 billion in 2018 and expects annual growth of 8%. If growth remains unchanged, India is expected to reach $ 1 trillion in another 25 years.

- **Biopharma Startups**

The 'bio' prefix literally denotes the process of drug development. The biopharmaceutical industry in India includes startups that specialize in protein therapy, such as antibiotics focused Bugworks Laboratories, Vyome Therapeutics, and PlasmaGen Biosciences.

The Biopharma industry is a decent chunk of the general pharmaceutical market in India. In 2018, gross annual sales for biopharma were 275 billion dollars, representing about 25 per cent of the entire pharmaceutical industry.

- **Genomics Startups**

Genomics includes companies focused on advances in genomics, DNA research, and gene editing. Startups working in this ecosystem are Mapmygenome, Genebox and MedGenome. While genetic editing is ready to change the outlook for nutrition, medicine and welfare around the world, Indian startups are focusing on genetic engineering for disease identification, diagnosis and non-invasive treatment.

Health-tech Startups To Look Out for in 2019

HC Startups	Funding Received (USD Million)
Cure.Fit	174.6
Practo	124
Lybrate	11.43
Portea	46.5
Netmeds	50
Healthkart	12
Medgenome	24
1 mg	22
DocsApp	8.4
Forus Health	13.4
Innovaccer	51
MyUpchar	5.3
Mitra Biotech	74.5
PlasmaGen Biosciences	25
SigTuple	24.8

2. WOMEN HC STARTUPS

With passing time ladies' HC region emerged with numerous innovations. The most important goal of WHCS is to Monitor Health, track all usual fitness sports and are ladies driven. In the ultimate decade or so, some startups have hiked up in India focusing on ladies' fitness.

Few are listed below:

- By building healthy communities. Example- Maya. Search pregnancy-related (gynecological / obstetrics) or online platforms to find pregnant women's gynecologists, hospitals, diagnostic services, and treatment packages to assess new mothers regarding the quality of their home care experience. Select a hospital based on. Examples Pregbuddy.Togetherforher, Ela Women, Dost Buddy, DocN Me, Maatritva, ILove9Months

- Some start-ups have affordable and easy-to-use wearable uterine contraction monitors and LaborConnect, a smart labor monitoring tool that helps caregivers intervene in time to avoid complications during the labor phase. was. An example of Janitri innovation.

- Other start-ups that educate poor communities about wellness, raise awareness and bring life-changing preventive medicine products and services to the front door. They enable ownership of health

- Social entrepreneurship- It provides health and livelihood opportunities for vulnerable women around the world and provides standard care and products for women's reproductive health life cycle. (Aish)

- For menstrual napkins and cups, we manufacture menstrual napkins, organic hygiene napkins, panty liners, intimate cleansers, intimate hygiene (natural women's cleansing wipes, natural women's women's wash), sweat pads. And the distributed startup. Examples Azah, Sanfe, Heyday, Boondh, Nau, Carmesi, Saathi, Trucup and so on.

- There are menstruation tracking app, fertility tracking app, pregnancy tracking app, and contraceptive app. Using mobile apps to track menstruation is becoming more and more popular among young urban women in the region. Such apps are intended to help women track their menstrual cycle and birth time, which helps them plan their pregnancy and pregnancy.

- Each person using the contraceptive app will be notified 1-2 days before the start of the menstrual cycle, which will help them prepare early. Examples of clues, M calendars, Flo, menstrual trackers, PLogs, pink pads, LoveCycles, Lunacycle, Nyra and more.

- There were several startups for **Breast cancer screening** (Niramai), **Female Urination Device** - Women Pee Funnel for Dirty Toilets. (Peebuddy).

3. COVID-19 STARTUPS

As the COVID 19 epidemic continues to spread around the world, stricter precautions are being taken. From social isolation to office, school, day care closures and shelter-in-place orders, families, our country, and the world are gathering to fight this pandemic.

The resilience and commitment of the startup community to do what is needed to contain the spread is commendable. Enterprises use software to keep their communities healthy and secure and support COVID 19 solutions.

Funding sources for startups fighting COVID 19 are open. Startups practice crowd management, geofence, fake news detection, personal protective equipment provision, test equipment, logistics, massive disinfection, AI technology for contactless access, motion tracking, critical care equipment and more.

An example of such a startup Aerobiosys Innovations Pvt. Ltd, Center for Cellular and Molecular Platforms (CCAMP), Turtle Shell Technologies Pvt. Dozee Health Co., Ltd., My Labs Discovery Solutions.Pvt. Ltd, etc.

A brief profile of Indian pharmaceutical MSME

The MSME sector is an important driver of growth. It is the basis of pharmaceutical manufacturing as it takes advantage of the cost advantage of supplying quality pharmaceuticals to major multinational companies as well as other major Indian companies. We were able to reach every corner of the marketing side and make the drug available to everyone. In the future, the micro enterprise sector will need to not only chase the government, but also look for partnerships to develop. The industry needs to compete collectively for global opportunities by leveraging its best practices and meeting quality control structures and regulatory standards. With the need to focus on the research and development of complex generic drugs, partnerships have been established and the joint venture will play an important role in increasing competitiveness. The digital path to market penetration must also be urgently taken by sticking to social media. There are state-of-the-art tools for managing the cost of capital that can help speed up decision making. The Indian pharmaceutical industry has proven its effectiveness not only in India but also internationally.

The identified MSMEs are pharmaceutical research companies, pharmaceutical active ingredient (API) and intermediate manufacturing, outsourcing to the global pharmaceutical and chemical industries, API supply, finished formulations and specialty molecules, pharmaceutical machinery, cosmetic machinery and equipment. It was a manufacturer and exporter to meet the strict quality requirements of pharmaceutical manufacturers and primary packaging manufacturers in their respective injection areas Distributors and service providers such as manufacturers of dietary supplements, cough medicines, dietary supplement capsules, pharmaceutical chemicals and food processing machines.

Some of the examles are: Einige Beispiele Cloris HC ＆Beauty Pvt Ltd, Maas Pharma Chemicals, AccureLabsPvt. Ltd., Harrisons Pharma Machinery Private Limited, Harrisons Pharma Machinery Private Limited, Zentic Pharmaceuticals, Vital Laboratorys Private Limited Prism Pharma Machinery, Gem Pharma Machineries, Granules India Limited, Lasa Supergenerics, Andhra Organics Limited, Bajaj HC Ltd, Bangalore Antibiotics ＆ Biological PvtLtd.

OBJECTIVES

1. Research and collect information about Indian healthcare startups.
2. Explore challenges and start-up markets in future approaches.
3. Understand small and medium-sized healthcare pharmaceutical companies, medium-sized pharmaceutical machine manufacturers and raw material / pharmaceutical manufacturers, pharmaceutical and dietary supplement raw material companies / API companies, device manufacturers / packaging companies related to healthcare.

Research Design: Descriptive type research design

Sampling Design: Qualitative research approaches were taken.

Sample Area: PAN India.

Sample Population: 820 Respondents.

ANALYSIS OF THE STUDY

India's HC sector is always booming and is one of the fastest growing sectors. With the integration of technology and HC in India, the industry is ready to set new milestones.

The HC sector has great potential to contribute with the technology that will transform it by recognizing itself and its positive effects. By 2023, the HC market will be of potential worth $ 370 billion and promises up to 3540% return, according to some investors. Given that India is far away when it comes to the use of technology to provide health-related facilities, health technology can be a twist on the plan. By 2030, 40 million employment opportunities are expected to be created. There are about 2,975 health-focused startups in India.

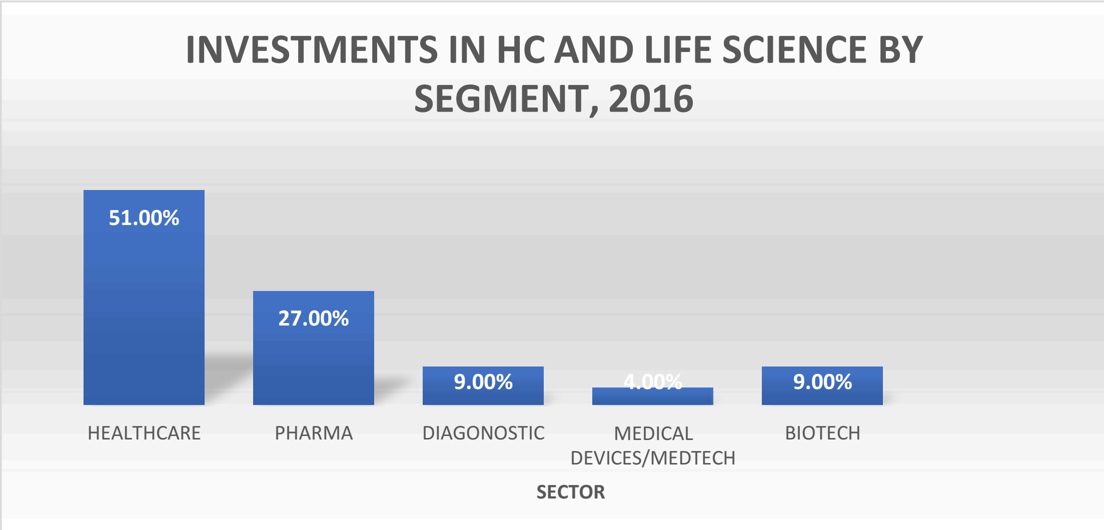
The main focus of most startups is to improve access to HC services. Technologies such as machine learning, nanotechnology, IoT, AI, robotics, and 3D printing are just a few examples of applications in the HC industry.

Healthcare startups in India belong to different classes such as pharmacy, home HC, diagnostics, and biotechnology. The HC sector of pharmacies and housing is an example of the impact of technology injections. The rise of HC startups in India shows that genomics, biotechnology, and robotics will soon be used in hospitals and clinics to increase the efficiency of health-related services. Artificial intelligence is well known for its accurate disease detection, but apps that monitor vital signs and movements can help increase the well-being of the country as a whole. There are also some warning signs that need to be noted when talking about what the growth of Indian health technology is showing. Since its main purpose is functionality, there is a risk that security and privacy will be ignored. Digital transmission of personal health information is often dangerous. Therefore, the health tech department must be more accountable.

How safe is medical technology without established protocols, quality assurance, and law? Exponential growth of health tech start-ups in India shows that Indians are in urgent need and embrace higher HC. This technology has the potential to ultimately address the issues that plague the Indian HC industry, including quality, efficient use of capital, scalability, and affordability. It also shows great potential for Indian health tech startups that can build a bridge between desires and needs.

1. INVESTMENTS IN HEALTHCARE AND LIFE SCIENCE BY SEGMENT, 2016

SOURCE: Indiaincgroup



The graph shows the segmentation of HC and life sciences investments ($ 1 billion) by segment.

At 51%, investment in the HC sector was the highest, followed by investment in the pharmaceutical sector at 27%. 9% of the investment is in the diagnostic and biotechnology sector.

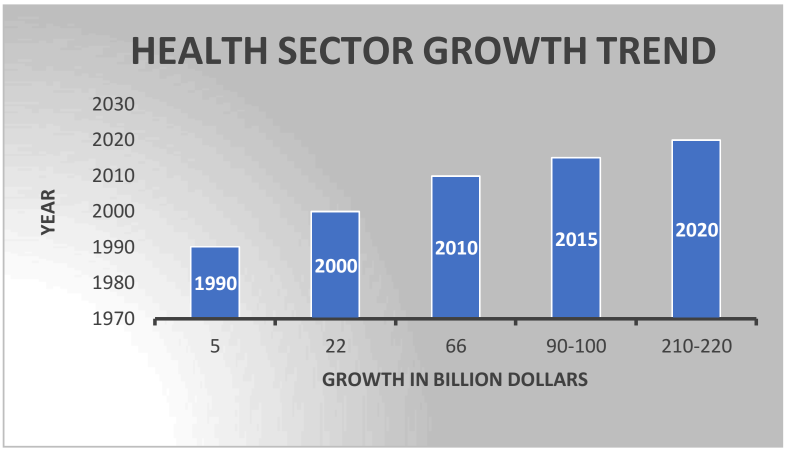
Investment in the Medical Devices and MedTech sector is the lowest at 4%.

India's HC sector is expanding and becoming a profitable place for foreign investment, gradually becoming an investment hub in terms of higher economic growth, cheaper labor and opportunities in the pristine sector, health care It stimulates the startup culture.

Combined with recent pro-government policies, these factors are also responsible for attracting domestic investment from private equity (PE), venture funds and HC players. The market has raised approximately $ 63.9 billion from VC and PE transactions over the last five years. In addition, there was a cumulative increase in foreign direct investment (FDI) of US $ 4.75 billion between 2012 and 2016 in this sector.

2. HEALTH SECTOR GROWTH TREND

SOURCE: HC In India: Key Trends, Challenges and Innovation Landscape.



This figure shows the growth trend of the HC sector.

This is a phenomenal advance of only $ 5 billion since 1990 and $ 210.22 billion in 2020. Reasons for this include high quality HC, increased income and HC spending, public health awareness, government factors, and medical tourism.

The healthcare sector is growing, with a CAGR of 13% shifting to a CAGR of 18%.

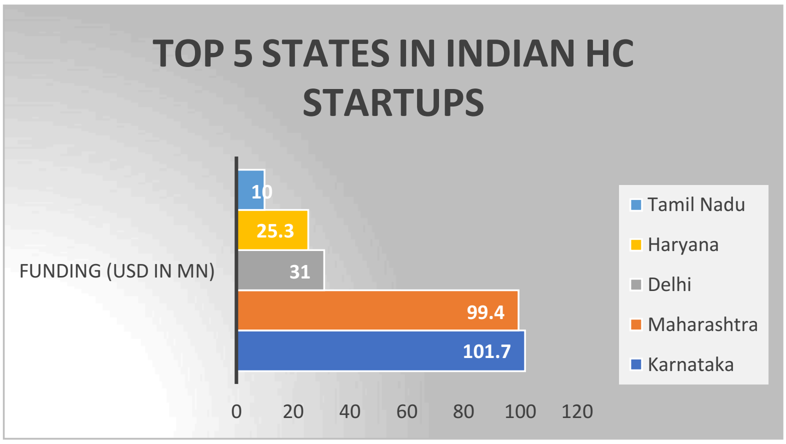
Improved use of technology has enabled HC programs to increase the effectiveness of organizations and reach millions. The creative business models and competitive landscape have paved the way for cost-effective delivery of quality HC services. Telemedicine has improved accessibility of HC services in rural areas through the development of a network of quality health service providers.

The current trends of the rising aging population are also a significant contributing factor to increased HC spending and development in India`s private HC sector. When income levels rise, more and more customers are actively seeking access to affordable HC facilities. In addition, ease of access to medical insurance has also made a significant contribution to the quality of HC and related facilities.

A change from communicable diseases to lifestyle disorders is taking place in the modern HC system. The urbanization of today and the issues associated with modern living have replaced conventional health conditions with lifestyle disorders, which have further intensified demand for advanced HC services. This has raised awareness of the younger generation about personal safety and hygiene, as well as precautionary treatments. Both of these have resulted in better outpatient procedures, leading to increased hospitalization.

3. TOP 5 STATES IN INDIAN HC STARTUPS

SOURCE: Dr. Hempel Digital Health Network, 2018



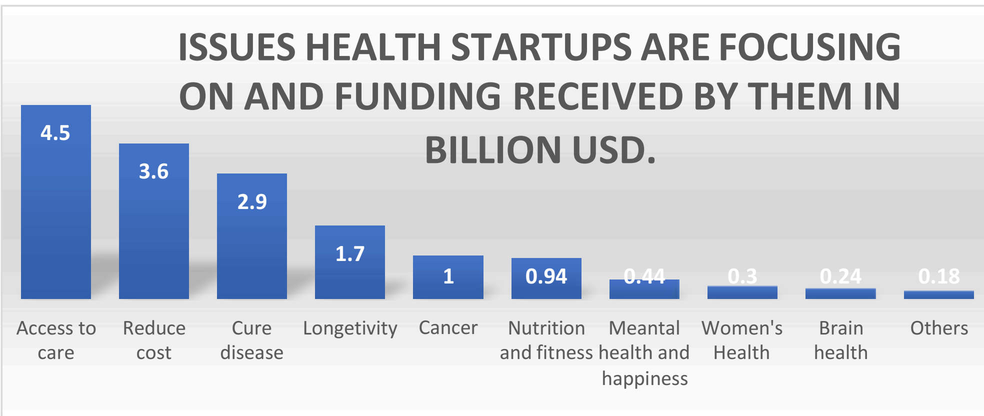
The graph shows the top 5 Indian HC startups.

In most cases, these are Tier 1 cities in the country, including Bangalore, Mumbai, Pune, Delhi and Chennai. Bangalore is a hub for multiple industries, including HC startups in India.

Startups from Bangalore (Karnataka) received the highest funding ($ 101.7 billion), followed by Maharashtra at $ 99.4 million, Delhi at $ 31 million, Haryana at $ 25.30 million, and Tamil Nadu at $ 10 million.

4. ISSUES HEALTH STARTUPS ARE FOCUSING ON AND FUNDING RECEIVED BY THEM INBILLION USD.

SOURCE: Startup health, Statistical charts, Oct 8, 2019.



The topics that Health Startups are focusing on and funding are:

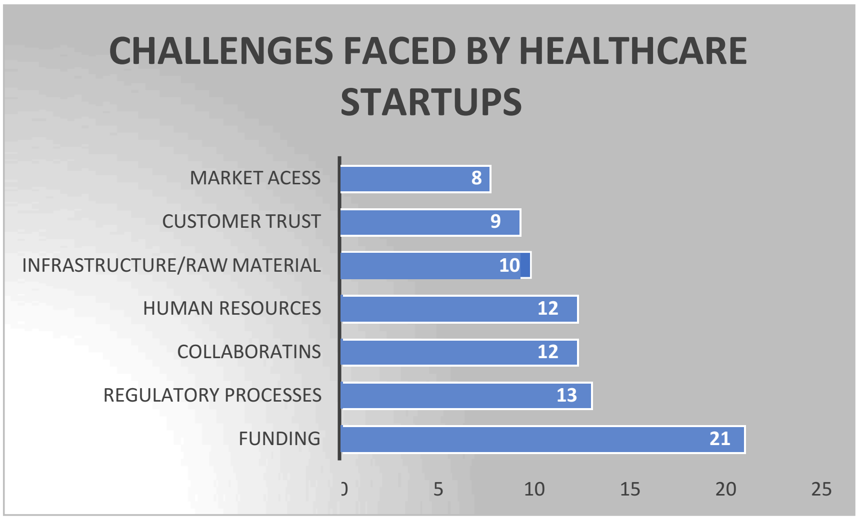
Most important is access to health care ($ 4.5 billion). Access to affordable, quality physical, social and mental health services is critical. Providers need to be close to emergencies, be able to provide quality service and respond to emergencies.

Cost savings ($ 3.6 billion) reduce the financial burden on the economically vulnerable parts of society. These start-ups offer affordable, accessible, low-cost products and services.

To overcome the burden of illness, start-ups are focused on treating and treating illness and improving patient lifespan. Other factors include cancer, diet and fitness, mental health and well-being, women's health, and brain health. Start-ups focus on these factors and medical needs, so there are no timely treatments, preventative care provisions, avoidance of financial pressures, and avoidable delays in hospitalization.

5. CHALLENGES FACED BY HEALTHCARE STARTUPS

SOURCE: NewsBuz, HC Startups have finger on the pulse (Economic Times, Feb 26, 2019)



This graph shows the challenges faced by HC startups.

- Slow Growth – Startups need patience to cross break-even points and overcome ups and downs.
- Regulatory issues Security issues raise concerns about technology misuse.
- Complex industry - The HC industry does not provide enough freedom. General associations in the HC industry impose many rules and regulations. A less clear policy can cause confusion

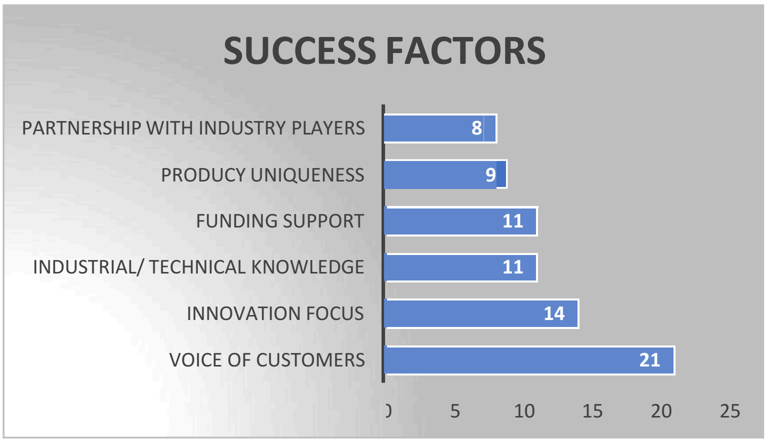
- Difficult to hire doctors The calculated doctor-to-patient ratio is very low and worsens in rural areas. This makes it difficult to get a doctor.

- The ROI sector is slow growing and difficult to monetize, so monetization planning is a trial-and-error plan. It's difficult to get a return on investment first.

- Boards with a small number of HC mentors need the best HC and pharmaceutical professionals. Financing, approval of regulatory frameworks, and partnerships with larger competitors. These are the biggest challenges for Indian HC startups. Then access to the market, customer trust, infrastructure, raw materials, and talent acquisition.

6. SUCCESS FACTORS

SOURCE: NewsBuz, HC Startups have finger on the pulse (Economic Times, Feb 26, 2019)



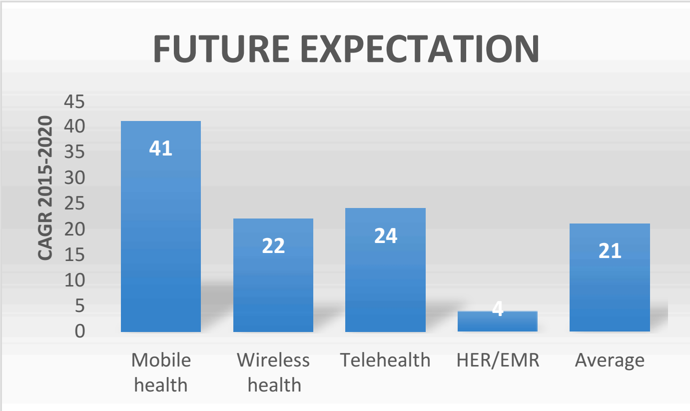
The demanding situations may be transformed into the achievement factors.

The voice of clients 21% are taken into consideration to be the maximum prominent. Innovation is the important thing 14%, the concept which evokes the humans to make investments their sources into.

Industrial and technical understanding together with investment are 11% the important thing drivers for achievement. Followed via way of means of product uniqueness, holds its promoting proposition and closing however now no longer the least 8%, the partnership with enterprise players**.**

7. FUTURE EXPECTATION

SOURCE: Byteant



Future expectations for startups are:

41% of mobile health (MH) is a fast-growing area of the digital health industry that promotes, allocates and intervenes in smartphone technologies such as tablets and wearables. Mobile health technology allows government health authorities to extend their reach to remote and underprivileged areas. Although M-health refers to any mobile device that can send data, mobile phones are currently the most common M-health delivery channel.

24% Telemedicine, Telemedicine / Telemedicine has long been recognized as the most promising alternative to many health access problems. Spectrum solves the absence of highly specialized doctors outside the metropolis, reducing the proportion of low rural doctors and patients, a convenient treatment for wealthy but time-limited urban dwellers.

22% Wireless Health, HC in India is gradually becoming digital, increasing the need to build and deploy advanced information systems. However, HC companies have not yet fully investigated the wireless technologies that are transforming many business areas today to support quality maintenance and maximize performance.

Finally, the average is 21% and HER / ERM is 4%.

8. IMPACT OF COVID-19 ON STARTUPS

Among the sectors, Agri-tech and FinTech start-ups have been hit hardest by funding, but Health-tech is the only sector experiencing a favorable funding environment. According to a NASSCOM study, it is emerging.

9. HC MOBILE APP DEVELOPMENT IS ESPECIALLY PRESENT TO TRANSFORM HC

- HC is taken to a remote location
- Support for doctors and medical staff
- Immediate access to healthcare
- Emerging new business models and opportunities
- Accurate documentation and elimination of false diagnoses
- Reduce medical and billing costs
- Easy invoice payment.
- Monitoring personal health

INTREPRETATION

- These start-ups act as highly needed helpers to support about 70% of the agricultural community with minimal or no access to hospitals and clinics.

- Telephone and internet networks are also one of the ways to deal with India's inadequate HC facilities with the help of technological and telemedicine innovations. This can improve diagnostics by giving doctors in the cloud system access to medical records.

- Emerging markets are struggling to attract the right investors and raise enough money. This may be due in part to the slow pace of growth in the sector. It takes 10 to 15 years to introduce an alternative product to a company with only a few dominant business models.

- India's public spending on the HC sector accounts for only 0.4% of GDP, the lowest level in the world.

- Private market stakeholders play a key role in the growth and development of HC startups by investing in a variety of risk opportunities that enable entrepreneurs to deliver healthcare innovation and generate higher returns. increase.

- Future expectations include telemedicine, medical web and remote patient monitoring, cloud computing, HC AV / VR / MR, HC AI (AI), mobile health, chatbots, predictive analysis, blockchain, HC. Includes 5G and more.

- Changes are not constant, and it is very difficult to imagine the “miracles” we will witness in 1030 due to rapidly evolving technology. The HC sector is the most important of all, and actively requires only creative and cutting-edge solutions.

CONCLUSION

- The HC sector is thriving rapidly in India's outlook, both in terms of revenue and market share growth. India's $ 100 billion HC industry is projected to grow 23% to $ 280 billion by 2023. This emerging segment has brought some growing HC startups in India.

- They serve a variety of HC segments, make reservations, sell medicines online, and operate as a commercialized venture. India's technology today affects almost every aspect of lifestyle in the context of the city, but as India enters the era of startups, it is still before reaching a tech-savvy city in the western world.

- There are many things to thank. While significant advances have been made in logistics, 18 e-commerce and online consumer services over the last decade, one of the areas that is lagging is HC.

- There are various HC startups in the Indian ecosystem, but the scope of these startups is typical. Machine intelligence has impacted all major industries from agriculture to education, entertainment, and transportation, leading to innovations such as AI and IoT that pioneered

- Industry 4.0. Most start-ups in the country are striving to increase access to HC and critical care. The HC industry is one of India's fastest growing sectors, supported by increased employment, health literacy and insurance access in India, as well as an increase in lifestyle and stress-related illnesses. Is reported.

Suggestions:

- Evaluate risk at each stage.
- Cooperation and joint venture.
- Participate in global opportunities
- Meet the expectations of quality management systems and regulations.
- Focus on R & D, complex generics, medicines, and intermediates to reduce dependence on China.
- Focus on customization, digitization, and prioritization by maximizing the talent available for market penetration.
- Improve competencies and compliance levels.
- Continuous technical and digital skill development and renewal.
- Close the gap between academia and industry.

- The need for an immediate and robust business continuity plan in the event of a pandemic. It is difficult to understand the future direction.

Annexure:

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