Market Assessment and Feasibility Study for Proposed Healthcare Setting in Nigdi Near Pune

By

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Dissertation submitted for the partial fulfillment of the

MBA Hospital and Health Management

Academic year, 2014-2016

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IIHMR UNIVERSITY

TO WHOMSOEVER MAY CONCERN

This is to certify that Vikram Chopra student of MBA *Hospital and Health Management* (PGDHM) from The IIHMR University, Jaipur has undergone internship training at *Hosmac* India Pvt Ltd from 20th march 2016 to 20th may 2016.

The Candidate has successfully carried out the study designated to him during internship training and his approach to the study has been sincere, scientific and analytical.

The Internship is in fulfillment of the course requirements.

I wish him all success in all his future endeavors.

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The certificate is awarded to **Vikram Chopra** *in recognition of having successfully completed his Internship in the Operation department of our organization from 8th February to 18th March 2016*

He comes across as a committed, sincere & diligent person who has a strong drive and zeal for learning

We wish him/her all the best for future endeavors

S G Chopra
Proprietor

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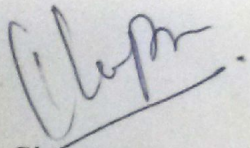
CERTIFICATE BY SCHOLAR

This is to certify that the dissertation titled **A Market Assessment and Feasibility Study for Proposed Healthcare Setting in Nigdi near Pune.** Is submitted by Vikram Chopra Enrollment No. IIHMR-U/01/2014-16/240 under the supervision of Dr Tanjul Saxena for award of Master in Business Administration in Hospital and Health Management of the University carried out during the period from 12th April 2016 to 12th may 2016 embodies my original work and has not formed the basis for the award of any degree, diploma associate ship, fellowship, titles in this or any other Institute or other similar institution of higher learning.



Signature

Abstract

Today in India 80% of hospitals are owned by private sector whereas remaining 20% by Government sector.

Indian Government spends 4.2% of its GDP on Health. Doctors per 1000 population (0.47 per 1000) as well as Hospitals beds per 1000 population (0.9 per 1000) is less than that of WHO recommendation (3.3per 1000).

The purpose of the study is to assess the current healthcare market and analysis whether the existing Market of Healthcare Sector is feasible for setting an upcoming 40 bedded Hospital in Nigdi in PimpriChinchwad area of Pune district & to assess the Business Potential for the venture for the same. Also to suggest best possible Healthcare Service Model in order to achieve win-win situation for everyone as well as to find out PCMC population trends and demographics as well as health care access and health care quality. There is a wide scope to come up with Multispecialty Hospital for secondary as well as for Tertiary Healthcare centre. The hospital has a huge potential for Cardiac, Nephro, at present because presently other Healthcare service providers are catering only for Obgy, Ortho Medicine and Eye in Nigdi Pune.

Acknowledgement

The internship was started with a vision to be able to learn about the practical aspects of healthcare delivery system in a detailed manner. I hereby take this opportunity to express my deep sense of gratitude to all those who have been instrumental in the successful completion of my internship. Any accomplishment requires efforts of various individuals and this work is no exception

Firstly, I would like to thank Dr. S.D. Gupta, Director - Institute of Health Management Research, Jaipur, and all the faculties, for the education imparted which has made me the person I am today, and HOSMAC for believing in my abilities.

This project would not have been completed without the tremendous contribution of my Guide, Dr.TANJUL SAXENA right from the onset lending a helping hand at every step.

Dr. KaveriChadda deserves gratitude for always guiding me through difficulties.

Dr.AbhisekhPawar, and DrVarsha Sanghavi my Supervisor and guide at Hosmac has been supportive all along my tenure in the organization and allowed me the freedom to express myself.

I would also like to specially thank all of my study participants who have been co operative in participating and responding well during the assesment.

Finally, and most importantly, I would like to thank God for allowing me to complete my project, my beloved parents for their blessings and my friends for their help and wishes for the successful completion of this internship.

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About the Organisation

Hosmac India Private Limited is a pioneering name in the field of Hospital Planning & Management consultancy in India. Since its inception in 1996, Hosmac has grown rapidly to become a Unique hub of skill sets which cuts across various facets of a health care facility be it architecture, engineering, management, or information technology. "In a span of 15 years, Hosmac has notched up an impressive string of projects in India and abroad. Hosmac provides the entire range of services that any health care service provider, may require: undertaking market research, feasibility studies, detailed architectural design, project co-ordination, equipment procurement, commissioning assistance, conducting an operational audit for existing hospitals. To provide such wide ranging services Hosmac has a motivated team of highly qualified and experienced professionals (doctors, MBAs, architects, engineers and project managers). On a cumulative basis these professionals have more than 500 man years of experience and have rendered more than 250,000 hours of management consulting services, designed 6.0 million sq feet of hospital space, and have coordinated hospital projects worth more than 8.0 billion INR. "

Verticals

Consultancy Services

Hosmac helps Organisation ideate, strategize and conceptualize the healthcare facility of your dreams. We go one step further and help you with your current facility with our range of services in assessments, quality , operations, commissioning and much more.

Designed services

Hosmac architects concentrate on designing healthcare spaces that build functionality, patient centric care, natural healing environments and green practices into your facility. Whether a new or existing facility, the approach to design is in a manner that will keep your vision and values centre stage.

Project Services

Healthcare projects need managers who are well versed in the intricacies of a healthcare facility. Our experts will manage your projects to ensure that the cost, quality and time triad is maintained at all times.

Communication Services

Healthcare marketing requires deep knowledge of a healthcare facility. Our experts will help you build you brand and reinforce your business strategies through their media solutions.

1. Introduction

The Healthcare industry in India consists of medical care providers such as the hospitals, nursing homes and healthcare centers, diagnostic service and pathology labs, medical equipment manufacturers, contract research organizations like organizations who perform clinical trials and third party service providers as the insurance companies. It is one of the largest industries in India both in terms on revenue and employment generation.

The low cost of medical services, clinical research, encouraging government policies combined with promising growth aspects have offered great advancement opportunities for the healthcare services in India. There has been an increase in the medical tourism, attracting patients from all over the world due availability of talented and trained medical professionals and offerings of high quality medical services at an affordable cost.

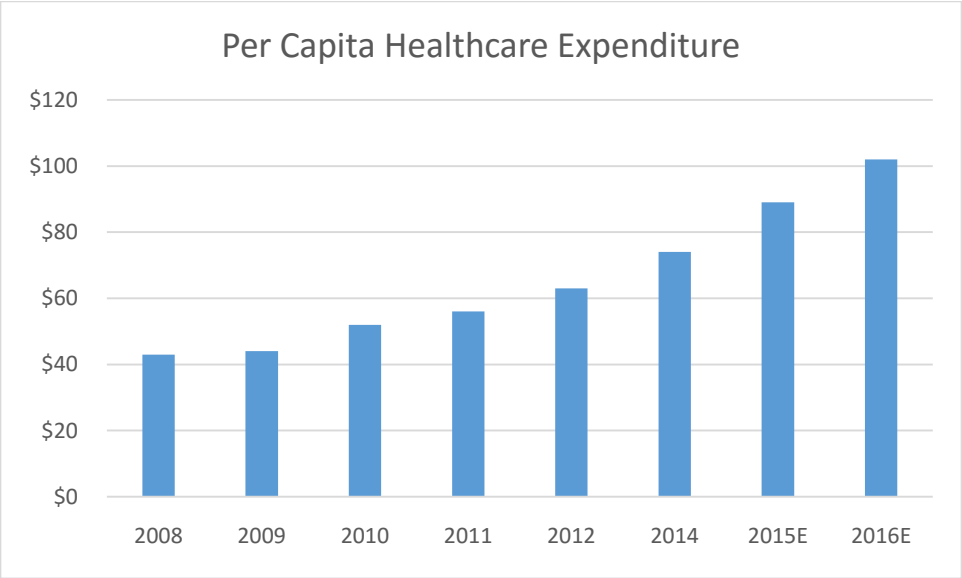


Chart 1-Per Capita Healthcare Expenditure

Research Aim

The aim of the study was to determine the feasibility of a proposed healthcare setting inNigdiPimpriChinchwad, Pune

Research Objective

This research is carried to study the following objectives

· To assess the existing Market for identifying the possibility and viability of a new Hospital set up in NigdiPimpri

· To assess the business potential for the venture.

· To suggest best possible service & facility mix for the for a win-win situation for everybody

Limitation and Assumption

One of the limitations of the study was that the data was collected from the Hospital administrator and Consultant in a form of interview and questioner. Since administration has a clauses not to disclosed the names of administrator some part of the report was not available and nither the consultants wanted their name to be disclosed in the courses of assignment

The size of the sample available for the study was also limited

Literatures on the similar studies were also limited.

2. Literature Review

Market assessment is a detailed and objective evaluation of the potential of a new product, new business idea or new investment.

It is a comprehensive analysis of environment forces, market trends, entry barriers, competition, risks, opportunities and the company's resources and constraints. Whether you are thinking of venturing into a new market or launching a new product, conducting a marketing assessment is the crucial first step in determining if there is a need or a potential customer base for your product.

A well executed market assessment will enable your company to decide where to use limited resources and to go after markets and opportunities that will provide the best returns on investments.

Failure to conduct proper market assessment could result in wastage of resources, missed opportunities, poor returns on investments and even substantial financial losses which could be detrimental to the future of your company.

An assessment of the market should be done in a systematic manner. The process can be broken down into the following steps.

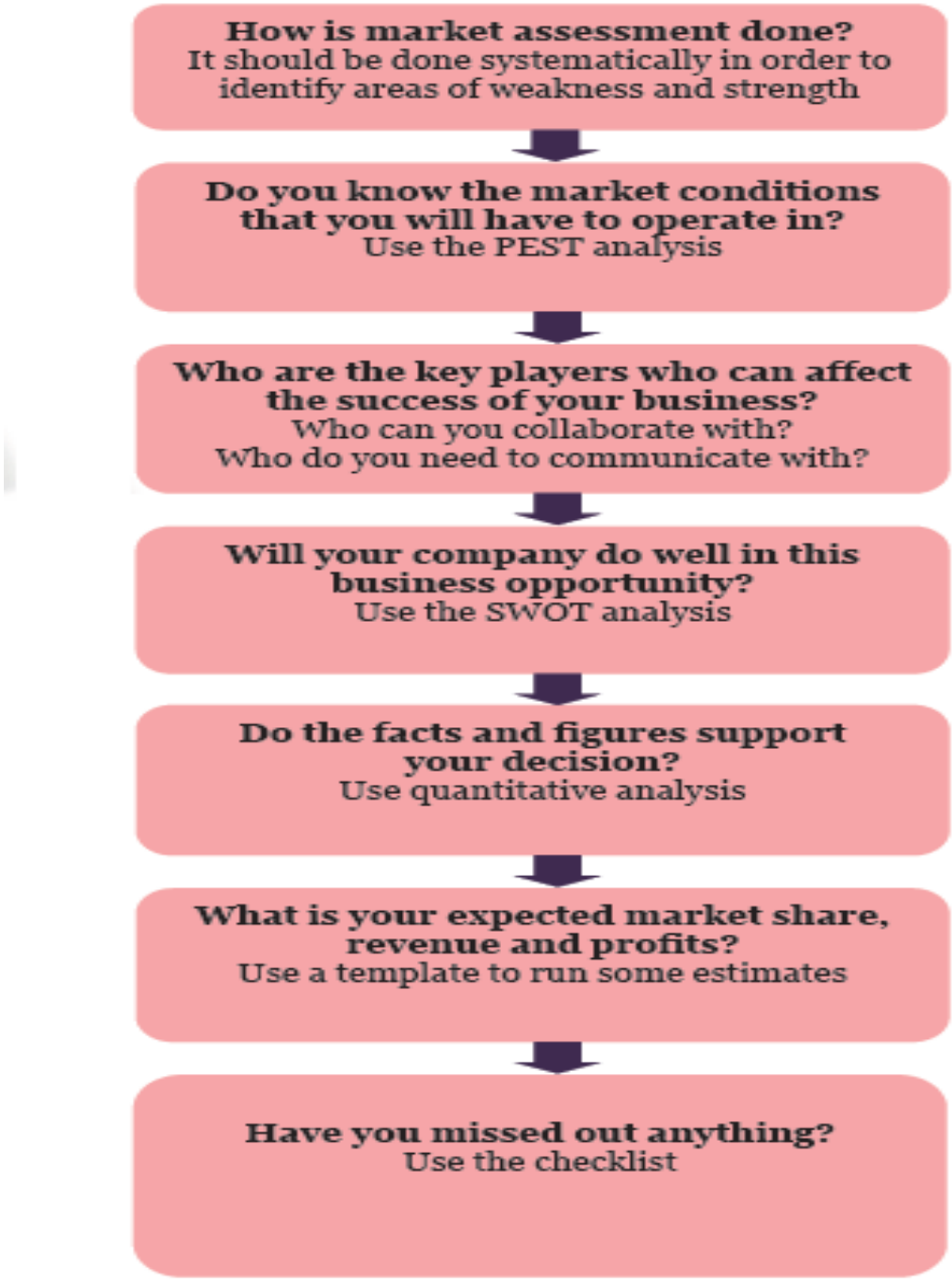


Figure 1-Step of market assessment

3. Research Methodology

Introduction

This section will describe the methodology of the study, the main topics included are research strategy, research design, case study, questionnaire design and content, and process of data analysis.

Literature Review

The literature review was done through internet, management books, journals and articles publish by various Consultancy firms. By the review of this literature the information of various criteria for hospital assessment was taken and helped in preparation of the questionnaire.

Data Collection

Data was obtained from the questionnaire designed for the Hospital administrator as well as Consultants in Hospitals as well as who has Private practice. As they are the primary Stakeholder of Healthcare and play an important role in providing healthcare services to all

Research Strategy

The research strategy is the way in which research objective can be questioned. Two type of research strategies were used in this studies quantitative and qualitative research.

Quantitative approach is used to gather factual data of the current establishment and will help to infer the assessment of the potential of the area. Whereas qualitative data was gather through interview with the stake holders to understand their perspective regarding the study and their outlook toward the project

Research Design

It is refer to a plan or organization of scientific investigation, designing of a research study including the development of plan or strategy that will guide the collection and analysis of data
The research design consist of six phases

- Topic Selection, Develop Research Plan, Establish Objective, Define the Research Aim

This is first phase in which the proposal is made for identifying and defining the problem and establishment of the objective of studies and development of plan

- Literature Review

This the Second phase in which previous studies on the similar topic are reviewed and the conclusion is studies

- Development of questionnaire for data collection

This is the third phase in which questionnaire are developed for the key stakeholder of industry like Hospital administrator and Consultant.

- Conduction the Survey

This the fourth phase in which both primary and secondary data is collected for the study
Primary data is collected through questionnaire designed for stakeholder and secondary data is collected through Internet journals article and organization database for the study.

- Data analysis and Result

This is the fifth phase in which whole the data which is collected through primary and secondary research is collated and analyzed.

- Conclusion and Recommendation

This is the last phase in which the conclusion and recommendation are reported according to data given

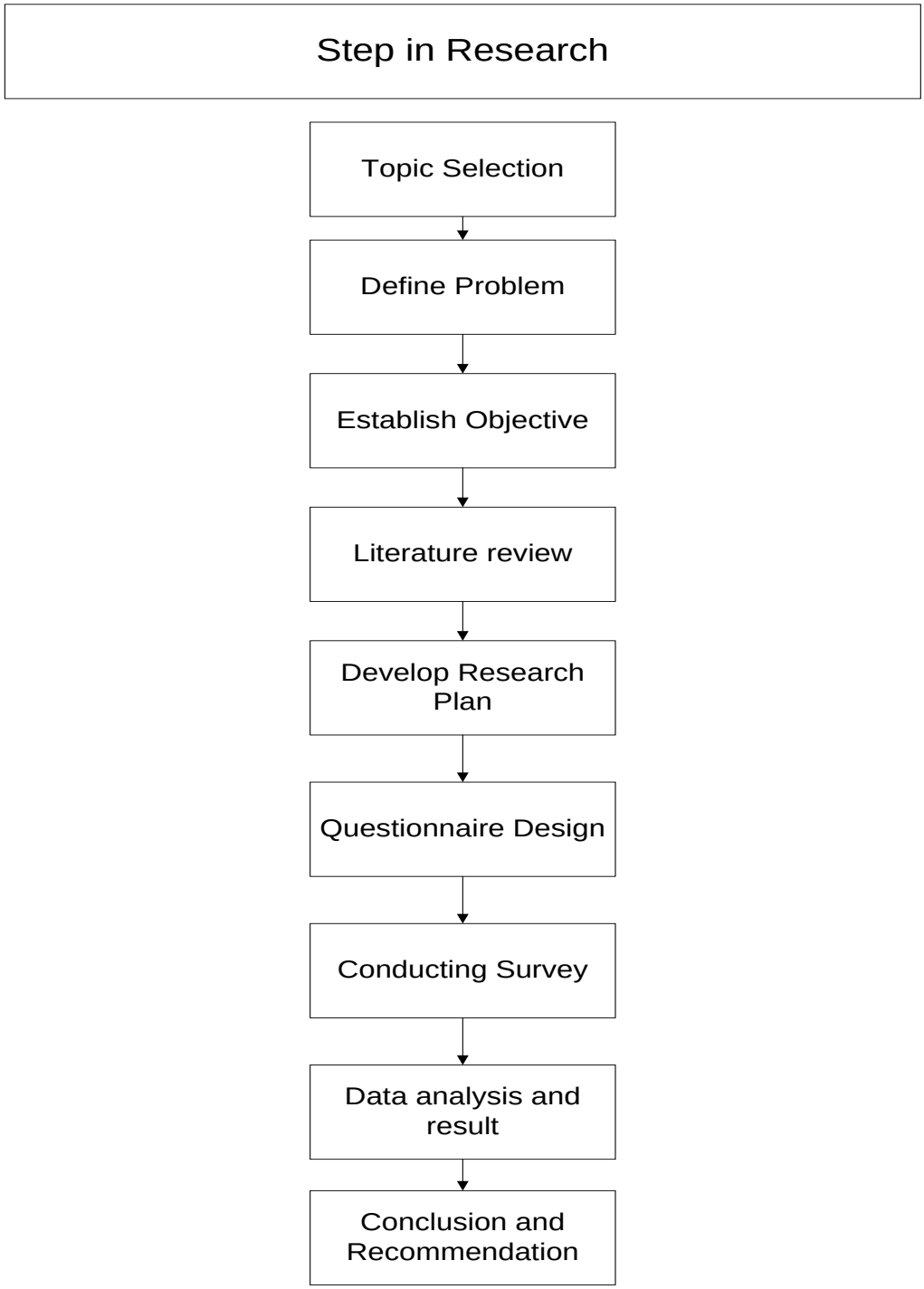


Figure 2-Step in Market Research

Questionnaire approach

The questionnaire were developed to understand the market dynamics of PimpriChinchwad as well as to understand the financial potential of that market. The questionnaire include the question of services and facility mix as well as the productivity and tariff rate of the said hospitals

The questionnaire consist of different question for hospital administrations and Consultant doctors giving us a information about prevailing healthcare facilities and service mix as well as the sociodemographic profile of the target population

In qualitative questionnaire question were formed to find out the deficiency in existing healthcare system as well as to find out any peculiarity or hindrances in setting up or sustaining a hospital

Data Analysis

The data analysis is done to determine the factor which can play important role in assessment of project

4. Brief Overview of Indian Healthcare Industry

With a population of 1.25 billion, India is the second most populous country in the world, is one of the fastest growing economic in world at the rate of 8.5%

Healthcare Industry in India is one of the fastest growing industries in India due to the rising income of the population, improved and easier access to the healthcare facilities and greater awareness of personal health and hygiene

The healthcare industry in the country is witnessing a paradigm shift in the last five years driven by greater investment.

All sectors in India are undergoing a change from unorganized to an organized capacity.

The Indian healthcare sector is expected to reach $ 160 billion by 2017 and $ 220 billion in 2020.

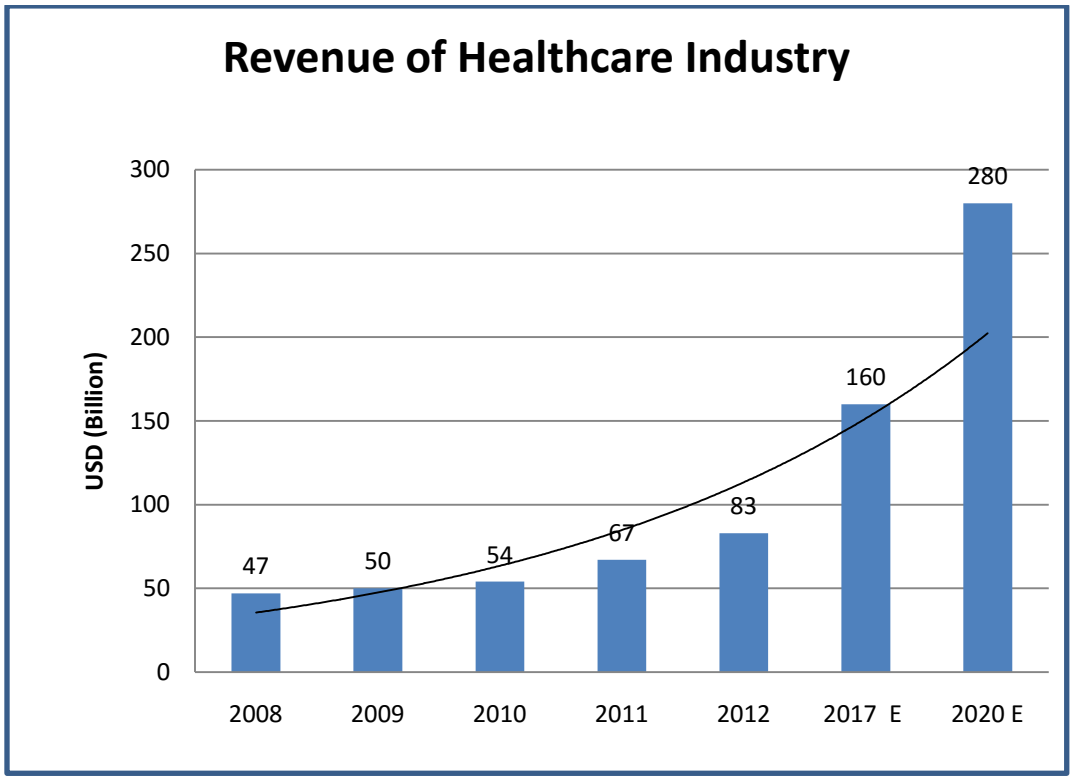


Chart 2-Revenue of Healthcare

Indian healthcare industry is believed to be the 'Next Big Thing' after Information Technology.

India is one the Prime destination for FDI in Healthcare Sector amounting about $2 billion in last five years

India's demographics are conducive for increasing healthcare spending.

Private insurance coverage is estimated to grow by nearly 15 per cent annually till 2020

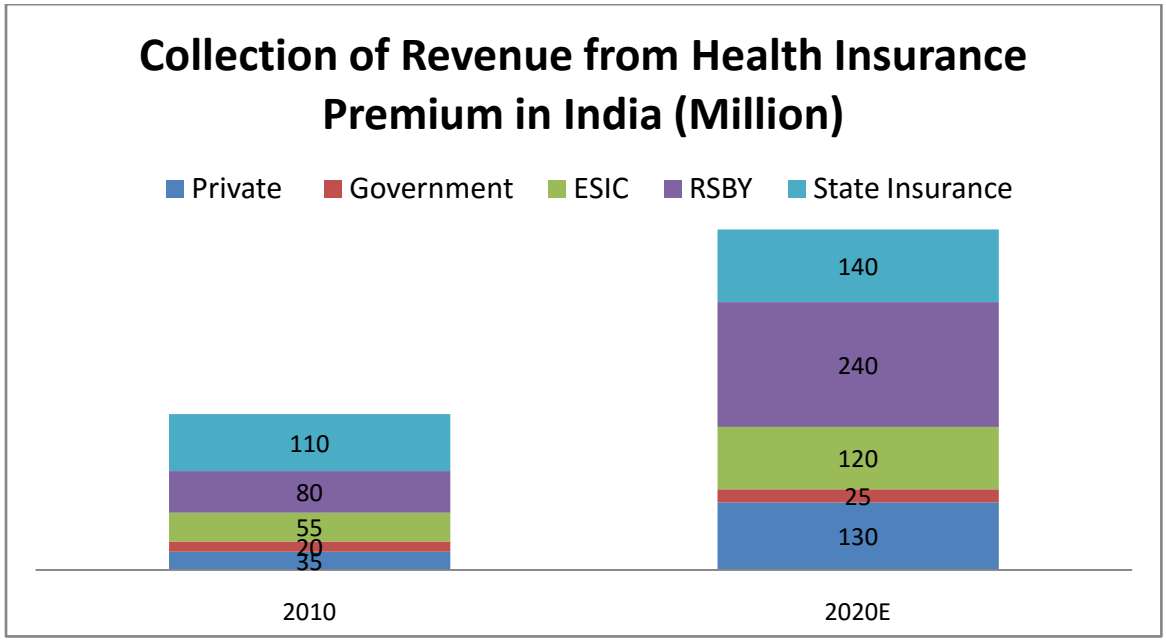


Chart 3-Collection of Revenue from Health Insurance

Government-sponsored programmes expected to provide coverage to nearly 380 million people by 2020

Medical tourism market is was around $ 3 billion in 2015 and is Expected to reach $ 8 Billion by 2020 at CAGR of 20%

Telemedicine is a fast-emerging sector in India, is expected to rise at a CAGR of 20 per cent, to USD18.7 million by 2017.

Going forward, IMF expects India's population to continue growing at about 1.3% annually and to overtake China by 2030. We expect a growing and ageing population to drive healthcare spending in India.

Backed by increased literacy and urbanization, GDP per capita had also been on the rise, spurring expansion in the middle-class population.

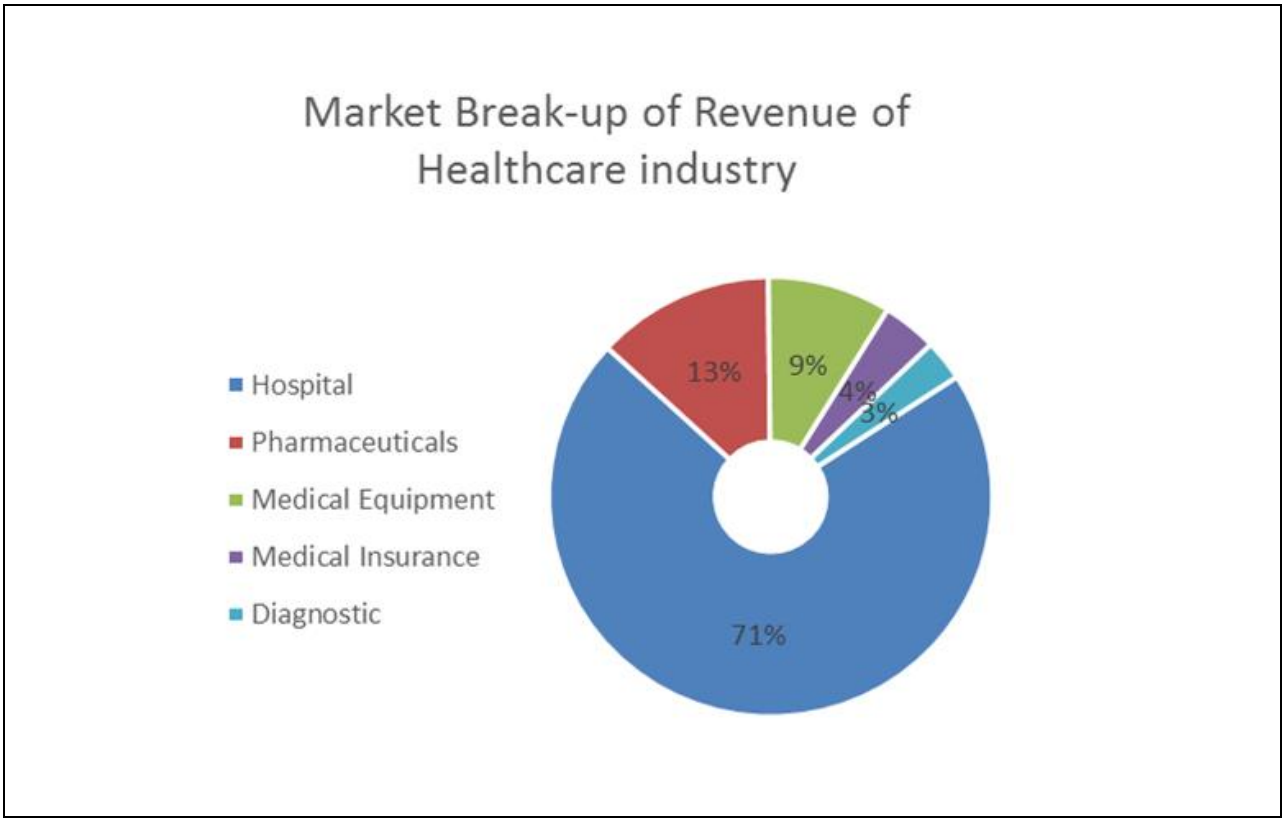


Chart 4-Market Break-up of Revenue

Overall Healthcare resources

According to Medical Council of India as on December 2014 there are 936,488 registered medical doctors who practice Western-style medicine and 756,737 auxiliary nurse mid wife (ANM) and 1,673,338 registered nurses and paramedical staff.

Also there are 790,000 "traditional" medical practitioners who consist of Ayurveda, Yoga, Unani, Siddha, and Homeopathic specialization.

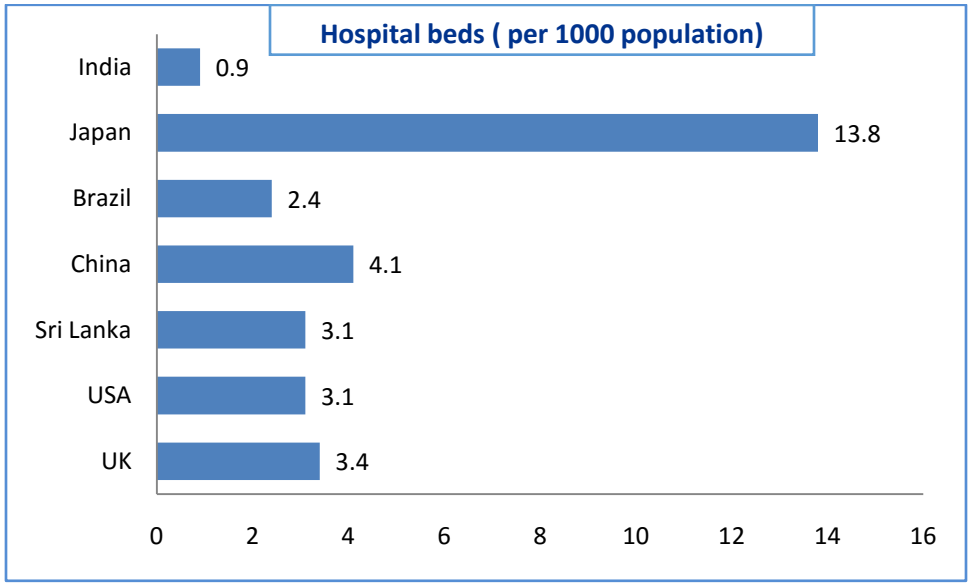


Chart 5- Hospital bed per 1000

According IMS Health Survey Indian top tier cities like New Delhi Mumbai and other cities have high density of doctors. New Delhi has more than 40.000 doctors for population of 16 million people, which are 25 doctors per thousand populations. But southern city of Mangalore has highest density of doctor which is about 34 per thousand. Followed by Gurgaon, Patna, and Bangalore due to less population as compared to metro cities.

As per the report from 12th planning commission India has 19 health workers per population of 10,000 consisting of 6 doctor and 13 nurses and midwife which is lower than the United Nations, World Health Organization (WHO) norm of 25 per 10,000 of population.

Further India has only 13 hospital beds per 10,000 people-significantly lower than the WHO guideline of 3.5.

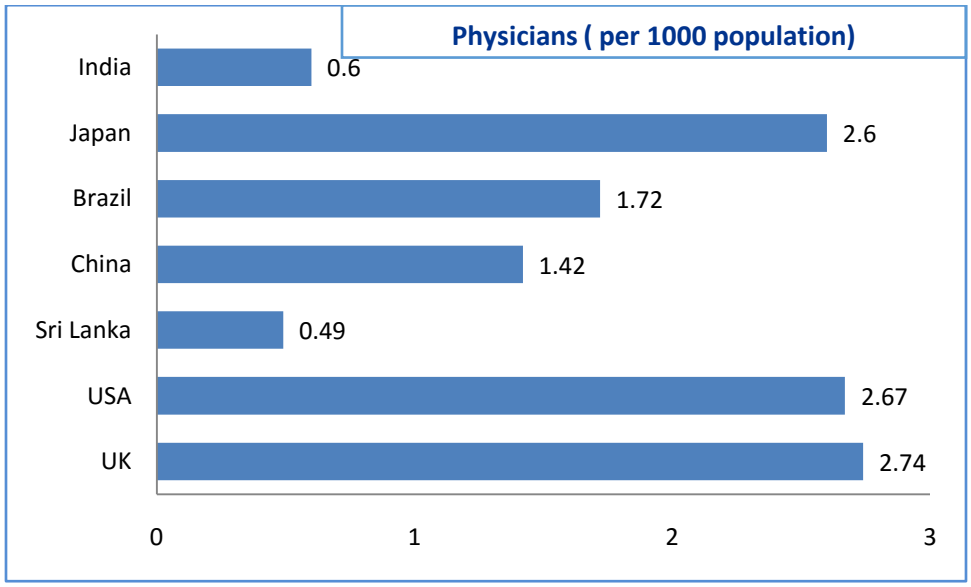


Chart 6- Physicians per 1000

- Current infrastructure and manpower resources in the country are inadequate, and an investment of USD~86 billion is required to address estimated deficit by 2025
- Limited Government spending on healthcare: 1.4% of GDP in 2008, compared to 8-16% globally
- There is a significant gap in physical infrastructure for the industry : Requirement of 2.7 million additional beds to achieve target of 2 beds /1000 population by 2020
- Unequal distribution of health infrastructure
  - 63% of hospitals are concentrated in the top 14 cities ➔ 70% serving just 30% of population

This increases population migration for medical care ➔further burdening the limited healthcare infrastructure in cities ➔ increases burden of cost of care

Consumer Profile

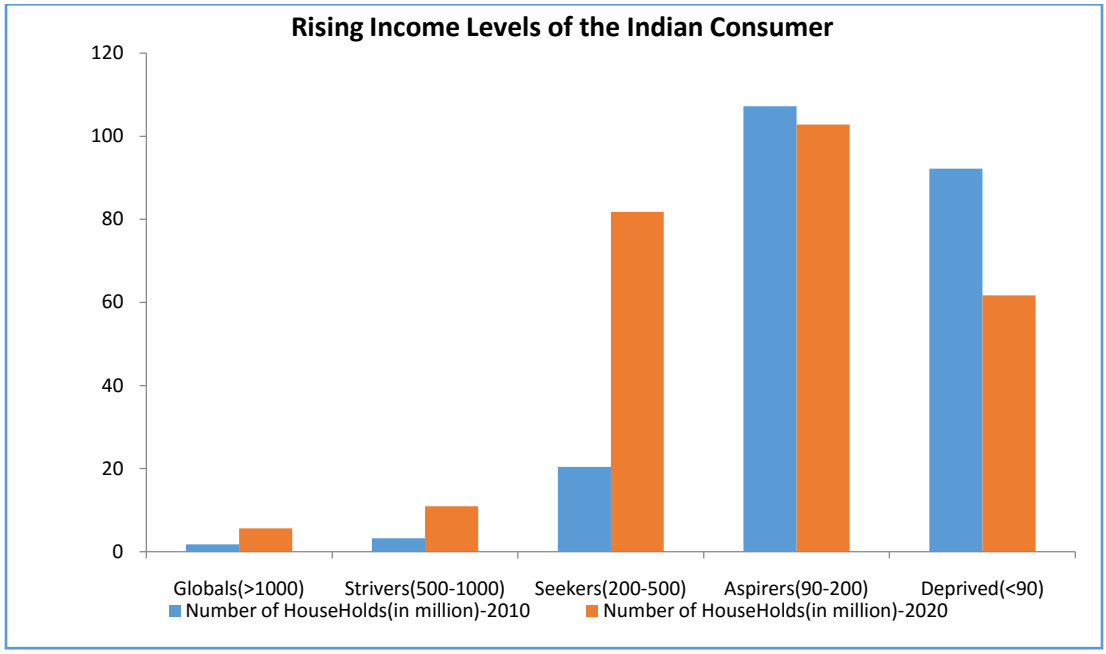


Chart 7- Rising income levels of the Indian consumers

A booming economy and an ageing population are responsible for creating a huge demand for quality healthcare infrastructure.

By 2020, the number of households in the higher and middle income classes would quadruple, leading to a large increase in the number of people with ability to afford quality healthcare services provided by premium private healthcare delivery players

The percentage of people above 45 yrs of age is expected to increase from 20% in 2007 to 27% in 2020, implying a client/patient base of ~370mn people with a strong need for quality healthcare facilities.

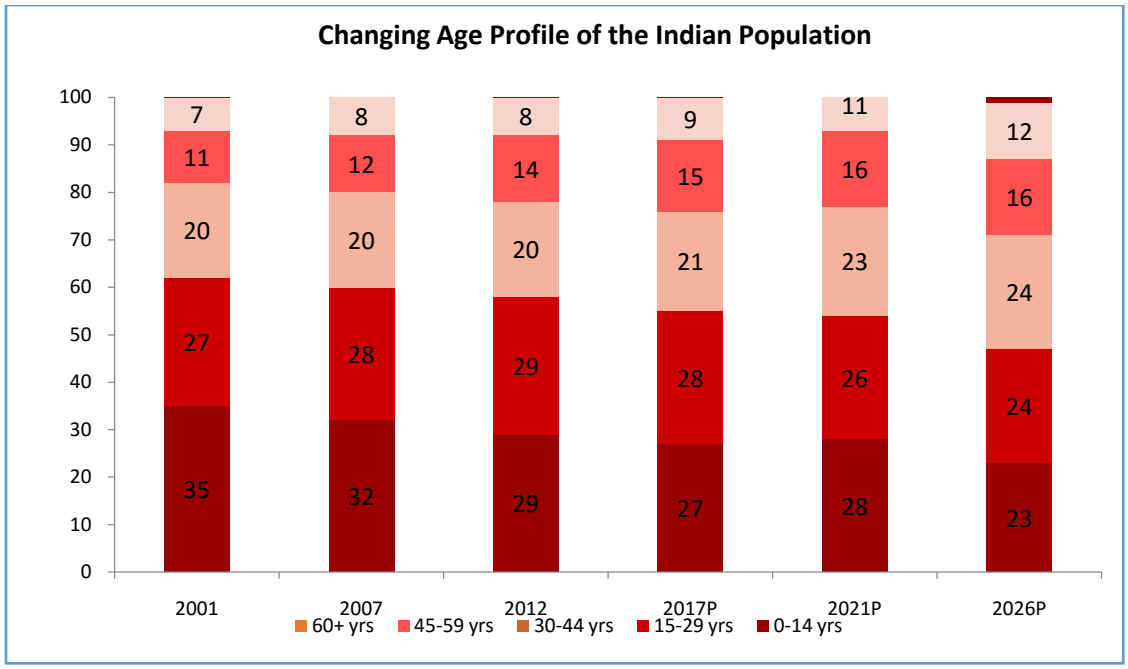


Chart 8- Age profile

- Increasing incidence of Life style –related diseases is expected to boost the demand for tertiary care services in India

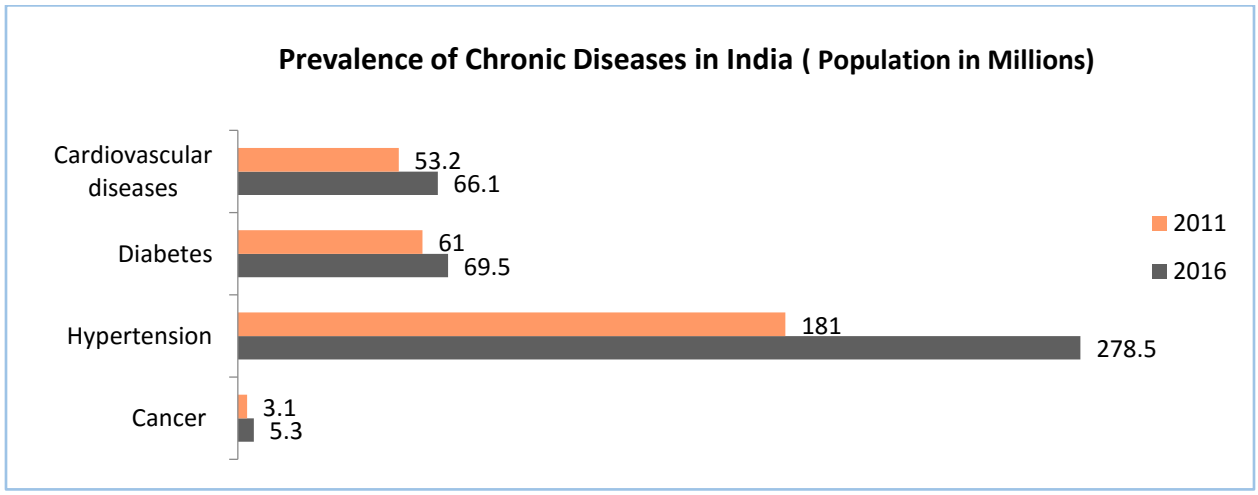


Chart 9- Diseases Profile

- Rising incidence of lifestyle diseases is expected to increase the number of high value treatments (cost of treating lifestyle diseases is ~7x compared to acute diseases), spurring growth in tertiary care hospitals
- Lifestyle diseases have gone up from 16% to 25% of total diseases

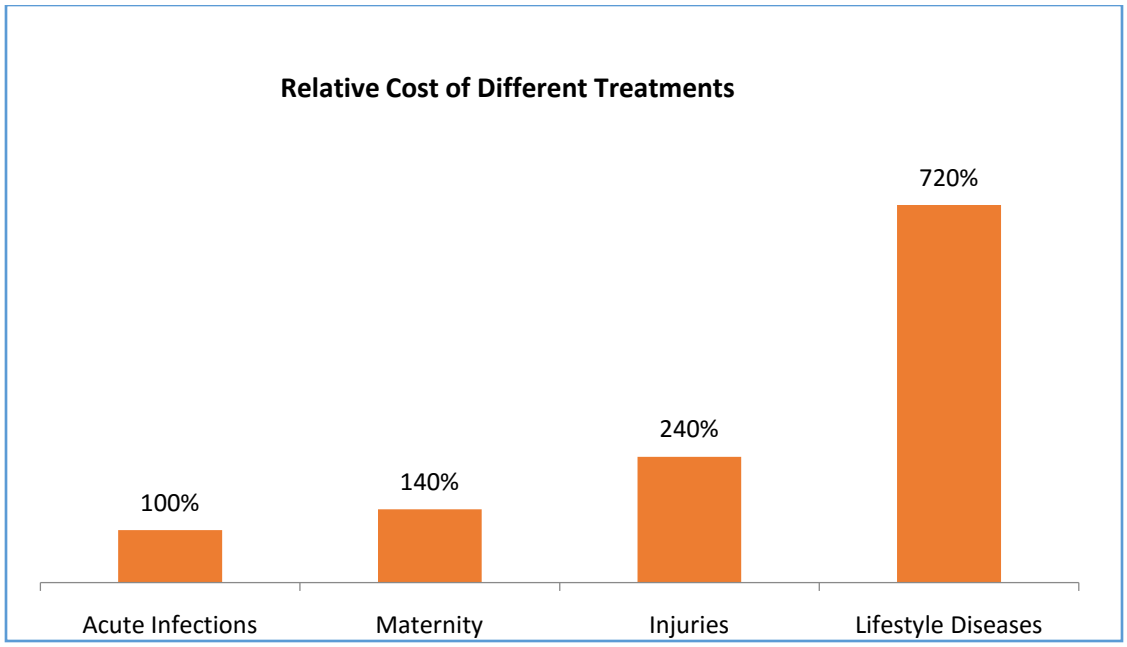


Chart 10- Relative Cost of treatment

Market- Specialty Wise

Cardiac shows the highest growth percentage at 22%, followed by Diabetes with 17%, affecting all the body systems, which in turn contributes to the market size of other specialties as well.

These three specialties namely, Cardiac, Oncology and Diabetes put together are projected to have an average market size of 50%.

Diabetes shows the highest growth percentage at 20% followed by Cardiac with 16%.

	Cardiac	Oncology	Diabetes	Others
2012				
% of hospitalized cases	8.20%	4.90%	3.60%	83.30%
% of market size -~(Revenue)	26.90%	14.80%	4.10%	54.20%
2017 - Projected				
% of hospitalized cases	10%	5.20%	4.20%	80.60%
Growth %	22%	6%	17%	
% of market size (Revenue)	31.20%	15.90%	4.90%	47.90%
Growth %	16%	7%	20%	

Table 1- Market Size of different diseases

Clinical Specialty	Operating Margins	Avg. realization Per Patient (Rs)
Cardiac	25-30%	2,00,000
Orthopedics	25-30%	1,50,000-2,00,000
Oncology	18-20%	70,000-1,00,000
Neurosurgery	16-18%	-

Table 2-Operating Margins Table3- Health Indicators of Maharashtra

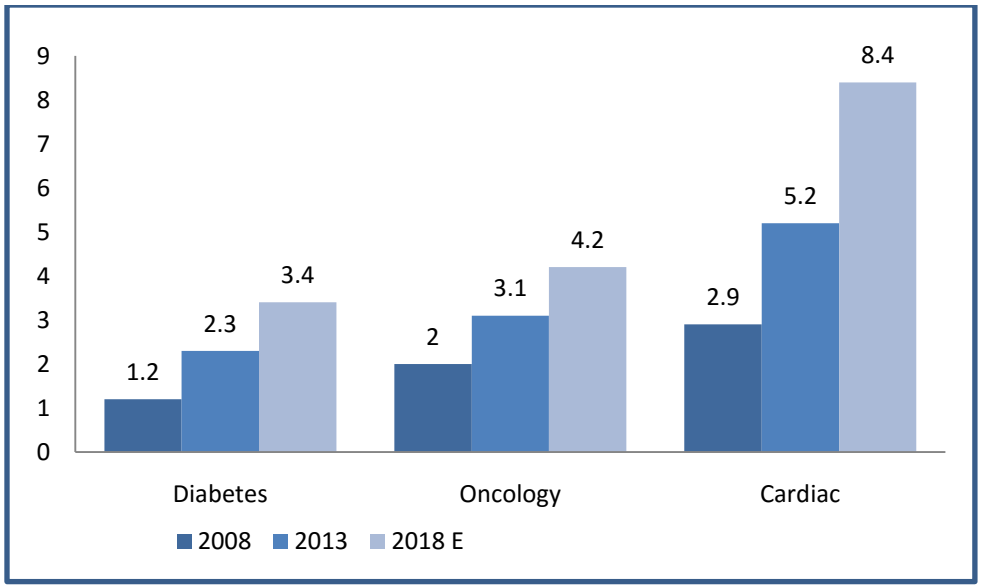
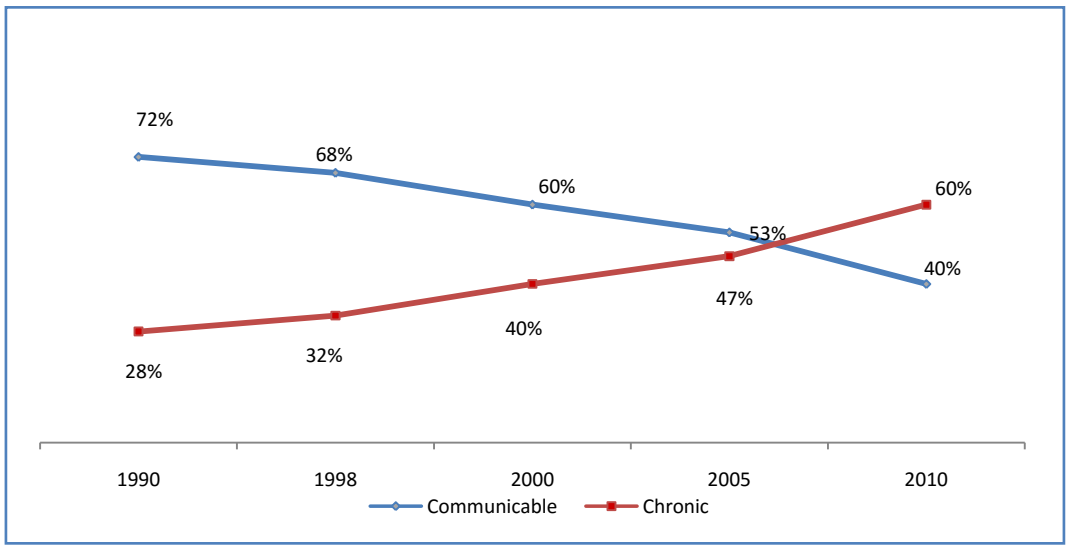


Chart 11- Estimation of different diseases

Number of hospitalized cases (million)

It is estimated around there would be about 8.4 million cardiac cases will be needing hospitalization, similarly there would be increases in Cases of Diabetes and for oncology India has 17% of world population and accounts for 21% of global disease burden

Chart 12- Shift from CD to NCD



Notable Trends in Indian Healthcare

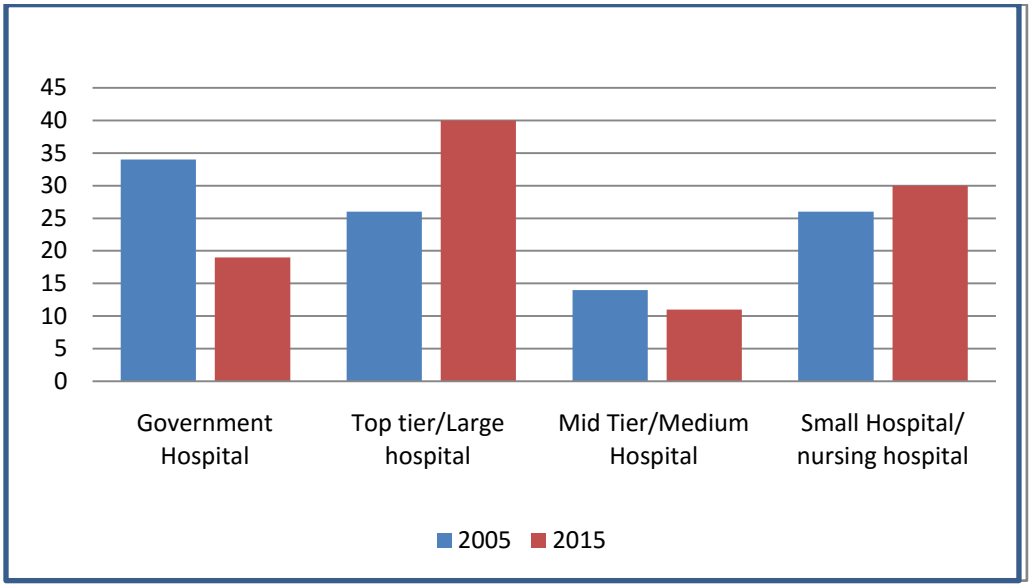
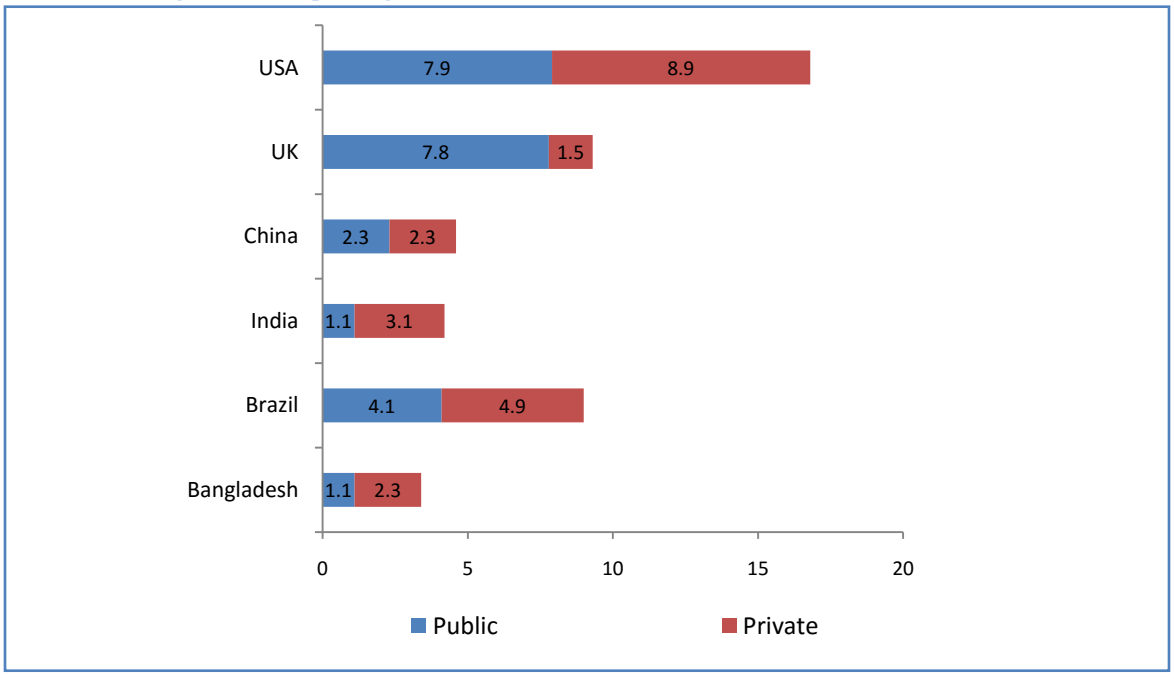


Chart 13- Share of Spending

Share of Healthcare Spending in Hospitals

- In year 2015 share of health care spending was reduce to 19% from 34% In 2005
- So people preferred to go private services provider rather than government
- Percentage of GDP spend on healthcare in India is amongst the lowest across the globe
- Govt. plans to increase spending from 1.1% to 2.5% of GDP from 12th 5 Year plan.
- Approximately 74% of the healthcare spending coming from the private sector.

Chart 14- Share of government spending



5. Brief Overview of Maharashtra and Pune District

Figure 3-Location of Maharashtra

Maharashtra is a state in the western region of India and is India's third-largest state by area and is also the world's second-most populous sub-national entity. It has over 110 million inhabitants and its capital, Mumbai, has a population of approximately 18 million. Nagpur is Maharashtra's second capital as well as winter capital.

Maharashtra's business opportunities along with its potential to offer a higher standard of living attract migrants from all over India. Maharashtra is one of the wealthiest and the most developed states in India, contributing 25% of the country's industrial output and 23.2% of its GDP (2010–11).

As of 2011, the state had a per capita income of 1.0035 lakh (US$1,500), more than the national average of 0.73 lakh (US$1,100). Its GDP per capita crossed the 1.20 lakh (US$1,800) threshold for the first time in 2013, making it one of the richest states in India. However, as of 2014, the GDP per capita reduced to 1.03 lakh (US$1,500) Agriculture and industries are the largest parts of the state's economy. Major industries include chemical products, electrical and non-electrical machinery, textiles, petroleum and allied products.

Maharashtra is one of the richest states of India in terms of per capita net state domestic product (NSDP).

It is also the second largest state in terms of population (11.24 Cr. according to Census 2011) and third in term of geographical area (3.08 Lakh sq. km.)

Maharashtra comes in fourth after Delhi, Haryana and Sikkim when it comes to per capita income. Maharashtra is a highly urbanized state with 45.2 per cent people in urban areas.

The gross state domestic product (GSDP) and gross net domestic product (NSDP) at current prices for 2015-16 was US$ 264 billion growing at CAGR 11.1 %. And US$237 billion growingat CAGR 11.2% respectivelyIndustry and the services sector together contribute about 87.1 per cent of the State’s income while agriculture & allied activities contributes the rest. The tax revenue of the State has increased with an annual average of 15.6 per cent during last seven years. As per India Human Development Report, 2011 Human Development Index of India is 0.467 and State ranks 5th in the country with Human Development Index of 0.572Regional disparity in the state (per capita district income in FY 10)

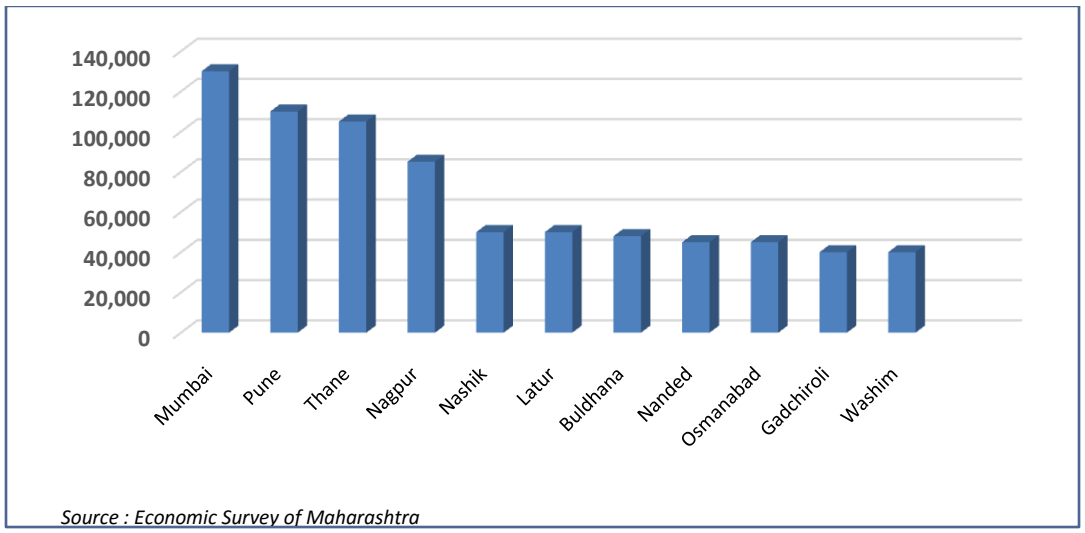


Chart 15 – revenue of different district

Maharashtra – Health Indicator

Basic indicators of Human Development

Comparison of Maharashtra with India on some basic indicators of human development is given below which allows for some broad comparisons.

The major health and demographic indicators of the State like infant mortality rate, maternal mortality ratio, total fertility rate, etc. are much richer than the all India level and reflect a better health status in the State.

Maharashtra has been at the forefront of healthcare development in India.

It is one of the first states to achieve the norms mandated for primary health centre, sub-centre and Rural Hospitals, under the Minimum Needs Program

Health Indicator	India	Maharashtra
Total Population (In crore) (Census 2011)	121.01	11.2
Decadal Growth (%) (Census 2011)	17.64	15.99
Infant Mortality Rate (SRS 2013)	40	24
Maternal Mortality Rate (SRS 2010-12)	178	87
Total Fertility Rate (SRS 2012)	2.4	1.8
Crude Birth Rate (SRS 2013)	21.4	16.5
Crude Death Rate (SRS 20103)	7	6.2
Natural Growth Rate (SRS 2013)	14.4	10.2
Sex Ratio (Census 2011)	940	925
Child Sex Ratio (Census 2011)	914	883
Total Literacy Rate (%) (Census 2001)	74.04	82.91

Table 4 health Indicator of Maharashtra

Health Infrastructure:

Particulars	Required	In position	Shortfall
Sub-centre	12153	10579	1574
Primary Health Centre	1984	1816	168
Community Health Centre	496	407	89
Multipurpose worker (Female)/ANM	12395	12027	368
Health Worker (Male) at Sub Centres	10579	9956	623
Health Assistant (Female)/LHV at PHCs	1816	3323	-
Health Assistant (Male) at PHCs	1816	3182	-
Doctor at PHCs	1816	1191	625
Obstetricians & Gynaecologists at CHCs	407	143	264
Physicians at CHCs	407	41	366
Paediatricians at CHCs	407	99	308
Total specialists at CHCs	1628	352	1276
Radiographers	407	294	113
Pharmacist	2223	1976	247
Laboratory Technicians	2223	769	1454
Nurse/Midwife	4665	6150	-

Table 5- Health Infrastructure in Maharashtra

Pune District

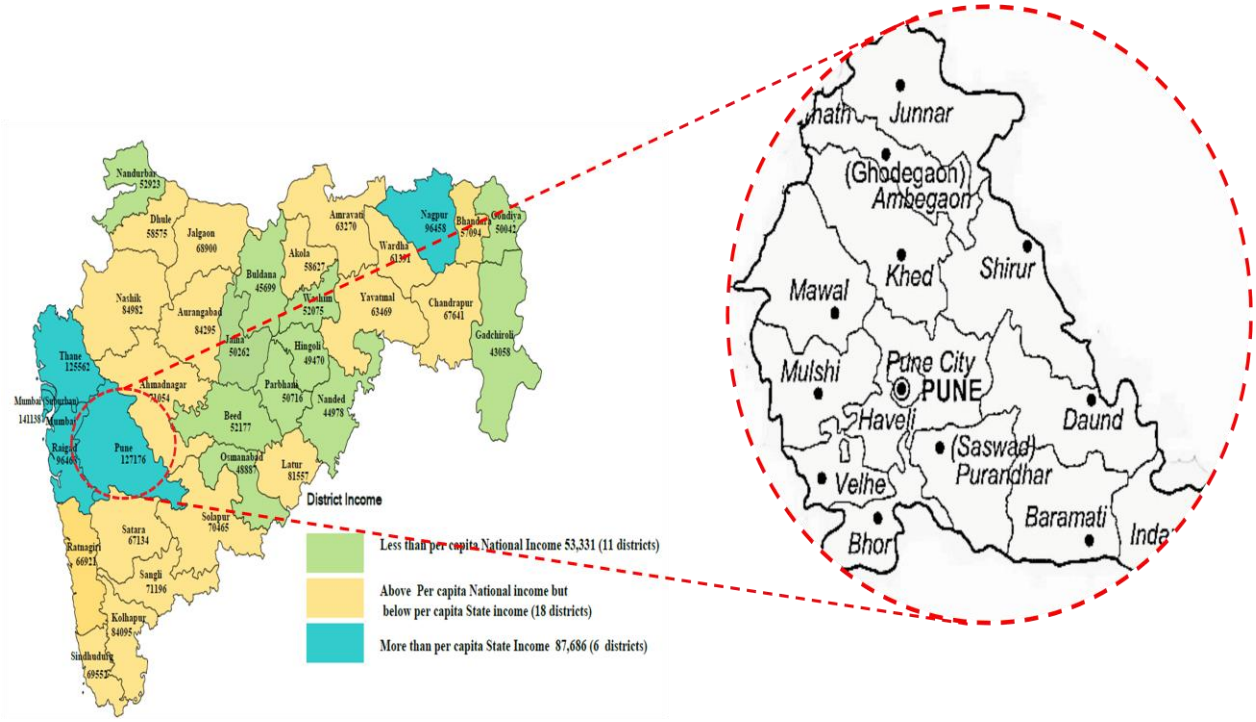


Figure 4-Pune District Location in Maharashtra

Based on the report by the Planning Department, Government of Maharashtra, Per capita Income of Pune District is higher than the per capita State Income

Situated in the Western Ghats, Pune is bounded by Thane district to the northwest, Raigad district to the west, Satara district to the south, Solapur district to the southeast, and Ahmednagar district to the north and northeast. The district covers 14 talukas& 13 PanchayatSamitis. There are around 1,866 villages in the district.

The talukas in Pune are listed as as, Pune, Daund, Baramati, Bhor, Indapur, Velhe, Purandar, Shirur, Ambegaon, Khed, Junnar, Mulshi and Haveli.

Pune District		
Description	**2011**	**2001**
Actual Population	9,429,408	7,232,555
Population Growth	30.37%	30.73%
Area Sq. Km	15,643	15,643
Density/km2	603	462
Proportion to Maharashtra Population	8.39%	7.47%
Sex Ratio (Per 1000)	915	919
Average Literacy	86.15	80.45

Table 6- Demographic Profile of Pune District

Pune is the third most highly populated district in Maharashtra next to Mumbai and Thane and the ninth most populated city in India as stated in Census 2011.

The decadal growth rate has slightly reduced during the last decade, but the proportion of Pune district population to Maharashtra state population has increased. This implies that there has been an inflow of population in Pune district.

The average per capita income of residents of Pune district is Rs1.40 lakh Vis a Vis average per capita income of the state is Rs 95,339 per month and of Mumbai at Rs 1.51 lakh per month. This shows the high earning and spending capacity of the people living in Pune.(Year: 2011-12)

The decadal growth rate has slightly reduced in the last decade, but the proportion of Pune district population to Maharashtra state population has increased suggesting inflow of population in Pune district.

6. Pimpri-Chinchwad

Overview

PimpriChinchwad and Pune is twin and ultra vibrating city which are part of Pune Metropolitan CityIt is one of the largest industrial hub of India and second largest industrial destination after Mumbai which is first place which is often called as “Detroit of East”.Pune including PimpriChinchwad houses various higher education institute as well as world renowned university and often called as “Oxford of East”Pimpri –Chinchwad is fifth most populated city in Maharashtra Efforts are been initiated by Government to include PimpriChinchwad in to future Smart cities It houses more than 4000 industrial units compromising of large medium and small units which has many Multinational Corporation and Organisation. With large number of MNC operating in this area, Development of good infrastructure and residential project has spelt people from various part of Maharashtra and India to migrate here.PimpriChinchwad has planneddevelopment which is of Distinctive advantage in term of water electricity greenery in comparison to Pune Accessibility to the Technology Park (Talawade), IT sector (Hinjewadi) and other industrial areas (Talegaon) has propel the real estate growth in Pimpri-Chinchwad and nearby areas. The JNNURM award for Best Performing City under Sub-Mission for Urban Infrastructure and Governance was given to Pimpri-ChinchwadGrowth in the software and education sectors has led to an influx of skilled labor in Pimpri-Chichwad from across India increasing demand for real estate Market

Pimpri –Chinchwad	2011
Actual Population	17,29,692
Population Growth (Decadal)	~22%
Area Sq. Km	171.29
Density/km2	10000
Urban agglomeration population	17,29,692
Sex Ratio (Per 1000)	905
Average Literacy	87.19 %

Table 7-Demographic Profile of PCMC

Social –Demographical Profile

PimpriChinchwad along with Chakan andTalegoan are situated in the north of Pune city

The main localities in PCMC are Pimpri, Chinchwad, Akurdi, Nigdi, Moshi, Pradhikaran andBhosari.

The current population estimated of PimpriChichwad is approximately 21.85 Lakh with almost half million households.

Due to increase in job opportunities, improved lifestyle, and number of Industrial growth, the urban agglomeration population of PCMC has raised from 10,12,472 (2001 census) to 17,29,692 (2011 census), amounting for a 41.28% rise in 10 years and has Literacy rate of 87.19%

As per 2011 census population of PimpriChinchwad is 17, 29,000 souls growing at a rate of 6% annually, with a national average of 2.1%

A high level of employment has pushed residential development in Bhosari, Moshi and Chikli which is attracting many middle income group population and some well known property developers started residential project in this region.

Chakan mainly has Low income population while Talegoan has predominated consist of mixed of middle as well as low income group.

Pradhikaran is suburban part of Nigdi is a planned township has interest of High income group population particularly people having business in and around PimpriChinchwad area

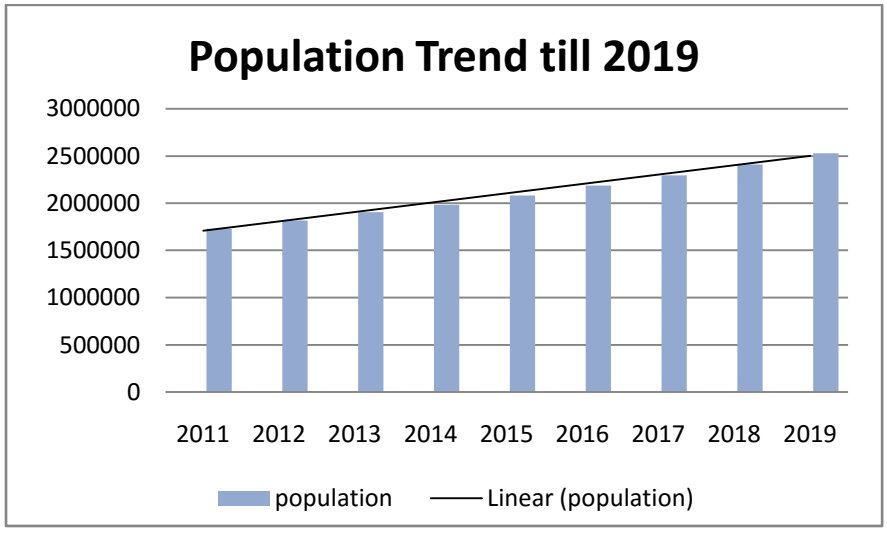


Chart 16-Population Trend of PCMC

Geographical connectivity

PimpriChinchwad is situated in Deccan Plateau in Northern western part of Pune

Nearest city to Pimpri and Chinchwad is Pune which id located about 15km from it and Major metro city of Bombay is Just 163 km away

PimpriChichwad is very well connected through Mumbai Pune Express way

PimpriChinchwad is well connected with air road and rail ways

Railways

PimpriChinchwad is well connected to Mumbai and Pune with Broad gauge railway and has direct connectivity to Nasik Mumbai Bangalore etc

The main railway stations for this area are Chinchwad Railway Station, Akurdi Railway Station and Pimpri Railway Station

Road

Accessibility by road is one of the major advantages for its development.

PimpriChinchwad is located at the Confluence NH-4 Mumbai Bangalore highway and NH 50 Pune Nasik highway

In fact PCMC is boasting of an extensive highway network to Mumbai Nasik Nagpur Bangalore etc

Air

Pune international airport is located at 20 km from PimpriChinchwad which has direct connectivity to Metro city as well as to Dubai and Singapore

A new international airport is purposed near Chakan which is about 25km from PCMC

Health Profile

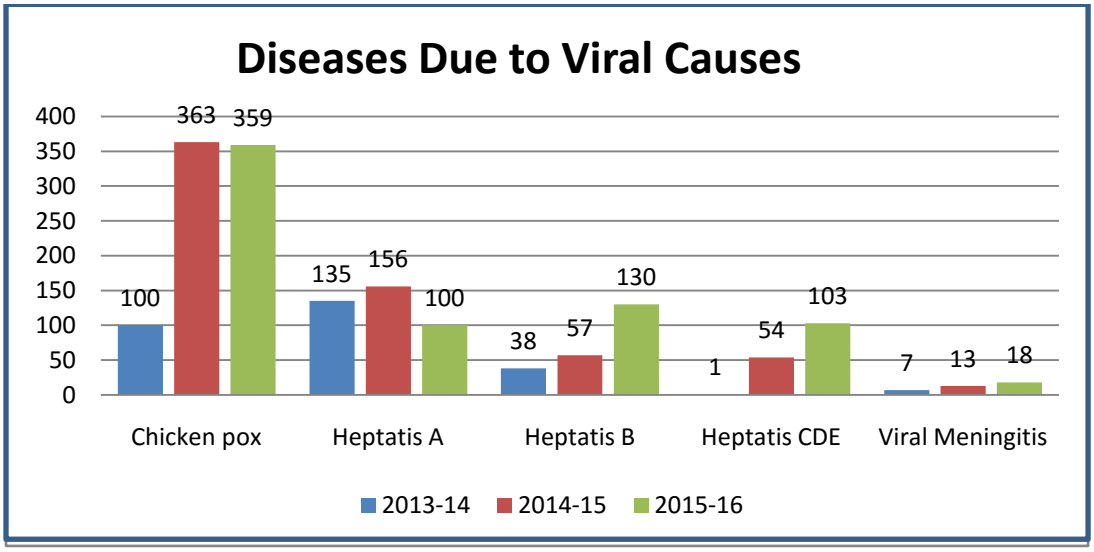


Chart 17- Diseases profile

Last year about 130 cases of Hepatitis B reported in PCMC where as 103 combined cases of hepatitis C, D, and E were Reported Cases of Viral Hepatitis are on gradual rise increasing at 50% per year there is sporadic rise of Chickenpox cases where about 350 cases are reported since last two years

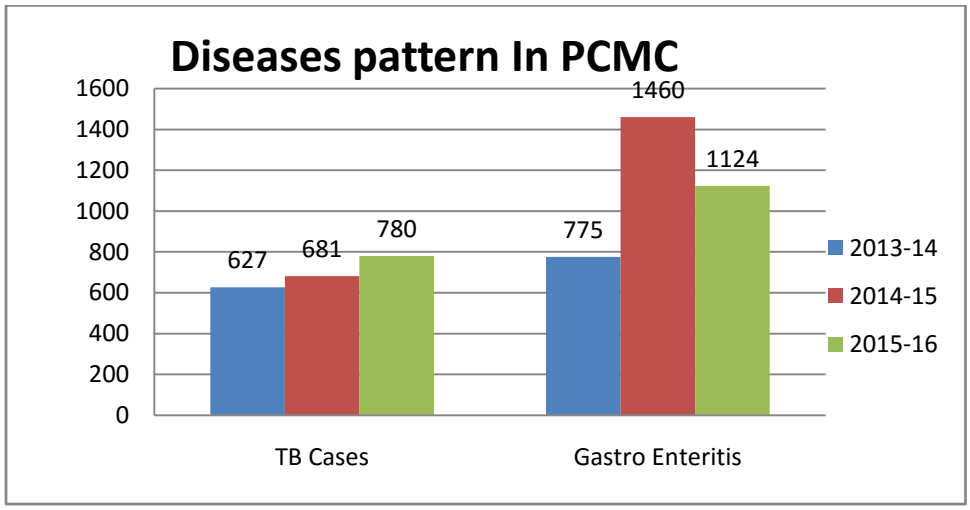


Chart 18- Diseases pattern

There is gradual increases in cases of TB which implies that government run TB programs are not implemented properlyAbout 780 cases of TB were found About 1124 cases of gastroenteritis were reported in PCMC which were less than previous year

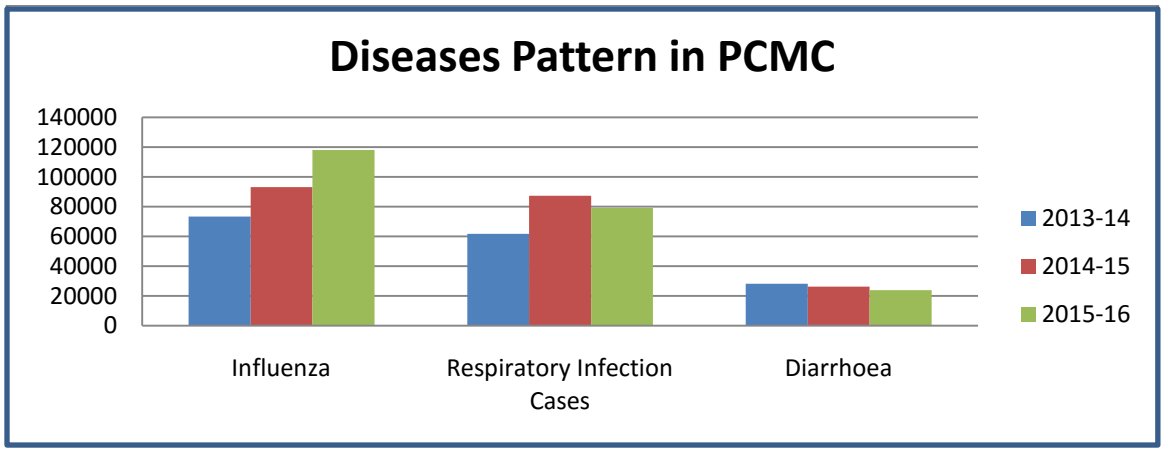


Chart 19- Diseases Pattern

There is Increase in no of Cases of Influenza infection where about 120 thousand cases were reportedwhereas there was a decrease in cases of Diarrhea and Respiratory infection cases

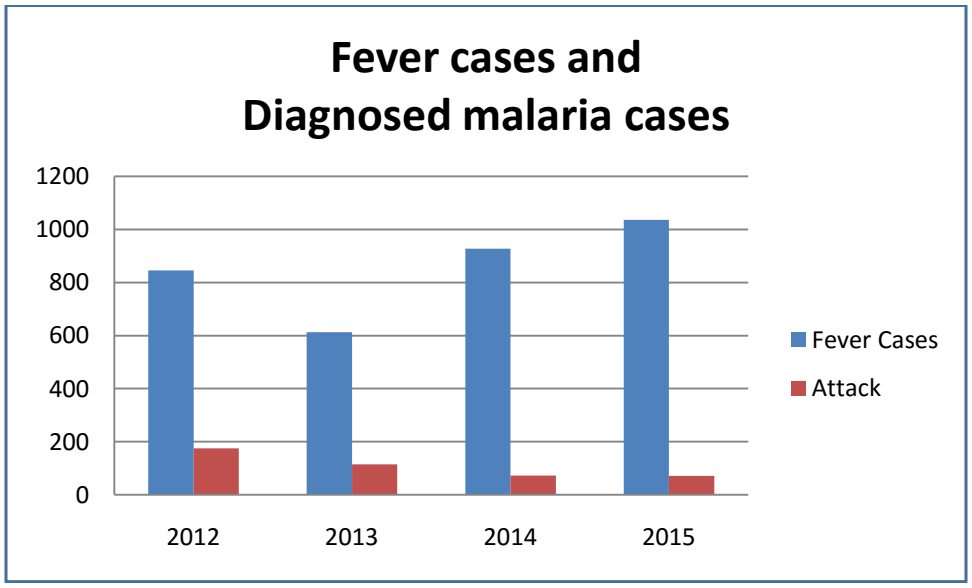


Chart 20- Cases of fever and malaria Cases

From 2013 to 2015 there are increases in number of fever cases reported to PCMC

In year 2015 around 1 lac cases were reported but there is decreases in number of positive cases of malaria where only 71 positive cases were found in 2015

Major Hospital in Pune and PimpriChinchwad

Serial no.	Name	Location	No of bed	Specialty
1	YeshwantraoChavan Memorial hospital	Pimpri	750	Government
2	Aditya Birla Marg,	Chichwad	200	Multispecialty
3	Niramaya Hospital	Chinchwad	110	Multispecialty
4	Lokmanya Hospital	Nigdi	100	Multispecialty
5	Lokmanya Hospital	Chichwad	110	Orthopedics
6	Sterling Multispecialty Hospital	Pradhikaran	110	Multispecialty
7	Life point Multispecialty Hospital	Wakad	100	Multispecialty
8	Unique Child Hospital	Chinchwad	60	Pediatric
9	Max Neuro hospital	KasarwadiPimpri	51	Neurology
10	Star Hospital	Akurdi	50	Multispeciality
11	Dhanashree Hospital	Chinchwad	50	Multispeciality
12	Vataslya mother	Bhosari	45	Gaynaec
13	Chaitanya hospital	Chinchwad	40	Multispecialty
14	Dhanwantari Hospital	Nigdi	30	Multispecialty
15	Unique Multispecialty Hospital	Ravet	30	Multispecialty

Table 8-Major Hospital in PCMC

Hospital Bed Profile

Healthcare service delivery in the city reveals uneven distribution of bed strength and workload

There are in all 404 private hospitals which have total 7590 bed including 1300 bedded private teaching hospital

Majority of hospitals are small Nursing homes consisting of 15 to 25 beds which consist of 88% of total of 413 hospitals but contribute only 37 % of total beds available

While there are in total 33 hospitals whose bed strength is between 25 to 75 beds contributing about 15 % of bed available.

There about 13 big hospitals whose bed strength is more than 100 contribute 43 % of total bed available in PCMC

Hospital bed	No. of Hospital	Total bed	% Share of hospital	% Share of beds
0-25	362	3509	88	37
26-50	26	927	6	10
51-75	7	446	2	5
76-100	5	485	1	5
100<	13	4028	3	43
Total	**413**	**9395**	**100**	**100**

Table 9 –Bed Strength

Table 10-Government Bed Strength

Health Facilities in PimpriChinchwadMunicipal	**No. of hospitals**	**No. of Beds**
Municipal tertiary care	1	750
Municipal Hospital	7	525
Municipal Dispensary	26	-
Polyclinic	7	-
Total		1275

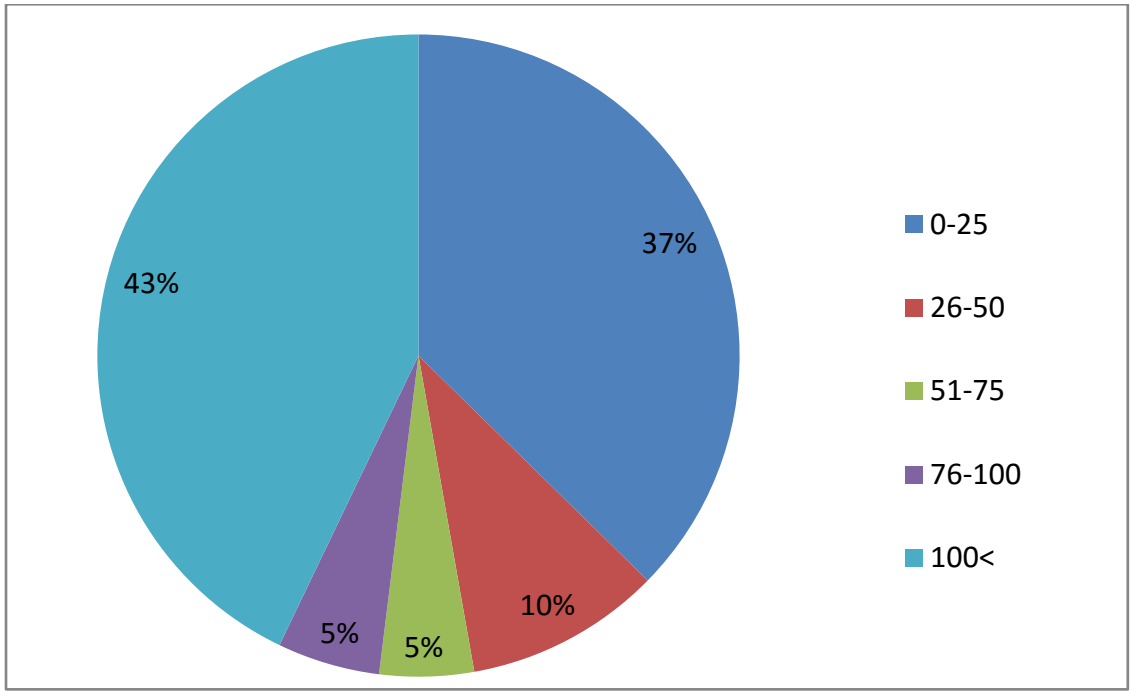


Chart 21- Percent Share of Hospitals

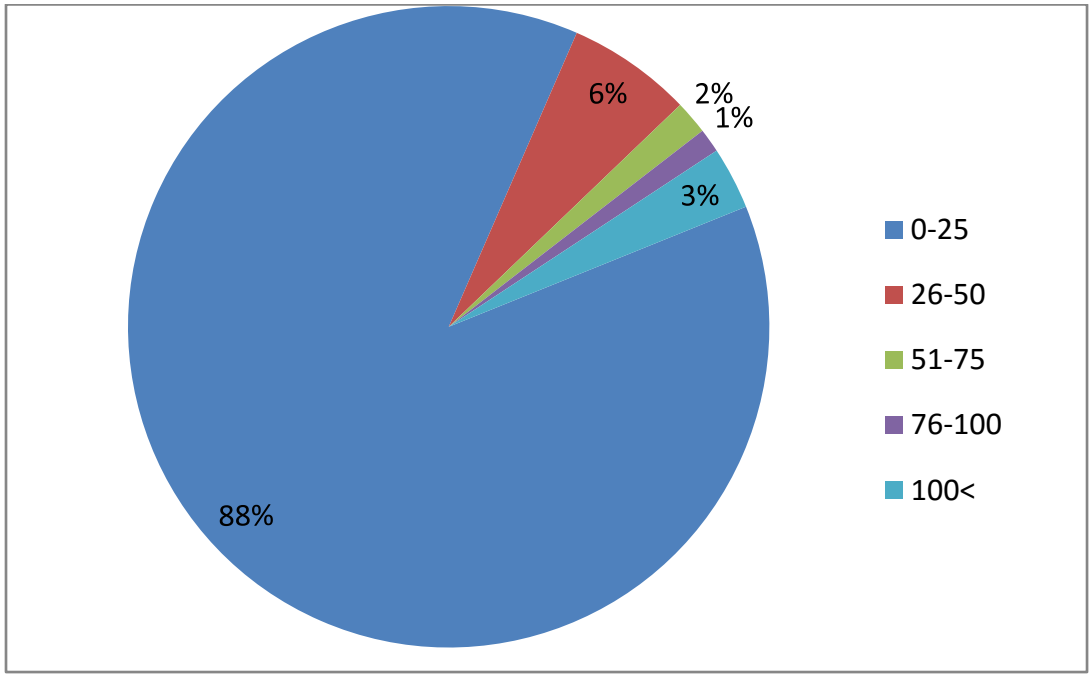


Chart 22- Percent Share of Beds

Drainage Area

Figure 5- Drainage Area of PCMC

Places	2001	2011	2016(E)
Primary catchment			
Pcmc	1012472	1727472	2101734
Secondary Catchment			
haveli	636379	707884	743993
Khed	343214	450116	473076
Maval	305083	377559	396818
Mulshi	127385	171006	179729
Shirur	310590	385414	405074
Total			2198691

Table 11– Population of PCMC and Surrounding Talukas

PimpriChinchwad has good number of multispecialty hospital with better facilities and services for the Surrounding talukas and tehsils, providing services across service levels and categories. As per the survey conducted by Hosmac with leading hospitals and consultants, more than 20-25% of the patients availing treatment are from surrounding areas and towns because of the better medical infrastructure and services.

Bed Deficit

Hospital Beds Statistics – PimpriChinchwad

PimpriChinchwad has a medium catchment area with a radius of 70-80 km due to presence of better health facilities

The hospital beds have to cater to the workload of population in the City and rural population of surrounding tehsil and talukas

The city hospitals are also catering to patients coming from surrounding geography, likeKhed, MulshiMalwa and ShirurTalukas.

Many employees of industrial factories in surrounding area likeChakan and Talegaon travel to PCMC for availing treatment

There is an additional requirement of at least over 1211 beds to cater to the dependant population

PimpriChinchwad City	
Population of PimpriChinchwad city-2016(Estimated)	**2,10,1734**
Total no. of hospital beds (Private including Teaching hospital)	9,395
Primary Catchment Area	**21,01,734**
Secondary Catchment Area(~20% of the population from the neighboring districts and towns)	5,49,673
Total Catchment Population	26,51,407
No. of beds required as per WHO norm of 4 bed per 1000 population	10,606
Bed deficit	1211

Table 12-Calculated Bed Deficit

Key Issues in Healthcare

PimpriChinchwad has a wide catchment area due to presence of better health facilities thereby attracting patients from surrounding Tehsil and Talukas

Patients residing in surrounding villages from poor socio-economic status are dependent on public health care facilities thereby increasing the service load on public facilities

Even, Urban poor who pay out-of-pocket for availing healthcare facilities depends on public or charitable hospital to large extent

It is extremely important to improve the services of Public hospitals and increase the bed strength of charitable hospitals since they are accessed by urban poor

Although the healthcare infrastructure has improved within the city, unequal distribution of hospitals has increased the burden on city hospitalsthe subsidy programs for urban poor needs to be strengthened to make critical and super specialty services affordable in private hospitals

Healthcare market dynamics

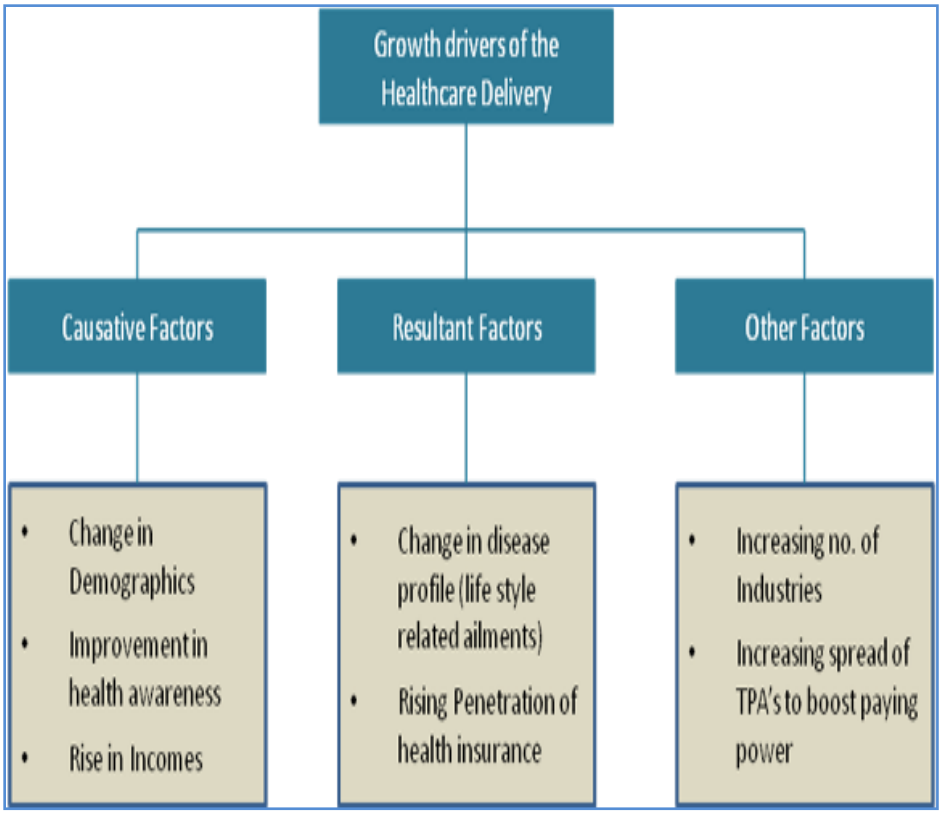
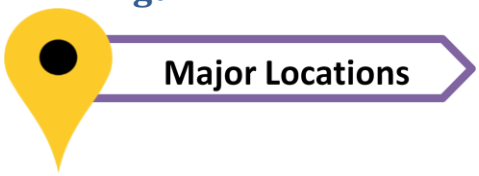


Figure 6 – Healthcare Dynamic

7. Nigdi



Nigdi is Major Suburban town in PimpriChinchwad Municipal Corporation.

It falls on Northwestern part of Pune

Part of Nigdi is fall in Pradhikaran which is planned township of PCMC

Nigdi is well connected with road and rail to Pune and Mumbai

It located on old Mumbai Pune Highway and new express way is just five kilometer from Nigdi

Nigdi is well connected with two railway station namely Akurdi and Chinchwad railway Station

Nigdi is well connected with Pune via BRTS and PMPML Bus System

Hospital Name	Type	Location	Beds
Lokmanya hospital	Multispecialty	Nigdi	100
Sterling Hospital	Multispecialty	Nigdi	100
Star Hospital	Multispecialty	Akurdi	55
Dhanvantri Hospital	Multispecialty	Nigdi	30

Table 13- Major Hospital in Nigdi

Nigdi and surrounding area has large number of industrial unit setup

Major automobile maker Bajaj has its manufacturing plant in Yammunanagar area of Nigdi

Automobile maker like TATA, Force motor are located in Akurdi which is 2km away from Nigdi

Major industrial town such as ChakanTalegaonhas various automobile and other factories is located about 10 to 12 km from Nigdi

Hinjewadi which has many offices of Big IT Companies is Located about 7km from Nigdi

Since major industries are located in surrounding area such as Akurdi, ChichwadPimprietc,Nigdi is one of major suburban town with less industrial factories

Its is one of prime location for residential in PCMC

Major part of Nigdi fall in Pradhikaran which is Planned Township developed by PCMC

Pradhikaran compromise of luxurious residential project and bungalows which houses majority of executives and senior executives of this industrial factories and people having business interest in PCMC Area

According to ICICI property report 2016, Nigdi is one of most developing residential location in PCMC area which have mixed population of high as well as middle income group

The fact that a number of large international companies are operating in nearby Chakan, has in fact, been a primary criterion for the area's development profile.

Nigdi has good Healthcare as well as Educational facilities and houses good eateries and restaurant

Location Analysis- Nigdi

	Nigdi	Akurdi	Pimpri	Chinchwad	Ravet	Talawade	Bhosari	Thergaon
Location	East	East	Central	Central	East	North	West	South
Infrastructure (connectivity, roads, markets, schools)								
Residential Cost								
Proximity to Commercial Development								
Future Infrastructure Development								
Future Employment Generation								
Health care Centers								

	Good/Low Cost
	Above Average
	Average/ Medium Cost
	Below Average
	Bad / High Cost

Figure 7- Location analysis of Nigdi in Comparison to PCMC

Nigdi comes on the east part of PCMC area. Nigdi has above average infrastructure in terns of roads market and schools. It is also well connected to the Pimpri&Chinchwad

However, much of development has been taken place in Pimpri&ChinchwadLocalities;Nigdi is next upcoming town for Development in term of Residential area. It is a part of Pradhikaran, which is planned township of PCMC

Nigdi does not have high Residential Cast when compared with Pimpri and Chinchwad and its residential population compromise of upper and middle class population.

Its proximity to Commercials development and Healthcare centers give this area an added advantage

Advantage – Nigdi

Nigdi has various advantages in comparison with neighboring locality like AkurdiTalawadeBhosariRavet in term of infrastructure, connectivity and future development.

Nigdi has good mix of Middle and high income population majority of them are middle level executives and family having business interest in PimpriChinchwad region.

Its is a part of Pradhikaran which is planned township which composed of Bungalows and multistory residential complexes

The residential cost is affordable to middle income service class population and is low as compared to Chinchwad and Pimpri

Nigdi is well-connected to Pune by road as buses of PMPML leaves to Pune from its Nigdi terminal

Nigdi is located on old Mumbai Pune highway and express way is just five km from here

Akurdi and Chinchwad railway station are located near Nigdi

8. Market survey and Data Analysis

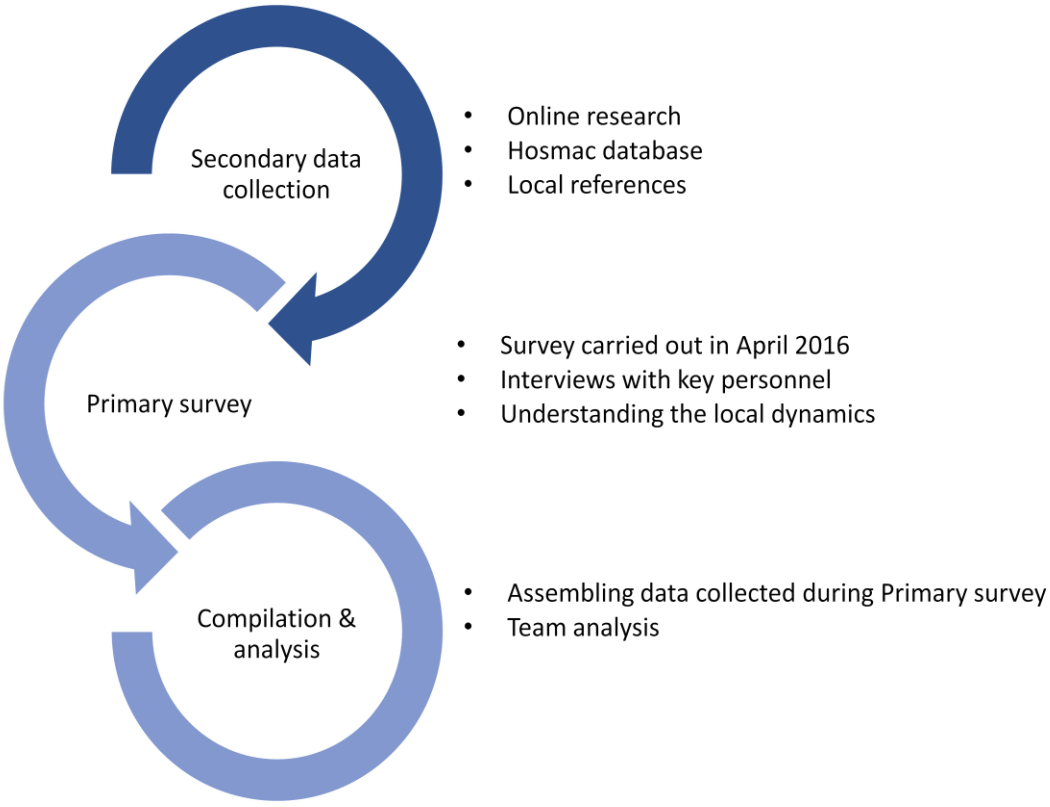


Figure 8-Marker assessment step

For the research purpose data was collected through primary and secondary method

Secondary data was collected through online research, company database local references as well as various article and journal publish related to the topics

Primary data was collected in an market survey which was conducted from 27th to 29th April 2016 in the at proposed location Interview of key personnel like hospital administrator and consultant were conducted to understand local healthcare dynamics and need of that area in relation to the proposed hospital

After the survey data was assembled and team analysis of primary and secondary data was done and conclusion and recommendation were then inferred from the data analyzed

Type of Stakeholders Interviewed

- Date of Market Survey

27th April to 29th April, 2016

Data Analysis

- Content Analysis of both primary and secondary data was used to generate perspectives on the healthcare dynamics of PimpriChichwad.
- These perspectives were used to prescribe the facility mix for the proposed hospital

Primary Market Survey

- Various hospital administrators from different hospitals and consultants from diverse clinical specialties practicing in prominent hospitals of Pune were selected for interviews using a semi-structured questionnaire
- The objective of the interview was to understand the dynamics of the healthcare industry in PimpriChinchwad.
- Administrators from hospitals like, etc were interviewed
- Practicing consultants from hospitals like etc were interviewed
- Private nursing home and individual consultants from PimpriChinchwad were also interviewed for the survey

S No	Name of the Hospital/Clinic	Contact person	Designation	Area	Type of Hospital/Clinic
1	Aditya Birla Hospital	Dr. RekhaDubey	Administrative Officer	Chichwad	Private Hospital
2	Nirmaya Hospital	CMO	CMO	Chinchwad	Private Hospital
3	ChaitanyaMultispeciality Hospital	Mrs. Minal Joshi	Administrative Officer	Chinchwad	Private Hospital
4	Star Hospital	Dr. Archana	Administrative Officer	Chichwad	Private Hospital
5	Morya Hospital	Mr. Banerjee	Administrative Officer	Chichwad	Private hospital
6	Dhanwantri Hospital	Dr. Aditi	Administrative Officer	Nigdi ,Pune	Private hospital
7	Dhanshree Hospital	NileshKshirasagar	CAO	NidgiPune	Private Hospital
8	Unique Multispeciality Hospital		Administrative Officer	NigdiPune	Private hospital
9	Unique Multispeciality Hospital	MangeshKadam	Hospital Supervisor	Ravet , Pimpri	Private Hospital
10	Sterling Hospital	Dr.M.M. Naikwadi	Corporate marketing	Chinchwad	Private Hospital
11	Lokmanya hospital	Dr. Visual	CMO, Casualty	Chinchwad	Private Hospital
12	Lokmanya Hospital	Dr. Abhijit	CMO	Nigdi ,Pune	Private Hospital
13	Dr. RavindraPatil	Dr. RavindraPatil	Neurosurgeon	Pimpri	Private Hospital
14	Dr. Ravi Kant	Dr. Ravi Kant	General Medicine	Chinchwad	Private Hospital
15	Dr. SwapnilBhokre	Dr. SwapnilBhokre	Neonatologist	Thergaon	Private Hospital
16	Dr. Ganesh Prabhu	Dr. Ganesh Prabhu	Intensivist	Pimple Saudgar	Private Hospital
17	Avanti Nursing Home	Dr. Santoshlatkar	ENT	Pimpri	Private Hospital
18	Dr. Bhise's Clinic	Dr. KiranBhise	MS (Surgery)	Nigdi ,Pune	Private Hospital
19	Dr. PravinSalunke	Dr. PravinSalunke	Gastroenterologist	Pimpri	Private Clinic
20	Dr. Govind S. Shiddapur	Dr. Govind S. Shiddapur	Consulting physician	Nigdi ,Pune	Private Clinic
21	Dr. JayprakashGirme	Dr. JayprakashGirme	Consulting Surgeon	Nigdi ,Pune	Private Clinic
22	Dr. ShashikalaRanna	Dr. ShashikalaRanna	Gynecologist	Nigdi ,Pune	Private Clinic
23	Dr. AnirudhToangoankar	Dr. AnirudhToangoankar	Cardiologist	Chinchwad	Private Clinic
24	Dr. NitinGade	Dr. NitinGade	Diabetologist	Chichwad	Private clinic
25	Dr. PrashantTonape	Dr. PrashantTonape	Orthopaedic Surgeon	Nigdi ,Pune	Private Clinic
26	Dr. MukeshPhalak	Dr. MukeshPhalak	Orthopaedic Surgeon	Nigdi ,Pune	Private Hospital
27	Dr. Bharti Nikhil Hiramat	Dr. Bharti Nikhil Hiramat	Gynecologist	Nigdi Pune	Private Hospital

Table 14–Hospitals and Consultant Surveyed

Key personnel Analysis

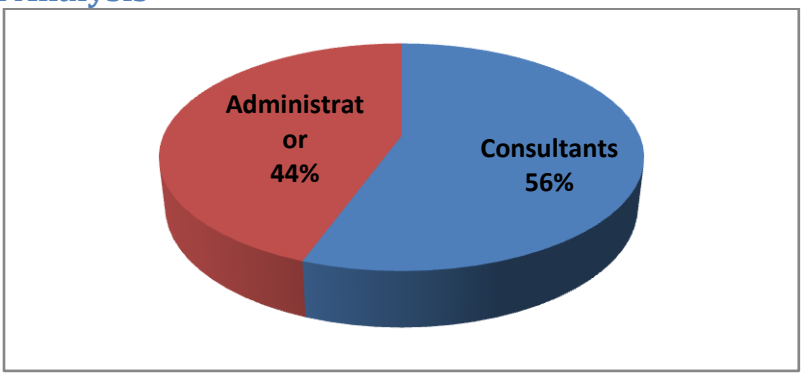


Chart 23-Key Personnel Analysis

- The survey had an equal representation of stakeholders in the health care industry.
- The type of facility included in our survey included the Private Hospitals, visiting Consultant and Consultant having Private Clinic
- The hospitals were surveyed on various operational and financial parameters to understand the health care dynamics
- Consultants from all specialty and super specialty were interviewed to get a wider insight into healthcare market.

Drainage Area

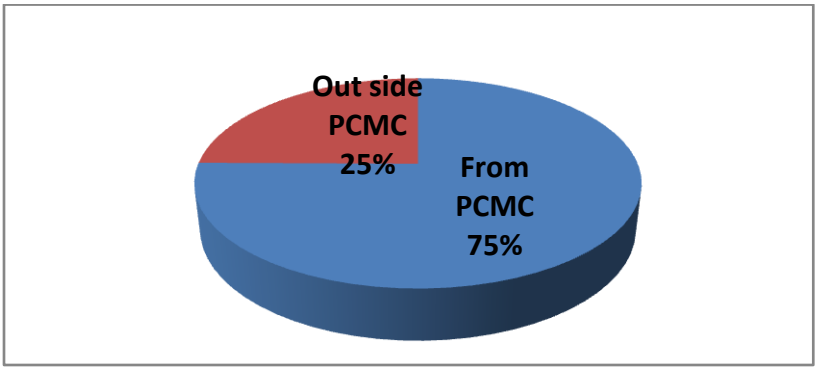


Chart 24- Drainage Area

- During survey about two third patient availing treatment were from PimpriChinchwad area
- An out a quarter of the patient were coming from near by area of TalegaonChakan, Alandi , Dehu Road and From Pune express way
- This indicate that people from adjacent area prefer Hospitals in PCMC than Government facilities of Pune due over crowding and lack of Quality care

Socio-Economic Status

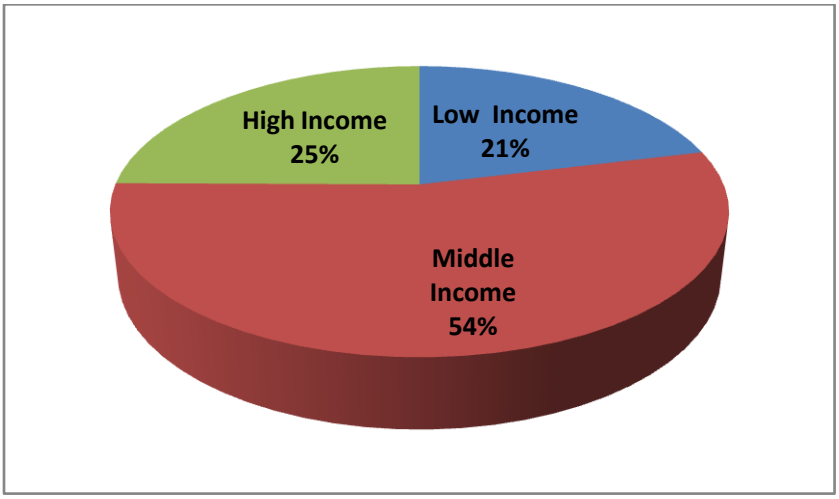


Chart 25- Socio-Economic Status

The socio-economic condition of the service area is important criteria to assess the market and identify the target population group; understand their paying capacity and design the bed-mix and tariff structure for the proposed hospital according to the demand-supply gap

- As seen from the chart, majority population (i.e. 58%) availing healthcare facilities belong to the moderate income group mainly from IT and executive class from many offices and industrial setting
- The moderate and high income group together comprises around 86% of the total population indicating that majority of patients can afford quality healthcare services
- Newer players trying to establish itself in the existing market need to position itself with an objective of targeting this elite clientele.

Willingness to spend on healthcare

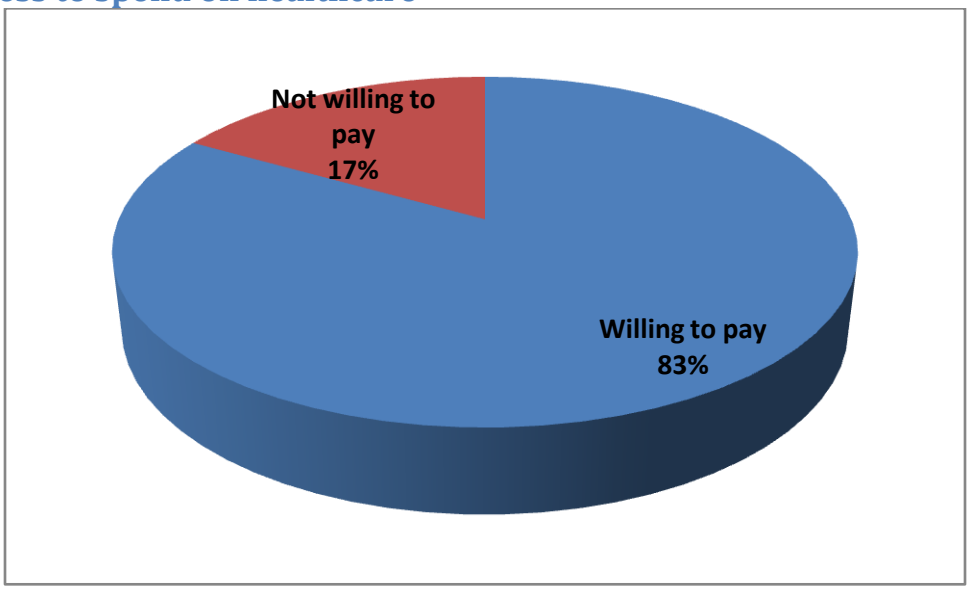


Chart 26-Willingness to Spend

- Consultants and administrator interviewed suggested that more than 4/5th of their total patients (i.e. 83%) were willing to spend on healthcare facilities provided quality treatment is provided which par with other facilities
- This is an important criterion for any new entrant in the existing healthcare market
- Less than 1/5th patients (i.e. 17%) that the consultants treated were not too keen to spend on health

Mode of Payment

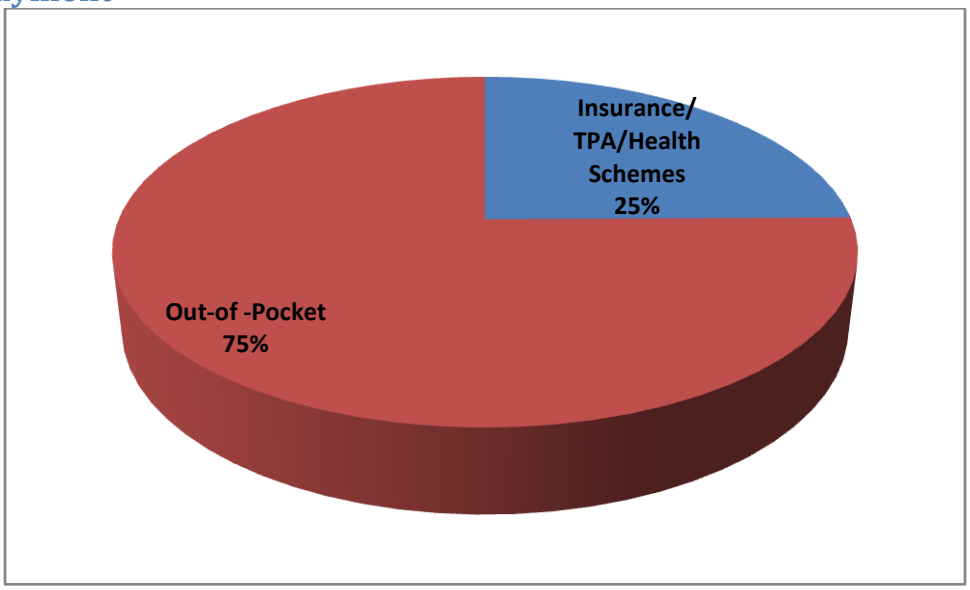


Chart 27- Mode of payment

- The preferred mode of payment for a majority of the population (i.e. 75%) continues to be out-of-pocket expenditure. This shall improve cash flow of the hospital and reduce credit patients, which is advantageous for any new facility
- Nearly 24% of the patients visiting private hospitals make payments through TPAs and insurance schemes
- As Multinational companies have there offices in this region new player can consider for cooperate tie up for availing health services to their employees
- The percentage ratio of insurance patients is higher as compared to other cities indicating good market penetration by the insurance companies

Factors Influencing Selection Criterion for referring hospitals

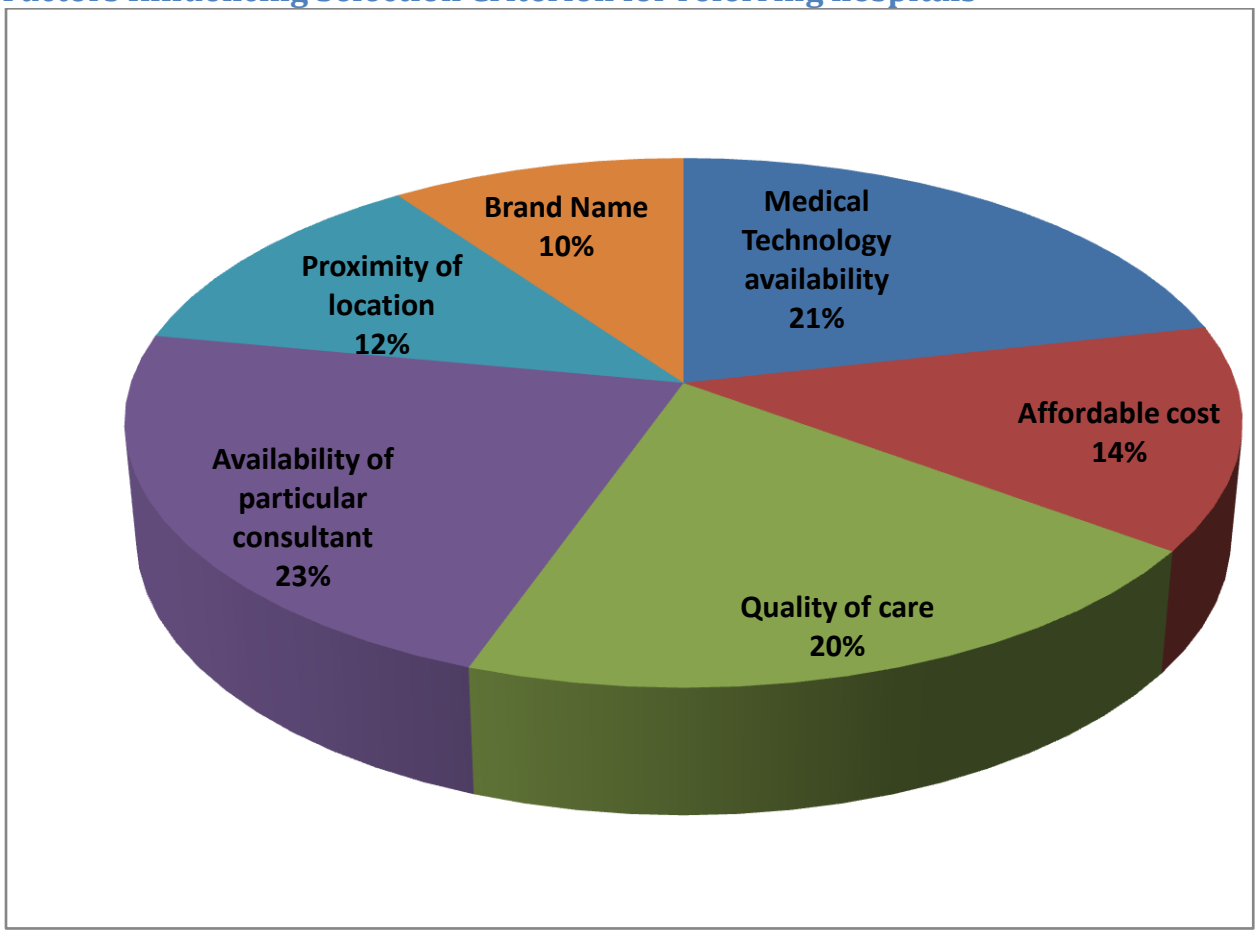


Chart 28-Factors Influencing Selection Criterion for referring hospitals

- Interview with Consultant and Doctors suggested to availability of medical infrastructure and availability of particular well known consultant in the hospital are the most important factor for patients while considering hospitalization.
- Quality of care is the 3rd most important factor that influences selection criterion for availing hospital services
- Cost for treatment and proximity of hospital are considered as a desirable criteria for referring since patients has to pay for the treatment.
- Brand image of the hospital is another criterion that influence target group in selecting a hospital.
- Thus new entrant have to take in to invest in availing medical technology and to bring Well know doctor on board for better result

Size of the proposed facility

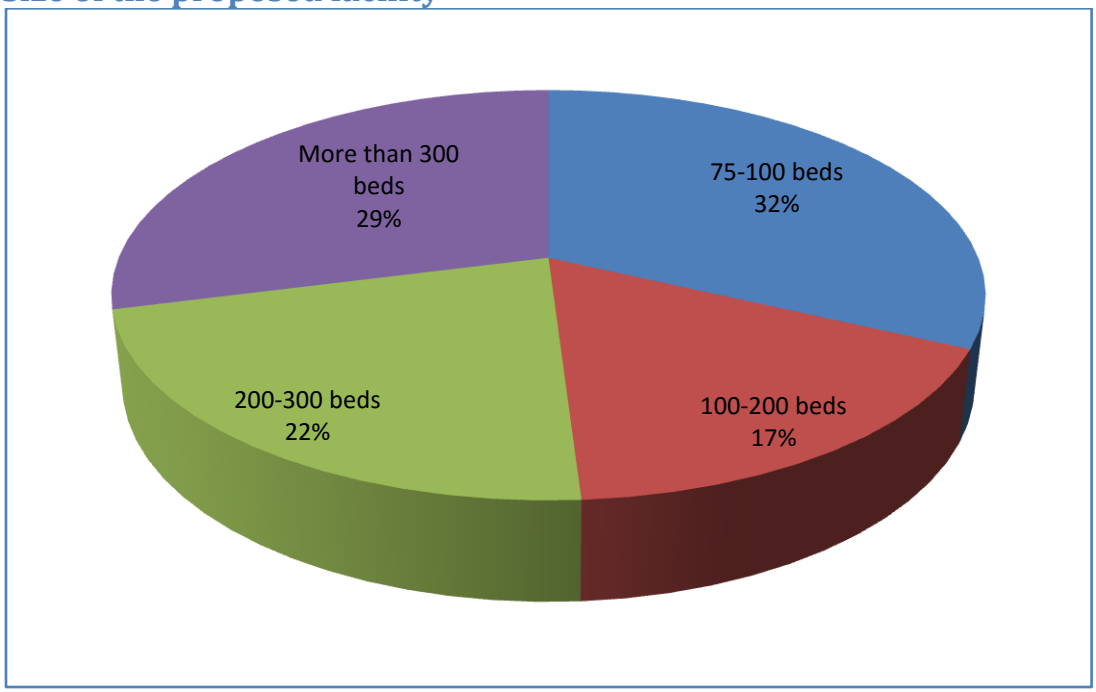


Chart 29-Size of the proposed facility

- Majority of consultants (32%) opined that the city needs more no of Mid sized Hospital ranging from 75 to 100 bed hospital
- Few consultants (17%) suggested that 100-200 bed hospital is need of the hour
- About 51% consultants recommended more than 200 bedded hospital

Type of the proposed facility

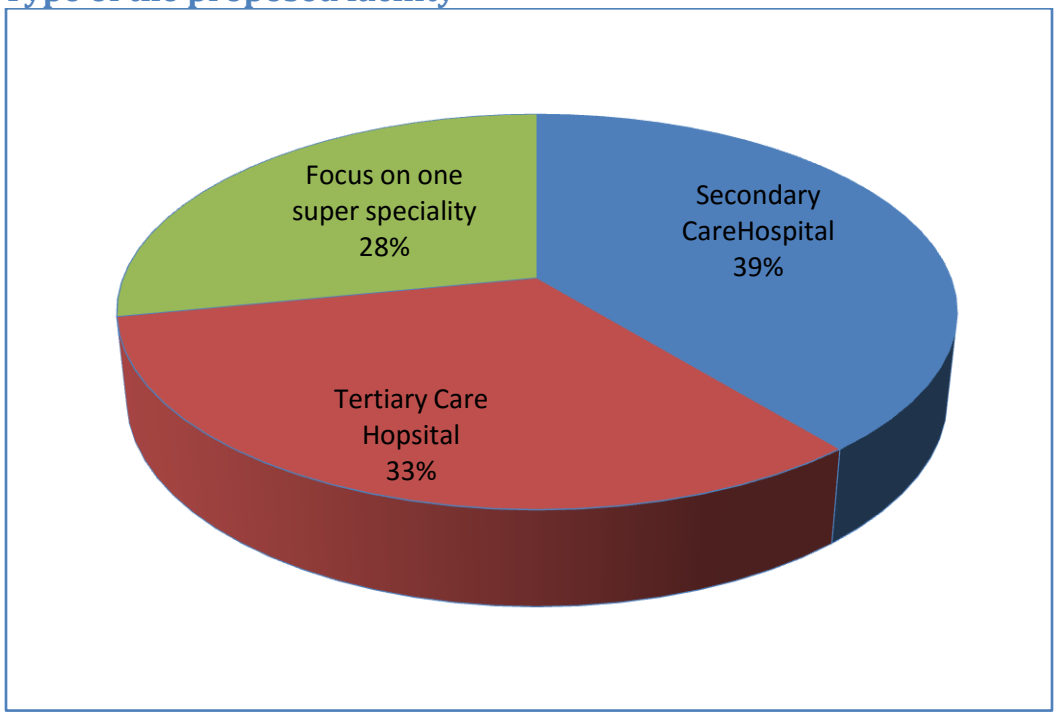


Chart 30-Type of the proposed facility

- 28% consultants suggested to set up a super specialty hospital focusing on one Specialty
- Secondary care multispecialty hospital were recommended by 39% consultants
- Patients prefer 'all-under-one-roof' setups and a tertiary care hospital with advanced medical technology, infrastructure and experienced super specialty doctors will attract patients from within and outside the city

Consultant's willingness to associate with new hospital

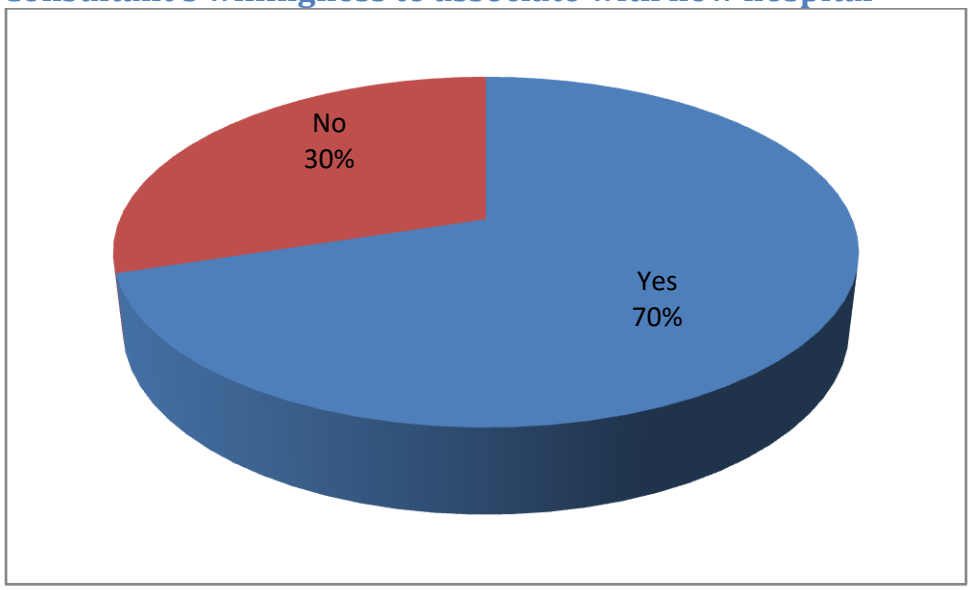


Chart 31-Consultant's willingness to associate

- Almost 3/4th of the consultants interviewed expressed their interest to get associated with a new setup which indicates that doctor engagement may not be a challenge for new a player
- Those remaining consultants who were not willing to get associated were already attached with existing hospitals or were operating their own private hospital.
- The consultants are interested to get associated with new hospital which has advanced medical infrastructure and is committed to provide quality healthcare care services within affordable cost

Type of association

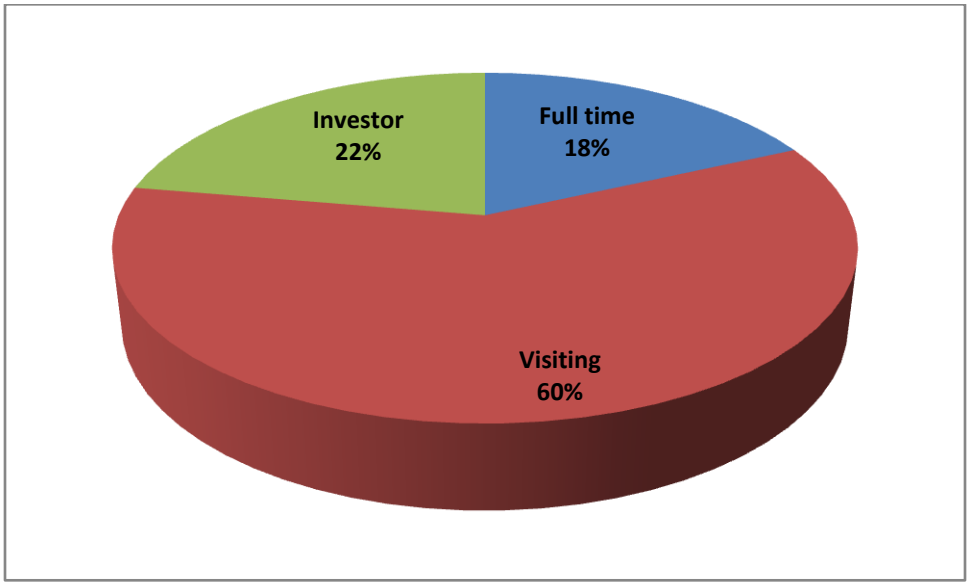


Chart 32-Type of association

- Out of those 70% consultants who were willing to get associated with a new hospital, majority of 60% were willing to join as a visiting consultant so that they could continue their association with other hospitals as well
- As a result of the above findings, revenue sharing model incorporated in the financial feasibility report is based more on percentage sharing basis rather than fixed remuneration
- Only 18% consultants were keen to get associated as fulltime consultants with a new hospital
- More than 20% consultants expressed their interest to invest in a new hospital

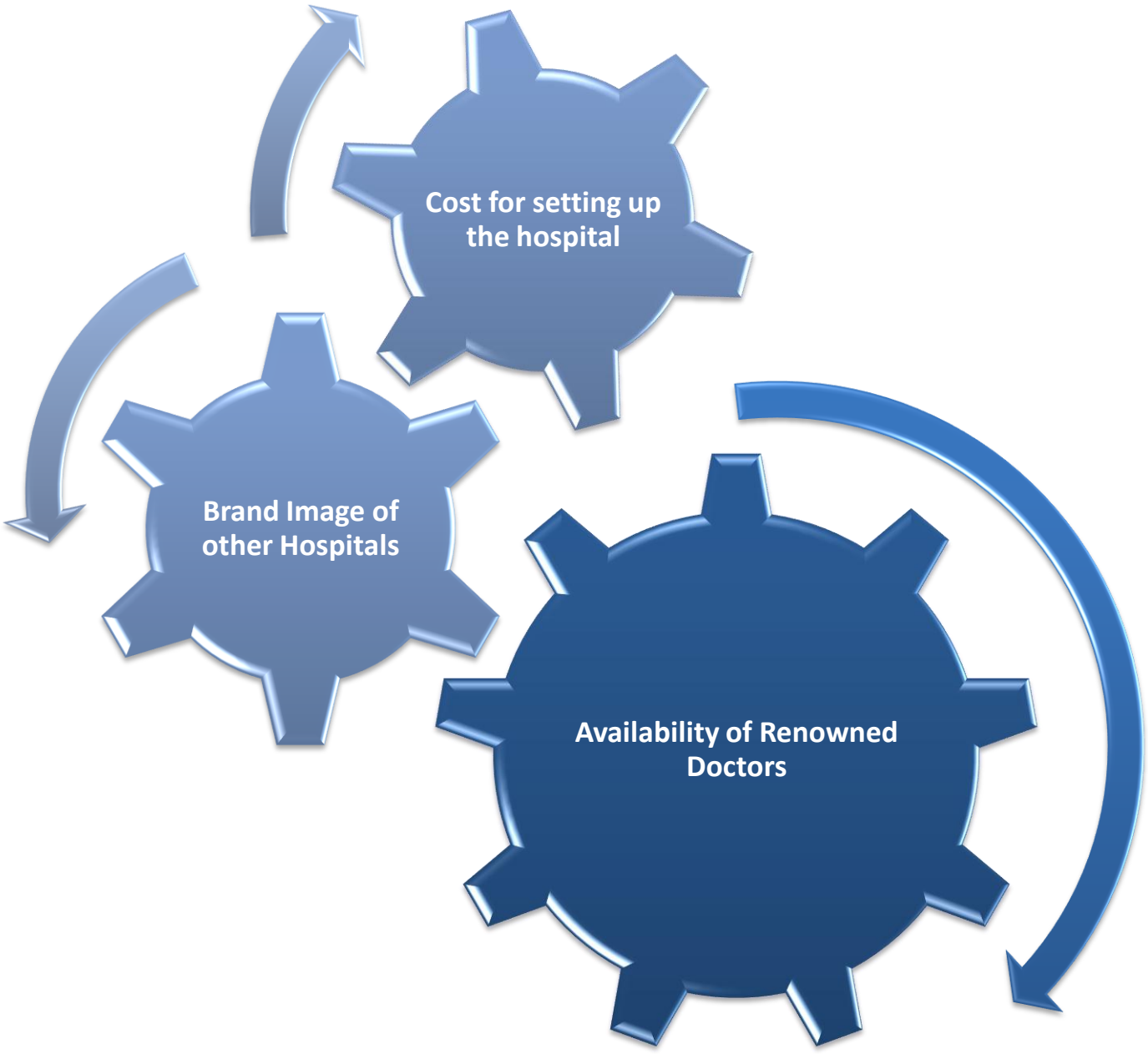
Specialty mix

Chart 33-Specialty mix

- More to 70% of the consultants surveyed opined that PimpriChinchwad required super specialty services in cardiology, Oncology.
- Consultants from various specialties were interviewed to assess the work load referred out to other city.

Hindrances to the New Player

Figure 9 - Key Hindrances



- Setting up new hospital in Pimpri-Chinchwad is a big challenge in terms of competing with the existing and established players, cost of project, attracting fresh talent and adopting advance technology.
- The current healthcare market is driven by big players like Lokmanya Hospital (Chinchwad and Nigdi), Nirmaya Hospital, Aditya Birla Hospital, and Sterling Hospital.
- Midsized hospitals such as Star Hospital Dhanvantri hospital, Morya Hospital etc are well establish in PCMC area and proposed hospital will face competition from this player
- Most of the experienced and renowned super specialty doctors of the PCMC are attached to these bigger and midsized players. Being a doctor centric market, new entrant will have to face this challenge especially in the initial years of operations
- Patients have a positive perception about established hospitals like Lokmanya Hospital, Nirmaya Hospital, Sterling hospital, Dhanvantri Hospital etc hence the new entrant may have to face the challenge of competing with the brand image of these established players
- Healthcare infrastructure in the city is not developed to a large extent to attract patients from outside city and other districts. The entire primary and secondary service area is a cost sensitive market, any new player trying to establish itself in this healthcare market needs to focus on quality healthcare services at affordable cost
- For sustaining in market, Hospital will have to develop good marketing strategy to maintain their share in market, and will have develop to keep good administrative and management policy for retention of Human resources

9. Competitor Profile

Aditya Birla Hospitals –Thergaon

Lokmanya Hospital- Chichwad

Lokmanya Hospital- Nigdi

Sterling Hospitals- Nigdi

Nirmaya Hospitals- Chinchwad

Chaitanya Hospitals- Chinchwad

Dhanashree Hospital

Star Hospital

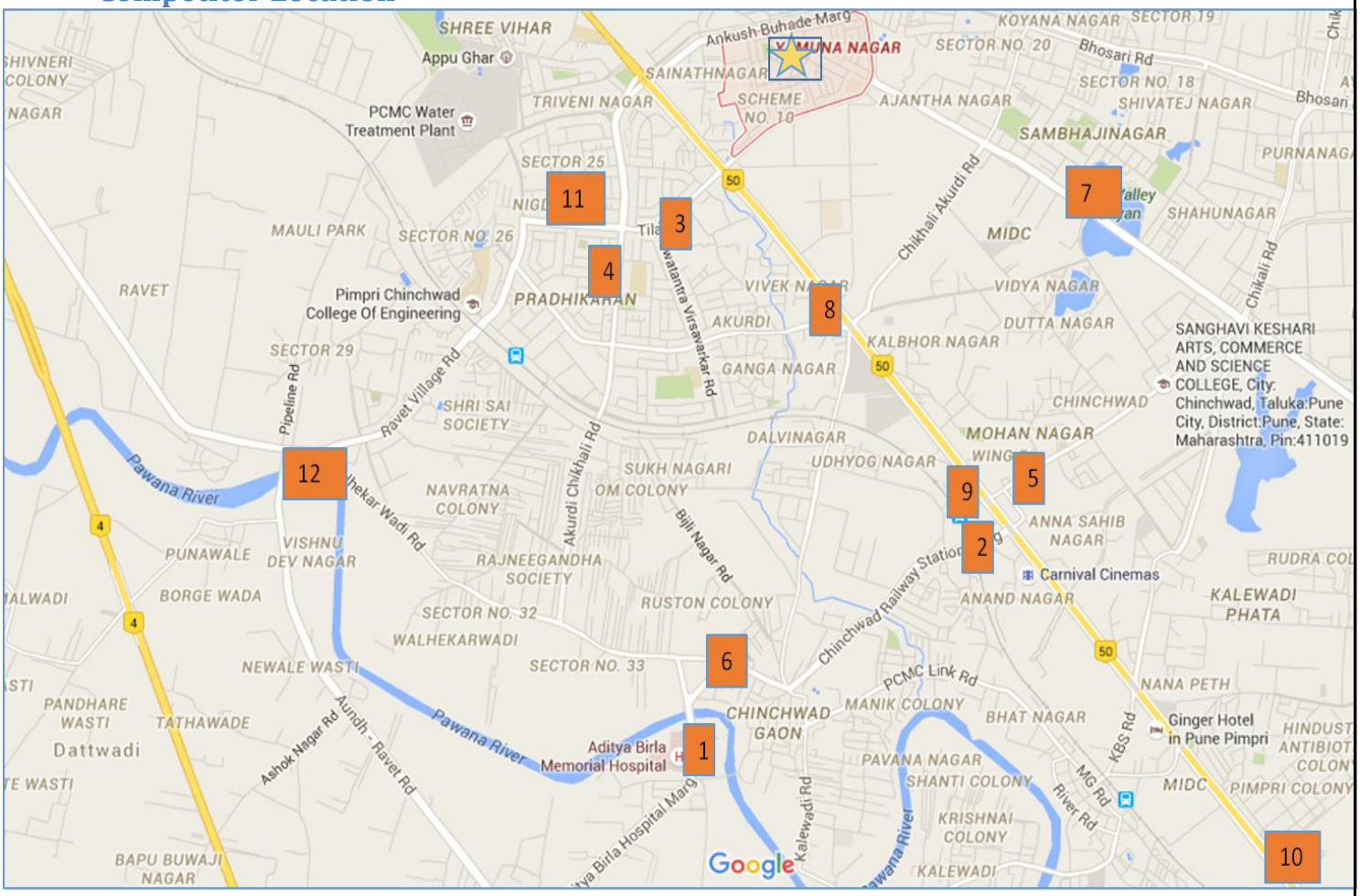
Unique Children Hospital- Chinchwad

Max Neuro Hospital Pimpri

Dhanwantari Hospital-Nigdi

Unique Multispeciality Hospital -Ravet

Competitor Location



Sr. No.	Hospital
★	Proposed site
1	Aditya Birla Hospital
2	Lokmanya hospital
3	Lokmanya hospital
4	Sterling hospital
5	Nirmaya hospital
6	Chaitanya Hospital
7	Dhanshree hospital
8	Star Hospital
9	Unique Children hospital
10	Max Neuro hospital
11	Dhanvantri Hospital
12	Unique Multispecialty Hospital

Table 15-location of Hospital

Key Competitors – Service Mix

Particulars	Aditya Birla hospital	LokmanyaChinchwad	LokmanyaNigdi	Sterling Hospital	Nirmaya hospital	Dhanshree hospital	Chaitanya Hospital	Star Hospital
Anesthesia	√	√	√	√	√	√	√	√
Cardiology	√	√	√	√	√	√	√	√
Cardiac Surgery	√	√	-	√	√	-	-	√
Critical care	√	√	√	√	√	√	√	√
Dental	√	√	-	√	√	-	-	√
Dermatology	√	√	√	√	√	-	√	√
Diabetes and Endo	√	√	√	√	√	√	√	√
Dialysis	√	√	√	√	√	-	√	√
EMS	√	√	√	√	√	√	√	√
ENT Medicine	√	√	√	√	√	√	√	√
Gastroenterology	√	√	√	√	√	√	√	√
General Medicine	√	√	√	√	√	√	√	√
General Surgery	√	√	√	√	√	√	√	√
G-I Surgery	√	√	-	√	√	-	√	√
Neonatology	√	√	-	√	√	-	√	√
Nephrology	√	√	√	√	√	√	√	√
Neurology	√	√	-		-	-	√	√
Nuclear Medicine	TBS	√	-	√	-	-	-	

Table 16-Key Competitors – Service Mix

Particulars	Aditya Birla hospital	LokmanyaChinchwad	LokmanyaNigdi	Sterling Hospital	Nirmaya hospital	Dhanshree Hospital	Chaitanya hospital	Star Hospital
Obs. &Gaynaec.	√	√	√	√	√	-	-	√
Oncology	√	√	-	-	√	-	-	√
Ophthalmology	√	√	√	√	√	√	√	√
Orthopedics	√	√	√	√	√	√	√	√
Pediatrics	√	√	√	√	√	-	-	√
Pediatric Surgery	DNA	√	-	-	-	-	-	√
Pathology	√	√	√	√	√	√	√	√
Physiotherapy	√	√	√	√	√	√	√	√
Plastic Surgery	√	√	-	-	-	-	-	
Psychiatry	√	√	√	-	√	√	√	√
Radiology	√	√	√	√	√	√	√	√
Radiation Therapy	√	√	-	-	√	-	-	-
IVF	√	√	-	-	-	-	-	√
Urology	√	√	√	√	√	-	√	√
Robotic Surgery	√	-	-	-	-	-	-	-
Liver Transplant	-	-	-	-	-	-	-	-

Table 15-Key Competitors – Service Mix Cont

Key Competitors – Facilities Mix

Facility - Mix	Aditya Birla Hospital	LokmanyaChinchwad	LokmanyaNigdi	Sterling Hospital	Nirmaya hospital	Dhanashree Hospital	Chaitanya Hospital	Star Hospital
Radiology								
X-Ray	√	√	√	√	√	√	√	√
CT Scan	√	√	√	√	√	√		
MRI	√	√	√			√		
ECHO/Ultrasound	√	√	√	√	√	√		√
Cath lab	√	√	-	√	√	-	-	√
ECG/EEG/EMG	√	√	√	√	√	√	√	√
TMT	√	√		√	√			√
Laboratory Investigation								
Pathology/Biochemistry	√	√	√	√	√			√
Microbiology	√	√	√		√			
Histopathology	√	√		√	√			
Hematology	√	√	√	√	√	√	√	√
Other Services								
Multispecialty OPD	√	√	√	√	√	√	√	√
Blood Storage	√	√	√	√	√			√
24 hours Pharmacy	√	√	√	√	√			√

Table 17-Key Competitors – Facilities Mix

Key Competitors – Bed Mix

Name of the Hospital/Clinic	Aditya Birla hospital	LokmanyaChinchwad	LokmanyaNigdi	Sterling Hospital	Nirmaya hospital	Dhanshree Hospital	Chaitanya Hospital	Star Hospital
General Ward	60	36	30	36	38	28	25	20
Twin Sharing	40	22	20	24	28	2	8	4
Triple sharing	24	-	-	-	-	-	-	-
Single Room/Private	10	9	7	10	7	9	6	7
Deluxe Room	10	4	5	5	5	1	4	2
Suite	10	5	3	-	2	-	-	4
Day Care beds	25	7	6	8	10	4	4	5
Dialysis	20	3	4	5	4	-	3	3
ICU	50	24	20	15	15	7	10	14
Consulting Rooms	15	8	6	5	7	5	5	7

Table 18-Key Competitors – Bed Mix

Key Competitors – Productivity / Month

Productivity / month	Aditya Birla hospital	LokmanyaChinchwad	LokmanyaNigdi	Sterling Hospital	Nirmaya hospital	Dhanshree hospital	Chaitanya Hospital	Star Hospital
Operational Beds	200	100	100	100	100	60	60	50
Avg. Bed Occupancy	60	75	60	60	80	60	70	65
Avg. OPD Footfalls	18200	4500	3600	4800	4200	4200	4500	3000
Avg. IPD Admissions	2100	420	300	500	300	300	450	150
Avg. ICU Admissions	600	100	90	50	42	30	50	30

Table 19-Key Competitors – Productivity / Month

Key Competitors – Productivity / Month

Particulars	Aditya Birla hospital	LokmanyaChinchwad	LokmanyaNigdi	Sterling Hospital	Nirmaya hospital	Dhanshree Hospital	Chaitanya Hospital	Star Hospital
Services								
Surgery								
Normal Labor	60	60	20	40	75	-	-	60
CS	150	70	40	60	85	-	-	50
Major Surgery (Knee / Neuro)	200	150	120	60	75	35	15	60
CABG, Cardiac Surg	60	40		-	20	-	-	20
General Surgery	300	360	210	90	180	100	150	150
Angioplasty	70-90	60	50	-	60	-	-	30
Diagnostics								
CBC	1200	690	600	450	600	350	450	900
2D echo	300	200	200	-	270	-	150	270
TMT	80	30	-	40	150	-	-	330
X-ray	1,800	1200	900	540	600	600	300	750
ECG	1200	420	360	360	450	300	350	450
USG	150	250	200	270	300	150	90	600
CT	150	300	330	60	70	60	-	-
MRI	250	180	180	-	-	90	-	-

Table 20-Key Competitors – Productivity / Month

Day Care								
Cataract	200	150	150	120	120	100	-	50
Appendix	100	60	45	40	45	50	60	35
Angiography	150	90	80	-	50	-	-	60
Endoscopy	250	90	40	30	45	-	-	60

Table 19-Key Competitors – Productivity / Month

Key Competitors – Bed and Consultation Tariff

Name of the Hospital/Clinic	Aditya Birla hospital	LokmanyaChinchwad	LokmanyaNigdi	Sterling Hospital	Nirmaya hospital	Dhanshree Hospital	Chaitanya Hospital	Star Hospital
General Ward	850	800	1000	1150	1200	1100	1000	1500-2000
Twin Sharing	2000	2000	1600	2050	1800	1500(A/C)	1500	3500
Triple sharing	1500							
Single Room/Private	5000	2500	3100	3400	3300	2000	2500	4500
Deluxe Room	8000	3700	5500	4650	3600	2500	3000	6000
Suite	10000			4500	4000		4000	
Day Care beds	750	1200	1000	1000	900	1200	850	1500
Dialysis	1500	1500		1200-2500	900		1000	1500
ICU	3600(without equipment)	3000-3500	3600	1500	4000	2700	4500	6000
OPD 1st visit	500	300	250	400	200	300	300	450
OPD Follow up visit	350	185	185	250	150	200	300	200

Table 21-Key Competitors – Bed and Consultation Tariff

Key Competitors – Services Tariff

	Aditya Birla hospital	LokmanyaChinchwad	LokmanyaNigdi	Sterling Hospital	Nirmaya hospital	Dhanashree Hospital	Chaitanya Hospital	Star Hospital
Services								
Surgery								
Normal Labor	35000+	28000	25000	25000	35000	-	-	35000
CS	45000+	35000	30000	30000	45000	-	-	49000+medicine
Major Surgery (Knee / Neuro)	150000+Implant	115000+implant	125000+implant	150000+implant	125000+Implant	150000+implant	140000+implant	175000+Implant
CABG, Cardiac Surg	250000-400000	200000-400000	-	-	250000-400000	-	-	300000-500000
General Surgery	50000-150000	32000-45000	30000-45000	24000-28000	40000-70000	23000-45000	28000-45000	45000-70000
Angioplasty	100000+stent	150000	16000	-	10000-15000	-	-	250000
Diagnostics								
CBC	300	190	170	200	200	200	160	250
2D echo	1500	1500	1400	-	1800	-	1500	1800
TMT	1800	1500	-	1500	1400	-	-	1500
X-ray	450	400	350	400	450	300	300	500
ECG	150	250	200	200	250	250	250	350
USG	1500	1200	900	800	1500	-	-	1500
CT	3500	3700	3500	3400	3500	3500	-	-
MRI	6000	5500	6000	-	-	8500	-	-

Table 22-Key Competitors – Services Tariff

Day Care								
Cataract	18000	20000	19000	23000	18000	-	-	28000
Appendix	18000	15000	18000	25000	23000	17000	1800	50000
Angiography	15000	14000	15000	-	14000	-	-	18000
Endoscopy	3400	3500	3400	3800	3500	-	-	2800

Table 22-Key Competitors – Services Tariff (Cont)

Key Competitors – Perception

- At present AdityaBirla Hospital is perceived as tertiary care, multispecialty hospital with state-of-art technology
- There are other multispecialty hospitals like Lokmanya Hospital Chinchwad&Nigdi, Star Hospital, Sterling Hospital, Nirmaya Hospital, which are perceived as multispecialty hospital with modern technology in that Area.
- There are Single Specialty hospitals in PimpriChinchwad like Max Neuro Hospital, Surya Mother and Child Care, Vataslya Child Care etc which focus on trauma care, Neurology, mother & child care, etc
- The healthcare scenario in PimpriChinchwad is more or less focused on secondary and tertiary care where in hospitals like Dhanwantari Hospital, Moraya Hospital, Chaitanya Hospital, Kamat Hospital etc besides Private Nursing homes with moderate level of infrastructure and technology are known and preferred players amongst patients
- The proposed hospital needs to position itself as a 'Multi-Super-Specialty, 'State-of-the-art' technology and medical infrastructure

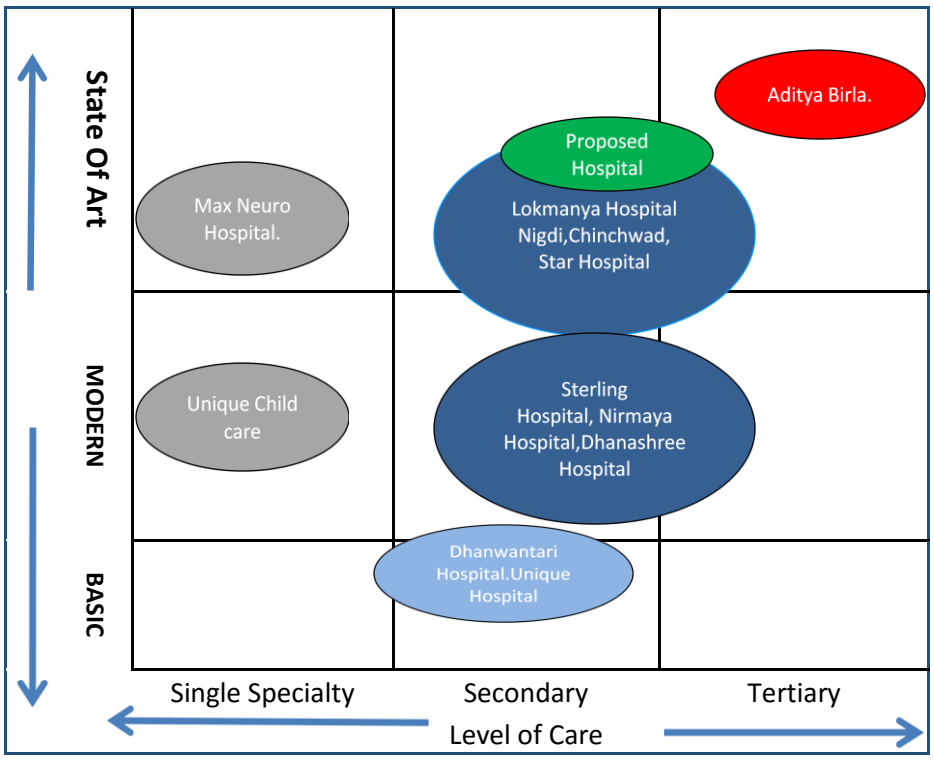


Chart 34-Proposed Hospital

10. Recommended Hospital

50 bed Multi Specialty Hospital
With focus on
Interventional Cardiology,
Gastroenterology, Nephrology, Urology
Minimal Invasive Surgery
& Lifestyle Diseases

Bed Mix and Facility Mix

Critical Care Units	
ICCU	4
ICU	8
Total Critical Care Beds	**12**
In Patient Units	
Deluxe Suite	
Single 1 in 1	2
Twin 2 in 1	18
General Wards 3 in 1	6
Economy Wards 4 in 1	12
Total Non-Critical Bed	38
TOTAL - Revenue Beds	**50**
Service Beds	
Dialysis	4
Pre & Post-Operative beds	4
Cath Lab Recovery Beds	1
Daycare & Casualty Beds	4
Total - Service Beds	**13**
Total Beds (Revenue + Service)	**63**
OPD Rooms	5

Surgical Suite	
Cath Lab	1
Operating Rooms	2
Major OT (Laroscopic Surgery, General Surgery, GI surgery, Urology, Nephrology,)	1
Minor OT / Procedure / Endoscopy Room	1
Emergency Care Services	
Casualty Unit	Yes
Procedure Room	Yes

Non Clinical Facilities	
Laundry	yes
CSSD	yes
Kitchen	yes
Dining hall	yes
Cafeteria	yes
Pharmacy	yes

Diagnostic Services	
Radiology & Imaging	
C Arm	Yes
C. R. System	Yes
Ultra Sound (Colour)	Yes
Bone Densitometer	No
X-Ray 500 mA	Yes
Laboratory Medicine	
Biochemistry	yes
Hematology	yes
Serology	yes
Histopathology	
Microbiology	yes
Clinical Pathology	yes
Cardiology	
2D-Echo with Doppler	yes
ECG	yes
Stress Test	yes
PFT/Spirometry	yes
Holter	yes
CATH Lab	
Cath Lab	yes
Recovery beds	yes

Figure 10-BED and Facility Mix

SWOT Analysis

STRENGTH

Strong background of the promoter along with financial capability

Pimpri Chinchwad has emerged as hub of extensive economic activity

Strategically located site of the project

Easy Accessibility with clear approach road

WEAKNESS

- Lack of hard core business experience and brand image in health care sector
- Gestation period for the project may be longer

OPPORTUNITY

- To provide integrated, tertiary care facility in the city
- To capitalize on the existing medical tourism by providing wide gamut of seamless services
- Wide drainage area within the city and other talukas of Pune District.
- To tap the middle and the upper class of consumers within the city and neighboring Talukas and Tehsils by providing care at competitive rates

THREAT

- Price war with existing competitors for providing quality healthcare services
- Longevity and goodwill of established players
- Positive perception of well-known service providers among the consumer group

KEY SUCCESS FACTORS			
Consultant Profile	Talent acquisition and retention of skilled resources	Empanelment of leading consultants by offering competitive remuneration and other fringe benefits.	Engaging specialized qualified doctors and Para-medical staffs will give competitive advantage to the hospital.
State-of-the-Art Technology and Infrastructure	Medical technology adopted in the hospital needs to provide competitive edge, to help healthcare service delivery in the city and neighboring districts	The infrastructure and the interiors of the hospital need to be planned considering the target consumer i.e. high and middle income group of patients.	
Affordable Cost and Quality Service	The hospital needs to provide quality treatment to patients at an affordable cost	The cost of the treatment needs to be competitive as compared to other players.	
Focused Marketing & Communication Strategy	Business development and marketing strategies need to be focused on high and middle income group who prefer private and corporate hospitals for taking care of their health care needs.	Marketing strategies also needs to be focused on medical tourism to attract international consumers.	

Accreditation	The proposed hospital needs to be accredited with NABH, NABL and JCI.	Quality accreditation would not only attract patients and the consultants but also facilitate the hospital to streamline internal policies and procedures.	Quality accreditation would also ensure safety and security of the patients, staff, and others involved with patient care

Table 23-KEY SUCCESS FACTORS

11. Conclusion

- It is believed that change in demographics, improvement in health awareness, rise in income due to industrial hub, a change in the lifestyle disease profile, rising penetration of health insurance will fuel the demand for full fledge healthcare facilities
- On account of increase in the working age group population, lifestyle related ailments will be on an uptrend in the future. It is important to note that the working age group population is more prone to lifestyle diseases
- There is a demand for setting up integrated healthcare facilities in the developing area of **PimpriChinchwad region** to cater to the growing commercial and residential core.
- The most feasible plan for proposed hospital is to establish 50 bed multispecialty hospital with good infrastructure and latest medical technology. Main thrust areas for the proposed hospital would be Nephrology Interventional Cardiology, Cardio-Vascular-Thoracic Surgery, Gastroenterology, Minimal Invasive Surgery& Life style diseases.
- The Bed Mix for the proposed facility has 25% beds reserved for critical care as more focus is on above specialties etc.
- As per the Consultant survey and the bed mix observed in the hospitals during the survey, twin sharing and general wards are preferred, followed by single occupying beds hence this specification is based on demand.
- The proposed Facility mix also follows the same principle and has 7% of single rooms (i.e. deluxe, super deluxe and suite class) and 33% of beds as twin sharing. The clientele targeted being the middle and upper class; economy wards beds have been kept at 35% of the total bed strength. The general ward patients will have the privacy of an enclosed room with basic facilities.
- The health care model in PimpriChinchwad is predominantly doctor driven and lays an emphasis on the medical technology and cost effectiveness with emphasis on quality. Hence it would be advisable to rope in established, senior consultants from renowned corporate hospitals to be associated with the proposed hospital to ensure steady footfalls
- The proposed hospital should aim from the conceptual stage of the project to obtain NABH accreditation. This would help in maintaining the best industry practices and will also help to attract patients from outside the city and central parts of India.

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13. Appendages

Pattern of Questionnaire

CONSULTANT/ HOSPITAL ADMINISTRATOR QUESTIONNAIRE

1. Hospital Name and Address	
Name of Consultant	**Dr.**
Type of Hospital	

2. Names of hospitals attached		
Type of Attachment		
Since		
No. of Beds		

3. Average Occupancy		
Average OPD	New - /Day F/L - /Day	Fees :Rs New- F/L-
Average Admissions	New - /Day F/L - /Day	Fees: Rs.
ICU Admissions	/ Day	Fees: Rs.
Major Operations	/ Month	Fees: Rs.

« **4. Room Tariff**

Specialty	Number	Tariff per day
General Ward		
Twin occupancy/Semi Pvt		
Private room		
Deluxe Room		
Suite		
Day Care beds		
Dialysis		

« **5. Diagnostic Services**

Specialty	**Volume per day**	**Tariff**
Normal Labour		
LSCS		
CBC		
2 D echo		
TMT		
X Ray		
ECG		
USG		
CT		
MRI		
Cataract		
Appendix		
Angiography		
Angioplasty		
Endoscopy		
Major Surgery (knee/Neuro)		
General Surgery		
Day Care beds		
Dialysis		

« **6. DrainageAreas**

Primary Catchment area	**Secondary Catchment area**
%	%

« **7. Percentage of patients as per Socio Economic Status**

LOW (Income < 10,000/ month)	**MIDDLE** (10,000 to 35,000/ month)	**HIGH** (Income >35,000/ month)
%	**%**	**%**

« **8. Percentage of patients with regards to Payments**

INSURANCE/ TPA	**OUT-OF-POCKET**
%	**%**

« **9. Which hospitals / nursing homes do you refer them to? & the Criteria for choice:**

Criteria	Consultants Opinion (out of 5)
Availability of Medical Technology	
Affordable Cost of treatment	
Quality of Care	
Availability of Particular Consultant	
Proximity of location	
Brand Name of the Hospital	
Others	

« **10. What are the deficiencies in the existing health care system in your area? (In terms of Infrastructure/ Services)**

« **11. What are the common ailments in the service area?**

« **12. Please tick type of hospital facility that will be viable?**

Type of facility: Level of care		Consultants opinion
Secondary care		
Tertiary care		
Single Super-specialty		
Day care Centre		
Number of beds : Magnitude of facilities		
75 – 100 beds		
100 – 200 beds		
200-300 beds		

13. .Please describe below:

« Do you feel that in your service area, patients are willing to pay for good quality health services? ***Yes / No***

« Any peculiarity regarding Medical Practice in your geographical area?

« **14. What are the hindrances in setting up and sustaining a hospital setup in this region**

« **15. Will you like to be associated with the new venture?** ***Yes / No***

If **Yes**, the kind of association that would interest you

Full Time ❑ Visiting ❑ Investor ❑

16. What according to you should a new venture have; as specialty mix kindly rate

Grade according to the need of this area on a scale of **1- 3; least to highest**			
Specialty	**Rank**	**Specialty**	**Rank**
Diabetes Management		Orthopedics	
Bariatric surgery		Pathology	
Endocrinology		Pediatrics	
Cardiology		Radiology	
ENT		Urology	
Cosmetology			
Gastroenterology			
Neurosurgery			
Obstetrics & Gynecology			
Oncology			
Ophthalmology			
General Medicine			
General Surgery			
Nephrology			
Neurology			
Neurosurgery			
Obstetrics & Gynecology			

« **17. What niche services should the hospital seek to provide?**
