

## MARKET FEASIBILITY OF AN UPCOMING HOSPITAL - AJMER, RAJASTHAN

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### 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 (3.3 per 1000). The purpose of the study is to analyse whether the existing Market of Healthcare Sector is feasible for setting an upcoming 120 bedded Hospital in Ajmer, Rajasthan & 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 Ajmer's population trends and demographics as well as health care access and health care quality. The Ajmer district has more Hospital Bed: Population ratio out of which more than 75% of beds are for primary care only. Therefore there is a wide scope to come up with Multispecialty Hospital for secondary as well as for Tertiary Healthcare needs. The hospital has a huge potential for Cardiac, Ortho, and Oncology at present because presently other Healthcare service providers are catering only for OBGY, Medicine and Eye in Ajmer, Rajasthan. Since Rajasthan is famous for tourism through this project we could be able to position Rajasthan on the world map as not only hot spot for tourism but also for medical tourism.

**KEYWORDS:** Market Feasibility, Business Model, Upcoming Hospital, Patient Care

### INTRODUCTION

#### Executive Summary

This report summarizes a market feasibility study that was conducted in October 2012 in association with a renowned firm. The aim of the study was to determine the feasibility of an upcoming 120 bedded Hospital in Ajmer, Rajasthan

Data collection occurred through

- Primary data collection
- Secondary data collection
- Benchmarking against leading Hospitals and
- Analysis by experts having experience in Healthcare Planning and Management.
- Professional literature, added to the database.

### Goals Underlying the Vision of the Hospital Consist of the Following

- Offering high-quality patient care
- Participating in advancing the role of health care in India, and
- Positioning Rajasthan on the world map as not only hot spot for tourism but also for medical tourism.

### OBJECTIVES

This research is carried to study the following objectives

- To study the existing Market for identifying the possibility and viability of a new Hospital set up in Ajmer, Rajasthan
- To assess the business potential for the venture.
- To suggest best possible service & facility mix for the client according to his requirements for a win-win situation for everybody

### RESEARCH METHODOLOGY

Study of Primary and Secondary catchment areas

*Primary data* (according to the catchment area defined)

- 8 Multi specialty Hospitals of the city
- 30 Doctors Questionnaire.
- Personnel interaction with Executives of the company

### Secondary Data

- Census Reports-2011
- WHO Health Report
- Magazines
- Journals
- Books
- Hospital's website

### LIMITATIONS TO STUDY

- Does not include financial feasibility report
- The facility description is according to client's wish list, not standard.
- The feasibility report is pertaining only to hospital per say and not to any other paramedical Set-up.
- Size of the hospital and its service mix is set as per the demand of the client.

## REVIEW OF LITERATURE

- **Market Feasibility Report on Speciality and Multi-Speciality Hospitals in India**

**Prepared By:** CYGNUS Business Consulting & Research, July 2009.

The Market Feasibility report on Speciality/ Multi- speciality hospital by CYGNUS constitutes of three different models for hospitals namely:

- 200 bed Multi-speciality hospital
- 100 bed Multispeciality Hospital and
- 100 bed Speciality Oncology hospital.
- **Feasibility to Find Out Trends in Oregon's Health Care Market & The Oregon Health Plan (Us)**

**Prepared By:** Jeanene Smith, MD MPH, Administrator of Department of Human Services, Office for Oregon Health Policy and Research State of Oregon Feb 2009

Oregon's health care market has experienced significant economic, structural and policy Changes that affect the way hospitals, health insurance plans, providers and purchasers Do business. This report is a broad representation of the Health care marketplace in Oregon so policy makers can better understand the Challenges Oregon faces.

- **Feasibility Studies: The Key to Evaluating Expansion Opportunity by Phillip Laux, MS**

Hospitals experiencing increasing levels of financial and market risk are turning to feasibility studies to determine if they should offer new or expanded services. This case study analysis is an overview and discusses thoroughness of the entire feasibility process.

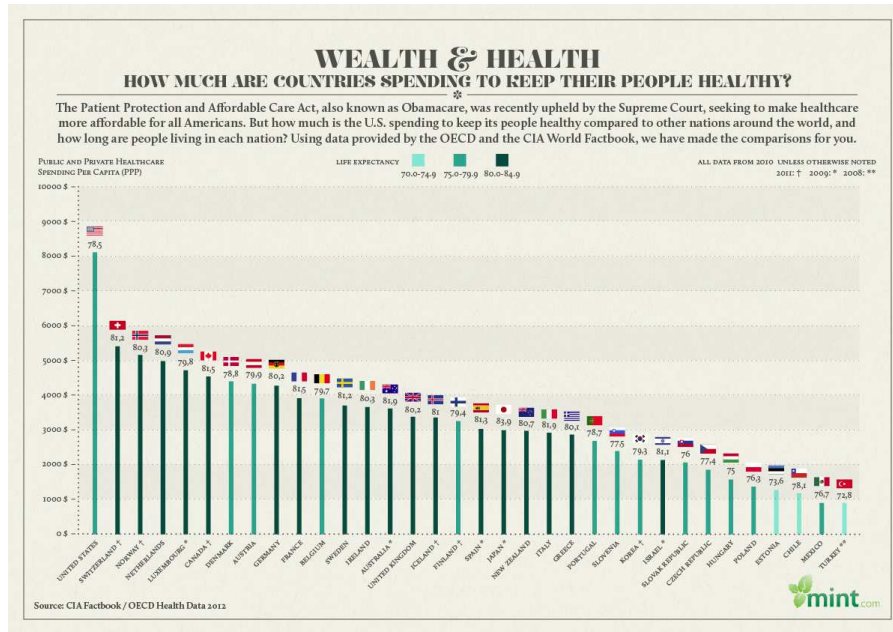
- **Prof. Govind Ram Aggrawal (2008) Project management In Nepal, Nepal Ekta Publications**

It studies the marketing viability of the project in terms of its ability to satisfy customer needs.

- **Feasibility Report for a Medical College and Hospital in Ranchi, Jharkhand**

Technopak provided the following deliverables to CBCI

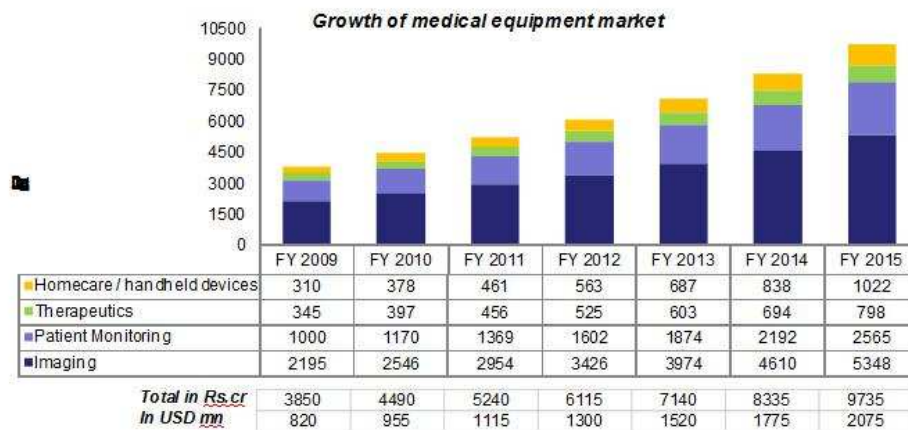
Current & Future Demand for Healthcare • Mapping of the Primary & Secondary Catchment for the proposed site  
Need Gap Analysis, Latent & Apparent Demand • Profiling of similar models, domestic & international, Assessment of their strengths, differentiators • Proposed Business Model, Size and Service mix Infrastructure, Medical Equipment & Information Technology Requirements • Manpower planning for all categories of staff, Physician and Faculty Engagement Strategy • Roll out order and plan • Financials including Investments, Revenue, Operating expenses and Profitability. • Master Plan for "Gyan Gram— • Market Outreach Program



Source: <http://infographicsking.files.wordpress.com/2012/07/mint-healthcare-data6-copy.png>

Figure 1: Global Healthcare Spending Chart

Indian Healthcare Market – Medical Equipment



Source: ISA

Figure 2: Medical Equipment Market in India

India's Share in Global Health Problem

- 17 per cent of the population
- 17 per cent of the total deaths
- 23 per cent of child deaths
- 26 per cent of the childhood vaccine preventable deaths
- 20 per cent of maternal deaths

- 68 per cent of leprosy cases
- 30 per cent of tuberculosis cases
- 10 per cent of HIV infected persons

## HEALTHARE DRIVERS IN INDIA



**Figure 3**

## BRIEF PROFILE OF RAJASTHAN

- Recognized as the land of the kings, state of bravery, 'RAJ' itself means rule.
- Rajasthan is a state where tradition and glory meet in the midst of colors.
- Rajasthan, covers 10.4% of India, an area of 342,269 square kilometers is the largest state of the Republic of India by area.
- It is located in the northwest of India. With the lofty hills of Aravali- one of the oldest
- mountain ranges of the world and the golden sand dunes of the Great Indian Desert,
- The state is blessed with beautiful forts and palaces which mark their heritage glimpse on the world map. The history of brave rulers attracts tourists from all over the world to this Exotic Place
- Jaipur is the capital and the largest city of the state
- Rajasthan is divided into 33 districts and seven divisions.
- The state has 33 administrative districts. Jaipur is the state capital; Jaisalmer, Udaipur, Jodhpur, Ajmer, Bikaner, Alwar, Amber and Chittorgarh are the other key cities and towns in the state.



business centre with all requisites of a metropolitan city.

- Jaipur has some big and famous areas in India like Mansarovar, Vaishali Nagar, Sanganer, Jhotwada, Amba-Bari, and Raja Park etc.
- Jaipur district is a centre for both traditional and modern industries.
- It is famous as largest exporter of gold, diamond and stone jewelry in Asia and the only City finishing blue diamond, or tanzanite, in the world.
- Jaipur is a very famous tourist and education destination in India.

### Profile of Ajmer

- Ajmer District is a district of the state of Rajasthan in Western India.
- 'Aj' meaning Brahma and '\_mer' meaning hill; this *Abode hills of Brahma* is surrounded by Aravalli Mountains.
- It has an area of 8,481 km<sup>2</sup>, and a population of 25, 84,913 (2011).
- Ajmer district comprises of 8 cities: Ajmer, Sarwar, Kishangarh, Kekri, Kiranipura, Nasirabad, Vijainagar, Pushkar.
- Ajmer is regarded as the centre of education in Rajasthan.
- The city of Ajmer is the district headquarters.
- The district is situated in the center of Rajasthan, and is bounded by Nagaur District to the north, Jaipur and Tonk districts to the east, Bhilwara District to the south, and Pali District to the west.
- Ajmer continues to be a popular pilgrimage centre for both Hindus and Muslims.
- Dargah Sharief, the tomb of the Sufi saint *Khwaja Moinuddin Chishti* is equally revered by both the communities and Urs fair attracts thousands and lakhs of pilgrims every year.
- It is also the base for visiting Pushkar (11 km), an ancient Hindu pilgrim town for the temple of Brahma.





Figure 5: Catchment Area Identification

PARTICULARS	AJMER DISTRICT	JAIPUR DISTRICT	TONK DISTRICT	BHILWARA DISTRICT	PALI DISTRICT	NAGUR DISTRICT
Population	25,84,913	66,63,971	14,21,711	24,10,459	20,38,533	33,09,234
Growth rate (%)	18.66	26.91	17.33	19.27	11.99	19.25
Population density (sq.km)	305	598	198	230	165	187

Figure 6: Profile of Catchment Areas



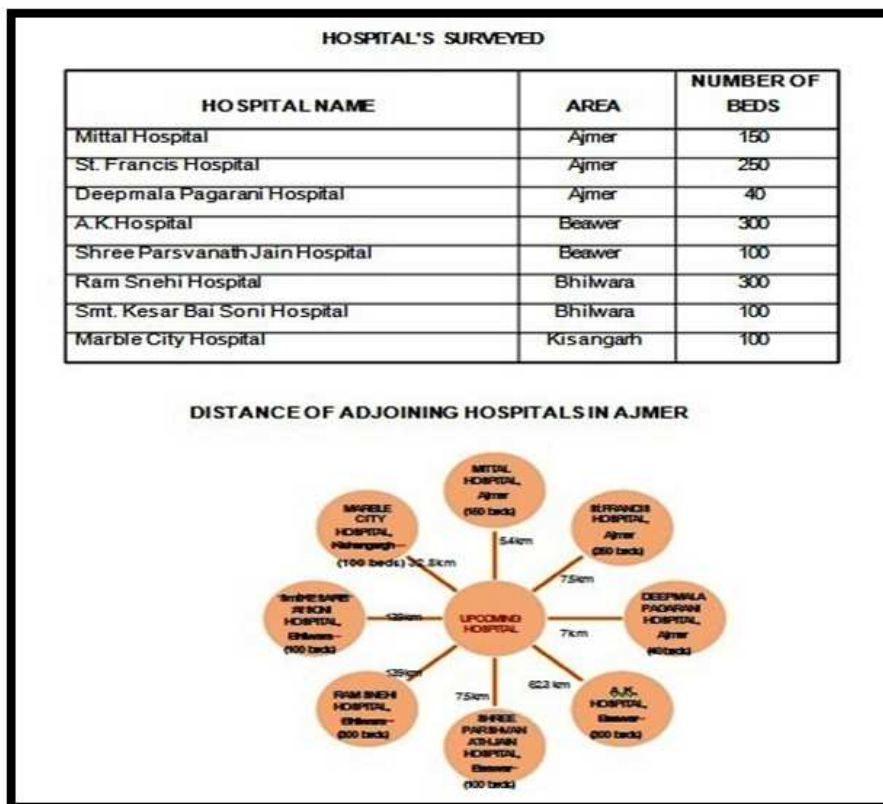


Figure 7: Hospital Surveyed – At a Glance

Table 2

Hospitals Surveyed	Mittal Hospital	St. Francis Hospital	Deepmala Pagarani Hospital	A.K. Hospital	Shree Parashvanath Hospital	Ram Snehi Hospital	Smt. Kesar Bai Soni Hospital	Marble City Hospital
Total No of beds	150	250	40	300	100	300	100	100
General Beds	75	150	20	190	60	200	NA	50
Twin Sharing	20	10	8	46	24	36	NA	14
Single Room	10	30	8	30	5	30	NA	9
Delux	5	3	NO	-	-	7	NA	8
ICU	25	25	4	20	6	15	NA	10
NICU	5	30	NO	5	5	6	NA	4
PICU	5	-	-	4	-	6	-	-
Labour Beds	5	2	-	5	-	-	-	5
Dialysis	3	-	6	-	-	-	-	-
Major OT	3	4	1	2	3	4	3	4
Minor OT	2	1	-	1	3	2	1	1
Av. OPD per day	350	250	225	200	250	375	350	135
Occupancy Rate(%)	80-90	60	45-55	70-80	70-80	70-80	70-80	40-45

Service Mix of Hospitals

DEPARTMENT	Mittal Hospital	St.Francis Hospital	DeepMala Pagarani Hospital	A.J.K. Hospital	Shree Parshwanath Jain Hospital	Ram Shri Hospital	Smt. Keer Bai Soni Hospital	Marble City Hospital
Ortho. OPD	-	-	-	-	-	-	-	-
Ortho surgery	-	-	X	X	-	-	-	-
Neurology	-	-	X	-	-	-	-	-
Neuro. Surgery	-	-	X	NA	-	-	-	-
OBGY OPD	-	-	X	-	-	-	-	-
OBGY surgery	-	-	X	-	-	-	-	-
Cardiology	-	X	X	-	X	-	-	-
Cardiac surgery	-	X	X	X	X	-	-	-
Oncology	-	-	X	X	X	-	-	-
Ophthalmology	-	-	X	-	-	-	-	-
General Surgeries	-	-	-	-	-	-	-	-
Organ transplant	-	X	X	X	X	-	-	-
Gastroenterology	-	-	X	X	X	-	-	-
Plastic surgery	-	X	X	X	X	-	-	-
Dental & Maxillary surgery	-	-	X	-	-	-	-	-
Paedo & Neonatal	-	-	X	-	-	-	-	-
Nephrology	-	X	-	X	-	-	X	X

- FACILITY PRESENT, X- FACILITY NOT AVAILABLE, NA- DATA NOT AVAILABLE

Figure 8

PARTICULARS	Mittal Hospital	St.Francis Hospital	DeepMala Pagarani Hospital	A.J.K. Hospital	Shree Parshwanath Jain Hospital	Ram Shri Hospital	Smt. Keer Bai Soni Hospital	Marble City Hospital
XRay	-	-	-	-	-	-	-	-
CT	-	X	-	-	-	-	X	-
MRI	-	X	X	X	X	-	-	-
Sonography	-	-	-	-	-	-	-	-
Pathology Services	-	-	-	-	-	-	-	-
EDG & TMT	-	-	NA	-	-	-	-	-
Echo	-	-	-	-	-	-	-	-
Cath Lab.	-	X	X	X	X	-	-	X
Blood Bank	-	X	X	X	-	-	-	X
Doppler	-	-	-	-	-	-	-	-
PET Scan	X	X	X	X	X	X	X	X

- FACILITY PRESENT, X- FACILITY NOT AVAILABLE, NA- DATA NOT AVAILABLE

Figure 9: Facility Mix of Hospitals

ANALYSIS OF INSTITUTIONAL SURVEY

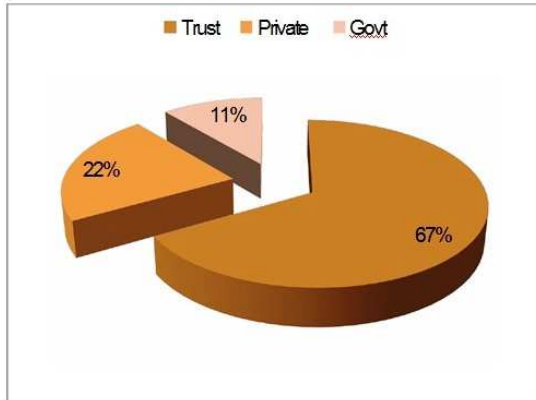


Figure 10: Type of Hospital

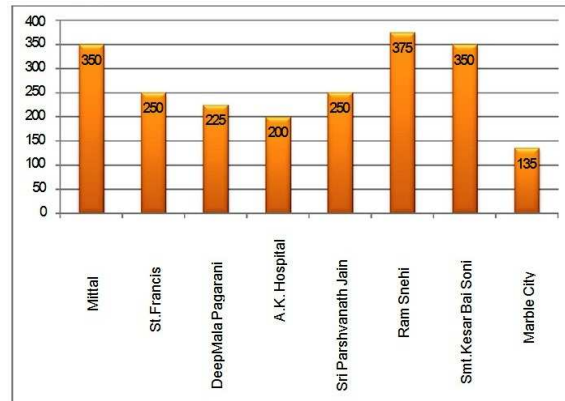


Figure 11: Number of Hospital Beds

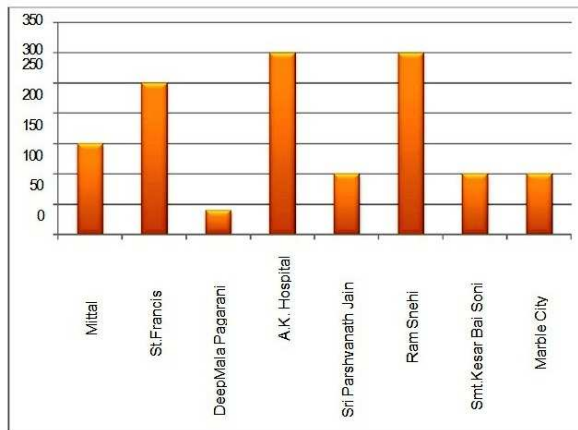


Figure 12: Average OPD per Day

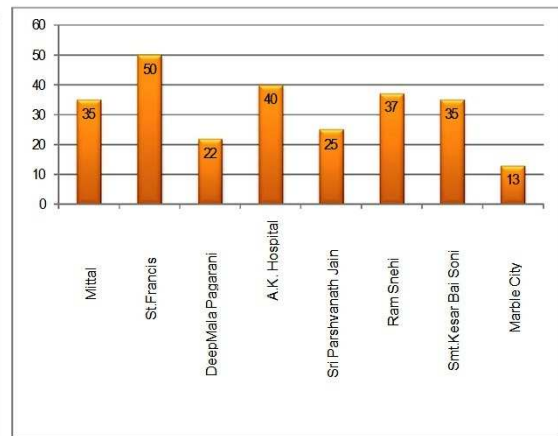


Figure 13: Average Patients Referred Every Month

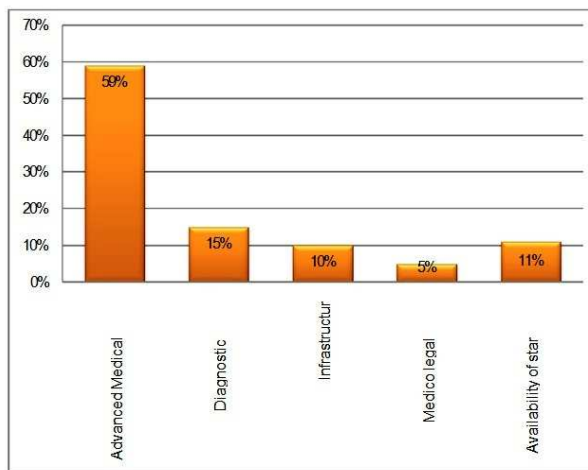


Figure 14: Reasons for Reference

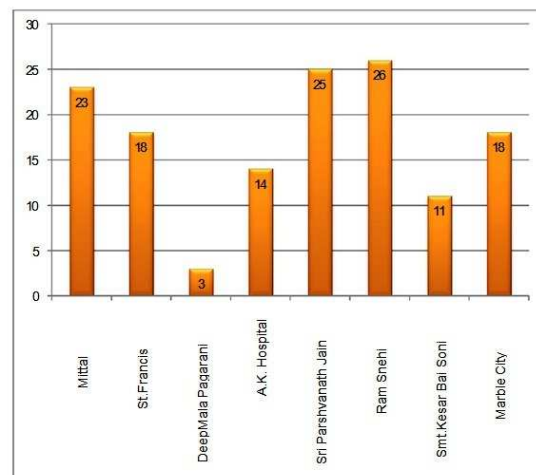


Figure 15: Total No of Surgeries per Day

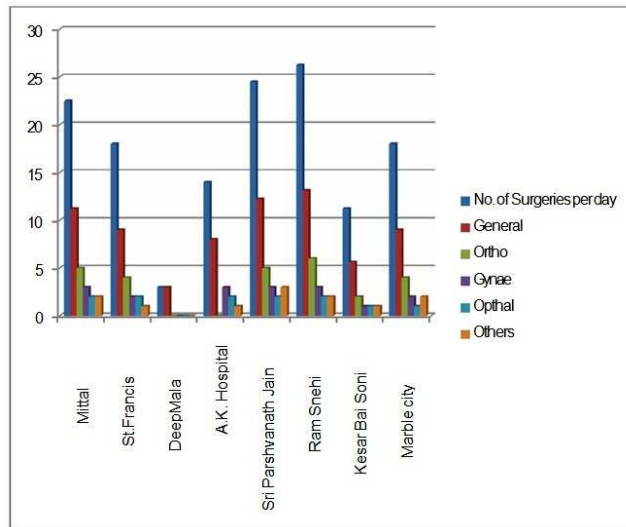


Figure 16: Distribution of Surgeries per Day

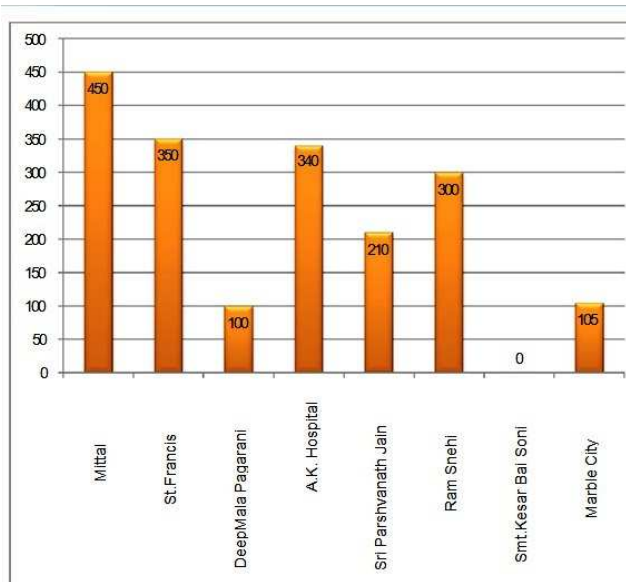


Figure 17: Total Manpower of Hospitals

Analysis of Doctor’s Survey

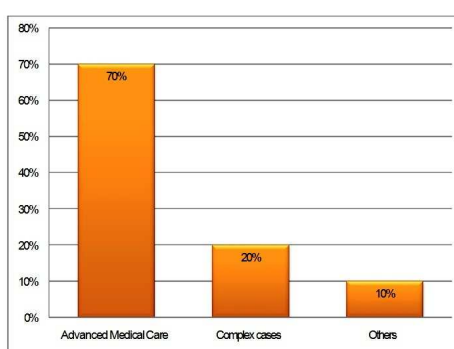


Figure 18: Reasons for Referrals for Doctors

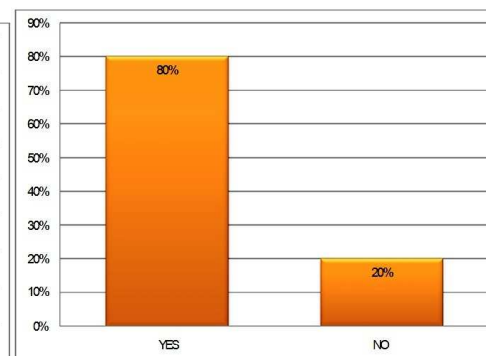


Figure 19: Need for New Hospital

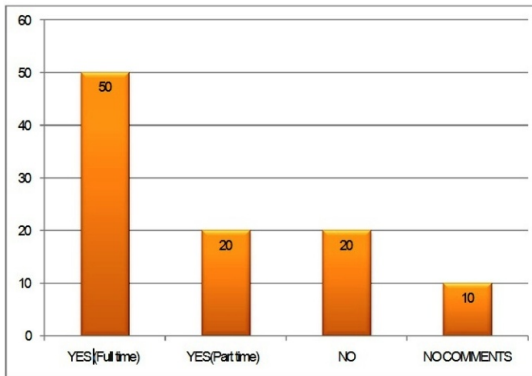


Figure 20: Interest to Join New Hospital

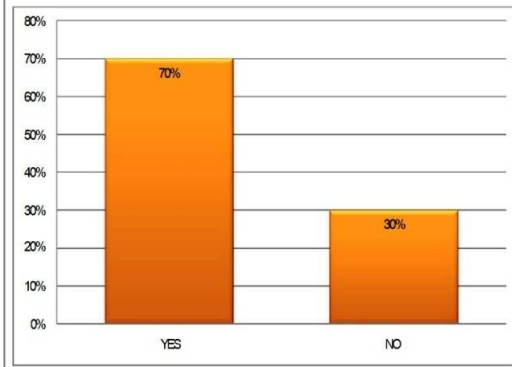


Figure 21: Shortage of Manpower

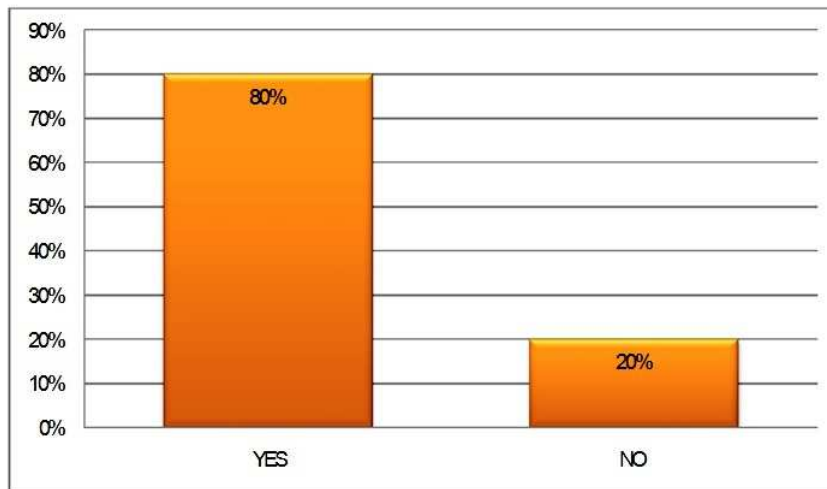


Figure 22: Patient Willingness to Pay for Quality Care

	PARAMETER	POPULATION
A	PRINCIPAL (100% Population) = 11, 44,216	11, 44,216
B	SUBORDINATE (Population 50%) = 49,742	49,742
C	PERIPHERAL (Population 25%) = 7, 81,183	7, 81,183
D=A+B+C	Total population (2011)	19, 75,141
	Decadal growth rate of Rajasthan	21.44 %
E	Population Growth (2011-13)	94,694
F=D+E	Estimated population in 2013	20, 59,835
G	Migration/ Medical tourism contribution in 2013	19,000
H= F+G	Total Catchment Population	20, 78,835
I= 75% of H	Patients refer to go private Hospital (75%)	15, 59,126
J	No of beds required per day (H/365)	4271
K	Total Beds in Catchment area (2011)	6830
L=60% of K	No. Beds available in Private sector 2011 (40%)	2732
From M	No. of beds required in Private sector 2013	4271
KM	Supply- Demand Gap (2013)	1539

Inference: Ajmer can still absorb 1539 beds.

Figure 23: Need – Gap Analysis

## RECOMMENDATIONS

- Aggressive marketing has to be done with respect to making a new brand entity in the Region.
- Tie up with Big brands for co-branding will work wonders (Such as for Ophthalmology, Pathology, cardiac etc)
- Required to give a corporate look.
- The hospital has a huge potential for Ophthalmology, Cardiac, Ortho, Oncology, but presently other Healthcare service providers are catering only for OBG, Medicine and Orthopedics.
- NABH accreditation will play a vital role, since till date not many of the hospitals are accredited and the proposed hospital can claim to be one of its kind providing best Quality Care services.
- A State of the art Dental clinic can be established, as a number of patients come for abroad For maxillofacial surgeries.
- For Radiology a16 Slice CT scan can be started and in the next one year MRI, Mammography TMT can also be started providing all advanced diagnostic facilities.
- A Cosmetic clinic- As majority of the time, people travelling from abroad are insured. But, unfortunately cosmetic surgeries are not covered under insurance. Since the cost is Too high outside, patients fly down to India for such surgeries.

## Potential Thrust Areas

- Orthopedics
- Ophthalmology
- Cardiac
- Oncology
- Cosmetic surgery
- Dental
- High end Obstetrics - Gynecology with IVF
- LDRP suites
- Day care centre
- High end Diagnostics
- Alternative Medicine

## CONCLUSIONS

This research finds that Ajmer district has more Hospital Bed: Population ratio out of which more than 75% of beds are for primary care only. Therefore there is a wide scope to come up with Multispecialty Hospital for secondary as well as for Tertiary Healthcare needs. The hospital has a huge potential for Orthopedics, Cardiac, Oncology, High end Obstetrics - Gynecology with IVF, Day care centre etc. Since Rajasthan is famous for tourism, through this project we could be able to position Rajasthan on the world map as not only hot spot for tourism but also for medical tourism. Single Specialty Hospitals is other feasible option to start in Rajasthan. Thus the existing Market of Ajmer, Rajasthan is feasible to start a 120 bedded Multispecialty Hospital where all the services will be available under one roof which will fulfill the existing gap of healthcare needs of the population.

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## APPENDICES

### ANNEXURE

#### Questionnaire to Doctor's

- Reasons for referral of patients to other hospitals?
  - Advanced Medical care
  - Complex Cases



- Others
- Is there a need for a new Hospital?
  - Yes
  - No
- Are you interested in joining a new hospital?
  - Yes (full time)
  - Yes( Part time)
  - No
  - No comments
- Is there a shortage of manpower?
  - Yes
  - No
- Are patients willing to pay for quality service?
  - Yes
  - No

#### **QUESTIONNAIRE FOR INSTITUTIONAL SURVEY (HOSPITALS)**

- Type of hospital?
- Number of hospital beds?
- Average OPD/ per day
- Average patients referred to other hospitals every month
- Reasons for Reference?
- Total number of surgeries per day
- Distribution of surgeries per day
- Total manpower of the hospital