

# Motivations for Healthcare Movement: A Perception Study on Intra-State Patients in Kolkata.

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**Abstract:** Healthcare is one of the most demanding requirements among the other essential social requirements. Healthcare infrastructure is the backbone of healthcare. The performance of healthcare, as well as healthcare infrastructure, is varying to geographical and socio-economical aspects. Healthcare infrastructure is comparatively good in urban areas rather than in rural areas. People always move to less developed to more developed healthcare destination to access better healthcare facilities. Kolkata is the capital of West Bengal has achieved a great reputation in health services among not only the other districts of state but also in eastern India. Every day thousands of people have been visiting the city for the attraction of world-class medical services. This phenomenon is indirectly helping to enrichment in the tourism industry and directly involve to expanding the growth of economic and it has a great impact on socio-economic changes in Kolkata. The present study attempts to investigate only intra-state (Domestic medical tourists) patient movements, major factors for the motivation of healthcare in Kolkata.

**Keyword:** Healthcare, Healthcare infrastructure, Medical tourism, Medical tourist.

## 1. INTRODUCTION

Development of human resource influences to develop a social-economic condition of any nation. Health is a major parameter for measurement of human resource. Good healthcare accessibility is an essential right of people. Healthcare development is literally depending on healthcare infrastructure which is differs from place and environment. As per world development report (2004), show that only 0.9 per cent of GDP spending on the health sector in India where Thailand- 2.1 per cent, China-1.9 per cent and Srilanka-1.8 per cent of GDP spending on health (Das 2012). Healthcare infrastructure is poor in rural India. Most of the development in health infrastructure has been seen in urban India. But the maximum percentage of total population resides in rural areas in India. As a result, healthcare disparity has been emerging and neglected people move to another place seeking better opportunists to healthcare. Low cost of treatment, short waiting time and better qualities of treatment are the common factors for attracting healthcare movement (Keckley, 2008). In the 21<sup>st</sup> century, this health migration is a great revolution in the tourism industry which also plays a vital role to change the socio-economic development of any healthcare destination. This phenomenon is widely known as medical tourism.

## 2. STUDY AREA

Kolkata is the capital of the Indian state of West Bengal. The study area is located on the east bank of the Hooghly River; it is a principal commercial, cultural and educational centre of East India. As the main port entry of North Eastern India, the climate of Kolkata is characterized by hot and humid weather during summer while pleasant in winter. The city's elevation is 1.5 - 9 meters (5-30 feet).

The census 2011 recorded the city's population of 4.5 million, while the population of the surrounding urban agglomeration and its suburbs was 14.1 million, making it the third most populous metropolitan region of India.

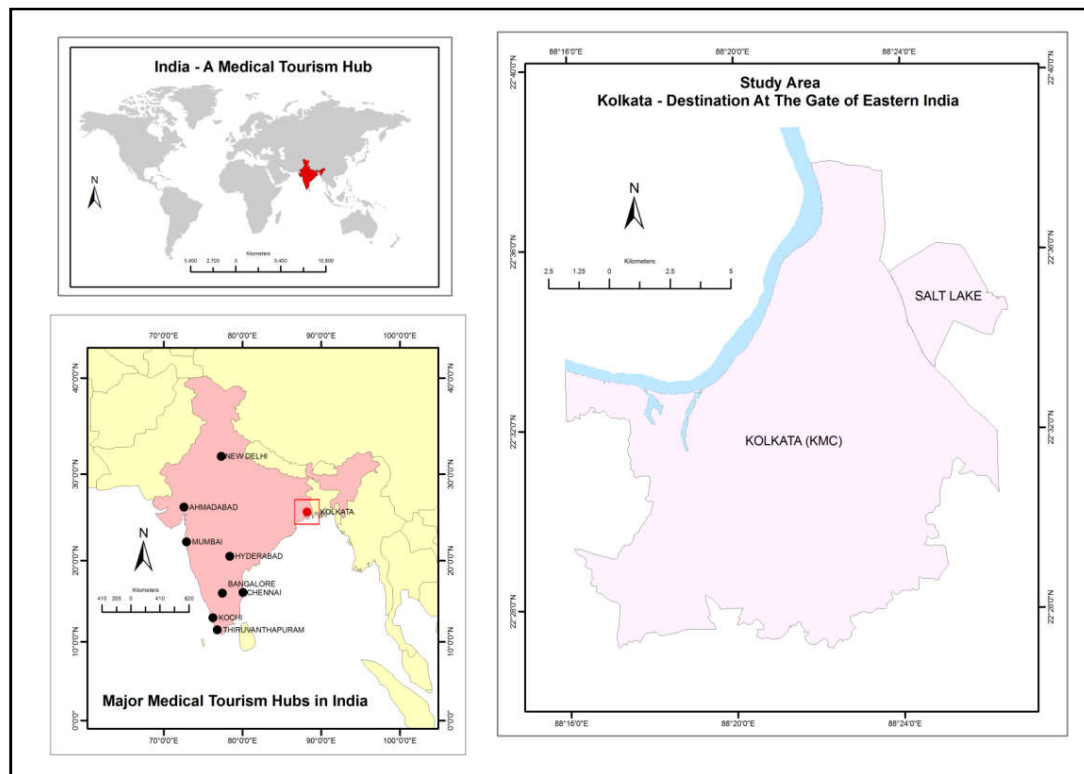


Fig 1: Location Map of the Study Area.

### 3. KOLKATA AS A HEALTHCARE DESTINATION

Kolkata is the smallest administrative districts as well as the capital of West Bengal. The dwellers of the city are getting maximum administrative and social privileges rather than others places of the state. An evident disparity of healthcare has been seen with the other districts/ health districts of West Bengal. As per Ministry of Health and Family Welfare, 2016, Kolkata consists of a total number of 398 hospitals, where the private hospital is 351, the highest number of a private hospital in the state. Kolkata has 5 medical college hospitals among the 13 medical college hospitals in the state. The health institutions of West Bengal and its compared to Kolkata have shown in table-1. It is also seen that in Kolkata, population served per bed is 138 and a total numbers of bed is 32479 which is the maximum compared to any others district in West Bengal (table-2). Kolkata provides world-class treatments facilities which attract international and domestic patients. Most of the international patients in Kolkata are from Bangladesh. It attracts patients from across surrounding states and districts such as Uttar Pradesh, Bihar, Jharkhand, Orissa, Sikkim, Mizoram, Assam, Tripura, Nagaland, and Meghalaya and almost from all other 23 districts of West Bengal. This paper is focusing only on domestic medical tourists where give a special importance to intra-state movement of patients in Kolkata.

Table-1: Medical Institutions in the Districts of West Bengal

District / Health District	Department of Health & Family Welfare Government of West Bengal								Hospital under other Dept. of States **\$	Local Body \$	The government of India **	NGO/ Private*** \$	Total
	Medical College Hospital	District Hospital	Sub-divisional Hospital	State General	Other Hospital	Rural Hospital	BPHC	PHC					
Alipurduar	0	1	0	1	0	7	0	13	1	0	1	0	24
Bankura	1	0	1	0	1	14	2	46	3	0	2	31	131
Bishnupur HD	0	1	0	0		5	1	23					
Bardhaman	1	0	2	0	0	13	10	72	5	2	19	130	301
Asansol HD	0	1	1		9	3	33						
Birbhum	0	1	1	0	1	9	2	35	3	0	2	49	135
Rampurhat	0	1	0		6	2	23						
Dakshin Dinajpur	0	1	1	0	0	7	1	18	1	1	0	6	36
Darjiling	1	2	2	0	3	9	3	22	8	1	4	69	124
Hugli	0	1	3	1	1	17	1	62	7	7	2	197	299
Haora	0	1	1	6	1	13	2	43	7	2	2	124	202
Jalpaiguri	0	1	1	0	1	6	1	26	2	0	3	17	58
Koch Bihar	0	1	4	0	2	8	4	29	2	0	1	18	69
<b>Kolkata</b>	<b>5</b>	<b>0</b>	<b>0</b>	<b>5</b>	<b>15</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>9</b>	<b>7</b>	<b>8</b>	<b>351</b>	<b>398</b>
Malda	1	0	1	0	0	16	0	34	2	1	1	29	85
Murshidabad	1	0	4	0	1	17	10	70	4	1	3	87	198
Nadia	1	1	2	3	4	14	3	47	3	1	1	72	152
North 24 PGS	1	1	3	7	1	9	3	28	6	17	3	288	401
Basirhat HD	0	1	0	0		9	1	23					
Paschim Medinipur	1	0	2	0	2	17	4	58	4	1	3	145	271
Jhargram	0	1	0	0	8	0	25						
Purba Medinipur	0	1	2	1	0	10	5	29	0	0	1	79	161
Nandigram HD	0	1	1	0	5	4	22						
Puruliya	0	1	1	0	1	18	2	54	3	0	1	12	93
South 24 PGS	0	1	2	4	0	12	5	31	1	5	1	239	345
Diamond Harbour HD	0	1	1	0		9	4	29					
Uttar Dinajpur	0	1	1	1	0	6	3	19	1	1	0	5	38
<b>Total</b>	<b>13</b>	<b>22</b>	<b>37</b>	<b>29</b>	<b>34</b>	<b>273</b>	<b>76</b>	<b>914</b>	<b>72</b>	<b>47</b>	<b>58</b>	<b>1948</b>	<b>3521</b>

Source: Health on March 2015-2016

\*Including Five (5) Decentralized Hospitals of Kolkata.

\*\* Including Six (6) Teaching Hospitals of Kolkata.

\*\*\* Includes Government undertaking organizations

\$ Provisional

**Table-2: Population Served Per Bed during 2016 in West Bengal**

District	Population, 2011	Total no. of beds	Population served per bed#
Bankura	3596674	3887	925
Bardhaman	7717563	11363	679
Birbhum	3502404	3459	1013
Dakshin Dinajpur	1676276	1277	1313
Darjiling	1846823	5631	328
Hugli	5519145	6403	862
Haora	4850029	6282	772
Jalpaiguri *	3872846	2977	1301
Koch Bihar	2819086	2378	1185
Kolkata	<b>4496694</b>	<b>32479</b>	<b>138</b>
Malda	3988845	2813	1418
Murshidabad	7103807	5237	1356
Nadia	5167600	7808	662
North 24 PGS	10009781	11605	863
Paschim Medinipur	5913457	6160	960
Purba Medinipur	5095875	3299	1545
Puruliya	2930115	2577	1137
South 24 PGS	8161961	5299	1540
Uttar Dinajpur	3007134	1214	2477
West Bengal	91276115	122148	747

*Source: Health on March 2015-2016*

\* Including Alipurduar district

# Excluding beds of Multi / Super Speciality Hospitals, SACU, SNSU, CCU, HDU, PICU, MCH Hubs.

#### 4. Review of Literature

Ye, B et al (2011) focused on the expectation and perception of Chinese patients in Hong Kong. The major inspiration to migrate Hong Kong was to avoiding Chinese Government's rigid one-child rule. The healthcare tourists had positive and negative perception during them pursuing health care in Hong Kong.

Cormany, D and Baloglu, S (2011) did a study for analysis and compare of web pages of five continents of medical tourism agencies. This study shows that US medical agencies differ from other medical agencies of the world. The web pages of the US group designed nicely for the convenience of healthcare.

Yun Yu, J and Ko, T G (2012) did a study for identifying the major factors for motivating patients on medical tourism of three Asian neighbour countries and analysis the future prospects of medical tourism on the basis of comparing these different nations. The study suggests that this view may be applied only in microscale study.

Yeoh, E et al (2013) conducted a study on the measure of the statistical characterizing of outbound medical tourists in Malaysia. This study found most of the patients in Malaysia were from Indonesia and Singapore and they spend one week with accompanying. The migrants attracted to this country for mainly bone, eye and heart treatment.

Chang, I et al (2015) discuss the motivations to access Taiwan Healthcare Application of Chinese inbound patients. This App is the most attractive helping tools to healthcare tourism in this country. This study suggests that to insert more tools like separate medical care; ensure healthcare analysis into this app to enhance increase utility of the system

Moghavvemi, S et al (2017) in their research paper examine of private hospitals websites for perception present and future prospects in healthcare tourism of three world-famous countries for healthcare destination in Asia.

Tham, A (2018) conducted a study on the role and influence of numerous stakeholders in intra-bound healthcare tourism in Sunshine coast in Australia. The study found some obstructions for the improvement of this tourism industry. These are the inaccessibility of healthcare facilities for inhabitants, poor understanding and aggressive behaviour of medical staffs.

## 5. Objectives of the Study

The main objectives of the study are-

- To identify the demographic as well as socio-economic characteristics of domestic patients.
- To identify the major motivating factors for healthcare in Kolkata of intra-state (domestic patients) health consumers.

## 6. Limitation of the Study

- This study is based on the perception of respondents.
- Samples have collected from only some private hospitals in Kolkata. Government hospitals have excluded from this study.

## 7. Data collection & Methodology:

Primary and secondary both data have used for this exploratory study. In this case of perception study, the importance and implementation of primary data have been emphasized than secondary data. The respondents were from North 24 Parganas (n=20), South 24 Parganas (n=17), Nadia (n=18), Howrah (n=21), Hoogli (n=23), Murshidabad (n=10), Burdwan (n=11), Bankura (n=9), Midnapore East (n=4), Midnapore West (n=5), Malda (n=5), North Dinajpur (n=3), Birbhum (n=6), Bankura (n=4), Puruliya (n=1) and Jalpaiguri (n=2). Secondary data has been collected from Health on March 2015-2016 published by Ministry of Health and Family Welfare, Government of West Bengal; Census 2011, Government of India.

The duration of the study was 2 months. Total 155 numbers of respondents have taken face to face interview from 19 (3 Eye Hospital, 1 Cancer Hospital and 15 Multi / Super Speciality Hospitals) numbers of private hospitals in Kolkata. Random sampling was used for this study where a questionnaire format have used to record individual perception of respondents. All the data have been analyzed and represent the paper by Micro Soft Office-7.

## 8. Results and discussion

### 8.1. The demographic profile of respondents:

#### 8.1.1. Age-Sex structure:

Total 155 respondents were finally selected from 19 private hospitals in Kolkata. Out of total respondent, patients were 30 per cent (n=46) and accompanied with patients were 70 per cent (n=109); male respondents were 68 per cent (n=106) and the females were 32 percent (n=49) conducted for the interview. The average age structure of respondents was 42 years where 18 per cent (n=26) age below 30 years, 74 percent (n=108) age between 31-59 years and rest 8 per cent (n=12) age more than 60 years.

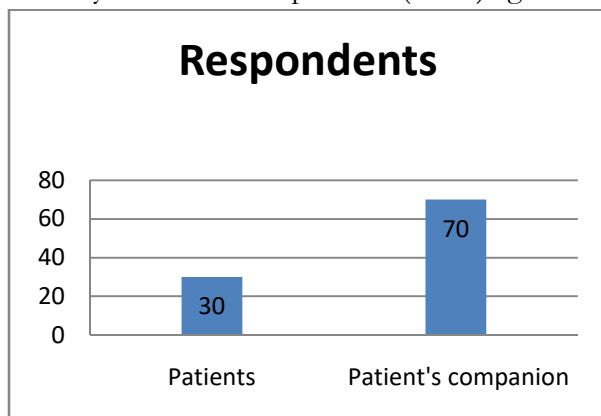


Fig – 2: Identity of respondents.

Source: Primary survey

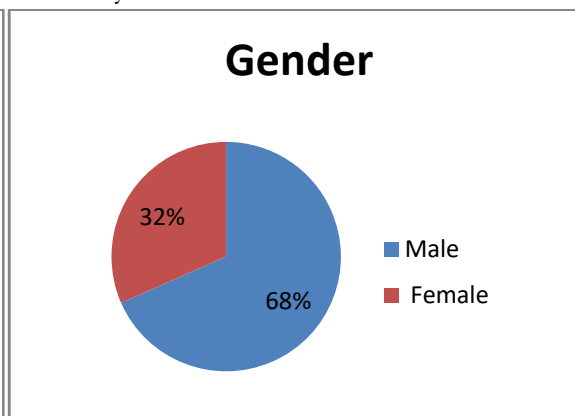


Fig -3: Sex structure of respondents.

Source: Primary survey

Table: 3 Age structure of respondents:

Age structure (years)			
Range	30 years or less	31-59 years	60 years or more
Frequency	26	108	12
Percentage	18	74	8
Age ( Mean = 42 years; SD = 12 years ) N=146			

Source: Primary survey.

#### 8.1.2 Education & Occupation Structure:

Education is such an indicator which increases health awareness. Simultaneously occupation ensures health care accessibility of people. According to this survey, 95 per cent (n=114) were literate and 5 per cent (n=6) respondents were illiterate. Among the literate respondents, 56 per cent (n=64) Graduate, 7 per cent (n=8) Post Graduate, 27 per cent (n=31) passed Higher Secondary, 8 per cent (n=9) passed Madhyamik and 2 per cent (n=2) passed class-VIII. Major respondents 36 per cent (n=53) were service holders, 23 per cent (n=33) respectively both business and others occupation, 15 per cent (n=22) were the housewives and very less 3 per cent (n=5) were students.

Table: 4 Education Structure:

Education		
	Literate (%)	Illiterate (%)
VIII passed	2	5
Madhyamik	8	
Higher Secondary	26	
Graduate	53	
Post Graduate	7	
Total	95	

N=120

Source: Primary survey.

### Occupation Structure

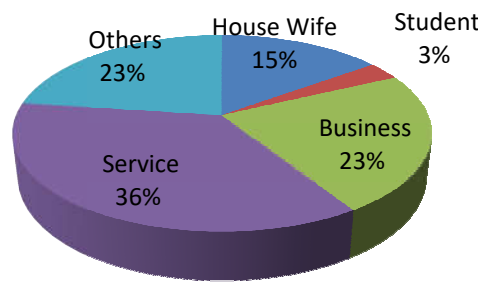


Fig- 4: Occupation structure.

Source: Primary survey.

#### 8.1.3 Annual Income:

Annual income is determined by an economic class of medical tourists involves medical tourism. According to this survey, 96 medical tourists were shared and 59 tourists were unwilling to share their annual income. It is seen from the study that lower-middle-class income group of domestic medical tourists are the most sought and upper-middle-class income group are less sought in Kolkata for access to health care. Table-5 shows the annual income structure of intra-state medical tourists in Kolkata.

Table- 5: Annual Income.

Income Group ( INR)	N	%
>150000	25	26
150001-300000	39	41
300001-450000	20	21
450001-600000	12	13

N=96

Source: Primary survey

### 9. Factors motivating to visit Kolkata for health care:

Identifying the motivation factors of healthcare in Kolkata is the main objective of this paper which also is an important determinant of medical tourism. There are many motivation factors around the world for healthcare movement that may vary from place to place. For this purpose, a score has made where 18 parameters have included analyzing the motivations. The value of the score has given 1 to 10, where 1 represent minimum and 10 represents maximum value. These values have shown by mean or standard deviation. On the basis of 1 to 10 scores, three ranges have been made for analysis of motivation factors.

#### 9.1. High motivation factors:

High motivation factors of intra-district patients for healthcare in Kolkata are the low cost of the medical procedure, less wait time for treatment, quality of medical procedures available, competence/reliability of doctor and quality of clinical infrastructure. The score of this range is the mean value of more than 7.

#### 9.2. Medium motivation factors:

The score of medium motivation factors is given 5 to 7 (mean value). Intra-district patients have moderately influenced by the availability of medical insurance, quality non-clinical infrastructure, pre-treatment consultations, immediate reply and co-operation from hospital workers, post-treatment consultations/ follow up care facility and the standard of hotel/ hospital/ clinic accommodation facility in the nearby area.



### 9.3. Low motivation factors:

The score of low motivation factors is less than 5 (mean value). The domestic patients of various districts of West Bengal have less interested to access healthcare in Kolkata. These factors are the availability of medical insurance, cultural characteristics of the place, a written guarantee about a patient's right, fully well-designed website and others.

**Table -6: Factors for motivation patient in Kolkata.**

Factors for motivation patient in Kolkata from various districts in West Bengal			
Factors	N	Mean	SD
low cost of a medical procedure	146	7.07	2.93
less wait time for treatment	154	7.1	2.37
quality of medical procedures available	154	8.72	1.28
competence / reliability of doctor	152	9.29	1.7
availability of medical insurance	149	4.05	2.96
distance/ accessibility/ connectivity to your place	151	6.58	1.95
quality clinical infrastructure	150	7.32	1.64
hospital or clinical accreditation	151	6.42	1.87
quality non-clinical infrastructure	151	5.93	2
cultural characteristics of the place	151	4.76	2.28
pre-treatment consultations	149	6.6	2.1
post-treatment consultations/ follow up care facility	147	6.35	2.27
standard of hotel/ hospital/ clinic accommodation facility in the nearby area	143	5.87	2.88
a written guarantee about a patient's right	141	3.55	2.34
immediate reply and co-operation from hospital workers	150	5.97	2.12
fully well-designed website	117	4.37	2.68
referred by friends/ relatives/ doctors	148	7.58	2.5
others	85	1.19	1.01

Source: Primary survey

## 10. Conclusion

Healthcare movement is a common phenomenon. Healthcare disparity between districts and Kolkata has observed from healthcare scenario of West Bengal. This disparity in healthcare is the main reason to influence people for healthcare movement. Perhaps, the healthcare disparity in West Bengal is decreasing due to government's initiative in healthcare. Government is trying to make the all-round development of healthcare in West Bengal. But all the initiatives of government become fading due to glamorous and attractive services providing to private hospitals in Kolkata. People are moving to Kolkata from any districts in West Bengal to access healthcare.

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