



Technical due diligence

District : Bhadrak

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Summary

- The district of Bhadrak has 64 government health care facilities and 21 private hospitals with a bed strength of 887 beds only.
- CHC's comprise of 55% of the total OP consultations at government facilities, indicating a good health seeking behavior of the people at the district.
- OP to IP conversion has been higher than industry standards at all the public health facilities.
- BOR at all public health facilities is much above the optimum level of 80%, indicating an immediate need for beds at secondary care level.
- Surgeries performed at government facilities are mostly minor in nature, for FY 2015-16, 80% of the total surgeries performed at government facilities were minor in nature.
- More than 8 surgeries per surgeon per day at DHH and More than 5 surgery per surgeon per day at Surveyed private hospital indicate over utilization of surgeons.
- Institutional deliveries at the studied facilities have decreased by 3% since 2013-14.
- Proportion of C-Sections to normal deliveries at secondary care in district is 15%, which is a healthy trend.
- Overall Lab tests accounts for majority (92%) of total diagnostics at the studied facilities, whereas CT-Scan facility is not available at any of the healthcare facilities in the district.
- It can be inferred that at secondary care level only 32% of the existing demand is being met for OPD and 32% for IPD

Summary

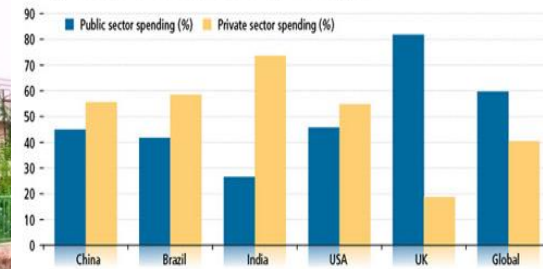
- Considering the WHO norm of 3.5 beds per 1000 population, the district has a shortfall of 4,385 beds (i.e. a gap of 83% beds).
- Considering the WHO norm of 1 doctor per 1000 population, the district has a shortfall of 1,428 doctors.
- Considering the WHO norm of 2 nurses per 1000 population, the district has a shortfall of 2,957 nurses.
- For gaps under service facilities, when compared with IPHS for district hospitals, major gaps are in the areas of Diagnostics and Specialty OPDs.
- Proximity to residence & Service availability stands the most voted reason for choosing a government hospital, whereas my preference for the doctors is the reason for choosing a private facility.
- While Majority of the respondents depend on savings for their healthcare spending only 50% of the patients surveyed had health insurance as a primary source of health related costs, which indicates a need for awareness in insurance coverage.
- All the surveyed physicians indicated that patients from the district go to other districts / cities for availing tertiary level healthcare, of which majority ailments pertain to cardiology and neurology followed by Gastroenterology & urology

SECTION 1: PROJECT SNAPSHOT



Comparison of contribution to healthcare spending

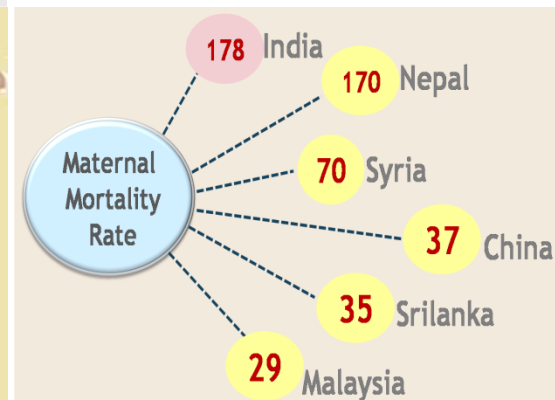
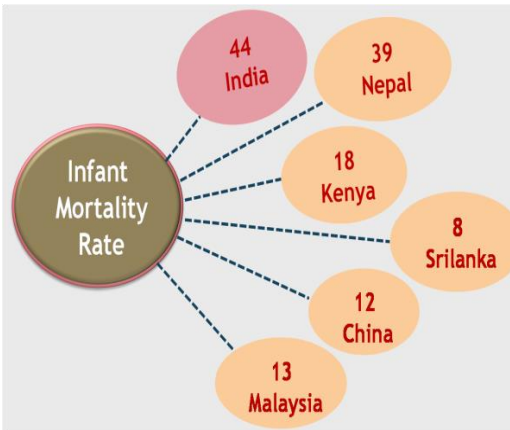
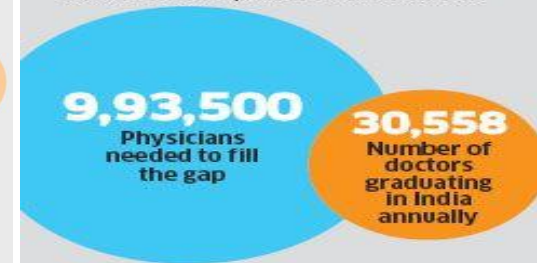
The public spend on healthcare is significantly low



Source: WHO World Health Statistics 2010

SUPPLY GAP

At six doctors per 10,000 people, the number of qualified doctors in the country is not sufficient. The rural doctors-to-population ratio is lower by 6 times as compared to urban areas



PROJECT BACKGROUND

- As a part of a broader health sector enhancement program, the Government of Odisha (GoO), wants to strengthen and enlarge the private health sector facilities and promote the participation of quality private health providers across all the 30 districts in the state to enhance the health infrastructure in the state by structuring and implementing the rollout of low cost hospitals across the state in a PPP model which will offer decent quality care at affordable prices.
- The project will look at the entire state as a whole and based on detailed financial, fiscal, logistics and operational due diligence a network will be developed with recommendations on the number, size, type and locations of the hospitals.

SECTION 2: METHODOLOGY FOR TECHNICAL AND MARKET DUE DILIGENCE

TECHNICAL DUE DILIGENCE

Demand & Supply Assessment

- Assessment of district level demand for health services, through primary research such as surveys, interviews of patient/ doctor and review of available clinical data at hospitals and MIS data from NHM
- Assessment of existing clinical services, infrastructure and resources
- Capacity Utilisation Assessment of existing capacity including OPD and IPD Numbers, bed occupancy, average length of stay, OT utilisation, major and minor surgeries and other clinical procedures

Paying Capacity Assessment

- Assessment of patient profile - APL & BPL
- Prevailing market rates, CGHS and various industry empanelled rates
- No. of patients referred outside Odisha for secondary and high secondary care
- Additional sources such as Centre & State's healthcare support schemes - RSBY, BKKY, ESIS etc

Assessment of Gap in Health Facilities with respect to existing and future demand

METHODOLOGY

Step 1

- **Secondary data survey:** based on information available over public domain
- **Primary data survey:** Onsite healthcare facility assessment, data collection from government offices, interviews with hospital administrators, clinicians and general population

Step 2

- **Preliminary assessment** to cover the functional feasibility of developing a hospital along with the mapping of road and rail connectivity.

Step 3

- Correlation of primary and secondary data that is already collected from districts and state
- **Data analysis** the overall state and each of the 30 districts.
- **Presentation on the findings** of the market assessment to Government of Odisha.

SECTION 3: DISTRICT PROFILE



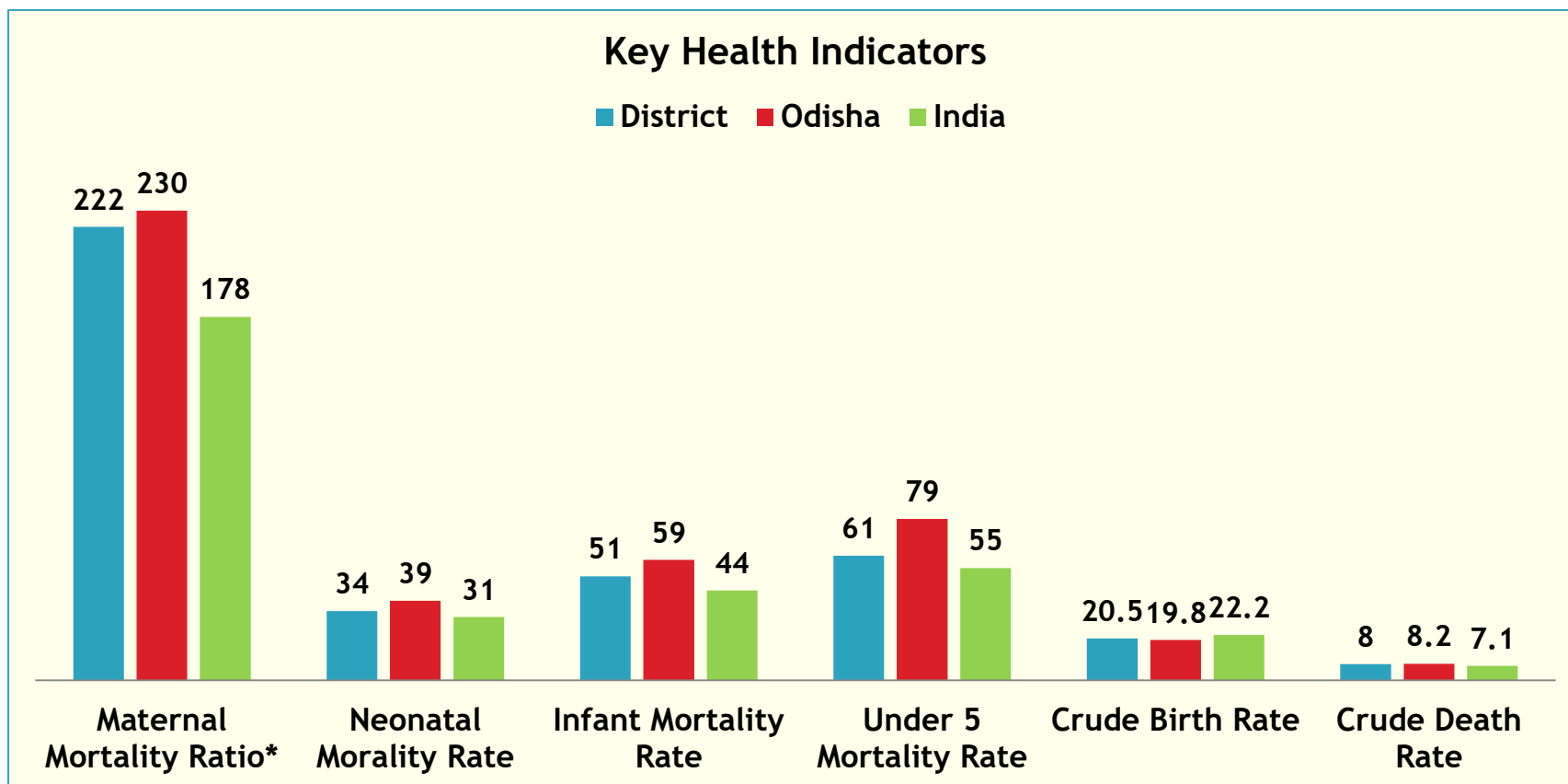
DEMOGRAPHIC PROFILE

Particulars	Odisha	Bhadrak
Total Population	4,19,74,218	15,06,337
Urban population	16.6%	12%
Decadal population growth rate	14.05%	13%
Mean household size	4.35	4.92
BPL households*	44,08,070	1,20,513
BPL Population*	1,91,75,105	5,92,601
BPL %	46%	39%

- Bhadrak is the 27th district in terms of size and 12th in terms of population.
- Bhadrak is the 12th urbanized district in state having only 12.34 percent of its population living in urban areas.
- Bhadrak has 15th rank in terms of sex ratio in the state.



HEALTH INDICATORS



* Maternal Mortality Ratio is of Central Division

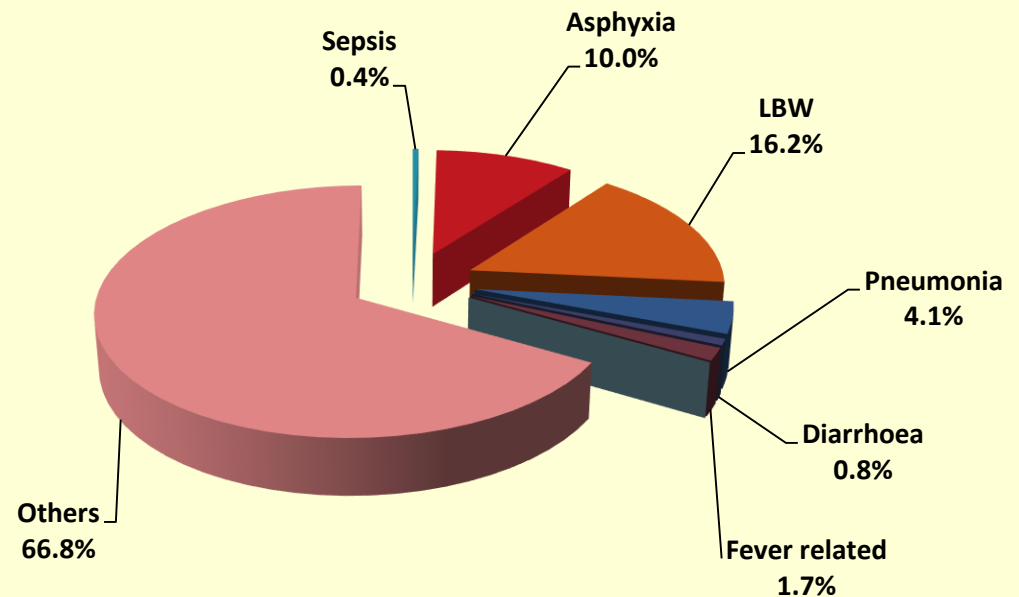
Source : Annual Health Survey Report 2011-12

Causes of deaths (Infants & Child)

Causes of Infant & Child Deaths - Apr'15 to Mar'16

Causes	Total
Measles	0
Sepsis	1
Diarrhoea	2
Fever	4
Pneumonia	10
Asphyxia	24
Low Birth Weight (LBW)	39
Others (for age upto 4 weeks of birth)	68
Others (for 1 month to 5 years)	93
TOTAL	241

Odisha - Bhadrak - Causes of Infant & Child Deaths against Total Reported Infant & Child Deaths-Apr'15 to Mar'16



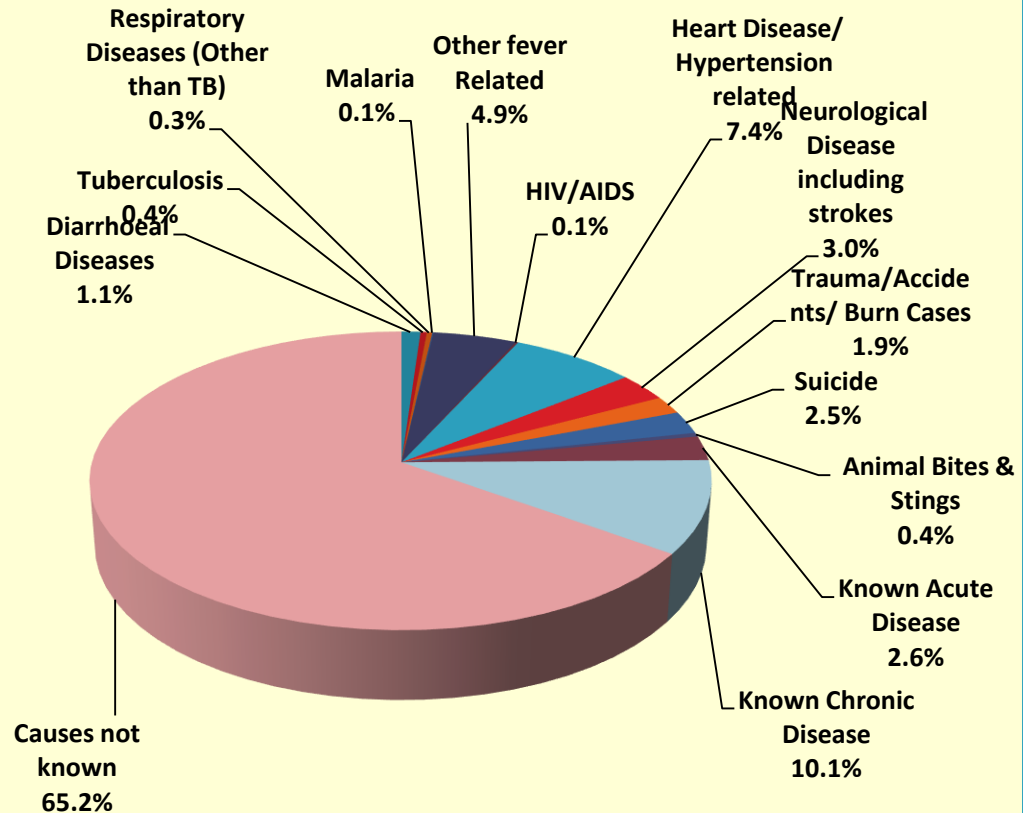
Source : HMIS Data Analysis 2015-16, District Bhadrak

Causes of deaths (above 6 years of age)

Causes of deaths (above 6 yrs of age) 2015-16

Causes	6-14 yrs	15-55 yrs.	Above 55yrs	Total
Malaria	1	-	2	3
HIV/AIDS	-	4	2	6
Respiratory Diseases (Other than TB)	-	1	12	13
Tuberculosis	-	12	3	15
Animal Bites & Stings	2	12	3	17
Diarrheal Diseases	-	7	38	45
Trauma/Accidents/ Burn Cases	3	52	23	78
Suicide	1	45	54	100
Known Acute Disease	2	43	62	107
Neurological Disease including strokes	1	27	95	123
Other fever Related	3	44	151	198
Heart Disease/ Hypertension related	2	104	195	301
Known Chronic Disease	5	106	298	409
Causes not known	29	331	2,288	2,648
Total Deaths	49	788	3,226	4,063

Odisha - Bhadrak - Cause of deaths 6 yrs & above against total reported deaths 6 yrs & above - Apr'15 to Mar'16



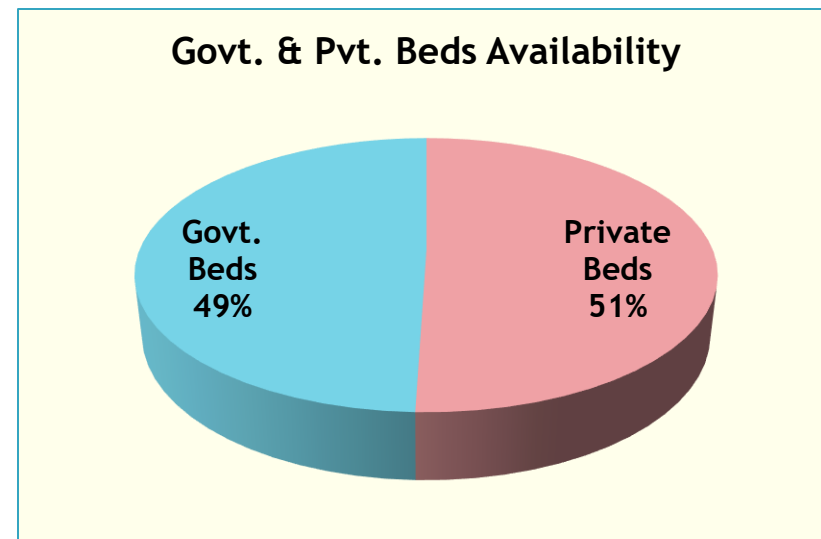
Source : HMIS Data Analysis 2015-16, District Bhadrak

SECTION 4: SUPPLY ASSESSMENT



BEDS AVAILABILITY

Facility type	Number of facilities	Number of beds
District Headquarters Hospital	1	210
Sub-divisional hospitals	0	0
Community Health Centers	7	158
Primary Health Centers & IDH	53	21
Other hospitals / Area Hospital	3	50
Private Hospitals	21	448
Total	85	887



Source: Primary data from DHH & Pvt. hospital & Secondary data from NHM and DHS Odisha

- Out of 53 PHCs, Only 2 PHCs have 21 functional beds

ABOUT DISTRICT HEADQUARTERS HOSPITAL, BHADRAK



The present District Head Quarter Hospital was one of the Sub divisional Hospital of undivided Balasore district.

Later in the year 1993 when Balasore district was divided into Balasore and Bhadrak, SDH was upgraded to a District Headquarter Hospital of Bhadrak with additional services and facilities.

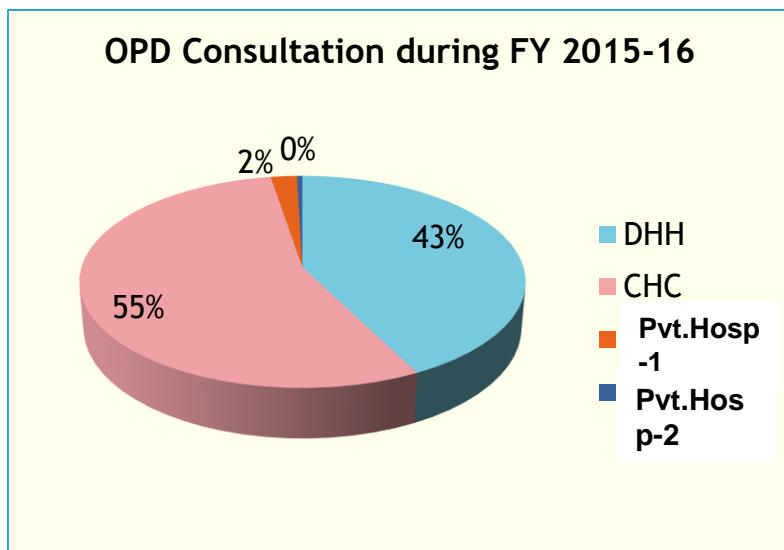
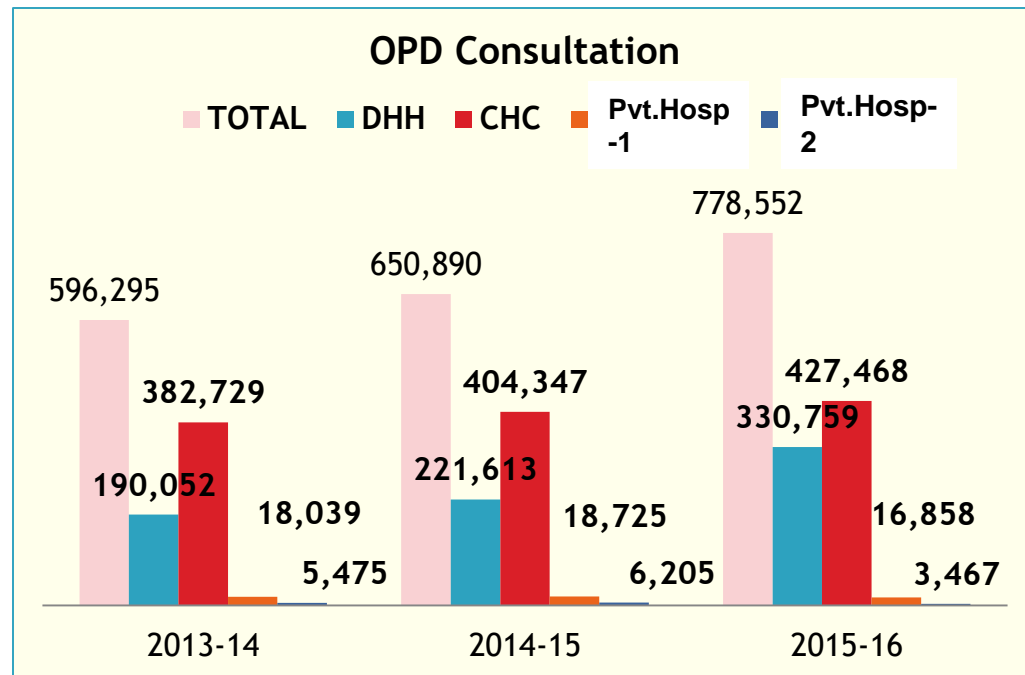
Total number of beds	Sanctioned 249 Functional 270
Service specialties	Internal medicine, General surgery, Gynecology and obstetrics, Neonatology, Pediatrics, Orthopedics, Ophthalmology, ENT Dentistry, Skin and VD, TB & Chest, Emergency
Diagnostic facilities	X-ray, ECG, USG, Laboratory
Operating rooms and Labour tables	2 major OT, 4 labour tables
Other clinical facilities	Blood bank, Pharmacy, Physiotherapy, Speech therapy
Outsourced Support facilities	Laundry, Dietary, Biomedical waste management, Security, Housekeeping

Major Private Healthcare Facilities

Private Facilities	Beds
Subham Health care & Research Centre	100
Salandi Hospital	100
Padhi Health care	19
Bhoomika Hospital	30
Umashankar Health care	8
Pani grahi Health care	14
Binayak Nursing Home & Research Centre	20
Sai Hospital	24
Om Sai Hospital	20
Ranisa India Health Care	18

OPD Consultations

Facility Name	2013-14	2014-15	2015-16
DHH	190,052	221,613	330,759
CHC	382,729	404,347	427,468
Pvt.Hosp-1	18,039	18,725	16,858
Pvt.Hosp-2	5,475	6,205	3,467
TOTAL	596,295	650,890	778,552

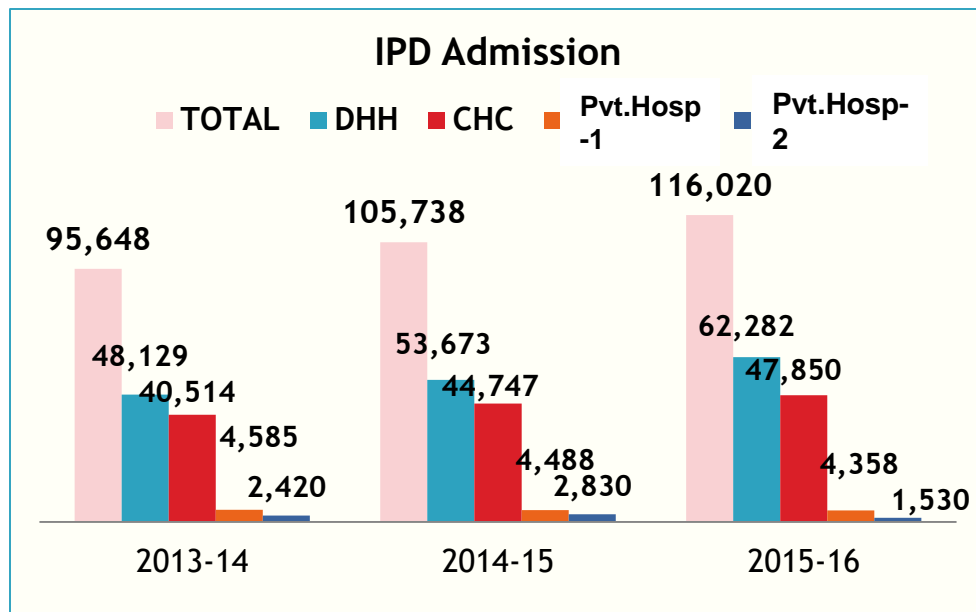


- During FY 2015-16, DHH had 1103 OPD consultations per day, on an average per day per CHC account for 203 OPD consultations.
- OPD consultations per day at Pvt.Hosp-1 and Pvt.Hosp-2 were 56 and 12 respectively.
- The total OPD consultations of the district indicate an overall increasing trend. All the government healthcare facilities show an increase in OPD consultations over the years.
- CHC records the highest share of OPDs (55%)

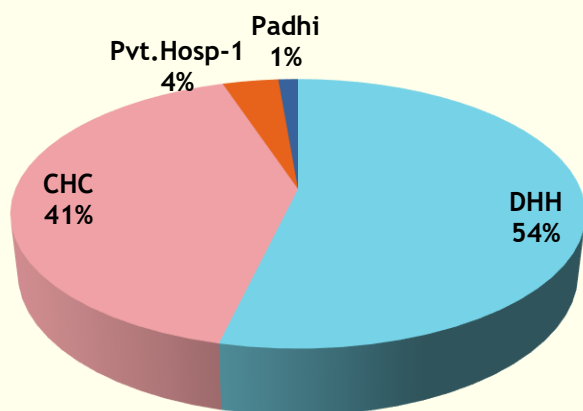
Source: Primary data from DHH & Pvt hospital & Secondary data from NHM and DHS Odisha

IPD admissions

Facility Name	2013-14	2014-15	2015-16
DHH	48,129	53,673	62,282
CHC	40,514	44,747	47,850
Pvt.Hosp-1	4,585	4,488	4,358
Pvt.Hosp-2	2,420	2,830	1,530
TOTAL	95,648	105,738	116,020



Facility wise share of IPD admission



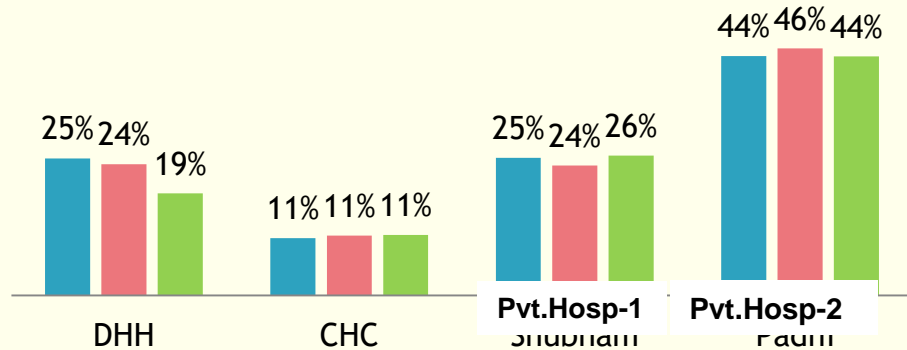
- Overall IPD admissions in the district and all the public health facilities show an increasing trend.
- Per day IP admissions for the FY 2015-16 at DHH is 171 and an average of 19 admissions per day per CHC.
- DHH, Bhadrak witnessed a staggering rise of 29% in IPD admissions over the years, whereas IP admissions over the years have decreased for both the private hospitals i.e. Pvt.Hosp-1 by 5% and a significant drop of 37% at Pvt.Hosp-2 Healthcare.

Source: Primary data from DHH & Pvt hospital & Secondary data from NHM and DHS Odisha

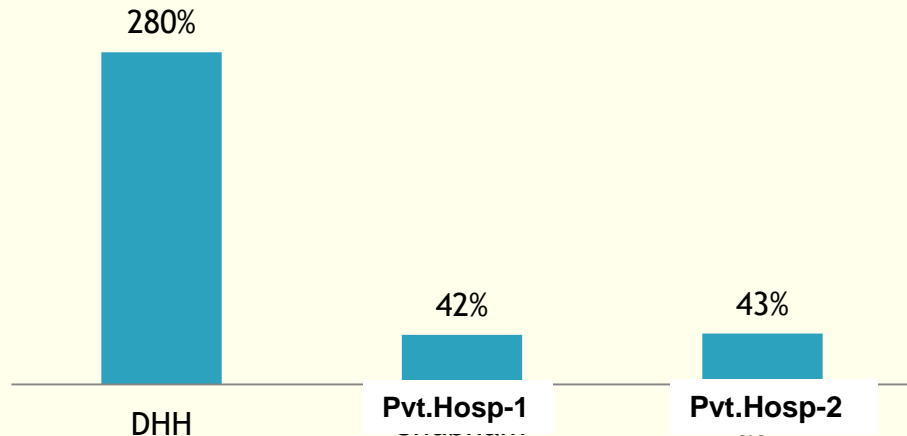
BED UTILIZATION

OPD to IPD Conversion Rate

■ 2013-14 ■ 2014-15 ■ 2015-16



Bed Occupancy Rate (BOR) FY-2015-16

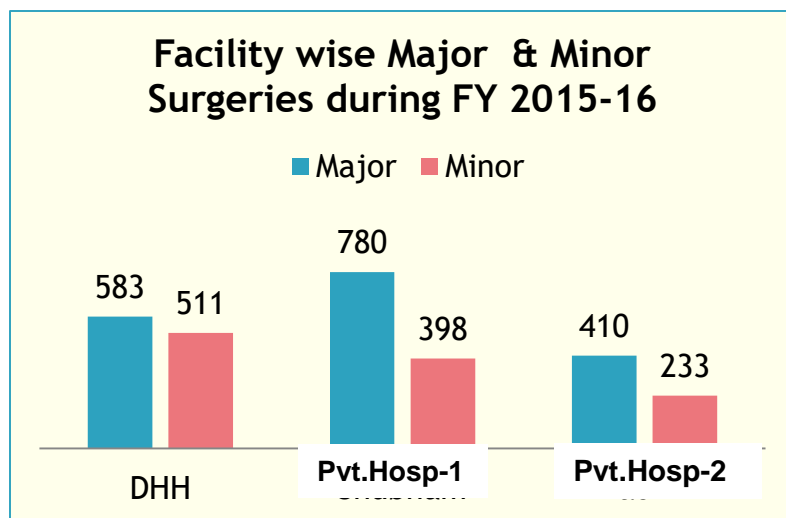
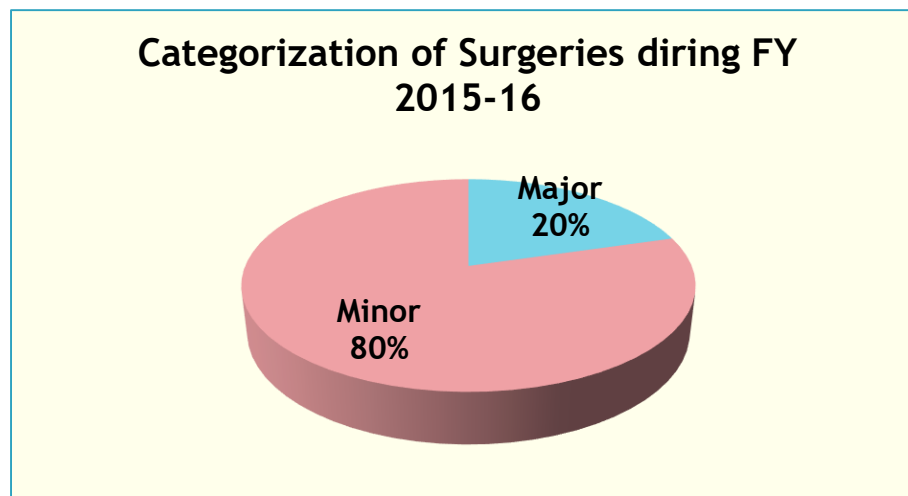


- Although the OP consultations and IP admissions of DHH has increased significantly over the years, it should be noted that the OP to IP conversion has decreased by 6% over the years.
- Considering the HMIS data FY- 2015-16 of all 30 district hospitals in the state , the overall OP to IP conversion is 15%, whereas that of DHH Bhadrak is 19%
- The OP to IP conversion at both the private facilities is significantly higher than industry standards, owing to referrals from DHH due to lack of beds. Being near to the DHH and having empanelment under RSBY and BKKY scheme, a lot of patients too prefer availing services from these hospitals.
- BOR of DHH indicates that for every three admissions, two patients do not have beds.
- BOR at DHH is much above the optimum level of 80%, the lack of adequate beds at the government healthcare facilities indicate the quality of services being compromised at these facilities, which calls for additional beds and healthcare facilities in the district.

Source: Primary data from DHH & Pvt. hospital & Secondary data from NHM and DHS Odisha

GENERAL SURGERIES

Facility Name	Major	Minor	TOTAL
DHH	583	511	1,094
CHC	43	5,912	5,955
Pvt.Hosp-1	780	398	1,178
Pvt.Hosp-2	410	233	643
TOTAL	626	6,423	8,870



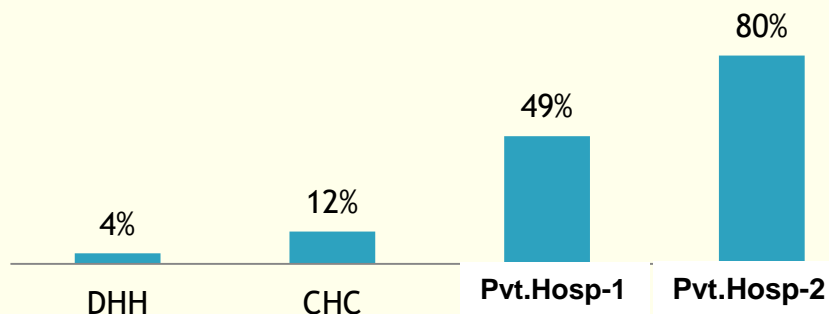
- For the FY 2015-16, of all the surgeries performed at DHH, 53% comprise of major surgeries whereas at CHC's only 1 % is major surgeries.
- Unavailability of anesthetist can be considered one of the reason for this significantly low major surgeries at the CHC's.
- At private healthcare facilities, the surgeries performed are primarily major in nature (Pvt.Hosp-1 66%, Pvt.Hosp-2 64%).

Source: Primary data from DHH & Pvt. hospital & Secondary data from NHM and DHS Odisha

OT UTILIZATION

Name of Facility	Number of surgeon	Total number of procedures	Procedures per day	Procedure per surgeon per day	Number of OT in the facility	Surgeries per OT per day
DHH	7	2,528	8.4	1.2	2	4.2
CHC	28	5,963	19.9	0.7	7	2.8
Pvt.Hosp-1	3	2,138	7.1	2.4	4	1.8
Pvt.Hosp-2	3	1,224	4.1	1.4	2	2.0

IPD to Surgery Conversion during FY 2015-16

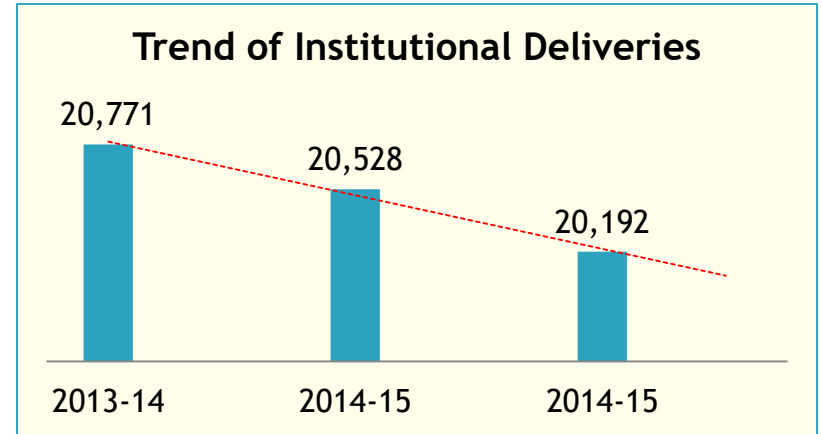


- Data indicate optimal utilization of OT at DHH with 4.2 surgeries per OT, however approx 1 surgery per surgeon per day is under utilization of surgeons.
- The IP to surgery conversion at DHH is much below the industry standard which is 10-12%
- The high IP to surgery conversion at both the private health care facilities indicate patient flow at these facilities are basically for surgical interventions, this too explains the reason for high OP to IP conversion.

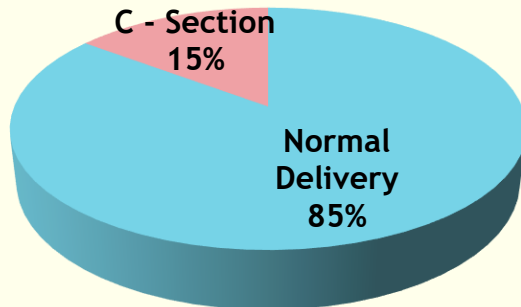
Source: Primary data from DHH & Pvt. hospital & Secondary data from NHM and DHS Odisha

INSTITUTIONAL DELIVERIES

Name of Facility	2013-14		2014-15		2015-16	
	Normal Delivery	C - Section	Normal Delivery	C - Section	Normal Delivery	C - Section
DHH	6,063	1,182	6,217	1,547	6,981	1,434
CHC	10,588	159	9,907	58	9,367	8
Pvt.Hosp-1	676	1,015	584	876	640	960
Pvt.Hosp-2	420	668	580	759	221	581
Sub Total	17,747	3,024	17,288	3,240	17,209	2,983



Categorization of Institutional Deliveries during FY 2015-16



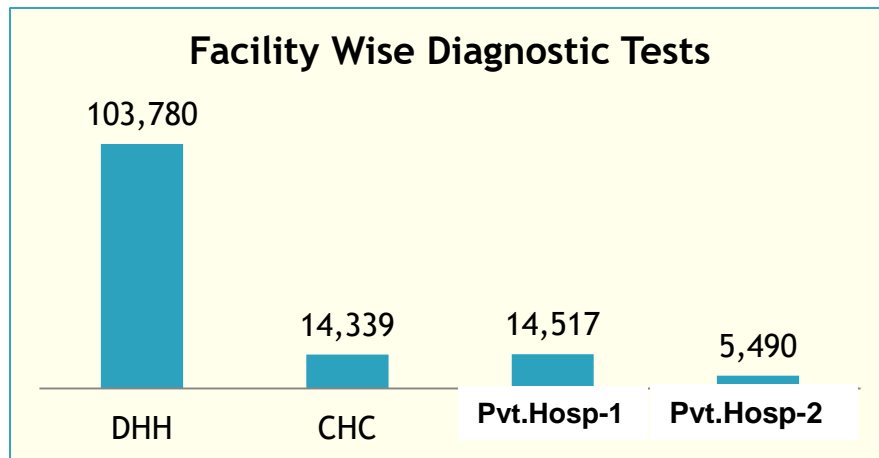
- Institutional deliveries in the district show a slight decreasing trend (3%) over the years at the studied facilities, as opined by the hospital manager the increase of institutional deliveries at PHC's is one reason for the same.
- In 2015-16, DHH performed 23 deliveries per day (@19normal and 4 C-section).
- 52% of the total C-sections during FY 2015-16 has been carried out at private healthcare facilities, inspite of having only 25% of beds at the studied facilities.

Source: Primary data from DHH & Pvt. hospital & Secondary data from NHM and DHS Odisha

DIAGNOSTICS PROCEDURES

Diagnostic Test	X Ray	USG	ECG	CT Scan	Lab Tests
DHH	6,579	0	971	0	96,230
CHC	0	0	0	0	14,339
Pvt.Hosp-1	115	1,838	110	0	12,454
Pvt.Hosp-2	0	1,530	0	0	3,960
Total	6,694	3,368	1,081	0	126,983

- Overall Lab tests accounts for majority (92%) of total diagnostics.
- X-ray and USG constitute of only 5% and 2% of the total diagnostic procedures conducted at the district which is far below industry standards.
- Data indicate majority of the diagnostic procedures are conducted at DHH.
- CT Scan is not available at any of the healthcare facility , while USG is available only at the private facilities.
- Non-functional USG services at DHH due to unavailability of sonologist causes a lot inconvenience to patients.

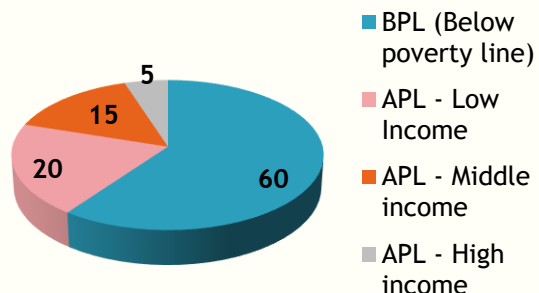


Source: Primary data from DHH & Pvt. hospital & Secondary data from NHM and DHS Odisha

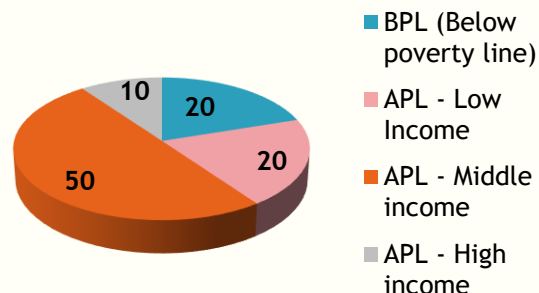
ECONOMIC SEGMENT & MODE OF PAYMENT

Economic Segment of Patients

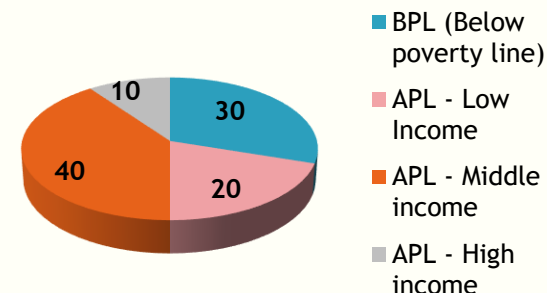
DHH



Pvt.Hosp-1

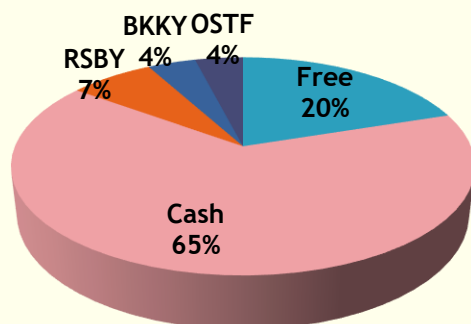


Pvt.Hosp-2

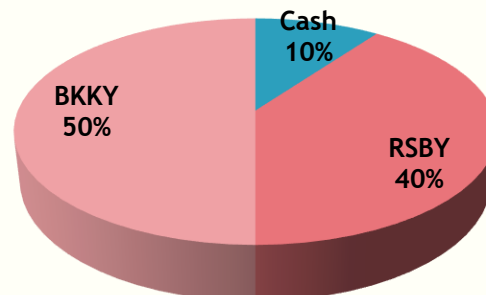


Mode of Payment by Patients to the Hospital

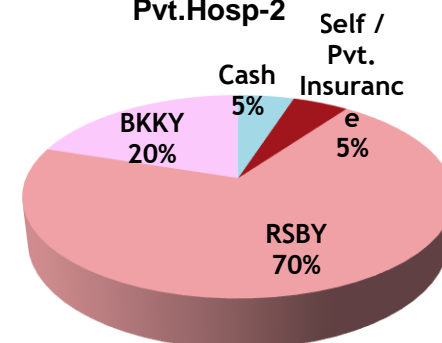
DHH



Pvt.Hosp-1



Pvt.Hosp-2



Note: estimations given above are based on discussion with ADMO Medical and Hospital Manager

SECTION 5: CATCHMENT AREA & REFERRALS

CATCHMENT OF DHH

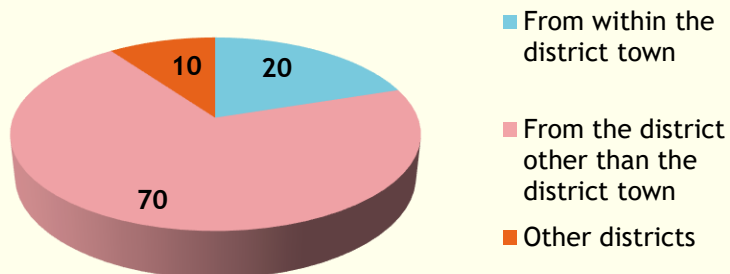


Catchment Type	Name of the block	Population	Distance from district HQ
Primary	Bhadrak	3,52,403	-
Secondary	Bhandarypokhari	1,27,158	18
	Tihidi	1,94,768	20
	Bant	1,52,063	22
	Dhamanagar	2,04,201	23
	Basudebpur	2,25,707	35
	Chandabali	2,50,037	53
Total		15,06,337	

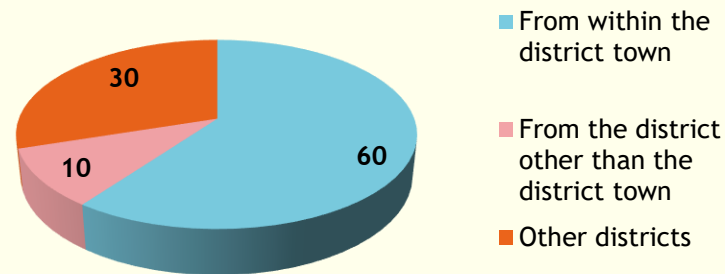
SOURCE OF PATIENT INFLOW

Source of Patient Inflow

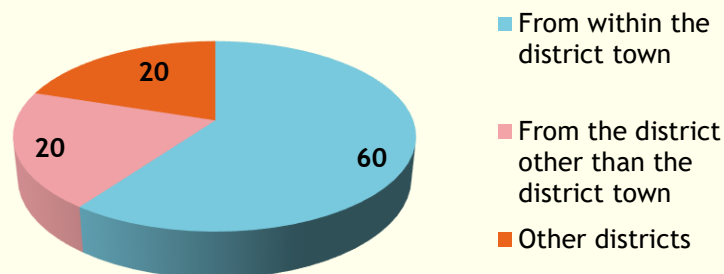
DHH



Pvt. Hosp-1

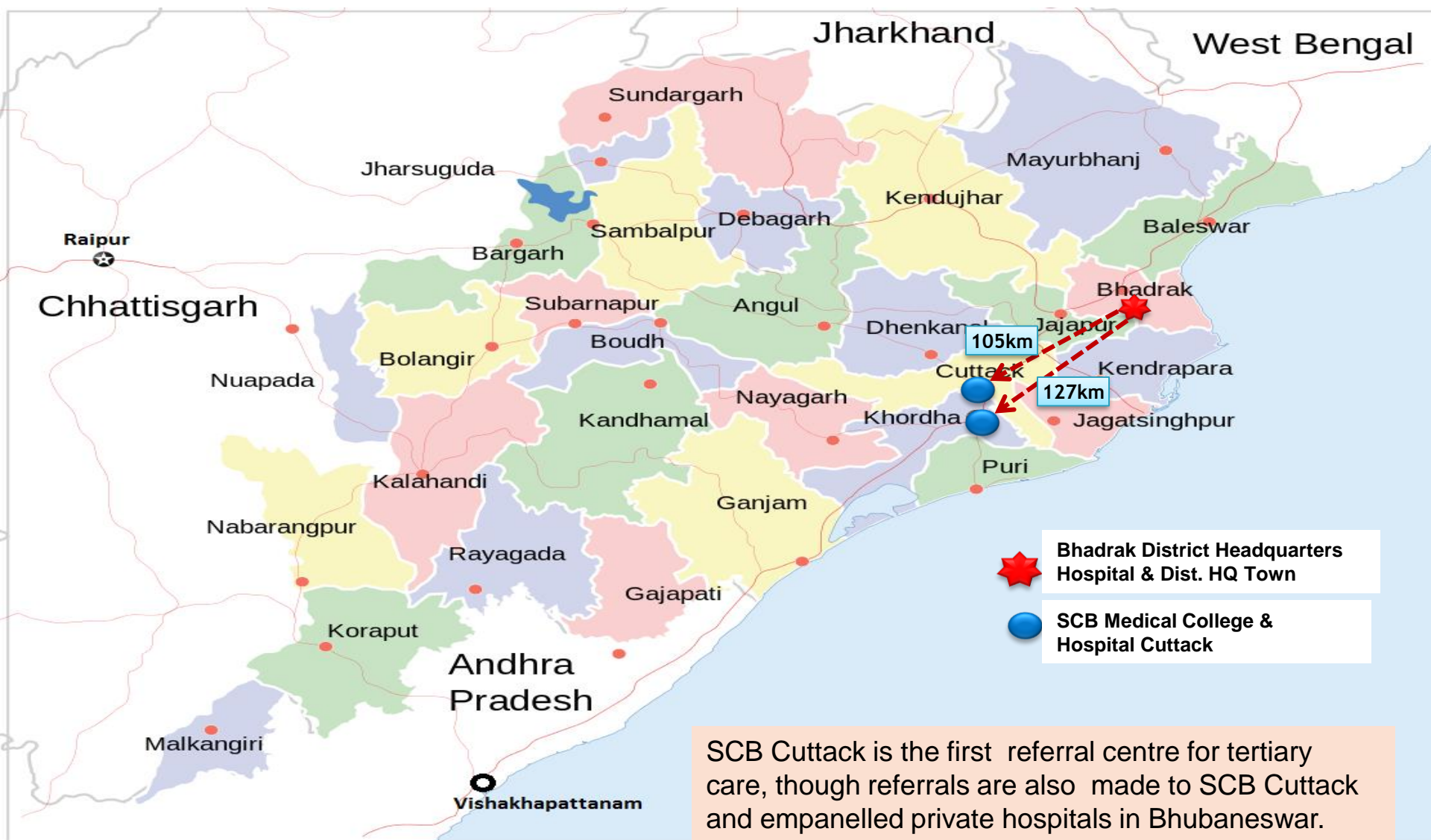


Pvt. Hosp-2



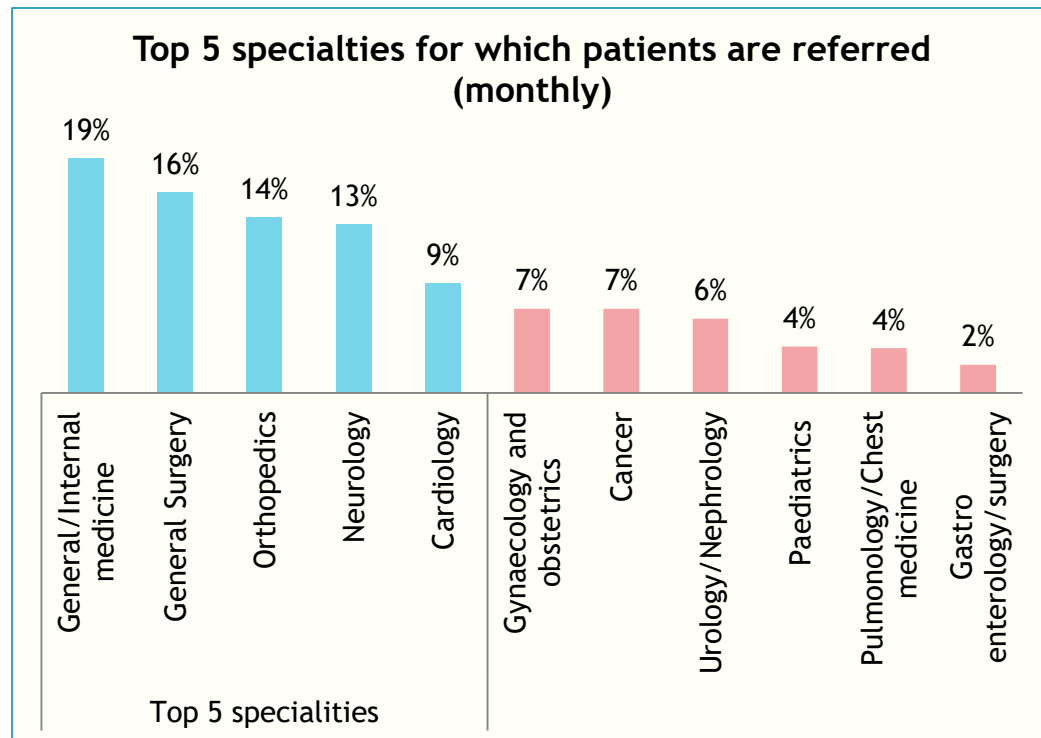
Source: estimations given above are based on discussion with ADMO Medical and Hospital Manager

POINTS OF REFERRAL



Top specialties of referral from DHH to other district

Specialty		Bhadrak
Top 5 specialties	General/Internal medicine	167
	General Surgery	143
	Orthopedics	125
	Neurology	120
	Cardiology	78
Other specialties	Gynaecology and obstetrics	60
	Cancer	60
	Urology/Nephrology	53
	Paediatrics	33
	Pulmonology/Chest medicine	32
	Gastro enterology/surgery	20
Total		891



- Top 5 specialties of referrals accounts close to 71% of total referrals.

Source: Interviews from ADMO (Med.), Specialist Physicians and General Physicians.

CONNECTIVITY & TRANSPORT

- **Nearest railway station :** Bhadrak railway station serves Bhadrak district
- **Road ways:** Bhadrak lies on National Highway 5. There are frequent buses from Cuttack , Bhubaneswar and Balasore to Bhadrak and vice versa.
- **Airport :** Bijupatnaik International Airport, Bhubaneswar 127 kms
- **Nearest government referral centre:** SCB Medical College, Cuttack (105km)



SECTION 6: DEMAND ASSESSMENT

DEMAND - OPD and IPD

- **Out Patients:** As per NSSO 60th round data, the estimates of spells of ailment in Odisha population and percentage of the spells of ailment seeking non-institutional treatment i.e., ambulatory care, applied to the catchment population gives estimates of OP demand in the population. The PAP (proportion of ailing person) per 1000 population in 15 days is 77 for Odisha and spells of ailments treated during 15 days is 76%.
- Further the OP estimates has been extrapolated to include the load of estimated pregnant women in a population, to cover ANC visits as OPD in health facilities.
- **In patient:** For the FY 2015-16, OP to IP conversion rate for 30 DHHs has been 15%. Hence for the calculation OP to IP conversion rate is taken on an average to be at 15%.

Level	Facility	Estimated Demand	
		OP	IP
Secondary Care Level (At District Level)	District Headquarters Hospital/ Sub-divisional Hospitals/ Community Health Centres and other public/private secondary care facilities in the district.	2,426,248	363,937

DEMAND (SERVICE MIX OF OPD & IPD)

Department	Specialty Mix			
	% of OPD*	Estimated OPD demand	Estimated IPD demand (@ 15% OP-IP conversion)	Total Estimated Cases
Gen Med	22	533,775	80,066	613,841
OBG	14	339,675	50,951	390,626
Paediatrics	12	291,150	43,672	334,822
Gen. Surgery	11	266,887	40,033	306,920
Orthopaedic	9	218,362	32,754	251,117
ENT	7	169,837	25,476	195,313
Ophthalmology	7	169,837	25,476	195,313
Others specialties	18	436,725	65,509	502,233
TOTAL	100%	2,426,248	363,937	2,790,185

* Percentage of specialty mix for OPD is derived from morbidity rate of NSSO data 2004-05, 60th Round, increased by a factor of 1.5 to develop a conservative estimate of patient need.

Source :

-NSSO 60th Round data

-Journal: the cost of universal healthcare in India - A model based estimate, 2012

DEMAND (DIAGNOSTICS OPD & IPD)

Key diagnostics services	Demand OPD		Demand IPD		Total Demand
	Total % of OPD	Estimated Demand	Total % of IPD	Estimated Demand	
X Ray	15%	363,937	50%	181,969	545,906
USG	20%	485,250	35%	127,378	612,628
ECG	10%	242,625	60%	218,362	460,987
CT Scan	2%	48,525	5%	18,197	66,722
Lab Tests	60%	1,455,749*	100%	363,937**	1,819,686

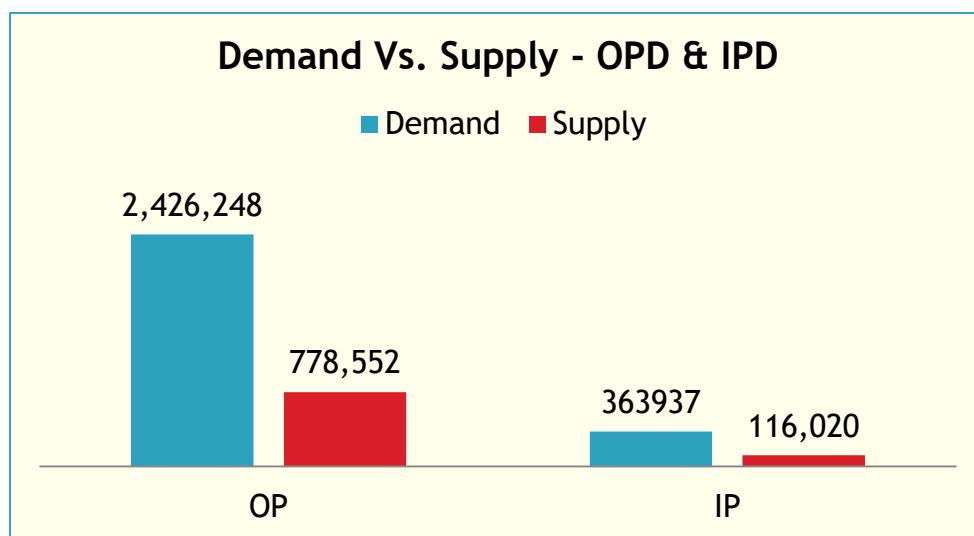
* Considering industry standards 60% of OPD patients undergo at least 2 tests per patient. Hence, demand number of OPD lab tests would be 2,911,498 tests.

** Considering industry standards 100% of IPD patients undergo at least 5 lab tests per patient. Hence, demand number of IPD lab test would be 1,819,686

SECTION 7: GAP ASSESSMENT

GAP - OPD & IPD

Level	Facilities	Gap			
		OP	Gap%	IP	Gap%
Secondary Care Level (District level)	District Headquarters Hospital, Sub-divisional Hospitals, Community Health Centres and other secondary care facilities in the district.	1,647,696	68%	247,917	68%

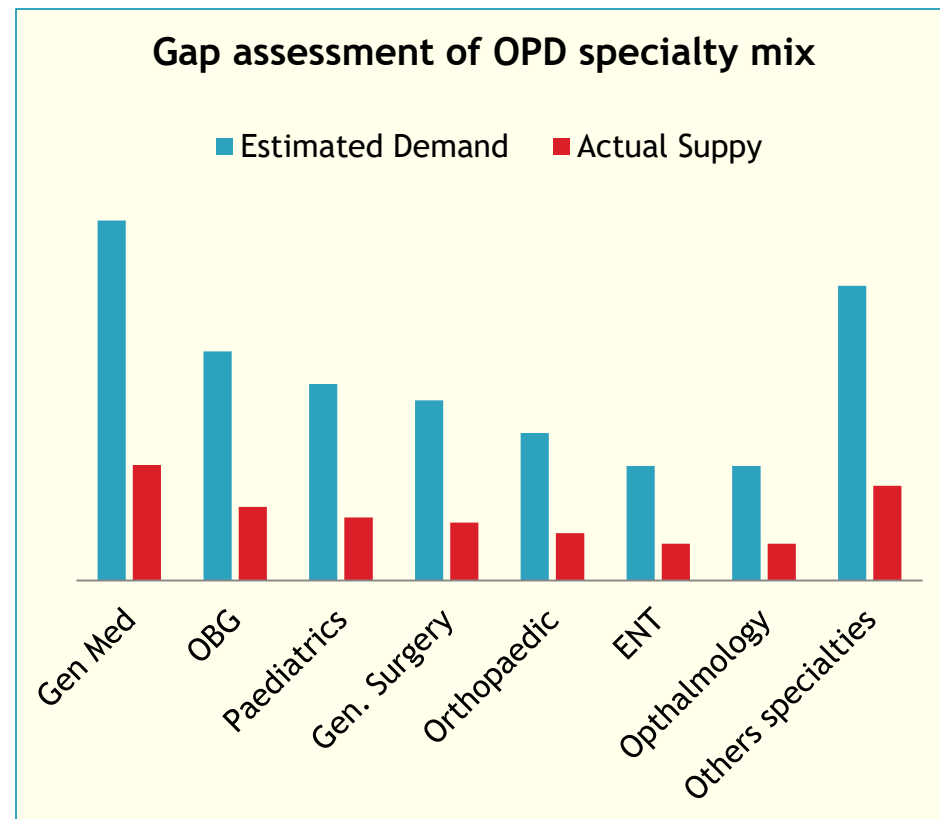


- Present resources are scarce to cater to the existing demand.
- It can be inferred that at secondary care level only 67.9% of the existing demand is being met for OPD and 68.1% for IPD.

Source :
NSSO 60th Round data for estimation of PAP
(proportion of ailing persons per 1000 population)

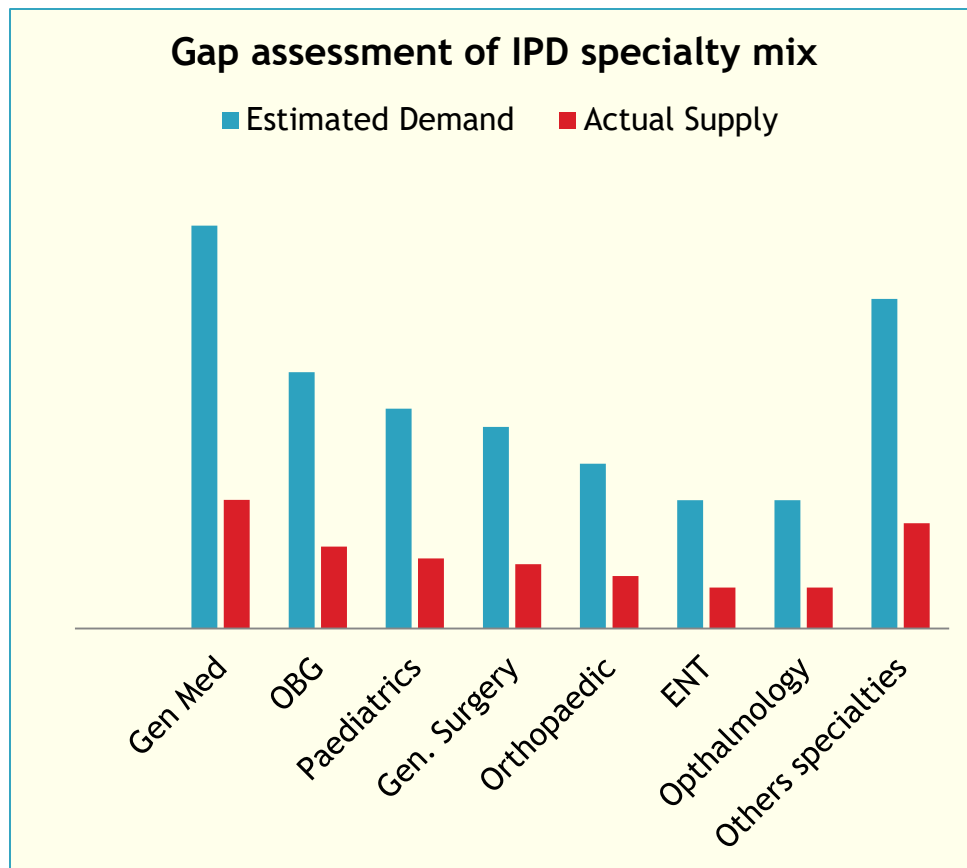
GAP - Specialty Mix OF OPD

CASE MIX (OPD)			
Specialty Mix	Demand	Supply	Gap
Gen Med	533,775	171,281	362,493
OBG	339,675	108,997	230,677
Paediatrics	291,150	93,426	197,724
Gen. Surgery	266,887	85,641	181,247
Orthopaedic	218,362	70,070	148,293
ENT	169,837	54,499	115,339
Ophthalmology	169,837	54,499	115,339
Others specialties	436,725	140,139	296,585
Total	2,426,248	778,552	1,647,696



GAP - Specialty Mix

CASE MIX (IPD)			
Specialty Mix	Demand	Supply	Gap
Gen Med	80,066	25,524	54,542
OBG	50,951	16,243	34,708
Paediatrics	43,672	13,922	29,750
Gen. Surgery	40,033	12,762	27,271
Orthopaedic	32,754	10,442	22,313
ENT	25,476	8,121	17,354
Ophthalmology	25,476	8,121	17,354
Others specialties	65,509	20,884	44,625
Total	363,937	116,020	247,917



NOTE:

OP to IP conversion rate has been considered @15%.

GAP Diagnostics - (OPD & IPD)

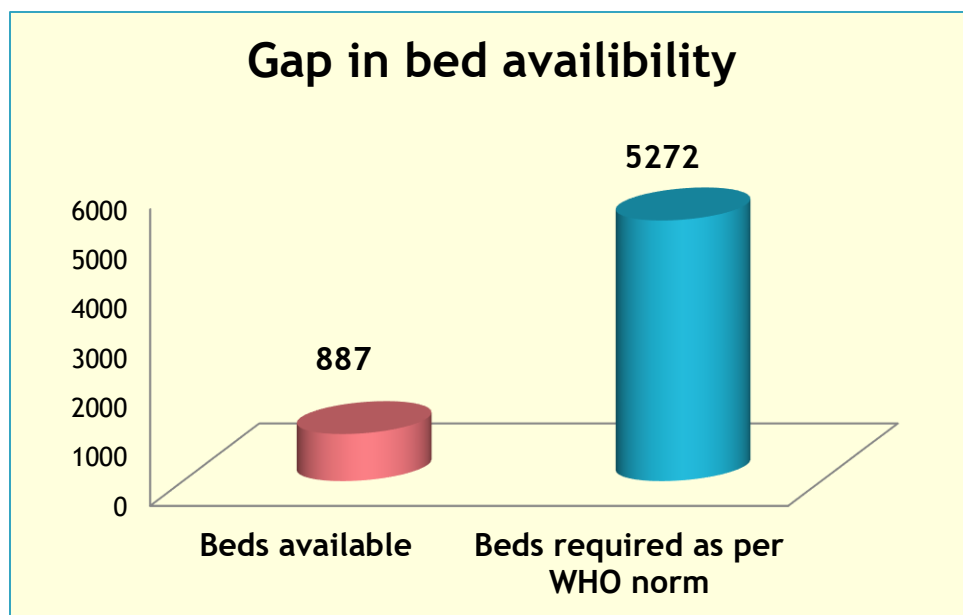
Diagnostics	Estimated Demand OPD	Estimated Demand IPD	Actual Supply	Total gap	% Gap
X Ray	363,937	181,969	6,694	539,212	98.8%
USG	485,250	127,378	3,368	609,260	99.5%
ECG	242,625	218,362	1,081	459,906	99.8%
CT Scan	48,525	18,197	0	66,722	100.0%
Lab Tests*	1,455,749	363,937	126,983	1,692,703	93.0%

* Number of patients that would undergo lab tests.

NOTE: Diagnostic conversion rate are as per industry standards

GAP - HOSPITAL BEDS

Hospital beds available in the district						
Primary health centers & IDH	Community health centers	Sub district Hospital	District hospital	Other Hospital	Private Hospital	Total Bed strength
53 21 beds	7 158 beds	0 0 beds	01 210 beds	3 50 beds	21 448 beds	887



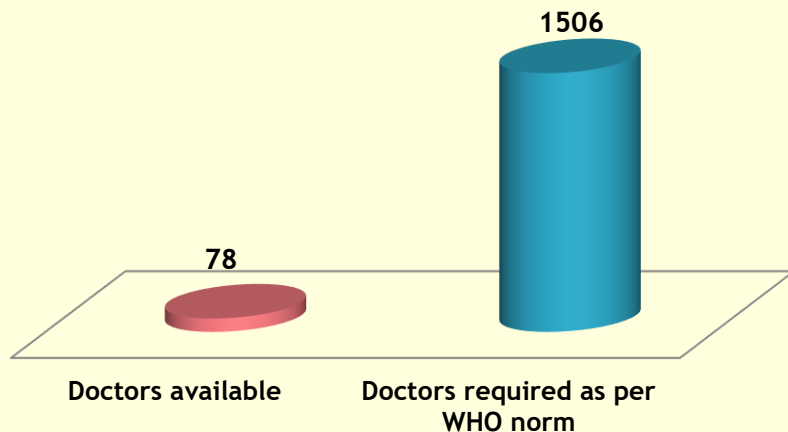
The district of Bhadrak has 64 public and 21 private health care facilities with a bed strength of 887 beds only. Beds in Private healthcare facilities comprise of 51% of total bed strength of the district.

Considering the WHO norm of 3.5 beds per 1000 population, the district with a population of 15,06,337 falls short of 4385 beds (i.e. a gap of 83% beds).

** Source : Bed Strength, DHS Odisha and Clinical Establishment, DMET Odisha*

GAP - DOCTORS AND NURSES

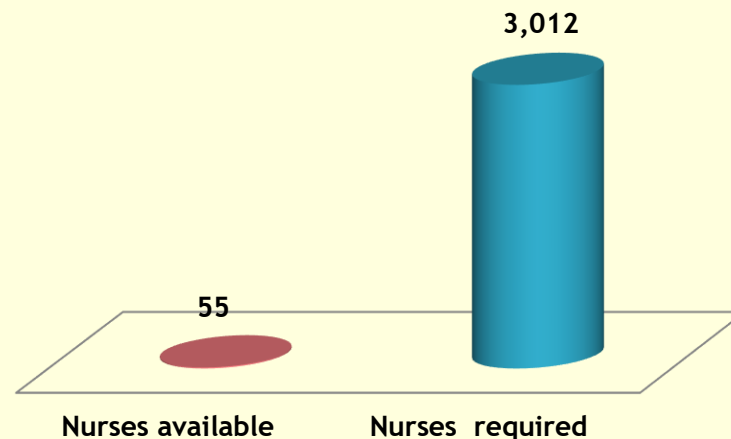
Gap in doctor's availability



- There are 137 sanctioned positions for doctors, of which 59 positions are vacant.
- Considering the WHO norm of 1 doctor per 1000 population, the district has a shortfall of 1428 doctors

* Source : District wise Incumbency list , DHS Odisha

Gaps in nurses availability



- As per primary and secondary data collected There are only 55 nurses posted in the district. (3 nursing sister and 52 staff nurse).
- Considering the WHO norm of 2 nurses per 1000 population, the district has a shortfall of 2,957 nurses.

* Source : Staff position list received from DHH Phulbani and nursing staff list from directorate of nursing, Odisha.

SERVICE AVAILABILITY AND GAPS

Diagnostic Facility

Name of facility	IPHS Requirement	Available
500 M.A X-ray machine	1	0
300 M.A. X-ray machine	1	1
100 M.A. X-ray machine	1	0
60 M.A. X-ray machine (Mobile)	1	1
Dental X-ray machine	1	1
USG with colour doppler	3	1
ECG computerized	1	1
ECG ordinary	2	1 (non-functional)
TMT	1	0
A Scan	1	0
B Scan	1	0
Audiometry	1	0
PFT	1	0
Bronchoscope	1	0
Haematology lab	1	1
Biochemistry lab	1	1
Microbiology lab	1	0
Histopathology lab	1	0
Immunology and Serology lab	1	0

Clinical Facility

Name of facility	IPHS Requirement	Available
General OPD	1	1
Speciality OPD	8-10	8
Major OT	2	1
Emergency OT	1	0
Ophthalmology/ ENT OT	1	0
Minor OT	1	0
Gyneaecology OT	1	1
Labour Table	11	4
Pharmacy	1	1
Blood Bank	1	1
Ambulance (BLS)	1	2

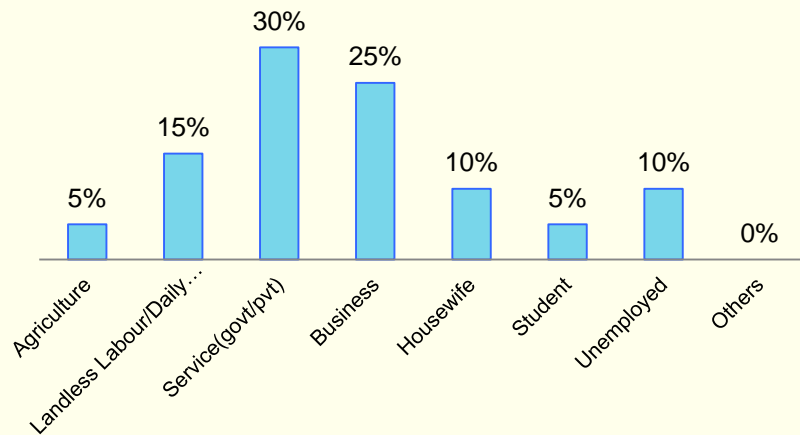
When compared with IPHS for district hospitals, major gaps are in the areas of Diagnostics and Specialty OPDs

Source : IPHS for District Hospital, Equipment norms 201 – 300 bedded

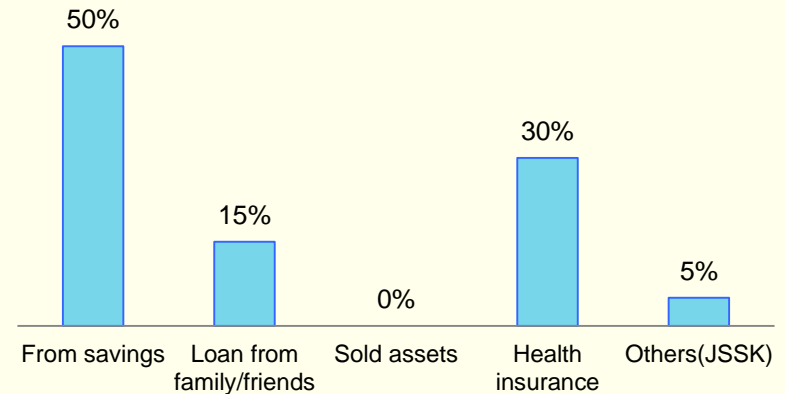
SECTION 8: FINDINGS OF GENERAL POPULATION SURVEY

INCOME AND OCCUPATION

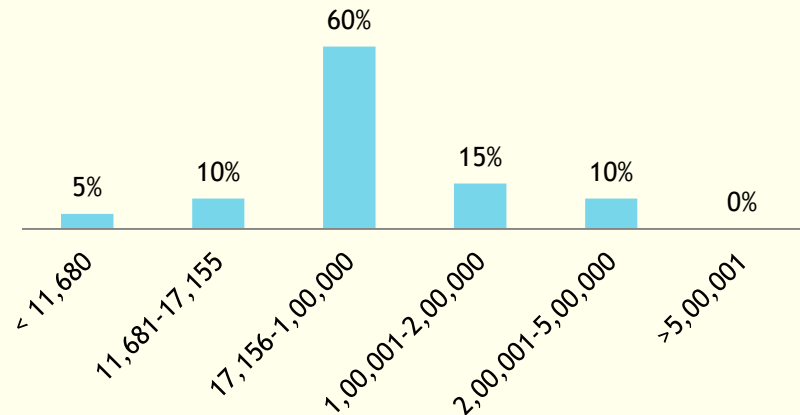
Occupation of the respondents



Source of health related costs



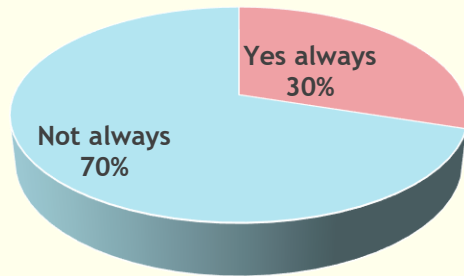
Annual family income of the respondents



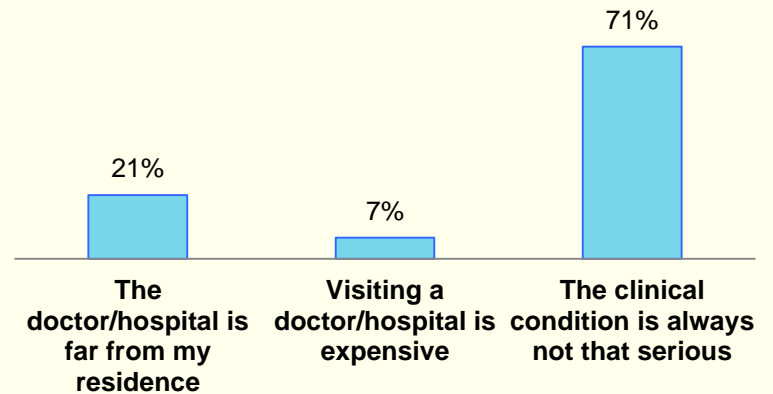
- Majority of the respondents were in service followed by people in business owners with an annual income not more than 100,000.
- 30% of the patients surveyed had health insurance & 5% of the patients surveyed were under JSSK scheme as primary source of health related costs, which indicates a decent number of segregation among people for health related cost.

HEALTH SEEKING BEHAVIOUR

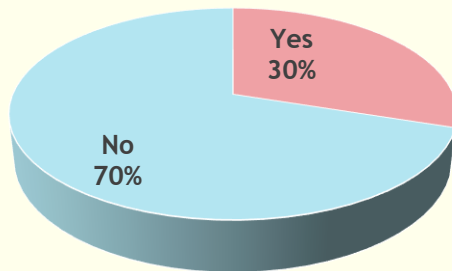
Do you visit a doctor / health facility whenever someone is sick in your family?



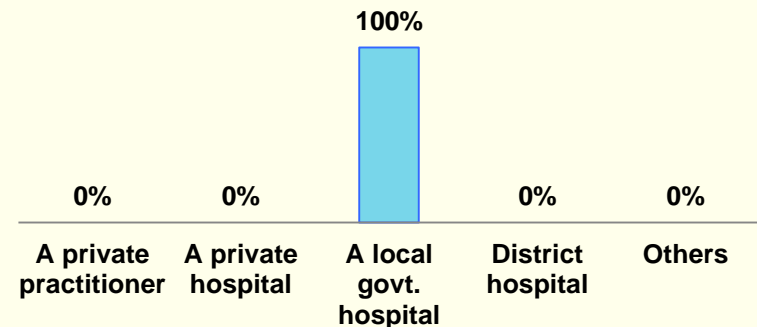
Why, Not always?



Have you consulted /visited any other doctor /hospital before coming to this hospital, in this instance and for this ailment?



What is the type of healthcare facility that you had visited before coming to this hospital?

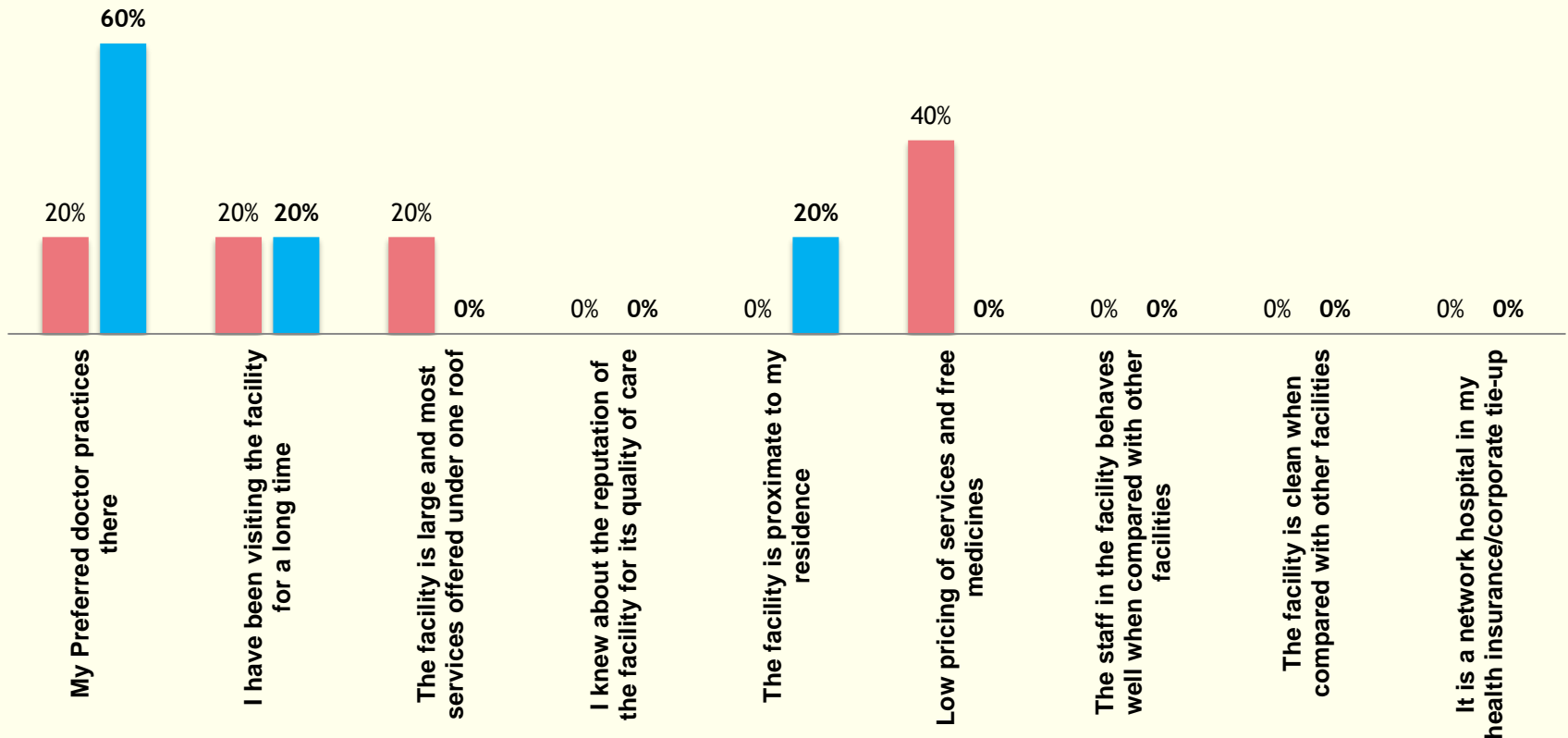


The survey response indicates that people visit health care facility only for a serious ailment and they mostly choose Govt hospital.

HEALTH SEEKING BEHAVIOUR

Reason for choosing a hospital

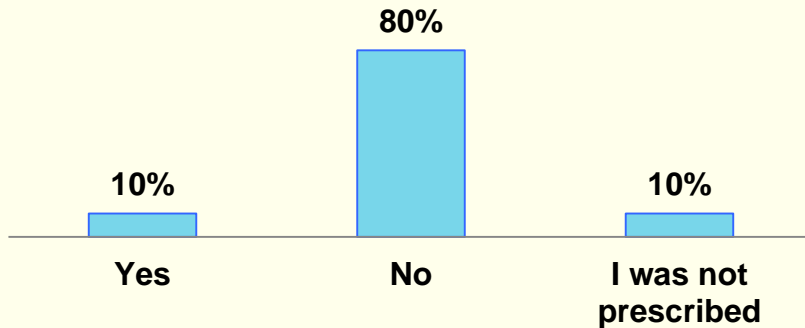
Govt. hospital Pvt. Hospital



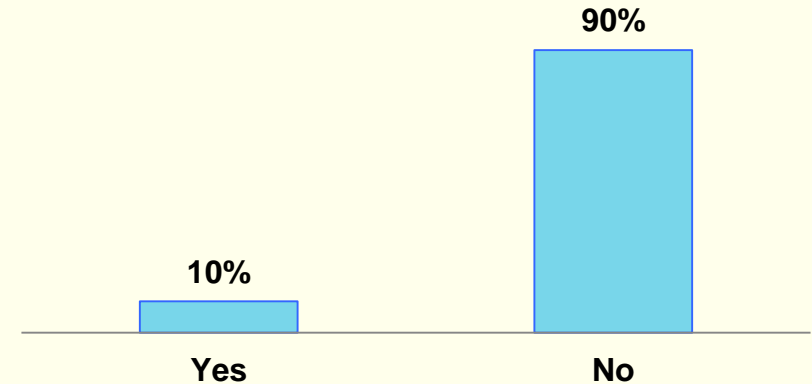
- While availability of services under one roof was the main reason for choosing a government healthcare facility. Proximity to residence was the main reason for choosing a private healthcare facility.

VISITING EXTERNAL FACILITIES

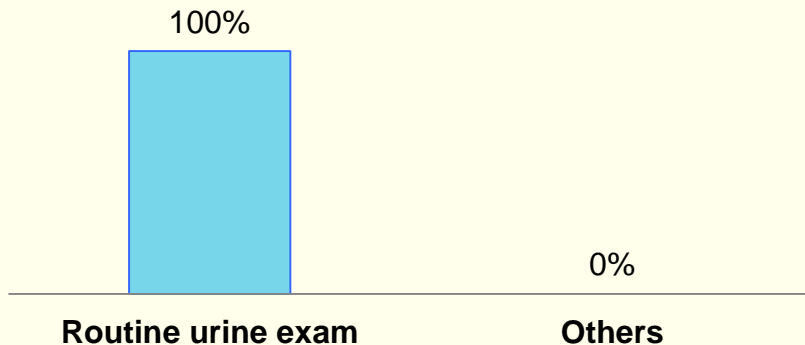
Did you have to visit any other hospital/diagnostic center for any diagnostic test?



Did you have to buy any medicine from an external pharmacy?



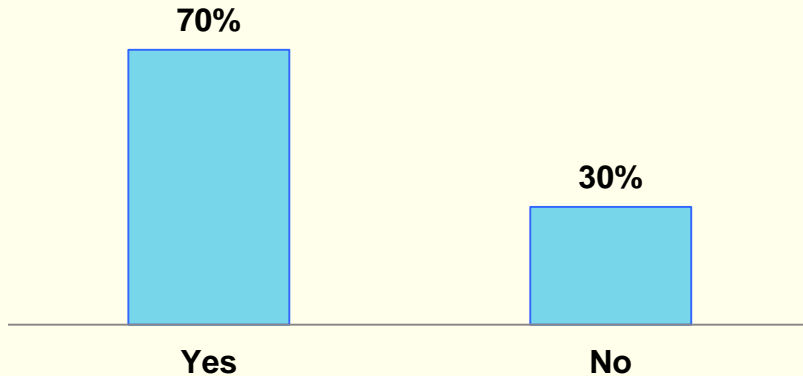
Tests that has been performed from other hospital/diagnostic centres



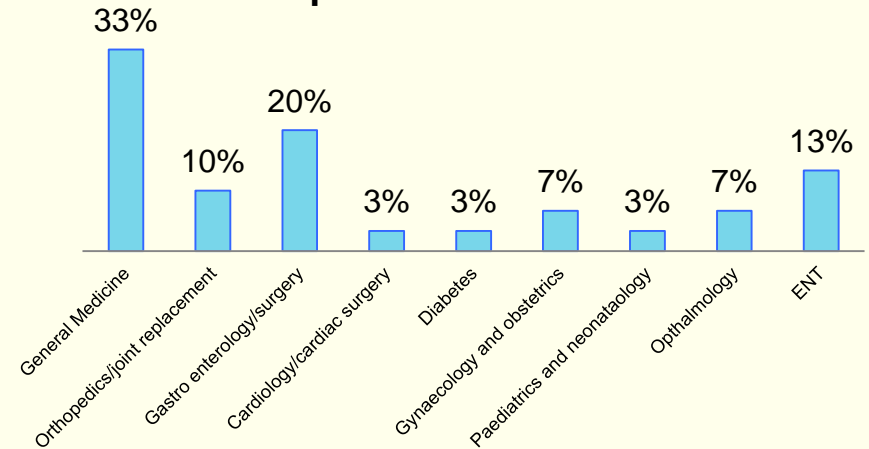
- Only 10% of the respondents at DHH, had visited external diagnostic centre, that indicates patient goes outside only when they are advised for a confirmation.
- 10% of respondents had to purchase medicines from external pharmacy due to unavailability of the required medications.

REGULAR MEDICATION BEHAVIOUR

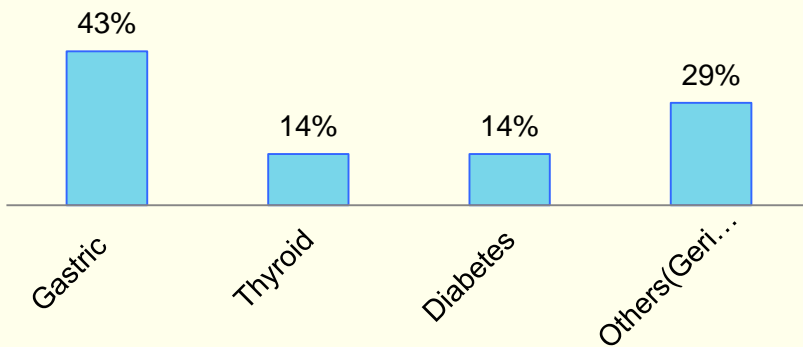
Does any member of your family take regular medications?



Common specialities of consultation



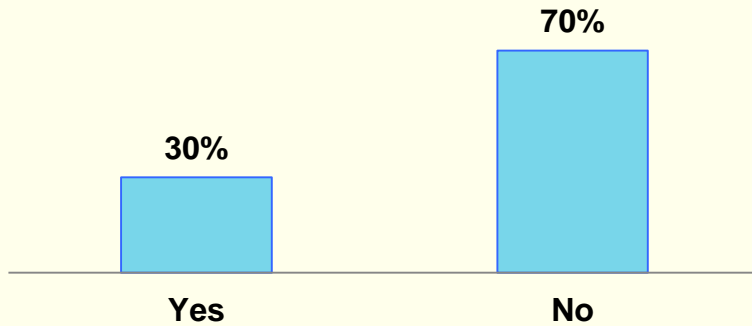
Conditions for which patients take regular medications



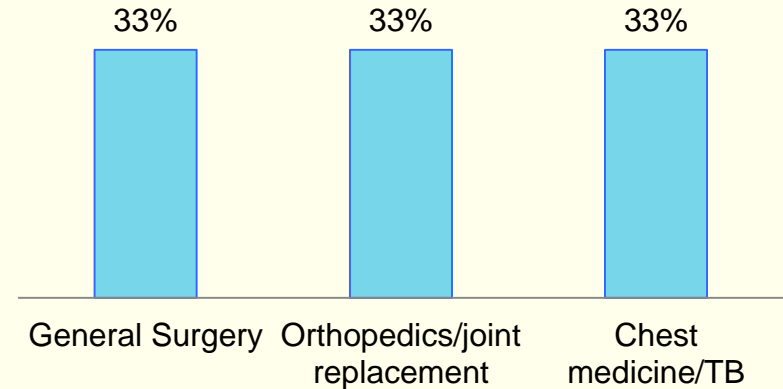
- The findings indicate a high prevalence of chronic diseases requiring continued treatment, with diabetes, Gastric, Thyroid, Asthma being greater part of the total condition for which people take regular medications.
- Majority of the respondents replied they have consulted health care facilities majorly for general medicine ailments.

IP ADMISSIONS

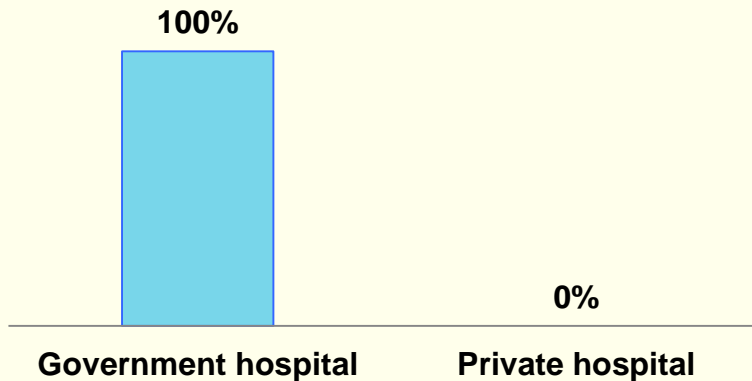
There was atleast one hospital admission in the family in the last one year



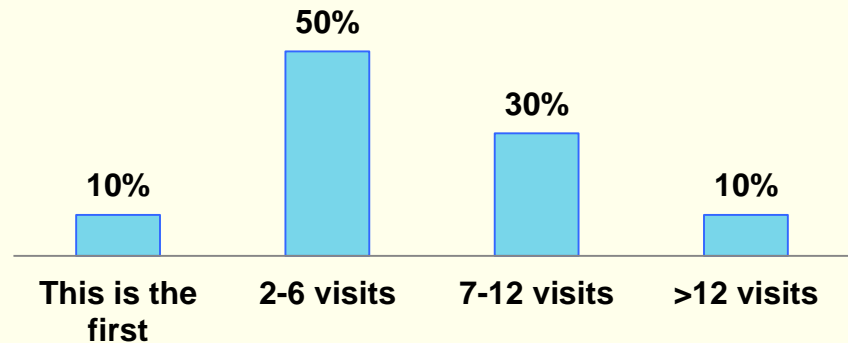
Specialty of admission at hospital



Place of admission



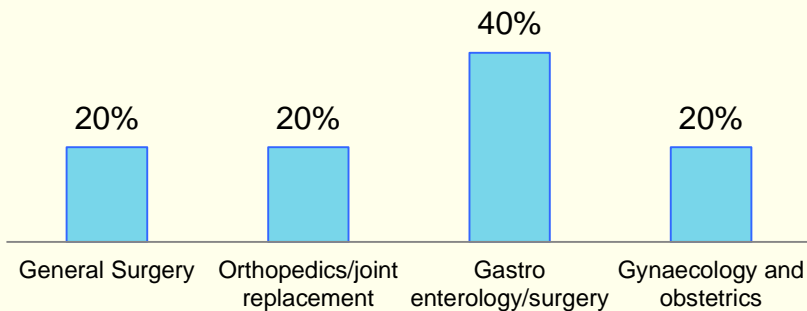
Frequency of hospital visit before this admission



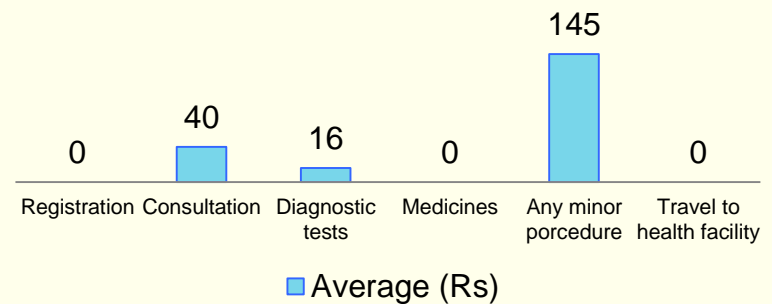
The survey response indicates that there has been atleast of the 30% of respondents who got admitted atleast once in last one year chose a government hospital for secondary care of specialty ailment. The respondents had undergone atleast one OP consultations before getting admitted in the hospital.

SECTION 9: FINDINGS OF OUTPATIENT AND INPATIENT SURVEY

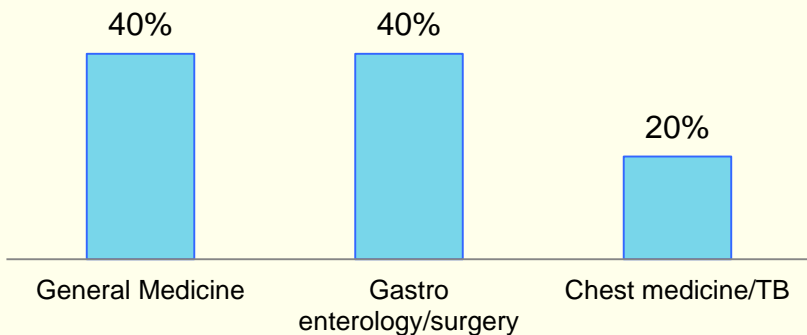
Specialty of the ailment of admission



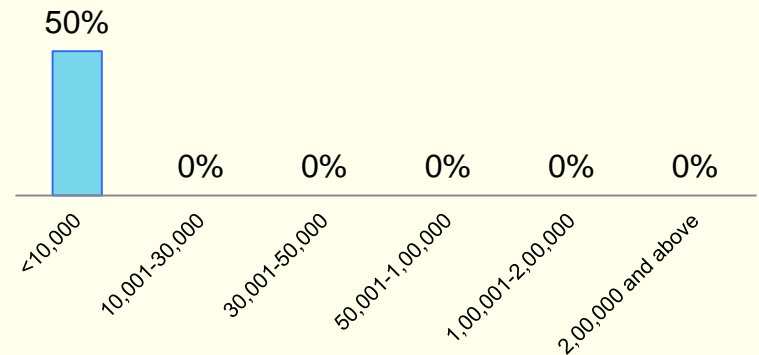
Amount spent on visit to the hospital



Specialty of consultation



Amount spent during admission

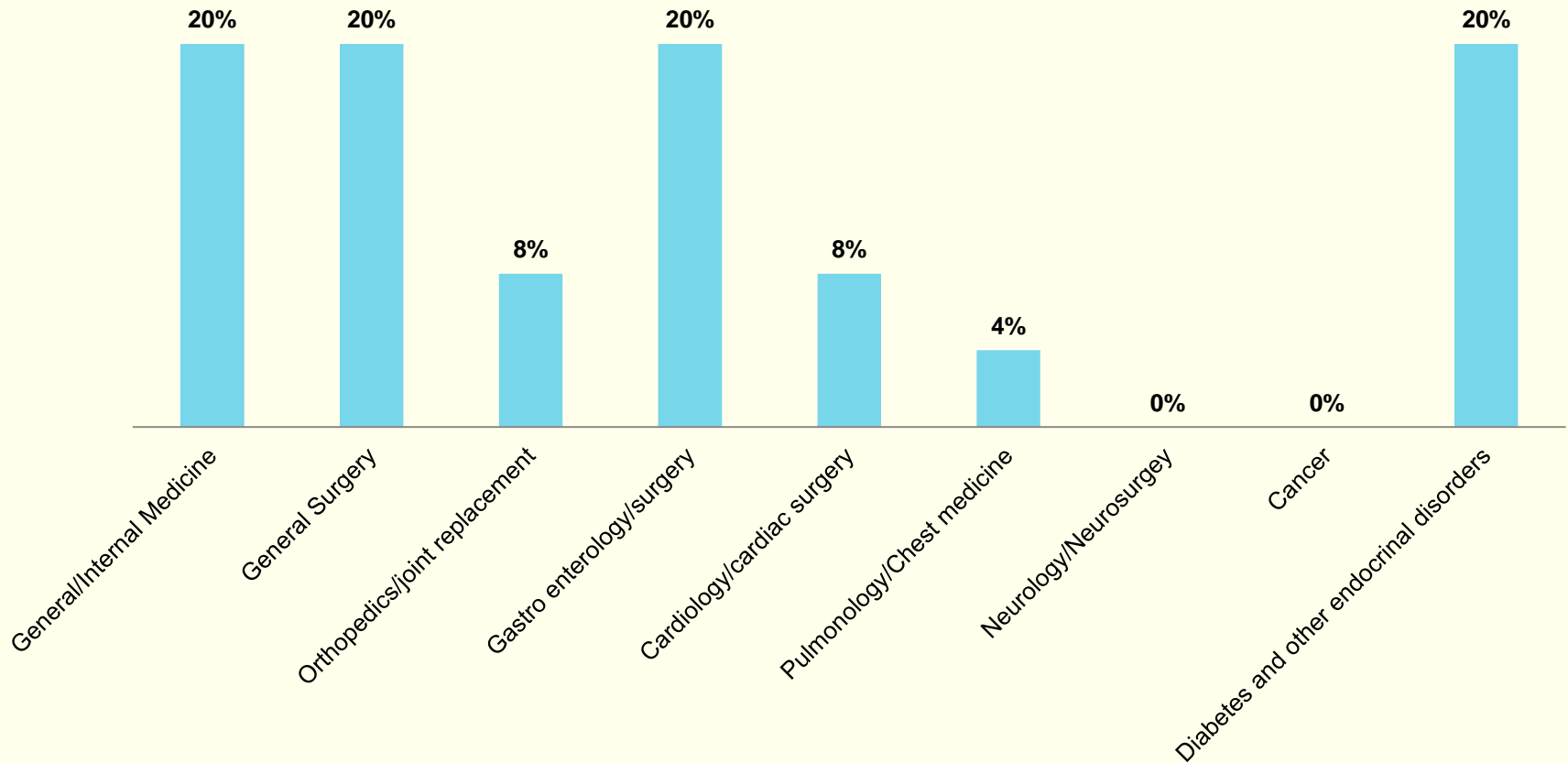


- Majority of inpatient respondents at DHH were admitted for gastro enterology/Surgery followed by general medicine, orthopedics & O&G. Majority of OP respondents had consulted for general medicine.
- Patients tend to spend mostly on minor procedures & consultation charge. This indicates that people are ready to purchase healthcare if services are available.
- The amount spent during this admission is less than 10,000. The average amount spent during an inpatient admission was found Rs 2436-

SECTION 10: FINDINGS OF PHYSICIAN SURVEY

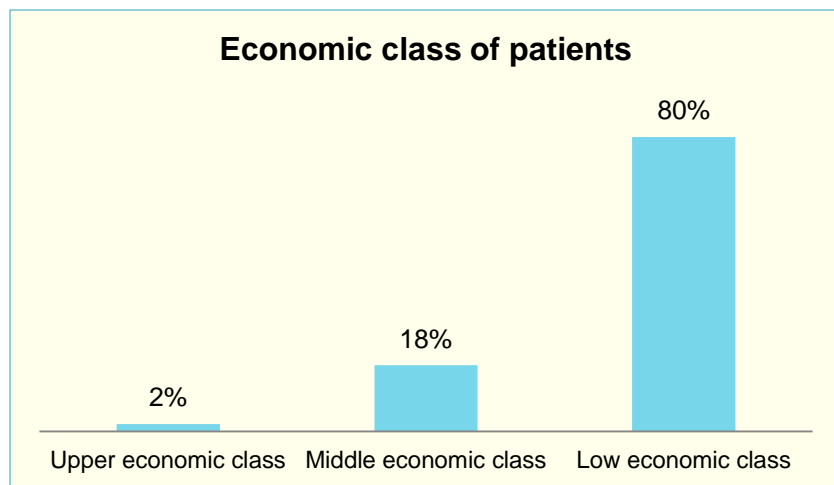
COMMON SPECIALITIES OF CONSULTATION BY GENERAL PHYSICIAN

COMMON SPECIALITIES OF CONSULTATION BY GENERAL PHYSICIAN

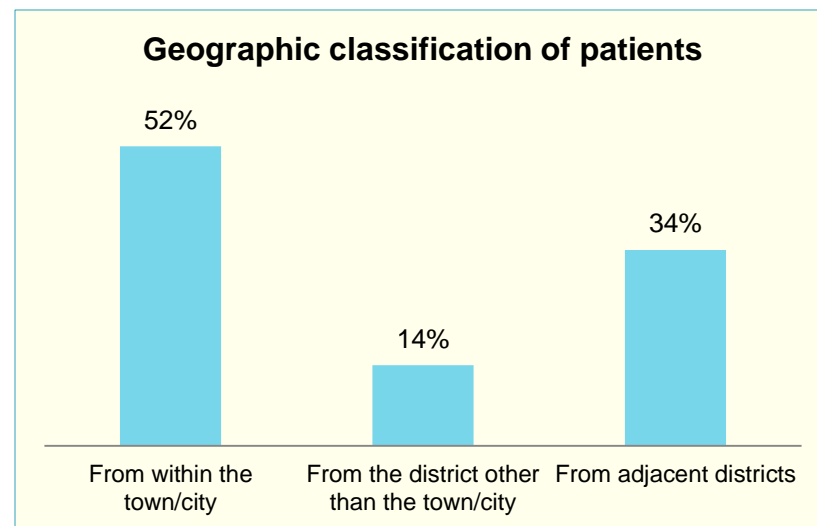
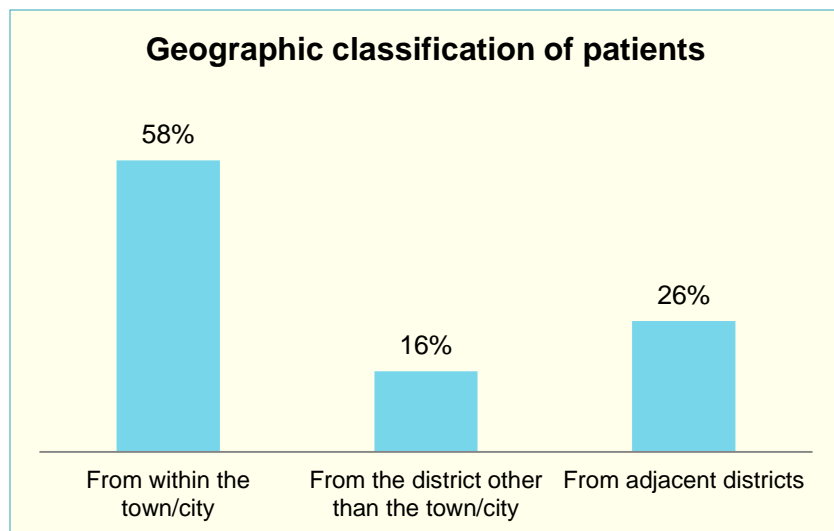
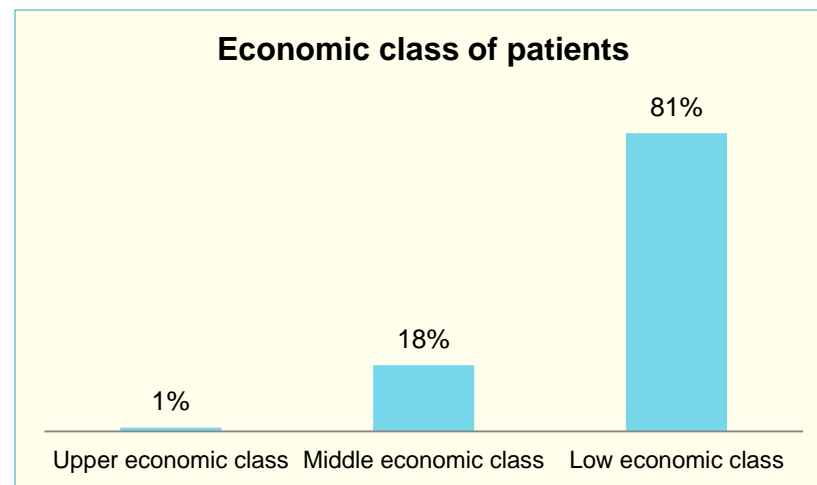


ECONOMIC AND GEOGRAPHIC STRATIFICATION OF PATIENTS

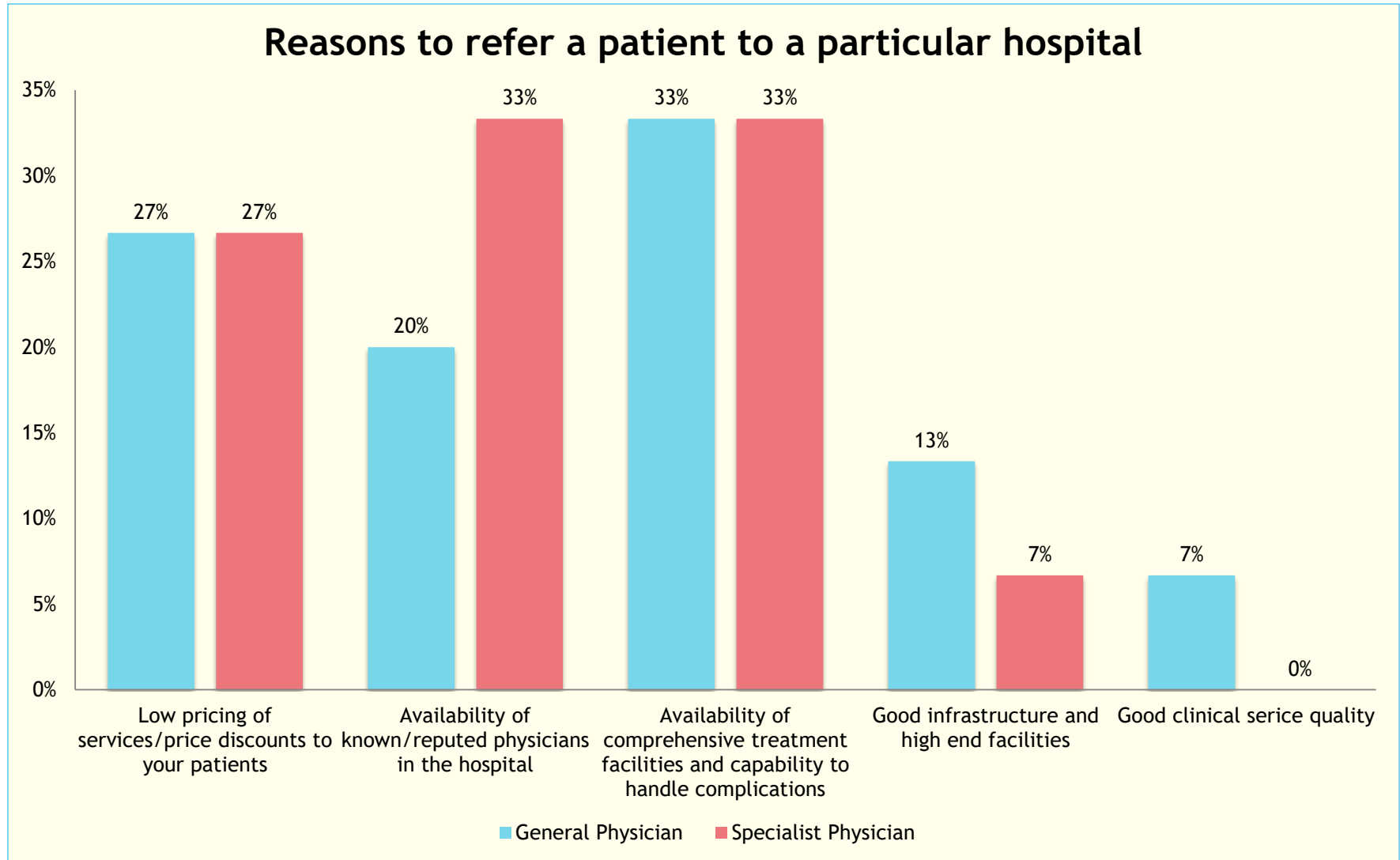
GENERAL PHYSICIAN RESPONSE



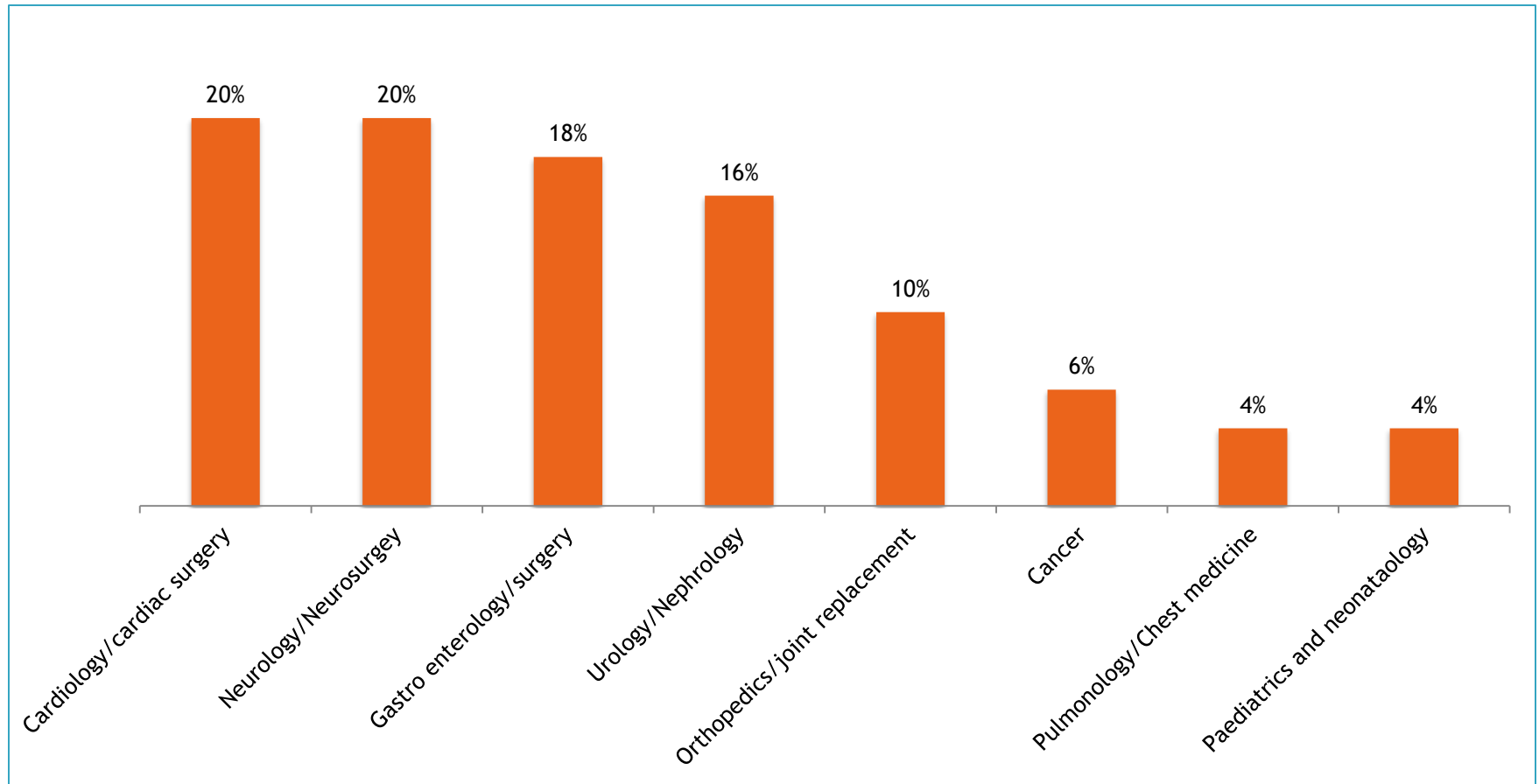
SPECIALIST PHYSICIAN RESPONSE



REASON FOR REFERRAL

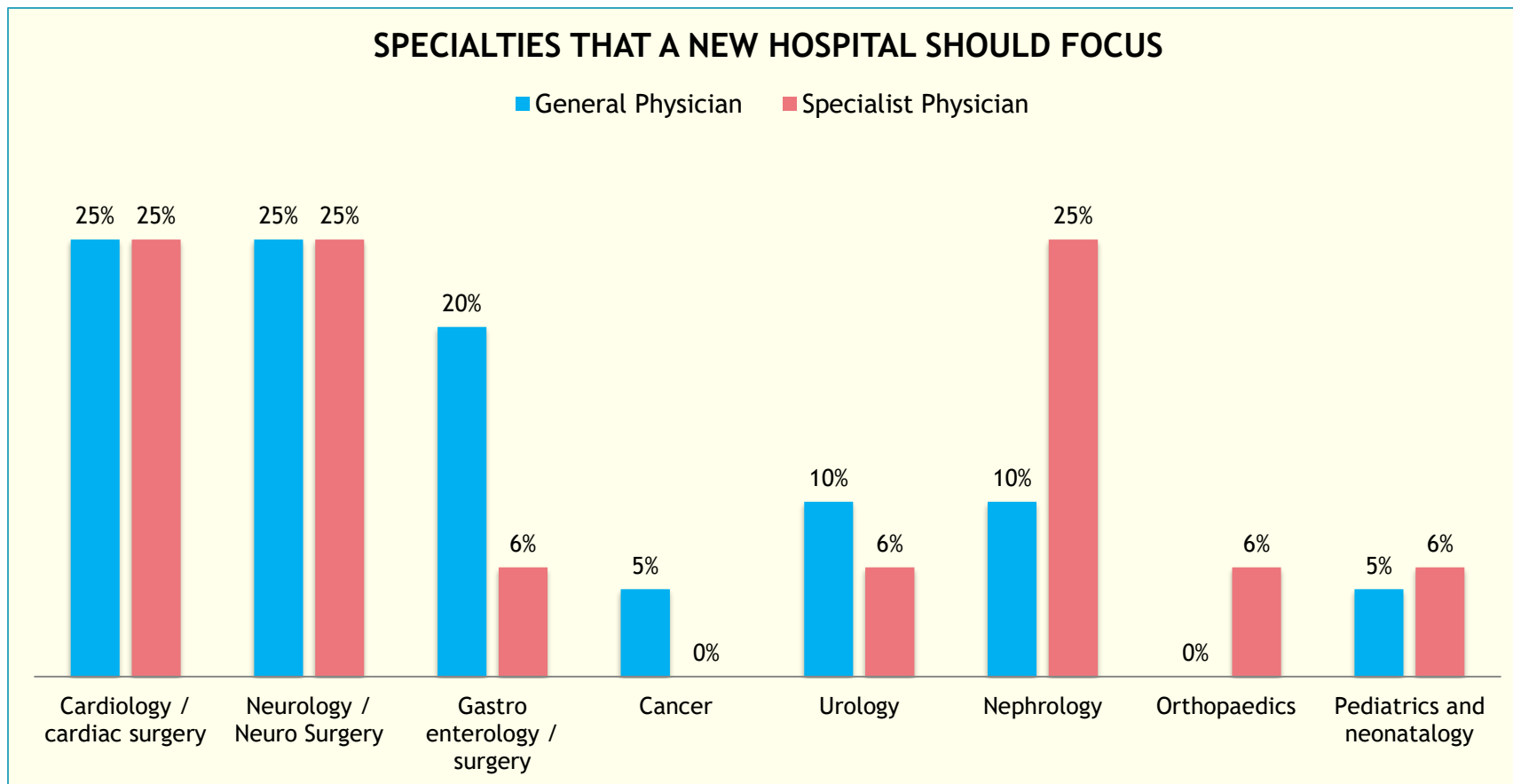


SPECIALITIES OF CARE FOR WHICH PATIENT TRAVEL TO OTHER CITIES



The above are averages of the responses from both general and specialist physicians. All the surveyed physicians indicated that patients from the district go to other districts / cities for availing tertiary level healthcare, of which majority ailments pertain to cardiology and neurology followed by gastro enterology/surgery , Urology , nephrology.

SPECIALTIES THAT A NEW HOSPITAL SHOULD FOCUS



A mix of higher secondary and tertiary care facilities is what doctors voted for an upcoming hospital to focus on.

FACILITIES RECOMMENDED BY THE PHYSICIANS

Specialities	General Physician	Specialist Physician
Cardiology / cardiac surgery	Cardiac Care Unit, Specialist	Cardiac Care Unit, Specialist
Pulmonology / Thoracic Surgery		
Neurology / Neuro Surgery	CT Scan, MRI, Trauma Care, Specialist	CT Scan, Specialist
Gastro enterology / surgery	Endoscopy, Colonoscopy, Specialist	USG, Endoscopy, Colonoscopy
Cancer		Specialist, Chemo Therapy
Urology	Specialist	Specialist
Nephrology	Dialysis	Dialysis Unit
Orthopaedics		Specialist, Improved OT
Pediatrics and neonatology	PICU	Pediatric Specialist, PICU
Other Facility	Radiologist	

The physicians opined that any hospital proposed should focus on the above facilities for the corresponding specialties.

THANK YOU