



## CHAPTER IV

### STUDY FINDINGS

#### 1. Introduction

In a cross-sectional descriptive study, 180 in-patients of The NRH at Thimphu, the capital of Bhutan was undertaken in January-February 2004. All six wards and cabins catering inpatient services were included for the study with all inpatients except 20 critically sick and moribund ones. The quantitative survey tool used was interviewer-administered questionnaires for illiterates, self administered by literates and respondents for pediatric patients were parents or patient attendants/companions. Six trained interviewers were involved from the local public health school for data collection. All administrative clearances were accorded from the concerned and consent from interviewees was observed as a prerequisite for the study. Interviews from five key informants including departmental policy makers and hospital administrative personnel were undertaken, their responses synthesized and analyzed to substantiate the quantitative study. A questionnaire survey was also conducted on all specialists looking after inpatients to assess their perceptions on patient satisfaction and other related issues.

#### 2. Salient Features of Study Findings :

##### 2.1 Socio-demographic characteristics of sample population

These are detailed in tables 2, 3 and 4 below.

**Table 2: Age distribution of study population**

	Minimum	Maximum	Mean	Standard Deviation
Age	1	90	32.0	20.5

Age: The youngest patient was 1 year old, oldest being 90 years. The mean and S.D. of age distribution were 32.0 and 20.5 years respectively. In the pediatric age group of patients, parents or patient attendants/companions were used as respondents for the survey. Categorizing age further with break down, 16.7% of patients were <15 years, 44.4% in age range of 16-30 years and 38.9% were in age category of above 31 years.

**Table 3: Duration of hospital stay (in days) during time of survey (180)**

	Minimum	Maximum	Mean	S.D.
Duration of hospital stay	3	210	10.8	19.9

Table 3 above shows duration of patients admitted during time of survey. The longest duration of stay was 210 days. The minimum cut off for the study was a stay of three days. The mean and S.D. were 10.8 and 19.9 days respectively. Further categorizing the duration of stay, 85% had been admitted for less than 15 days and 15% had been in the hospital for more than 15 days.

**Table 4: Socio-demographic characteristics of sample population (N=180)**

<b>Characteristics</b>	<b>Number</b>	<b>%</b>
<b>Gender</b>		
Male	90	50
Female	90	50
<b>Education level</b>		
None	100	55.6
Non-formal	8	4.4
Primary level	31	17.3
Secondary level	33	18.3
>College	8	4.4
<b>Occupation</b>		
Government servant	27	15.0
Businessman	14	7.8
Armed force	6	3.3
Monk	5	2.8
Farmer	63	35.0
Student	26	14.4
Others	39	21.7
<b>Income/month</b>		
<5000	119	66.1
5001-8000	29	16.1
8001-11000	5	2.8
11001-14000	1	0.6
14001-17000	1	0.6
>17001	3	1.7
None	22	12.1
<b>Ethnicity</b>		
Ngalong	65	36.2
Sharchop	52	28.9
Lhotshampa	40	22.2
Khengpa	17	9.4
Others	6	3.3
<b>Referral Status</b>		
Self referred	101	56.1
Referred through proper channel	79	43.9
<b>Disease Status</b>		
Acute	105	58.3
Chronic	75	41.7
<b>Admission History</b>		
First admission	120	66.7
Repeat admission	60	33.3

Gender: There was equal number of male and female patients in the study sample.

Education levels: There were 100 illiterates, which formed 55.6% of the study sample. 35.6% had education of primary and secondary levels. Non-formal and college and above levels formed 4.4% of the study population.

Occupation: 35% of inpatients were farmers, the highest in the study sample. Students followed this at 14.4%, as time of data collection happened to be in winter and sick students were admitted or referred from other parts of the kingdom. Monks were the least at 2.8%.

Income: 78.2% of the study population had a monthly income of below Nu.5000 (about \$110.0). These mainly included farmers, students, monks and other dependants like children. Only 2.9% had income above Nu. 11001(about US \$240).

Ethnicity: Ngalong, the western Bhutanese formed the largest chunk of patients corresponding to 36.2%. Sharchops, the eastern Bhutanese at 28.9%, followed this. The least were Khengpas, the central Bhutanese at 9.4% among the main ethnic groups of Bhutan.

Referral status: 56.1 % of the patients were self-admitted and 43.9% were referred patients.

Disease status: 58.3% of the patients were admitted with acute conditions; 41.7% were admitted with chronic conditions.

Admission history: 66.7% of the patients were first time admissions. 33.3% were repeat admissions.

### **3. Satisfaction Ratings**

#### **3.1 For whole sample population**

The quantitative survey tool used was a questionnaire related to a total of thirteen inpatient service domains broadly under two aspects- hospital milieu and provider factors. There were seven service domains under the former and six under the latter. Satisfaction levels for these were worked out as follows:

Scores for different sub-questions under a particular service domain were added up and divided by number of sub-questions to give mean score for the particular service domain. These averages were then categorized as high satisfaction level/score between 3.5 and 5 and low satisfaction for scores  $\leq 3.4$ .

**Table 5: Satisfaction levels for whole sample population (N=180)**

Service domains	High Satisfaction		Low Satisfaction		Means
	No.	%	No.	%	
<b>A. Hospital Milieu</b>					
Support staff attitude	173	96.1	7	3.9	3.98
Accessibility	163	90.6	17	9.4	4.03
Social support	152	84.4	28	15.6	3.97
General cleanliness	151	83.9	29	16.1	3.92
Hospital diet	150	83.3	30	***16.7	3.97
Waiting time	141	78.3	39	* * 21.7	3.63
Comfort in the ward	141	78.3	39	** 21.7	3.88
<b>B. Provider Factors</b>					
Physicians' competence	177	98.3	3	1.7	4.28
Nurses' competence	173	96.1	7	3.9	4.13
Care providers' attitude	166	92.2	14	7.8	3.96
Service with humane face	164	91.1	16	8.9	4.11
Comprehensive care	162	90.0	18	10.0	3.86
Doctor- patient relation	138	76.7	42	* 23.3	3.80

\*-Highest low satisfaction \*\*- Second highest low satisfaction \*\*\*- Third highest low satisfaction.

All service domains under both aspects of hospital milieu and provider factors were rated both in the high and low satisfaction levels. 98.3% rated physicians' competence at high satisfaction level followed by nurses' competence and support staff attitude at 96.1%. 92.2% rated care providers' attitude at high satisfaction level. Only 76.7% of the respondents rated doctor-patient relation at high satisfaction level. 78.3% of the respondents rated waiting time and comfort in the ward at high satisfaction level, second last among the high satisfaction ratings. Among the low satisfaction ratings, 23.3% was for doctor-patient relationship, which was quite high. The over all mean

variances for satisfaction ranged from 3.63 for waiting time to 4.28 for physicians' competence.

Satisfaction levels for individual service domains were then analyzed for all different wards. This was one of the objectives of the study. The results of these may be used as base line for future references and comparisons.

### 3.2 Satisfaction levels for Eye, Ear, Nose and Throat (EENT) ward

**Table 6: Satisfaction levels in the Eye, Ear, Nose and Throat ward (N= 34)**

Service domains	High Satisfaction		Low Satisfaction		Means
	No.	%	No.	%	
<b>A. Hospital Milieu</b>					
Support staff attitude	34	100.0	-	-	4.03
General cleanliness	32	94.1	2	5.9	4.09
Social support	31	91.3	3	8.8	4.18
Accessibility	30	88.2	4	***11.8	3.99
Comfort in the ward	29	85.3	5	**14.7	4.02
Hospital diet	29	85.3	5	**14.7	3.93
Waiting time	26	76.5	8	*23.5	3.60
<b>B. Provider Factors</b>					
Physicians' competence	34	100.0	-	-	4.37
Nurses' competence	34	100.0	-	-	4.24
Care providers' attitude	33	97.1	1	2.9	4.07
Doctor- patient relation	32	94.1	2	5.9	3.96
Comprehensive care	32	94.1	2	5.9	4.06
Service with humane face	31	91.3	3	8.8	4.16

\*-Highest low satisfaction \*\*- Second highest low satisfaction \*\*\*- Third highest low satisfaction.

As depicted in table 6 above, all respondents rated support staff attitude, physicians and nurses' competence at high satisfaction levels. 97.1% rated care providers' attitude at high satisfaction level too. A comparative low 76.5% of the respondents rated waiting time at high satisfaction level. The satisfaction mean variances again ranged from 3.60 for waiting time to 4.37 for physicians' competence.

### 3.3 Satisfaction levels in medical ward

This has been reflected in table 7 below

**Table 7: Satisfaction levels in medical ward (N=33)**

Service domains	High Satisfaction		Low Satisfaction		Means
	No.	%	No.	%	
<b>A. Hospital Milieu</b>					
Support staff attitude	32	97.0	1	3.0	4.00
Hospital diet	28	84.8	5	15.2	4.01
Accessibility	27	81.8	6	18.2	3.94
Comfort in the ward	27	81.8	6	18.2	3.78
Social support	27	81.8	6	18.2	3.92
General cleanliness	25	75.8	8	***24.2	3.80
Waiting time	23	69.7	10	**30.3	3.39
<b>B. Provider Factors</b>					
Physicians' competence	33	100.0	-	-	4.23
Nurses' competence	33	100.0	-	-	4.15
Care providers' attitude	29	87.9	4	12.1	3.97
Service with humane face	29	87.9	4	12.1	4.00
Comprehensive care	26	78.8	7	21.2	3.71
Doctor-patient relation	19	57.6	14	*42.4	3.65

\*-Highest low satisfaction \*\*- Second highest low satisfaction \*\*\*- Third highest low satisfaction.



Table 7 above reflects satisfaction levels to various services at the medical ward. Competence of both physicians and nurses were rated at high satisfaction levels by all the patients. This was followed by support staff attitude rated by 97% of respondents at high satisfaction level. Doctor-patient relation was the least among high satisfaction levels rated by 57.6% of respondents. General cleanliness and comprehensive care were also rated quite low among those rated at high satisfaction levels. Doctor-patient relationship was rated by 42.4% at low satisfaction level. The mean satisfaction scores ranged again from 3.39 for waiting time to 4.23 for physicians' competence.

### 3.4 Satisfaction levels at the orthopedic ward

Table 8 below reflects the satisfaction levels in respect to all service domains in the orthopedic ward.

**Table 8: Satisfaction levels in the orthopedic ward (N=30)**

Service domains	High Satisfaction No.	Satisfaction %	Low Satisfaction No.	Satisfaction %	Means
<b>A. Hospital Milieu</b>					
Accessibility	28	93.3	2	6.7	3.94
Waiting time	27	90.0	3	10.0	3.85
Support staff attitude	27	90.0	3	10.0	3.82
General cleanliness	25	83.3	5	16.7	3.85
Hospital diet	24	80.0	6	***20.0	3.88
Social support	24	80.0	6	***20.0	3.75
Comfort in the ward	21	70.0	9	**30.0	3.78
<b>B. Provider Factors</b>					
Physicians' competence	29	96.7	1	3.3	4.13
Nurses' competence	29	96.7	1	3.3	4.03
Care providers' attitude	28	93.3	2	6.7	3.82
Service with humane face	28	93.3	2	6.7	4.01
Comprehensive care	27	90.0	3	10.0	3.67
Doctor-patient relation	19	63.3	11	*36.7	3.65

\*-Highest low satisfaction \*\*- Second highest low satisfaction \*\*\*- Third highest low satisfaction.

All service domains have been rated at high as well as low satisfaction levels. Physicians and nurses' competences were rated at high satisfaction levels by 96.7% of respondents respectively. Accessibility, care providers' attitude and service with humane face were second at high satisfaction levels as responded by 93.3% of respondents. Doctor-patient relation was the least rated by 63.3% of the respondents at high satisfaction level. Comfort in the ward, hospital diet and social support were others rated at high satisfaction levels but by lesser numbers of respondents. The mean satisfaction scores ranged from 3.65 for doctor-patient relationship to 4.13 for physicians' competence.

### 3.5 Satisfaction levels in the maternity ward:

This is reflected in table 9 below.

**Table 9: Satisfaction levels in the maternity ward (N=30)**

Service domains	High Satisfaction		Low Satisfaction		Means
	No.	%	No.	%	
<b>A. Hospital Milieu</b>					
Support staff attitude	29	96.7	1	3.3	3.98
Hospital diet	28	93.3	2	6.7	4.12
Accessibility	27	90.0	3	10.0	4.11
Social support	27	90.0	3	10.0	4.03
General cleanliness	25	83.3	5	***16.7	3.92
Waiting time	24	80.0	6	**20.0	3.73
Comfort in the ward	23	76.7	7	*23.3	3.93
<b>B. Provider Factors</b>					
Service with humane face	29	96.7	1	3.3	4.26
Physicians' competence	28	93.3	2	6.7	4.33
Nurses' competence	28	93.3	2	6.7	4.08
Care providers' attitude	28	93.3	2	6.7	3.90
Comprehensive care	28	93.3	2	6.7	3.97
Doctor-patient relation	27	90.0	3	10.0	3.90

\*-Highest low satisfaction \*\*- Second highest low satisfaction \*\*\*- Third highest low satisfaction.

In the maternity ward, attitude of support staff and service with humane face were rated by 96.7% at high satisfaction level; highest among the service domains. At 93.3%, hospital diet, physicians and nurses' competences, care providers' attitude and comprehensive care were second among the high satisfaction rates. Comfort in the ward was the least among the services rated by only 76.7% in high satisfaction level. In the maternity ward too the mean satisfaction scores variance ranged from 3.73 to 4.33 for waiting time and physicians' competence respectively.

### **3.6 Satisfaction levels in the surgical ward**

All the respondents rated accessibility at high satisfaction level. 96.6% of respondents rated support staff attitude and competence of both physicians and nurses at high satisfaction levels. Only 72.4% of the respondents rated doctor-patient relation at high satisfaction level, which was quite low as compared to other service domains. The satisfaction mean scores ranged again in similar fashion as in other wards from the lowest of 3.66 for waiting time to the highest of 4.36 for physicians' competence.

**Table 10: Satisfaction levels in the surgical ward (N=29)**

<b>Service domains</b>	<b>High No.</b>	<b>Satisfaction %</b>	<b>Low No.</b>	<b>Satisfaction %</b>	<b>Means</b>
<b>A. Hospital Milieu</b>					
Accessibility	29	100.0	--	--	4.24
Support staff attitude	28	96.6	1	3.4	4.07
Waiting time	24	82.8	5	17.2	3.66
Hospital diet	24	82.8	5	17.2	4.03
Social support	23	79.3	6	***20.7	3.93
General cleanliness	22	75.9	7	**24.1	3.95
Comfort in the ward	22	75.9	7	**24.1	3.81
<b>B. Provider Factors</b>					
Physicians' competence	28	96.6	1	3.4	4.36
Nurses' competence	28	96.6	1	3.4	4.26
Care providers' attitude	27	93.1	2	6.9	4.03
Comprehensive care	25	86.2	4	13.8	3.83
Service with humane face	25	86.2	4	13.8	4.07
Doctor-patient relation	21	72.4	8	*27.6	3.82

\*-Highest low satisfaction \*\*- Second highest low satisfaction \*\*\*- Third highest low satisfaction.

### 3.7 Satisfaction levels at the pediatric ward

It was worked out and reflected in table 11 below. All respondents rated physicians' competence and comprehensive care at high satisfaction level. The highest mean satisfaction score of 4.30 was for physicians' competence. 93.3% rated general cleanliness and support staff attitude at high satisfaction level. Only 73.3% of the respondents rated comfort in the ward and social support at high satisfaction. Responded by 80%, hospital diet, nurses' competence, doctor-patient relation, and care provider attitude were also quite low among high satisfaction level. Comfort in the

ward and social support were some of the domains in low satisfaction levels. The lowest mean satisfaction score was for waiting time again at 3.67.

**Table 11: Satisfaction levels in pediatric ward (N= 15)**

<b>Service domains</b>	<b>High Satisfaction No.</b>	<b>Satisfaction %</b>	<b>Low Satisfaction No.</b>	<b>Satisfaction %</b>	<b>Means</b>
<b>A. Hospital milieu</b>	14	93.3	1	6.7	3.97
General cleanliness					
Support staff attitude	14	93.3	1	6.7	3.97
Accessibility	13	86.7	2	***13.3	3.89
Waiting time	12	80.0	3	**20.0	3.67
Hospital diet	12	80.0	3	**20.0	4.00
Comfort in the ward	11	73.3	4	*26.7	3.91
Social support	11	73.3	4	*26.7	3.83
<b>B. Provider Factors</b>					
Physicians' competence	15	100.0	-	-	4.30
Comprehensive care	15	100.0	-	-	3.90
Service with humane face	13	86.7	2	***13.3	4.09
Nurses' competence	12	80.0	3	**20.0	3.97
Doctor- patient relation	12	80.0	3	**20.0	3.73
Care providers' attitude	12	80.0	3	** 20.0	3.80

\*-Highest low satisfaction \*\*- Second highest low satisfaction \*\*\*- Third highest low satisfaction.

### 3.8 Satisfaction levels among patients in the cabins

Cabins are private rooms allotted on first come first allotment basis with minimal lodging charges of Nu. 250 (about US \$ 5) per day. There are attached toilets and few other facilities not available in general wards. Attendants have a better place and more space to sleep and keep their belongings. Privacy is over all better than in the general wards. A single nurse looks after a comparatively fewer number of patients but s/he

cannot have a direct view of patients from his/her duty station. There is always a great demand for these few facilities and people have to wait for a long time if they choose elective services or operations. 8 in-patients were included for the study with two exclusions as they were very sick.

**Table 12: Satisfaction levels in the cabin (N=9)**

<b>Service domains</b>	<b>High No.</b>	<b>Satisfaction %</b>	<b>Low No.</b>	<b>Satisfaction %</b>	<b>Means</b>
<b>A. Hospital Milieu</b>					
Accessibility	9	100.0	-	-	4.04
Support staff attitude	9	100.0	-	-	4.06
Social support	9	100.0	-	-	4.28
General cleanliness	8	88.9	1	**11.1	3.89
Comfort in the ward	8	88.9	1	**11.1	4.07
Hospital diet	5	55.6	4	*44.4	3.52
Waiting time	5	55.6	4	*44.4	3.33
<b>B. Provider Factors</b>					
Physicians' competence	9	100.0	-	-	4.17
Nurses, competence	9	100.0	-	-	4.06
Care providers' attitude	9	100.0	-	-	4.17
Comprehensive care	9	100.0	-	-	4.28
Service with humane face	9	100.0	-	-	4.37
Doctor-patient relation	8	88.9	1	**11.1	3.98

\*-Highest low satisfaction \*\*- Second highest low satisfaction \*\*\*- Third highest low satisfaction.

From table 12 above, it is evident that there were eight service domains rated at high satisfaction levels by all respondents. These were accessibility, support staff attitude, social support, and competences of physicians and nurses, care providers attitude, comprehensive care and service with humane face. The last one had the highest mean

satisfaction score at 4.37. Comparatively a low 55.6% rated waiting time and hospital diet at high satisfaction levels; with mean satisfaction score for waiting time being the least at 3.33. The over all satisfaction levels at the cabin was indeed high as compared to other wards.

### **3.9 Ward wise satisfaction matrix for hospital milieu, provider factors and overall combined**

This was important to analyze so as to find out differences in satisfaction levels in respect to different service domains in the two broad aspects as well as overall and compare them. This would guide wards to focus and improve the domains with lower levels of satisfaction. The cut off here for high satisfaction was a mean score of 4.1 and above and 4.0 and below for low satisfaction. The wards were also ranked from the first to the seventh in terms of both domains and overall combined satisfaction levels.

**Table 13: Ward wise satisfaction matrix for hospital milieu, provider factors and overall combined**

Wards	Hospital milieu		Provider factors		Combined	
	No	%	No.	%	No.	% Rank
<b>EENT (34)</b>	High satisfaction	18	52.9	23	67.6	22 64.7
	Low satisfaction	16	47.1	11	32.4	12 35.3
<b>Medical (33)</b>	High satisfaction	8	24.2	14	42.4	12 36.7
	Low satisfaction	25	75.8	19	57.6	21 63.3
<b>Orthopedic (30)</b>	High satisfaction	7	23.3	11	36.7	9 30.0
	Low satisfaction	23	76.7	19	63.3	21 70.0
<b>Maternity (30)</b>	High satisfaction	16	53.3	17	56.7	18 60.0
	Low satisfaction	14	46.7	13	43.3	12 40.0
<b>Surgical (29)</b>	High satisfaction	15	51.7	18	62.1	18 62.1
	Low satisfaction	14	48.3	11	37.9	11 37.9
<b>Pediatric (15)</b>	High satisfaction	4	26.7	8	53.3	7 46.7
	Low satisfaction	11	73.3	7	46.7	8 53.3
<b>Cabin (9)</b>	High satisfaction	5	55.6	7	77.8	6 66.7
	Low satisfaction	4	44.4	2	22.2	3 33.3
Chi square and p values	X <sup>2</sup> =15.07, p=0.020		X <sup>2</sup> =10.86, p=0.093		X <sup>2</sup> =14.07, p=0.029	

From table 13 above, about 53 % of EENT patients had high satisfaction level in the hospital milieu and 67.6% high satisfaction level in the provider aspect of the services. Overall, 64.7% of the EENT patients had high satisfaction. In the medical ward, 75.8% of the respondents rated hospital milieu related services at low satisfaction level.



Regarding provider related services too, 57.6% had low satisfaction level. Overall, 61.3% had low satisfaction. In orthopedic ward, 76.7% were lowly satisfied and the same with provider domain at 63.3%. Overall, 70% of the patients were lowly satisfied. In the maternity ward, 53.3% were highly satisfied with hospital milieu related services and 56.7% highly satisfied with provider related services. Considering both aspects, 60.0% were highly satisfied. 51.7 % of patients in surgical ward had high satisfaction in the hospital milieu. At 62.1%, satisfaction level in provider aspect too was towards high satisfaction. Over all, 62.1% of patients in surgical ward had high satisfaction. Pediatric ward had 73.3% of respondents with low satisfaction regarding hospital milieu whereas 53.3% had high satisfaction levels with provider related services. Over all, 53.3% of pediatric respondents had low satisfaction. In the cabin, 55.6% of patients were highly satisfied with hospital related services; 77.8% of them were highly satisfied with provider related services. Over all, 66.7% of patients in the cabin rated inpatient services at high satisfaction level.

Chi square tests were applied to see the differences between satisfaction levels in terms of different service domains ward wise. In the hospital domain related services and overall satisfaction, differences in satisfaction levels were statistically significant at p values of 0.020 and 0.029 respectively. For provider related services, the association was only marginally significant at p value of 0.093.

In terms of ranking based on satisfaction in Hospital milieu, the order was as follows- Cabins, Maternity, EENT, Surgical, Pediatric, Medical and Orthopedic.

In terms of ranking based satisfaction on Provider factors, the order was as follows- Cabins, EENT, Surgical, Maternity, Pediatric, Medical and Orthopedic.

In terms of ranking based on overall satisfaction, the order was as follows- Cabins, EENT, Surgical, Maternity, Pediatric, Medical and Orthopedic.

#### **4. Levels of Satisfied and Dissatisfied Patients :**

This was derived as per patients' responses to question 1 of section III of the interviewer administered questionnaire, which was the main survey tool in this study. Finding the level of dissatisfaction among inpatients of NRH was one of the objectives of this study. Over all, 165 patients were found to be satisfied and 15 dissatisfied. This corresponded to 91.7% and 8.3% of respondents respectively. A satisfaction level of 91.7% in NRH was very high. A study in Bangkok has found out that inpatients had high levels of satisfaction regarding services in public/government hospitals in Thailand (V. Tangcharoensathien et al., 1999). In the present study 8.3% were dissatisfied. Most of the key informants interviewed and physicians guessed that dissatisfaction levels would be higher. Only 2 of the 16 physicians had guessed dissatisfaction level at 5%; the level ranged from 5% to 30%. It is a general feeling that dissatisfaction at the NRH is much higher.

##### **4.1 Ward-wise distribution of satisfied and dissatisfied patients**

It was worked out in detail and reflected in table 14 below.

**Table 14: Table showing ward-wise distribution of satisfied and dissatisfied patients (N=180)**

Wards	EENT (N=34)		Medical (N=33)		Maty. (N= 30)		Ortho. (N= 30)		Surgical (N=29)		Pediatric (N= 15)		Cabin (N=9)	
Satisfied	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Total	32	94.1	29	87.9	28	93.3	28	93.3	26	89.7	14	93.3	8	88.9
Dissatisfied	2	5.9	4	12.1	2	6.7	2	6.7	3	10.3	1	6.7	1	11.1
Total	34	100	33	100	30	100	30	100	29	100	15	100	9	100

In the EENT ward, 94.1% of patients were satisfied; highest among the wards. Maternity, orthopedic and pediatric wards followed closely at 93.3%. Surgical ward had 89.7% satisfied patients followed by cabin at 88.9%. Medical ward with 87.9% satisfaction level among patients was the last among them. Cabin with 11.1% and EENT with 5.9% respectively had the highest and the least dissatisfied patients respectively.

#### **4.2 Socio-demographic characteristics of dissatisfied patients**

These have been worked out and reflected in table 15 (page 46) below. 80% of the dissatisfied patients were females and 66.7% were illiterates among them. The majority in occupation groups as others forming 46.7% were housewives. 66.6% of the dissatisfied had a monthly income of less than Nu. 5000. Sharchops formed the highest ethnic representation among dissatisfied (40%) followed by Ngalongs (26.7%) and Lhotshampas. Khengpas were the least at 13.3%. Self referred those with acute illness and repeat admissions were more dissatisfied in this study.

**Table 15: Characteristics of dissatisfied patients (N=15)**

<b>Patient Characteristics</b>	<b>Number</b>	<b>%</b>
<b>Gender</b>		
Male	3	20.0
Female	12	80.0
<b>Education level</b>		
None	10	66.7
Non-formal	1	6.7
Primary level	1	6.7
Secondary level	1	6.7
>College	2	13.2
<b>Occupation</b>		
Government servant	2	13.3
Businessman	3	20.0
Armed force	1	6.7
Monk	-	-
Farmer	2	13.3
Student	-	-
House wife	7	46.7
<b>Income/month</b>		
<5000	10	66.7
5001-8000	4	26.7
8001-11000	1	6.6
11001-17000	-	-
>17001	-	-
<b>Ethnicity</b>		
Ngalong	4	26.7
Sharchop	6	40.0
Lhotshampa	3	20.0
Khengpa	2	13.3
<b>Referral Status</b>		
Self referred	12	80.0
Referred through proper channel	3	20.0
<b>Disease Status</b>		
Acute	9	60.0
Chronic	6	40.0
<b>Admission History</b>		
First admission	6	40.0
Repeat admission	9	60.0

**Table 16: Scores for service domains for dissatisfied patients (N=15)**

Service domains	High Satisfaction	Low Satisfaction	Means	
	No. %	No. %		
Support staff attitude	14 93.3	1 6.7		3.67
Accessibility	10 66.7	5 33.3		3.63
Comfort in the ward	7 46.7	8 53.3		3.66
Hospital diet	5 33.3	10 ***66.7		3.14
General cleanliness	5 33.3	10 ***66.7		3.30
Waiting time	4 26.7	11 **73.3		2.37
Social support	4 26.7	11 **73.3		3.03
<b>B. Provider Factors</b>				
Physicians' competence	15 100.0	- -		4.03
Nurses' competence	14 93.3	1 6.7		3.97
Doctor-patient relation	- -	15 *100.0		2.75
Care providers' attitude	9 60.0	6 40.0		3.17
Comprehensive care	8 53.3	7 46.7		3.27
Service with humane face	8 53.3	8 46.7		3.43

\*-Highest low satisfaction \*\*- Second highest low satisfaction \*\*\*- Third highest low satisfaction

#### 4.3 Scores for various service domains among the dissatisfied patients

This had been worked out and presented in table 16 above. It seems evident that higher percentages of respondents have rated satisfaction at low levels. All rated competence of physicians at high satisfaction level. 93.3% rated attitude of support staff and competence of nurses at high satisfaction level. Only 66.7% rated accessibility at high satisfaction level. High satisfaction ratings for waiting time, general cleanliness and hospital diet were quite low among the dissatisfied patients. Conspicuous among those rated at low satisfaction levels were doctor-patient relation at 100% followed by waiting time and social support at 73.3%. 66.7% rated general cleanliness and hospital

diet at low satisfaction levels. Mean satisfaction score was the least for waiting time at 2.37 and highest for physicians' competence at 4.03.

**Table 17: Tests for differences in means of satisfaction scores between satisfied and dissatisfied patients in hospital and provider domains and overall satisfaction**

Domains	No. dissatisfied	Means of satisfaction scores	t values	Significance (2-tailed)
Hospital domain	15	3.256	-10.257	<0.001
	165	3.972	-8.559	<0.001
Provider domain	15	3.435	-7.624	<0.001
	165	4.080	-6.977	<0.001
Combined	15	3.346	-10.053	<0.001
	165	4.026	- 8.817	<0.001

As reflected in table 17 above, independent sample t tests were computed to find out differences in satisfaction mean scores of both groups in both domains independently and combined. The mean scores for satisfied groups in all three aspects were higher than those of the dissatisfied group and statistically significant for all aspects at a p value of <0.001.

## 5. Factors for Satisfaction as Responded by Satisfied Patients

This information was extracted based on question 2 of Section III of the questionnaire. Respondents were asked to elicit the single most important factor for their satisfaction. Out of 165 satisfied patients, 161 responded. 4 did not respond. The responses in terms

of factors for their satisfaction were categorized as follows and are represented in table 18 below:

**Table 18: Factors for satisfaction as responded by satisfied patients (N=161)**

No.	Factors for satisfaction	Number	Percentages
1.	Free health care services	79	49.1
2.	Doctors and nurses are helpful, kind and friendly.	33	20.5
3.	Good medical and nursing care.	21	13.0
4.	NRH is the apex hospital in the country with best care/service facilities.	13	8.1
5	Competent health care providers.	7	4.3
6.	Doctors are willing to listen and give proper advises to patients.	4	2.5
7.	Cleanliness of wards and hospital in general.	4	2.5
Total		161	100.0

As is evident table 18 above, almost 50% of the respondents said that free health services that royal government provided them was the overriding factor for their satisfaction regarding services at the NRH. 20.5% said that kind, friendly and helpful care providers were responsible for their satisfaction. This was followed by good medical and nursing services rendered here as being another factor for their satisfaction as responded by 13.0% of inpatients. 8.1 % said that this centre being the apex hospital with best care and service facilities contributed towards their satisfaction. Competence of care providers was rated by 4.3% of respondents as another important factor. Physicians' willingness to listen and give proper advices to them was attributed as the main factor for their satisfaction by 2.5% of patients. Lastly cleanliness of wards and

hospital environment was yet another factor for their satisfaction for 2.5% of inpatients surveyed in the study.

## **6. Recommendations from the Satisfied Group of Patients for Improving Services and Patient Satisfaction**

This information was compiled based on responses to questions 1, 2 and 3 of Section IV in the questionnaire. 31 respondents did not recommend any suggestions as they felt and said that every thing was all right and they were satisfied. 134 responded and the results were analyzed as depicted in table 19 below.

**Table 19: Recommendations from the satisfied group (134)**

No.	Recommendations	Number	Percentage
1.	Care providers must communicate/inform patients about their illness/conditions and the type of care being given.	23	17.2
2.	Proper bed/ resting place for patient attendant/companion at night.	19	14.2
3.	Improve cleanliness of toilets attached to the wards.	18	13.4
4.	No restrictions for visitors visiting them when sick.	15	11.2
5.	Decrease waiting time during admission and investigations.	14	10.4
6.	Noise/crowd control has to be improved	11	8.2
7.	Provision of hot water during winter	10	7.5
8.	Provision of T.V. in the ward for entertainment and education purposes.	8	6.0
9.	Some staff need to improve their attitude towards patients	7	5.2
10.	Improve the flavor/taste of food.	5	3.7
11.	Others	4	3.0
Total		134	100.0%



4 (3%) as others above comprised of the following recommendations. One of the recommendations was that designated regional hospitals should come up with facilities like in the NRH as this centre is quite far away. Second, operation theatre should be near the wards as some are quite far away, changing in timing of meals and expansion of patient guest house at the NRH were other recommendations in the others group.

## 7. Factors for Dissatisfaction for Dissatisfied Group of Patients

The main factors for dissatisfaction for the 15 patients are presented in table 20 below. All patients in this group were requested to elaborate some of the main factors for their over all impression of dissatisfaction. The factors elaborated were multiple for 13 (87 %) of respondents; only 2(13%) respondents had a single overriding factor for their dissatisfaction.

**Table 20: Factors for dissatisfaction for dissatisfied patients**

Sl. No	Factors for dissatisfaction	Frequencies
1.	Too much restriction for visitors and relatives.	17
2.	Inadequate cleanliness of toilets in the wards.	14
3.	Food is tasteless and not cooked properly at times.	11
4.	Incomplete care in terms of all complaints.	11
5.	Attitudes of some workers not proper.	9

One patient said that NRH was too far away and she felt homesick and very dissatisfied. The other said that noise/crowd control in the ward was the factor for his dissatisfaction as an inpatient.

## 8. Tests of Associations Between Socio-Demographic Factors and Specific Domains of Satisfaction

Relevant tests were applied to test associations between patient factors and other service domains. Only those tests with statistically significant associations are included here though all variables were tested.

### 8.1 Association between demographic variables and seven domains in the Hospital Milieu:

Among seven domains for Hospital milieu, Accessibility, Waiting time and Comfort in the ward were found to have associations with some independent/patient factors derived by running Chi ( $\chi^2$ ) square tests. The results are represented in table 21 below.

**Table 21: Associations between age, ethnicity and duration of admission with accessibility**

Accessibility		Age				Chi square		p value	
Satisfaction	<15 years	>15-30 years		>31years					
	N	%	N	%	N	%			
High	28	93.3	66	82.5	69	98.6			
Low	2	6.7	14	17.5	1	1.4			
Total	30	100	80	100	70	100	11.600	.003	
Accessibility		Ethnicity				Chi square		p value	
Satisfaction	Ngalong	Sharchop		Lhotshampa		Khengpa			
	N	%	N	%	N	%	N	%	
High	60	92.3	44	84.6	40	100	19	82.6	
Low	5	7.7	8	15.4	-	-	4	17.4	
Total	65	100	52	100	40	100	23	100	8.249 0.041
Accessibility		Duration of admission				Chi square		p value	
Satisfaction	<15 days		>16 days						
	N	%	N	%					
High	142	92.8	21	77.8					
Low	11	7.2	6	22.2					
Total	153	100	27	100	6.064		.014		

## **8.2 Associations in terms of Accessibility:**

As shown in table 21 above, Age had a significant association with Accessibility at a p value of 0.003. 98.6% of the patients above 31 years had higher satisfaction than those in other age categories. The ones below 15 years followed this at 93.3%. However those between the ages of 15 and 30 were the least at 82.5%. This showed an intriguing non-linear fashion of satisfaction as age rose.

In terms of Ethnicity, there was again a significant association with Accessibility at p 0.041. 100% of the Lhotshampas were satisfied, followed by the Ngalongs at 92.3% as far as the accessibility factor was considered. Khengpas were the least satisfied.

Hospital duration also had a significant association with Accessibility at p value of 0.014. Those with hospital stay of less than 15 days formed 92.8% of high satisfaction group while those with hospital duration of more than 16 days formed only 77% of high satisfaction group.

## **8.3 Association between Genders, Referral status and Admission history with Waiting time**

There were significant associations between Gender, Referral status and Admission history with Waiting time as reflected in table 22 below.

**Table 22: Association between gender, referral status and admission history with waiting time**

<b>Waiting time</b>	<b>Gender</b>				<b>Chi square</b>	<b>p value</b>
Satisfaction level	Male		Female			
	N	%	N	%		
High satisfaction	76	84.4	65	72.2		
Low satisfaction	14	15.6	25	27.8		
Total	90	100	90	100	3.961	0.047

  

<b>Waiting time</b>	<b>Referral status</b>				<b>Chi square</b>	<b>p value</b>
Satisfaction level	Self referred		Proper referral			
	N	%	N	%		
High satisfaction	72	71.3	69	87.3		
Low satisfaction	29	28.7	10	12.7		
Total	101	100	79	100	6.732	.009

  

<b>Waiting time</b>	<b>Admission history</b>				<b>Chi square</b>	<b>p value</b>
Satisfaction level	First admission		Repeat admission			
	N	%	N	%		
High satisfaction	101	84.2	40	66.7		
Low satisfaction	19	15.8	20	33.3		
Total	120	100	60	100	7.218	.007

#### **Gender and Waiting time:**

There was a significant association between these two variables at p value of 0.047.

84.4% of males had higher satisfaction than females.

### Referral status and Waiting time:

Here too, there was a highly significant association between the two variables at p value of 0.009. 87.3% of referred patients had higher satisfaction as compared to 71.3% for self referred ones.

### Admission history and Waiting time:

In respect to these two variables, a highly significant association at p value of 0.007 was found. First time admissions were found to be more satisfied than repeat admissions.

**Table 23: Association between Referral status and Admission history with Comfort in the ward**

Comfort in ward	Referral Status		Chi square	p value		
	Self referred	Proper referral				
Satisfaction level	N	%	N	%		
High Satisfaction	73	72.3	68	86.1		
Low Satisfaction	28	27.7	11	13.9		
Total	101	100	79	100	4.973	0.026
Comfort in ward	Admission History		Chi square	p value		

#### **8.4 Association between referral status and admission history with comfort in the ward**

##### **Referral status and Comfort in the ward:**

There was significant association between these two variables at p value of 0.026. Patients referred through the referral system of health services were more satisfied than the ones who were self referred.

##### **Admission history and Comfort in the ward:**

There was seen a significant association between Admission history and Comfort in the ward at p value of 0.021. 83.3 % of first time admissions had higher satisfaction than repeat admissions.

Other service domains under hospital milieu were general cleanliness, attitude of the support staff, hospital diet and social support. None of these had any significant associations with socio-demographic or patient related variables in this study population. However, literature says that these are associated with patient satisfaction. Physicians of the NRH also affirmed that social support, attitude of support staff and hospital diet had associations with satisfaction.

None of socio-demographic variables were significantly associated with overall satisfaction in any domains under hospital milieu aspects.

## 9. Associations Between Patient Factors and Service Domains Under Provider Aspect

Among the six domains under provider aspect, Disease status and Ethnicity were found to have significant associations with Nurses' competency and Doctor-patient relation respectively.

### 9.1 Association between disease status with nurses' competency

**Table 24: Disease status with nurses' competency**

Nurses' competence	Disease status				Chi square	p value
	Acute		Chronic			
	N	%	N	%		
High satisfaction	98	93.3	75	100		
Low satisfaction	7	6.7	-	-		
Total	105	100	75	100	4.998	0.025

There was found to be a significant association between disease status and nurses' competency. The p value was 0.025.

**Table 25: Ethnicity with Doctor-patient relationship**

Doctor-patient relation	Ethnicity								Chi square	p value
	Ngalong		Shar chop		Lhotshampa		Khengpa			
	N	%	N	%	N	%	N	%		
High satisfaction	57	87.7	43	82.7	21	52.5	17	73.9		
Low satisfaction	8	12.3	9	17.3	19	47.5	6	26.1		
Total	65	100	52	100	40	100	23	100	18.629	<0.001

Table 25 above shows a highly significant association between ethnicity and doctor-patient relationship at the p value of <0.001. 87.7% of the Ngalongs were highly satisfied followed by Sharcops at 82.7%. The least were the Lhotshampas at 52.3%.

Other variables in the provider domain viz. Competences of physicians, Attitude of care providers, Comprehensive care and Service with humane face did not show any associations with patient satisfactions in the present study at NRH.

## 10. Associations Between Patient Factors and Overall Satisfaction in Both Aspects

There was no association between patient factors with over all satisfaction in hospital related domains.

Only Age had a statistically significant association with Overall satisfaction under provider aspect as is reflected in table 26 below.

**Table 26: Association between age and overall satisfaction with domains under provider aspect**

Overall satisfaction (provider domain)		Age				Chi square	p value
Satisfaction level	<15 years	16-30 years	>31 years				
	N	%	N	%	N	%	
High satisfaction	18	60	34	42.5	46	65.7	
Low satisfaction	12	40	46	57.5	24	34.3	
Total	30	100	80	100	70	100	8.560 0.014



There was significant association between age and overall satisfaction with domains under provider aspect at a p value of 0.014. However, satisfaction did not show a linear pattern of increasing satisfaction with age. The middle age group was not as highly satisfied as those below 15 years and above 31 years.

## 11. Overall Satisfaction with Age and Duration of Hospital Stay

Computing overall satisfaction for combined hospital milieu and those under provider aspects, associations were looked into. Two variables viz. Age and Duration of hospital stay were found to have significant associations with overall satisfaction as reflected below.

**Table 27: Association between Age and Overall combined satisfaction**

Overall combined satisfaction		Age				Chi square	p value		
		<15 years		16-30years				>31years	
		N	%	N	%	N	%		
High satisfaction		16	53.3	33	41.3	43	61.4		
Low satisfaction		14	46.7	47	58.7	27	38.6		
Total		30	100	80	100	70	100	6.155	0.046

**Table 28: Association between duration of admission and overall combined satisfaction**

Overall combined satisfaction	Duration of admission				Chi square p value	
Satisfaction level	<15days		>16days			
	N	%	N	%		
High satisfaction	83	54.2	9	33.3		
Low satisfaction	70	45.8	18	66.7		
Total	153	100	27	100	4.018	0.045

As reflected in the tables 27 and 28 above, Age and Duration of admission had significant associations with overall satisfaction at p values of 0.046 and 0.045 respectively. Satisfaction was higher for those above 31 years followed by age group below 15 years. Between 16 and 30 years age group, satisfaction was at 41.3%. In terms of duration of hospital admission, those with stay less than 15 days had higher level of satisfaction as compared to those with more than 15 days stay.

## **12. Test of Differences in Terms of Satisfaction Between Factors Under Hospital Milieu and Provider Aspects**

Means of all scores under hospital milieu and provider aspects were calculated and a paired t test was computed to find out the difference. As reflected in the table 29 below, the difference was found to be significant.

**Table 29: Test of differences between means of scores under hospital milieu and provider aspects**

<b>Group</b>	<b>Mean</b>	<b>t value</b>	<b>Degree of freedom</b>	<b>Sig.(2tailed)</b>
Means of all scores under hospital milieu	3.9127			
		5.434	179	<0.001
Means of all scores under provider factors	4.0264			

It was determined that the differences in satisfaction levels as contributed by factors under the above two domains were statistically significant at p value of <0.001.

### **13. Interviews with Key Informants**

Five key informants from the Department of Health Services and NRH were interviewed to find their perceptions regarding inpatient satisfaction in the NRH and other related issues. The five informants were the following:

- Director, Department of Medical Services.
- Director, Department of Public Health.

The above both served before as superintendents of NRH.

- Officiating Superintendent, NRH.
- Administrative Officer, NRH
- Officiating Nursing Superintendent, NRH.

#### **13.1 Summary of the interview results:**

- **Their perceptions of patient satisfaction/dissatisfaction in the Bhutanese context:**

The over all feeling was that Bhutanese patients do not attach enough values to the free services rendered at NRH. Most of them demand and avail of services as a matter of right. All strongly felt that imposing restrictions and disciplines are not well accepted by inpatients; rather all patients in general. Receiving them nicely at different service points and attending to them promptly are two of their main expectations. They expect good and caring attitude, thorough examinations and investigations along with communication/explanation of their conditions. They are dissatisfied if reprimanded and finger pointed for any lapses on their part. Many also expect that investigations and treatment start as early as possible and that all drugs be available from the hospital itself.

- **Quality gaps in the services rendered at NRH**

They all affirmed that expectations and demands of patients are increasing. However, they all agreed and strongly felt that patients are not aware of difficulties government face in providing free services given our resources and constraints as a developing nation. There were, however, some “real gaps in terms of manpower shortages for rendering optimal care” as strongly put by the acting superintendent of the NRH. There are also discrepancies in terms of some sophisticated equipments, investigations and lack of special clinics for diabetes, hypertension and other chronic conditions. Interviewees agreed that some categories of health workers needed to improve their attitude in dealing with patients. All were of the opinion that care providers are trying to serve patients to the best of their ability despite constraints and limitations.

- **Perceptions in terms of patients' expectations while seeking services at NRH.**

The general consensus was that inpatients look forward to instant solutions to their diseases/conditions. They expect that these be dealt with compassion and understanding along the process. Prompt relief of pain is an important expectation and some even expect referrals outside if pain persists. After a thorough examination, many accept and acknowledge that nothing major is wrong with them; however some expect and insist on some definite diagnoses. For them other things are secondary and expect that their complaints are directly attended to by treating physicians/specialists at all times of day instead of being attended to by nurses and emergency doctors.

- **Reactions of the Ministry/Department and NRH to patient complaints and issues of dissatisfaction:**

The NRH at the capital is looked up to as the “window to health services” in Bhutan. Instances and issues of patient complaints and dissatisfaction are viewed seriously and critically at ministry and department levels. NRH has been promptly investigating such instances; resolve them immediately and incorporate corrective measures as and when required. In cases of debates in the electronic media, however, ministry/department or NRH have not participated. Such cases have been dealt directly with the concerned parties and resolved amicably.

- **Issues concerning free health care and sustainability at the face of rising demands and costs and other priorities at ministry and national levels:**

All were of the opinion that there is no doubt that health care demands and costs in Bhutan are rising year by year. There was general consensus that our patients realize and start to attach some value to the free services rendered to them. For, this is never free to the government, which has competing priorities at national level. For still some time to come, government is committed to provide free health to Bhutanese people as major portion of our patients belong to the poor rural population. However, time is ripe to initiate researches and start thinking along premises of minimal cost sharing, introduction of user fees, paid clinics etc for those who can afford to pay. The need of the hour, how ever, as put by the Director of Medical Services is to advocate and strengthen the concept of “Bhutanese Doctoring” taking into considerations our socio-cultural and value systems to minimize patient complaints and dissatisfaction at the NRH.

#### **14. Findings of the Self-Administered Questionnaire Survey of Physicians at the NRH**

A self-administered questionnaire survey was carried out involving all specialists and some general doctors looking after inpatients of NRH. All physicians were enrolled who participated actively and responded to the questionnaire. Data collected were in respect to their perceptions about patient satisfaction and other related issues.

Sixteen specialists filled up a questionnaire on the basis of informed consent. The physicians were from the following specialties/wards and distributed as below:

**Table 30: Distribution of physicians specialty/ward wise for the questionnaire survey (N=16)**

Specialties/Wards	Numbers	Specialties/Wards	Numbers
EENT	3 Specialists	Pediatrics	2 Specialists
General Surgery	3 Specialists	Dermatology	1 Specialist
Internal Medicine	3 Specialists	Orthopedic	1 Specialist
Gynecology and Obstetrics	2 Specialists	Psychiatry	1 Specialist

**14.1 The salient findings of questionnaire survey were the following:**

- **Rough guess of dissatisfaction level among inpatients at the NRH:**

33% of the physicians put their rough guess at 15%, 16% of them at 20%; levels ranged from 5% to 30%. 6.3% (1) could not make a guess.

- **Regarding the sources of the complaints:**

58% said they are patient attendants, 42% felt that both patients and attendants complain and voice dissatisfaction.

- **The causes of rising demands for health care services at the NRH.**

All responded that demands are increasing year by year. 50% of respondents attributed this to increase in literacy level of the clientele base of NRH; 33% of them said that this was due to increase in awareness about health and diseases among Bhutanese people. Other reasons pointed out were exposure outside in the region and nearby countries where better but paid health care services exist. Younger patients and economic transitions were also some of factors pointed out.

- **Patient demographic features of those who complain/voice dissatisfaction.**

33% felt that males complain more than females, 50% felt that younger patients complain more than older ones. 91% said that literates complain more than illiterates and 100% said that it is the rich who are dissatisfied and liable to complain. 75% felt that main complainants were government servants; 25% said businessman. 42% felt that self admitted patients complain more than referred ones; 33% said that it was the latter who complained. In their perceptions, they felt that there is no difference between acute and chronic patients as far as complaints and expressions of dissatisfaction are concerned. Longer period of admission and repeat admissions were associated with dissatisfaction as affirmed by 25% and 33% respondents respectively.

- **Their perceptions on the factors associated with satisfaction of in-patients in the NRH.**

66% said that attitude of support staff (cooks, sweepers, ward boys etc), attitude of care providers (physicians, nurses etc.) and social support in terms of allowing visitors and relatives to visit patients as some important factors for patient satisfaction. 58% responded that long waiting time prior to admission was another important factor. 50% said that long waiting time for investigative procedures as in-patients, cleanliness of wards and noise/crowd control in the wards are other important factors influencing patient satisfaction.



- **Regarding their practices in dealing with patients.**

33% said that “Service with Humane Face” is important; 25% felt “Professionalism” and 42% said both are essential. In real practice, 75% said they try to combine both and difficulties encountered is lack of time as put by 42% of respondents. Lack of professional updating (33%) and inadequate specialists and other medical officers (25%); have been elaborated as some other problems in not being able to practise the twin service mottos of health department.

- **On the question of patient satisfaction being associated with their job satisfaction, 91% replied in an affirmative.**

- **Recommendations that emanated for improving inpatient satisfaction in the NRH were the following:**

60% said that staff, mainly specialists/other generalists and certain categories of nurses should be increased at the NRH. 20% said that enough time must be allocated in explaining disease and line of management to patients and attendants but as a result of time pressure due to lack of staff, they are not able to do it adequately. Other (20%) recommendations made were emphasizing continuous medical education (CME) programs for service providers, improving some diagnostic and treatment facilities at the NRH, improvement of attitude of some care providers and being more professional.