Col

by Manoj Singh

---

1. The ECHS was established in 2003 and in the year 2023, it has completed twenty years of existence, during this period it has evolved and become better as well as efficient. Total budget for ECHS has also gone up from couple of hundred cr to approx. 5000 cr rupees. After this transition the scheme is well established and functioning, but at this stage is it able to meet the expectations of veterans or not, was the start point for the study.

2. **Research Question**

   (a) **Primary Research Question**. What is the satisfaction level of **the beneficiaries of Ex-Servicemen Contributory Health Scheme (ECHS) ?**

   (b) **Secondary Research Questions.**

       (i) What are the aspects of ECHS scheme, with which the beneficiaries are

       satisfied or most happy with ?

       (ii) What are the major shortcomings of the ECHS scheme?

       (iii) Any other relevant information/ correlation which can be arrived at with

       respect to patient satisfaction?

3. **Objective** **The objective of the study is to assess the patients' satisfaction level of the beneficiaries of Ex-Servicemen Contributory Health Scheme (ECHS) at ECHS Polyclinic, Dundahera.**
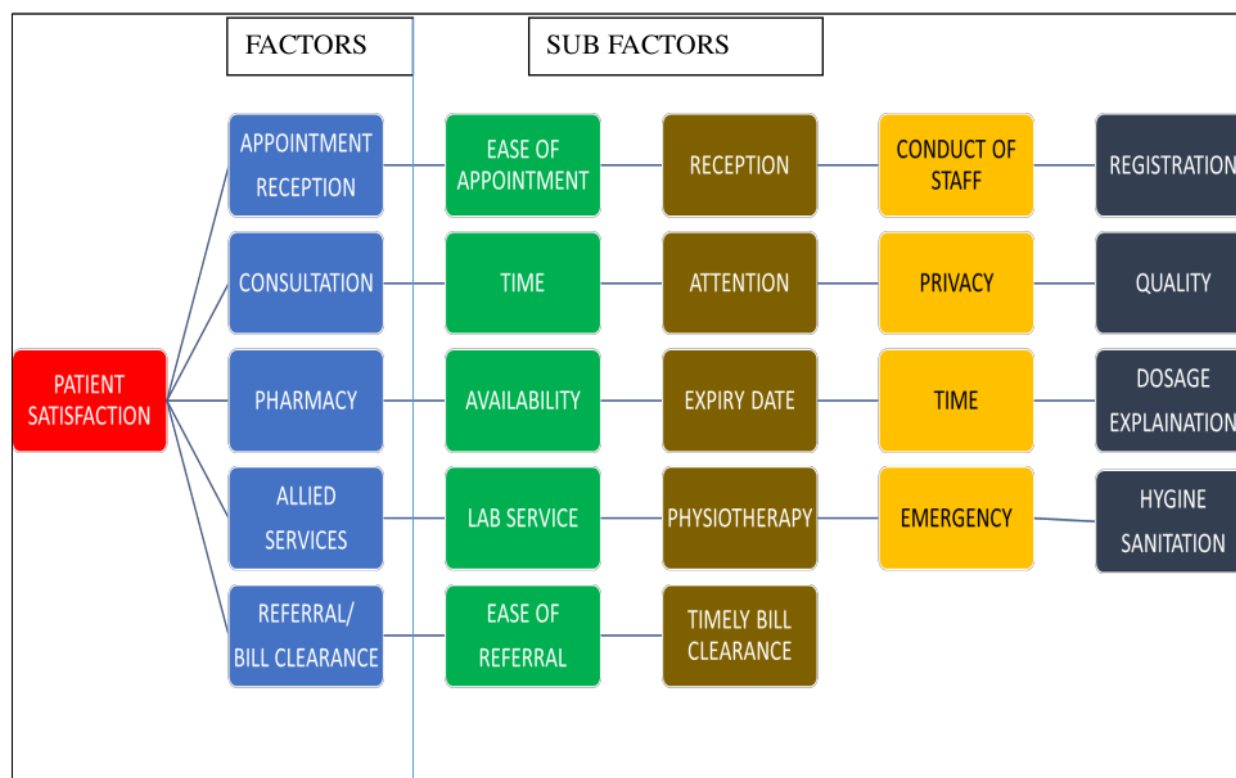
4. **Rationale**. After twenty years of its introduction, weather the scheme is successful in meeting the medical needs and expectations of ESM, can only be gauged by a patient satisfaction survey.

5. **Literature Review**.   Literature review was carried out with all available resources to include online research repositories like PubMed, Research gate etc, and Library of IIHMR, Delhi as well as Government data on ECHS. After short listing from approx 30 search results following relevant studies were identified for the in depth analysis and methodology adopted. A summary of the Literature review findings is given below in form of a table.

SUB	JOURNAL / YEAR	METHODOLOGY	SAMPLE SIZE	RESULTS
Towards patient-centered health services in India--a scale to measure patient perceptions of quality. By Rao KD(1), Peters DH, Bandeen-Roche K.	Int J Qual Health Care. 2006 Dec	Cross Sectional Study of OPD patients	1869 OPD Patients in public health centers in U.P.(India)	Doctor behavior, medicine availability, hospital infrastructure, staff behavior, and medical information influence patient satisfaction in decreasing order. Variety of health setups- same scale
Outpatient satisfaction and quality of health care in North Indian medical institute. Puri N(1), Gupta A, Aggarwal AK, Kaushal V.	Int J Health Care Qual Assur. 2012	Cross Sectional Study of OPD patients	120 OPD patients	Patient satisfaction, client convenance facilites, prescription quality , doctor-patient interaction etc.(87% Satisfaction) Not using a Likert scale , Med & Surgical wards only, Ltd sample size.
What Factors Affect Patient Satisfaction in Public Sector Hospitals Abid Hussain 1 , Muhammad Safdar Sial 2 and others 3	Int J Envmt Rescearch & Public Health Care , Mar 2019	Cross Sectional Study of OPD patients	554 OPD patients	Patient satisfaction , laboratory services, pharmacy services, doctor–patient communication, and physical services. Ltd sample from one geog location only
Client satisfaction in ECHS Polyclinic: An Experience from India Naveen Phuyal, Ashok Jindal,YSM, Sandip Mukerji.	MJSBH Vol 14 Issue 2 Dec 2015	Cross Sectional Study of OPD patients	400 (obtained by estimation of proportion) Patients who had at least 3 vis.	Sighnage, Parking, Regn, Waiting Area, Experience while waiting, Time with Dr, Lab and Pharmacy Services,83 % -good /excellent. Likert scale 1-4, Study setting not given, Sub heads of factors not considered

6. **Evolution of Study Tool**.   Patient Satisfaction at Polyclinic was assessed through a cross sectional survey conducted with a semi structured questionnaire. The form used for survey is enclosed as Annexure V. The important aspects are highlighted below:-

(a) **Factors for Satisfaction**. Keeping in mind the Literature review and the peculearities of ECHS following main factors and sub factors were identified for the study. They were graded by the participants on a five point Likart Scale for the purpose of Patient satisfaction.

FACTORS	SUB FACTORS			
APPOINTMENT RECEPTION	EASE OF APPOINTMENT	RECEPTION	CONDUCT OF STAFF	REGISTRATION
CONSULTATION	TIME	ATTENTION	PRIVACY	QUALITY
PHARMACY	AVAILABILITY	EXPIRY DATE	TIME	DOSAGE EXPLAINATION
ALLIED SERVICES	LAB SERVICE	PHYSIOTHERAPY	EMERGENCY	HYGINE SANITATION
REFERRAL/ BILL CLEARANCE	EASE OF REFERRAL	TIMELY BILL CLEARANCE		

PATIENT SATISFACTION

(b) **Sample Size**.   The sample size was calculated as under

$$N = Z^2 p(1-P)/W^2$$

With 95 % confidence level and +/-5% margin of error

p = 50 %

$$N = 1.96 \times 1.96 \times 0.5 \times 0.5/ 0.0025$$

N= 384.5=385

Note - To ensure adequate availability of samples 450 survey forms were filled and after rejecting incomplete / duplicate forms, 400 samples were taken for analysis and results.

(c) **Conduct of Survey**.   The forms were filled by AFVs to ECHS near the reception area, while going back from the Polyclinic. Assistance in terms of language and understanding of questions was provided to them.

7. **Methodology** The methodology is given below :-

(a) **Study Design**.   The study was an Observational and Analytical study to measure the patient satisfaction level.

(b) **Research Type**.   Cross sectional Survey.

(c) **Study Setting**.   ECHS Polyclinic, Dundahera.

(d) **Study Population**.   The study population comprises of the ex-servicemen & their dependents

NOTE – **5 PONIT LIKERT SCALE** WAS USED FOR EACH FACTOR/ SUB-FACTOR GRADING DURING SURVEY
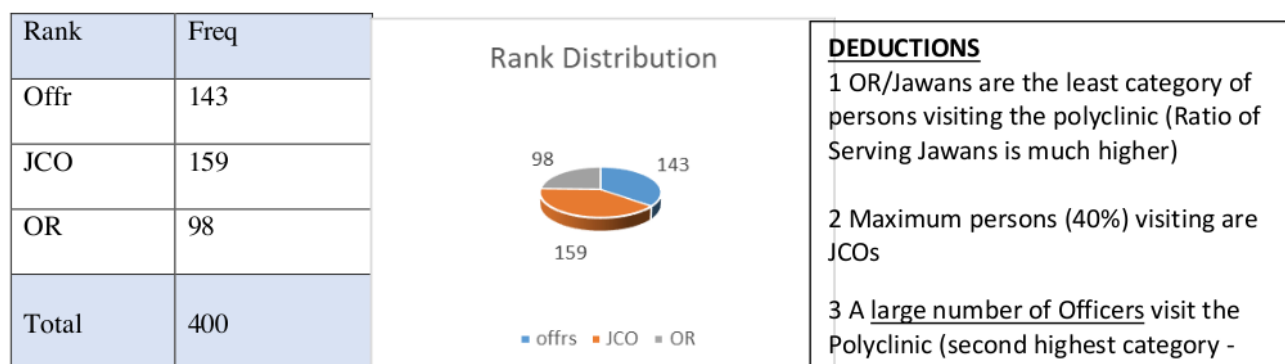EXCELLENT,   GOOD,   FAIR,   POOR,   VERY POOR,

visiting the ECHS, Polyclinic.

(e)   <u>Study Tools</u>.   Questionnaire attached as Annexure V & physical informal interviews with patients and Medical Staff at ECHS Polyclinic

(f)   <u>Sample Size</u>. A sample size of 400 respondents were selected from those dependent on the facility & utilizing the services provided.

(g)   <u>Sampling Method</u>.   Random Sampling Technique.

(h)   <u>Sample Selection</u>. All respondents were clearly informed about the aim & confidentiality of the study. The participation of the respondents was completely voluntary.

(i)   <u>Selection Criteria</u>.

(i)   <u>Inclusion Criterion</u>.   All patients dependent on the ECHS Polyclinic, Dundahera who visited the polyclinic.

(k)   <u>Exclusion Criterion</u>. All respondents who are unwilling were excluded from the study.

(l)   <u>Study Variables</u>.   Rank, Gender & OOPE.

(m)   <u>Data Analysis</u>. The data collected was transferred to a master Excel Sheet in a tabulated form. The data was then analysed using various statistical tools available. The structured questionnaire contained ratings from Excellent, Good, fair, Poor & Very Poor & rated accordingly by the respondents.

(n)   <u>Ethical Considerations</u>.

(i)   The study sample are free of any kind of personal identity of participants.

(ii)   All the credentials collected will be kept confidential & will be used for the subject study purpose only.

(iii)   Informed consent taken from all participants.

(iv)   The study was purely voluntary. The participants had all the rights to quit the

study at any stage if they want.

PART 7 -: DATA ANALYSIS, RESULT & DISCUSSION

1   **Demograhic And General Data**. The demographic data collected from the sample population is reflected in the form of pie-charts & bar-charts. The number & percentages of each data has been calculated & mentioned along with the analysis of the response to the questionnaire.

2 **Rank Distribution**. Out of the total sample size of the study, 84% (126) were male & 16% (24) were female patients/dependants.

Rank	Freq
Offr	143
JCO	159
OR	98
Total	400

Rank Distribution

98   143

159

■ offrs ■ JCO ■ OR

DEDUCTIONS
1 OR/Jawans are the least category of persons visiting the polyclinic (Ratio of Serving Jawans is much higher)

2 Maximum persons (40%) visiting are JCOs

3 A large number of Officers visit the Polyclinic (second highest category -

3 **Gender Distribution**. Out of the total sample size of the study, 65% (262) were male & 35% (138) were female patients/dependants.

Gender	Freq
Female	138
Male	262

6

Total	400

4   <u>**Count of Number of Dependants.**</u> 56% of the respondents have less than 2 dependants, 43% have 3 to 5 dependants & balance have more than 5 dependants.

Row Labels	Number of Dependants
1 to 2	225
3 to 5	170
More than 5	5
Grand Total	400
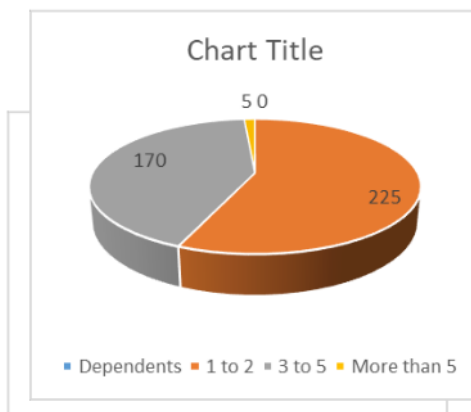
Chart Title

50
170
225

Dependents   1 to 2   3 to 5   More than 5

5   **Purpose of Visit to the ECHS.** 49% of the respondents visited the ECHS facility for referral, 42% for consultation & 9% for medicine collection.

Row Labels	Purpose of Visit
Consultation	208
Medicine Collection	94
Referral	98
Grand Total	400

Purpose

98
208
94

■ Consultation   ■ Medicine Collection   ■ Referral
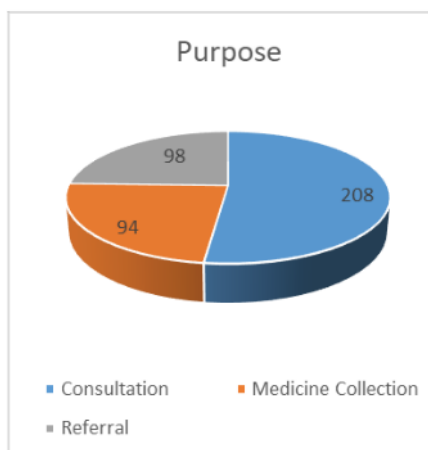
DEDUCTIONS

1 Maximum persons visit the polyclinic for consultation (52%)

2   A large number (24%) come for medicine collection(Disease burden)

3   Very few people come with the aim of getting referral

6   **Patient Satisfaction Data**. Data related to patient satisfaction is given factor wise

(a) Reception

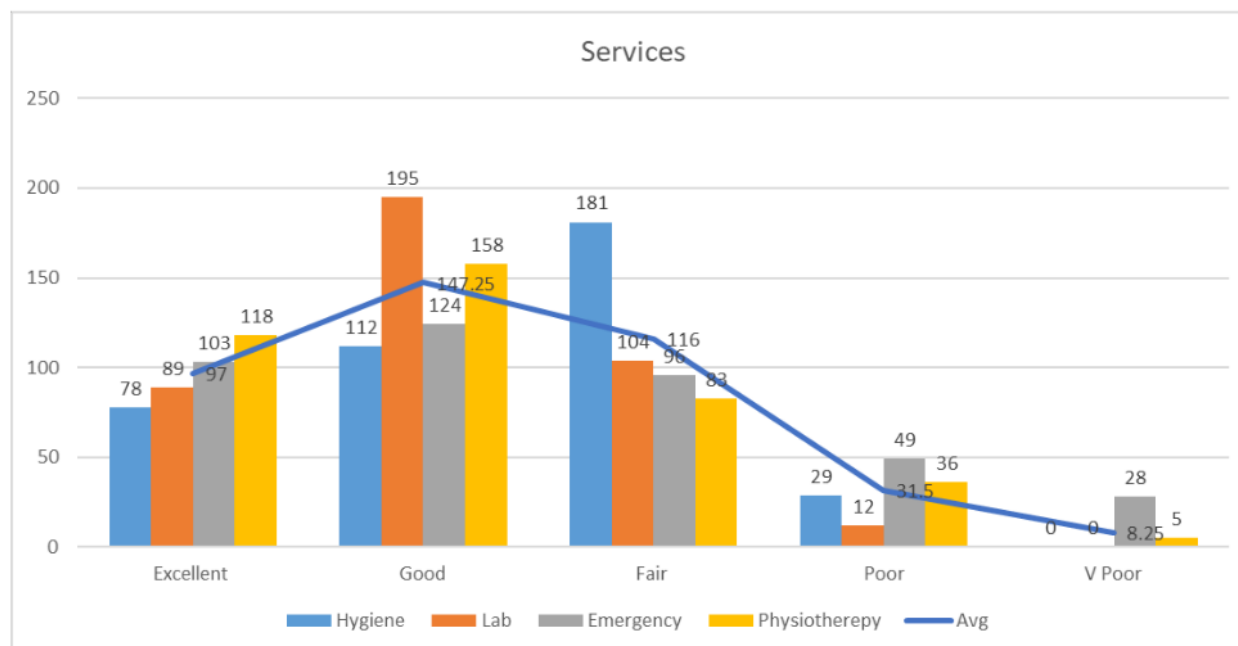(b) Consultation

8

(c) Services

(d) Pharmacy

(e) Referral

7   **Registration And Reception**. The Satisfaction level as per the sub catatory wise and total alonwith percentage is given in the bar graph below .
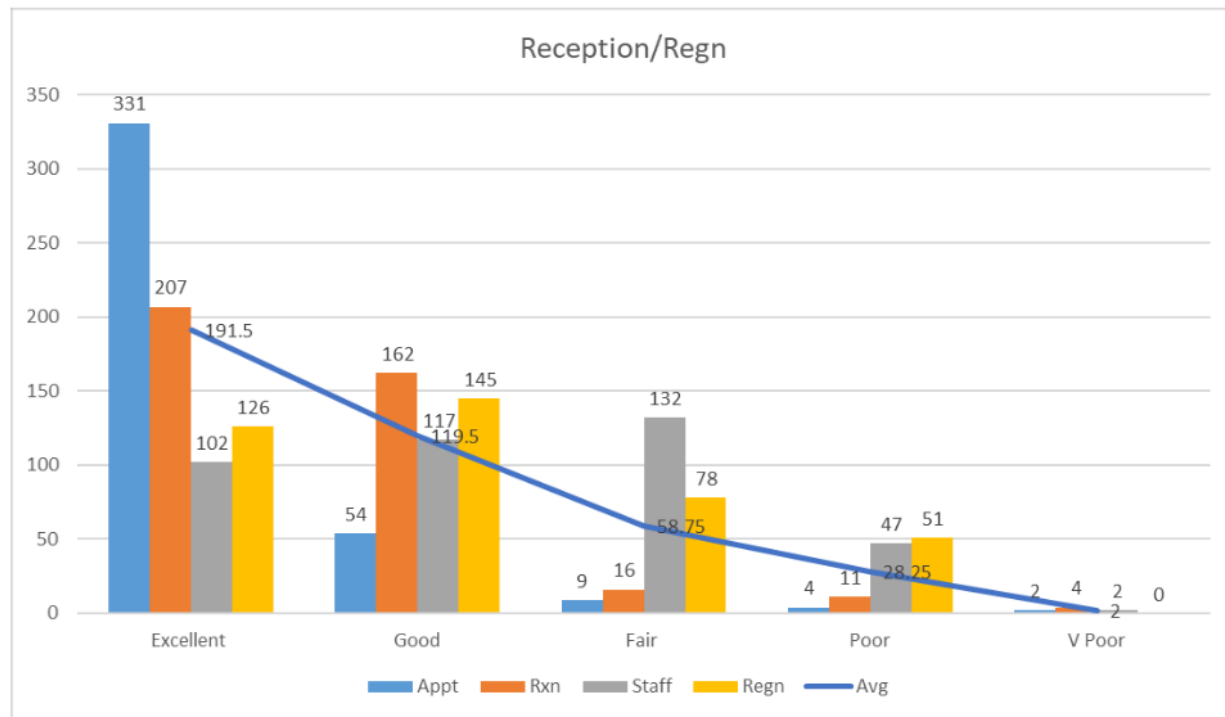
8   **Consultation**. The Satisfaction level as per the sub catatory wise and total alonwith percentage is given in the bar graph below

Consultation

Bar chart titled "Consultation" showing satisfaction ratings across categories Excellent, Good, Fair, Poor, V Poor for Time*, Attention, Privacy, Quality and an Avg line.

Excellent: Time* 81, Attention 121, Privacy 98, Quality 122, Avg 105.5
Good: Time* 128, Attention 203, Privacy 103, Quality 145, Avg 144.75
Fair: Time* 176, Attention 58, Privacy 128, Quality 78, Avg 110
Poor: Time* 12, Attention 16, Privacy 68, Quality 51, Avg 36.75
V Poor: Time* 3, Attention 2, Privacy 3, Quality 4
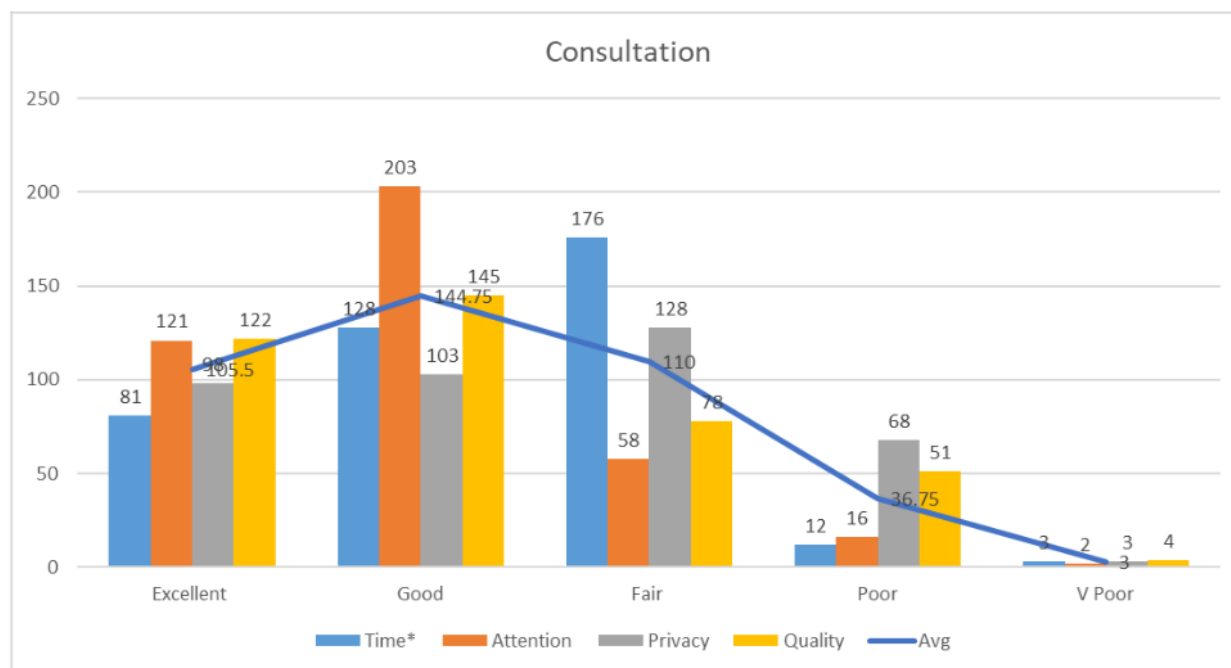
9   **Services And Infrastructure**. The Satisfaction level as per the sub catatory wise and total alonwith percentage is given in the bar graph below .

Services

Bar chart titled "Services" showing satisfaction ratings across categories Excellent, Good, Fair, Poor, V Poor for Hygiene, Lab, Emergency, Physiotherepy and an Avg line.

Excellent: Hygiene 78, Lab 89, Emergency 97, Physiotherepy 118, Avg 103
Good: Hygiene 112, Lab 195, Emergency 124, Physiotherepy 158, Avg 147.25
Fair: Hygiene 181, Lab 104, Emergency 96, Physiotherepy 83, Avg 116
Poor: Hygiene 29, Lab 12, Emergency 49, Physiotherepy 36, Avg 31.5
V Poor: Hygiene 0, Lab 0, Emergency 28, Physiotherepy 5, Avg 8.25

10   **Phatmacy**. The Satisfaction level as per the sub catatory wise and total alonwith percentage is given in
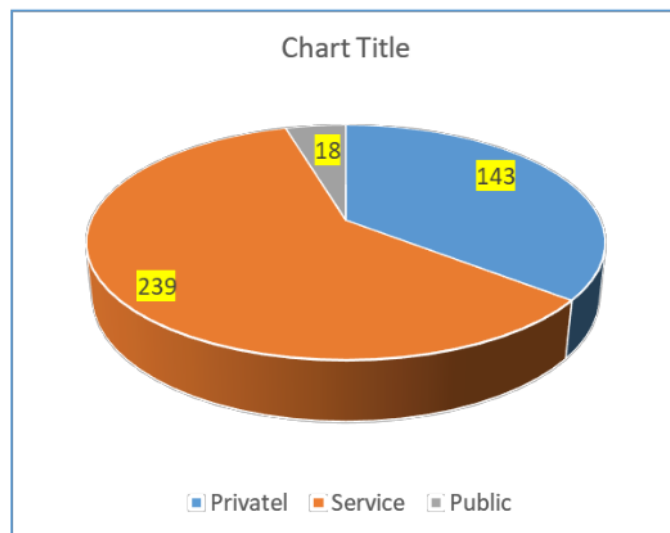
10

the bar graph below .

Pharmacy
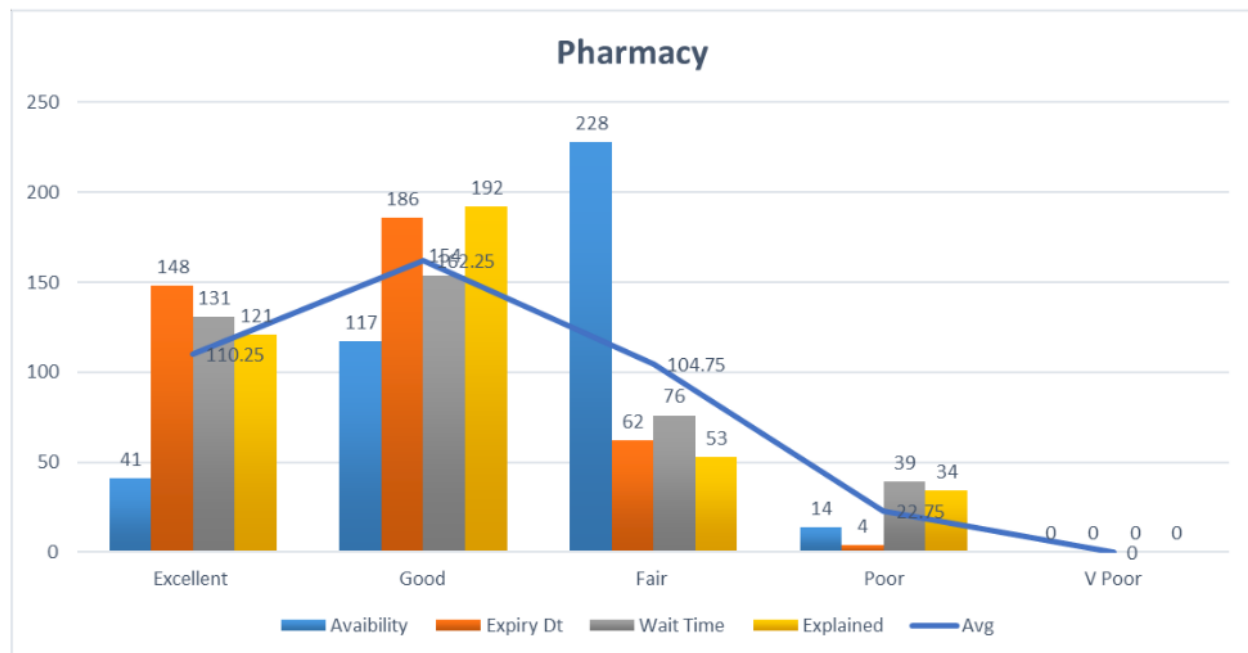
11   **Referral And Claims** The Satisfaction level as per the sub catatory wise and total alonwith percentage is given in the bar graph below .
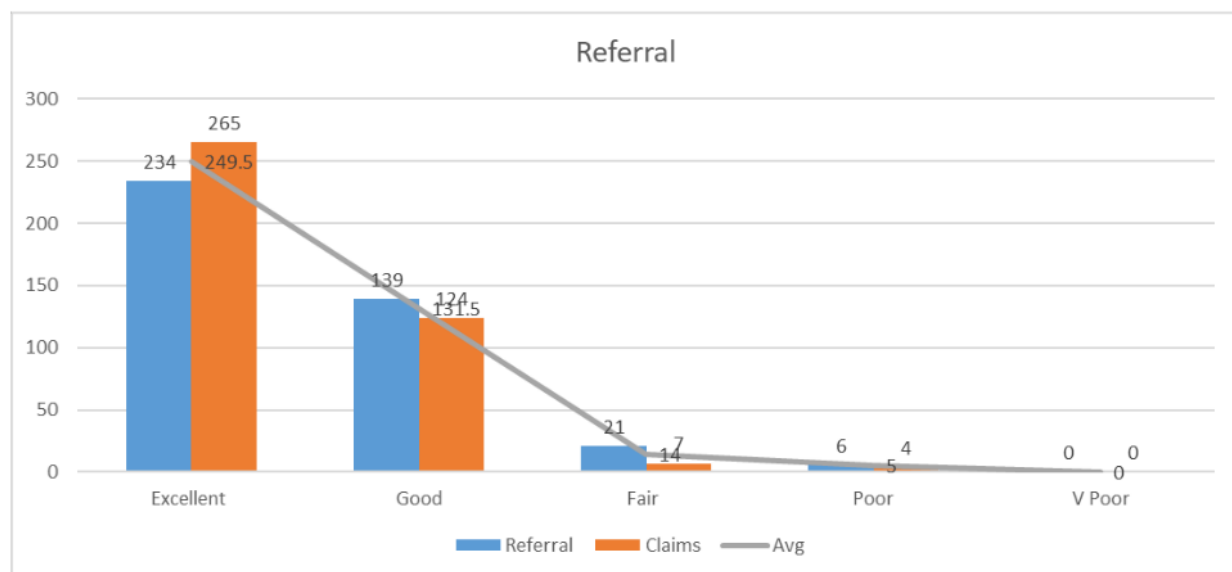
Referral

12   **Preference for Referral**.   The preference for referral among visitors for Civil, Service or Public

healthcare facility was as under:-

Chart Title
18
143
239
■ Privatel   ■ Service   ■ Public

Summary

- ✓ Majority of persons prefer Service(60%)
- ✓ Primary reason is proximity of BH & RR
- ✓ Public hospital are least pre-ferred
- ✓ **The preference may vary from polyclinic to polyclinic**

13   **Total Time Spent**. Rank wise time spent is given below, Less is less than 30 mins, Moderate is more than 30 mins but less one hour., while high is more than two hours

	offrs	JCO	OR	total
Less	73	68	59	200
Moderate	69	84	33	186
High	1	7	6	14

Total Time Spent
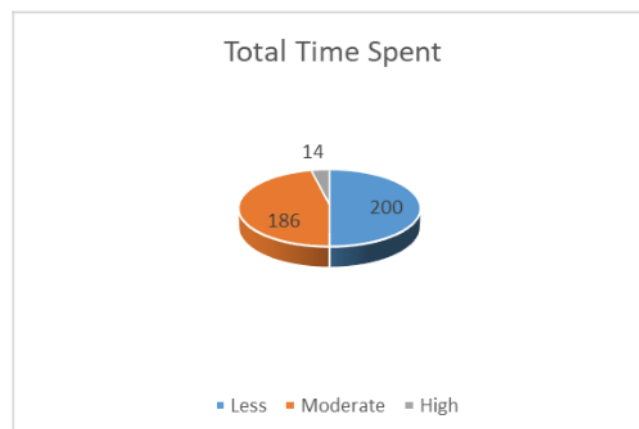
14   **Overall Satisfaction**   The overall satisfaction alongwith the factorwise satisfaction level is

shown below;-

Overall Patient Satisfaction
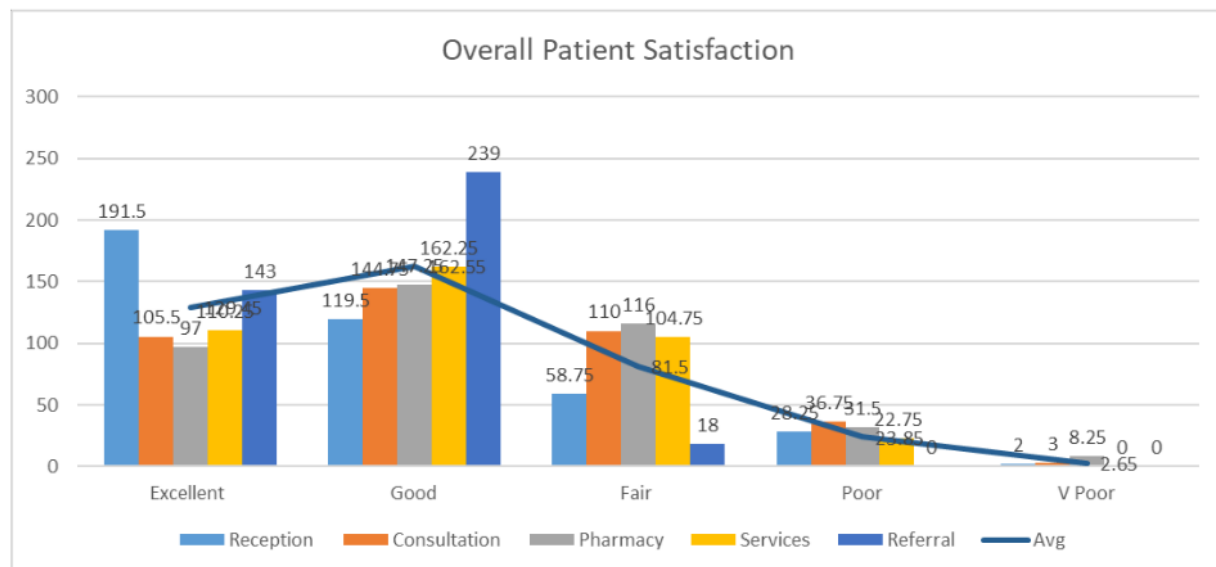
15. <u>**Relation Between Averaged And Surveyed Overall Satisfaction Level**</u> **The overall satisfaction rating was part of the survey i.e. asked as from the patients directly as well as calculated by averaging the satisfaction of individual factors as well. A correlation analysis of these indicated that there was a strong correlation (0.96) between them i.e. the factors and sub factors identified for survey were correct. The same is shown below;-**
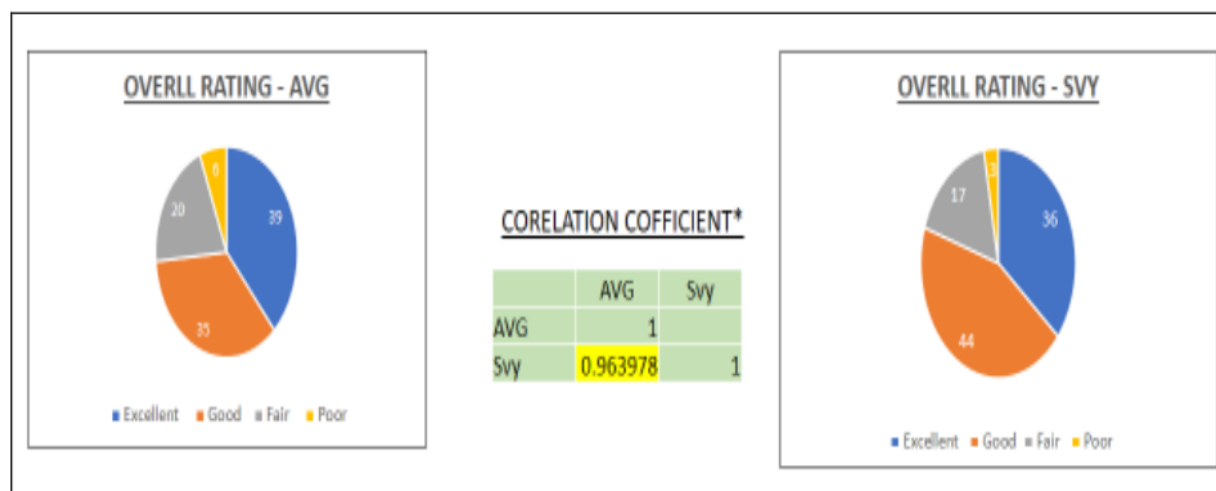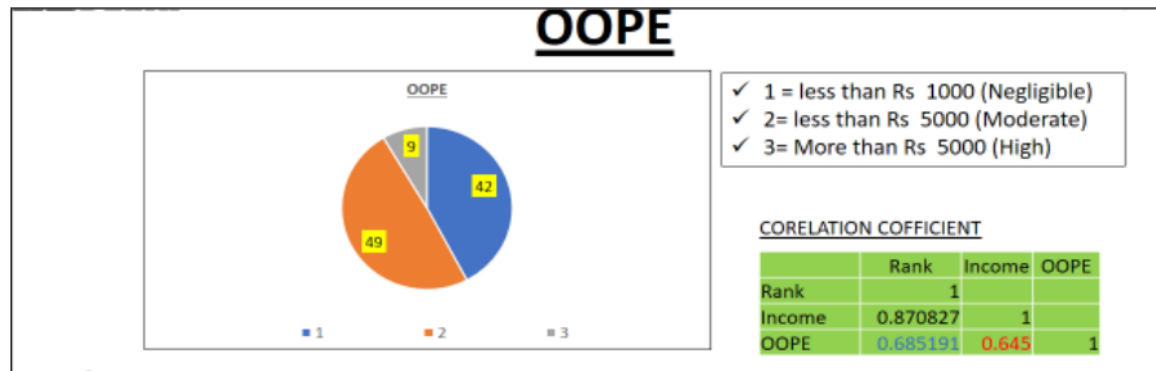

16 <u>**OOPE**</u>. The data related to OOPE was also collected from the patients during survey along with

their ranks. The OOPE was classified as

An corelation analysis of the same was undertaken and it was found that

(i)   Pension is major component of Income for ESM(0.87)

(ii)   OOPE is +ve related to Income(0.65)

(iii)   OOPE is +ve related to Rank(0.69)

(iv)   <u>**OOPE is low among ESM due to ECHS System**</u>

OOPE

	Rank	Income	OOPE
Rank	1		
Income	0.870827	1	
OOPE	0.685191	0.645	1

CORELATION COFFICIENT

✓ 1 = less than Rs 1000 (Negligible)
✓ 2= less than Rs 5000 (Moderate)
✓ 3= More than Rs 5000 (High)

17. <u>**Relation between Factors & Overall Satisfaction**</u>. A corelation between various factors and overall

satisfaction showed that :-

	Reception	Consultation	Pharmacy	Services	Referral	Overall
Reception	1					
Consultation	0.733748	1				
Pharmacy	0.665954	0.964566	1			
Services	0.647175	0.996136	0.977686	1		
Referral	0.766133	0.788673	0.778973	0.868743	1	
Overall Sat	0.635366	0.877548	0.886358	0.96105	0.934518	1

18. <u>**Summary.**</u>

(i)   <u>**Overall Satisfaction**</u>. 74% ECHS patients who visited Dundahera ECHS Polyclinic in month

14

of May/June 2022 were fully satisfied (Excellent/Good) with functioning of Polyclinic.

(ii)   **Highest Satisfaction: Factor** As per patients, factor with which they were most satisfied, i.e. Highest satisfaction was regarding Referral & Claims (>90%).

(iii)   **Highest Satisfaction: Sub Factor** As per survey Sub Factor having highest satisfaction was related to Appointment (Reception) having automatic card reader and token dispensing facility.

(iv)   **Lowest Satisfaction: Factor** The Factor for which lowest satisfaction was recorded was Consultation by Medical Officer.

(v)   **Lowest Satisfaction: Sub Factor** The Sub Factor with lowest satisfaction was Privacy during consultation as more than two patients were present in the room during consultation.

(vi)   **Time Taken**. Approximate time taken for one visit to the polyclinic was from 15 minutes to two hours. Waiting time to see the doctor was found to be reasonable which was dependent on the time of the day and availability of doctors.

CHAPTER VI : CONCLUSIONS & RECOMMENDATIONS

16. **Conclusion**   The ECHS scheme was brought in with effect from 01 Apr 2003 for the Ex-servicemen pensioners and their dependents who were entitled for treatment in service hospital as well as in those civil/private hospitals which are specifically empanelled with the ECHS. The scheme aimed for quality medical care for AFVs through a mix of Polyclinics, Service Hospitals and Empanelled private hospitals. A survey for Satisfaction level of the patients/beneficiaries of ECHS and the various issues connected was required as it would throw insight into the working of this scheme and how the ex- servicemen perceive these schemes. As per survey conducted during the study most of the AFVs are satisfied with the scheme and are having very low OOPE, hence the scheme has met the objective with which it was implemented by the Government.

17. **Recommendations**

(a)   **Diagnostic Services**. More diagnostic services should be available at the polyclinic.This will reduce the referral as well as enhance diagnostic accuracy.. Also, the results are not available immediately, hence the beneficiary has to visit the facility again for consultation, once the diagnostic results are available.

(b)   **Pharmacy**. The pharmacy needs to be stocked adequately to meet the demand of the beneficiaries so as to improve their overall satisfaction levels. Critical medicine availability & their costs are an area of concern that needs improvement. This will lead to better management of funds & avoid OOPE

(c)   **Referrals**. The referral procedures need to be streamlined, especially the online referrals through education of beneficiaries as well as smoothening the process.

(d)   **Home Delivery of Medicines**.   This is another area which can be improved especially for aged beneficiaries.

(e)   **Waiting Time**.   Waiting time needs to be reduced to improve the overall experience of the dependents by bringing efficency or by increasing the number of polyclinics in the Delhi NCR region.

(f)   **Payment to Empaneled Hospitals**. Due to non-availability of funds in time, many times, the payment is delayed to the empaneled hospitals for the services provided to the beneficiaries which needs to be avoided. Adequate funds should be made available in time & the payments must be done in time.
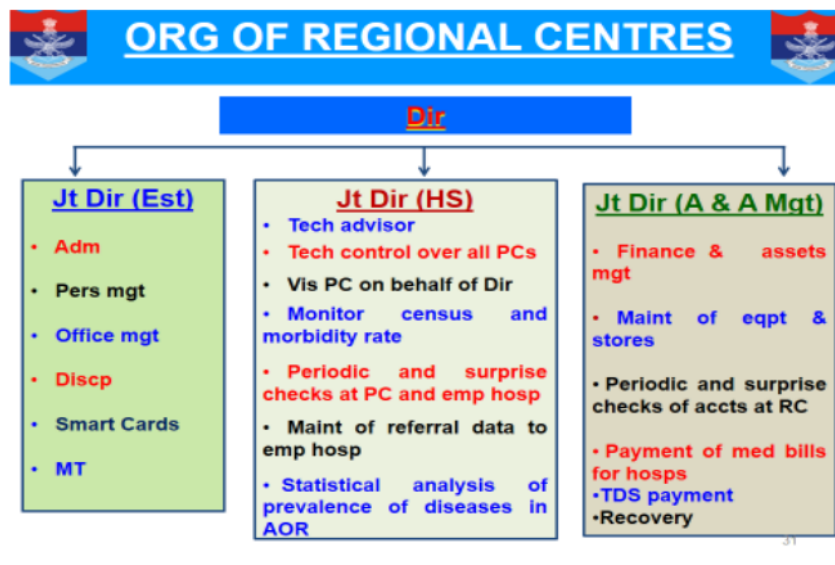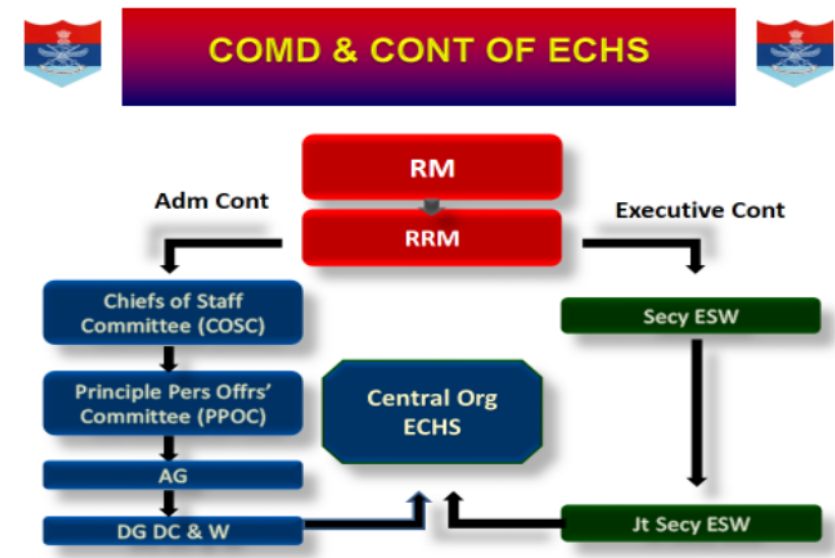
REFERENCES

1. COECHS. History, Organization & Functioning of ECHS, Published on Official ECHS Web Portal, 2022, Available at www.https://echs.gov.in

2. Singh T K, Ex-Servicemen Contributory Health Scheme (ECHS), Internship Report (Unpublished), 2021. Available at IIHMR, Delhi Library

3. Varshney Deepak, Audit of ECHS Polyclinic, Dissertation Report (Unpublished), 2021. Available at IIHMR, Delhi Library

4. Hussain Abid & Others, Measuring hospital satisfaction, Research gate, July 2019,

5. Puri N(1), Gupta A, Aggarwal AK, Kaushal V. Outpatient satisfaction and quality of health care in North Indian medical institute. Int J Health Care Qual Assur. 2012

6. Rao KD(1), Peters DH, Bandeen-Roche K. Towards patient-centered health services in India--a scale to measure patient perceptions of quality. Int J Qual Health Care. 2006 Dec

7. Naveen Phuyal, Ashok Jindal,YSM, Sandip Mukerji. Client satisfaction in ECHS Polyclinic: An Experience from India MJSBH Vol 14 Issue 2, Dec 2015

Organogram of ECHS

(Department of Ex-servicemen Welfare, Ministry of Defence, GoI, 2020) (COECHS, 2020)

ORGANOGRAM   ECHS

Central Org (16,05,38)
- Apex Body
- Tri Service staffing
- Manned by Serving Pers

Regional Centres (04,01,16)
- 28 Regional Centres
- Manned by Serving Pers
- Each Regional Centre conts 10 - 15 Polyclinics

Polyclinics (Based on Type)
- Manned by Contractual Staff only
- Type 'A' to 'E'
- Mil/ Non-Mil

COMD & CONT OF ECHS

ORG OF REGIONAL CENTRES

19

GEN STATUS : REGIONAL CENTRES
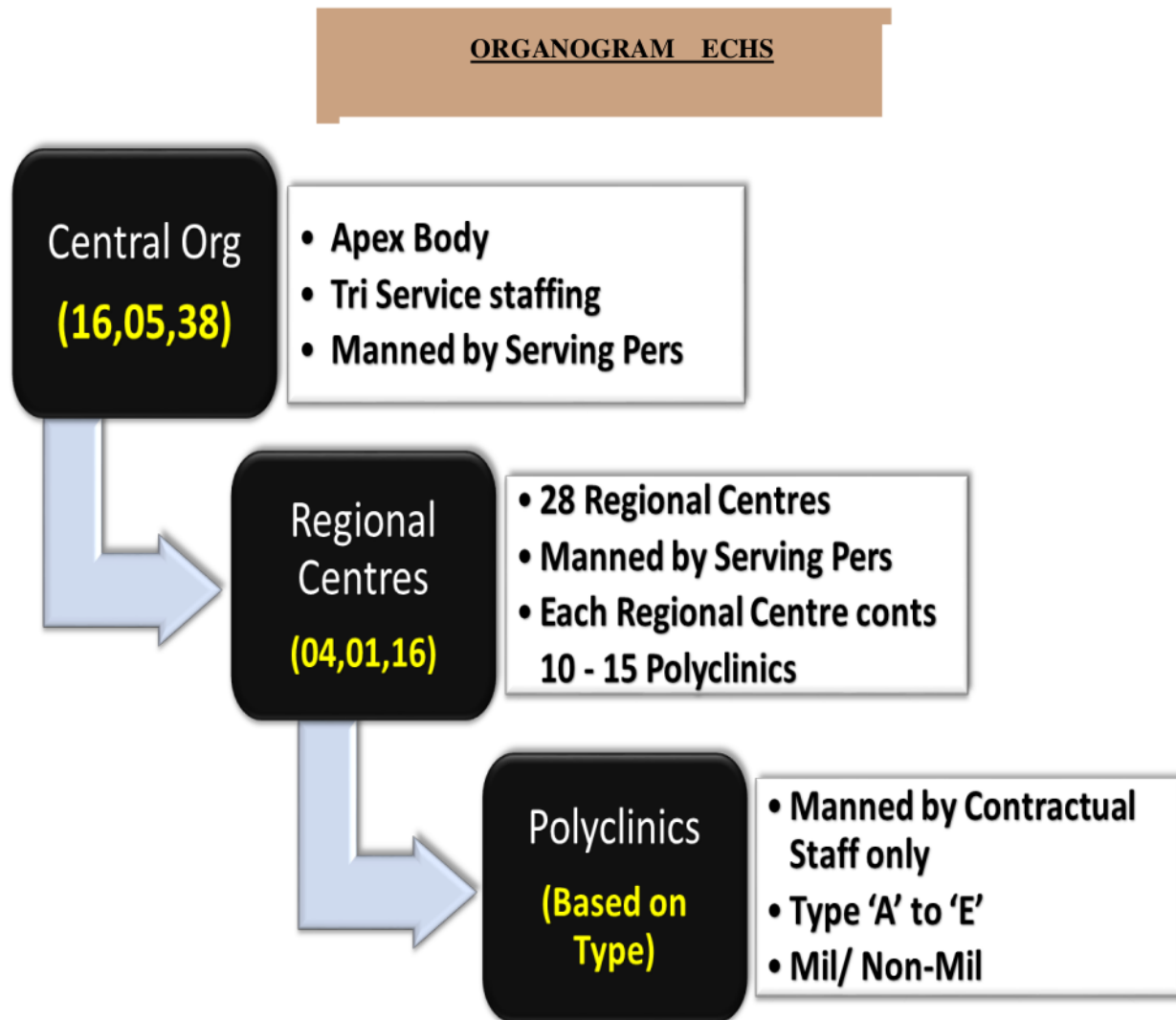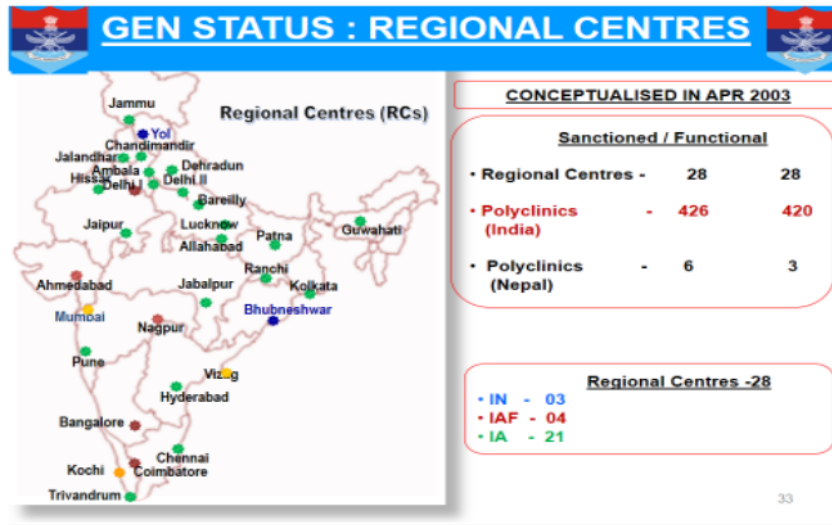
SURVEY QUESTIONNAIRE

SURVEY FOR PATIENT SATISFACTION AT ECHSPOLYCLINIC

DUNDAHERA

Title of the Research- A Study on the patient satisfaction level at ECHS Polyclinic Dundahera.

Informed Consent: Internship is an integral part of PGDM (Hospital and Health Management). All the students undergoing this course at IIHMR, Delhi are required to undergo on the job training in reputed health organizations. **Please provide your written consent for participation in the survey.**

Ser No   Name   Consent – Yes / No

- -

SURVEY - PATIENT SATISFACTION AT ECHS POLYCLINIC

Section 1 (Demographic Information)

1. Gender of the Respondent------------------M--------------F-----------Number of dependents

2. Purpose of Visit_____(ailment)

3. Average number of visits in a month

4. Rank --------Offr ---------------JCO ---------------OR-------------

Section 2 (Reception and Registration)   Excellent / Good/ Fair /Poor /V Poor

1.   Ease of taking appointment   ☐   ☐ ☐   ☐   ☐

2.   Experience at the Reception desk   ☐   ☐ ☐   ☐   ☐

3.   Behavior of staff in Polyclinic   ☐   ☐ ☐   ☐   ☐

4.   Experience at the Registration desk   ☐   ☐ ☐   ☐   ☐

Section 3 (Consultation)

5.   Waiting time to see the doctor*   Excellent/Good/ Fair/Poor/ Very Poor

6.   Attention given by Doctor   Excellent/Good/ Fair/Poor/ Very Poor

7.   Privacy during consultation   Excellent/Good/ Fair/Poor/ Very Poor

8.   Quality of consultation   Excellent/Good/ Fair/Poor/ Very Poor

Section 4 (Services and Allied Activities)   **Excellent/Good/ Fair/Poor/ Very Poor**

9.   Cleanliness and hygiene at the waiting area ☐   ☐   ☐   ☐   ☐

10.   Lab/Diagnostic test services   ☐   ☐   ☐   ☐   ☐

11.   Emergency Services (Ambulance, Oxygen) ☐   ☐   ☐   ☐   ☐

12.   Physiotherapy Service   ☐   ☐   ☐   ☐   ☐

Section 5 (Medicines)   **Excellent/ Good/Fair/ Poor / Very Poor**

13.   Availability of general medicines   ☐   ☐   ☐   ☐   ☐

14.   Adequate Expiry dates of medicines ☐   ☐   ☐   ☐   ☐

15.   Waiting time for medicines   ☐   ☐   ☐   ☐   ☐

16.   Timing and dosage explained properly ☐   ☐   ☐   ☐   ☐

Section 6 (Referral)   **Excellent/ Good/ Fair/Poor/ Very Poor**

17.   Ease of getting referral whenever required ☐   ☐   ☐   ☐   ☐

18.   Settlement of claims / documentation   ☐ ☐   ☐   ☐   ☐

19.   Where would you prefer to be referred (rank in order of preference)?
- Private hospital .   Service hospital   Government hospital

Overall Satisfaction   Excellent/   Good/   Fair   /Poor   / Very Poor

Section 7 (Out of Pocket Expenditure)

1.   a) Monthly Pension   b) Total Income

2.   Personal costs incurred on monthly basis on healthcare:

- Less than Rs 1000/-

- Between Rs 1000 – 5,000/-

- More than Rs 5,000/-

S/ No	Broad Distribution of Expenditure (Not reimbursed by ECHS)			
	Medical Related(Medicines, Fees,Lab Reports etc)	Non Medical (Food & Nutrtion)	Ambu-lance	Others (Insurance etc)
(a)				
(b)				
Total				

Section 8 (Time Management)

1.   Approximate time taken in the polyclinic during one visit.

-       30 Minutes.

-       Less than One Hour.

-       One to two hours.

-       More than two hours.

Section 9 (Suggestions)

1. Will you recommend this polyclinic to others? Yes/ Maybe /No/No Comments

2. Suggestions if any for ECHS Polyclinic (use the extra space below in case required)

- Related to no of Doctors:

- Related to Lab/Diagnostics services

- Related to Medicine Availability:

- Home Delivery of Medicines:

- Any Other Comments:

CoI