



## Occupational Health

## A STUDY ON AWARENESS AND KNOWLEDGE ABOUT ESI SCHEME AND IT'S BENEFITS AMONG ITS BENEFICIARY EMPLOYEES IN CHHATTISGARH.

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**ABSTRACT** ESI scheme is one of the measures of social security and health insurance in this country it applies to a special class of society those who works in private institutions and factories. It provides not only medical benefits but also other benefits like maternity, sickness, disablement, funeral, dependent benefits which is not provided under any other health insurance schemes. So, it becomes essential to assess the awareness and knowledge about ESI scheme and its benefits among beneficiary employees in Chhattisgarh. It was a cross sectional study done in ESI dispensaries of Chhattisgarh. 420 beneficiary employees were selected by Multi-stage Random Sampling Method. Predesigned, Pre-tested, semi structured questionnaire was used to assess the awareness and knowledge about ESI scheme and its benefits. It was found 100% insured persons were aware about medical benefit, 77.14% were aware about Sickness benefit, 9.52% were aware about Maternity benefit, 66.90% were aware about Disablement benefit, and only 1.19% were aware about Dependent and Funeral benefit. Main source of awareness (68.80%) of ESI benefits for them were Co-workers/Friends & Family, (97.85%) were not aware about continuation of availing medical benefits after retirement, (65.24) of beneficiary employees were aware about amount of wages deducted from salary for ESI Scheme, (64.76) of beneficiary employees were not aware about formalities for claiming various benefits provided by ESI scheme.

**KEYWORDS :** ESI, Benefits, Dispensary, Awareness

### INTRODUCTION

ESI scheme is administered by Employees State Insurance Corporation, which has members representing Employers, Employees, the Central government, State government, medical profession and the parliament. The Scheme was first implemented at Kanpur and Delhi on 24th February 1952. Now it has been functioning effectively throughout the country by covering the majority of labor working in the organized sector.<sup>1</sup>

ESIC supports through its branch offices, dispensaries and hospitals located all across India. Sickness benefits in form of salary and medical benefits and facilities to the employee and his/her family. Maternity benefits, Disability benefits covering both temporary and permanent, disablement benefits, and benefit like covering funeral expenses. So, six major benefits are 1. medical benefits, 2. Sickness benefits, 3. Maternity benefits, 4. Disability benefits, 5. Dependents benefits and 6. Funeral expenses.<sup>1</sup>

The ESI scheme applies to bodies or establishments with 10 or more persons employed in organizations such as small shops, factories having facilities of power or not, private educational institutions and private health care institutions, it is one of the measures of social security, it applies to a special class of society with a wage ceiling up to Rs 21000/- per month. It provides not only medical benefits but also other benefits like maternity, sickness, disablement, funeral, dependent benefits which is not provided under any other health insurance schemes.<sup>2</sup>

E.S.I. Scheme being contributory in nature. The scheme is run by contributions by employees and employers and grants from Central and State Governments. Contribution is the amount payable to the Corporation by the principal employer in respect of an employee and comprises the amount payable by the employee and the employer. The rates are revised from time to time. Currently with effect from 01.07.2019 employee's contribution rate is 0.75% of the wages, employer's contribution rate is 3.25% of the wages. The State Government's share of expenditure on medical care is 1/8th of total cost of medical care and the ESI Corporation's share of expenditure on medical care is 7/8th of total cost of medical care.<sup>3</sup> State and central government both are contributing for the smooth conduction of this scheme so, it becomes very essential to assess the awareness and knowledge status about the benefits provided among the beneficiary employees.

### Methods

A cross-sectional study was done in ESI dispensaries of Chhattisgarh

from July 2019 to October 2021. A total of 420 study subjects were taken for the study from selected ESI dispensaries who were visiting the dispensary on the day of survey and willing to participate in the study by Multi-stage Random Sampling Method. Predesigned, Pre-tested, structured questionnaire was used to assess the satisfaction status in 8 domains i.e., Registration, Doctor's consultation, Nursing services, Laboratory services, Pharmacy Services, Administration Services, Infrastructural facility and Other related issues.

### Sample Size –

Single proportion formula is used for sample size estimation:

$$n = Z^2_{(1-\alpha)} * [pq/ME^2]$$

- Where, Z is standard normal variate at 95% of level of significance, value is 1.96
- $\alpha$  is = 0.05
- ME is specified Margin of Error i.e., 5%
- p is proportion value for outcome variable (by reference articles) \* = 57% i.e., 0.57
- q = 1-p, i.e., 0.43
- $n = (1.96)^2 \times 0.57 \times 0.43 / (0.05)^2 = 376.63$ , i.e., 377
- Non response rate is 10% i.e., 37.7 = 38
- Total sample size n = 377+38 i.e., 415
- Round off sample size is 420

**Sampling Method** - Multistage sampling method in the study.

### 1) Selection of 5 Drawing and Disbursing Office (DDO)

Before start of study, a prior permission was taken from the director of Employee State Insurance Services, after that a list of total DDOs and ESI Dispensaries was obtained. In Chhattisgarh currently there are 13 DDOs i.e., Rajnandgaon, Durg, Bhalai-Supela, Nandini Road, Kumhari, Raipur, Mandir Hasaud, Dhamtari, Baikunth (Tilda), Bilaspur, Champa, Korba and Raigarh and 42 dispensaries are present. Out of these 13 DDOs, 5 DDOs were selected in order to maintain the geographic representation and to cover all the areas of Chhattisgarh on the basis of East (Raigarh with Latitude 21.8974° N & Longitude 83.3950° E), West (Rajnandgaon with Latitude-21.0976° N & Longitude-81.0337° E), South (Dhamtari with Latitude 20.7015° N & Longitude 81.5542° E), North (Korba with Latitude 22.3595° N & Longitude 82.7501° E) and Central (Raipur with Latitude 21.2514° N & Longitude 81.6296° E) Zone of Chhattisgarh.

### 2) Selection of dispensaries from selected DDOs

Selection of dispensaries was done on the basis of availability and foot

fall of patients in dispensaries during covid pandemic. The information about OPD flow and number of patients was obtained by DDO In-charge of various dispensaries. Thus total 10 dispensaries were selected.

**3) Selection of study subjects**

From each selected dispensaries consecutive 42 beneficiary employees who were visiting the dispensary for various reasons and who were fulfilling the inclusion criteria were taken as study subjects. After completing proforma of first subject by taking care of all the COVID norms next subject were interviewed. Thus from 10 dispensaries a total of 420 study subjects were participated in the study. The duration of survey in each dispensary was depending upon the number of beneficiary employees visiting.

**Study Tool-**

Proforma was designed and pilot survey was conducted to test the accuracy and reliability of the questionnaire, necessary changes were done and final proforma was made. Predesigned, pretested semi structured questionnaire used in the study consisted of general information about study subject, semi-structured questionnaire was used to assess awareness status of study subjects regarding ESI services.

**Interpretation of the questionnaire-**

Awareness questionnaire include source of his/her awareness about ESI benefits, most effective medium of awareness. Few other questions like knowledge about continuing availing medical benefits after retirement, knowledge about the percentage / amount of wages deducted from salary, awareness about formalities for claiming various benefits, knowledge about which of family member comes under ESI Scheme, knowledge about the procedure of referral, knowledge about private hospitals empaneled under ESI scheme.

- a) Assessment of awareness status of benefits under ESI scheme.
- b) Assessment of knowledge about various formalities to avail these benefits.

A. For study purpose, 1 score is given to each benefit if study subject was aware about that benefit and 0 for unawareness. Thus, a total of 6 marks can be obtained by a study subject if he/she was aware about all the 6 benefits provided to them under ESI scheme and 0 for vice versa. To assess awareness status, the score obtained by that subject was categorized as having high awareness status if he/she has scored higher than mean awareness score and vice versa.

Category of awareness	Scores
Low awareness	< mean awareness score
High awareness	> mean awareness score

B. To assess knowledge about various process that a subject should know before availing these benefits, each question is given 1 mark if subject knew about that and 0 if subject did not know it. Thus, a total of 6 scores again is given to a study subject if he/she knew about all the 6 processes. For the purpose of analysis, the scores of each question of the awareness of formalities for availing different ESI benefits provided under ESI scheme domain were summed up and were divided into 3 groups were low awareness, average awareness and high awareness as mentioned below:

Knowledge about processes before availing ESI benefits	Scores
Low knowledge	0,1 & 2
Average knowledge	3 & 4
High knowledge	5 & 6

**Study technique-**

The study technique implemented was self-administered questionnaire method.

**Ethical consideration-**

Before starting the study, institutional scientific and ethics committee approval of Pt. J.N.M. medical college, Raipur, Chhattisgarh was taken.

**Data analysis-**

The data obtained were entered in MS excel spreadsheet, coded and analysed using data analysis software.

**Results:**

**Table No.1 Distribution of study subjects on the basis of their age and gender. (n=420)**

Age Group (in completed years)	Male		Female		Total	
	n	%	n	%	n	%
20 – 29	58	13.80	12	2.86	70	16.66
30 – 39	144	34.28	12	2.85	156	37.14
40 – 49	110	26.20	9	2.13	119	28.33
50 – 59	63	15	5	1.19	68	16.19
60 – 69	6	1.42	1	0.23	7	1.66
Total	381	90.71	39	9.29	420	100

Mean Age (in years): 39.18 ± 9.78

Above table shows that majority of study subjects (37.14%) belongs to the age group of 30-39 years, this was followed by (28.33%) between 40-49 years of age group, (16.66%) were from 20-29 years of age group, (16.19%) were from 50-59 years of age group. Only (1.66%) belongs to 60-69 years of age group. In present study majority of study subjects (90.71%) were males followed by (9.27%) were females.

**Table No.2 Distribution of study subjects according to their education status. (n=420)**

Education Status	Frequency	Percentage
Illiterate	19	4.52
Literate & Primary School	34	8.09
Middle School	60	14.28
High School	64	15.23
Higher Secondary School	102	24.28
Graduate	109	25.95
Post Graduate	32	7.61
Total	420	100

From above table it is observed that majority of study subjects were graduate (25.95%) followed by (24.28%) subjects studied up-to higher secondary schools and (15.23%) studied up-to high school. This was followed by (14.28%) educated up to middle school and (8.09%) up to primary school. Only (7.61%) were post-graduate while (4.52%) were illiterate.

**Table No. 3 Distribution of beneficiary employees according to their religion and category. (n=420)**

Religion	Frequency	Percentage
Hindu	403	96.18
Muslim	12	2.85
Christian	3	0.73
Sikh	1	0.23
Total	420	100
Category	Frequency	Percentage
General	87	20.72
OBC	248	59.04
SC	70	16.66
ST	15	3.58
Total	420	100

Above table shows that majority of study subjects (96.18%) belongs to Hindu religion followed by (2.85%) Muslims. Only 0.73% were Christians and (0.23%) were Sikhs. Out of 420 category wise distribution majority were (59.04%) belonged to OBC category followed by (20.72%) General category, 16.66% were ST and 3.58% SC category.

**Table No. 4 Distribution of study subjects according to their place of residence and family type. (n=420)**

Variables	Frequency	Percentage
Place of residence		
Urban	162	38.57
Rural	258	61.43
Total	420	100
Family Type		
Nuclear	277	65.95
Joint	143	34.04
Total	420	100

Above table shows that out of 420 majority (61.43%) of beneficiary employees resides in rural areas and followed by (38.57%) resides in urban areas. Majority of beneficiary employees (65.95%) were belonged to nuclear family and (34.04%) joint family.

**Table No. 5 Duration of employment wise distribution of study subjects in present industry /company/ institution. (n=420)**

Duration of employment	Frequency	Percentage
0-5 Years	134	31.90

6-10 Years	141	33.33
11-15 Years	83	19.76
16-20 Years	29	6.90
>20 Years	33	7.85
Total	420	100

Above table shows that majority 1/3rd (33.33%) of beneficiary employees were working in present organization/institution for 6-10 years followed by (31.90%) for 0-5 years, 19.76% for 11-15 years and 6.90% for 16-20 years. Only 7.85% were working for >20years.

**Table No.6 Status of awareness about ESI benefits provided under ESI scheme among study subjects. (n=420)**

ESI benefits	Aware	Percentage
Medical Benefit	420	100
Sickness Benefit	324	77.14
Maternity Benefit	40	9.52
Disablement Benefit	281	66.90
Dependent Benefit	5	1.19
Funeral Benefit	5	1.19

Above table depicts that all beneficiary employees were aware about medical benefit, (77.14%) were aware about Sickness benefit, two third were aware about Disablement benefit, (9.52%) were aware about Maternity benefit. Only 1.19% were aware that Dependent and Funeral benefit are also provided to their family after their death.

**Table No.7 Distribution of Study subjects on the basis of category of awareness of different ESI benefits provided under ESI scheme. (n=420)**

Category of awareness	Frequency	Percentage
< mean awareness score	135	32.14
> mean awareness score	285	68.86
Total	420	100

Majority (68.86%) of study subjects were comes under category of high awareness (aware of either 3 or more benefits) followed by (32.14%) low awareness (having awareness about one or two benefits). Only 2 study subjects were having high awareness about ESI benefits.

**Table No.8 Pattern of Source of the awareness about ESI benefits among study subjects. (n=420)**

Source of Awareness of ESI benefits	Frequency of IPs (n=420)	Percentage
Brochures/circulars from corporation	36	8.57
Employers	95	22.61
Co-workers/ Friends/Family members	289	68.80
Total	420	100

From above table it is revealed that in majority of subjects source of awareness about benefits provided under ESI scheme were Co-workers/ Friends/Family members (68.80%), followed by Employers (22.61%) and Brochures/circulars from corporation (8.57%).

**Table No.9 Distribution of study subjects on the basis of knowledge of various process to avail benefits under ESI scheme. (n=420)**

Process to avail ESI scheme	Frequency	Percentage
Continuation of availing medical benefits after retirement		
Yes	9	2.14
No	411	97.85
Total	420	100
Amount of wages deducted from salary for ESI Scheme		
Yes	274	65.24
No	146	34.76
Total	420	100
Formalities for claiming various benefits provided by ESI scheme		
Yes	148	35.24
No	272	64.76
Total	420	100
Which of family member comes under ESI Scheme		
Yes	409	97.38
No	11	2.61
Total	420	100
Procedure of referral		
Yes	153	36.42

No	267	63.57
Total	420	100
Private hospitals are empanelled under ESI scheme for medical benefit		
Yes	378	90
No	42	10
Total	420	100

Ttable depicts that majority (97.85%) of beneficiary employees were not aware about continuation of availing medical benefits after retirement and it was known by only 9 (2.14%).

Majority 2/3<sup>rd</sup> (65.24%) of beneficiary employees, have knowledge of percentage/ amount of wages deducted from salary for ESI Scheme, although around 1/3rd (34.76%) don't know about that. Around 2/3<sup>rd</sup> (64.76%) of beneficiary employees were unaware about formalities for claiming various benefits provided by ESI scheme.

A good number of subjects (97.38%) know that all the dependents of his/her family come under ESI scheme.

A similar proportion i.e., around 2/3<sup>rd</sup> (63.57%) of the beneficiary employees were unaware about procedure of referral.

Majority (90%) of the beneficiary employees know that private hospitals are also empanelled under ESI scheme for medical benefit.

**DISCUSSION:**

ESIC has played a significant role in providing social security to millions of workers in the organized sector in India.<sup>1</sup> The present cross-sectional study was conducted among the beneficiary employees those who attends ESI dispensaries of Chhattisgarh. The aim of study was to determine utilization, satisfaction status and awareness about benefits under ESI scheme among beneficiary employees.

Similar studies done by **Dr. M. Prakash and M. Ragavi, 2020**, depicts more than 90% were aware about the services provided by ESI Corporation like sickness benefits, dependent's benefits and leave benefits which is contrast to the present study.

Another contrasting finding to the present study (done by **Rashida K. N., 2015**, in Kerala) shows all workers were aware of the services provided by ESI Corporation like sickness benefits, dependent's benefits and leave benefits. About maternity benefits 96% were aware, 95% were aware of disablement benefits and 88% were aware of funeral expense, all workers were fully aware of sickness benefits, dependent's benefits and leave benefits. Awareness of funeral expense is the least known benefits of ESI. This finding is quite similar to present study where awareness about dependent benefit and funeral benefit is least.

In another study done by **Rini et al, 2018**, Medical Care under Employee State Insurance it was observed that 44% of respondents were partially aware of the benefits provided by the institution, 30% of respondents were fully aware of the benefits provided by the Institution. 26% of respondents were not at all aware of the benefits provided by the institution under the ESI scheme which is similar to present study.

Similar study done by **G. Muthulaxmi, Aug 2014**, in Tuticorin district, it was observed that 65.56% of respondents were aware about the percentage of amount deducted from their pay. The minority of (34.44%) respondents were not aware about the percentage of amount deducted for the ESI scheme which is similar to present study.

**Summary and Conclusion:**

It was found all (100%) study subjects were aware about medical benefit, more than three fourth (77.14%) were aware about sickness benefit and two third (66.90%) were aware about disablement benefit. Only 9.52% were aware about maternity benefit and 5 subjects were aware about dependent and funeral benefit each. Out of 420 subjects' source of awareness of ESI benefits were Co-workers/ Friends/Family members (68.80%) and employers (22.61%). This shows interpersonal communication specially from close relatives/ friends is an effective source of information about ESI scheme. Approximately two-third (65.24%) of subjects have knowledge about percentage/ amount of wages deducted from salary for ESI Scheme. A good number i.e., (97.38%) of beneficiary employees have knowledge that which of their family members can avail benefits under ESI Scheme. Around (90%) of the beneficiary employees have knowledge that private hospitals are empaneled under ESI scheme for medical benefit. It was surprising,

but out of 420 subjects, (97.85%) were unaware about continuation of availing medical benefits after retirement and two-third (64.76) of beneficiary employees were unaware about various formalities for claiming ESI benefits. The efforts to be done from the Corporation side to increase the level of awareness among the beneficiary employees by providing the printed IEC material about the Scheme in a language known to them. Besides the print media, the Corporation can also consider press publicity, electronic media, seminars and workshops in this regard.

#### **Recommendations:**

1. Sensitization workshop should be done at the time of joining in ESI scheme to generate awareness among workers. In frequent intervals conduction of seminars, workshops, publicity through press media and electronic media should be done in order to increase awareness regarding ESI scheme.
2. Information Education & Communication (IEC) branding should be done by displaying it in dining/rest area of each organization/industry/institution mentioning benefits and services provided under ESI scheme, list of empaneled hospitals and other health related events for which ESI scheme provides facilities. IEC materials should be in local language, in readable fonts and mentioning the name of coordinator with contact details who can provide information about the ESI scheme for making employees more aware.
3. Corporation should launch mobile application containing all the information and necessary things about ESI benefits and services. Application should be user friendly and interface is in different languages.
4. SMS system to be started from corporation side so that employees receive time to time information about the scheme or through WhatsApp messages, IEC material can be sent to the employees for awareness generation.
5. Corporation should launch a 24x7 toll-free number for the beneficiaries so that they can get proper information and suggestions anytime from anywhere.

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#### **Declarations:**

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**Conflict of interest:** None declared

**Ethical approval:** The study was approved by the Institutional Ethics Committee

#### **REFERENCES:**

1. <https://www.esic.nic.in/information-benefits>
2. Parks textbook of preventive and social medicine, 26th edition
3. <http://www.esic.nic.in/tender/rsiaact1948amendedupto01610.pdf>
4. Prasanth, A., & Praveenraj, D. D. W. (2021). A Study on the Awareness and Effective Utilization of Employees State Insurance Benefits. *REVISTA GEINTEC-GESTAO INOVACAO E TECNOLOGIAS*, 11(3), 1392-1398.
5. Rashida, K. N. (2015). Awareness and use of employees' state insurance services in Dharmadam Panchayat, Kerala.
6. Varughese, R. E., Masih, E., & Abidi, A. Medical Care under Employee State Insurance.
7. Muthulakshmi, G. A study the performance of Employees state insurance scheme with special reference to Tuticorin district, Tamil Nadu.
8. <https://www.acko.com/health-insurance/employees-state-insurance-scheme>