NPCB: Sentinel Surveillance Programme

Annual Report- April 2013-March 2014

Cataract Surgery Records
&
Ocular Morbidity Report

National Surveillance Unit
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Abbreviations

NSU-National Surveillance Unit

SSU-Sentinel Surveillance Unit

CSR-Cataract Surgical Record

OMR-Ocular Morbidity Record

IOL-Intra Ocular Lens

NPCB-National Programme for Control of Blindness

RPC-Dr. Rajendra Prasad Centre for Ophthalmic Sciences

VA-Visual Acuity

ICCE-Intra-Capsular Cataract Extraction

ECCE-Extra-Capsular Cataract Extraction

SICS-Small Incision Cataract Surgery

1. Executive Summary

National Programme for Control of Blindness, Ministry of Health &Family Welfare, Govt. of India established 25 sentinel surveillance units (SSUs) in different regions of the country during the year 2000-01. The main objective of this initiative was to assess the magnitude and trends of the problems-cataract and ocular morbidities and to assess the outcome of cataract surgeries along with recording the extent of follow up services thereby monitoring the quality of cataract services in the country. The National Surveillance Unit was established at Dr. Rajendra Prasad Centre for Ophthalmic Sciences, AIIMS New Delhi by the same Ministry division, with the objectives of compilation, analysis, interpretation & dissemination of data received from all sentinel surveillance units.

In the current year 2013-14, National Surveillance Unit presents the compiled data on cataract surgical reports and ocular morbidity reports from all functional sentinel units. Out of the 25 sentinel surveillance units initiated, 22 are approved by NPCB as of now, reports were submitted by19 SSUs. SSU Ajmer, Cuttack and Srinagar did not submit reports during the reporting period.

The total reported cataract surgeries were 65,626from19 SSUs. More number of females (51.9%) had undergone surgery as compared to males (48.1%). Around 36.2 % of patients were less than 60 years old whereas 63.8% of cataract surgeries were conducted among 60+age group. Most of the surgeries (98.8%) were done with IOL implantation. Nearly three fourth of the patients (75.7%) had pre-operative visual acuity< 6/60 in the operated eye. After surgery, only 2.8% of the patients were reported to have visual acuity less than 6/60 in the operated eye. This showed that quality of surgery is very satisfactory as whole. Some of the post-operative complications were also reported from 17 SSUs that led to post operative vision acuity less than 6/60. Posterior Capsular Opacification was the most common complication reported in (0.3%) and followed by Uvietis and associated infections (0.2%).

Out of 22 SSUs, 19 submitted the ocular morbidity reports. Of the total morbidities reported (792931), Refractive error was the most common (34.4%), followed by Cataract (29.2%), Conjunctivitis (5.4%), Disease of Adnexa (3.2%) and Glaucoma& Vitro Retinal Disorder (3.1% each).

2. Introduction

Surveillance, a fundamental tool of public health, is the systematic collection, analysis and interpretation of health data and the timely dissemination of this data to policymakers and other stakeholders for initiating action for control and prevention of diseases. Sentinel surveillance is essentially a type of surveillance in which reporting sources or units are situated at various sites covering an area or subset of the population. The main objective of sentinel surveillance is to track an approximate pattern or trend of health problem not to achieve representative of health problem. The results of sentinel surveillance allow monitoring the trends in specific groups within the community.

India is one of the first countries to have launched a sentinel surveillance system for tracking blindness and other ocular morbidities pattern at the national level. The need for such a programme was realized after the completion of the World Bank Blindness Control Project (1994-2001), to decrease the cataract blindness burden in India. Therefore, under National Programme for Control of Blindness, Ministry of Health & Welfare, Government of India established 25 different Sentinel Surveillance Units (SSUs) in the country in the year 2000-01 but currently 22 SSUs (figure 1) are registered under NPCB. These SSUs are located among Regional Institute of Ophthalmology, Medical Colleges or health institutes-public as well as NGO sectors.

Objectives of Sentinel Surveillance

❑ To assess the trend of magnitude of problem-cataract and ocular morbidities

❑ To assess outcome of cataract surgeries   and extent of follow up services

❑ To assess quality of services by determining success rate (comparing VApre&post-surgery)

These SSUs collect data on cataract surgical and ocular morbidity records on standardized format and submit electronically to National Surveillance Unit. Dr. RP Centre AIIMS New Delhi on a specially designed software package, developed at RPC, itself.

National Surveillance Unit (NSU)is located at Community Ophthalmology Department, Dr. R.P. Centre for ophthalmic Sciences, AIIMS New Delhi, India which is a WHO collaborating center for prevention of blindness. The NSU is responsible for

- ❑ Compilation of data

- ❑ Analysis of data

- ❑ Interpretation & dissemination of data

- ❑ Monitoring and

- ❑ Feedback

Figure1. Lists of SSUs in different states of India

22 SSUs in 2013-14
Allahabad
Aligarh
Ajmer
Cuttack
Goa
Indore
Jammu
Kolkata
Ludhiana
New Delhi
Pune
Raipur
Rohtak
Surat
Shimla
Srinagar
Triuvananthpuram
Udaipur
Vishakhapatnam
Vellore
Wardha
Nagpur
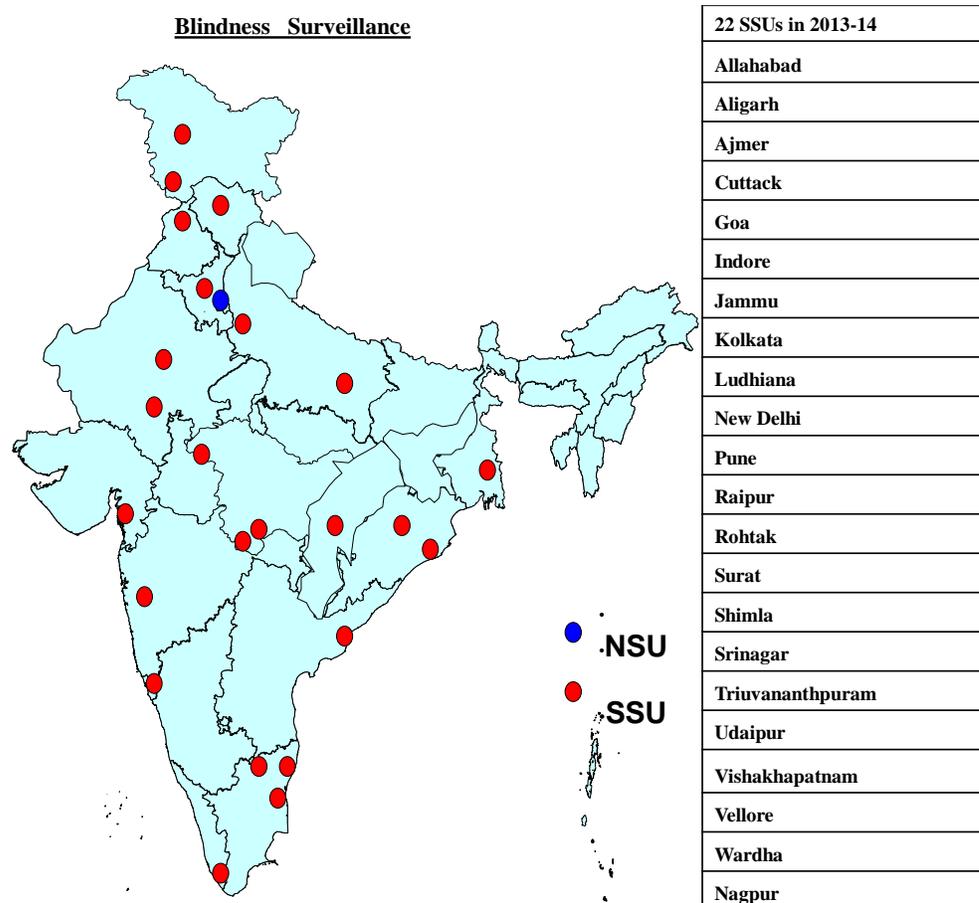
SSU-Ajmer, Cuttack & Srinagar did not submit both CSR and OMR

Figure1

3. Cataract surgical Outcomes

3.1 Status of report received during reporting year (2013-14)

Cataract surgical record (CSR) was received from 19 SSUs out of the 22 SSUs registered under National Programme for Control of Blindness. Complete CSR were received from 12 SSUs. They are SSU-Goa, SSU-Indore, SSU-Kolkata, SSU-Ludhiana, SSU-New Delhi, SSU-Pune, SSU-Rohtak, SSU-Surat, SSU-Shimla, SSU-Thiruvananthapuram, SSU-Wardha, SSU-Nagpur etc. Partial reports were submitted by 07 SSUs. SSU-Ajmer, SSU-Cuttack& SSU-Srinagar did not submit the report on Cataract Surgical Outcomes (Table 1).

3.2 Number of reported cataract surgeries

Total numbers of cataract surgeries reported from all 19 SSUs during 2013-14 was **65,626**. SSU Kolkata conducted maximum (12648) cataract surgeries (Table 2).

3.3 Gender distribution of reported cataract surgeries

SSU Kolkata reported minimum proportion of female patients (46.2%) whereas SSU Vishakhapatnam reported maximum proportion of female patients (61.1%) operated for cataract surgery. Overall, more female patients under went cataract surgery as compared to male patients (51.9 % vs. 48.1%, Table 3).

Table1. Status of Report received from various SSUs -Cataract surgical Reports (CSR) and Ocular Morbidity Report (OMR)

SSU's	Reports	Apr-13	May-13	Jun-13	Jul-13	Aug-13	Sep-13	Oct-13	Nov-13	Dec-13	Jan-14	Feb-14	Mar-14
Allahabad	OMR	√	√	√	√	√	√	√	√	√	X	X	X
	CSR	√	√	√	√	√	√	√	√	√	X	X	X
Aligarh	OMR	√	√	√	√	√	√	√	√	√	√	X	X
	CSR	√	√	√	√	√	√	√	√	√	√	X	X
Ajmer	OMR	X	X	X	X	X	X	X	X	X	X	X	X
	CSR	X	X	X	X	X	X	X	X	X	X	X	X
Cuttack	OMR	X	X	X	X	X	X	X	X	X	X	X	X
	CSR	X	X	X	X	X	X	X	X	X	X	X	X
Goa	OMR	√	√	√	√	√	√	√	√	√	√	√	√
	CSR	√	√	√	√	√	√	√	√	√	√	√	√
Indore	OMR	√	√	√	√	√	√	√	√	√	√	√	√
	CSR	√	√	√	√	√	√	√	√	√	√	√	√
Jammu	OMR	√	√	√	√	√	√	X	X	X	X	X	X
	CSR	√	√	√	√	√	√	X	X	X	X	X	X
Kolkata	OMR	√	√	√	√	√	√	√	√	√	√	√	√
	CSR	√	√	√	√	√	√	√	√	√	√	√	√
Ludhiana	OMR	√	√	√	√	√	√	√	√	√	√	√	√
	CSR	√	√	√	√	√	√	√	√	√	√	√	√
New Delhi	OMR	√	√	√	√	√	√	√	√	√	√	√	√
	CSR	√	√	√	√	√	√	√	√	√	√	√	√
Pune	OMR	√	√	√	√	√	√	√	√	√	√	√	√
	CSR	√	√	√	√	√	√	√	√	√	√	√	√
Raipur	OMR	√	√	√	√	√	√	√	√	√	√	√	√
	CSR	√	√	√	√	X	√	√	√	√	X	X	X
Rohtak	OMR	√	√	√	√	√	√	√	√	√	√	√	√
	CSR	√	√	√	√	√	√	√	√	√	√	√	√
Surat	OMR	√	√	√	√	√	√	√	√	√	√	√	√
	CSR	√	√	√	√	√	√	√	√	√	√	√	√
Shimla	OMR	√	√	√	√	√	√	√	√	√	√	√	√
	CSR	√	√	√	√	√	√	√	√	√	√	√	√
Srinagar	OMR	X	X	X	X	X	X	X	X	X	X	X	X
	CSR	X	X	X	X	X	X	X	X	X	X	X	X
Thiruvananthapuram	OMR	√	√	√	√	√	√	√	√	√	√	√	√
	CSR	√	√	√	√	√	√	√	√	√	√	√	√
Udaipur	OMR	√	√	√	√	√	√	√	√	√	√	√	√
	CSR	√	√	√	√	√	√	X	X	X	X	X	X
Vishakhapatnam	OMR	√	√	√	√	√	√	√	√	√	X	X	X
	CSR	√	√	√	√	√	√	√	X	X	X	X	X
Vellore	OMR	√	√	√	√	√	√	√	√	√	√	√	√
	CSR	√	√	√	√	√	√	√	√	√	√	X	X
Wardha	OMR	√	√	√	√	√	√	√	√	√	√	√	√
	CSR	√	√	√	√	√	√	√	√	√	√	√	√
Nagpur	OMR	√	√	√	√	√	√	√	√	√	√	√	√
	CSR	√	√	√	√	√	√	√	√	√	√	√	√

Table 2. Number of reported Cataract Surgeries reported in 2013-14

S.No	Sentinel surveillance unit	Month of reporting year	Cataract Surgeries
1	Allahabad	April-December	4800
2	Aligarh	April-January	712
3	Goa	April-March	2398
4	Indore	April-March	5016
5	Jammu	April-September	338
6	Kolkata	April-March	12648
7	Ludhiana	April-March	2681
8	New Delhi	April-March	3792
9	Pune	April-March	3177
10	Raipur	April-June & August-December	1190
11	Rohtak	April-March	3774
12	Surat	April-March	3263
13	Shimla	April-March	1852
14	Thiruvananthapuram	April-March	2328
15	Udaipur	April-Sept	998
16	Vishakhapatnam	April-October	2878
17	Vellore	April-January	4411
18	Wardha	April-March	6654
19	Nagpur	April-March	2716
Total			**65626**

Table 3.Gender distribution of reported cataract surgeries

S. No	SSU	Total Cataract Operations	
		Male (%)	Female (%)
1	Allahabad	1907 (39.7 %)	2893 (60.3 %)
2	Aligarh	302 (42.4 %)	410 (57.6 %)
3	Goa	1113 (46.4 %)	1285 (53.6 %)
4	Indore	2366 (47.2 %)	2650 (52.8 %)
5	Jammu	170 (50.3 %)	168 (49.7 %)
6	Kolkata	6801 (53.8 %)	5847 (46.2 %)
7	Ludhiana	1381 (51.5 %)	1300 (48.5 %)
8	New Delhi	2025 (53.4 %)	1767 (46.6 %)
9	Pune	1611 (50.7 %)	1566 (49.3 %)
10	Raipur	554 (46.6 %)	636 (53.4 %)
11	Rohtak	1844 (48.9 %)	1930 (51.1 %)
12	Surat	1550 (47.5 %)	1713 (52.5 %)
13	Shimla	858 (46.3 %)	994 (53.7 %)
14	Thiruvananthpuram	978 (42.0%)	1350 (58 %)
15	Udaipur	524 (52.5 %)	474 (47.5 %)
16	Vishakhapatnam	1119 (38.9 %)	1759 (61.1 %)
17	Vellore	1933 (43.8 %)	2478 (56.2 %)
18	Wardha	3314 (49.8 %)	3340 (50.2 %)
19	Nagpur	1240 (45.7 %)	1476 (54.3 %)
	Total	**31590 (48.1 %)**	**34036 (51.9 %)**

3.4 Caste distribution ofbeneficiaries undergoing cataract surgery:

Figure2: Shows the distribution of caste reported in 2013-14. Out of 56890surgeries for which caste data was available, 49.2% were done in SC/ST/OBC patientswhile 50.8% of cataract surgeries were done on General category patients as reported by 16SSUs.


N=56890
16 SSUs

50.8%

49.2%

■ SC/STOBC
■ General
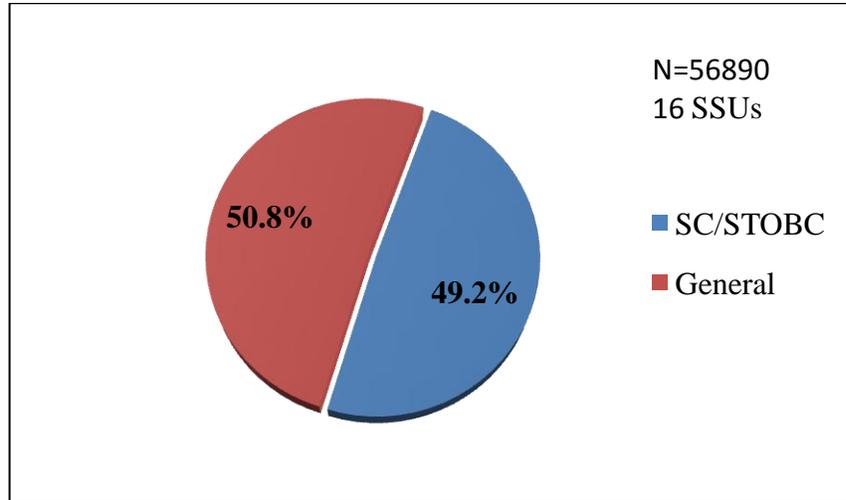
***SSU-Ajmer, Cuttack, Goa, Jammu, New Delhi & Srinagar did not
submitCaste distribution of beneficiaries undergoing cataract surgery**

Figure2

3.5 Cataract surgeries in Bilateral Blind:

Figure3: Shows that19.1% of surgerieswere conducted in bilateral blind among the reported 57232 surgeries in 15 SSUs, where this data was available.

N=57232
15 SSUs

19.1%

80.9%

■ Bilaterally Blind
■ Non Blind
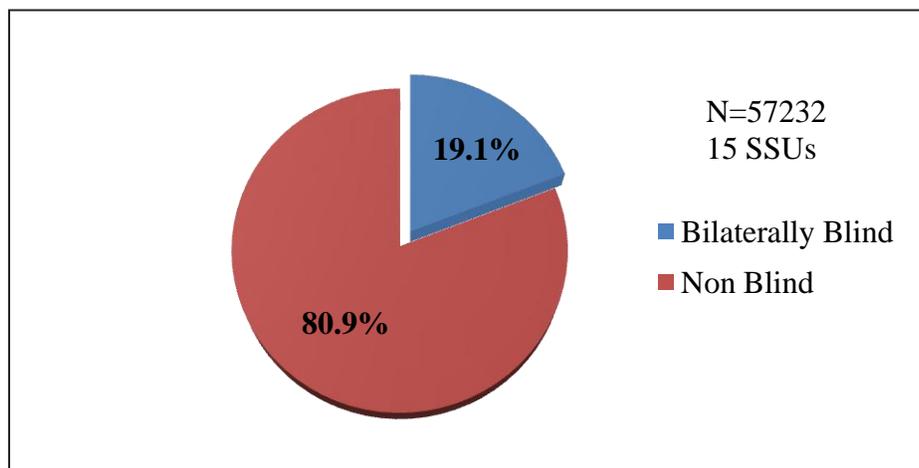
*SSU-Ajmer, Cuttack, Indore, Jammu, New Delhi, Srinagar &
Thiruvananthapuram did not submit Cataract surgeries in Bilateral Blind
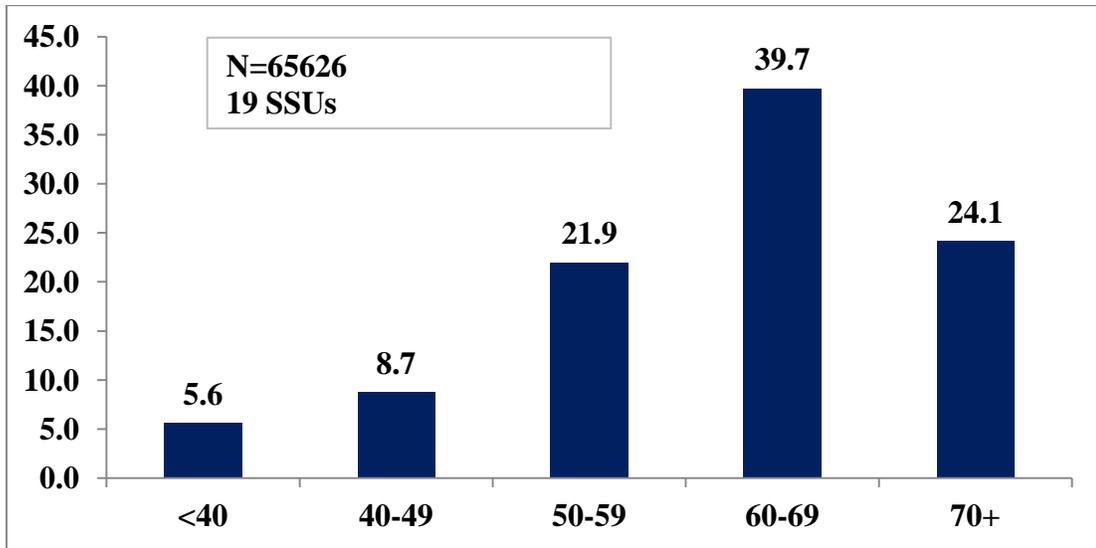
Figure3

Table 4: showed that in 2013-14, SSU Wardha reported maximum proportion of surgeriesconducted among bilateral blind patients (37.2%) whereas SSU Udaipur had only 2.4% of surgeries among bilateral blinds.

S. No.	SSUs	Total Cataract surgeries	Surgeries in bilateral blind N (%)
1	Allahabad	4800	302(6.3)
2	Goa	2398	378(15.8)
3	Kolkata	12648	1230(9.7)
4	Ludhiana	2681	515(19.2)
5	New Delhi	3792	909(24.0)
6	Pune	3177	862(27.1)
7	Raipur	1190	339(28.5)
8	Rohtak	3774	1964(52.0)
9	Surat	3263	304(9.3)
10	Shimla	1852	122(6.6)
11	Udaipur	998	24(2.4)
12	Vishakhapatnam	2878	441(15.3)
13	Vellore	4411	267(6.1)
14	Wardha	6654	2473(37.2)
15	Nagpur	2716	791(29.1)
Total		**57232**	**10921 (19.1)**

3.6 Age at cataract Surgery

Overall, 63.8% of the cataract surgeries were reported among 60+ age group and 36.2% under 60 year of age.Only5.6% of cataract surgeries were conducted in people less than 40 years age.

Figure4: Age at cataract surgery in 2013-2014

*SSU-Ajmer, Cuttack & Srinagar did not submit report.

Figure 4

3.7 Cataract surgeries with IOL

Out of all cataract surgeries, 98.8% were performed with IOL implantation while 1.2% of cataract surgery was done with conventional method during the period 2013-14 as reported by 19 SSUs.

Figure5: Type of Surgery (with or without IOL implantation)
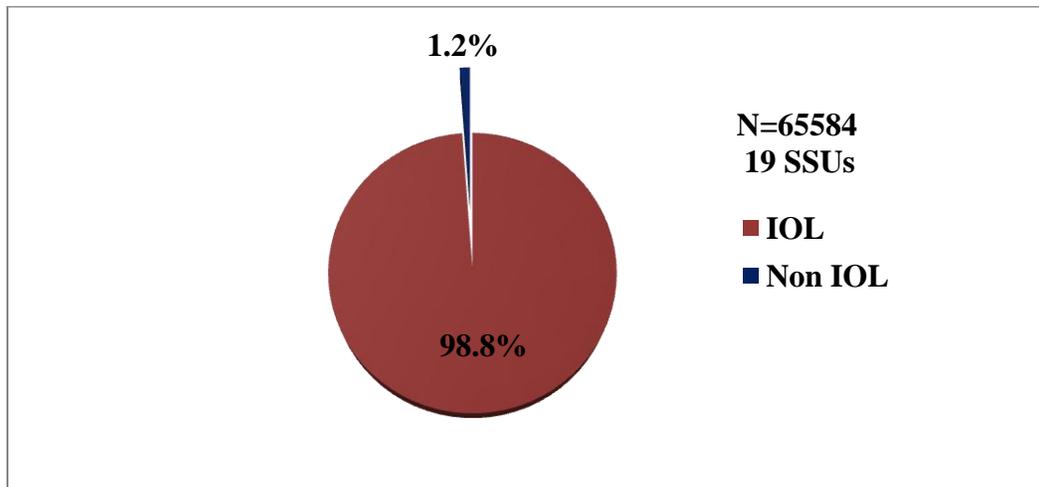
*SSU-Ajmer, Cuttack & Srinagar did not submit report on Type of Surgery.

Figure5

11

3.7.1Cataract surgeries with IOL implantation: SSU wise:

Most of the SSUs except Jammu achieved NPCB targets of IOL cataract surgeries of more than 95%.

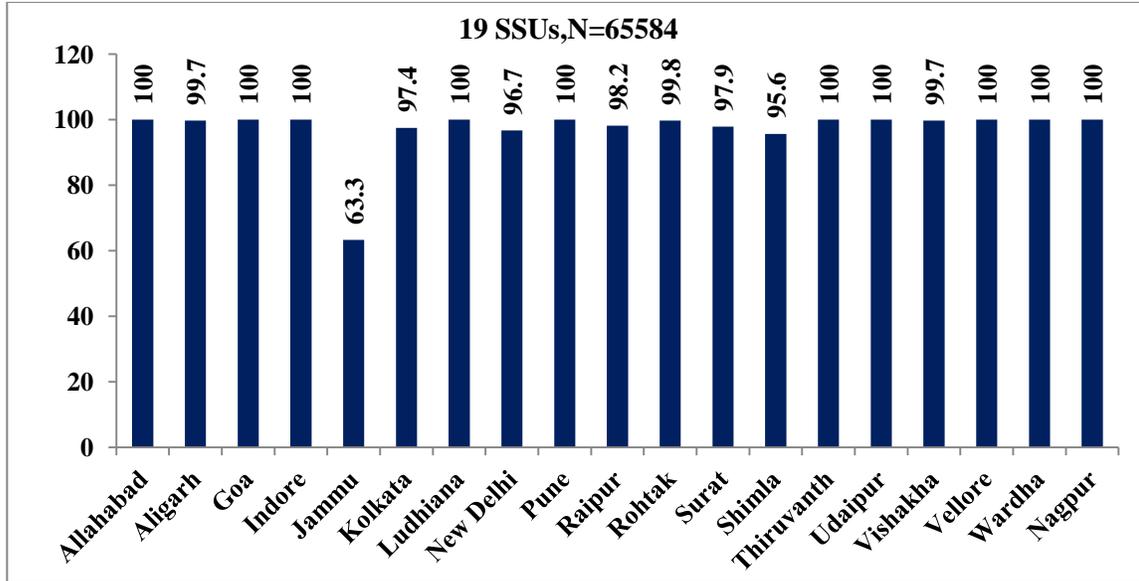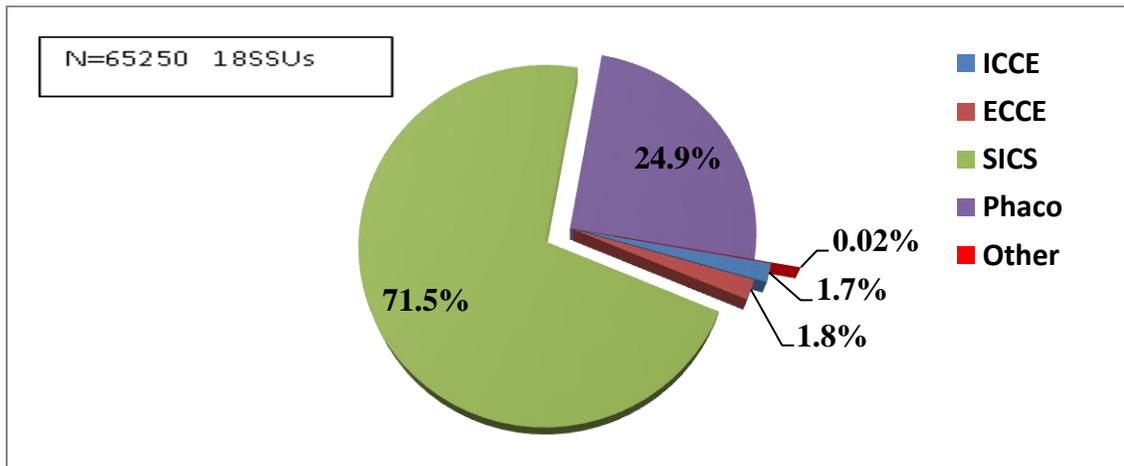**Figure6. Cataract surgeries with IOL implantation: SSU wise**

Figure6

3.8 Techniques of Cataract Surgery: Among the reported 65250 surgeries from 18 SSUs, more than two third of surgeries were SICS surgeries. One fourth of the surgeries were conducted by Phacoemulsification techniques.

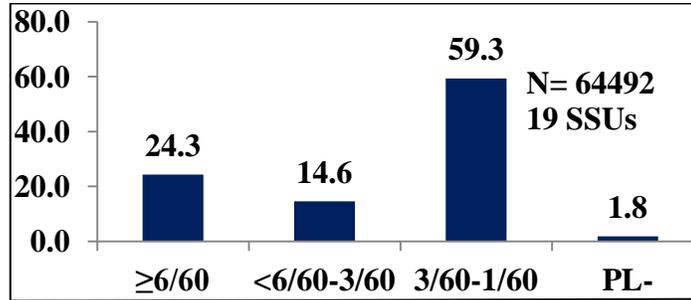**Figure7: Technique of Cataract Surgeries**

*SSU-Ajmer, Cuttack, Jammu & Srinagar did not submit information on Technique of Cataract Surgery.

Figure7

3.9. Preoperative Visual Acuity in the operated eye

75.7% surgeries were conducted in blind eyes (VA<6/60) among the reported 64492 cataract surgeries from 19 SSUs.

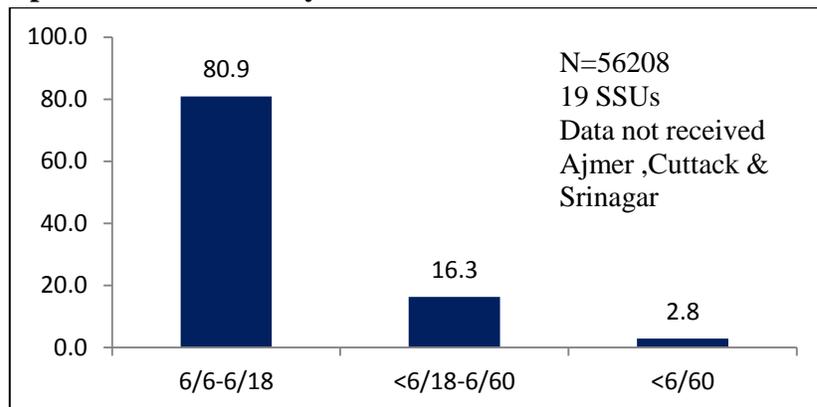**Figure8: Categorization of Pre-operative visual acuity (%)**

*SSU-Ajmer, Cuttack & Srinagar did not submit report on Pre-operative visual acuity.

Figure8

3.10. Post-operative Visual Acuity in the operated eye

Out of the total cataract surgery conducted **56208 (**85.6%) had information about immediate post-operative visual acuity status. Among the reported post-operative status, more than 97% patients had vision better than 6/60 and more than 80% had vision better than 6/18 in the operated eye assessed after four week of surgery during the follow up examination. In2.8% (1581) of patients follow up visual acuity was less than 6/60 in the operated eye. Table 4 shows the post-operative visual acuity status of various SSUs and Figure 9 shows the aggregate post-operative VA of all SSUs.

Figure9: Post-operative visual acuity status

*SSU-Ajmer, Cuttack&Srinagardid not submit report of Post-operative visual acuity.

Figure9

Table 4: Post-operative visual acuity status in SSUs in 2013-14

S.No	SSU	Visual Acuity after Surgery			
		6/6 to 6/18	<6/18 to 6/60	<6/60	Total
1	Allahabad*	1	0	1	2
2	Aligarh	534	140	38	712
3	Goa	1271	815	312	2398
4	Indore	4182	712	122	5016
5	Jammu*	0	5	81	86
6	Kolkata	10940	1385	272	12597
7	Ludhiana	2426	242	11	2679
8	New Delhi	767	492	86	1345
9	Pune	1904	1225	48	3177
10	Raipur	850	339	1	1190
11	Rohtak	3251	357	166	3774
12	Surat	3012	200	10	3222
13	Shimla	1723	87	42	1852
14	Thiruvananthapuram	2328	0	0	2328
15	Udaipur*	4	2	0	6
16	Vishakhapatnam	2856	8	14	2878
17	Vellore	4003	145	43	4191
18	Wardha	3441	2880	333	6654
19	Nagpur	1965	135	1	2101
	Total	**45458 (80.9%)**	**9169 (16.3%)**	**1581 (2.8%)**	**56208 (100%)**

3.11. Follow up of Cataract surgeries

Out of total 65626cataract surgeries reported from all SSUs, 85.6% patients reported for follow up at 4-6 weeks. Refraction was conducted in97.5% of follow up cases and spectacles were issued in 92.8% patientswho underwent refraction.
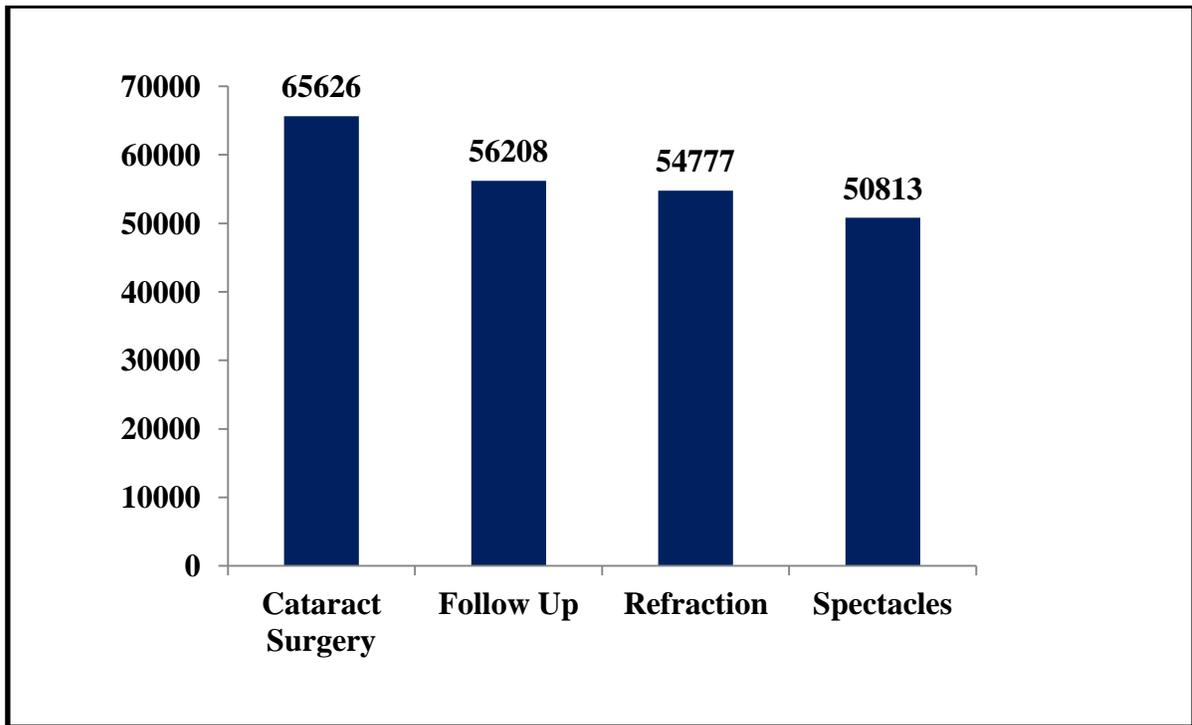
Figure10. Follow up services:

Figure9

3.12. Place of Cataract surgeries

The maximum no. of cataract surgeries were conducted at govt. hospitals (71.7%) followed by NGOs (24.1%), Pvt. Hospitals (4.2%).

Figure11. Place of cataract surgery
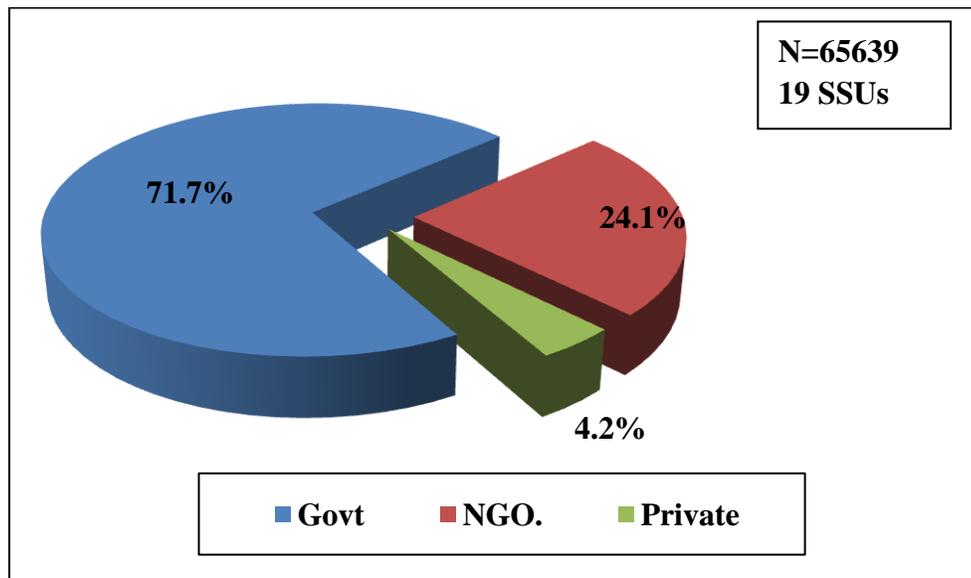
*SSU-Ajmer, Cuttack & Srinagar did not submit report on Place of cataract surgery.

Figure11

4. Complications after Cataract surgeries

Of the 19 SSUs, only 11 reported complications after cataract surgery. 3 cases of complications (15.7/1000) patients were reported to have complications after cataract surgery. The most common complication after cataract surgery was Posterior Capsular Opacification (3.1/1000) (Table5).

Figure12. Complications after cataract surgery(per thousand)
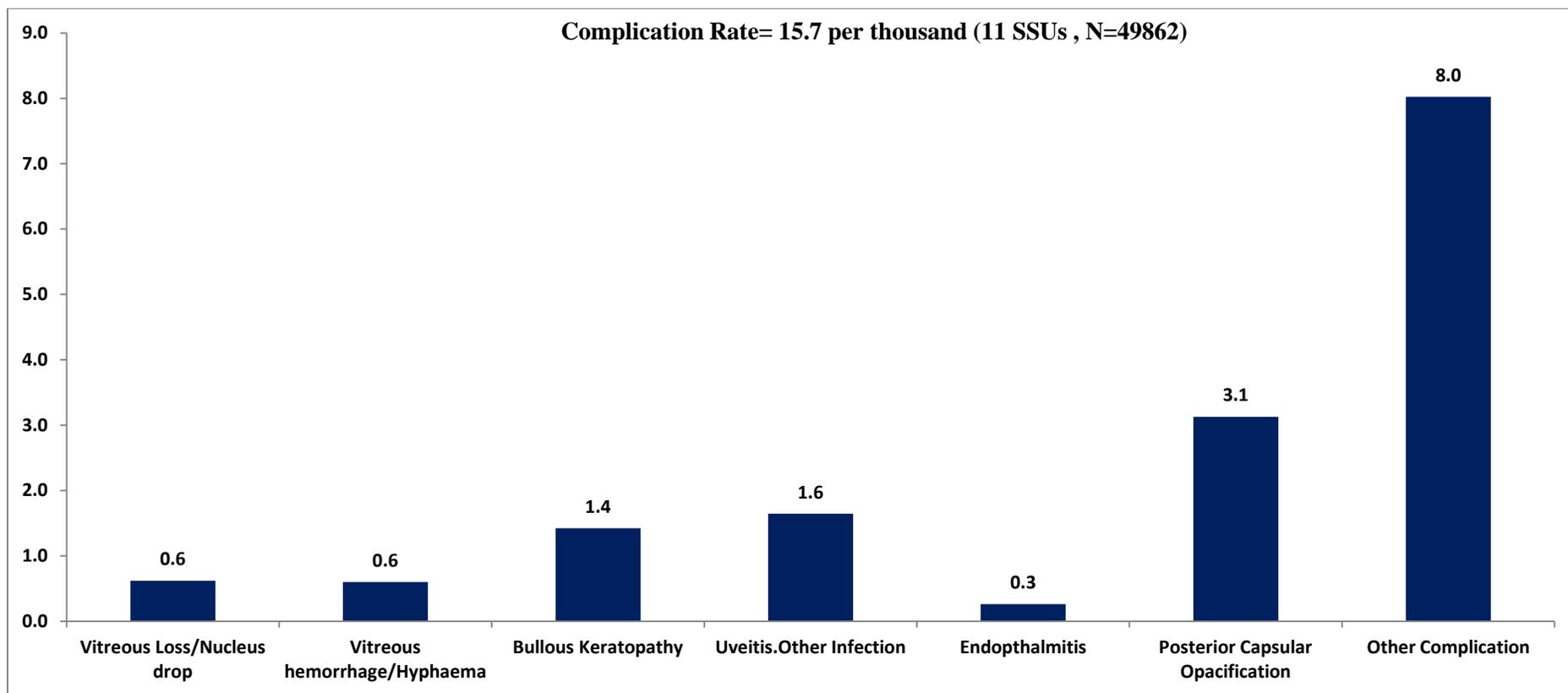
*SSU-Allahabad, Aligarh, Jammu, Ludhiana, Raipur, Thiruvananthapuram, Udaipur & Nagpur did not report any Complications after cataract surgery. SSU Ajmer, Cuttack and Srinagar did not submit report.
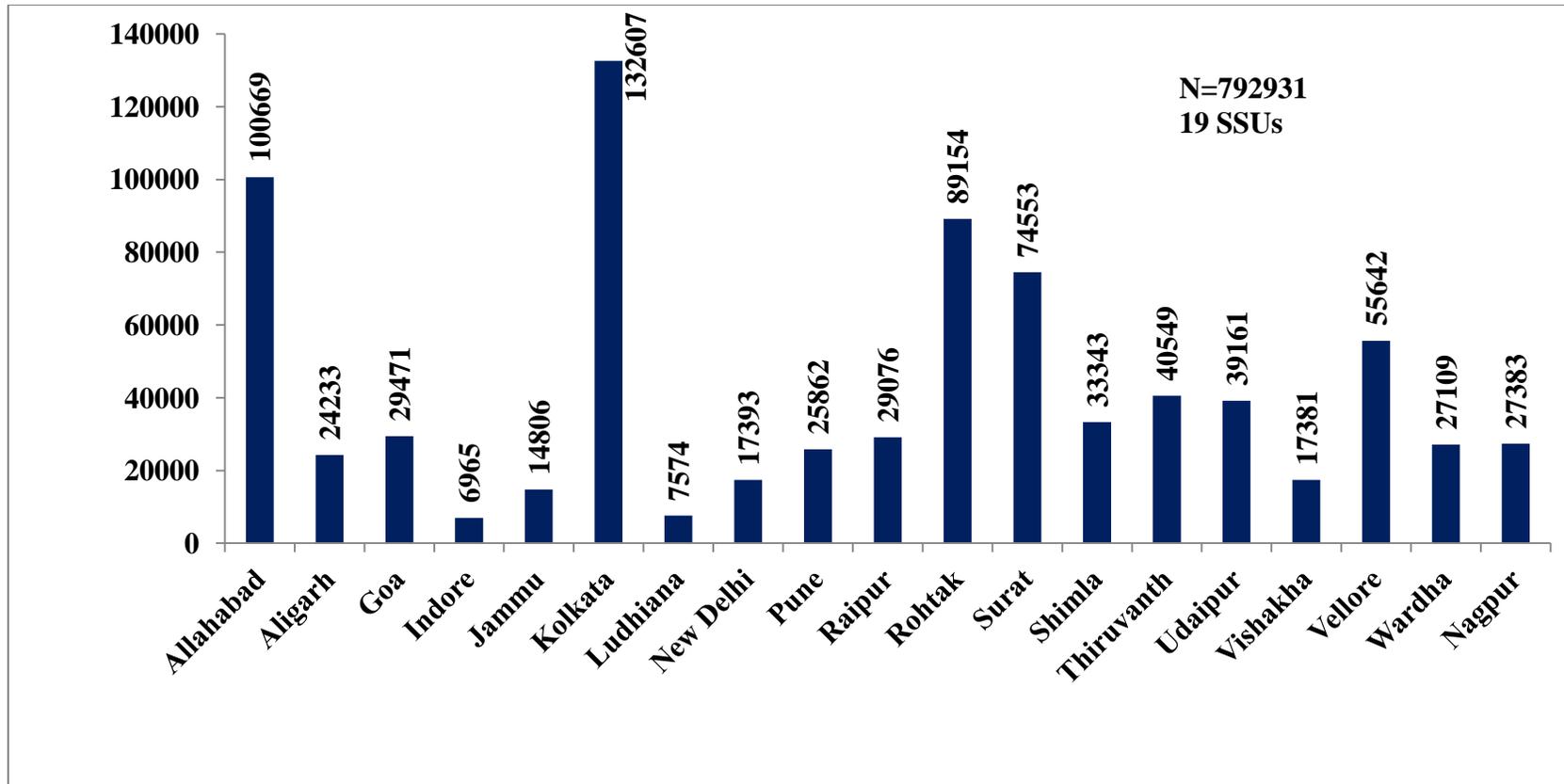
Figure12

Table 5: Total reported complications after cataract surgeries in SSUs (2013-14)

S.No	SSU	Vitreous Loss/Nucleus drop	Vitreous haemorrhage/Hyphaema	Bullous Keratopathy	Uveitis Other Infection	Endophthalmitis	Posterior Capsular Opacification	Other Complication	Total Complication	Total cataract surgeries reported
1	Goa	0	0	0	0	0	0	41	41	2398
2	Indore	0	0	0	0	0	0	122	122	5016
3	Kolkata	16	15	32	50	8	42	46	209	12648
4	New Delhi	0	0	0	0	0	2	81	83	3792
5	Pune	0	0	0	0	0	48	0	48	3177
6	Rohtak	6	4	35	25	3	47	28	148	3774
7	Surat	0	0	1	0	2	0	6	9	3262
8	Shimla	7	0	3	7	0	17	0	34	1852
9	Vishakhapatnam	2	7	0	0	0	0	5	14	2878
10	Vellore	0	0	0	0	0	0	20	20	4411
11	Wardha	0	4	0	0	0	0	51	55	6654
	Total	31	30	71	82	13	156	400	783	49862

5. Ocular Morbidity Reports (OMR)

Out of 22 SSUs, ocular morbidity was reported from 19SSUs (Table 6). Of the total morbidities reported (792931) refractive errors was most common morbidity (34.4%), followed by cataract (29.2%), conjunctivitis (5.4%), disease of adnexa (3.2%) and glaucoma (3.1%), diabetic retinopathy (1.7%). Trachoma was responsible for 0.2% of ocular morbidity. Figure 13 and 14 show the quantitative reporting of ocular morbidity per SSU and type of ocular morbidity reported cumulatively. SSU Ajmer, Cuttack & Srinagar did not send the OMR (Table 6).
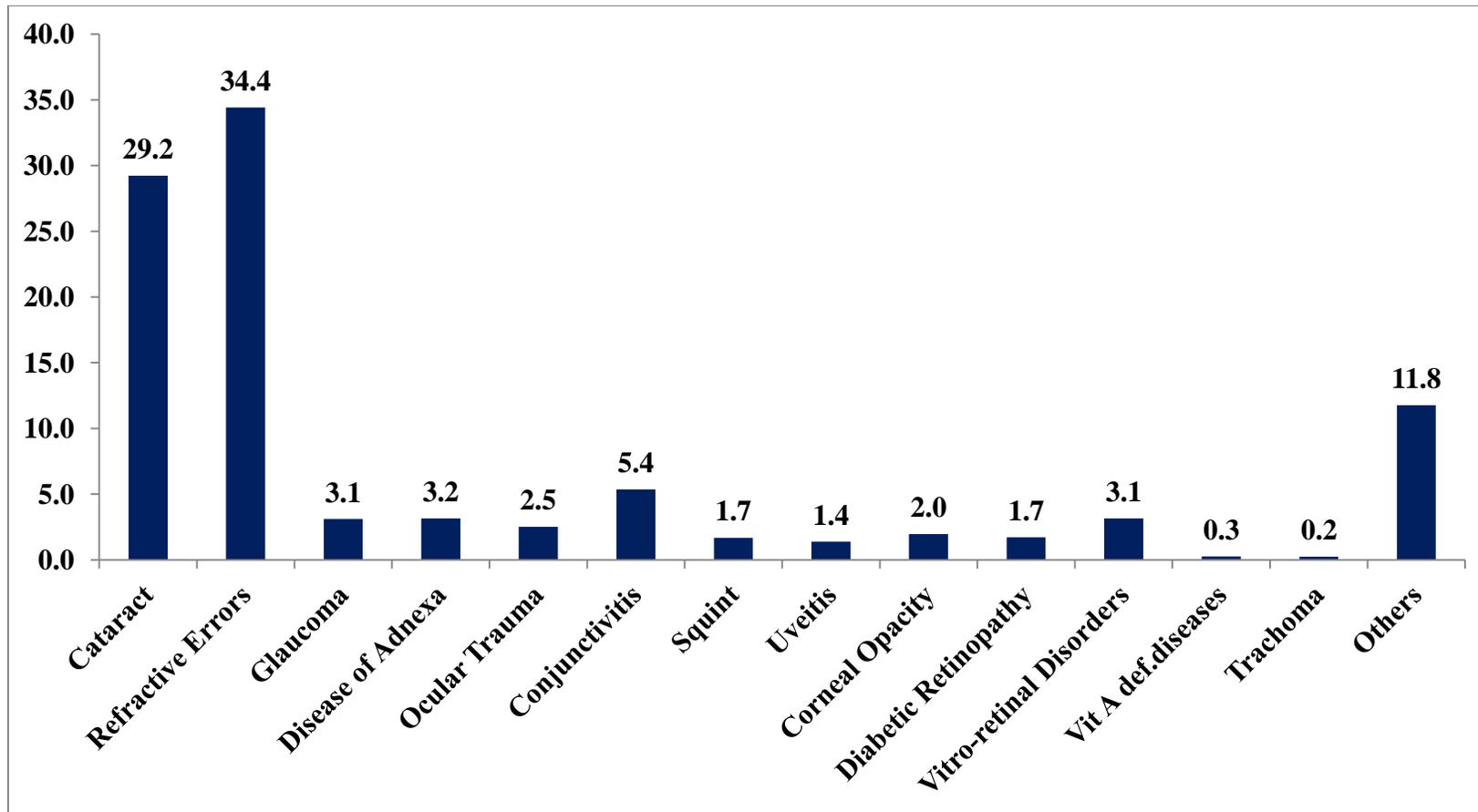
Figure13: Ocular morbidities reported – SSU wise

N=792931
19 SSUs

*SSU-Ajmer, Cuttack & Srinagar did not submitOcular Morbidity Report.

Figure13

Figure14. Type of Ocular Morbidities reported from 19 SSUs (%)

*SSU-Ajmer, Cuttack & Srinagar did not submit type ofOcular Morbidity Report.

Figure14

Table 6: Type of ocular morbidities reported: SSU wise (Percentage)

SSU	Cataract	Refractive Errors	Glaucoma	Disease of Adnexa	Ocular Trauma	Conjunctivitis	Squint	Uveitis	Corneal Opacity	Diabetic Retinopathy	Vitro-retinal Disorders	Vitamin A def. diseases	Trachoma	Others
Allahabad	23697 (23.5)	34704 (34.5)	6857 (6.8)	6029 (6)	2807(2.8)	11190 (11.1)	3986 (4)	2424 (2.4)	2216 (2.2)	0 (0)	863 (0.9)	0 (0)	0 (0)	5896 (5.9)
Aligarh	6237 (25.7)	3364 (13.9)	1573(6.5)	137 (0.6)	140 (0.6)	425 (1.8)	678 (2.8)	31 (0.1)	698 (2.9)	91(0.4)	22 (0.1)	62(0.3)	1568(6.5)	9207 (38)
Goa	9229 (31.3)	13767 (46.7)	100(0.3)	281 (1)	251 (0.9)	338 (1.1)	50 (0.2)	77 (0.3)	49(0.2)	149(0.5)	397(1.3)	0(0)	0(0)	4783 (16.2)
Indore	1571 (22.6)	2272 (32.6)	114(1.6)	719 (10.3)	217 (3.1)	648 (9.3)	79 (1.1)	37 (0.5)	150 (2.2)	110(1.6)	56 (0.8)	22 (0.3)	52 (0.7)	918 (13.2)
Jammu	2870 (19.4)	2592 (17.5)	420(2.8)	1536 (10.4)	791 (5.3)	778 (5.3)	302 (2)	117 (0.8)	160 (1.1)	0(0)	81 (0.5)	0(0)	0(0)	5159 (34.8)
Kolkata	87773 (66.2)	10889 (8.2)	4407(3.3)	2682 (2)	3026(2.3)	1684 (1.3)	1596 (1.2)	3226 (2.4)	3889 (2.9)	2801(2.1)	3960 (3)	861 (0.6)	0(0)	5813 (4.4)
Ludhiana	1309 (17.3)	2179 (28.8)	106(1.4)	248 (3.3)	3 (0)	1442 (19)	97 (1.3)	31 (0.4)	144 (1.9)	382(5)	50 (0.7)	0(0)	11(0.1)	1572 (20.8)
New Delhi	3891 (22.4)	6651 (38.2)	569 (3.3)	547 (3.1)	4(0)	1338 (7.7)	1112 (6.4)	12 (0.1)	431 (2.5)	110(0.6)	502(2.9)	214(1.2)	2(0)	2010 (11.6)
Pune	6859 (26.5)	13586 (52.5)	661(2.6)	300 (1.2)	1071(4.1)	590 (2.3)	824 (3.2)	252(1)	442 (1.7)	308(1.2)	157 (0.6)	1(0)	0(0)	811 (3.1)
Raipur	13304 (45.8)	5821(20)	873(3)	749 (2.6)	838 (2.9)	839 (2.9)	406 (1.4)	765 (2.6)	598 (2.1)	328(1.1)	737(2.5)	99(0.3)	0 (0)	3719 (12.8)
Rohtak	12855 (14.4)	48852 (54.8)	3590(4)	3760 (4.2)	3924(4.4)	4553 (5.1)	1694 (1.9)	1561 (1.8)	3513 (3.9)	2123(2.4)	1977(2.2)	28(0)	11(0)	713 (0.8)
Surat	15686 (21)	32652 (43.8)	2157 (2.9)	1568 (2.1)	1671(2.2)	3082 (4.1)	1132 (1.5)	875 (1.2)	921 (1.2)	0 (0)	1916 (2.6)	0 (0)	0 (0)	12893(17.3)
Shimla	5854 (17.6)	13873 (41.6)	1068 (3.2)	1495 (4.5)	577 (1.7)	3183 (9.5)	139 (0.4)	423 (1.3)	220 (0.7)	1140(3.4)	157 (0.5)	9(0)	2(0)	5203 (15.6)
Thiruvananthapuram	4916 (12.1)	14953 (36.9)	683(1.7)	2626 (6.5)	2400(5.9)	3064 (7.6)	601 (1.5)	321 (0.8)	591 (1.5)	1350(3.3)	9036 (22.3)	4(0)	0(0)	4(0)
Udaipur	1513 (3.9)	23761 (60.7)	128 (0.3)	326 (0.8)	905 (2.3)	5782 (14.8)	106 (0.3)	159 (0.4)	207 (0.5)	2672(6.8)	27(0.1)	24(0.1)	26(0.1)	3525(9)
Vishakhapatnam	5063 (29.1)	7744 (44.6)	140 (0.8)	257 (1.5)	200 (1.2)	366 (2.1)	33 (0.2)	35 (0.2)	145 (0.8)	193(1.1)	48 (0.3)	78 (0.4)	7(0)	3072 (17.7)
Vellore	10031 (18)	20553 (36.9)	1031 (1.9)	748 (1.3)	222 (0.4)	475 (0.9)	325 (0.6)	268 (0.5)	317 (0.6)	1482(2.7)	1176(2.1)	3 (0)	0(0)	19011(34.2)
Wardha	10009 (36.9)	10955 (40.4)	33 (0.1)	725 (2.7)	195 (0.7)	1640 (6)	147 (0.5)	59 (0.2)	278 (1)	25 (0.1)	975 (3.6)	5 (0)	69(0.3)	1994 (7.4)
Nagpur	9131 (33.3)	3714 (13.6)	170 (0.6)	292 (1.1)	770 (2.8)	1171 (4.3)	39 (0.1)	304 (1.1)	552 (2)	437 (1.6)	2835 (10.4)	738 (2.7)	171(0.6)	7059 (25.8)
Total	231798(29.2)	272882(34.4)	24680 (3.1)	25025 (3.2)	20012(2.5)	42588 (5.4)	13346(1.7)	10977(1.4)	15521 (2)	13701 (1.7)	24972 (3.1)	2148(0.3)	1919(0.2)	93362(11.8)

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Annexure 1-Cataract Surgery Reporting Performa
PERFORMANCE OF CATARACT SURGERY

SSU: **Month:**   **Year:**

Parameter		Male	Female	Total
Total Cataract Operations				
Operations on Bilaterally Blind (Vision <6/60 in both eyes)				
Caste category	SC/ST/OBC			
	General			
	N/A			
Age at Surgery	<40			
	40-49			
	50 – 59			
	60 – 69			
	70+			
Pre-Operative Visual Acuity (Operated eye)	≥ 6/60			
	<6/60 to 3/60			
	<3/60 to PL +			
	PL-			
Number with Other eye operated(Pseudophakia/aphakia)				
Place of Surgery	Govt. Hosp			
	NGO			
	Private Hosp			
Technique of Surgery	ICCE			
	ECCE			
	SICS			
	Phaco			
	Other			
Type of Surgery	IOL- PMMA			
	IOL- Foldable			
	Non IOL			
Follow up 4 Weeks After Surgery				
No. of Refraction conducted at Follow Up				
No. of Spectacles Prescribed at Follow Up				
Follow up Visual Acuity (Operated eye)	6/6 to 6/18			
	< 6/18 to 6/60			
	<6/60			
Reason if Visual Acuity at Follow up is <6/60				
Vitreous Loss / Nucleus Drop				
Vitreous hemorrhage / Hyphaema				
Bullous Keratopathy				
Uveitis / Other Infection				
Endophthalmitis				
Posterior Capsular Opacification				
Other Complications				
VA <6/60 due to other ocular morbidity (Specify)				
No Information available for VA <6/60				

Annexure 2-Ocular Morbidity Performa

SSU :-   **Ocular Morbidity Report**   **Month-Year**

	Disease	Male						Female						Total						Grand Total
		<16	16-39	40-49	50-59	60-69	70+	<16	16-39	40-49	50-59	60-69	70+	<16	16-39	40-49	50-59	60-69	70+	
1	Cataract																			
2	Refractive Errors																			
3	Glaucoma																			
4	Disease of Adnexa																			
5	Ocular Trauma																			
6	Conjunctivitis																			
7	Squint																			
8	Uveitis																			
9	Corneal Opacity																			
10	Diabetic Retinopathy																			
11	Other Vitro Retinal Disorders																			
12	Vitamin A def. diseases																			
13	Trachoma																			
14	Others																			
15	Total																			