**OUTREACH SERVICES**

The institute carries out various outreach services on communication and its disorders in different parts of the country. The major outreach services carried out during the reporting year are given below.

**Communication Disorder Screening Programmes**

The Institute conducted screening programmes for communication disorders in different settings and localities. The individuals participating in the programmes were checked for speech, language and hearing abilities and provided with diagnostic and therapeutic services.

**New-born /Infant Screening**

This programme focuses on screening neonates and infants who are at risk for communication disorders using various tools such as High-Risk Register for communication disorders, Behavioral Observation Audiometry, Oto Acoustic Emission Screening and Screening Checklists.

During the reporting year, screening programme was carried out at 17 hospitals in Mysuru, 18 Outreach Service Centres (OSC) and 13 Newborn Screening Centres (NBS) of the Institute functioning in different parts of the country. A total of **46937** newborns were screened. Of these, **3158** babies were at risk for communication disorders. The details are given in table 1.

**Table 1: Newborn/ Infant Screening**

|  |  |  |  |
| --- | --- | --- | --- |
| **Sl. No** | **Hospitals/Immunization Centers** | **Total screened** | **Total No. at risk** |
| **I. Hospitals in Mysuru** | | | |
|  | KR Hospital, Cheluvamba | 3570 | 143 |
|  | Kamakshi Hospital | 551 | 06 |
|  | Mission Hospital (MH) | 79 | 25 |
|  | Chamundeshwari Nursing Home | 45 | 00 |
|  | Ashwini Nursing Home | 63 | 00 |
|  | Shree Devi Nursing Home | 117 | 00 |
|  | St. Joseph’s Hospital | 01 | 00 |
|  | Mahadeshwara Nursing Home | 79 | 02 |
|  | Sigma Hospital | 307 | 04 |
|  | Jayanagar Maternity Hospital | 317 | 02 |
|  | NPC Maternity hospital | 53 | 03 |
|  | Makkalakoota - Immunization Centre | 90 | 01 |
|  | Immunization Centre, Kyathmanalli | 35 | 00 |
|  | Lakshmidevamma Shankarshetty Maternity Hospital | 18 | 00 |
|  | Seth Mohandas Tulsidas Maternity Hospital | 90 | 00 |
|  | Gopala Gowda Shanthaveri Memorial Hospital | 11 | 01 |
|  | Brindavan Hospital | 16 | 00 |
| **Total** | | **5442** | **187** |
| **II. Outreach Service Centers** | | | |
|  | Taluk Hospital, K.R Nagar Taluk | 145 | 02 |
|  | Sub-divisional Hospital, Sagara Taluk | 917 | 38 |
|  | St. Mary’s Hospital, HD kote | 1159 | 133 |
|  | Vivekananda Memorial hospital, H. D. Kote Sarguru | 460 | 64 |
|  | Taluk Hospital, H. D. Kote- Immunization | 879 | 64 |
|  | Gulbarga Institute of Medical Sciences , Kalaburagi | 371 | 160 |
|  | Taluk General Hospital, KR. Pete | 270 | 10 |
|  | Community Health Centre, Santhemarahalli | 89 | 12 |
|  | Taluk Hospital, Yelandur | 33 | 05 |
|  | Primary Health Centre, Gumballi | 123 | 19 |
|  | Taluk Hospital, Nanjangud | 298 | 00 |
|  | Community Health Centre, Hullahalli | 08 | 00 |
|  | Belagavi Institute of Medical Science, Belagavi | 1055 | 122 |
|  | Kodagu Institute of Medical Science ,Kodagu | 2097 | 66 |
|  | All India Institute of Medical Science, Bhuvaneshwar | 13 | 07 |
|  | Karnataka Institute of Medical Sciences, Hubli | 94 | 49 |
|  | Indira Gandhi Institute of Medical Sciences, Patna | 07 | 07 |
|  | Bidar Institute of Medical Sciences, Bidar | 53 | 38 |
| **Total** | | **8071** | **796** |
| **III. New-born Screening Centers** | | | |
|  | All India Institute of Medical Science, Patna | 49 | 2 |
|  | All India Institute of Physical Medicine and Rehabilitation, Mumbai | 64 | 11 |
|  | Janana Hospital & JLNMCH, Ajmer | 4135 | 105 |
|  | Jawaharlal Nehru Medical College & Hospital, Bhagalpur, Bihar | 1210 | 130 |
|  | JIPMER, Puducherry | 4658 | 388 |
|  | King George’s Medical University , Lucknow | 680 | 90 |
|  | Netaji Subhash Chandra Bose Medical College , Jabalpur | 3791 | 366 |
|  | Post Graduate Institute of Medical Education and Research, New Delhi | 698 | 36 |
|  | Rajendra Institute of Medical Sciences, Baritayu, Ranchi | 1631 | 68 |
|  | Regional Institute of Medical Sciences, Imphal | 467 | 32 |
|  | Sri Devaraj Urs Academy of Higher Education and Research, Kolar | 1049 | 0 |
|  | Sri Ramachandra Bhanj Medical College and Hospital, Cuttack | 1646 | 65 |
|  | Vivekananda Memorial hospital, H.D. Kote Sarguru | 460 | 64 |
| **Total** | | **20538** | **1357** |
| **Grand Total** | | **46937** | **3158** |

**Tele-follow up for risk babies**

The new-borns/ infants referred during the new-born screening were followed up through telephone calls to parents/caregivers and advised for detailed evaluation at the Department of Clinical Services at AIISH, Mysore or at the NBS centers /OSCs. A complete test battery was administered for those clients who came for follow-up. The details are given in table 2.

Table 2: Tele – follow up

|  |  |  |  |
| --- | --- | --- | --- |
| **Categories** | **Mysuru Centre**  **(POCD)** | **OSC Centers** | **NBS Centers** |
| Normal speech, language & hearing milestones | **572** | **1621** | **1015** |
| Referred for detailed evaluation | **18** | **136** | **36** |
| **Total Phone follow up** | **590** | **1757** | **1051** |

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Table 3: Follow up Evaluation for Newborns and Infants

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Categories** | **AIISH** | **OSC** | **NBS** | **Total** |
| Clinically Normal (CN) | 8 | 219 | 251 | 478 |
| Hearing disorder (HI) | 00 | 11 | 171 | 182 |
| Speech Disorder (SD) | 01 | 03 | 41 | 45 |

**Industrial Screening**

The Institute conducts hearing screening and screening for other communication disorders for the industrial workers and employees who are repeatedly exposed to loud noises at their work settings. Totally, **490** employees were screened, and among them, 162 were referred for detailed evaluation. The employees were also oriented on harmful effects of noise on hearing, importance of hearing conservation program and also use of hearing protective devices in noisy areas. Totally, 76 employees attended for the detailed audiological evaluation at the Institute. Of the 152 ears tested, 17 had normal hearing, 47 minimal hearing loss, 74 mild hearing loss, 13 moderate hearing loss and one moderately severe hearing loss.

**Student Screening**

Nursery, primary school, secondary school and PU college students were screened for communication disorders as a part of the school screening programme during the reporting year. Totally, 2642 students were screened and among them 131 (4.9%) were identified with ear-related disorders, 125 (4.7%) with hearing loss and 75 (2.8%) with speech-language disorders. They were recommended for follow-up at the Institute.

**Elderly Screening**

Speech, language and hearing evaluations were carried out for elderly citizens. Totally, 64 elderly citizens were screened and among them 24 persons passed the hearing test. The remaining 40 elders had hearing loss (26 nos.), speech-language disorders (14 nos.), cognitive disorders (11 nos.), ENT issues, and swallowing disorders (2 nos.).

**Camp-based Screening**

The Institute organized fifty seven camps in various localities across Karnataka during the reporting year. The expert speech, hearing and allied health professionals of the institute screened 184 persons for communication disorders in the camps. The details are given in table 4.

**Screening general public**

The general public were screened for speech, language and hearing disorders at the POCD Department at AIISH and Outreach Service Centres at Belagavi, Kalaburgi, Nanjangud, Gumballi, Akkihebbalu, Sarguru and Sagara. Totally, 2648 persons were screened and among them, 605 had hearing loss, 95 had speech-language disorders and 14 ENT issues.

**Clinical Services at Outreach Service Centers (OSCs):**

Diagnostic and therapeutic services on communication disorders were provided at the Outreach Service Centres (OSCs) of the institute located in different parts of the country. Totally, 2633 persons were registered for availing clinical services at the 14 OSCs. The clients were evaluated for speech-language and hearing disorders and provided with speech-language therapy and hearing aids. The details are given in table …. and table …

Table: Speech-Language and Hearing evaluation at Outreach Service Centers

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Type of Disorders | | OSC | | | | | | | | | | | | | | | | | | | |  | |  | |  | |  | |  | |
| Taluk Hospital, Nanjangud | | | Primary Health Centre (PHC), Hullahalli | Primary Health Centre (PHC), Akkihebbal | | Taluk General Hospital, KR Pete | | Primary Health Centre (PHC), Gumballi | | Sub-divisional Hospital, Sagara (PHC) Taluk | | VMH,  Sarguru | | BIMS Belagavi | | GIMS, Kalburgi | | KoIMS,  Kodagu | | AIIMS, Bhuvaneshwar | | KIMS,Hubli | | BRIMS,BidaR | | IGIMS,Patna | | Total | |
| Hearing disorders (Ear-wise data) | | | | | | | | | | | | | | | | | | | | | |  | |  | |  | |  | |  | |
| Normal | | 47 | | 02 | | 02 | | 88 | | 04 | | 31 | | 70 | | 912 | | 206 | | 444 | | 4 | | 23 | | 2 | | - | | 1835 | |
| Conductive | | 24 | | - | | - | | 41 | | 06 | | 31 | | 33 | | 50 | | 106 | | 53 | | 4 | | 61 | | 2 | | - | | 411 | |
| Sensori- neural | | 40 | | 30 | | 12 | | 62 | | 109 | | 42 | | 41 | | 247 | | 334 | | 321 | | 12 | | 72 | | 48 | | - | | 1370 | |
| Mixed | | 17 | | 01 | | 08 | | 66 | | 12 | | 23 | | 21 | | 52 | | 219 | | 78 | | 5 | | 43 | | 12 | | - | | 557 | |
| No type (Minimal & Profound) | | 18 | | 01 | | - | | 59 | | 19 | | 55 | | 51 | | 133 | | 429 | | 226 | | 25 | | 71 | | 6 | | - | | 1093 | |
| Aud-Total (ears) | | 146 | | 34 | | 22 | | 316 | | 150 | | 182 | | 216 | | 1394 | | 1294 | | 1122 | | 50 | | 270 | | 70 | | - | | 5266 | |
| Aud-Total (Individuals) | | 73 | | 17 | | 11 | | 158 | | 75 | | 91 | | 108 | | 697 | | 647 | | 561 | | 25 | | 135 | | 35 | | - | | 2633 | |
| Speech-Language Disorders 02 | | | | | | | | | | | | | | | | | | | | | |  | |  | |  | |  | |  | |
| Voice | | 01 | | - | | - | | - | | - | | - | | 02 | | 02 | | 07 | | 06 | | 17 | | 13 | | - | | 01 | | 49 | |
| Fluency | | 04 | | - | | - | | 03 | | - | | 02 | | 02 | | 08 | | 12 | | 13 | | 2 | | 4 | | - | | - | | 50 | |
| Articulation disorders | | 02 | | 01 | | - | | 02 | | 01 | | 06 | | 05 | | 05 | | 38 | | 12 | | 15 | | 4 | | - | | 01 | | 92 | |
| Language disorders | | 09 | | 03 | | 03 | | 19 | | 09 | | 25 | | 49 | | 72 | | 110 | | 29 | | 21 | | 12 | | 06 | | 01 | | 368 | |
| Total (Individuals) | | 16 | | 04 | | 03 | | 24 | | 10 | | 33 | | 58 | | 87 | | 167 | | 60 | | **55** | | **33** | | **06** | | **03** | | 554 | |

Table 6**:** Speech-Language and Hearing evaluation at Outreach Service Centers

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| OSC | Hearing Aids Dispensed | Speech-language therapy | | |
| No. of clients | No. of regular sessions | No. of Tele-sessions |
| OSC Nanjungud | 31 | 40 | 45 | 172 |
| OSC Kodagu | 22 | 97 | 90 | 484 |
| OSC KR Pet | 17 | 26 | - | 189 |
| OSC Sarguru | 100 | 84 | 102 | 102 |
| OSC Sagara | 4 | 113 | 125 | 524 |
| OSC Gumballi | 19 | 27 | 34 | 103 |
| OSC Akkihebbalu | 10 | 4 | 0 | 38 |
| OSC Hullhalli | - | 7 | 7 | 0 |
| OSC Kalburgi | - | 67 | 8 | 432 |
| OSC Belagavi | - | 68 | 36 | 176 |
| **Total** | **203** | **533** | **447** | **2220** |

**Tele-Assessment and Tele-Intervention Services**

The Telecentre for Persons with Communication Disorders (TCPD) of the Institute offers tele-assessment and tele-intervention services to the doorsteps of persons with communication disorders across the country and abroad. The details are given in table 7,8 & 9.

Table 7: Disorder-wise Tele-Assessment and Intervention

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | Articulation | | Fluency | | Language | | Voice | | Swallowing | | Resonance | |
|  | Cases | Sessions | Cases | Sessions | Cases | Sessions | Cases | Sessions | Cases | Sessions | Cases | Sessions |
| **Pediatric** | 7 | 159 | 2 | 47 | 69 | 1849 | - | - | - | - | - | - |
| **Adult** | 3 | 22 | 4 | 120 | 9 | 549 | 2 | 48 | - | - | 2 | - |
| **Geriatric** | - | - | - | - | 1 | 10 | - | - | 2 | 36 | Nil | Nil |
|  |  | | \* 0-18Years Paediatric; 18-65 Years Adults; >65 years-Geriatric | | | | | | | | |  |

Table 8: Country-wise Tele-assessment and Intervention

|  |  |  |
| --- | --- | --- |
| **Country** | **No. of Cases** | **No. of Sessions** |
| **Australia** | 1 | 41 |
| **Dubai** | 1 | 80 |
| **India** | 82 | 2271 |
| **Ireland** | 1 | 5 |
| **Japan** | 1 | 25 |
| **Qatar** | 4 | 136 |
| **Kuwait** | 1 | 46 |
| **UK** | 2 | 130 |
| **US** | 5 | 62 |
| **Singapore** | 1 | 43 |
| **Grand Total** | **99** | **2839** |

Table 9: State-wise Tele-assessment and Intervention in India

|  |  |  |
| --- | --- | --- |
| **States** | **No. of Cases** | **No. of Sessions** |
| Andhra Pradesh | 1 | 4 |
| Assam | 3 | 89 |
| Chattisgarh | 1 | 66 |
| Chandigarh | 2 | 29 |
| Haryana | 1 | 59 |
| Jharkhand | 3 | 111 |
| Karnataka | 37 | 1100 |
| Kerala | 3 | 85 |
| Maharashtra | 2 | 78 |
| Madhyapradesh | 1 | 32 |
| New Delhi | 6 | 167 |
| Orissa | 2 | 5 |
| Pondicherry | 1 | 16 |
| Rajasthan | 2 | 66 |
| Tamil Nadu | 8 | 211 |
| Telangana | 1 | 46 |
| UP | 5 | 63 |
| Uttrakand | 1 | 4 |
| West bengal | 2 | 40 |
| Grand Total | **82** | **2271** |