**OUTREACH SERVICES**

In addition to the diagnostic and therapeutic services provided within its walls, 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.

**Newborn/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 including two immunization centres in Mysore. Seven Outreach Service Centres of the Institute functioning in different parts of Karnataka and Eight Newborn Screening Centres functioning in hospitals attached with the AIISH DHLS centres at Sri Ramachandra Bhanj Medical College and Hospital (SCB MCH), Cuttack, Regional Institute of Medical Sciences (RIMS), Imphal, Janana Hospital & JLNMCH, Ajmer, JIPMER, Puducherry, Netaji Subhash Chandra Bose Medical College (NSCB), Jabalpur, Rajendra Institute of Medical Sciences, Ranchi, King George's Medical University (KGMU), Lucknow and Jawahar Lal Nehru Medical College and Hospital (JLNMCH), Bhagalpur and a total of **57842** newborns were screened. Of these, 5115 babies were at risk for communication disorders. The details are given in table 1.

**Table 1: Total number of newborns/infants screened and identified at-risk for communication disorders**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Sl.No. | Hospitals/Immunization Centers | Total births | Total No. Screened | Total No. at risk |
| Male | Female | Total | Male | Female | Total |
|  |  | AIISH- Mysuru |
|  | Basappa Memorial Hospital (BMH) | **1** | 0 | 0 | **0** | 0 | 0 | **0** |
|  | Combined Hospital (CH) | **326+** | 133 | 140 | **273** | 6 | 5 | **11** |
|  | Kamakshi Hospital (KH) | **1406** | 643 | 540 | **1183** | 8 | 13 | **21** |
|  | KR Hospital (KRH)- Cheluvamba | **8271** | 3680 | 3608 | **7318** | 112 | 109 | **221** |
|  | Makkalakoota Immunization Center (MIC) | **NA** | 36 | 29 | **65** | 0 | 1 | **1** |
|  | Mission Hospital (MH) | **457** | 247 | 223 | **470** | 24 | 19 | **43** |
|  | Immunization Center at Mission Hospital (ICMH) | **NA** | 15 | 6 | **21** | 2 | 0 | **2** |
|  | N.P.C Hospital | **116+** | 21 | 21 | **42** | 0 | 0 | **0** |
|  | S.M.T.D.H Hospital | **483** | 213 | 196 | **409** | 3 | 4 | **7** |
|  | Railway Hospital (RH) | **25+** | 11 | 10 | **21** | 0 | 0 | **0** |
|  | Employees State Insurance (ESI) Hospital | **3+** | 1 | 1 | **2** | 0 | 0 | **0** |
|  | Ashwini Nursing Home (ANH) | **171** | 86 | 97 | **183** | 1 | 4 | **5** |
|  | Shree Devi Nursing Home (SNH) | **239** | 85 | 69 | **154** | 1 | 2 | **3** |
|  | Gopala Gowda Shanthaveri Memorial Hospital (GGSMH) | **151** | 56 | 58 | **114** | 2 | 1 | **3** |
|  | Mahadeshwara Nursing Home (MNH) | **304** | 92 | 79 | **171** | 1 | 0 | **1** |
|  | Sigma Hospital (SH) | **355** | 260 | 220 | **480** | 8 | 6 | **15** |
|  | Brindavan Hospital(BH) | **373** | 97 | 73 | **170** | 14 | 3 | **17** |
|  | Total (Mysuru hospitals) | **12681** | **5676** | **5370** | **11046** | **182** | **167** | **349** |
| OSC of AIISH |
|  | Sub-divisional hospital, K R Nagar Taluk | **1445** | 199 | 238 | **437** | 5 | 3 | **8** |
|  | Sub-divisional hospital, T NarsipuraTaluk | **651** | 122 | 99 | **221** | 1 | 1 | **2** |
|  | Sub-divisional Hospital, SagaraTaluk | **1589** | 709 | 672 | **1453** | 35 | 40 | **75** |
|  | VMH, Sarguru | **3292** | 1694 | 1491 | **1329** | 135 | 90 | **225** |
| Immunization | **NA** | 112 | 103 | **215** | 2 | 2 | **4** |
|  | Community Health Centre (CHC), Hullahalli | **115** | 72 | 69 | **121** | 3 | 4 | **7** |
|  | Community Health Centre (CHC), Santhemarahalli | **150** | 34 | 32 | **66** | 0 | 0 | **0** |
|  | Primary Health Centre (PHC), Akkihebbalu | **37** | 24 | 20 | **44** | 3 | 0 | **3** |
|  | **Total (OSCs)** | **7279** | **2966** | **2724** | **3886** | **184** | **140** | **324** |
| NBS of Outside Centres |
|  | Sri Ramachandra Bhanj Medical College and Hospital (SCB MCH), Cuttack | **3929** | 1906 | 1046 | **2773** | 222 | 123 | **345** |
|  | Regional Institute of Medical Sciences (RIMS), Imphal | **3906** | 1944 | 1908 | **3860** | 77 | 81 | **125** |
|  | Janana Hospital & JLNMCH, Ajmer | **10531** | 3884 | 3617 | **7501** | 432 | 250 | **682** |
|  | JIPMER, Puducherry | **15914** | 6893 | 6327 | **13220** | 492 | 250 | **839** |
|  | NetajiSubhash Chandra Bose Medical College (NSCB), Jabalpur | **1928+** | 2801 | 2356 | **5157** | 817 | 590 | **1407** |
|  | Rajendra Institute of Medical Sciences, Baritayu, Ranchi | **6289** | 2326 | 2127 | **4353** | 288 | 224 | **512** |
|  | KGMU, Lucknow | **NA** | 1866 | 1543 | **3472** | 212 | 159 | **371** |
|  | JLNMCH, Bhagalpur | **542** | 205 | 193 | 398 | 72 | 40 | 112 |
|  | **Total (NBS centre’s)** | **43552** | **21960** | **19146** | **41011** | **2629** | **1813** | **4442** |
|  | **Overall Total** | **63512** | **30602** | **27240** | **57842** | **2995** | **2120** | **5115** |

Follow-up Evaluation

The newborns/ infants referred during the newborn screening were followed up through telephone calls to parents/caregivers of infants. A complete test battery was administered for those clients who came for follow-up. The details are given in table 2.

Table 2 : Follow-up Evaluation for Newborns and Infants

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Category** | **Mysore** | **Ajmer** | **OSC Sagara** | **Cuttack** | **Imphal** | **Puducherry** | **Ranchi** | **Jabalpur** | **Lucknow** | **Total** |
| Clinically Normal | 65 | 13 | 158 | 54 | 110 | 349 | 7 | 15 | 153 | **924** |
| ENT disorders | 0 | 0 | 0 | 1 | 23 | 0 | 42 | 1 | 11 | **78** |
| Auditory maturation delay | 0 | 0 | 3 | 2 | 2 | 0 | 0 | 0 | 0 | **07** |
| Hearing disorder | 6 | 17 | 6 | 75 | 25 | 60 | 30 | 17 | 69 | **305** |
| Speech and language disorders | 0 | 3 | 2 | 0 | 45 | 21 | 57 | 6 | 5 | **139** |
| Multiple disorders | 0 | 0 | 1 | 5 | 2 | 1 | 7 | 7 | 17 | **40** |
| Incomplete Testing | 9 | 106 | 15 | 0 | 0 | 45 | 5 | 2 | 0 | **182** |
| **Total** | 80 | 139 | 185 | 137 | 207 | 476 | 148 | 48 | 255 | **1675** |

Employee Screening

The Institute conducted communication disorder screening activity for the Industrial Employees and employees of other occupation at the industrial work settings. The employees working with the Bannari Industry, Nanjangud were screened for hearing loss and those who are repeatedly exposed to loud noises with hearing impairment were advised for detailed evaluation at AIISH. Employees and employers 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. The details of industrial screening are given in table 3.

In addition, the industrial workers were encouraged to undergone hearing evaluation at the Institute clinic. Totally, **304** employees working with Triton Valves Ltd, Mysore, Traffic police, K.S.R.T.C Bus driver, Loco pilots, Industrial workers, Nanjangud Suruchi Khadi And Gramodyoga Sangha Indus Granites availed clinical service at the Institute during the reporting year and 40 ears tested had hearing impairment.

Table 3: Industrial Screening

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Month** | **Name of the Work Settings** | **Clients** | **Ears identified with Hearing Impairment** | **Individuals with normal ears** | **Individuals ears identified with ENT disorders** |
| 24.01.2018 | Triton Valves Ltd,Mysore | 154 | 84 | 222 | 2 |
| 19.09.2018 | Traffic Police,K.S.R.T.C, Railway  | 105 | 32 | 172 | 6 |
| 21.01.2019 | Nanjangud Suruchi Khadi and Gramodyoga Sangha | 34 | 08 | 45 | 15 |
| 21.01.2019 | Indus Granites | 11 | 0 | 20 | 02 |
| **Total** | **304** | **40** | **459** | **25** |

Student Screening

Nursery and primary school students from 60 schools in Mysuru and Mandya were screened for communication disorders as a part of the school screening programme during the reporting year. Totally, 4076 students were screened and among them 91 (2.23%) were identified with ear-related disorders, 76 (1.86%) with hearing loss and 184 (4.51%) 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 residing in different old age homes in Mysuru. Totally, 145 elderly citizens were screened and among them 60 were identified with ear-related disorders, 106 hearing loss, and 14 were identified with speech-language disorders. Also, hearing aids were distributed among 4 elderly persons with hearing impairment.

Camp-based Screening

The Institute organized five camps in various localities across Karnataka. The expert speech, hearing and allied health professionals of the institute screened 528 persons for communication disorders in the camps. The details are given in table 4.

Table 4: Camp-based Screening

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Date | Location | No. of Client | ENT related disorders | Speech language disorders | Psychological disorder |
| Normal (No. of ears) | Disorder (No. of ears) |
| 28.06.2018 | Hospet, Bellary District and organized by Rotary Club, Hospet. | 271 | 49 | 140 | 56 | 26 |
| 02.02.2019 | Chamrajnagara Camp-Seva Bharathi Trust Public School | 130 | 60 | 26 | 14 | - |
| 03.02.2019 | Chamrajnagara Camp-Seva Bharathi Trust Public School | 33 | 38 | 48 | 4 | - |
| 22.02.2019 | Kumbh Mega Health Mela-Buxar, Bihar | 39 | 15 | 12 | 1 | - |
| 23.02.2019 | Kumbh Mega Health Mela-Buxar, Bihar | 55 | 9 | 36 | 2 | - |
| **Total** | **528** | **171** | **262** | **77** | **26** |

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

Diagnostic and therapeutic services on communication disorders were provided at the five Outreach Service Centres (OSCs) of the institute located in Sub-divisional taluk hospital, Sagara, Community Health Center (CHC), Hullahalli, Primary Health Centre (PHC), Akkihebbalu, Primary Health Centre (PHC), Gumballi, and VMH, Sarguru. Totally, 2127 persons availed evaluation services, 167 hearing aids were distributed among the needy cases. 476 persons underwent speech-language therapy and the details of those who registered and availed various services/benefits at the OSCs are in tables 5 and 6 respectively, and the follow-up cases in table 7.

Table 5: Clinical Evaluation at the Outreach Service Centres

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **OSC** | **Total registered** | **ENT Evaluation** | **Hearing Evaluation** | **Speech & Language Evaluation** |
| **Normal****ears** | **Disorder ears** | **others** | **Normal****ears** | **Disorder****ears** | **Normal Individuals** | **Disorder Individuals** |
| **CHC, Hullahalli** | **553** | 190 | 475 | 122 | 3 | 156 | 0 | 15 |
| **PHC, Akkihebbalu** | **292** | 88 | 261 | 70 | 01 | 70 | 0 | 9 |
| **PHC, Gumballi** | **636** | 244 | 579 | 135 | 6 | 109 | 0 | 17 |
| **Sub-divisional Hospital, Sagara** | **283** | 0 | 0 | 0 | 84 | 385 | 0+ | 30 |
| **VMH, Sarguru** | **372** | 1 | 1 | 0 | 149 | 235 | 10 | 123 |
| **Total** | **2127** | **523** | **1191** | **327** | **243** | **1016** | **10** | **193** |

Table 6**:** Rehabilitation services provided at the Outreach service centers

|  |  |  |
| --- | --- | --- |
| OSC | **Hearing Aids Dispensed** | **Speech-language therapy** |
| No. of clients | No. of sessions |
| CHC, Hullahalli | 39 | 12 | 37 |
| PHC, Akkihebbalu | 41 | 19 | 40 |
| PHC, Gumballi | 55 | 37 | 100 |
| Sub-divisional Taluk Hospital, Sagara | 19 | 196 | 949 |
| VMH, Sarguru | 12 | 183 | 549 |
| **Total** | **167** | **476** | **1755** |

Table 7: Details of clients followed up at the OSCs.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **OSC** | **Total Follow up** | **ENT Evaluation** | **Hearing Evaluation** | **Speech & Language Evaluation** |
| **Normal (No. of ears)** | **Disorder** **(No. of ears)** | **others** | **Normal (No. of ears)** | **Disorder (No. of ears)** | **Normal** **(No. of individuals)** | **Disorder** **(No. of Individuals)** |
| Primary Health Centre (PHC), Hullahalli | **185** | 63 | 137 | 50 | 0 | 58 | 0 | 0 |
| Primary Health Centre (PHC), Akkihebbalu | **158** | 54 | 119 | 26 | 2 | 86 | 0 | 2 |
| Primary Health Centre (PHC), Gumballi | **316** | 132 | 225 | 36 | 0 | 172 | 0 | 3 |
| Sub-divisional Hospital (PHC), Sagara | **13** | 0 | 0 | 0 | 5 | 17 | 0 | 4 |
| VMH, Sarguru | **153** | 15 | 32 | 7 | 47 | 138 | 2 | 52 |
| **Total** | **825** | **264** | **496** | **119** | **54** | **471** | **2** | **61** |

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

The TCPD offers Tele-assessment and Tele-intervention services to the doorsteps of persons with communication disorders across the country and abroad. Totally 2171 tele-sessions were delivered to 72 cases in during the reporting year.

Table 8: Tele-Intervention and Tele-Assessment Services

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|   | **Language** | **Phonological** | **Fluency** | **Voice**  | **TOTAL** |
|   | No. of Cases | No. of Sessions | No. of Cases | No. of Sessions | No. of Cases | No. of Sessions | No. of Cases | No. of Sessions | No. of Cases | No. of Sessions |
| Paediatric | 45 | 1,325 | 2 | 25 | 4 | 169 | 1 | 18 | 52 | 1,537 |
| Adult | 10 | 511 | 4 | 33 | 5 | 67 | 0 | 0 | 19 | 611 |
| Geriatric | 1 | 23 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 23 |
|   | **56** | **1,859** | **6** | **58** | **9** | **236** | **1** | **18** | **72** | **2,171** |

**Itinerant Service (DCS pg 49)**

The Institute offered itinerant service on prevention and control of communication disorders for the regular school children through the itinerant speech therapist and medical social worker. The service was provided at 24 schools (61 visits) and follow up activity was carried out for 141 children identified with various types of communication disorders availing therapy at AIISH during the reporting year. Also, during the visit, 141 (new-89,follow up-52) children availed services of Itinerant Speech Therapist at schools of Mysore and referred to the Institute and 148 teachers were oriented on prevention and control of communication disorders.

**Survey of Persons with Communication Disorders**

A survey of persons with communication disorders in the districts of Mysuru, Mandya and Chamarajanagara was going on as a plan project with Dr. S. R. Savithri, former Director, AIISH as the Principal Investigator and Dr. R. Rajasudhakar, Reader in Speech Science, AIISH, Dr. Priya M.B., Lecturer in Speech Science and Dr. H.Sudharshan, Hon. Secretary, Karuna Trust as Co-Investigators. The activities carried out in the reporting year were from Level IV of Phase 3 of the plan project. 200 ASHA/Anganwadi workers performed the survey during the reporting year. Training was provided to the ASHA workers for carrying out the survey before mobilizing them into the villages/towns. Totally, three training programmes were organized in which 200 ASHA/Anganwadi workers were trained. Totally 2,06,194 persons were surveyed in specific hoblis of the three districts to identify persons with communication disorders. The details are given in table 10.

Table 10: Survey of Communication Disorders

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Districts** | **Locality** | **No. of PHCs** | **No. of villages** | **Total Population** |
| **Taluk** | **Hobli/Town** |  |
| Mysuru | Hunsur | Hanagudu Kasaba 2 | 91 | 11925 | 71,19917,810 |
| Chamarajanagar | Chamarajanagar | ChandakkavadiHaradanahalli | 55 | 4941 | 60,21756,968 |
| **Total** | **2 taluks** | **4 hoblis** | **20 PHCs** | **234****villages** | **2,06,194** |