# Clinical Care

The Institute offers a comprehensive range of clinical services pertaining to communication disorders.These include general speech, language and hearing assessment and rehabilitation and a wide range ofspecialized testing and treatment services. Also, it offers psychological and otorhinolagyngolicalassessment and rehabilitation and various medical specialty services to the persons with communication

disorders.

**Patient Registration**

Totally 63,450 persons were registered for availingclinical services at the institute during the reportingyear. This includes 22,650 new and 40,800 reviewcases. The geographical details of new clients aregiven in table 13. Majority of them (21346) werefrom Karnataka, the state in which the institute islocated, followed by the neighboring states ofKerala (803), Andra Pradesh (206) and Tamil Nadu (161). There were 6 clients from north-eastregion. Females (8550) outnumbered males (14100) in availing clinicalservices.

Table 13: State & Gender wise distribution of new clients

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Sl. No** | **State** | **Male** | **Female** | **Total** |
| 1 | Andra Pradesh | 150 | 56 | 206 |
| 2 | Assam | 2 | 2 | 4 |
| 3 | Bihar | 14 | 1 | 15 |
| 4 | Delhi | 6 | 1 | 7 |
| 5 | Goa | 3 | 0 | 3 |
| 6 | Gujarat | 3 | 0 | 3 |
| 7 | Haryana | 1 | 1 | 2 |
| 8 | Jharkhand | 8 | 4 | 12 |
| 9 | Karnataka | 13220 | 8126 | 21346 |
| 10 | Kashmir | 1 | 1 | 2 |
| 11 | Kerala | 522 | 281 | 803 |
| 12 | Madhya Pradesh | 5 | 5 | 10 |
| 13 | Maharashtra | 17 | 8 | 25 |
| 14 | Orissa | 8 | 4 | 12 |
| 15 | Punjab | 1 | 0 | 1 |
| 16 | Rajasthan | 8 | 2 | 10 |
| 17 | Tamil Nadu | 115 | 46 | 161 |
| 18 | Tripura | 1 | 1 | 2 |
| 19 | Union Territories | 1 | 0 | 1 |
| 20 | Uttar Pradesh | 6 | 3 | 9 |
| 21 | Uttaranchal | 1 | 0 | 1 |
| 22 | West Bengal | 7 | 8 | 15 |
|  |  | **14100** | **8550** | **22650** |

Totally, 11,586 persons with variouscommunication disorders availed speechlanguage therapy, physiotherapy, occupationaltherapy, listening training and other special clinictherapies in 66,745 sessions.

**Speech and Language Assessment andRehabilitation**

The speech and language outpatient unitevaluated 8910 clients which includes 7202 new and 1708 review cases. Of the new cases, 6812 were identified with various kinds ofspeech and language disorders and 390were foundto have normal speech. The details of clients withspeech and language disorders along with thecategory of disorders are given in table 14 andfigure 4.

**Table 3 A: Clients (New) evaluated in Speech-Language -OPD disorders wise**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Disorders** | **Language Disorders** | | | **Fluency Disorders** | | | **Voice Disorders** | | | **Articulation Disorders** | | | **Multiple Disorders** | | | **Normal** | | | **Total** | **Hindi** |
| Months | C | A | G | C | A | G | C | A | G | C | A | G | C | A | G | C | A | G |
| April | 376 | 33 | 5 | 69 | 19 | 0 | 23 | 24 | 5 | 69 | 6 | 6 | 61 | 10 | 1 | 19 | 9 | 5 | 740 | 23 |
| May | 445 | 36 | 10 | 78 | 28 | 0 | 11 | 32 | 13 | 60 | 15 | 5 | 43 | 5 | 0 | 27 | 12 | 1 | 821 | 47 |
| June | 414 | 63 | 5 | 28 | 22 | 0 | 9 | 32 | 11 | 30 | 10 | 3 | 67 | 7 | 1 | 27 | 8 | 1 | 738 | 26 |
| July | 320 | 52 | 15 | 20 | 41 | 0 | 6 | 32 | 17 | 24 | 8 | 2 | 73 | 10 | 0 | 14 | 10 | 1 | 645 | 22 |
| Aug | 276 | 41 | 4 | 17 | 13 | 0 | 2 | 17 | 12 | 20 | 5 | 1 | 7 | 1 | 0 | 20 | 11 | 2 | 449 | 31 |
| Sept | 317 | 55 | 9 | 25 | 16 | 0 | 6 | 24 | 14 | 37 | 3 | 3 | 25 | 4 | 0 | 16 | 11 | 0 | 565 | 39 |
| Oct | 265 | 61 | 7 | 49 | 20 | 0 | 4 | 23 | 5 | 53 | 11 | 2 | 36 | 3 | 0 | 31 | 14 | 0 | 584 | 25 |
| Nov | 256 | 40 | 3 | 11 | 15 | 1 | 5 | 19 | 13 | 34 | 6 | 0 | 54 | 11 | 1 | 27 | 10 | 1 | 507 | 41 |
| Dec | 374 | 58 | 14 | 2 | 29 | 24 | 12 | 32 | 12 | 51 | 14 | 2 | 78 | 0 | 0 | 30 | 0 | 0 | 732 | 44 |
| Jan | 311 | 47 | 0 | 34 | 10 | 1 | 15 | 16 | 3 | 33 | 2 | 5 | 4 | 2 | 0 | 15 | 1 | 1 | 500 | 32 |
| Feb | 197 | 62 | 10 | 25 | 8 | 0 | 7 | 28 | 16 | 31 | 1 | 2 | 24 | 3 | 0 | 15 | 11 | 0 | 440 | 24 |
| March | 224 | 48 | 3 | 24 | 20 | 0 | 3 | 30 | 14 | 26 | 7 | 4 | 34 | 5 | 0 | 27 | 10 | 2 | 481 | 47 |
| **Total** | 3775 | 596 | 85 | 382 | 241 | 26 | 103 | 309 | 135 | 468 | 88 | 35 | 506 | 61 | 3 | 268 | 107 | 14 | **7202** | **401** |
| Disorder Wise Total | **4456** | | | **649** | | | **547** | | | **591** | | | **570** | | | **390** | | |
| **Grand total** | **7202***(To include repeat cases in the table as in previous year)* | | | | | | | | | | | | | | | | | | | |

*C- Child, A-Adult, G-Geriatric*

Add fig. 3A from draft

Multiple disorders is not there in repeat cases????

**Table 3B: Disorder wise distribution of clients (Re- evaluated) in Speech-Language -OPD**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Months** | **Disorders** | | | | | **Total** |
| **Child Language** | **Adult Language** | **Voice** | **Articulation** | **Fluency** |
| April | 126 | 15 | 8 | 22 | 26 | 197 |
| May | 123 | 1 | 4 | 5 | 6 | 139 |
| June | 135 | 10 | 4 | 7 | 3 | 159 |
| July | 155 | 8 | 5 | 5 | 3 | 176 |
| Aug | 98 | 3 | 3 | 3 | 2 | 109 |
| Sept | 87 | 4 | 2 | 6 | 3 | 102 |
| Oct | 81 | 5 | 2 | 1 | 4 | 93 |
| Nov | 87 | 3 | 3 | 6 | 1 | 100 |
| Dec | 124 | 4 | 6 | 7 | 9 | 150 |
| Jan | 193 | 5 | 1 | 4 | 5 | 208 |
| Feb | 116 | 4 | 5 | 4 | 2 | 131 |
| Mar | 130 | 1 | 3 | 7 | 3 | 144 |
| **Total** | **1455** | **63** | **46** | **77** | **67** | **1708** |

Clients requiring further management were givenvarious speech/language therapies dependingupon the type and severity of disorder, for daily sessions of 45 minutes duration. Atotal of 35129 therapy sessions were conducted for 5711 persons with speech/ language disorders whoattended therapy during the reporting year. Thedetails of disorder- wise therapy carried out aregiven in table 15.

**Table 15: Speech-Language Therapy**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Disorders** | **Language Disorders** | | | **Voice Disorders** | | | **Articulation Disorders** | | | **Multiple Disorders** | | | **Total** |
| Months | C | A | G | C | A | G | C | A | G | C | A | G |
| April | 420 | 5 | 10 | 6 | 19 | 5 | 21 | 0 | 0 | 56 | 0 | 0 | **542** |
| May | 254 | 5 | 5 | 3 | 11 | 6 | 14 | 1 | 0 | 39 | 0 | 0 | **338** |
| June | 164 | 0 | 4 | 0 | 7 | 3 | 5 | 3 | 0 | 18 | 1 | 0 | **205** |
| July | 388 | 6 | 12 | 5 | 11 | 7 | 14 | 4 | 0 | 57 | 1 | 1 | **506** |
| Aug | 481 | 7 | 13 | 7 | 14 | 11 | 15 | 1 | 0 | 69 | 1 | 0 | **619** |
| Sept | 414 | 6 | 7 | 3 | 16 | 6 | 7 | 1 | 2 | 47 | 0 | 1 | **510** |
| Oct | 439 | 12 | 12 | 3 | 11 | 5 | 19 | 1 | 0 | 57 | 0 | 0 | **559** |
| Nov | 260 | 8 | 12 | 3 | 13 | 9 | 25 | 2 | 1 | 32 | 0 | 0 | **365** |
| Dec | 339 | 13 | 9 | 2 | 6 | 8 | 19 | 3 | 1 | 28 | 0 | 0 | **428** |
| Jan | 374 | 7 | 6 | 1 | 13 | 9 | 19 | 1 | 0 | 51 | 1 | 0 | **482** |
| Feb | 480 | 12 | 6 | 7 | 13 | 10 | 19 | 1 | 0 | 34 | 3 | 0 | **585** |
| March | 465 | 11 | 9 | 3 | 19 | 10 | 19 | 1 | 0 | 35 | 0 | 0 | **572** |
| **Total** | **4478** | **92** | **105** | **43** | **153** | **89** | **196** | **19** | **4** | **523** | **7** | **2** | **5711** |
| Disorder Wise | 4675 | | | 285 | | | 219 | | | 532 | | |
| **Over All** | **5711** | | | | | | | | | | | | |

*C- Child, A- Adult, G- Geriatric*

Speech and language assessment and therapeuticservices were also provided at the nine DHLS centres

of the Institute located throughout the country, the details of which are given in table 16.

**Table 16: Speech-language clinical services at the DHLS Centres**

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Speech and Language Pathology** | | | | | | | | | | |
| **Centers** | **Diagnostics/OPD/Case history** | | | | | **Therapy** | | | | |
| Language | Voice | Phonology | Fluency | MSD/  Dysphasia | Language | Voice | Phonology | Fluency | MSD/  Dysphasia |
| Ranchi | 113 | 4 | 9 | 52 | 0 | 178 | 10 | 8 | 212 | 00 |
| Cuttack | 190 | 18 | 53 | 87 | 00 | 86 | 8 | 33 | 64 | 00 |
| Ajmer | 132 | 43 | 118 | 102 | 00 | 337 | 29 | 136 | 188 | 00 |
| Lucknow | 23 | 10 | 30 | 36 | 00 | 74 | 41 | 103 | 106 | 00 |
| Mumbai | 795 | 15 | 16 | 25 | 34 | 1081 | 21 | 18 | 27 | 50 |
| New Delhi | 8 | 9 | 5 | 4 | 00 | 8 | 24 | 5 | 4 | 00 |
| Shimla | 56 | 198 | 71 | 46 | 00 | 112 | 126 | 126 | 73 | 00 |
| Bhagalpur | 76 | 8 | 1 | 12 | 00 | 1 | 00 | 00 | 00 | 2 |
| Mysore | 50 | 3 | 4 | 5 | 5 | 00 | 00 | 00 | 00 | 00 |
| Total | 1443 | 308 | 307 | 369 | 39 | 1877 | 259 | 429 | 674 | 52 |

**Audiological assessment and rehabilitation**

**Hearing Evaluation:** The hearing evaluation section of the Department of Audiology specializes in assessment of the hearing abilities of the individuals.

During the reporting year, the Section evaluated **14762** by administering various audiological tests such aspure tone audiometry, speech audiometry andotoacoustic emission and threshold-equalizingnoise test.Totally, **29524** ears were diagnosed withdifferent degrees of hearing loss including severe(4959) andprofound (4605) cases. Further,different types of hearing loss such as sensorineuralloss, mixed,conductive, auditory processingdisorders and auditory dys-synchrony wereidentified during theevaluation. The details ofhearing evaluation and diagnosis are given in table17 and figures 5-8.

|  |  |
| --- | --- |
| **Hearing Evaluation** | **Total** |
| Clients seen | **14762** |
| **Types of Evaluation** | |
| Audiotry brainstem response audiometry | 3913 |
| Behavioural observation audiometry | 709 |
| Immittance evaluation | 14022 |
| Otoacoustic emission test | 3167 |
| Pure tone audiometry | 13556 |
| Speech Audiometry | 12881 |
| Tinnitus evaluation | 242 |
| Vestibular evoked myogenic potentials test | 28 |
| **Degrees of hearing loss diagnosed** | |
| Ears with Normal hearing | 4780 |
| Ears with diff degrees of HL | **29524** |
| ·  Minimal | 2640 |
| ·  Mild | 3535 |
| ·  Moderate | 4214 |
| ·  Moderately severe | 4238 |
| ·  Severe | 4959 |
| ·  Profound | 4605 |
| . Minimal to mild | 77 |
| . Minimal to moderate | 20 |
| **Types of hearing loss diagnosed** | |
| Ears tested having | 17619 |
| . Conductive hearing | 3348 |
| . Mixed hearing loss | 4758 |
| . SN hearing loss | 9423 |
| **Other hearing disorders diagnosed** | |
| Clients with unil HL | 2458 |
| Clients with bil HL | 9594 |
| Ears with Aud. Dys-synchrony | 84 |
| Clients with auditory processing disorders | 21 |
| Clients with functional hearing loss | 126 |

Hearing aid trial was done for 10453 clients todetermine the appropriate hearing aids andassistive learning devices. The candidacy forcochlear implants was also determined. Thedetailed statistics on hearing aid trial and hearingaids prescribed during the report year are given intable 18.

**Table 18: Hearing aid trial and prescription**

|  |  |
| --- | --- |
| **Hearing Aid Trial** | **Total** |
| Clients evaluated for hearing devices | 10453 |
| * At the institute * At the camps |  |
| Clients tested in Hindi |  |
| Clients counseled in Hindi |  |
| Clients referred from camp to AIISH |  |
| Hearing Aids prescribed at AIISH | 6427 |
| Types of hearing aids distributed |  |
| . ADIP | 3707 |
| . Body level hearing aid | 45 |
| . Cost sharing |  |
| ·    Analogue BTE | 4 |
| ·    Digital BTE | 2465 |
| ·    Trimmer Digital BTE | 28 |
| ·    Digital ITE | 2 |
| ·    Digital ITC | 34 |
| ·    Digital CIC | 16 |
| . Digital RIC | 126 |
| Hearing aids prescribed on exchange | 150 |
| No. of clients recommended | 4209 |
| ·    Auditory training | 3265 |
| ·    Speech reading | 944 |
| Unaided/aided audiograms | 871 |
| Aided VRA | 433 |
| Programming of digital hearing aids | 1609 |
| No. of IGO done | 56 |
| EAC of hearing aids done | 257 |
| Recomd. for retrial with CEM | 705 |
| Recommended for ear plugs | 41 |
| Unaided & aided LLR done | 20 |

The ear mould laboratory made custom ear mouldsfor the clients who were prescribed hearing aids.Totally 8306 ear impressions of 5627 clients weretaken during the reporting year and 4000 earmoulds were made free of cost. The detailed earmould statistics are given in table 19.

**Table 19: Ear mould statics**

|  |  |
| --- | --- |
| **Earmold lab** | **Total** |
| Clients for whom ear impression taken | 5627 |
| * New clients | 4220 |
| * Old clients | 1407 |
| Clients from Karnataka |  |
| Clients from Kerala |  |
| Clients from Tamil Nadu |  |
| Clients from Andhra Pradesh |  |
| Clients from other states |  |
| Ear impressions taken |  |
| Ear impressions taken | 8306 |
| Ear moulds made free-of-cost | 4000 |
| Ear moulds madeon payment | 4306 |
| Ear Moulds completed | 8478 |
| Ear moulds issued | 7520 |
| Hard regular mouldsmade | 3713 |
| Hard shell mould made | 12 |
| Soft mould made | 4284 |
| Hard canal moulds | 0 |
| Soft canal moulds | 41 |
| ITC impression made | 54 |
| Swimmer plug (soft) | 157 |
| Swimmer plug (hard) | 0 |
| No. of ear blocked | 42 |
| EMs withaco. modificns. | 3 |
| Clients seen at camp | 608 |
| Ear impressions taken-camp | 1120 |
| CPL impressions received | 16 |
| CPL moulds completed | 16 |
| Def. ear imp recd by CPL | 0 |
| Income generated |  |
| * Spares |  |
| * Moulds making |  |
| * Postage |  |

Age-wise statistics of clients seen in HearingEvaluation, Hearing Aid Trial & Counseling sections and Ear Mold laboratory are given in table 20 and figure 9. Audiological assessment and rehabilitation serviceswere also provided at the nine DHLS centres of the Institute located throughout the country, thedetails of which are given in table 21 and figure 10.

**Table 20: Age-wise Audiological Assessment**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Age group in years** | **HE** | | **HAT** | | **EM** | |
| **Male** | **Female** | **Male** | **Female** | **Male** | **Female** |
| 00-01 | 164 | 84 | 145 | 104 | 89 | 65 |
| 02-05 | 991 | 749 | 1301 | 960 | 743 | 582 |
| 06-10 | 675 | 507 | 693 | 444 | 321 | 238 |
| 11-15 | 424 | 331 | 355 | 256 | 218 | 155 |
| 16-20 | 441 | 331 | 289 | 174 | 170 | 119 |
| 21-25 | 472 | 335 | 212 | 127 | 137 | 82 |
| 26-30 | 470 | 273 | 165 | 112 | 93 | 58 |
| 31-35 | 439 | 303 | 169 | 91 | 94 | 62 |
| 36-40 | 414 | 332 | 174 | 137 | 150 | 59 |
| 41-45 | 422 | 338 | 205 | 129 | 94 | 78 |
| 46-50 | 458 | 338 | 252 | 170 | 166 | 87 |
| 51-55 | 583 | 362 | 339 | 202 | 171 | 103 |
| 56-60 | 570 | 418 | 425 | 240 | 170 | 112 |
| 61-65 | 638 | 356 | 514 | 266 | 195 | 102 |
| 66-70 | 579 | 342 | 523 | 276 | 292 | 176 |
| 71-75 | 513 | 218 | 494 | 216 | 205 | 130 |
| 76-80 | 376 | 150 | 411 | 144 | 212 | 82 |
| 81-85 | 186 | 76 | 200 | 84 | 121 | 36 |
| 86-90 | 62 | 24 | 70 | 21 | 48 | 23 |
| 91+ | 33 | 12 | 36 | 9 | 25 | 8 |
| Total | **8910** | **5852** | **6988** | **4162** | **3714** | **2357** |



**Table 21: Audiological services at the DHLS Centres**

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Centers** | **Audiology (No of cases)** | | | | |
| **OPD**  **(Case history)** | **Evaluation** | **Ear moulds** | **Hearing aid trail (HAT)** | **Listening Therapy** |
| Ranchi | 2318 | 2396 | 00 | 00 | 14 |
| Cuttack | 4450 | 4450 | 00 | 00 | 324 |
| Ajmer | 1797 | 2069 | 00 | 00 | 209 |
| Lucknow | 00 | 5465 | 00 | 00 | 3 |
| Mumbai | 52 | 52 | 27 | 27 | 19 |
| New Delhi | 582 | 612 | 00 | 00 | 3 |
| Shimla | 70 | 50 | 800 | 20 | 15 |
| Bhagalpur | 1227 | 1093 | 00 | 00 | 00 |
| Mysore | 70 | 50 | 800 | 20 | 15 |
| Total | 10566 | 16237 | 1627 | 67 | 602 |

**Referred Evaluation-1: Psychological Assessmentand Rehabilitation**

Psychological assessment was carried out for thedeserving cases with communication disordersregistered at the institute by the Department ofClinical Psychology. This includes pre-vocationalassessment for adolescent/adults withcommunication disorders, neuro-psychologicalevaluations for individuals with neuro-linguistic/communication problems, psycho-educationalachievement testing and grade level assessmentfor children with scholastic backwardness andacademic under achievement and behaviorassessment for children with problembehaviors/skill deficits. In addition, familyassessment was done on specific cases requiringfamily intervention programmes.

Psychological assessment of 5485 new and 925 review cases was done at the clinic during thereporting year. This includes 165 Hindi cases. Thenew cases include patients with mental retardation(2095), expressive language disorders (1182), Average intelligence (725), learning disability (663),stuttering (507), misarticulation (239), aphasia (53),autism (32), cerebral palsy (43), functional voicedisorders (5), voice problem (13) and others (853).

The details are given in figure 11.



**Table 1: Details on Nature and type of therapy provided to cases**

|  |  |  |
| --- | --- | --- |
| Particulars | Cases | Sessions |
| Behavior therapy | 231 | 535 |
| Home based training program for MR/SLD | 43 | 64 |
| Remedial training for SLD cases | 29 | 105 |
| Parent counseling | 6410 | 6410 |
| Group Counselling | 42 |  |

**2: OtorhinolaryngologicalAssessment and Rehabilitation**

The Otorhino-laryngological assessment andrehabilitation for persons with communicationdisorders are being carried out at the Departmentof Otorhinolaryngology. In addition to the clinicalservices provided at the Institute, the Departmentstaff render diagnostic, therapeutic and surgicalservices at K.R. Hospital, Mysore Medical College.

Totally 18491 new and 19011 review cases wereexamined during the reporting year at the instituteand 6105 microscopic, 330stroboscopic /endoscopic, 115 vertigo, 71oto endoscopic and55 diagnostic naso endoscopic examinations werecarried out. Also, 7262 new and 5197 review caseswere examined and 86 major and 56 minor surgeries were successfully carried out at K.R.Hospital. The details of diagnostic services providedare given in table 23 and figure 12.

**Table 23: Otorhinolaryngological diagnostics**

|  |  |  |
| --- | --- | --- |
| Category | Cases New | Followup Cases |
| Chronic Suppurative Otitis Media | 4399 | 2765 |
| Sudden Hearing Loss | 4694 | 5687 |
| Delayed speech language with hearing loss | 2817 | 1415 |
| Acute Suppurative Otitis Media | 549 | 490 |
| Secretory Otitis Media | 759 | 827 |
| Acute Otitis Media | 274 | 353 |
| Otomycosis | 263 | 256 |
| MR/ DSL | 182 | 170 |
| Wax | 1390 | 1399 |
| Atresia/ Microtia | 48 | 43 |
| Keratosis obturans | 22 | 16 |
| Referred otalgia | 57 | 62 |
| Tinnitus | 295 | 288 |
| Vertigo | 207 | 162 |
| BPPV | 120 | 67 |
| Meniere’s Disease | 119 | 105 |
| Otitis Externa (Furunculosis, Dermatitis) | 331 | 436 |
| Eustachian Catarrah | 226 | 440 |
| Otosclerosis | 53 | 147 |
| Down’s syndrome | 15 | 35 |
| HaematomaAuris/ Perichondritis | 8 | 20 |
| Screening for hearing loss | 139 | 226 |
| Pre Auricular Sinus | 20 | 6 |
| Foreign Body Ear | 20 | 118 |
| Trigeminal Neuralgia | 1 | 0 |
| Temparomandibular Joint Arthritis | 7 | 18 |
| Vascular Headache | 7 | 15 |
| DSL | 61 | 76 |
| Cleft Palate | 12 | 18 |
| Cleft lip | 1 | 1 |
| Laryngitis | 32 | 29 |
| Pharyngitis | 24 | 36 |
| Ankyloglossia | 20 | 33 |
| Vocal Cord Nodules | 22 | 30 |
| Glottic Chink | 24 | 18 |



Figure 12: otorhinolaryngological diagnostics

**Specialized Clinical Services**

The institute provided a variety of specializedclinical services and evaluations for individuals withcommunication disorders during the reporting yearat the following clinical units.

**Augmentative and Alternative Communication**

**(AAC) Unit:** The AAC unit supported, enhanced andprovided alternative methods of communicationfor individuals who are non-verbal. The unitevaluated 56 new cases in 58 sessions and 259 therapy cases in 1563 sessions during the reportingyear. It also attended 17 demonstration therapy and 4 home training cases. In addition, 44 PG students of the institute were given training in 117 sessions. The details of AAC evaluation are given in Figure 13.



Figure 13: AAC evaluation

**Autism Spectrum Disorders (ASD) Unit:**Assessment and treatment were provided for 337clients with autism spectrum disorders at the ASDunit during the reporting year. Of them, 50 werefrom Hindi region. The unit also attended 766therapy and 95 demonstration therapy cases. Thirty one therapy cases discharged and 16 discontinuedduring the period. The total number of therapysessions conducted was 4589.

The occupational therapy section of the unitevaluated 74 cases in 64 sessions. There were173 therapy cases and 27 Demonstration Therapycases. Totally, 643 therapy sessions were carriedout. Five cases were discharged, one discontinued and 18 re-evaluated.

**Clinic for Adult and Elderly Persons with LanguageDisorders (CAEPLD):** CAEPLD provides clinicalservices to adult and elderly persons. Totally, nineclients were evaluated in the clinic during the

reporting year.

**Fluency Unit:** This unit catered to the needs ofpersons with stuttering and other fluency disordersand provided clinical services to 634(549 newcases and 45 review cases)persons with fluencydisorders during the reporting year. The unit alsoenabled the professionals to conduct research onneuroanatomical, neurophysiological and geneticaspects of fluency disorders (to be verified).

**Implantable Hearing Devices Unit:** The activities ofthis unit include selection of candidates, mapping/programming, trouble shooting of implantablehearing devices such as cochlear implant, boneanchoredhearing aids and middle ear implants.Rehabilitation of individuals using such devices was

also undertaken. Apart from this, student trainingand research activities were also conducted. Totally105 mapping and 72unaided/aided audiograms forCochlear Implants were done at the unit during the

reporting year. In addition, 52 bone anchoredhearing aids were tried and 49 Cochlear Implant

devices trouble shooted.

**Learning Disability Clinic:** The objectives of theclinic include early identification of students with

learning disability, undertake their detailedevaluation by a multi-disciplinary team of experts,plan individualized remediation programmes forthe identified students, serve as nodal center for

issue of certificates for certain educationalconcessions, conduct action research to facilitateadvocacy, policy change and public education anddevelop related literature/ materials for or aboutstudents with learning disabilities. The details ofthe activities carried out at the clinic during thereporting year are given in figure 14.



Figure14: Activities of LDC

**Listening Training (LT) Unit:** Clients who usehearing devices were provided with listeningtraining. Training was also imparted to clientshaving tinnitus, hyperacusis as well as cochlearimplantees. Totally, 3165 persons underwentlistening training comprising of 13294sessionsduring the reporting year. The detailed statistics onlistening training activities are given in table 24 andfigure 15.

**Table 24: Activities of LT unit**

|  |  |
| --- | --- |
| **Listening Training Unit** | **Total** |
| Clients seen | 3165 |
| New clients | 503 |
| Repeat clients | 2662 |
| Sessions taken | 13294 |
| demo therapy given | 272 |
| Clients discharged | 138 |
| Clients discontinued | 106 |
| Pre-school sessions attended | 570 |
| Clients given training in Hindi | 269 |
| Clients with CI trained | 202 |
| Sessions for clients with CI taken | 1218 |
| Clients with tinnitus attended therapy | 6 |
| Sessions for clients with tinnitus | 29 |
| Clients for speech reading | 19 |
| Clients with CAPD | 1 |
| Sessions for clients with CAPD | 16 |
| Clients for observation for session hearing aid fitting | 29 |
| Clients with ANSD | 7 |
| Sessions for clients with ANSD | 46 |
| Clients with hyperacusis | 2 |



Figure 16: Activities of LT Unit

**Motor Speech Disorders Unit:** This specialized unitcaters to the needs of persons with Motor SpeechDisorders. It enables them to realize their potentialand become contributing members of the society.The detailed clinical statistics of the unit for thereporting year are given in Table 16.

Table 16: Activities of MSD Unit

|  |  |
| --- | --- |
| **Details** | **Total** |
| No. of new clients for speech-language assessment | 41 |
| No. of new clients for intervention | 41 |
| No of Adults clients for Assessment of Swallowing disorder | 0 |
| No of Adults clients for intervention of Swallowing disorder | 4 |
| No. of new children for feeding assessment | 49 |
| No. of new children for feeding therapy (through home training) | 47 |
| Follow up intervention sessions for speech-language issues | 20 |
| Follow up intervention sessions for feeding issues (activities given for home training) | 27 |
| Counseling | 53 |
| No. of Hindi cases | 12 |

**Neuropsychology Unit:** This is a new unit openedduring the reporting year. It will serve as a nodal

point in the area of (write up to be changed) neuro-cognitive research andrehabilitation for clinical conditions like Aphasia,Cerbrovascular Accidents (Stroke or CVA), LearningDisability (LD), Cerebral Palsy, Traumatic BrainInjury (TBI), Parkinson’s Disease, Dementias, andother progressive or non-progressive neurologicaldisorders.

The service offered in the centre includes theassessment of specific function of the brainthrough standard individualized test, detailedassessment of lobular functions throughstandardized batteries and rehabilitation throughpaper pencil techniques or through computerassisted packages. Totally 21 Neuropsychologicalassessments, 12 Neuropsychologicalrehabilitation and 07 home based neuropsychological rehabilitationwere made during the reporting yearin the unit.

**Professional Voice Care (PVC) Unit**: The unitprovided specialized assessment and managementservices to professional voice users during thereporting year. It organized various programs toorient and sensitize professional voice users oncare, maintenance and conservation of voice.Specialized training in the assessment andcounseling of professional voice users wasimparted to 16 final year M.Sc. (SLP) and 30Internship students for 181 hours and 231 hours,respectively.

**Structural Orofacial Anomalies (U- SOFA) Unit:**Clients with deformalities in the growth of headand facial bones were given multi-disciplinarydiagnostic and rehabilitatiion services in the clinic.Totally 163 clients were evaluated at the clinic bythe experts. The detailed clinical statistics of theunit are given in figures 17-18 and table 25.

|  |  |  |
| --- | --- | --- |
| 1. | No. of clients | 163 |
| 2. | No of sessions | 617 |
| 3. | No of DT clients | 13 |
| 4. | No of clients discharged | 5 |

|  |  |  |
| --- | --- | --- |
|  | **Pediatric** | **Adult** |
| *Diagnostics* |  |  |
| No. of clients evaluated by plastic surgeon | 148 | 17 |
| No. of clients evaluated by prosthodontist | 1 | - |
| No of cases seen by orthodontist | 23 | 6 |
| *Rehabilitation Recommended* |  |  |
| No of cases recommended for orthodontic treatment | 21 | 3 |
| No. of clients recommended for surgery | 28 | 3 |
| No. of clients recommended for speech therapy | 36 | 29 |
| No. of client recommended for Prosthesis | - | - |
| *Details of rehabilitation* |  |  |
| No. of session taken for preparation of prosthesis | 6 | - |
| No. of speech prosthesis prepared | 1 | - |
| No. of cases attended speech and lang. therapy | 52 | 9 |
| Total No of cases attended Demonstration therapy | 24 | - |
| No of sessions ( D.T ) | 41 | 6 |
| No of speech and language therapy sessions held | 568 | 6 |
| *Manpower development* |  |  |
| No of postgraduate students trained | | 66 |

**Vertigo Clinic:** The clinic offered comprehensivecare in evaluation and management of patientswith vertigo. A multidisciplinary team comprising ofENT surgeon, neurologist and audiologist evaluated115(confirmed with Ms. Raguna) patients in the clinic for both peripheral andcentral vertigo during the reporting year anddiagnostic tests like microscopic examination ofear, electronystagmography, vestibulo spinal tests,neurological evaluation, video nystagmography,audiological tests and vestibular evoked myogenicpotential test were carried out for the needy ones.

**Voice Clinic**: This clinic offered evaluation andmanagement services to persons of all ages withvoice disorders. So far, 403 (input-oral) clients with voicedisorders were evaluated in the clinic using videostroboscopy and software for voice assessment.

**Medical Specialty & Allied Health Services :**The institute facilitated the services of variousmedical specialists such as pediatrician,neurologist, plastic surgeon, prosthodontist,orthodontist, phono- surgeon and services of alliedhealth professionals such as physiotherapist andoccupational therapist, to the needy clients. Totally845 patients underwent occupational therapy in5931 sessions and 819 underwent physiotherapy in7234 sessions, during the reporting year. Inaddition, 771, 325,202, 60, 12 and 125 clientsconsulted neurologist, pediatrician, plastic surgeon,ortho-dontist, prosthodontist and phono-surgeon,respectively. The details are given in figure 19.

|  |  |
| --- | --- |
| **Consultants** | **Total** |
| Neurologist | **771** |
| Pediatrician | **325** |
| Phonosurgeon | **125** |
| Plastic Surgeon | **202** |
| Orthodontist | **60** |
| Prosthodontist | **12** |
| Physio and Occupational Therapy | **1172** |

Human Genetic Unit: Counseling and Guidance : Genetic counseling done for 2 cases

**Special Educational Services**

The institute provided special educational services to children with communication disorders belonging to different age groups under the aegis of the Department of Special Education. The major services given during the reporting year are the following.

**Special Educational Services**

In order to achieve the mission of mainstreaming Children with Special Needs, various services such as Special Educational Assessment Unit (SEA-U), Parent Infant Program (PIP), Preschool Parent Empowerment Program (PPEP), Preschool Program, Preschool Bridge Course (PBC), Individualized Education Program (IEP), Curricular Support Services (CSS), Non formal education (NFE), Demonstration Educational Training (DET) and Guidance and Counseling to children with communication disorders and their caregivers are provided. In addition, parents / caregivers are empowered to manage children with special needs through training for parallel teaching in preschool. Practical training is also provided to them in developing special teaching-learning material for children with communication disorders. Also, basic literacy and computer literacy program are also provided. The activities are being carried out by the pre-school functioning under the aegis of the Department of Special Education. The details of the various services /activities carried out during the reporting year are given below.

**Educational and rehabilitation services for children with special needs**

1. **Parent Infant Programme**: This caters to the needs of the children with communication disorders in their infancy and toddlerhood. During the reporting year, 24 such children (14 Kannada, 6 Malayalam, 1 Hindi, 1 Telugu, 1 Tamil and 1 English) were provided early stimulation services through 1243 sessions.
2. **Pre-school Parent Empowerment Programme:** Parents of 266 children of 2.5-3 years suffering from various communication disorders were empowered to prepare their children for preschool. Language wise, 157 Kannada, 87 Malayalam and 5 Hindi parents benefitted the service in 2412 sessions.
3. **Pre-school Training:** Totally …. children with communication disorders underwent preschool training in …. sessions during the reporting year. The training was given in two batches during the periods April-November, 2014 and December, 2014-March, 2015. Disorder wise, sixty three autism, 171 mentally retarded and 196 hearing impaired and six multiple disabled children were trained. They were provided with curricular training as well as training in co-curricular activities such as yoga, drama, music and craft works.
4. **Preschool Bridge Course:** The preschool Bridge Course aims to prepare children with special needs who are intervened late and failed to avail pre-school training until six years of chronological/ developmental age for enrolment in school by providing one year crash course. Totally, 26 children underwent bridge course during the reporting year.
5. **Curricular Support Service (CSS) and Individualized Education Program (IEP):** These services are being provided to the children with communication disorders attending the regular schooling. Totally 43 children were provided with CSS and nine with IEP in 1873 and 281 sessions respectively during the reporting year.
6. **Non Formal Education Program (NFE) and Demonstration Education Training (DET):** These services are being offered to the children with communication disorders who are either out of school or unable to cope up with the regular school curriculum. Totally, six children were provided with NFE/DET in 160 sessions during the reporting year.
7. **Special Educational Assessment Unit (SEAU):** This is a new unit opened during the reporting year to provideassessment services to the children with communication disorders to determine their academic attainment to suggest an appropriate grade, placement as well as necessary services. Screening and referrals were carried out for 397 children during the reporting year. Also, detailed educational assessments were made and reports generated for 61 children in 158 sessions.
8. **Unit for Sensory Adaptation for Children (U-SAFE):** This is a dedicated unit for providing sensory motor integration and self-help skills for the children with multiple sensory issues, using specialized materials such as balancing beam, acupuncture mats and therapeutic balls. Totally, 109 children had received training through 153 sessions during the reporting year.

**Parent Empowerment Services**

1. **Counseling and Guidance:** This service is provided to caregivers and educators in the field for helping them support the education of children with communication disorders. Totally, 495 persons received counseling and guidance in 549 sessions.
2. **Computer Training:** Fifty seven caregivers/parents of special children were given basic computer training in 250 sessions.
3. **Literacy Training:** The Caregivers’ Literacy Training Unit provided training in reading, wring and arithmetic skills for 10 parents of special children in 40 sessions.
4. **Parent Enrichment Programs (PEP):** Thirteen parent enrichment programmes were carried out to educate the parents/care givers on topics such as home training plan, bio medical waste management, language development in children with special needs, prevention, early identification & intervention for communication disorders, welfare measures for children with communication disorders, nutrition for children with communication disorders, self help Skill and 1049 parents/care givers benefitted the programmes\
5. **Parents Help Parents Program (PHPP):** This is a new program launched for the benefit of the parents where in the experienced parents of children with special needs will share their experiences with the fresh parents of children with special needs. Totally three such programmes were carried out during the reporting year in which 216 parents/caregivers handling their children were trained in matters like managing their stress levels while dealing with their child and dealing with their child more efficiently.

**Other Services/ Activities**

1. **Organization of Summer Camp:** A one month summer camp was organized for children with disability from 1st to 23rd May, 2014 and 48children attended the camp.



A summary of special educational services providedduring the reporting year are given in table 26.

|  |  |  |
| --- | --- | --- |
|  | Clients | Sessions |
| Parent Infant Programme | 24 | 1243 |
| Parents empowerment | 266 | 2412 |
| Pre-school training and Bridge Course for children with communication disorders | 430 | 43700 |
| Co-curricular training |  |  |
| Curriculum support service | 58 | 2314 |
| Counselling and guidance | 495 | 549 |
| Computer training | 57 | 250 |
| Literacy training | 10 | 40 |
| Special educational assessment unit | 397 | 397 |

**Clinical Support Services**

The institute extended a diverse range of supportservices to patients and their family. These include

the following.

**Distribution and Repairing of Hearing Aids:** TheDepartment of Electronics of the Institute carriedout the electro-acoustic evaluation, managementand issue of hearing aids. Hearing aids weredistributed under ADIP Scheme of Ministry of SocialJustice and Empowerment, Government of Indiaand AIISH Hearing Aid Dispensing Scheme. Totally4286 hearing aids with solar battery chargers weredistributed at the main campus (3314), camps(831), and clinical outreach centers (141), afterelectro-acoustic evaluation and testing under ADIPscheme. Under AIISH Hearing Aid DispensingScheme, 1831hearing aids were issued atconcessional rate. The department also repaired577 body level and 738 BTE hearing aids.

**Counseling and Guidance:** The professional expertsof the Institute provided counseling and guidanceon various aspects of the disorders such astreatment procedures, usage and care of tools likehearing aids during the reporting year.

**Distribution of toy kits:** Fifty toy kits weredistributed to eligible disabled children belowpoverty line during the International Day ofPersons with Disabilities on 3rd December 2013. (not there in input from Dept. of Clin. Psy)

**Issue of Certificates:** Various certificates likefinancial aid, income tax exemption, educationalscholarship, and school admission were issued tothe eligible candidates during the reporting year,the details of which are given in table 32 and figure20.

|  |  |
| --- | --- |
| **Particulars** | Total |
| Transfer certificate | 28 |
| Evaluation reports | 536 |
| Attendance certificate | 59 |
| School admission certificate/  Language exemption certificate | 78 |
| Gen Correspondences Letter English | 106 |
| Gen Correspondences Letter Hindi | 60 |
| Correspondence by e-mail in English | 115 |
| Correspondence by letters in English | 32 |
| Financial aid (monthly pension of GOK) | 1045 |
| Admission to deaf school | 470 |
| Physically handicapped | 133 |
| Tax exemption | 73 |
| Education scholarship | 31 |
| Others | 85 |
| Certificate issued at camp | 61 |
| Financial Aid | 360 |
| MR Certificate | 712 |
| Railway concession certificate | 113 |
| Learning disabilities. certificate | 270 |
| Psychological Report | 245 |
| Slow Learner Certificate | 104 |
| Income Tax Exemption Certificate | 26 |
| Medico-legal cases | 10 |
| Bonafide certificate | 45 |
| Driving license | 14 |
| LIC | 2 |
| CI | 54 |

**Clinical Observation Posting**

The institute facilitated clinical observation postingfor students in the area of communicationdisorders and allied fields from other institutes inthe country and abroad. Around one thousandstudents and staff from 47 institutions across thecountry and abroad were posted for clinicalobservation in different clinical units anddepartments of the institute during the reportingyear. The details of the institutions are given intable 28.