

# CLINICAL CARE

## Patient Registration

Totally 13,432 new clients were registered for availing clinical services at the institute during the reporting year. In addition, 29,965 case files were retrieved for repeat/follow up visits for various evaluations. The geographical and gender-wise details of new clients are given in table 1. Majority of them (12970) were from Karnataka, the state in which the institute is located, followed by the neighboring states of Kerala (174), Tamil Nadu (88), and Andhra Pradesh (67). Also, there were clients from Maldives, Nepal, Qatar, UAE, U.K and USA. The clients include 8136 males and 5296 females.

**Table 1: Geographical & gender-wise distribution of new clients**

Sl. No	Locality	Male	Female	Total
1	Andhra Pradesh	46	21	67
2	Arunachal Pradesh	-	1	1
3	Assam	2	1	3
4	Bihar	12	2	14
5	Chattisgarh	2	1	3
6	Delhi	4	3	7
7	Goa	1	-	1
8	Gujarat	7	-	7
9	Haryana	1	2	3
10	Jarkhand	6	2	8
11	Karnataka	7817	5153	12970
12	Kashmir	2	1	3
13	Kerala	117	57	174
14	Madhya Pradesh	3	2	5
15	Maharashtra	8	6	14
16	Orissa	6	2	8
17	Punjab	1	-	1
18	Rajasthan	9	4	13
19	Sikkim	1	-	1
20	Tamil Nadu	59	29	88
21	Telangana	8	-	8
22	Tripur	1	-	1
23	Uttar Pradesh	11	5	16
24	Uttaranchal	2	1	3
25	West Bengal	6	1	7
26	Overseas	4	2	6
<b>Total</b>		<b>8136</b>	<b>5296</b>	<b>13432</b>

## Speech and Language Assessment and Rehabilitation

Totally, 3953 clients underwent speech and language evaluation which include 2,824 new and 1129 review cases. Of the 2824 new cases, assessment was carried out for 2350 clients in physical mode and 474 in virtual mode.

Of the new cases, 2,732 persons were identified with various kinds of speech and language disorders and 92 were found to have normal speech. Whereas, of the 1129 review cases, 1098 persons were with various disorders, and the remaining 31 were normal. The details of various speech and language disorders diagnosed are given in table 2 and figure 1.

**Table 2: Assessment of Speech-Language Disorders**

Disorders	Language Disorders			Fluency Disorders			Voice Disorders			Articulation Disorders			Multiple Disorders			Normal			Total
	C	A	G	C	A	G	C	A	G	C	A	G	C	A	G	C	A	G	
Months	C	A	G	C	A	G	C	A	G	C	A	G	C	A	G	C	A	G	
April	Lockdown period																		
May	35	0	0	8	4	0	2	1	2	2	2	0	0	0	0	2	0	0	58
June	107	31	1	23	5	0	1	21	5	4	0	0	1	0	0	4	3	0	206
July	32	6	1	10	6	0	0	4	0	1	2	0	0	0	0	0	1	0	63
Aug	84	14	3	7	4	0	2	1	2	4	2	0	5	3	0	2	1	0	134
Sept	123	25	4	16	2	0	2	3	1	12	7	1	6	6	0	4	7	0	219
Oct	103	31	1	12	10	0	0	5	1	6	8	0	4	1	0	4	9	0	195
Nov	138	27	1	19	3	0	2	10	3	5	4	0	4	6	0	8	1	0	231
Dec	242	31	0	29	15	0	4	16	4	19	8	1	4	1	0	7	6	1	388
Jan	259	31	2	18	10	0	3	13	3	21	10	0	9	1	1	13	0	0	394
Feb	316	47	1	26	11	0	1	18	7	16	10	5	10	4	0	4	4	0	480
March	276	67	9	28	12	0	1	19	2	17	2	1	9	2	0	6	5	0	456
<b>Total</b>	1715	310	23	196	82	0	18	111	30	107	55	8	52	24	1	54	37	1	2824(N) + 1129(R)
Disorder Wise	2048(N)+869(R)			278(N) + 80(R)			159(N) +22(R)			170(N) +67(R)			77(N)+60(R)			92(N)+31(R)			
<b>Over All</b>	<b>3953</b>																		

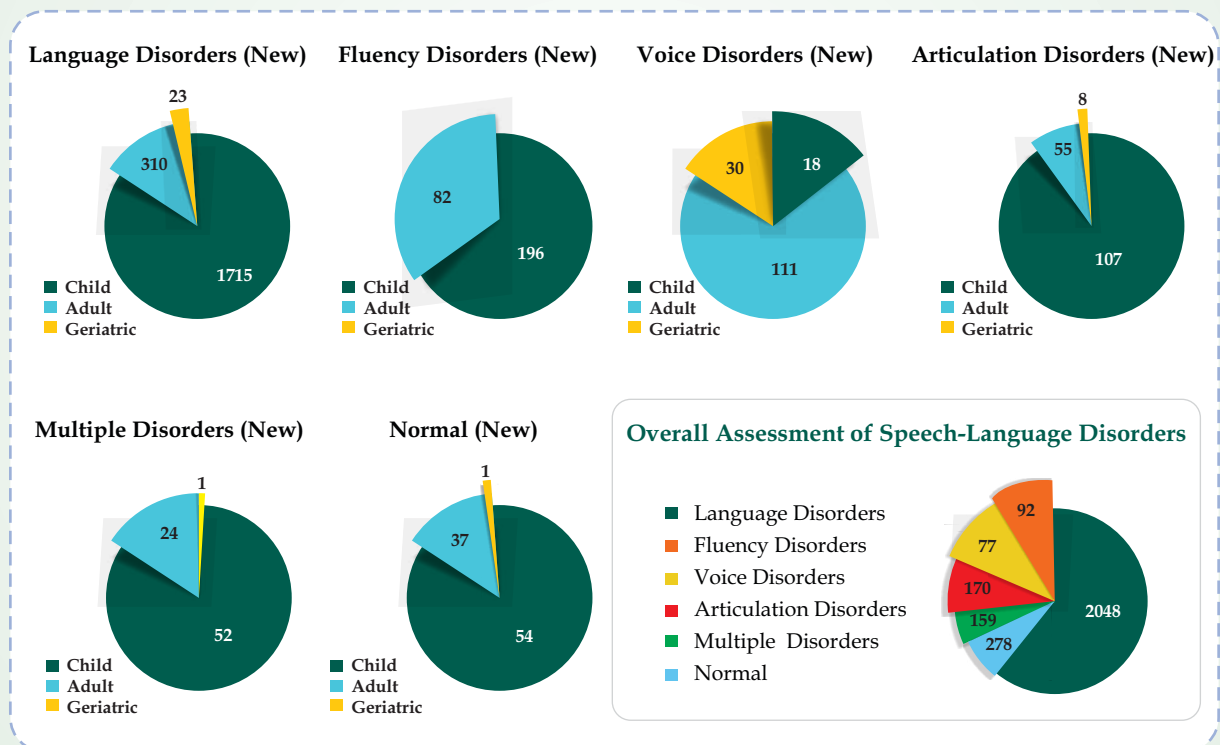
C- Child, A-Adult, G-Geriatric, N-New cases, R-Review cases

## Speech and Language Assessment and Rehabilitation

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Of the new cases, 2,732 persons were identified with various kinds of speech and language disorders and 92 were found to have normal speech. Whereas, of the 1129 review cases, 1098 persons were with various disorders, and the remaining 31 were normal. The details of various speech and language disorders diagnosed are given in table 2 and figure 1.

Figure: 1 Assessment of Speech-Language Disorders (New cases Disorder-wise)



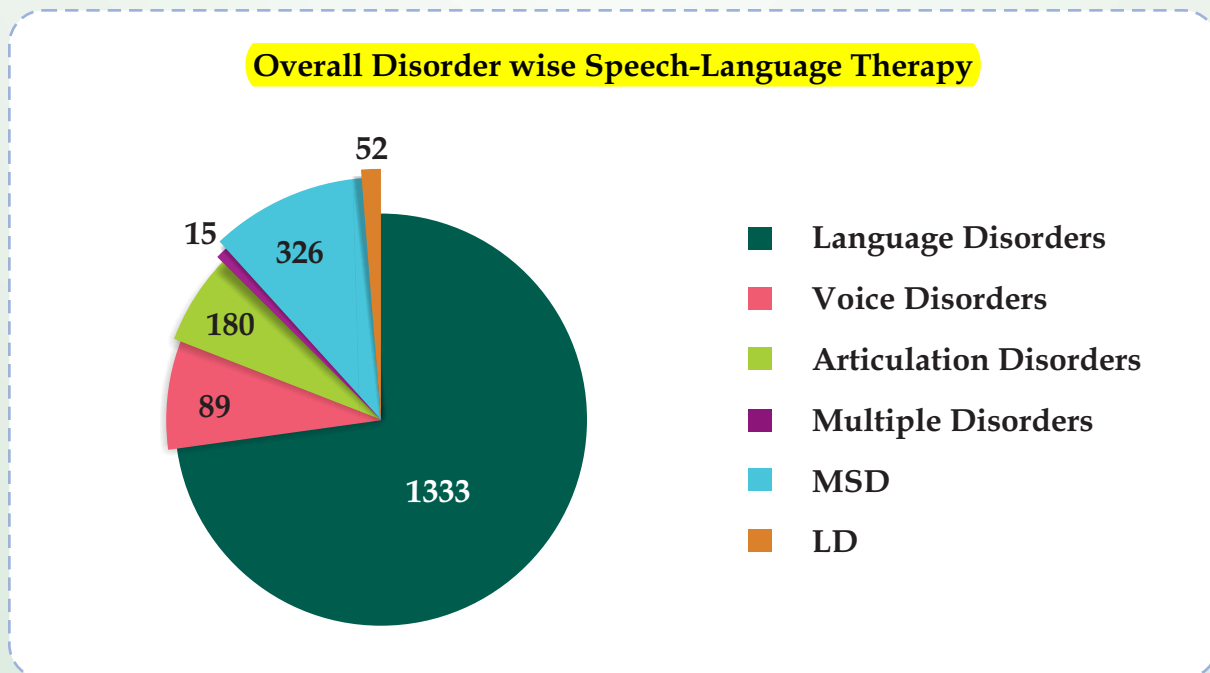
Clients requiring further management were given various speech/language therapies depending upon the type and severity of disorder, for daily sessions of 45 minutes duration. In addition to the normal physical mode, the therapy sessions were conducted in virtual mode. A total of 1995 persons with speech/language disorders under went therapy in physical mode, and 791 persons underwent therapy in virtual mode during the reporting year. The total therapy sessions were 16667. The details of disorder-wise therapy carried out are given in table 3 & 4, and figure 2 & 3.

**Table 3: Speech-Language Therapy (Virtual mode)**

Disorders	Language Disorders			Voice Disorders			Articulation Disorders			Multiple Disorders			MSD			LD			Total
	C	A	G	C	A	G	C	A	G	C	A	G	C	A	G	C	A	G	
Months	C	A	G	C	A	G	C	A	G	C	A	G	C	A	G	C	A	G	
<b>April</b>	Lockdown period																		
May	84	14	1	10	0	0	38	0	0	12	3	0	0	6	1	0	0	0	169
June	120	14	0	1	6	2	10	2	0	0	0	0	44	0	0	15	0	0	214
July	91	11	2	0	6	3	10	6	0	0	0	0	26	0	0	9	0	0	164
Aug	80	5	4	2	6	2	6	3	0	0	0	0	34	0	0	4	0	0	664
Sept	76	6	2	1	4	1	4	4	0	0	0	0	23	0	0	3	0	0	124
Oct	127	6	2	1	7	0	8	8	0	0	0	0	34	0	0	3	0	0	196
Nov	134	6	2	1	7	0	10	7	0	0	0	0	35	0	0	3	0	0	205
Dec	97	2	2	0	5	0	7	6	0	0	0	0	22	0	0	2	0	0	143
Jan	111	2	2	0	4	1	6	8	0	0	0	0	28	0	0	2	0	0	164
Feb	97	1	1	1	5	2	7	7	0	0	0	0	20	0	0	1	0	0	142
March	223	8	0	3	8	0	20	3	0	0	0	0	53	0	0	9	1	0	328
<b>Total</b>	<b>1240</b>	<b>75</b>	<b>18</b>	<b>20</b>	<b>58</b>	<b>11</b>	<b>126</b>	<b>54</b>	<b>0</b>	<b>12</b>	<b>3</b>	<b>0</b>	<b>319</b>	<b>6</b>	<b>1</b>	<b>51</b>	<b>1</b>	<b>0</b>	
Disorder Wise	1333			89			180			15			326			52			1995
Total no. of Cases	1995																		
Total no. of Sessions	9080																		

C- Child, A- Adult, G- Geriatric

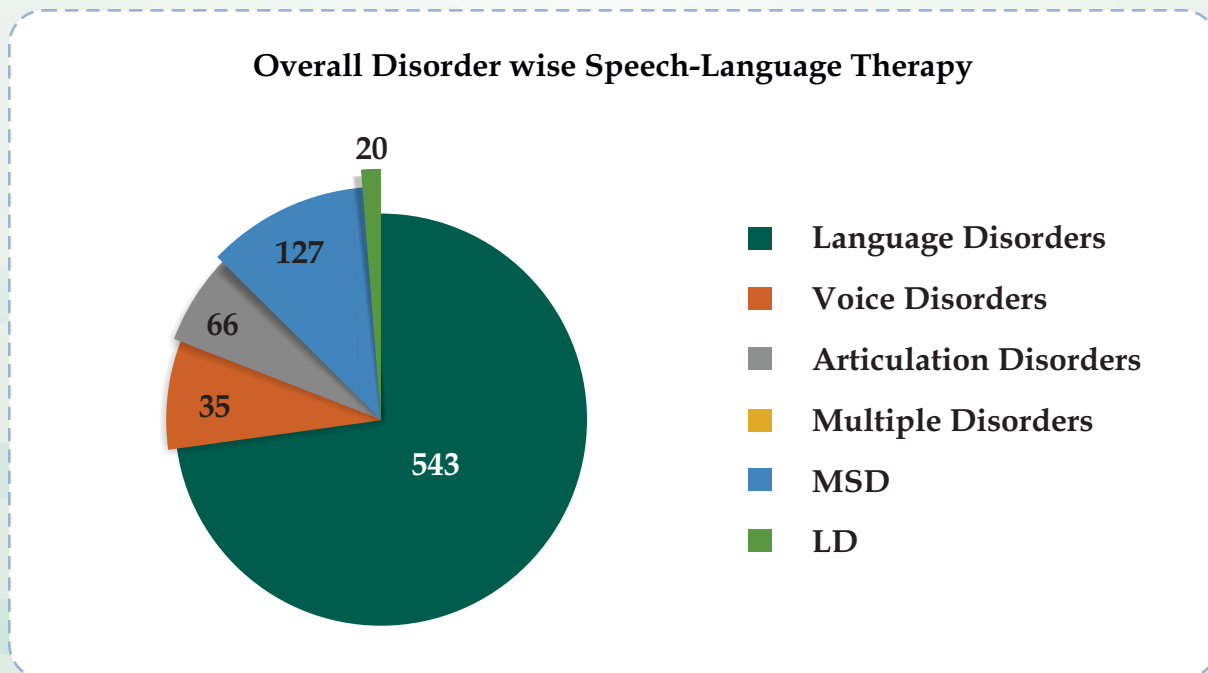
**Figure 2: Overall Disorder wise Speech-Language Therapy (Virtual mode)**



**Table 4: Speech-Language Therapy (Physical mode)**

Disorders	Language Disorders			Voice Disorders			Articulation Disorders			Multiple Disorders			MSD			LD			Total																		
	C	A	G	C	A	G	C	A	G	C	A	G	C	A	G	C	A	G																			
Months	C	A	G	C	A	G	C	A	G	C	A	G	C	A	G	C	A	G																			
20-Apr	<i>The services were provided through virtual mode due to the pandemic</i>																																				
20-May																																					
20-Jun																																					
20-Jul																																					
20-Aug																																					
20-Sep																																					
20-Oct																																					
20-Nov																																					
20-Dec																			110	6	0	0	9	1	18	2	0	0	0	0	26	0	0	1	1	0	174
21-Jan																			187	9	0	2	12	0	22	1	0	0	0	0	48	0	0	8	0	0	289
21-Feb	223	8	0	3	8	0	20	3	0	0	0	0	53	0	0	9	1	0	328																		
21-Mar	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0																		
<b>Total</b>	<b>520</b>	<b>23</b>	<b>0</b>	<b>5</b>	<b>29</b>	<b>1</b>	<b>60</b>	<b>6</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>127</b>	<b>0</b>	<b>0</b>	<b>18</b>	<b>2</b>	<b>0</b>																			
Disorder Wise	543			35			66			0			127			20			791																		
Total no. of Cases	791																																				
Total no. of Sessions	7379																																				

**Figure 3: Overall disorder-wise Speech-Language Therapy (Physical mode)**





**Table 5 : Speech-Language clinical services at the DHLS Centres**

Centers	Assessment					Therapy				
	Language	Voice	Phonology	Fluency	MSD/ Dysphasia	Language	Voice	Phonology	Fluency	MSD/ Dysphasia
Mysore	131	30	22	27	-	-				
Lucknow	12	3	4	7	-	26	10	20	12	-
Mumbai	209	2	4	2	20	302	7	10	13	58
New Delhi	8	17	6	4	1	38	46	14	11	3
Ranchi	55	-	17	18	-	56	-	11	18	-
Bhagalpur	05	01	01	03	-	36	10	15	25	-

*MSD: Motor Speech Disorders*

## Audiological Assessment and Rehabilitation

Hearing evaluations were carried out on individuals who complained of hearing problems. In the Audiology out patient department, a total of 10358 clients were assessed and hearing evaluations were carried out for 6686 individuals. Of the 6686 clients evaluated, 2569 were female and 4117 male. The details of the audiological evaluation are given in table 6.

**Table 6: Hearing Evaluation**


Sl.	Category	Total
1	Clients seen in Outpatient department	10358
2	Hearing Evaluation	6686
3	Normal hearing	1398
4	Minimal	862
5	Mild	1091
6	Moderate	1181
7	Moderately severe	1147
8	Severe	905
9	Profound	1021
10	Minimal to mild	4
11	Mild to moderate	52
12	Moderate to severe	54
13	Moderately severe to severe	62
14	Severe to profound	138
15	Moderate to severe	3
16	Sloping	480

Sl.	Category	Total
17	Ears tested having	
	• Conductive hearing	1477
	• Mixed hearing loss	2412
	• Sensorineural hearing loss	4169
14	Severe to profound	138
15	Moderate to severe	3
16	Sloping	480
17	Ears tested having	
	• Conductive hearing	1477
	• Mixed hearing loss	2412
	• Sensorineural hearing loss	4169
18	Clients with unilateral hearing loss	703
19	Clients with bilateral hearing loss	5107
20	Ears with auditory dys-synchrony	39
21	Clients with auditory processing disorder	2
22	Clients with functional hearing loss	56
23	Clients - tinnitus evaluation	147
24	Clients for Pure Tone Audiometry	6269
25	Clients for Speech Audiometry	1289
26	Clients for Immittance evaluation	6348
27	Clients for Otoacoustic Element	1072
28	Clients for Auditory Brainstem Response	990
29	Clients for Vestibular Evoked Myogenic Potential	2
30	Clients for Video Head Impulse Tests	1
31	Clients for Behavioral Observation Audiometry	138
32	Clients for Visual Reinforcement Audiometry	14
33	Behavioral Vestibular Assessment	2

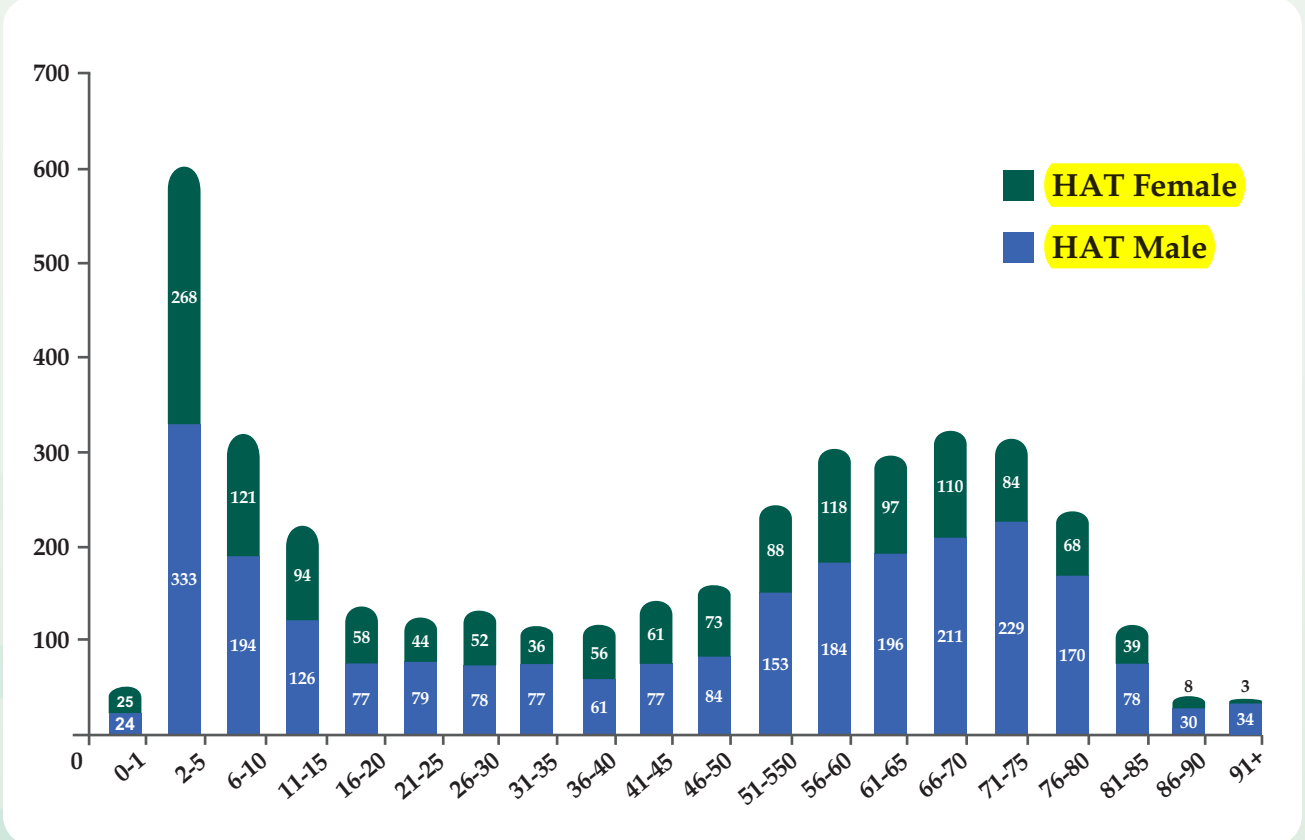


Hearing aid trial and prescription were carried out for clients in need for amplification and/or assistive listening devices. Clients evaluated of hearing aids were 3321 and 2682 hearing aids were prescribed at AIISH. Of the 3321 clients evaluated, 1216 were female and 2105 male. The details are given in table 7 and figure 4.

**Table 7: Hearing Aid Trial**

Hearing Aid Trial	Total
No. of clients seen for Hearing Aid Trial	3321
Hearing aids prescribed at AIISH	2682
Body level hearing aids	196
Analogue BTE hearing aids	790
Digital BTE hearing aids	1702
Trimmer Digital BTE	2
Digital ITE hearing aids	514
Digital ITC hearing aids	7
Digital CIC hearing aids	20
Digital RIC hearing aids	305
Testing for CI candidacy	10
No. of clients recommended 	
Auditory training	498
Speechreading	132
Unaided/aided audiograms	99
Aided audiogram for Cochlear Implant	50
Behavioural Observation Audiometry	5
Aided Visual reinforcement Audiometry	3
Conditioning	131
Programming of digital Hearing Aid	1680
Reprogramming of Hearing Aid	1429
Retrial with Custom Ear Mould	278
Recommended for ear plugs	2
<del>Recommended for</del> Cochlear Implant candidacy	56





**Figure 4: Hearing Aid Trial**

At the Ear mold lab, ear impressions were taken for 4124 clients. These include 575 new and 3420 old clients at AIISH and 129 in community-based camps. The earmold details are given table 8.

**Table 8: Earmold Statistics**

Category	Total	Category	Total
Clients attended	4406	No. of sound tube issued	181
New clients	575	Hard regular molds	34
Old clients	3420	Hard shell mold made	561
At Camp	129	Soft mould made	2
<b>Ear impressions taken</b>		Hard canal molds	443
Free-of-cost	3187	Soft canal molds	17
100% payment	3601	Instant molds	92
Ear impressions taken-camp	129	ITC impression made	24
CPL impressions	4	Swimmer plug (hard)	5
Ear Molds completed	4423	No. of ear blocked	1359
No. Molds Lacquered	1521	Ear Molds with acoustic modifications	1178
		No. of students posted	3187

Audiological services were also provided at the DHLS centres of the Institute located in different parts of the country, the details of which are given in table 9.

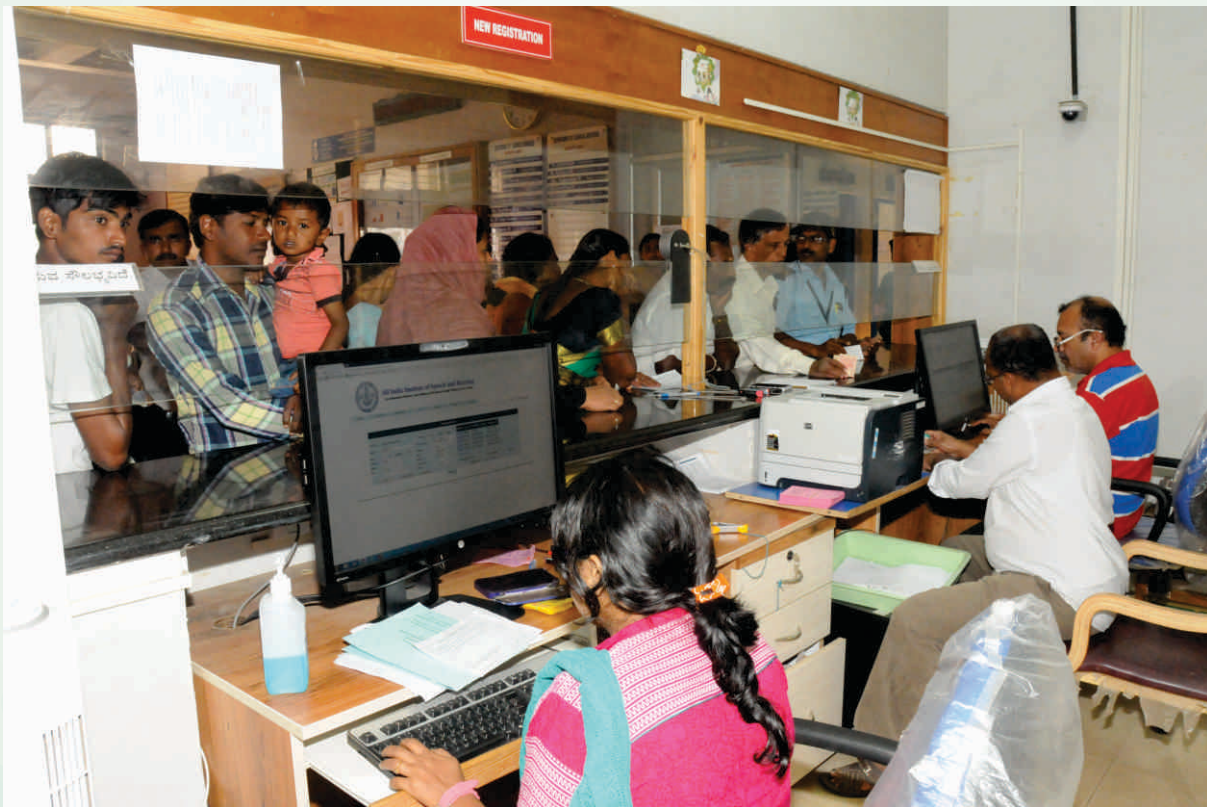
**Table 9: Audiological services at the DHLS centres**

Centers	OPD (Case history)	Evaluation	Earmolds	Hearing aid trial (HAT)	Listening
Mysore	70	156	78	75	-
Ranchi	1110	1110	Nil	Nil	Nil
New Delhi	430	476	0	16	0
Bhagalpur	219	219	-	-	-
Mumbai	28	28	-	-	-
Lucknow	945	945	0	0	0

## Referred Evaluation-1: Psychological Assessment and Rehabilitation

Psychological assessment was carried out for the referred cases registered at the Department of Clinical Psychology. This includes Routine Psycho-Diagnostic Assessment for Screening and Identification detailed psychological assessment (including specialized assessment such as assessment for Learning Disability, neuropsychological assessment, assessment for disability certification, behavioral assessment and assessment for skill training), Psychological Intervention (including behavior modification programs, home based skill training programs, cognitive-behavior and group intervention programs for caregivers).

Routine psycho-diagnostic assessment was carried out for 2435 new and 670 repeat cases at the Department during **there porting** year. The detailed is given in table 10.



**Table 10: Routine Psycho-Diagnostic Assessment**

Classification of disorders according to the criteria included in Chapter V (F) of ICD-10		
F 70#	Mental retardation	797
F 80.0	Specific speech articulation disorder	126
F 80.1	Expressive language disorder	271
F 80.2	Receptive language disorder	234

### Classification of disorders according to the criteria included in Chapter V (F) of ICD-10

F 70#	Mental retardation	797
F 80.0	Specific speech articulation disorder	126
F 80.1	Expressive language disorder	271
F 80.2	Receptive language disorder	234
F 88#	Other disorders of psychological development	135
F81#	Specific developmental disorders of scholastic skills	270
F 84#	Pervasive developmental disorders	34
F 98.5	Stuttering (stammering)	224
F 44.4	Dissociative motor disorders	3
F00-F99	<i>Other</i> disorders included in Chapter V (F) of ICD-10	462

*The code # refers to "condensed" codes (Ref ICD-10 PC )*

### Classification according to the criteria included in Chapter XVIII (R) of ICD 10

R 47.0	Dysphasia and aphasia	23
R 41.83	Borderline Intellectual Functioning	369

*Avg. Intelligence with disorders classified elsewhere* 157

<b>TOTAL</b>		<b>3,105</b>
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Psychological assessment includes intelligence / developmental (203 cases in 322 sessions), psycho-educational (226 cases in 509 sessions), neuropsychological (7 cases in 48 sessions), personality (23 cases in 28 sessions), behavioural (2 cases in 5 sessions) and forensic assessments (4 cases in 18 sessions). The psychological intervention provided includes behaviour modification (69 cases in 162 sessions), cognitive behaviour therapy (8 cases in 22 sessions) neuropsychological rehabilitation (3 cases in 9 sessions).

## Referred Evaluation-2: Otolaryngological Assessment and Rehabilitation

The Otorhino-laryngological assessment and rehabilitation for persons with communication disorders were being carried out at the Department of Otolaryngology. In addition to the clinical services provided at the Institute, the Department staffs rendered diagnostic, therapeutic and surgical services at K. R. Hospital, Mysore Medical College, Mysuru. Totally, 11334 new and 12509 review cases were examined











during the reporting year at the institute, and 3087 microscopic, 117 stroboscopic / endoscopic examination, 46 vertigo, 25 oto-endoscopic and 5 diagnostic naso endoscopic examinations were carried out. Also, 9960 cases were examined and 87 major and 280 minor surgeries were successfully carried out at K.R. Hospital.

## Specialized Clinical Services

The institute provided a variety of specialized clinical services for individuals with communication disorders in both physical and virtual mode during the reporting year. The details are provided in tables 11, 12 and 13.

**Table 11: Evaluation at the Special Clinics**

Units	Total
Augmentative and Alternative Communication (AAC) 	21
Autism Spectrum Disorders (ASD) 	46
Clinic for Adult and Elderly Persons with Language Disorders (CAEPLD)	1
Fluency 	6
Voice 	8
Learning Disability (LD) 	32
Phonology 	20
Structure Orofacial Anomalies (U-SOFA) 	8
Motor Speech Disorders (MSD) 	2
<b>Total</b>	<b>144</b>

**Table 12: Rehabilitation at the special clinics (Virtual mode)**

Unit	Child	Adult	Total Sessions
Fluency	211	92	1565
ASD	377	2	2133
U-SOFA	21	8	184
AAC	30	3	178
ADHD	29	4	188
<b>Total</b>	<b>777</b>		<b>4248</b>



**Table 13: Rehabilitation at the special clinics (Physical mode)**

Unit	Child	Adult	Total Sessions
Fluency	126	37	1086
ASD	222	0	1548
U-SOFA	14	0	85
AAC	10	0	46
ADHD	17	0	120
<b>Total</b>	<b>426</b>		<b>2885</b>



## Special Educational Services

The following educational services were provided to the children with special needs at the pre-school, attached to the Department of Special Education during the reporting year.

- i) Special Educational Assessment: Educational Assessment services are offered for 337 children with communication disorders to determine readiness for schooling and to suggest an appropriate grade, placement as well as necessary services.
- ii) Parent Infant Program (PIP): PIP was provided to very young children ranging from birth to 2.5 years with the objective of improving physical, cognitive, communication, social and emotional skills as detailed in figure 5.
- iii) Preschool Parent Empowerment Program (PPEP): PPEP was provided to caregivers of children ranging from 2.5-3 years before formal admission to preschool with the aim of empowering care givers to train their children and get adjusted to preschool atmosphere. The details are provided in table 14.

**Table 14: Preschool Parent Empowerment Program**

	Apr'20	May'20	June'20	July'20	Aug'20	Sep'20	Oct'20	Nov'20	Dec'20	Jan'21	Feb'21	Mar'21	Total
Children with special needs	72	72	76	28	35	40	43	52	56	102	131	151	858
Sessions	361	285	285	220	220	220	160	216	286	288	304	456	3301

iv) Preschool Training & Supplementary Services (PSS): Preschool service, preparatory training for children with communication disorders in self-help, cognitive, communication and academic skills necessary for successful schooling was provided to children in the age range of 3-6 years having hearing impairment, cerebral palsy, and multiple disability and to those in the age range of 3-10 years having intellectual disability and autism. The details are given in table 15.

**Table 14: Preschool Parent Empowerment Program**

	Apr'20	May'20	June'20	July'20	Aug'20	Sep'20	Oct'20	Nov'20	Dec'20	Jan'21	Feb'21	Mar'21	Total
Children with special needs	145	154	154	164	173	169	169	168	164	164	160	153	1937
Sessions	947	1391	711	712	561	680	549	590	652	714	696	790	8993

- v) Curricular Support Services, Individualized Education Program and Demonstration Education Therapy/ Non formal Education Program were offered respectively to 256, 42 and 5 children with communication disorders who were mainstreamed but have certain difficulties in coping with academics.
- vi) Sensory Adaptation for Education **tocater** to the sensory issues of young children with special needs.
- vii) Speech-Language group therapy
- viii) Support services for Empowering Caregivers
- ix) Counselling and guidance for parents and family
- x) Literacy computer and yoga
- xi) Parent Enrichment Program
- xii) Library of books and toys
- xiii) Parents help parents program

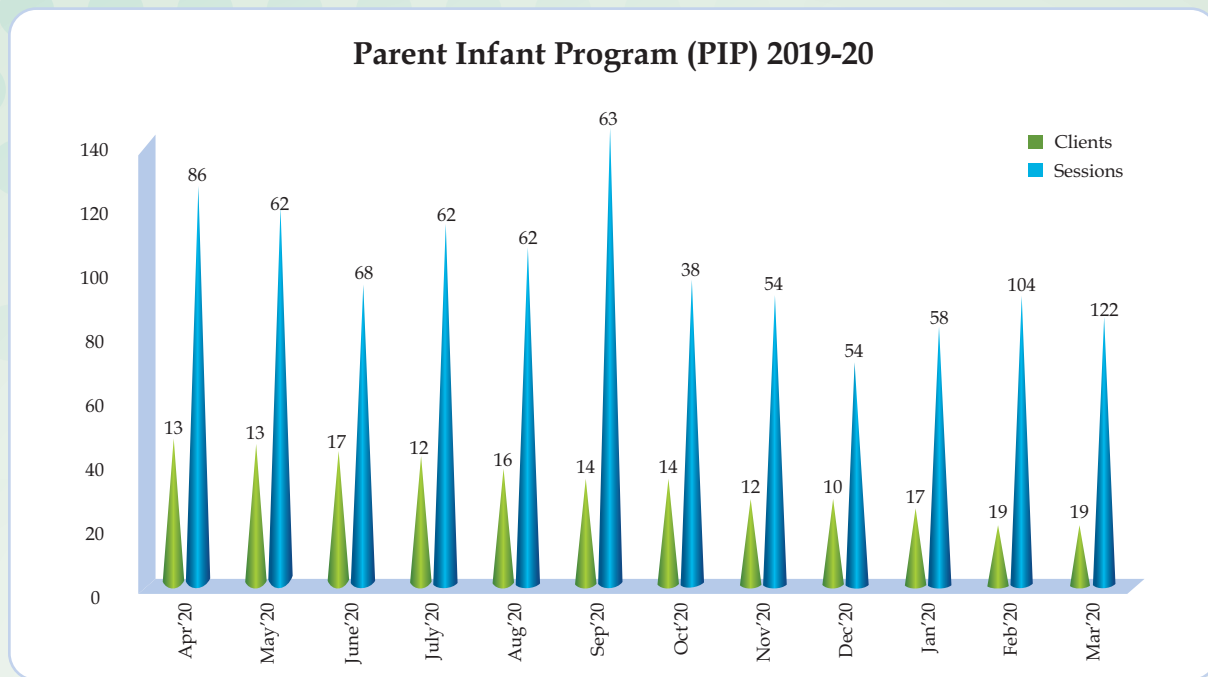


Figure 4: Parent Infant Programme

## Medical Speciality & Allied Health Services

The institute facilitated the services of various medical specialists such as paediatrician, neurologist, plastic surgeon, prosthodontist, orthodontist, phono-surgeon and services of allied health professionals such as physiotherapist and occupational therapist, to the needy clients. Totally, 433 clients underwent physiotherapy and occupational therapy in physical mode and 301 clients in virtual mode during the reporting year. The physical sessions conducted were 2337 and tele sessions, 1932. In addition, 306, 39, 31, 39, 10, 30 clients consulted physician, paediatrician, phono surgeon, plastic surgeon, orthodontist, dietician, respectively. The details are given in figure 6.

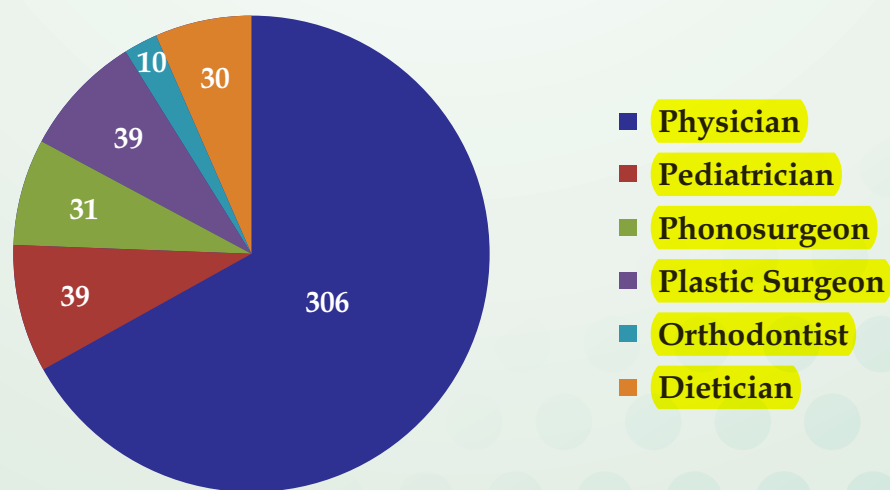


Figure 6: Medical specialty and allied health



## Clinical Support Services

The institute extended a diverse range of support services to patients and their family. These include the following.

### **Distribution and Repairing of Aids:**

Electro-acoustic evaluation, management and repair of hearing aids were carried out under the aegis of Department of Electronics. Totally 948 hearing aids were distributed after electro-acoustic evaluation and testing under AIISH Hearing Aid Dispensing Scheme. Also, 860 free hearing aids were distributed under the Client Welfare Fund. In addition, 71291 hearing aid spares such as hearing aid cells, cords, battery doors, ear hooks, body case, wind weather protector, BET huggies, domes and tips were issued. Also, 249 body level and 954 BTE hearing aids were repaired, electronic-acoustic evaluation was carried out for 7 hearing aids and 5 audiometers were calibrated.

The hearing aids were also distributed free of cost at the Outreach Service Centres (OSC) and New-born Screening Centres of the Institute as detailed in table 16.





**Table 16: Hearing aid distribution at OSCs / NBS Centers**

Centre	No. of hearing aids
<b>Outreach Service Centres</b>	
Taluk Hospital, Nanjungud	31
Kodagu Institute of Medical Science, Kodagu	22
Taluk General Hospital, K.R Pet	17
Vivekananda Memorial hospital, H. D. Kote, Sarguru	100
Sub-divisional Hospital, Sagara	4
Primary Health Centre (Under Karuna trust), Gumballi	19
Taluk Hospital, Akkihebbalu	10
<b>Newborn Screening Centers</b>	
Rajendra Institute of Medical Sciences, Baritayu, Ranchi	12
All India Institute of Medical Science, Patna	22





### Counselling and Guidance:

The professional experts of the Institute provided counselling and guidance on various aspects of the disorders such as treatment procedures, usage and care of tools like hearing aids during the reporting year.

### Issue of Certificates:

Various certificates like financial aid, income tax exemption, educational scholarship, and school admission were issued to the eligible candidates during the reporting year, the details of which are given in table 17.

**Table 17: Details of certificates issued**

Particulars	Total
Transfer certificate	6
Evaluation reports	154
Attendance certificate	22
School admission certificate	24
Admission to deaf school	5
Railway concession	17
Bonafide certificate	9
Handicapped Certificate (Pension)	690
Medical Certificate	442

### Financial Aid:

The institute distributed total amount of Rs. 3,76,938/- among 36 clients below poverty line towards the purchase of hearing aids during the reporting year under the aegis of the Department of Clinical Services.