



AAC National Center

Giving a voice to those who can not speak

**AAC (Alternative and Augmentative Communication)
Loan Device Center**

Activity Summary



MISSION

- To support and empower people and families confronted by the distressing reality of communication impairment
- Upgrading communication and therapy options by partnering in the development of communication technology and devices
- Raising awareness, educating and influencing the professional communication field and end-users to tap in to the most updated AAC solutions
- Providing services and advocacy which makes available the broadest and best response to patient communication needs
- Creating collaborations on the local, national and international levels to promote improvements in the field of AAC

Implementing Our Goals

- Enabling people and families in communication distress situations to borrow and test devices before purchasing
- Working with AAC user populations to develop and provide AAC technology solutions and innovative communication solutions
- Creating accessibility for AAC users, enabling inclusion
- Compiling and providing updated AAC information and resources to end-users and professionals
- Extensive counselling and referrals for AAC users, their families, speech and language practitioners, speech and communication clinics, medical centers, etc.



Service Guidelines

- First come, first served. (Terminally ill patients are given precedence.)
- Serve every sector of Israeli society without discrimination of race, creed, gender, political affiliation, nationality etc.
- Referred and accompanied by attending speech clinician or occupational therapist
- Loans are free of charge, recipient pay for insurance only
- Under the direction of a steering committee who meet thrice yearly

Elchanan Malka: 37 yrs old

At age 24, I was stricken with a tumor which paralyzed my entire body. I use a mouth-operated mouse and that way, I feel that I can do everything. It fills many hours of my day and I don't know what I would do without it.



Collaborations

- With Israel's National Insurance Institute
- With Israel's Health Ministry: Transition from private funding to government funding as part of the national Health Package
- With hardware and software developers in the field of AAC
- With higher education and academic establishments for training communication professionals and therapists

IDC Herzlia

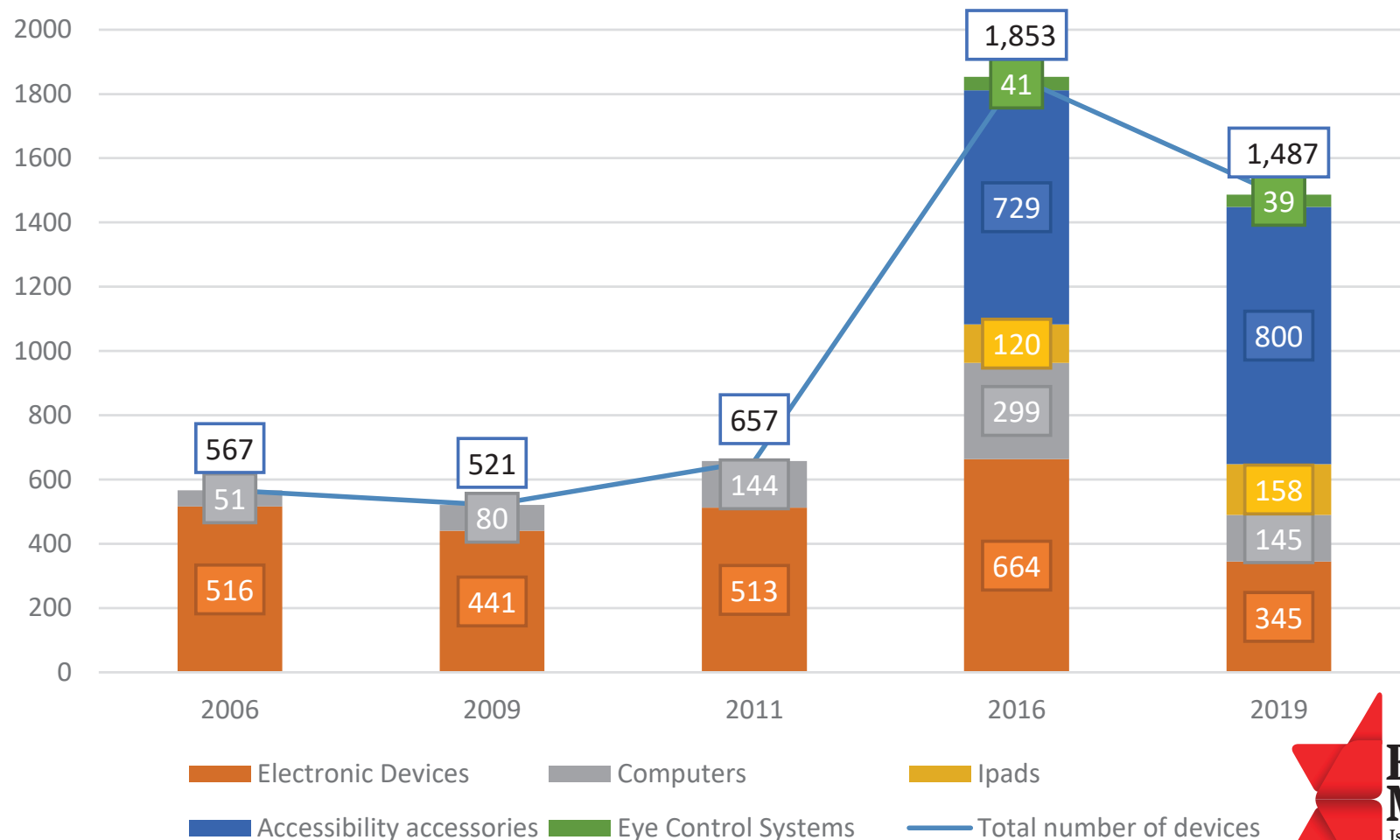
- Holon Institute of Technology (HIT)
- Tel Aviv University
- Israel Ministry of Education
- Early childhood centers, pre-school frameworks, primary, middle and high schools across Israel



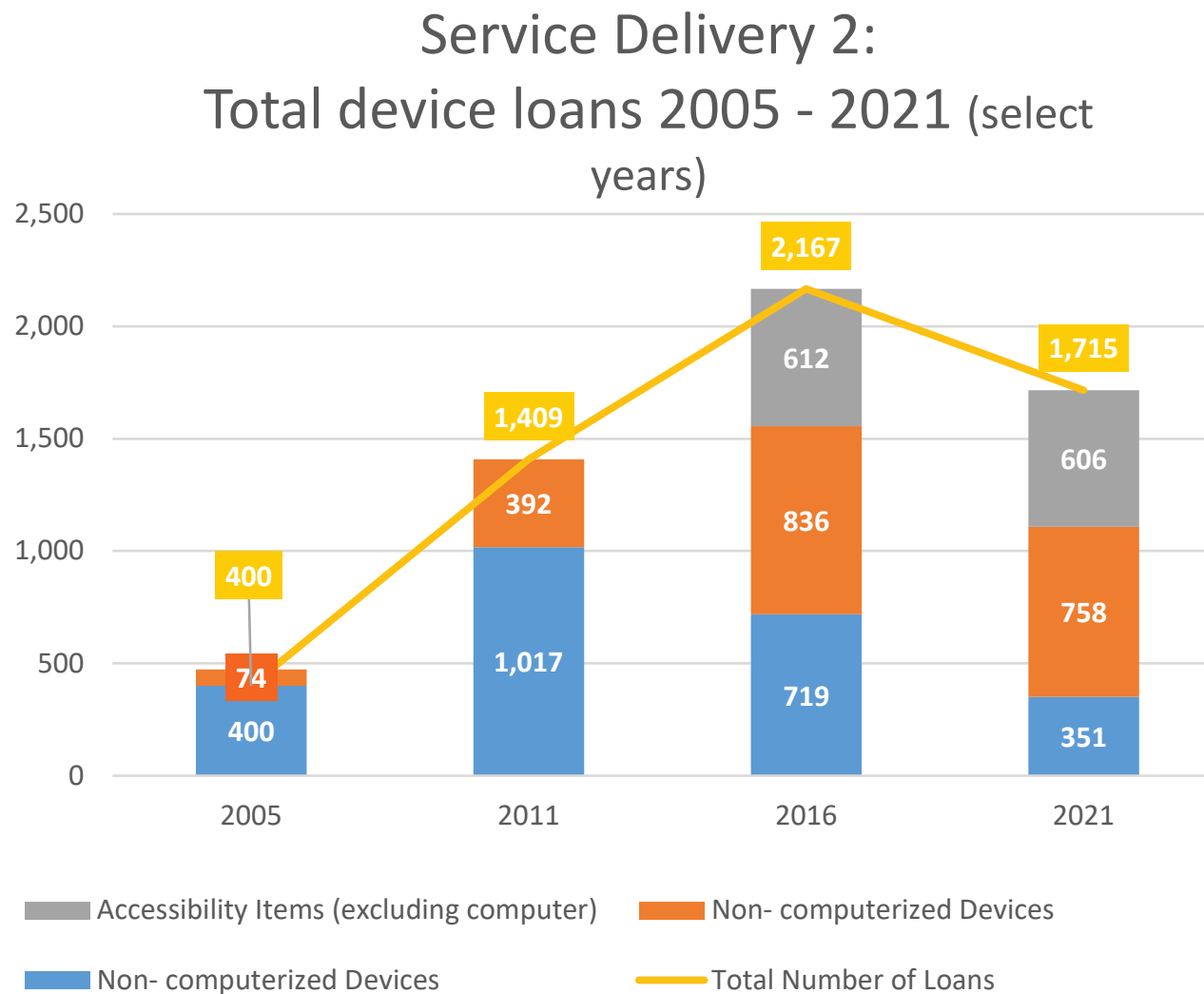
Collaborations (continued)

- With medical entities
 - Sheba (Tel Hashomer) Medical center
 - Rabin (Beilinson) Medical center
 - Soroka Hospital, Beer Sheva
 - Meir Hospital, Kfar Sabba
 - Dorot Rehab Center, Netanya
 - Bayit Balev Rehab Centers, Holon
 - Herzog Hospital, Jerusalem
- With community based communication professionals in Israel and around the world updating with solutions and cutting edge technology
 - ISAAC (International Society for Augmentative and Alternative Communication)
 - ISHLA Israeli Speech, Hearing and Language Association
- With start-up developers and international funders
 - Click2Speak funded by Google Inc.
 - Voiceitt funded by European Commission

Service Delivery 1: AAC Device Inventory 2006 - 2020

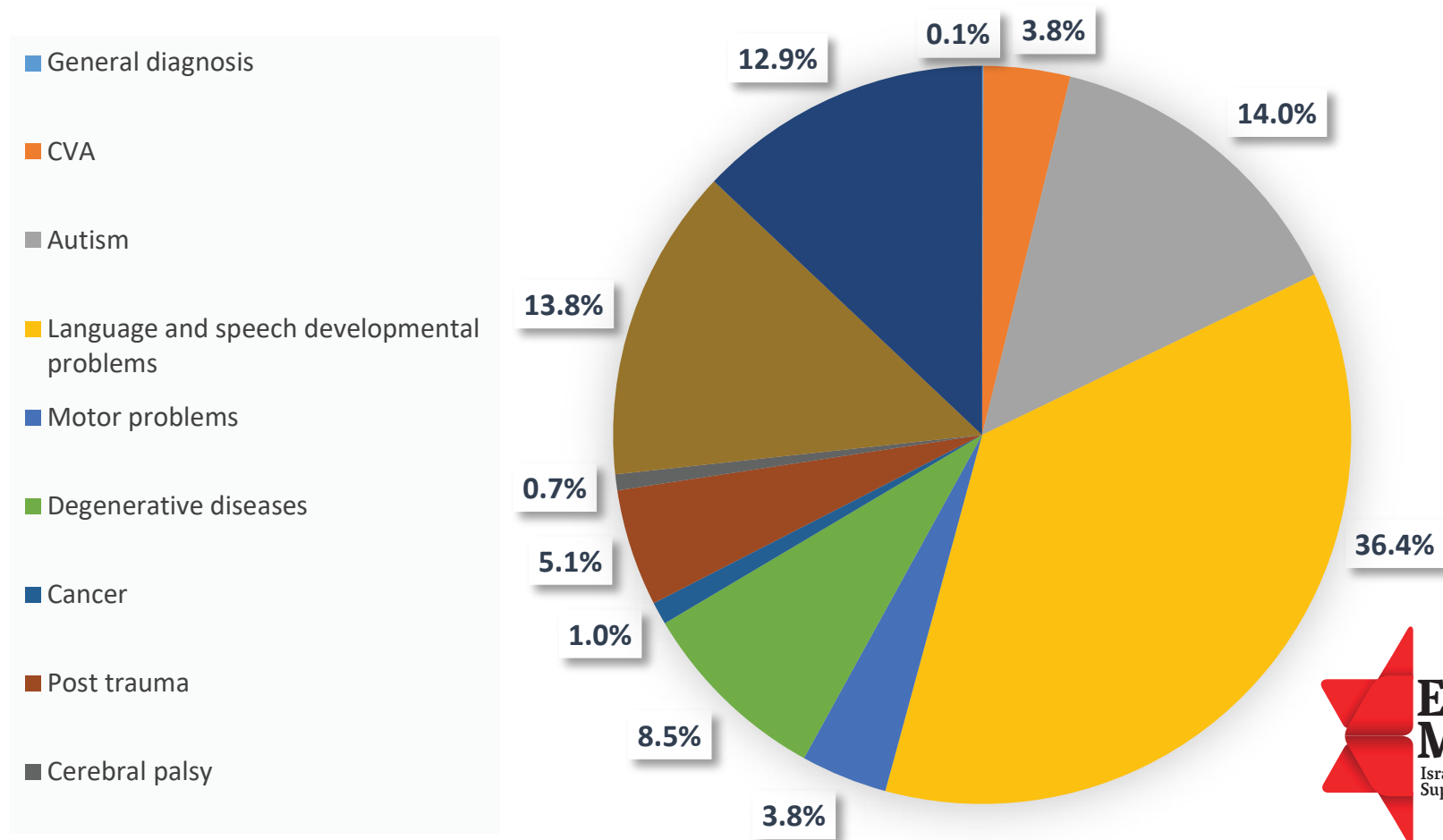


Service Delivery 2: Total device loans 2002 - 2020 (select years)



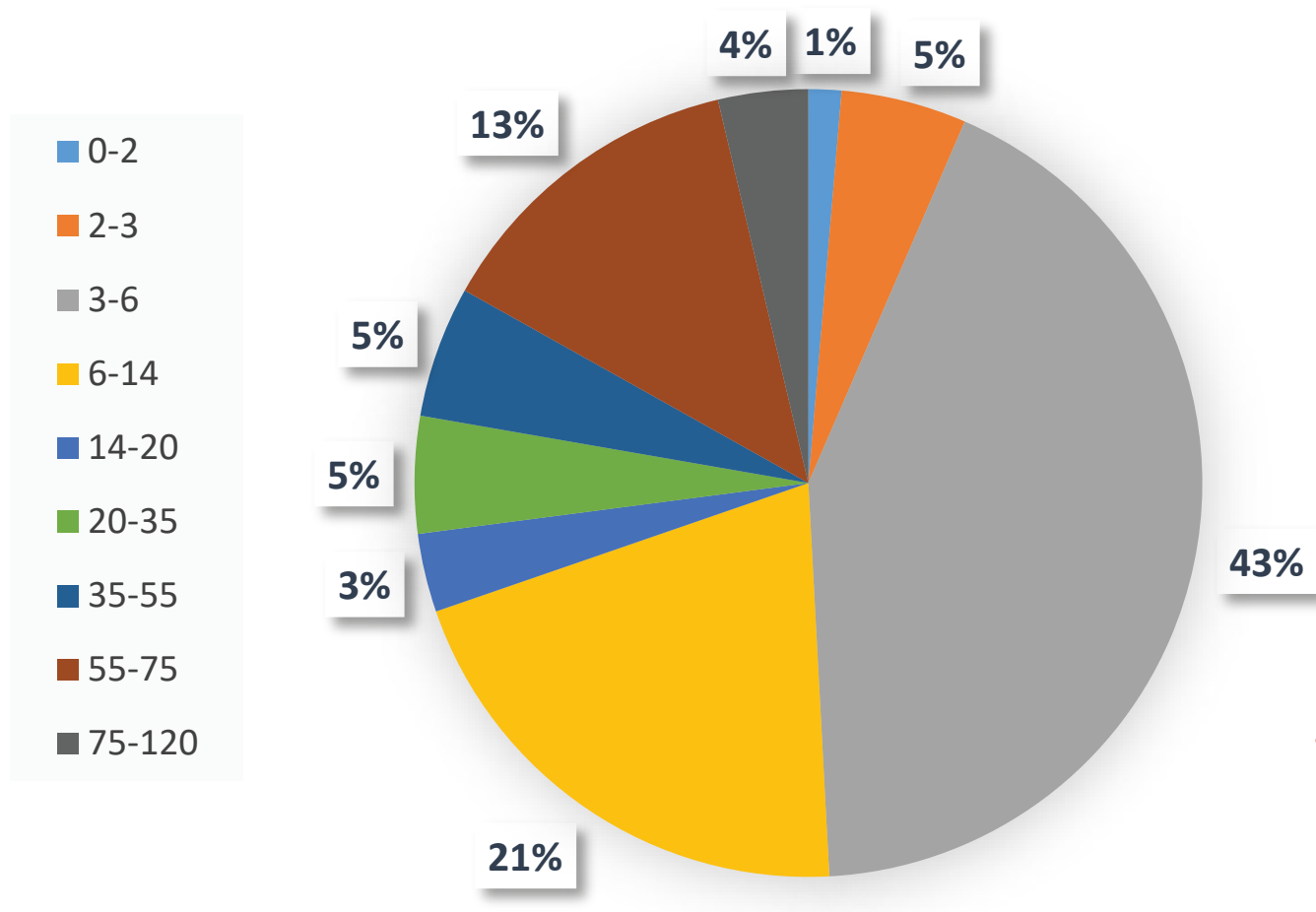
Annual Loans by Diagnosis

Annual Loans by Diagnosis



Annual Loans by Age

Annual Loans by Age



TREND SHIFT IN BORROWER PROFILE

Ezer Mizion Opens Opportunities to users with Other Diagnoses

2006 617 total annual loans

63% for people with Cerebral Palsy

6% for people with acquired disabilities

31% for other diagnoses

2021 1,715 total annual loans

1% for people with Cerebral Palsy

32% for people with acquired disabilities

67% for other diagnoses

In the last 15 years, the world of AAC has been marked by a shift in AAC user demographics. More and more people with acquired deficits – such as patients with degenerative diseases, accident and stroke victims, etc. – have begun using AAC technology in order to communicate after loss of speech.

(See change from 2006 to 2021 on table.)

This shift has taken place primarily due to growing awareness of the subject of AAC, including involvement of professional therapists in working with people with acquired communication deficits, and hi-tech developments tailored to providing solutions for this population's communication needs.



Enabling Pre-purchase Testing

Loans give users the opportunity to:

- Advance/shift from one communication stage to another before making final purchase
- Choose between a number of options
- Benefit from a fair trial period before deciding on a purchase

Yael, age 9, with cerebral palsy (CP). Communication using an iPad with TouchChat application. Following lingual capability development, she moved over to a talking computer with "Grid 3" software, using "You Can Say" boards.



Mila., age 7, with a rare mitochondrial disease (PDHA1). Tried out an eye-focus system, while improving pointing capabilities. After the trial period, the system was returned to Ezer Mizion and she began to communicate using an iPad with a TouchChat application.



Developing AAC Solutions and Resources

- Developing a Windows-based virtual keyboard for computers and tablets for users who are unable to manually control a keyboard, together with Google and Click2Speak, an Israeli start-up that develops AAC programs
- Building generic "You Can Say" and "Voice Included" communication boards for hi-tech use that assist therapists in their day-to-day work of applying the computer as an AAC device for children
- Creating an on-line flow chart kit with a collection of low-tech AAC solutions developed to support family caregivers and provide a response for the needs of their hospitalized family member
- "Siman Kri'ah" – a program to teach reading and writing to children with complex communication needs for use in speech and communication clinics.

Developing AAC Solutions and Resources (continued)

- "Dynamic AAC Objectives" – a tool to assess and quantify communication capabilities for use by therapists and parents of AAC users.
- How-to training films available on-line teaching how to produce and use primary gestures for emerging AAC users.
- Collaborating with Voiceitt – start-up company and the European Commission on a voice projection development project
- Introducing AAC strategies into hospital Intensive Care Units
- Collaboration with advanced technology developers at local universities exploring BCI (brain computer interface) options to benefit of people with disabilities



Ministry of Health Alliance: a New Reality

- Lobbying efforts from the earliest years of the AAC Center
- Team effort between ISAAC Israel, Ezer Mizion, and the Rehabilitation and Mobility Devices Unit at Israel's Health Ministry.
- In 2014, additional organizations joined: Israel's Rett's Syndrome Association, Keshet, and the National Association of Speech Therapists
- Substantial achievements:
 - Government recognition that synthetic speech computers fall under the category of medical technology
 - The government has a commitment to support the populations that need talking computers to enable them to communicate with those around them.
- As of Jan. 1, 2015, authorization by Israel's Health Ministry for Ezer Mizion to lend computers of various accessibility levels for a trial period. At the conclusion of trial period, the Health Ministry decides whether to approve the borrower's computer purchase from independent supplier, based on attending therapist's assessment. 552 purchases were authorized in the first two years by the Min. of Health through the Ezer Mizion arrangement.



In their own words

” Just because I can’t speak doesn’t mean that I don’t have what to say....”



Bat-Tzion Binyaminson: 61 yrs old

I have ALS. I am unable to type, but I am writing a book. I am unable to speak, but I am able to manage my household and my own care. Because I am a single mother, my functioning is vitally important to my whole family. I can function only because of the expert technical support that I have received from Debbie Ben Tal of Ezer Mizion. Thank you!



Reuven Kagan: 75 yrs old

I have ALS. I gradually lost my ability to function to the point where I couldn't use a computer at all. Today, thanks to Ezer Mizion and through their accessibility devices, I can use a computer. Thank you to Ezer Mizion for always doing the maximum to help!



In their own words



Dr. Rachamim Melamed-Cohen ob”m

In 1995, at age 58, Dr. Melamed-Cohen was diagnosed with ALS. Within two years, he'd lost the ability to eat using his mouth. Seven years after diagnosis, he was totally paralyzed and connected to a respirator. Following diagnosis, he was able to communicate with stammering speech, but very quickly his ability to speak was gone. A letter board that he designed was not efficient enough for his needs.

Then he discovered Augmentative Communication devices for communicating and writing, controlled by eye movements, the only organ of his body that he could still move. That was a releasing life changer for him. Since then, he wrote 20 books on many topics: research, poetry, education, and prose. Filled with joy of life, he learned how to create pictures digitally. Ten exhibits of his pictures, drawn with eye control, have been displayed in Israel and abroad.

Dr. Melamed-Cohen corresponded with people around the world, wrote articles for newspapers and used vast digital resources to prepare for classes that took place in his home every day. Dedicated Ezer Mizion staff assisted Dr. Melamed-Cohen with an eye tracker system which he successfully used and which gifted him the ability of communication, learning, social involvement and constant personal growth – despite his debilitating disease.

The Click2Speak eye gaze controlled virtual keyboard which was developed by Click2Speak in collaboration with Ezer Mizion was another device that he enjoyed using, claiming that this tool truly improved his quality of life by enabling communication and environmental control through eye movements. Dr. Melamed Cohen passed away in November 2020 at the age of 83 after a fulfilling life that was enriched through AAC developments.



EZER MIZION AAC Center - ANNUAL BUDGET

| Income | | |
|---|------------------|------------------|
| Borrower's insurance fees | \$96,983 | |
| Omer Center clients - assessments | \$10,373 | |
| Subtotal | \$107,355 | |
| National Insurance Institute allocation | \$467,624 | |
| Donations | \$303,558 | |
| Total Income | \$878,538 | |
| | | |
| Expenses | | |
| Salaries+benefits | | \$204,647 |
| Office Expenses/Overhead | | \$7,600 |
| Maintenance/Device Repairs | | \$45,200 |
| Service Provision | | \$6,499 |
| Rental | | \$20,870 |
| Summary of Running Expenses | | \$284,816 |
| Purchase of equipment for loan | | \$593,722 |
| Total Expenses | | \$878,538 |

The Omer Team, Specialists in AAC & AT Assessment, Counseling, Training and Development



Sharon Shaham

Speech-Language Pathologist, AAC Specialist
Consultant on AAC and AT related issues to schools, clinicians, and families.
Private practice in Haifa.



Judy Wine, SLP Ed.D.

Speech-Language Clinician, AAC Specialist
Communication Consultant: The Multidisciplinary Advisory Team, Israel Rett
Syndrome Association
ISAAC Founding Member and ISAAC Fellow
Private Practice



Ravit Shahar Lahav, B.OT, MA

Pediatric Occupational Therapist
CHIMES Israel Rehabilitation centers & kindergarten network
PhD-student in Child Development, Haifa University.



Vardit Kindler, OTR, M.Ed.

Pediatric Neurodevelopmental Therapist
Senior Bobath Tutor
AAC, AT & CVI (Cortical Visual Impairment) consultant
Private Practice



The Omer Team, Specialists in AAC & AT Assessment, Counseling, Training and Development



Yonit Hagoel-Karnieli, SLP

Director of Ezer Mizion National AAC
ISAAC member
Popular Lecturer
AAC/AT consultant
Private clinic



Debbie Ben-Tal, OT BA

Occupational therapist, AT Specialist
Director of Ezer Mizion National Computer Accessibility Lending Unit
Israel ALS Association
Head OT, Residential Home for people with physical disabilities
Israel Coordinator, Karten Network Development



Merav Raveh Malka, SLP MA

Speech therapist in bilingualism and multi-cultural population
Group facilitator and student guide
Hadassah Mt. Scopus Medical Center (Jerusalem), Rehab Unit
Specialty in AAC for people with aphasia and speech disorders



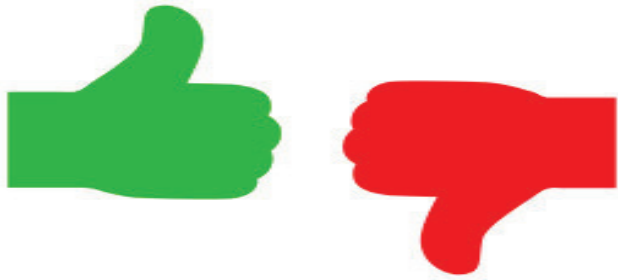
Yedida Levin Sternberg, SLP

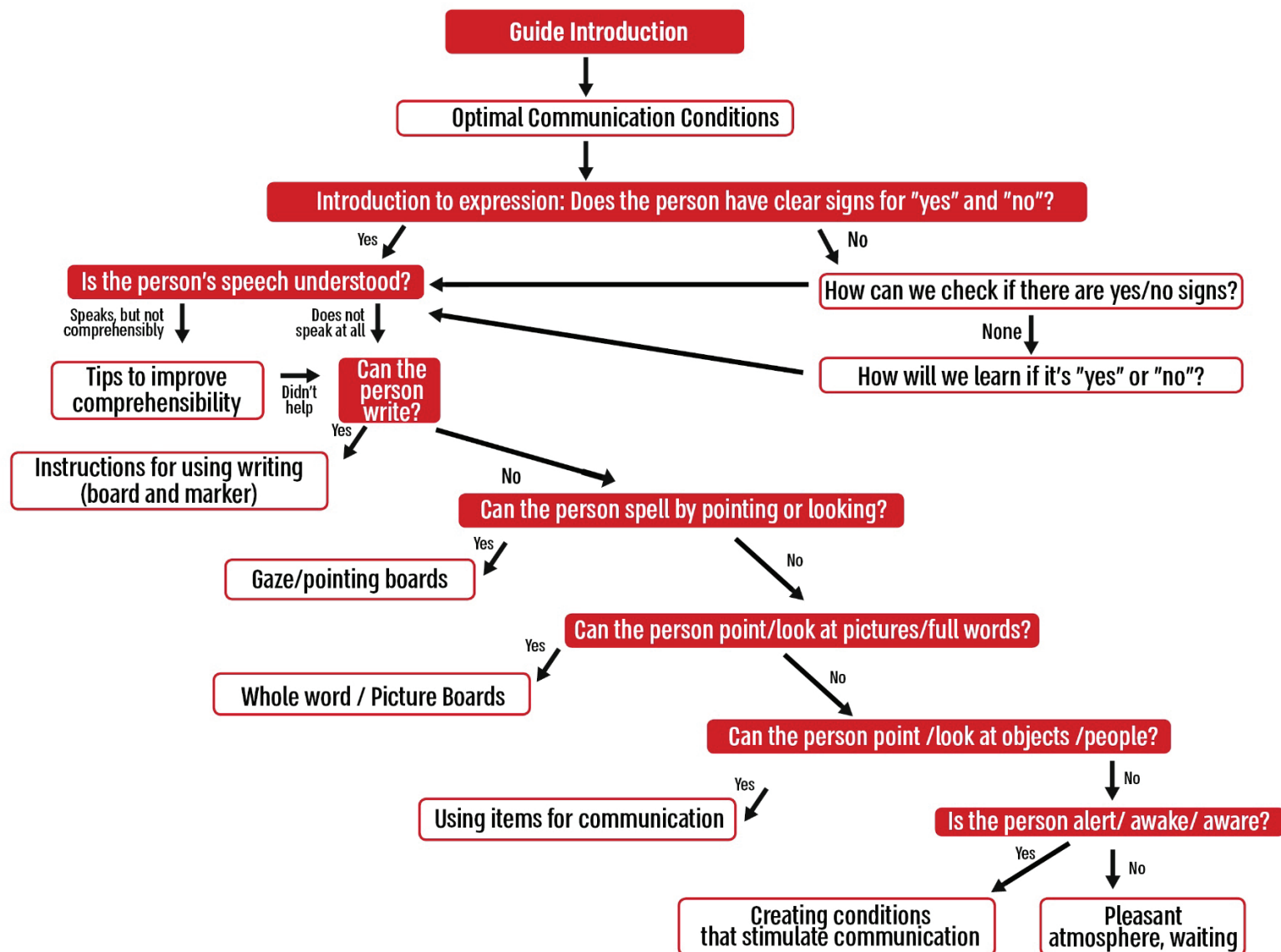
Private clinic
Lecturer, Tel Aviv University
AAC/AT Student Supervisor



Ezer Mizion Online Guide for Communication with Non-verbal Hospitalized Patients

- Online guide geared for therapists and family members
- By answering "yes" and "no" questions about the patient's capabilities,
- The user can access communication solutions readily available for downloading and demonstration
- Free of charge
- Does not require entering identifying information
- <https://www.ami.org.il/augmentative-communication/guide/interactive/>





COVID-19 Developments: Responding to the Need

With the advent of corona and the opening of corona wards where family support and visitors were severely restricted, there was an urgent need for creating communication mediums between hospital staff and patients on respiratory support. Ezer Mizion researched the main communication needs of the patients are and based on this information, created communication boards which were distributed to corona ward staff in 15 hospitals throughout Israel. Ezer Mizion's communication solutions enabled medical and caregiving staff to understand patients' needs and to provide for them. This relatively simple solution, eliminated tremendous aggravation and frustration for patients, whose energies could now be invested in healing instead of futile communication efforts. It also relieved distress for concerned and made the work of hospital staff more efficient and effective. The communication boards were translated from Hebrew to Arabic, English and Russian and have been disseminated to communication professionals and societies for use in COVID wards throughout the world. The communication boards are posted at this link:

<https://www.ami.org.il/augmentative-communication/news/covid-19-free-tools/>



From Inside the COVID-19 Ward - Kaplan Hospital



Communication Kit for Corona Patients

- 5 accessories for use:
 1. Guidance and general information about communication support
 2. "Yes" and "no" boards
 3. Spelling boards
 4. Needs boards
 5. Pain scale
- Available in 4 languages: Hebrew, English, Arabic, Russian
- Can be downloaded online and available also in hard copy in laminated versions, ready for use
- Use instructions included with each set
- <https://www.patientprovidercommunication.org>

Ezer Mizion Communication Boards in Corona Wards




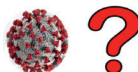









Spelling Boards

| | | | | |
|--------------|-------------|-------------|---|---|
| ה | ד | ג | ב | א |
| י | ט | ח | ז | ו |
| ס | נ | מ | ל | כ |
| ר | ק | צ | פ | ע |
| טעות באות | סוף משפט | סוף מילה | ת | ש |

| | | | | | |
|---|---|----------------|---|------------|----------------|
| A | B | C | D | SPACE | END OF MESSAGE |
| E | F | G | H | START OVER | I DON'T KNOW |
| I | J | K | L | M | N |
| O | P | Q _u | R | S | T |
| U | V | W | X | Y | Z |
| 1 | 2 | 3 | 4 | 5 | 6 |
| 7 | 8 | 9 | Ø | YES | NO |

| | | | | |
|---------------|-----------------|-----------------|---|----|
| ج | ث | ت | ب | أ |
| ر | ذ | د | خ | ح |
| ض | ص | ش | س | ز |
| ف | غ | ع | ظ | ط |
| ن | م | ل | ك | ق |
| | | ي | و | هـ |
| خطأ بالحرف | نهاية الجملة | نهاية الكلمة | | |

| | | | | | | | | |
|---|---|---|---|---|---|---|----------------|------------------------|
| 0 | 1 | A | Б | В | Г | Д | Е | Ё |
| 2 | 3 | Ж | З | И | Й | К | Л | М |
| 4 | 5 | Н | О | П | Р | С | Т | У |
| 6 | 7 | Ф | Х | Ц | Ч | Ш | Щ | Ъ |
| 8 | 9 | Ы | Ь | Э | Ю | Я | конец слова | Конец пред- ложения |

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|--|---|-----|-----|---|---|-----|----|---|---|---|---|-----|-----|---|---|---|---|-----|-----|---|---|----|---|---|---|---|---|---|---|---|---|
| SUCTION  | WHAT'S MY STATUS?  | CALL MY FAMILY  | LIGHTS ON/OFF  | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| TROUBLE BREATHING  | PAIN  | MEDICINE  | HOT COLD  | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| BATHROOM  | REPOSITION  | MOUTH CARE  | LETTER BOARD <table><tr><td>A</td><td>B</td><td>C</td><td>D</td><td>YES</td><td>NO</td></tr><tr><td>E</td><td>F</td><td>G</td><td>H</td><td>1 x</td><td>2 x</td></tr><tr><td>I</td><td>J</td><td>K</td><td>L</td><td>3 x</td><td>4 x</td></tr><tr><td>O</td><td>P</td><td>Qu</td><td>R</td><td>S</td><td>T</td></tr><tr><td>U</td><td>V</td><td>W</td><td>X</td><td>Y</td><td>Z</td></tr></table> | A | B | C | D | YES | NO | E | F | G | H | 1 x | 2 x | I | J | K | L | 3 x | 4 x | O | P | Qu | R | S | T | U | V | W | X | Y | Z |
| A | B | C | D | YES | NO | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| E | F | G | H | 1 x | 2 x | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| I | J | K | L | 3 x | 4 x | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| O | P | Qu | R | S | T | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| U | V | W | X | Y | Z | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| MAYBE | | DON'T KNOW | LATER | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |



**EZER
MIZION**
Israel's Largest Health
Support Organization



**Thank you for partnering
with Ezer Mizion!**

**yonit@ami.org.il
www.ami.org.il**