

## Background

- A nationwide survey addressing SLP service needs and utilization in school-age children with severe Developmental Disabilities (with and without ASD) highlights the differences and commonalities between these two groups in terms of language development, comm. abilities, and AAC use.
- Children and youth with DD and ASD represent a growing proportion of the SLPs caseload and often requires long-term involvement (typically beyond the mandate of publicly funded programs).
- Many individuals with DD and ASD use AAC which has substantially changed in recent years and has crossed-over into the mainstream with the advent of new and affordable technology such as the iPad®, the iPhone®, and the iPod Touch®.
- With this group accessing AAC and the evidence that AAC use positively impacts on the development of spoken language, should the training of SLPs and the funding of treatment be reflective of this changing demographic?

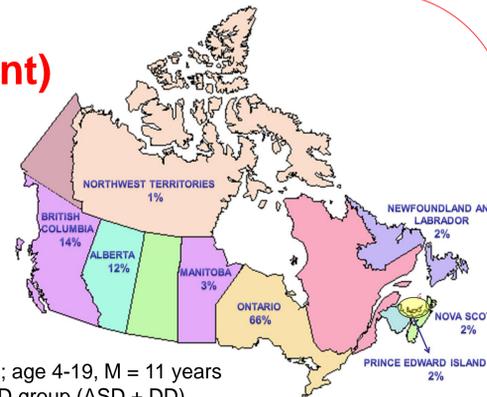
## Purpose and Research Questions

1. Do parents report a need for SLP services? How many actually receive SLP services? Are parents satisfied with them?
2. AAC use:
  - a) Is an AAC device used?
  - b) What type?
  - c) How well does the child communicate with their AAC device?
3. AAC use by diagnosis:
  - a) Is there a difference in AAC use and the expressive communication level for children with ASD versus DD?
  - b) Is there a difference between their exp comm. level using speech vs. their exp comm. level using their AAC device? (i.e., Is their aided expressive language better, the same, or worse?)

## Method

- Data collected through the GO4KIDDS online survey examined the general health, well-being, and social inclusion of children with severe DD, and their parents -- questions specific to SLP services were included
- Participants:**
- N=136 parents (93% mothers, 91% biological parents, 78% married, avg. Barratt SES = 41, std dev = 13) from across Canada (see map of Canada)
  - 17% of parents reported a first language other than English

## Method (cont)



- **Children:** 70% boys; age 4-19, M = 11 years
- N = 72 (55%) in ASD group (ASD + DD)
- N = 64 (47%) in DD (no autism) group
- Children may also have: genetic/other syndromes, physical disabilities and disorders, sensory system limitations, problem behaviour, etc.
- Gender distribution was equal in the DD group (32 boys, 32 girls);
- Gender distribution was as expected in the ASD group (63 boys, 8 girls)

Figure 1: Participant Characteristics

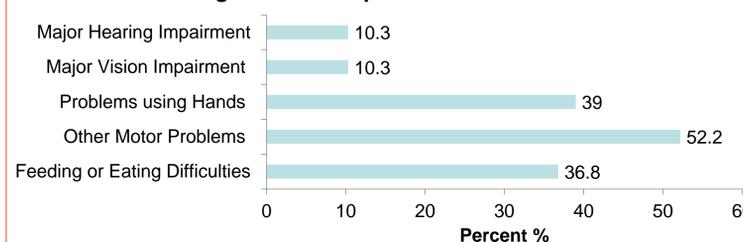
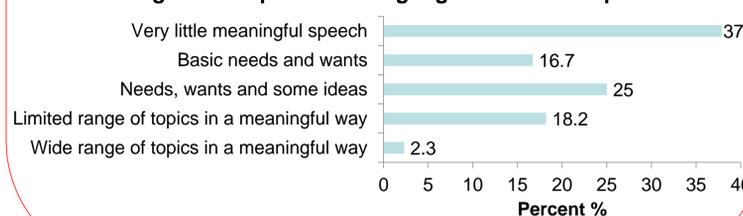


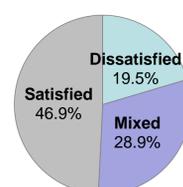
Figure 2: Expressive Language Level of Sample



## Results

1. **SLP services – need, receipt and satisfaction :**
  - 97% of parents reported a need for SLP services
  - 91% received SLP services
  - **However**, ~50% of the sample who received SLP services reported that they were dissatisfied or had mixed feelings about them (see Figure 3).

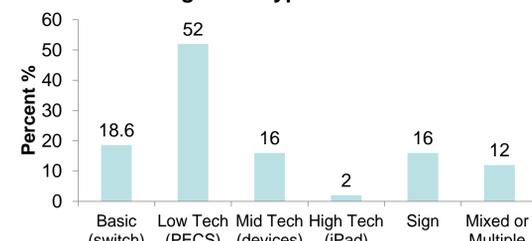
Figure 3: Parent Satisfaction with SLP Services



A thematic analysis was performed to investigate qualitative comments of parents who sought out private services, parents reported:

- 1) Long waiting lists for services & lack of government funded services
  - 2) Services terminated too soon (termination criteria too rigid)
  - 3) Quality of public services not good enough
  - 4) Not enough service (frequency of visits)
  - 5) Child did not qualify for services (stringent inclusion criteria)
2. **AAC use:**
    - a) 36.8% of sample used an AAC, 63.2% did not
    - b) 70.6% of the sample used basic or low tech AAC (see Figure 4)

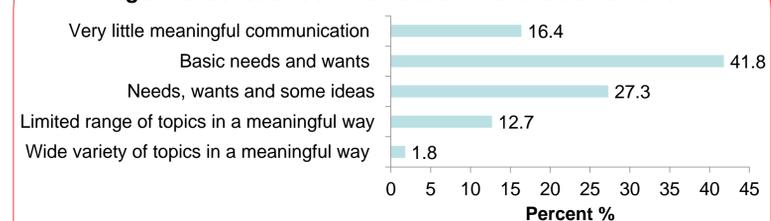
Figure 4: Type of AAC



- c) 58.2% of children with an AAC device are able to communicate basic needs and wants or very little meaningful communication with the help of their device (see Figure 5).

## Results (cont)

Figure 5: Level of Communication with the use of AAC



### 3. AAC use by diagnosis:

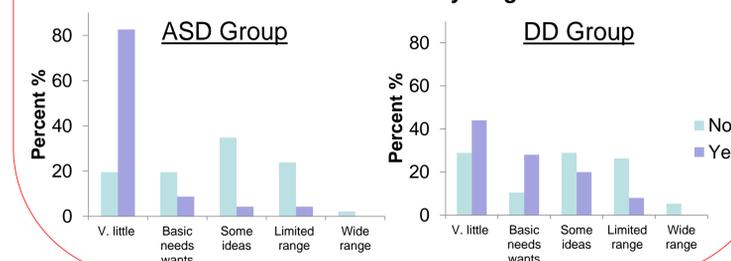
- a) There was no difference in AAC use between the ASD and DD group ( $X^2=.275, p=.6$ )
- b) There was a difference in the expressive communication levels of AAC users vs. non-AAC users ( $X^2=24.6, p<.001$ ; see Figure 6)

Figure 6: Expressive Communication Level of AAC users and non-AAC users



When the sample was split by diagnosis, only the ASD grp showed a sig difference in expressive comm lvl of AAC users vs non-users (ASD  $X^2=25.79, p<.001$ ; DD  $X^2=8.06, p=.089$ ; see Figure 7).

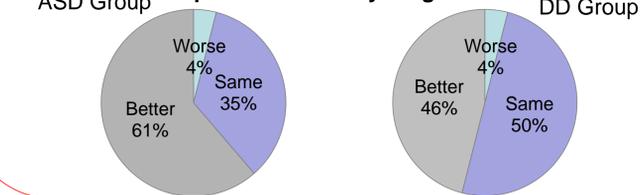
Figure 7: Expressive Communication Level of AAC users and non-AAC users by Diagnosis



## Results (cont)

- The DD and ASD group showed different patterns when expressive communication levels using speech were compared to expressive communication levels using AAC (within the same participant).
- Three patterns emerged:
  - Worse -- lower expressive communication level with AAC
  - Same -- expressive comm. stayed the same with AAC
  - Better -- an increase in expressive communication with AAC

Figure 8: Change in Expressive Communication level with Speech vs. AAC by Diagnosis



## Discussion

- Although 91% of parents received SLP services, satisfaction levels and parent comments indicated that the quality of services were questionable.
- Basic/low-tech devices were most commonly used and appear to result in continuation of low levels of communication skills – basic wants and needs
- Interestingly, AAC use is the same for both the ASD and DD groups.
- Children with very low levels of comm. are targeted for AAC use in the ASD group, while individuals with more diverse language skill development are targeted for AAC use in the DD group.
- However, expressive language levels show inconsistent improvement with AAC across both groups – DD and DD + ASD
  - Many individuals retained their previous level of communication
  - Some individuals displayed less communication with AAC use.
  - More supports are needed to train children and their parents to properly use their AAC devices.

## Limitations and Future Research

- The current sample is not equally representative of each province
- Only 36.8% of the sample were AAC users
- One-time parent report makes it impossible to know how long an AAC device has been used and the support and training received.
- A longitudinal design to measure language level at baseline then a comparative measure of expressive language level with AAC would strengthen the design.

## Acknowledgments

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