

# Effectiveness of an integrated care model for children with Learning and Language Disorders (LLD)

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## INTRODUCTION

Learning and Language Disorders (LLD) are neurodevelopmental disorders that affect language skills, reading, writing. These disorders affect 6% of schoolchildren.

The challenges surrounding the care of LLD children are **delayed diagnosis, a lack of fluidity in the care pathway for families, and inequalities in access to care.**

A French health experiment (article 51) tested a structured care pathway to facilitate the screening, diagnosis and rehabilitation of children with LLD through coordinated, personalized care involving a range of healthcare professionals.

**Objective :** To evaluate the effectiveness of the integrated care model focusing on the prescribed multidisciplinary health assessments and rehabilitative care

## METHOD

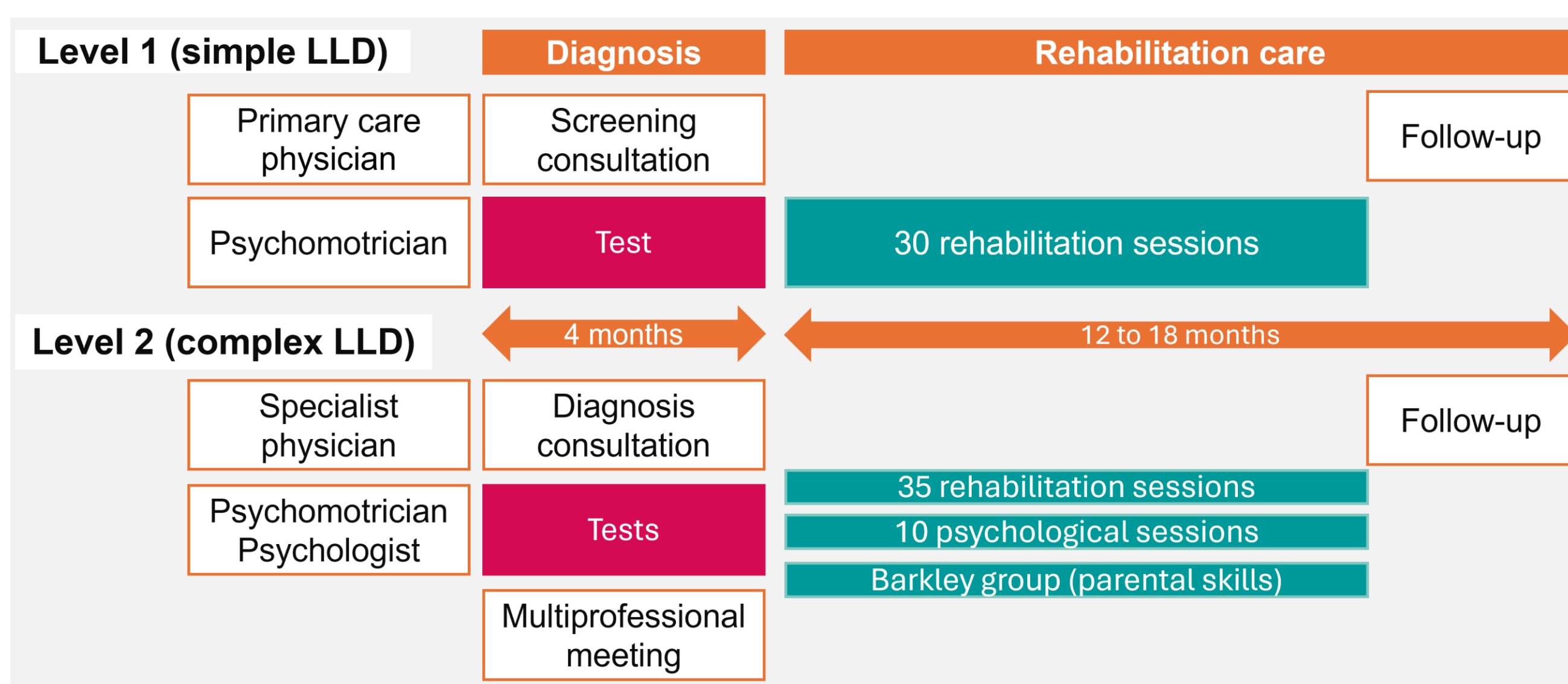
**Real-life prospective observational study (January 2021 – April 2023) →**  
Analysis of care pathway information system data

### Outcomes :

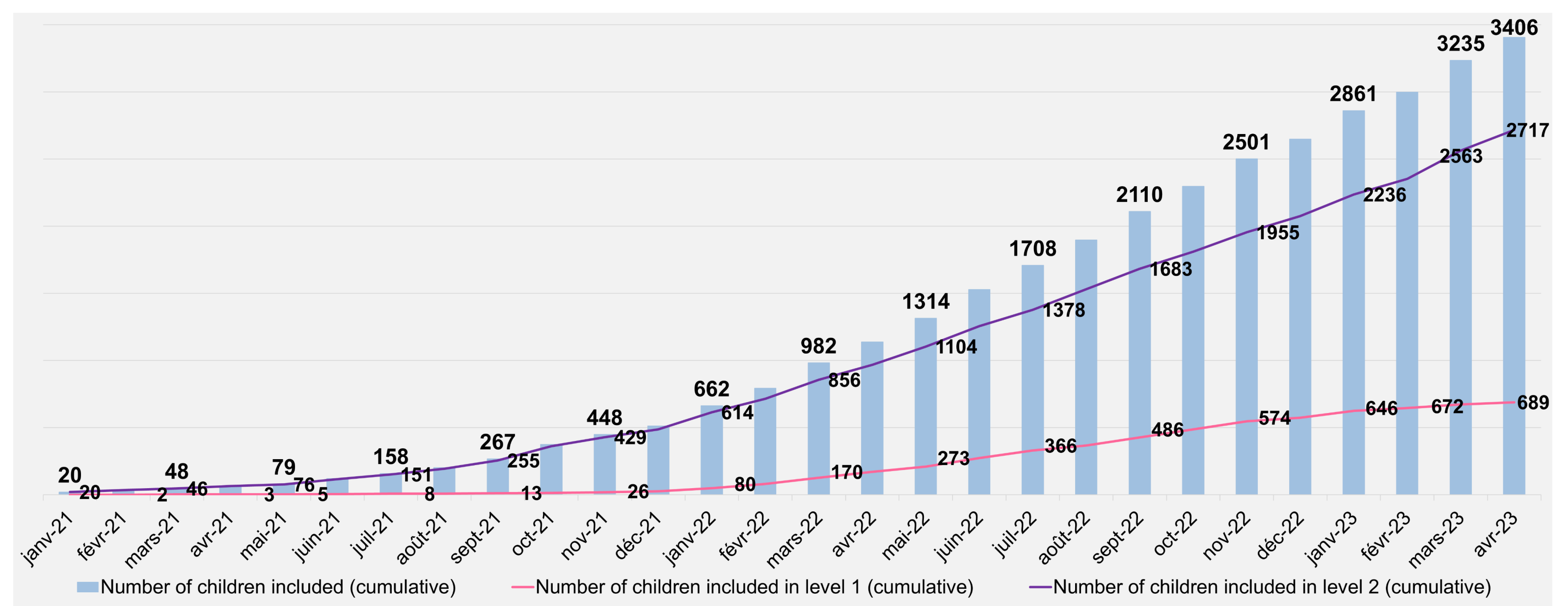
- Number of children cared for at Level 1 (simple disorder – LDD only) and Level 2 (complex disorder – LDD and ADHD)
- Number of assessments/tests prescribed
- Number of rehabilitation programs prescribed
- Time to treatment
- Families' quality of life: mini-Zarit scale (families' mental burden before and after rehabilitation)

## RESULTS

### 1 Organization of the clinical pathway for children with LLD

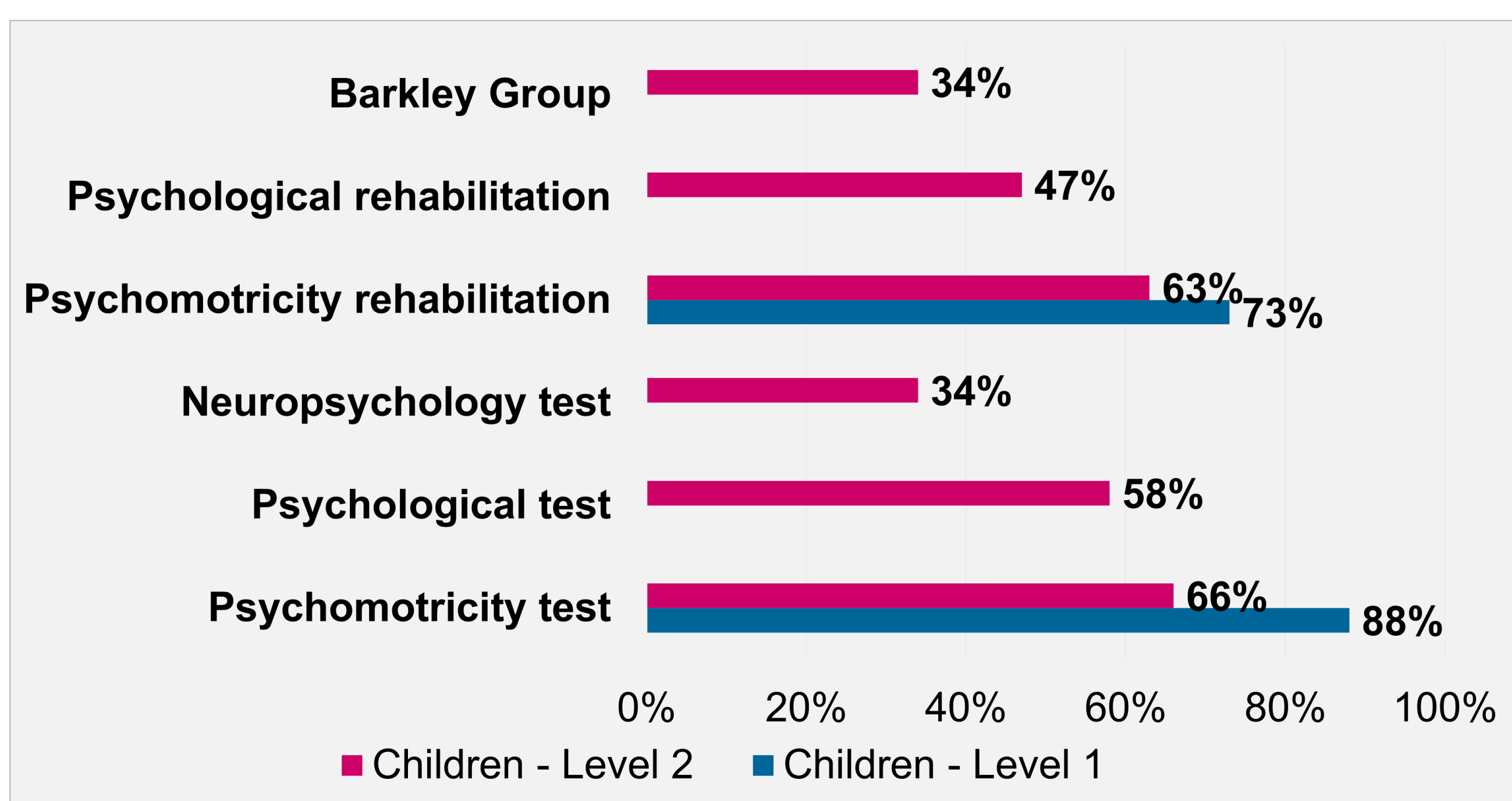


### 2 Number of children cared for in levels 1 and 2



3,406 children followed the LLD health pathway between January 2021 and April 2023, including 2,717 in level 2 and 689 in level 1.

### 3 Proportion of tests and rehabilitations prescribed

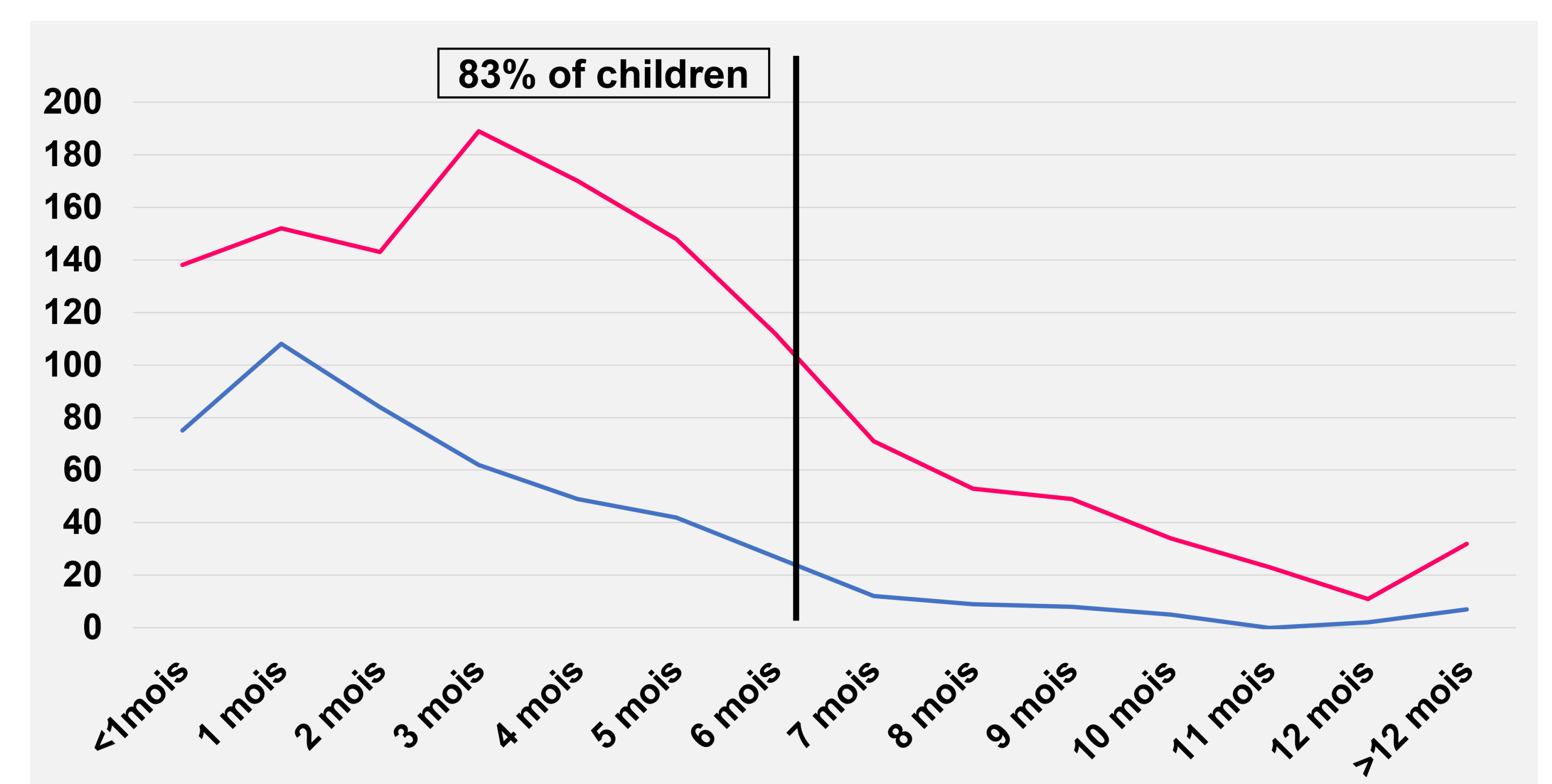


Most of children received a prescription for psychomotricity test and rehabilitation.

Half of the children (level) 2 received a psychological follow-up.

1/3 of parents received a prescription for parental training.

### 4 Time from first consultation to start of rehabilitation



Level 1: median duration of care was 66 days, i.e. 2 months

Level 2 : median duration of care was 114 days, i.e. less than 4 months

One of the greatest successes of the experiment compared with current delays in France for the management of LLD.

### 5 Family mental burden (online survey) - Mini zarit scale (0-7)

Respondents : 297

Before intervention : moderate burden (mean score: 3.22/7)

After intervention : light burden (mean score: 2.48/7)

\*Statistically significant difference

## CONCLUSIONS

The healthcare pathway for LLD in Occitanie has reduced treatment time and eased the mental burden on families.

It also improved the quality of care, with high rates of assessment and rehabilitation prescribed and carried out.

These results encourage the wider adoption of this pathway in other regions of France

## REFERENCES

- Billard C, Jung C, Munnich A, Gassama S, Touzin M, Mirassou A, et al. External Validation of BMT-i Computerized Test Battery for Diagnosis of Learning Disabilities. *Front Pediatr* 2021;9:733713. <https://doi.org/10.3389/fped.2021.733713> ;
- Launois R, Diard M, Cabout E, Meto E, Eymere S. Évaluer autrement les parcours de soins coordonnés article 51 LFSS 2018 : une innovation, les protocoles réalistes. *Ann Pharm Fr* 2022;80:131-44.
- Ministère des Solidarités et de la Santé. Rapport au parlement sur les expérimentations innovantes en santé (article 51 de la loi de financement pour la Sécurité sociale pour 2018).
- Willig T-N, Henry V, Netter J-C, Contis P, Castro-Gutierrez C, Oget-Gendre C, et al. The Organization of Diagnosis, Care and Funding for Specific Learning and Developmental Disorders (SLDD): A French Regional Experimental Protocol. *Front Pediatr* 2022 ;9 : 652686.