



Submission to the Australian Government Senate Inquiry Regarding Prevalence of Different Types of Speech, Language and Communication Disorders and Speech Pathology Services in Australia 2014

Prevalence of speech, language, and communication needs in Australia's children

Professor Sharynne McLeod, PhD, FSPAA, Australian Research Council Future Fellow

Charles Sturt University, Australia (smcleod@csu.edu.au) - February 2014

This submission demonstrates that there is a high prevalence of speech and language needs for Australian children. The information is based on data from 13 studies and 300,000+ Australian children.

Benchmark international systematic review of prevalence of speech and language need

Speech and language delay is a "high prevalence condition" (Law et al., 2000, p. 179) according to the authors of an international systematic review of literature regarding prevalence of children with primary speech and language delay. In their systematic review, Law and colleagues indicated that there was a

- range of 2.30 to 24.60% for speech delay only
- range of 2.02% to 19% for language delay only
- range of 2.28 to 6.68% (median prevalence of 5.95%) for combined speech and language delay.

"Even a moderate or mild delay may cause appreciable concern to parents and other carers."

(Law et al., 2000, p. 179)

Comparative prevalence in a longitudinal Australian study of 14,500 children

The prevalence of nine areas of learning need was identified within a large school district in NSW (37 primary schools and 7 secondary schools) via a 4-stage data collection, initiated by classroom teachers and confirmed by assessment from relevant professionals teachers (McLeod & McKinnon, 2007). There were 14,514 students in the first year of data collection (wave 1) and 14,533 students two years later (wave 2). Overall 5,309 (36.57%) students were identified as having some area of learning need in the first year and 4,845 (33.33%) students were identified 2 years later. Specifically, the areas of learning need (in order) were:

- specific learning difficulty (17.93% in wave 1; 19.10% in wave 2)
- **communication disorder (13.04%; 12.40%)**
- English as a second or other language (9.16%; 5.80%)
- behavioural/emotional difficulty (8.16%; 6.10%)
- early achiever/advanced learner (7.30%; 5.50%)
- physical/medical disability (1.52%; 1.40%)
- intellectual disability (1.38%; 1.20%)
- hearing impairment (0.96%; 0.80%)
- visual impairment (0.16%; 0.30%) (McLeod & McKinnon, 2007).

Many children with communication disorder have no known cause (e.g., they do not have hearing loss, intellectual disability, cleft palate, etc.).

In a follow-up study, presence of a **communication disorder was the most important predictive factor that students required a high level of support at school** (McLeod & McKinnon, 2010).

Australian prevalence of speech, language, and communication need

The following table provides a summary of literature from Australia regarding the prevalence of children with speech, language, and communication needs. Overall, the data demonstrate that many children have difficulty requiring speech-language pathology services.

Table 1. Prevalence of Australian children with speech, language, and communication need organized according to age (adapted from McLeod, McAllister, McCormack & Harrison, 2013, in press)

Study + Cohort acronym	N	Age	Method	Domain	Prevalence
Taylor, Maguire, & Zubrick (2011): LSAC-B	5,107	9 mths	Parent report	Language	17.8%
Reilly, Bavin et al. (2009): ELVS	1,911	1-2 yrs	Parent report	Language	19.7%
Zubrick et al. (2007): RASCALS	1,766	2 yrs	Parent report	Language	13.4%
Reilly, Onslow et al., (2009): ELVS	1,619	2-3 yrs	Parent + SLP report	Stuttering	8.5%
McLeod & Harrison (2009): LSAC (K cohort)	4,983	4-5 yrs	Parent report Teacher report	Speech and language	24.5% 22.3%
CCCH (2009): AEDI	261,203	4-5 yrs	Teacher report	Language and literacy	8.9% ^a + 14.0% ^b
CCCH (2009): AEDI	261,203	4-5 yrs	Teacher report	Communication	9.2% ^a + 15.8% ^b
Jessup et al. (2008)	308	5-6 yrs	Direct assessment	Speech and language	41.2%
Taylor, Maguire, & Zubrick (2011): LSAC-K	4,317	6-7 yrs	Direct assessment	Language (receptive)	19.6%
Taylor, Maguire, & Zubrick (2011): LSAC (K cohort)	4,317	8-9 yrs	Direct assessment	Language (receptive)	15.0%
McKinnon, McLeod, & Reilly (2007)	10,425	5-12 yrs	Teacher + SLP report	Speech, voice, stuttering	0.12-1.06%
Harasty & Reed (1994)	437	5-12 yrs	Direct assessment	Communication	28.8-37.6%
Keating et al. (2001)	12,388	0-14 yrs	Parent report	Talking, speech, stuttering	1.7%
McLeod & McKinnon (2007): wave 1	14,514	5-18 yrs	Teacher + SLP report	Communication	13.0%
McLeod & McKinnon (2007): wave 2	14,533	5-18 yrs	Teacher + SLP report	Communication	12.4%

LSAC-B = Longitudinal Study of Australian Children - Birth cohort, LSAC-K = Longitudinal Study of Australian Children - Kindergarten cohort, ELVS = Early Language in Victoria Study, RASCALS = Randomly Ascertained Sample of Children born in Australia's Largest State, CCCH = Centre for Community Child Health and Telethon Institute for Child Health Research, AEDI = Australian Early Development Index, SLP = speech-language pathologist confirmation. Note. Some studies, particularly Taylor et al. (2011) also reported prevalence figures for additional measures. ^a Developmentally vulnerable, ^b Developmentally at risk

Extended version of this information

McLeod, S., McAllister, L., McCormack, J., & Harrison, L. J. (2013, in press). Applying the World Report on Disability to children's communication. *Disability and Rehabilitation*, [doi:10.3109/09638288.2013.833305](https://doi.org/10.3109/09638288.2013.833305)

References

- Centre for Community Child Health and Telethon Institute for Child Health Research (CCCH). (2009). A snapshot of early childhood development in Australia - AEDI National Report 2009. Canberra, Australia: Australian Government.
- Harasty, J., & Reed, V. A. (1994). The prevalence of speech and language impairment in two Sydney metropolitan schools. *Australian Journal of Human Communication Disorders*, 22, 1-23.
- Jessup, B., Ward, E., Cahill, L., & Keating, D. (2008). Prevalence of speech and/or language impairment in preparatory students in northern Tasmania. *International Journal of Speech-Language Pathology*, 10(5), 364 - 377.
- Keating, D., Turrell, G., & Ozanne, A. (2001). Childhood speech disorders: Reported prevalence, comorbidity and socioeconomic profile. *Journal of Paediatrics and Child Health*, 37(5), 431-436.
- Law, J., Boyle, J., Harris, F., Harkness, A., & Nye, C. (2000). Prevalence and natural history of primary speech and language delay: Findings from a systematic review of the literature. *International Journal of Language and Communication Disorders*, 35(2), 165-188.
- McKinnon, D. H., McLeod, S., & Reilly, S. (2007). The prevalence of stuttering, voice and speech-sound disorders in primary school students in Australia. *Language, Speech, and Hearing Services in Schools*, 38(1), 5-15.
- McLeod, S., & Harrison, L. J. (2009). Epidemiology of speech and language impairment in a nationally representative sample of 4- to 5-year-old children. *Journal of Speech, Language, and Hearing Research*, 52(5), 1213-1229.
- McLeod, S., & McKinnon, D. H. (2007). The prevalence of communication disorders compared with other learning needs in 14,500 primary and secondary school students. *International Journal of Language and Communication Disorders*, 42(S1), 37-59.
- McLeod, S., & McKinnon, D. H. (2010). Required support for primary and secondary students with communication disorders and/or other learning needs. *Child Language Teaching and Therapy*, 26(2), 123-143.
- Reilly, S., Bavin, E. L., Bretherton, L., Conway, L., Eadie, P., Cini, E., . . . Wake, M. (2009). The Early Language in Victoria Study (ELVS): A prospective, longitudinal study of communication skills and expressive vocabulary development at 8, 12 and 24 months. *International Journal of Speech-Language Pathology*, 11(5), 344-357.
- Reilly, S., Onslow, M., Packman, A., Wake, M., Bavin, E., Prior, M., . . . Ukoumunne, O. (2009). Predicting stuttering onset by age 3 years: A prospective, community cohort study. *Pediatrics*, 123, 270-277.
- Taylor, C. L., Maguire, B., & Zubrick, S. R. (2011). Children's language development. In Australian Institute of Family Studies (Ed.), *The Longitudinal Study of Australian Children: Annual statistical report 2010* (pp. 107-122). Barton, ACT, Australia: Australian Institute of Family Studies.
- Zubrick, S. R., Taylor, C. L., Rice, M. L., & Slegers, D. W. (2007). Late language emergence at 24 months: An epidemiological study of prevalence, predictors, and covariates. *Journal of Speech, Language and Hearing Research*, 50(6), 1562-1592.