

# Policy Brief

Synthesising research evidence to inform policy



## Social disadvantage and early language delay

- Language delay during the preschool years is likely to have long-term consequences for the education, health and wellbeing of individuals and potentially the prosperity and cohesion of our society.
- Language delay is as common as childhood obesity, affecting as many as 1 in 5 children. It is especially prevalent in socially disadvantaged communities.
- Support for the development of oral language skills needs to be one of the top priorities of child education and health sectors, and should be integrated into the curriculum from preschool through to secondary school.
- Education and specialist services for language delay should focus on the oral language skills of children from socially disadvantaged backgrounds.

### What is early language delay and why is it important?

While many preschoolers learn how to speak with comparative ease, some struggle to acquire oral language skills. These children, often described as being 'language delayed' or having a 'language delay', can find it difficult to understand what is said to them, pick up new vocabulary, sequence words into sentences, and pronounce words so that they can be understood.

One of the features of early language delay is that it is much more common in children from socially disadvantaged households, where there are fewer resources, where parental education is often lower and where the opportunities provided to children are more restricted. For example, the UK's Millennium Cohort Study<sup>1</sup> of 18,000 children found that children from the most socio-economically disadvantaged groups are twice as likely to experience language delay.

Language delay threatens a child's readiness for school, as well as their academic performance as they move through the school years. Low language performance is associated with lower school readiness and poor reading and writing skills.<sup>2,3</sup>

Language delay at school entry is linked to later health and social inequalities.<sup>4,5</sup> While some children outgrow their language delay, for many others it appears to have a detectable impact well into adulthood, not just on subsequent language skills but on literacy, quality of life, mental health and life chances generally.<sup>4,5,6,7,8,9</sup> There is also increasing awareness that communication skills are necessary for entry into the white collar workforce.<sup>10,11</sup>

### What causes language delay?

Social disadvantage probably exacerbates rather than causes language delay.

The chances of a child having language delay increases where there is a family history of language delay, or reading, writing or learning difficulties.<sup>12,13,14</sup> It is likely that social factors compound genetic ones across childhood, especially for children from more socially disadvantaged backgrounds.<sup>15,16,17,18</sup>

But what is it about the environment that is important? Lower parental education levels are known to be associated with lower oral language skills in the child,<sup>15,16,17,19</sup> and are also likely to be associated with lower parental engagement and reduced social opportunities for the child.<sup>20,21</sup>

Concern is often expressed about modern lifestyle issues (e.g. the effect of watching television and using computers), however, it is not straightforward. Some studies have found that children who are heavy television users have lower language scores while others show that television can be a positive factor and provide important opportunities for children to verbally engage with other family members.<sup>22</sup> This suggests that it's not the length of screen time that is important but what and how children watch.

While the home environment may be more influential during the preschool years,<sup>12</sup> neighbourhood factors become more salient as the child gets older.<sup>23,24</sup> For example, children who are not allowed to play in the neighbourhood park because of safety concerns will be exposed to fewer of the social encounters crucial to robust language development.<sup>12</sup>

### How do we help a child with limited language skills?

Supporting parents to better understand their child's communication needs is essential. Good-quality early childhood or nursery provision also has a significant role to play for more disadvantaged children in terms of their social, cognitive and language skill development.<sup>25</sup> Interventions that promote language development have been shown to be effective in clinical populations and the school setting<sup>26,27,28</sup> and the returns on investment can be substantial.<sup>29</sup>

Importantly, helping children with limited language skills has potential economic implications. Referring to Head Start, a long running intervention program for more disadvantaged children in the US, Nobel laureate economist James Heckman maintains that: "The highest rate of return in early childhood development comes from investing as early as possible, from birth through age five, in disadvantaged families. Starting at age three or four is too little too late, as it fails to recognize that skills beget skills in a complimentary and dynamic way. Efforts should focus on the first years for the greatest efficiency and effectiveness."<sup>30</sup>

## Recommendations

### For policy

- Initiatives which promote language development in young children and target language delay are an investment in our future prosperity as a society.
- The high prevalence and life-long consequences of early language delay demand that language difficulties be considered an issue of public health importance. In addition to more traditional education objectives such as literacy and numeracy, oral language needs to remain on the school curriculum throughout primary and secondary school.
- High-quality child care and preschool education are essential for promoting language development. They assist toddlers to become 'school ready' and in turn, ready for later life.
- Consideration must be given to the recommendations made by the Australian Senate committee following their inquiry into communication disorders in 2014<sup>31</sup> that there is a need to:
  - Map language support services across Australia against the information in the Australian Early Development Census (formerly Index) about vulnerable communities, and
  - Conduct a thorough and systematic audit of the adequacy, strengths and limitations of existing speech and language services for children in Australia.
- There is a need for greater public awareness about early language delay, its potential implications and what parents can do about it. There is merit in incorporating this information into antenatal and parenting classes.

### For practice

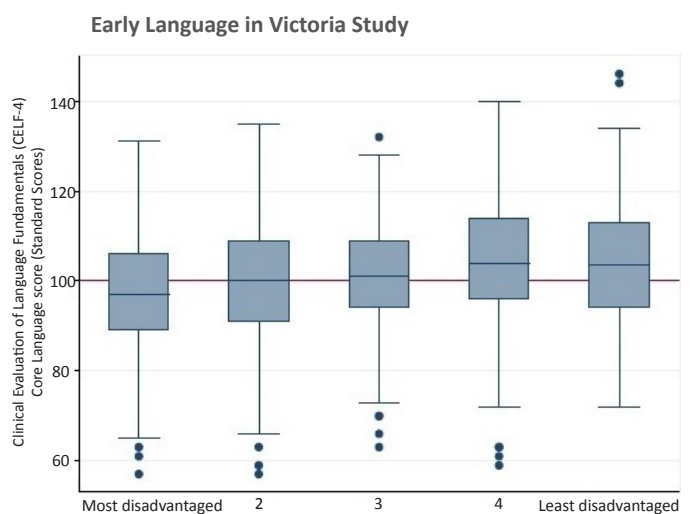
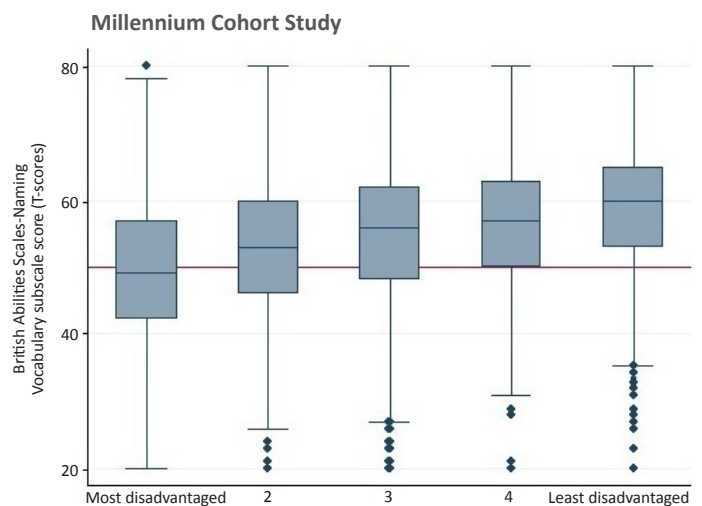
- 'Targeted' or 'proportionate' universalism needs to be the foundation of language and early development services. The premise of this approach is that all members of a community are provided with a strong base level of service, while supplementary service is 'targeted' to meet the additional needs of specific groups within that community.
- Interventions to support early language delay need to be evidence-based with due consideration given to developing high-quality, ongoing program evaluation.<sup>28</sup> Interventions also need to be mindful of the value of integrating external evidence with professional expertise and parental perspectives.<sup>32</sup>
- Services have a role to play in identifying and monitoring language delay over time. Given the natural fluctuations in language development, relying on one-off screening tests can lead to the inefficient and ineffective use of resources. Intervention programs for early language delay also need to be sustainable.<sup>33,34</sup>

- All practitioners, including teachers, social workers, therapists, nurses and other professionals need to have a sound understanding of language development and use this knowledge to support parents through their practice.

### For research

- Evidence concerning the effectiveness of language interventions or programs needs to be summarised and made accessible to practitioners so that they can adapt it to their own context. Evidence summaries such as What Works for Speech Language and Communication Needs<sup>35</sup> and Speechbite<sup>36</sup> provide a useful example of evidence underpinning practice, but it is important that they are available to the full range of practitioners working with young children with early language delay.

### Social gradient in oral language skills amongst 5-year-old children



Children are grouped in quintiles according to social disadvantage.  
The reference line in both graphs is the standardisation mean for the assessment.

## References

- <sup>1</sup> Millennium Cohort Study: Centre for Longitudinal Studies. <http://www.cls.ioe.ac.uk/page>.
- <sup>2</sup> High, P. (2008). School readiness. *Pediatrics*, 121(4), e1008-15.
- <sup>3</sup> Roulstone, S., Law, J., Rush, R., Clegg, J., & Peters, T. (2011). *Investigating the role of language in children's early educational outcomes: An analysis of data from the Avon Longitudinal Study of Parents and Children (ALSPAC)*. Nottingham: Department for Education. Retrieved from <http://www.education.gov.uk/publications/eOrderingDownload/DFE-RR134.pdf>
- <sup>4</sup> Marmot Review Team (2010). *Fair society, healthy lives: the Marmot Review: Strategic review of health inequalities in England post-2010*. London: Marmot Review Team. Retrieved from <http://www.instituteofhealthequity.org/projects/fair-society-healthy-lives-the-marmot-review>
- <sup>5</sup> Maggi, S., Irwin, L., Siddiqi, A., & Hertzman, C. (2010). The social determinants of early child development: An overview. *Journal of Paediatrics and Child Health*, 46(11), 627-35.
- <sup>6</sup> Johnson, C., Beitchman, J., & Brownlie, E. (2010). Twenty-year follow-up of children with and without speech-language impairments: Family, educational, occupational, and quality of life outcomes. *American Journal of Speech-Language Pathology*, 19(1), 51-65.
- <sup>7</sup> Hartshorne, M. (2006). *The cost to the nation of children's poor communication: Scotland edition (I CAN Talk Series Issue 3)*. Retrieved from <http://www.ican.org.uk/~media/ican2/Whats%20the%20Issue/Evidence/3%20ICT%20Cost%20to%20the%20Nation%20Scotland.ashx>
- <sup>8</sup> Law, J., Rush, R., Parsons, S., & Schoon, I. (2009) Modelling developmental language difficulties from school entry into adulthood: Literacy, mental health and employment outcomes. *Journal of Speech, Language and Hearing Research*, 52, 1401-16.
- <sup>9</sup> Field, F. (2010). *The foundation years: Preventing poor children becoming poor adults: The report of the Independent Review on Poverty and Life Chances*. United Kingdom: HM Government. Retrieved from <http://webarchive.nationalarchives.gov.uk/20110120090128/http://povertyreview.independent.gov.uk/media/20254/poverty-report.pdf>
- <sup>10</sup> Ruben, R. (2000). Redefining the survival of the fittest: Communication disorders in the 21st century. *The Laryngoscope*, 110, 241-51.
- <sup>11</sup> Industry Skills Councils (Australia). (2011). *No more excuses: An industry response to the language literacy and numeracy challenge*. Industry Skills Councils. Retrieved from [http://www.isc.org.au/resources/uploads/pdf/NoMoreExcuses\\_FINAL%20FINAL%20single%20page.pdf](http://www.isc.org.au/resources/uploads/pdf/NoMoreExcuses_FINAL%20FINAL%20single%20page.pdf)
- <sup>12</sup> Campbell, T.F., Dollaghan, C.A., Rickette, H.E., Paradise, J.L., Feldman, H.M., Shriberg, L.D., Sabo, D.L., & Kurs-Lasky, M. (2003). Risk factors for speech delay of unknown origin in 3-year-old children. *Child Development*, 74(2), 346-57.
- <sup>13</sup> Reilly, S., Wake, M., Prior, M., Williams, J., Bretherton, L., Eadie, P., Barrett, Y., & Ukoumunne, O.C. (2007). Predicting language at 2 years of age: A prospective community study. *Pediatrics*, 120(6), e1441-9.
- <sup>14</sup> Henrichs, J., Rescorla, L., Schenk, J.J., Schmidt, H.G., Jaddoe, V.W., Hofman, A., Raat, H., Verhulst, F.C., Tiemeier, H. (2011). Examining continuity of early expressive vocabulary development: The generation R study. *Journal of Speech, Language, and Hearing Research*, 54(3), 854-69.
- <sup>15</sup> Tucker-Drob, E., Rhemtulla, M., Harden, K., Turkheimer, E., & Fask, D. (2011). Emergence of a gene x socioeconomic status interaction on infant mental ability between 10 months and 2 years. *Psychological Science*, 22(1), 125-33.
- <sup>16</sup> Turkheimer, E., Haley, A., Waldron, M., D'Onofrio, B., & Gottesman, I. (2003). Socioeconomic status modifies heritability of IQ in young children. *Psychological Science*, 14(6), 623-8.
- <sup>17</sup> Rowe, D., Jacobson, K., & Van Den Oord, E. (1999). Genetic and environmental influences on vocabulary IQ: Parental education level as moderator. *Child Development*, 70(5), 1151-62.
- <sup>18</sup> Friend, A., DeFries, J., & Olson, R. (2008). Parental education moderates genetic influences on reading disability. *Psychological Science*, 19(11), 1124-30.
- <sup>19</sup> Miser, T., & Hupp, J. (2012). The influence of socioeconomic status, home environment, and childcare on child language abilities. *Current Psychology*, 31(2), 144-59.
- <sup>20</sup> Hoff, E. (2003). The specificity of environmental influence: Socioeconomic status affects early vocabulary development via maternal speech. *Child Development*, 74(5), 1368-78.
- <sup>21</sup> Hoff, E. (2006). How social contexts support and shape language development. *Developmental Review*, 26(1), 55-88.
- <sup>22</sup> Close, R. (2004). *Television and language development in the early years: A review of the literature*. London: National Literacy Trust. Retrieved from [http://www.literacytrust.org.uk/assets/0000/0429/TV\\_early\\_years\\_2004.pdf](http://www.literacytrust.org.uk/assets/0000/0429/TV_early_years_2004.pdf)
- <sup>23</sup> Kenney, M. (2012). Child, family, and neighborhood associations with parent and peer interactive play during early childhood. *Maternal and Child Health Journal*, 16(Suppl. 1), S88-101.
- <sup>24</sup> McCulloch, A., & Joshi, H. (2001). Neighbourhood and family influences on the cognitive ability of children in the British National Child Development Study. *Social Science and Medicine*, 53(5), 579-91.
- <sup>25</sup> Sammons, P., Elliot, K., Sylva, K., Melhuish, E., Siraj-Blatchford, I., & Taggart, T. (2004). The impact of pre-school on young children's cognitive attainments at entry to reception. *British Educational Research Journal*, 30, 691-712.
- <sup>26</sup> Cirrin, F.M., & Gillam, R.B. (2008). Language intervention practices for school-age children with spoken language disorders: A systematic review. *Language Speech and Hearing Services in Schools*, 39(1): S110-S137.
- <sup>27</sup> Boyle, J., McCartney, E., O'Hare, A., & Law, J. (2010) Intervention for receptive language disorder. *Developmental Medicine & Child Neurology*, 52, 994-999.
- <sup>28</sup> Schooling, T., Venediktov, R., & Leech, H. (2010) Evidence-based systematic review: *Effects of service delivery on the speech and language skills of children from birth to 5 years of age*. Rockville, MD: American Speech-Language-Hearing Association. Retrieved from: <http://www.asha.org/uploadedFiles/EBSR-Service-Delivery.pdf>
- <sup>29</sup> Marsh, K., Bertranou, E., Suominen, H., & Venkatachalem, M. (2010). *An economic evaluation of speech and language therapy*. London: Matrix Evidence. Retrieved from <http://www.optimitymatrix.com/wp-content/uploads/2013/09/45-Speech-and-Language.pdf>
- <sup>30</sup> <http://heckmanequation.org>
- <sup>31</sup> Community Affairs References Committee. (2014). *Prevalance of different types of speech, language and communication disorders and speech pathology services in Australia*. Canberra, Australia: the Senate Community Affairs Committee Secretariat. Retrieved from [http://www.aph.gov.au/Parliamentary\\_Business/Committees/Senate/Community\\_Affairs/Speech\\_Pathology/Report](http://www.aph.gov.au/Parliamentary_Business/Committees/Senate/Community_Affairs/Speech_Pathology/Report)
- <sup>32</sup> Law, J., Roulstone, S., & Lindsay, G. (2015). Integrating external evidence of intervention effectiveness with both practice and the parent perspective: The development of an interactive evidence database. *Developmental Medicine and Child Neurology*, 57(3), 223-8.
- <sup>33</sup> Allen, G., & Duncan Smith, I. (2008). *Early intervention: Good parents, great kids, better citizens*. London: the Centre for Social Justice and the Smith Institute. Retrieved from <http://www.centreforsocialjustice.org.uk/UserStorage/pdf/Pdf%20reports/EarlyInterventionFirstEdition.pdf>
- <sup>34</sup> Allen, G. (2011). *Early intervention: The next steps*. United Kingdom: HM Government. Retrieved from [https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/284086/early-intervention-next-steps2.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/284086/early-intervention-next-steps2.pdf)
- <sup>35</sup> Law, J., Lee, W., Roulstone, S., Wren, Y., Zeng, B., & Lindsay, G. (2012). *'What Works': Interventions for children and young People with speech, language and communication needs*. United Kingdom: Department for Education. Retrieved from [https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/219623/DFE-RR247-BCRP10.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/219623/DFE-RR247-BCRP10.pdf)
- <sup>36</sup> <http://speechbite.com>

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## About us

The Centre of Research Excellence in Child Language is a collaboration of child language experts from the Murdoch Childrens Research Institute and Newcastle (UK), Deakin and La Trobe Universities. It uses the latest approaches in molecular genetics, neuro-imaging, epidemiology, biostatistics and health economics to investigate factors that affect and improve child language and development.

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