



Speech-Language & Audiology Canada  
Orthophonie et Audiologie Canada  
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*SAC Position Paper on*  
**Early Identification of Speech  
& Language Disorders**

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October, 2012

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A position paper represents the direction CASLPA has taken on a particular topic or provides guidelines for particular areas of practice. These positions are time-bound, representing the thinking at a particular point in time.

## Position

The Canadian Association of Speech-Language Pathologists and Audiologists (CASLPA) supports a national, formalized and standardized strategy for the early identification of speech and language problems. Such a strategy is essential to child development services and will benefit all the people of Canada. The early identification of speech and language problems is integral to prevention of associated problems in communication, literacy and cognition and is fundamental for lifelong learning and well-being. This paper demonstrates the necessity of a nationally established and supported plan for early identification of speech and language problems and offers specific recommendations for implementation.

## Rationale

Early intervention in speech-language pathology refers to services for infants and toddlers, birth to 3 years of age (Paul & Roth, 2011). There is variation amongst Canadian provinces and territories regarding the definition of 'early' speech and language development, resulting in inconsistent and variable practices for early identification of, and interventions for, disorders. An accepted definition of 'early' is necessary to inform a national strategy.

There is compelling scientific evidence supporting the importance and effectiveness of an integrated, multi-disciplinary and intersectoral program for early interventions (McCain & Mustard, 1999; McCain, Mustard & Shanker, 2007). Early intervention includes and depends on the earliest possible effective identification of speech and language disorders. Results of four decades of applied research in neurosciences, speech-language pathology and early childhood special education show that strategic early intervention programs improve lifetime outcomes for vulnerable and at-risk children and generate a range of benefits to society (Shonkoff & Phillips, 2001).

The first three years of life are a time of rapid brain organization and growth that affects not only linguistic development but also cognitive, emotional, social and motor development. Optimal brain development during the first three years is therefore vitally important to long-term outcomes, impacted by interactions between early physical, social, emotional and experiential learning (Hertzman, 2000; Shonkoff & Meisels, 2000). Typically there is explosive phonological, vocabulary, syntax and semantic growth, as well as the emergence of sense of self in relation to others for the social use of speech and language. Child-specific biological vulnerabilities, as well as environmental factors that affect vulnerabilities, need to be identified during this time. Without early identification programs, followed by integral early intervention programs, children with speech and language problems could have poorer adult outcomes, resulting in familial and societal stress (Hertzman, 2000). Fortunately, difficulties in speech and language learning in the early years can be ameliorated, or in some cases prevented, if they are efficiently identified (Hertzman, 2000; Hertzman, 2010).

## Recommendations

**CASLPA advocates for a national, formalized and standardized strategy for the early identification of speech-language problems that enhances:**

- a) reliable prevention, identification and elimination of causal factors of speech and language disorders, and
- b) promotion of wellness; that is, a decreased prevalence of developmental speech-language disorders and increased communication functioning from infancy on.

**This strategy includes:**

1. Enhancement of the expertise of Canadian speech-language pathologists focusing on: precursors to speech and language development; early speech and language development, risks and

disorders; current best available evidence in the early identification of speech and language risks, delays and disorders; early social, environmental and biological risks for speech and language development problems.

2. Development and application of prevention strategies for speech and language delays and disorders.
3. Accessible and reliable early identification practices for all children in Canada.
4. Public education to promote:
  - a) understanding of factors that place infants and toddlers at risk for speech and language problems;
  - b) understanding of conditions which ensure optimum development of speech and language abilities; and
  - c) appropriate referrals to speech-language pathologists.
5. Research in Canada to inform early identification practice for speech-language pathologists (i.e., predictors of speech and language development and early childhood factors that affect the healthy development and maintenance of speech-language abilities).
6. Lobbying/informing government officials, stakeholders, associates and colleagues relative to early identification strategies to decrease the prevalence of late childhood and school-age speech-language and communication disorders.

## Background

Early intervention can alter maladaptive trajectories resulting from inherent speech-language and communication vulnerabilities and ameliorate more severe outcomes. Coping abilities, competencies, health and well-being are strongly influenced by the integrity of neural circuitry that is established as a result of intricate interactions of genes, early environments and experiences (Shonkoff, Harvard National Forum on Early Childhood, 2000).

Early speech and language development has a decisive influence on later academic accomplishments, health, well-being and quality of life (Guralnick, 2011; National Research Council & Institute of Medicine, 2000). Higher level language skills are founded on the quality of development in the first three years. Early language skill development allows for cultural learning, problem solving, complex social behaviour and literacy competence. Children who don't experience optimum early language learning are not prepared, nor equipped, for compulsory formal education by age 5 (Hart & Risely, 1995). They're unable to use language to assist their learning in math and science domains: language that includes complex verbal instructions; negotiation of complex relationships and feelings with peers and adults; and solving problems associated with their ever-expanding community base (Otto, 2002). Using and understanding complex grammar, understanding others' points of view, developing conscience, negotiation skills, conflict resolution and cultural sensitivity, all depend on the language foundations laid in the first three years (Otto). Children with inherent language disabilities, who do not receive early intervention, begin to experience increasing difficulties in life because of the growing visibility of their differences and their increasing learning incompetency. Early problems with speech and language development can result in later life high risk behaviours, depression, poor resiliency and isolation in society, while language competence predicts cascading competencies in a broad range of life domains (Blair, Peters & Lawrence, 2003; Calandrella & Wilcox, 2000; Moffatt, 1993). Moreover, disparities that occur from speech and language developmental difficulties in the first three years of life are often not overcome without later concerted remedial effort and significant investment.

Early experiences have a powerful influence on the integrity of the development of neural pathways that underlie humans' capacity to use language, become literate and understand the complexities of their environments. Brain plasticity is greatest in the prenatal period and during very early childhood. Skills for language depend on the optimal stimulation of the brain's neural pathways during these times (McCain, Mustard & Shanker, 2007). Appropriate interactions and stimulation are extremely important to ensure optimum development. Often, early development must be enhanced by the expertise and guidance of knowledgeable, trained, professionals who can ensure that a child's early circumstances benefit, rather than risk, his/her future well-being. Many children and families in Canada currently miss the opportunity to receive appropriate early intervention because of a lack of reliable early identification methods (Mentore, 2000; Talay-Ongan, 2001).

Speech and language delays are the most reported problem in children as a primary concern or with associated developmental disabilities and they are often the first concerns expressed by parents when talking to professionals about their children's development (Wetherby and Prizant, 1996). Estimates of the prevalence of language difficulties by preschool age are between 2% and 19%, while specific language impairment (SLI) is one of the most common childhood disorders, affecting 7% of children (ASHA, 2005). Other speech disorders, which also impact a person's life functioning (e.g., phonology, stuttering), have reported prevalence estimates of 1-14% (Campbell et al. 2003; Craig et al. 2002; Craig & Tran, 2005). Furthermore, whole families are impacted by speech and language impairments; there is a 20-40% incidence of problems in families with a history of SLI (Choudhury & Benasich, 2003).

Since speech-language disorders have far-reaching effects on so many children's abilities to communicate, learn and function in life, and are likely to lead to other adult functional difficulties, the early identification of problems, through appropriate screening and assessment, is extremely important. CASLPA is committed to improving the lives of all persons with speech and language disabilities from infancy through adulthood and believes that if a significant investment is made now in Canada to address a science-based plan for the early identification of speech and language problems, or risks of problems, the early life foundations for our children's success will improve. CASLPA encourages the establishment of standards of practice and integral knowledge creation through research for the early identification of speech and language problems. An investment in effective early identification and follow-up intervention services, for young children with speech and language delays and disorders, is critical to produce optimum benefit for them and for future generations of Canadians. As leaders in the field of early childhood speech and language development, assessment of delays and disorders, and appropriate interventions, the more than 6,000 CASLPA members actively support this position statement.

## References

- American Speech and Hearing Association (ASHA, 2008). Incidence and Prevalence of Communication Disorders and Hearing Loss in Children.
- Blair C, Peters R, Lawrence F. (2003) Family dynamics and child outcomes in early intervention: The role of developmental theory in the specification of effects. *Early Childhood Research Quarterly* 2003; 18(4):446-67.
- Calandrella, MJ & Wilcox AM. (2000). Predicting language outcomes for young prelinguistic children with developmental delay. *Journal of Speech Language & Hearing Research* 43(5):1061-71.
- Campbell, T. F., Dollaghan, C. A., Rockette, H. E., Paradise, J. L., Feldman, H. M., Shriberg, L. D. et al. (2003). Risk factors for speech delay of unknown origin in 3-year-old children. *Child Development*, 74, 346-357.

- Canadian Association of Speech-Language Pathologists and Audiologists (CASLPA, 2007). Improving Children's Lives and Government's Bottom Line: The Value of Early Identification of Communication and Hearing Disorders in Children.
- Canadian Task Force on Preventive Health Care (2003). New grades for recommendations from the Canadian Task Force on Preventive Health Care. *CMAJ*, 169, 207-208.
- Choudhury & Benasich, (2003). A family aggregation study. The influence of family history and other risk factors on language development. *Journal of Speech Language and Hearing Research* 46, 261-272.
- Cossette L, Duclos E. A. (2001). Profile of Disability in Canada, 2001., Ottawa, Ontario: Statistics Canada; 2002 Dec. Report No.: 89-577-XIE.
- Craig, A., Hancock, K., Tran, Y., Craig, M., & Peters, K. (2002). Epidemiology of stuttering in the community across the entire lifespan. *Journal of Speech, Language, and Hearing Research*, 45, 1097-1105.
- Craig, A., & Tran, Y. (2005). The epidemiology of stuttering: The need for reliable estimates of prevalence and anxiety levels across the lifespan. *Advances in Speech-Language Pathology*, 7(1), 41-46.
- Guralnick, M.J., (2011). Why early intervention works: A systems perspective. *Infants & Young Children*, 24(1), 6-28.
- Hart, B. & Risley, T. (1995). *Meaningful Differences in the Everyday Experience of Young American Children*, Baltimore, MD: Paul H. Brookes Publishing Co.
- Hertzman C. (2000). The Case for an Early Childhood Development Strategy. *Canadian Journal of Policy Research*, 1, 11-18.
- Hertzman, C. (2010). Social geography of developmental health in the early years. *Health Quarterly* (14).
- McCain, M. & Mustard, F. (1999). Reversing the Real Brain Drain: Early Years Study Final Report. Ontario Children's Secretariat, Publications.
- McCain, M., Mustard, F., & Shanker, S. (2007). *Early Years Study 2: Putting Science into Action*. Council for Early Child Development.
- Mentore JL. The effectiveness of early intervention with young children "at risk": A decade in review 2000.
- Moffat, T.E. (1993). The neuropsychology of conduct disorder. Development and psychopathology 1993; 5(1-2): 135-151. As reported in Cohen, N.J. (2005) The Impact of Language Development on the Psychosocial and Emotional Development of Young Children. Encyclopaedia on Early Childhood Development, Centre of Excellence on Early Childhood Development.

- Otto, B. (2002) *Language Development in Early Childhood*. Pearson Education, Inc. NJ.
- Paul, D. & Roth, F. P. (2011). Guiding Principles and Clinical Applications for Speech-Language Pathology Practice in Early Intervention. *Language, Speech, and Hearing Services in Schools*, 42, 320-330.
- Shonkoff, J.P., Meisels, S.J. (2000). *Handbook of early childhood intervention (2<sup>nd</sup> ed.)* New York, NY, US: Cambridge University Press.
- Shonkoff J.P. and Phillips D.A. (2001). *From Neurons to Neighborhoods: The Science of Early Childhood Development*; Committee on Integrating the Science of Early Childhood Development, Board on Children, Youth, and Families Supplementary Resources Report. <http://www.halton.ca/common/pages/UserFile.aspx?fileId=16362>.
- Talay-Ongan A. Early intervention: Critical roles of early childhood service providers. *International Journal of Early Years Education* 2001 October; 9(3):221-8.
- Wetherby, A. & Prizant, B. (1996). Toward earlier identification of communication and language problems in infants and young children. In S. Meilels & E. Fennichel (Eds.), *New Visions for Developmental Assessment* (pp. 289-3121). Arlington, VA: NCCIP.