



What are the challenges in the 0 – 5-year-old space?

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Partners:



Challenges

- Overview
- Population Health approach
- Identification and developmental course
- Prevention and intervention
- Our program

Challenges

- Common problem with potential for debilitating long-term social, education and health consequences

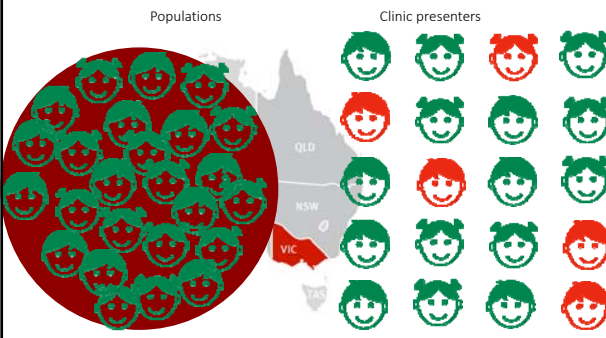
Challenges

- Overview
- **Population**
 - Knowing your population
 - Adopting a population approach
- Identification and developmental course
- Prevention and intervention
- Our program

Knowing your population

- Traditionally speech pathologists working with children have tended to adopt a 'clinical' approach to case management.
- Children referred and diagnosed with speech and/or language disorders

Population view of low language



Populations

Clinic presenters

QLD
NSW
VIC

Population/community	Clinical
All children or representative sample of children with condition	Sub-group of children with condition
Full range of ability(s)	May be referred or self selected because of particular traits e.g. higher parent concern Likely to be more severe or have co-morbidities
Prospective information available	Retrospective re early development
Typically Longitudinal	Cross sectional or Longitudinal
Inbuilt comparison group	Control group* (recruited if available)
Can extrapolate findings to population	Findings only relevant to clinical cohort

*information about early development of control group often retrospective

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Challenges

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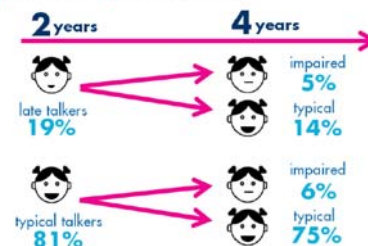
Challenges – Identification and Developmental course

- May occur in isolation
- May be first presenting symptom of range of developmental conditions
- In first 2-4 years of life language development varies greatly between typically developing children
- Predictive tools unreliable in 0-3 year age group – making referral an inexact science.
- Concern from more than one viewpoint (parent, teacher, nurse etc.) remains a strong indicator.

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Challenges – Identification and Developmental course

Trajectories of two-year old late talkers



*Gf graphic courtesy of Peacock Dream, The Noun Project

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Across international studies

- ▶ 4, 5, & 8 year old findings corroborate that
 - ▶ More than half of the late talkers **do not** present with language difficulties at school entry
 - ▶ Trajectories that broadly represent **persistent, transient** and **late onset** language impairment exist across languages
 - ▶ **Poor early comprehension skills** are a strong & consistent predictor of persistent problems, particularly for girls
 - ▶ **Family history** of speech, language & literacy difficulties is important & may be a discriminating factor regarding language trajectories

Acknowledgement: Trish Eadie 2014

Challenges – Identification and Developmental course

- Identification may be more reliable in as children get older
- Language impairment may 'emerge' become evident for the first time in older children

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Challenges

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Prevention and Intervention

- The majority of evidence relates to intervention with clinically referred populations.
- Population screening and population level randomised trials in the preschool years have not shown treatment effects for the primary language outcomes.

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Challenges – Prevention/Intervention

Evidence from three systematic reviews:

- Expressive language difficulties - can be improved using traditional "case based" approach, where children present to services and receive individualized, impairment focused interventions.
- Both individual and group interventions can be delivered by speech and language therapists or by a range of other practitioners supervised by speech and language therapists.
- Receptive language - treatment effects - much smaller.
- Where difficulties are severe and persistent, intervention is primarily directed towards structuring the learning environment to maximise children's participation and access to the curriculum.

Law et al 2003; Nelson et al 2006; Schooling et al 2010; Wallace et al 2015;

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Challenges – Prevention/Intervention

- Children younger than 3 years with low expressive language abilities but otherwise normal development usually do well, with normal language by age 4 years.
- Environments should be conducive to learning language – e.g. quality preschool time, providing parents with home based activities to promote language, and, for families with low resources, linkage to broader family support services.

Reilly et al 2015

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Two-Year Outcomes of a Population-Based Intervention for Preschool Language Delay: An RCT

Melissa Wake, MD^{1,2,3}, Penny Levickis, PhD^{4,5}, Sherryn Tobin, DPsych^{6,7}, Lisa Gold, PhD⁸, Obioha C. Ukoumunne, PhD⁹, Sharon Goldfeld, PhD^{10,11}, Naomi Zens, PhD¹², Ha N.D. Le, MHEcon¹, James Law, PhD¹, Sheena Reilly, PhD¹³

Short-term benefits to phonology, letter knowledge, and expressive language from systematically ascertaining language delay at age 4 years followed by the Language for Learning intervention.

Two years later there were no measureable lasting impacts on language, possibly reflecting resolution in both groups.

There were possible long term literacy benefits (phonological awareness)

Wake et al 2015

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Challenges – Prevention/Intervention

Twelve treatment studies - improved various outcomes in language, articulation, and stuttering; little evidence emerged for interventions improving other outcomes or for adverse effects of treatment.

Lack of well-designed, well-conducted studies addressing whether screening for speech and language delay or disorders improves outcomes.

Wallace et al 2015

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Interventions –

- Ideally delivered in partnership with parents
- Determined by the child's speech or language phenotype/profile and needs and based on best evidence.
- Designed to improve the associated disabling aspects of the disorder, psychosocial and academic opportunities, participation in society, and quality of life.
- Integrated with early education
- Adjusted to and tailored according to the child's profile (e.g. receptive vs expressive skills), co-existing speech and other problems

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Challenges – our program

An ideal public health model:

- Would incorporate surveillance practices that monitor children's developmental pathways for language over time
- Along with support services tailored to needs at the right point in the child's development.

How do we develop a model that comprises universal, targeted and specialist approaches and a range of delivery platforms including:

- MCHN, General Practice, Early years settings, Schools and Speech Pathologists

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SESSION 1 WHAT ARE THE PRACTICE AND POLICY CHALLENGES FOR ADDRESSING THE LANGUAGE NEEDS OF YOUNG CHILDREN?

9.15-9.45 What are the challenges in the 0-5-year-old space?

Professor Sheena Reilly, Director, Menzies Health Institute Queensland, Griffith University

9.45-10.30 The natural history of language impairment: Parents, predictors and public health

Professor James Law, Professor of Speech and Language Sciences, Newcastle University, UK

10.30-10.55 How policy is enabling young children's language learning in Victoria

Karen Weston, Director (Early Learning and Development Reform), Victorian Government Department of Education and Training

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10.55-11.15 Morning Tea

SESSION 2 WHAT'S HAPPENING ON THE GROUND? LESSONS FROM THE UK AND VICTORIA

11.15-11.45 "Five a day"? A survey of child language and public health practice in the UK

Professor James Law, Professor of Speech and Language Sciences, Newcastle University, UK

11.45-12.35 Identifying promising and innovative practice for babies and toddlers: Lessons from the research and current practice

Rebecca Fry, Manager, Centre for Community Child Health and Tiffany Goss, Speech Pathologist: Clinical Practice Educator, Goodstart Early Learning

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SESSION 3 NEW RESEARCH AND IMPLICATIONS FOR PRACTICE

1.35-2.25 Infant directed speech and language development in the first years of life

Dr Marina Kalashnikova, Leader of the MARCS BabyLab, MARCS Institute, University of Western Sydney

2.25-2.45 Promoting language at home using a nurse visiting trial (right@home)

Associate Professor Sharon Goldfeld, Co-Group Leader (Policy, Equity and Translation) and Paediatrician at the Centre for Community Child Health, Murdoch Childrens Research Institute and The Royal Children's Hospital Melbourne

2.45-3.05 Building parent capacity to support early language and learning: Results from a cluster randomized controlled trial

Professor Jan Nicholson, Judith Lumley Centre, La Trobe University

3.05-3.30 Where to next for early language intervention?

Professor Sheena Reilly, Director, Menzies Health Institute Queensland, Griffith University

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