

I'm dumb and I don't want to go to school – a practical approach to learning difficulties

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Community
Child Health



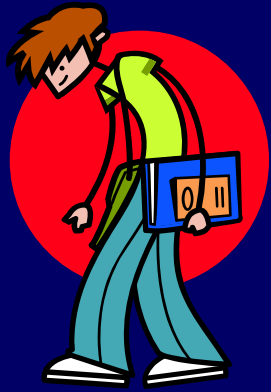
Murdoch Childrens
Research Institute



Session outline

- James and Tyson
- Definitions and descriptions
- Paediatric assessment
- Management and communication
- Advocacy





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James 7.2 years

- Grade 2
- Reluctant in morning, refuses h'work
- Inattentive, fidgety, perfectionist
- Delayed literacy, recall, ? language comprehension
- Teacher more, parents less concerned about learning



Tyson 6.10 years

- Grade 1
- Hates school
- Oppositional, aggressive, poor concentration and task completion
- Delayed all academic areas, disorganised language, clumsy
- Teacher very, father less concerned about behaviour



Definitions of LD

- Definition of exclusion
- Gap between ability and achievement
- Difference between verbal/
performance scores on cognitive
assessment
- Not a discrete entity - continuum



What's in a name?

- Learning ***difficulties*** - outcome of constitutional and environmental factors, prevalence 15-20%
- Learning ***disabilities/disorder*** - neurological, prevalence 1-3%



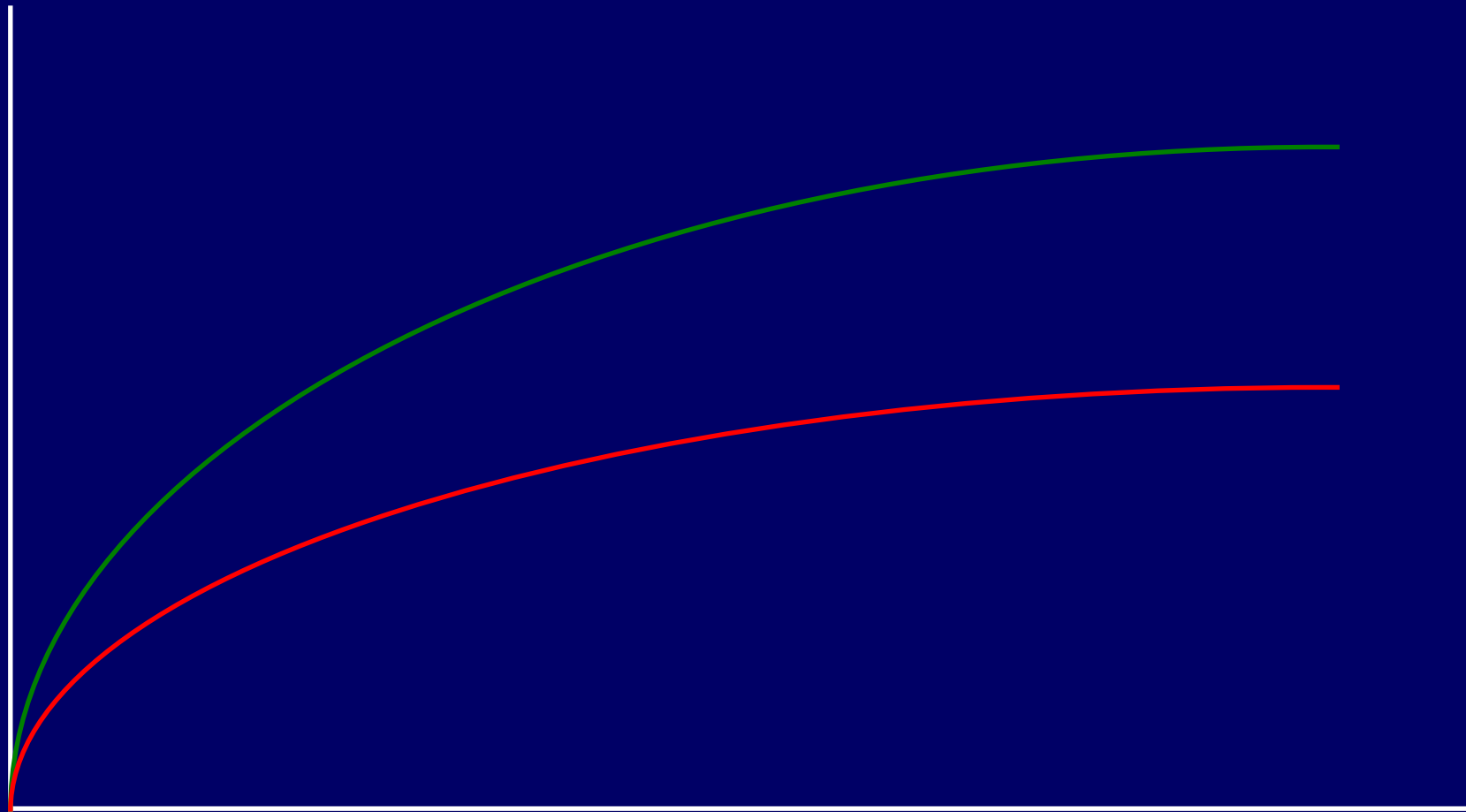
Paediatric perspective

- Complex ~ chronic illness/disability
- Life course perspective – social gradient of health
- Contribution of cognitive, developmental, behavioural and environmental factors
- Requires multidisciplinary focus in assessment and management



The developmental trajectory and life course

Outcome



Age



Early predictors of reading difficulty

- Poor phonological awareness
- Language delay
- Poor self regulation

- **Early recognition, early intervention essential—gap widens after 8 years**



Patterns

- Reading difficulties ~ 80%
- Associated with spelling and writing difficulties
- Isolated maths or writing difficulties less common



Cognitive processes in development of reading

- Word identification
- Language comprehension
- **Word identification** - requires decoding print - requires phonological analysis, and mastery of alphabetic code



Cognitive processes in learning

- Phonological processing
- Memory and attention
- Processing speed
- Language processing
- Perceptual motor processing
- Visual processing



Cognitive processes cont'd

- Executive functions; integration of information, planning and organisation
- INFORMATION PROCESSING



Phonological processing

- Phonological awareness – understand oral language divides into smaller components
- Phonemic awareness – understand words are made of individual sounds
- Phonics – association of letters and sounds to understand written symbols



Readiness to learn ~ 5 years

- Reading - phonological awareness, beginning knowledge of alphabet, auditory memory, literacy experiences
- Writing - motor skill, perceptual organization
- Maths - one to one correspondence
- Behaviour – self regulation, emotional security, self confidence



Paediatric assessment - individual differences model

- Measure strengths and weaknesses
- Assessment goal -accurate *description*
- Individual management plan, specific to child and relevant to school
- **Implies flexible responsive school environment**



Approach to assessment

- Understand systems- preschool, school, special schools, support for children with additional needs, community support
- Multidisciplinary- parent, child, teacher, other disciplines eg psychology, speech pathology, special education
- Avoid labelling unless specific purpose



Process of paediatric assessment

- Multiple sources information – parent and teacher questionnaires, CBCL, TRF
- Elaboration of history
- Physical, neurological examination
- Neurodevelopmental assessment
- Referral for more detailed assessments as appropriate



Teacher questionnaire

- Difficulties and strengths
- Specific questions needing help
- School setting, resources
- Previous evaluations
- Typical daily performance rated 1-4
- Achenbach TRF
- Language for Learning questionnaire



Neurodevelopmental assessment

- Neuromaturation
- Gross motor and fine motor skills
- Visual-motor integration
- Sequential organization – aud and vis
- Language (with help of questionnaire)
- Note attention and related behaviours



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James, 7.2 yrs

- Neuromaturation mildly delayed
- Gross and fine motor skills normal
- VMI normal
- Delayed STAM and visual sequencing
- Q – flags re memory L for Learning, compr
- CBCL – normal range
- TRF – borderline ADHD



Tyson 6.10 years

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Tyson, 6.10 yrs

- Neuromaturation delayed
- Poor gross and fine motor coordination
- VMI gestault normal, poor execution
- STAM delayed, visual sequencing low normal
- Language disorganised, flags in L for L Q
- CBCL ADHD, ODD – TRF ADHD, ODD, CD



Cognitive assessments

- **James WISC IV**

- VCI 19%
- PRI 66%
- PSI 50%
- WMI 21%
- FS IQ na

- **Tyson WIPPSI III**

- Verbal 7%
- Performance 45%
- Proc speed 14%
- Gen language 16%
- FS IQ 14%



Language assessments

- | | |
|------------------------|----------------------|
| • James CELF 3 | Tyson CELF P2 |
| • Receptive 86 (>86) | Receptive 54 (>85) |
| • Expressive 88 (> 86) | Expressive 83 (> 85) |
| • Total 85 (> 85) | Total 75 (> 85) |



Diagnoses

- **James**

- Language based LD
- Borderline language skills
- Avoidant behaviours
- Advantaged family

- **Tyson**

- Language based LD
- Language delay, partic receptive
- EBPs
- Motor incoordination
- Disadvantaged family



Management of learning difficulties

- Description of strengths and weaknesses rather than labels
- Interpret developmental findings so can plan educational strategies
- Diagnosis where ? eligible for special resources
- NB CO MORBIDITIES



Management cont'd

- Interpret biomedical findings
- Investigations as required eg audiology, genetics, bloods, EEG
- Specific management eg ADHD and medication
- Discuss CAM
- ? Case conference



Reports

- Clear simple language
- Paint a picture of child, **STRENGTHS**
- Acknowledge contribution of school
- List issues and actions
- Provide info about devel/ learning
- Don't tell teachers how to teach



Using different language

O'Keefe, McDowell, JPCH 2004: 40, 252-257

- **Paediatricians**
- Individual
- Biology, family genetics, environment
- Devel patterns
- Continuum, threshold of disorder
- How children learn
- **Teachers**
- Child class/ school
- Family input, pressure
- Skill patterns
- Categories of disorder, NB funding
- How to teach children



Advocacy

- Individual by engagement with school, clarity of reports, support for parents
- System – Victoria – DEECD – continuum of care and education from early childhood to preschool, school
- System – Australia - AEDI



Australian Early Development Index

- Population measure of young children's development
- 100 item checklist completed by teachers on all children in first year of school
- Use with populations based on geographical or administrative boundaries



AEDI

- Measures 5 developmental domains:
 - *Physical health and well-being*
 - *Social competence*
 - *Emotional maturity*
 - *Language and cognitive development.*
 - *Communication skills and general knowledge.*

A measure of how well the community has raised their children before school.



Uses of the AEDI :

- raise awareness about the early years
- use with other community mapping and consultation processes to enable mobilisation and prioritise action
- allow teachers to systematically reflect on all aspects of each child's development , plan educational needs
- Provide baseline for measuring change in development of the population



Progress to date 2004-2007

- 37,420 children
- 1012 schools
- 2137 teachers

Teachers identify

- ATSI 6%, ESL 10%
- special needs 5%, need assess 12%



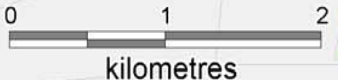
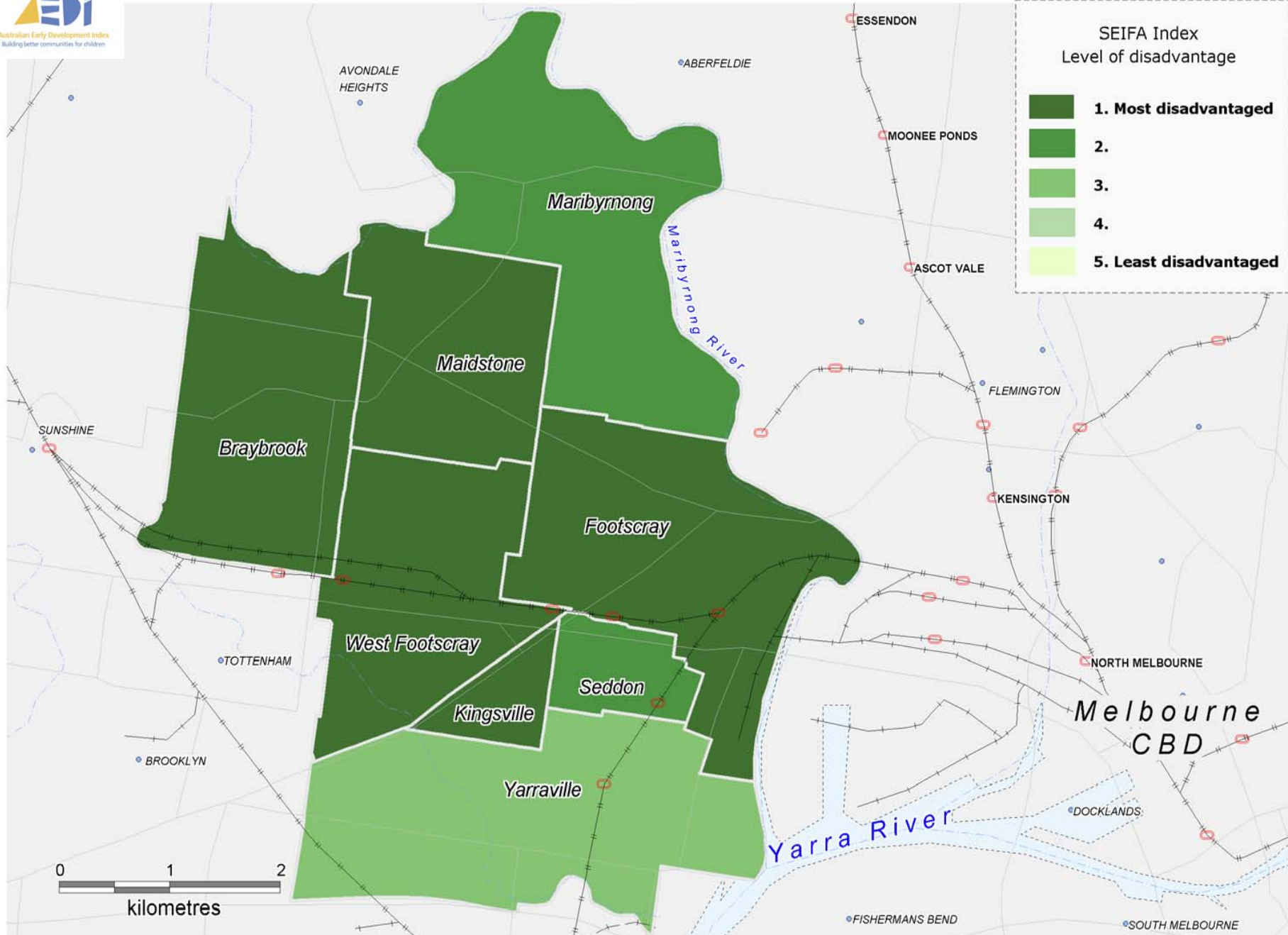
National Results

- 10% “developmentally vulnerable” on **each** AEDI domain
- 24% “developmentally vulnerable” on **one or more** domains
- 12% “developmentally vulnerable” on **two or more** domains
- 68% “performing well” on one or more domains



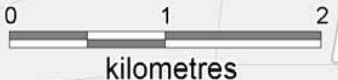
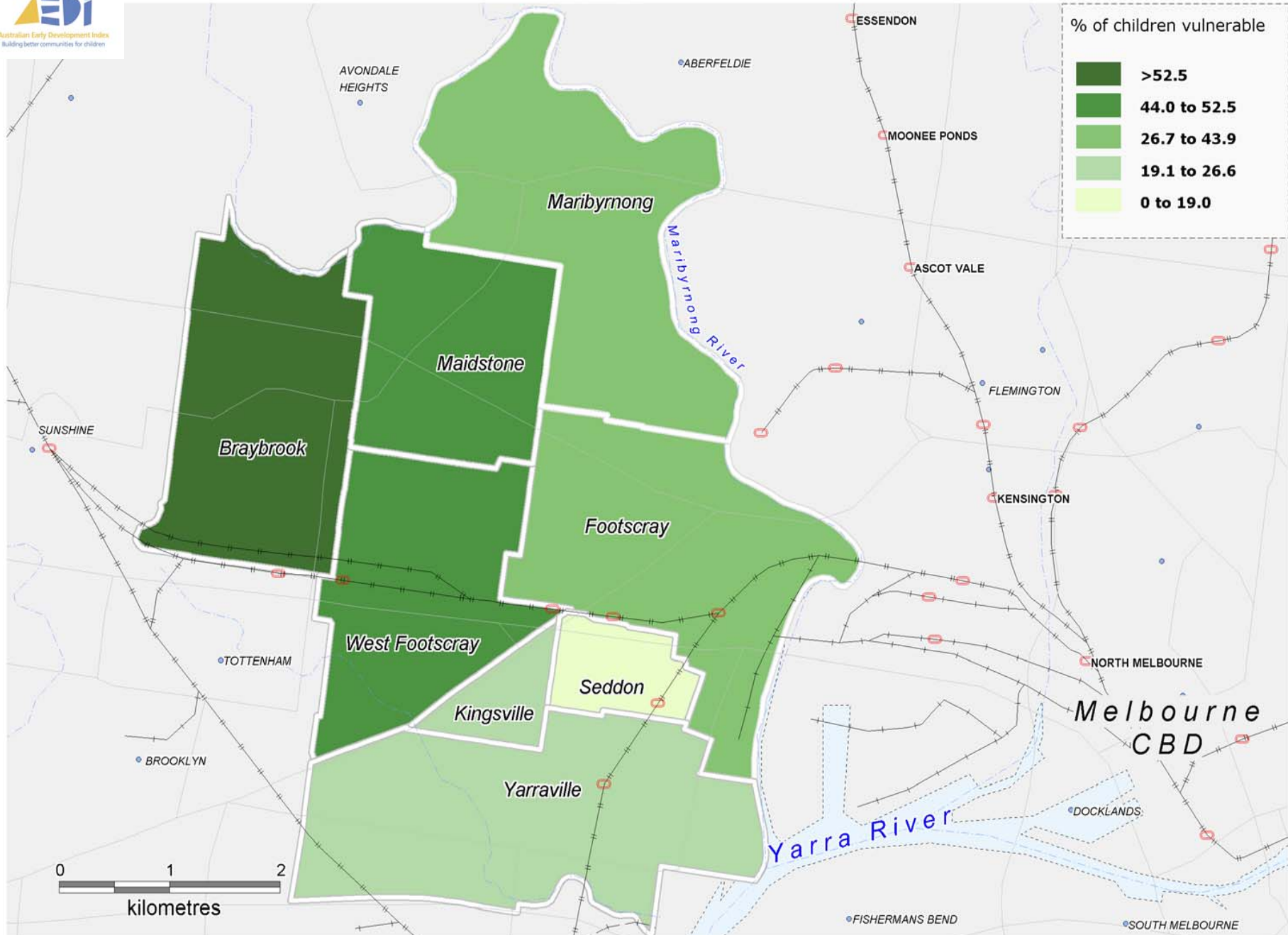
MARIBYRNONG Geographic Area, Victoria

5 km West of Melbourne



MARIBYRNONG Geographic Area, Victoria

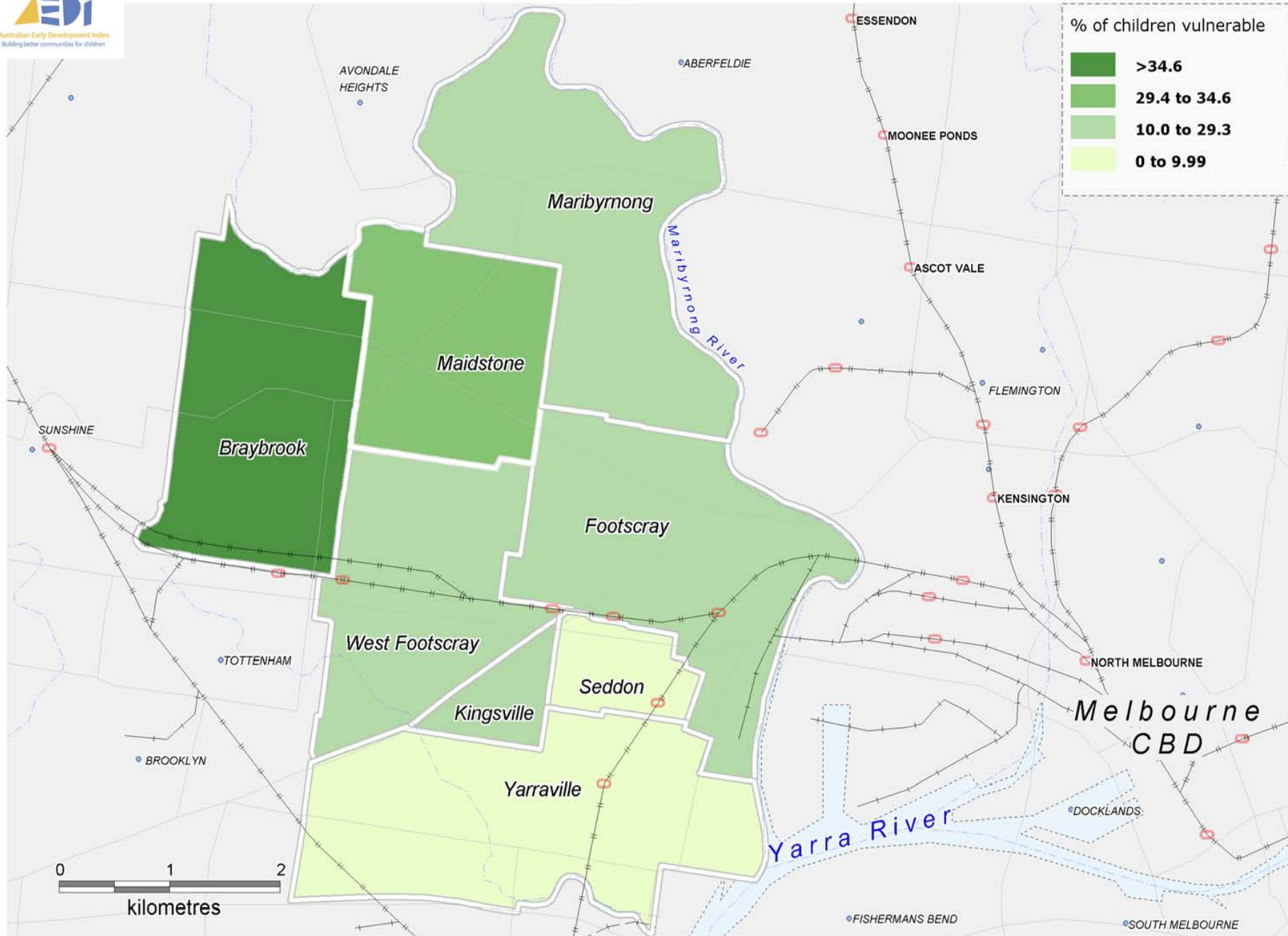
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Proportion of children vulnerable on one or more domains

MARIBYRNONG Geographic Area, Victoria

5 km West of Melbourne



Proportion of children vulnerable on two or more domains

AEDI

- National rollout over next 3 years
- Commonwealth funding \$16m
- Watch the space near you!



Learning difficulties matter

- High prevalence, long term consequences, need data and surveillance
- Prevention (early literacy)
- Early recognition and effective intervention
- Opportunity for advocacy at health – education interface

