Children with additional health and development needs: the challenge of matching response to need

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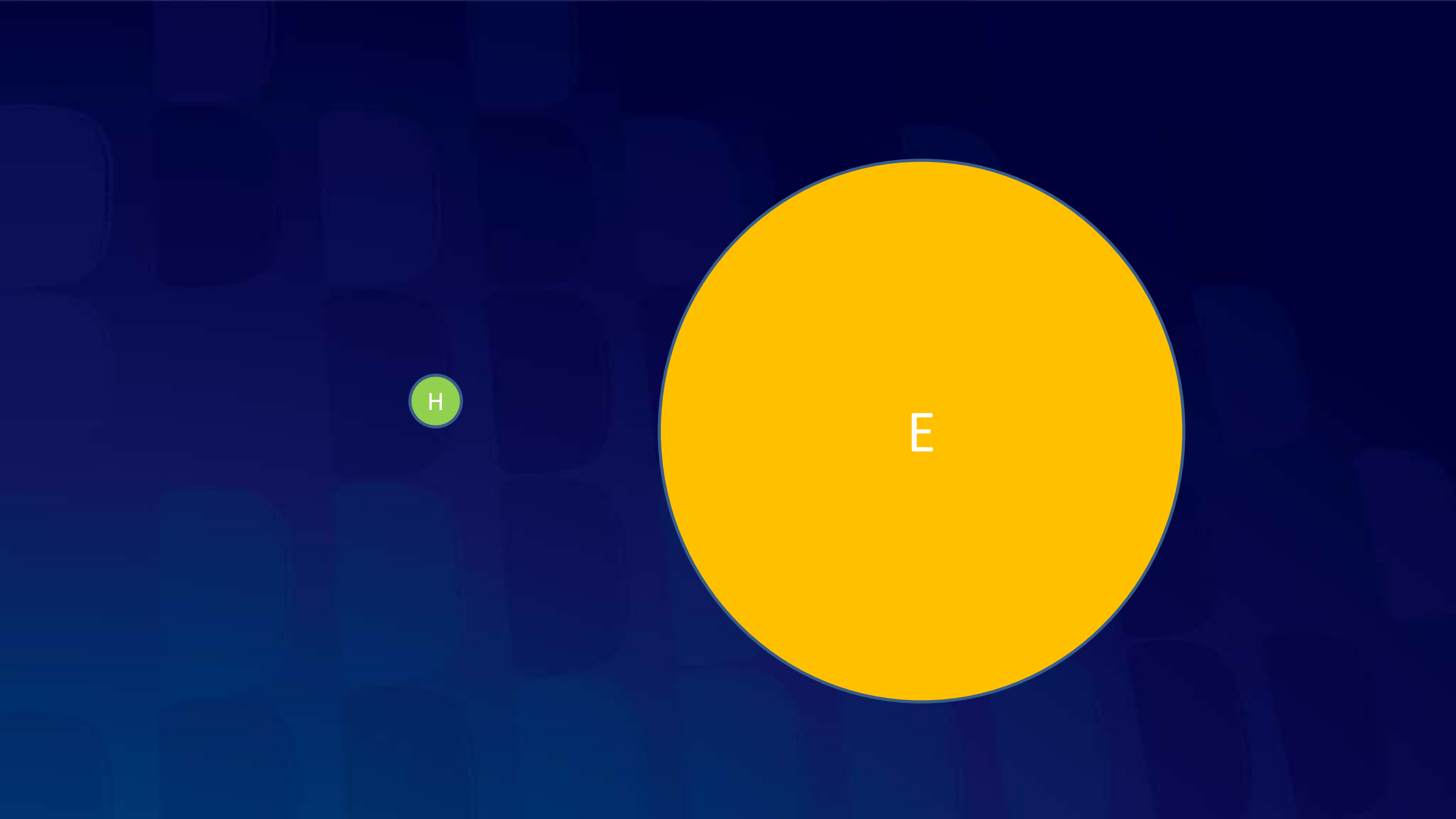
Inequity is the presence of systematic and potentially remediable differences among population groups defined socially, economically, or geographically

International Society for Equity in Health [http://www.iseqh.org]

Venkatapuram S, Bell R, Marmot M: **The right to sutures: social epidemiology, human rights, and social justice.** *Health Hum Rights* 2010, **12:**3-16.

Equality

Equity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What do we know about children's developmental needs in Australia?

An Australian Government Initiative

Australian Early Development Census

The Australian Early Development Census

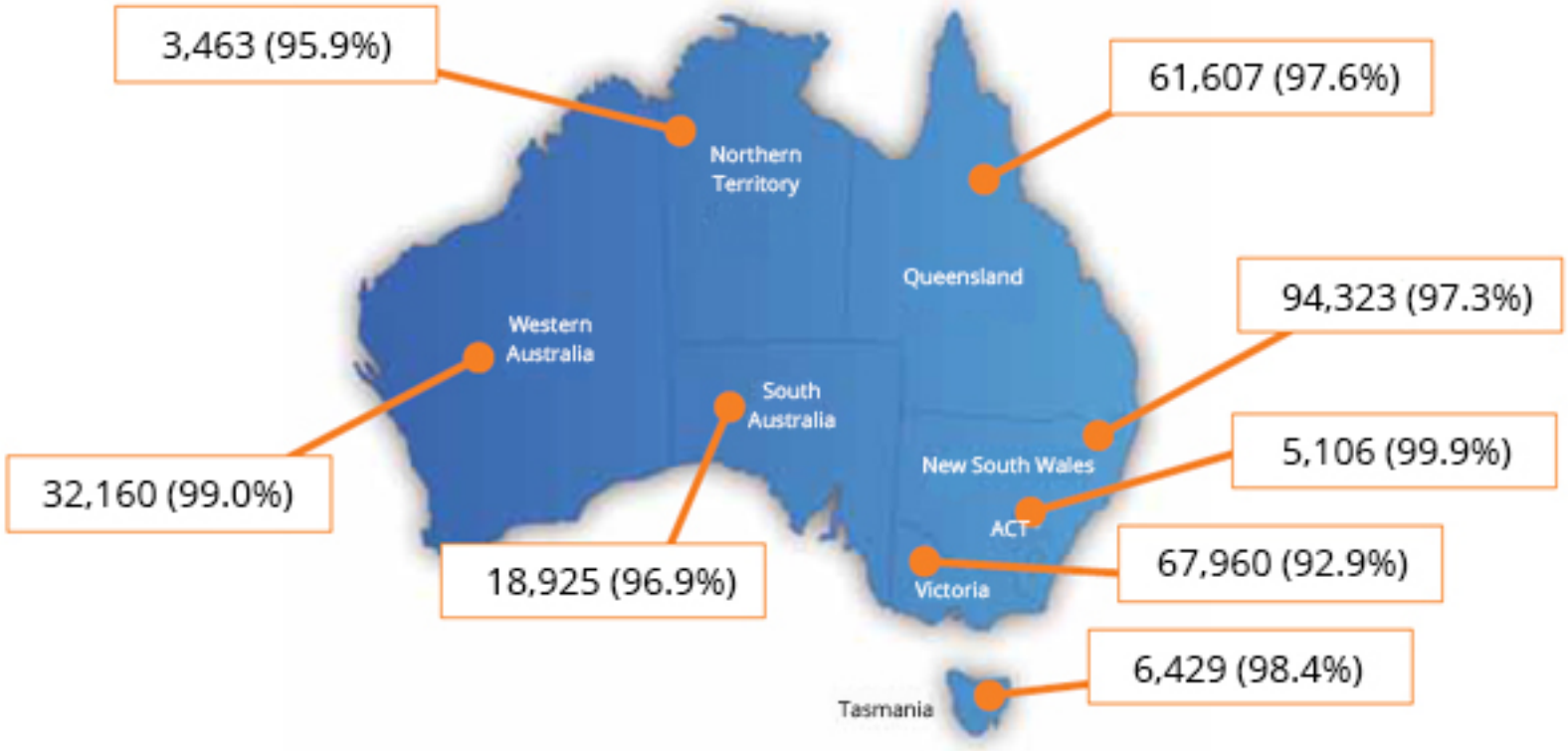
- adaptation of the Canadian Early Development Instrument
- 104 item questionnaire
- Items form scores on 5 domains
  - Physical health and development
  - Social competence
  - Emotional maturity
  - Language and cognitive skills (school based)
  - Communication skills and general knowledge
- Developmental vulnerability reported for each domain and for one or more and two or more domains

National implementation:

- National data collection from 1 May to 31 July 2009 and 2012
- Data collected by teachers through a secure web based data entry system
- Schools provided with funding of 1 hour for teacher training and 30 minutes per completed checklist
- Data analysed and reported based on where children live

2012 snapshot of Australia's children

Total = 289,973 children (96.5% of estimated population)



	2009		2012	
	DV 1 (Per cent)	DV 2 (Per cent)	DV 1 (Per cent)	DV 2 (Per cent)
Australia	23.6	11.8	22.0	10.8
Gendar				
Female	16.8	7.4	15.7	6.8
Male	30.2	16.2	28.2	14.8
Indigenous				
indigenous	47.4	29.6	43.2	26.0
Non-indigenous	22.4	11.0	20.9	10.0
Language diversity				
LBOTE	32.2	16.7	29.5	14.6
Proficient in English	21.8	9.6	20.0	8.3
Not proficient in English	93.7	59.0	93.7	58.0
English only	21.7	10.8	20.2	9.9
Proficient in English	19.3	8.7	17.9	7.9
Not proficient in English	93.8	75.2	93.7	72.3
State/Territory				
NSW	21.3	10.3	19.9	9.2
VIC	20.3	10.0	19.5	9.5
QLD	29.6	15.8	26.2	13.8
WA	24.7	12.2	23.0	11.2
SA	22.8	11.5	23.7	12.2
TAS	21.8	10.8	21.5	10.1
ACT	22.2	10.9	22.0	9.8
NT	38.7	23.4	35.5	20.9

Children with additional health and developmental needs

Special health care needs categories

Category	Definition	Prevalence
Established needs	Children identified with special needs prior to AEDI	11,484 children (4.4%)
Of concern	Children identified with some area of difficulty and/or requiring further assessment	46,938 children (18%)
Standard population	Children with no identified risk	202,725 children (78.6%)

The Royal Children's Hospital Melbourne

Original Article

Prevalence and Correlates of Special Health Care Needs in a Population Cohort of Australian Children at School Entry

Sharon Goldfeld, PhD, FRACP,*†‡ Meredith O'Connor, DEdPsych,*† Mary Sayers, MCom,*†‡
Tim Moore, PhD,*†‡ Frank Oberklaid, MD, FRACP*†‡

The Children's
Excellence in clinical care, research and education

The Royal Children's Hospital Melbourne

Murdoch Childrens Research Institute

The University of Melbourne

Types of areas of impairment

	Established needs		Of concern	
	n	%	n	%
Learning disability	5841	57%	2278	6.3%
Speech impairment	5814	56.7%	13355	36.9%
Behavioral problem	3459	33.8%	5731	15.8%
Emotional problem	2334	22.8%	4241	11.7%
Physical disability	1988	19.4%	1184	3.3%
Home environment	1713	16.7%	8955	24.7%
Hearing impairment	922	9%	2208	6.1%
Visual impairment	864	8.4%	2957	8.2%
Neurodevelopmental disorder	750	7.3%	212	0.6%
Trauma, isolation or difficulties associated with resettlement	609	5.9%	2053	5.7%
Chronic illness	571	5.6%	1772	4.9%
Other enduring problem	3946	38.5%	7548	21%

Note children could have >1 area of impairment, and so percentages sum to >100%. Teachers answered this question for 89% of children with established needs.

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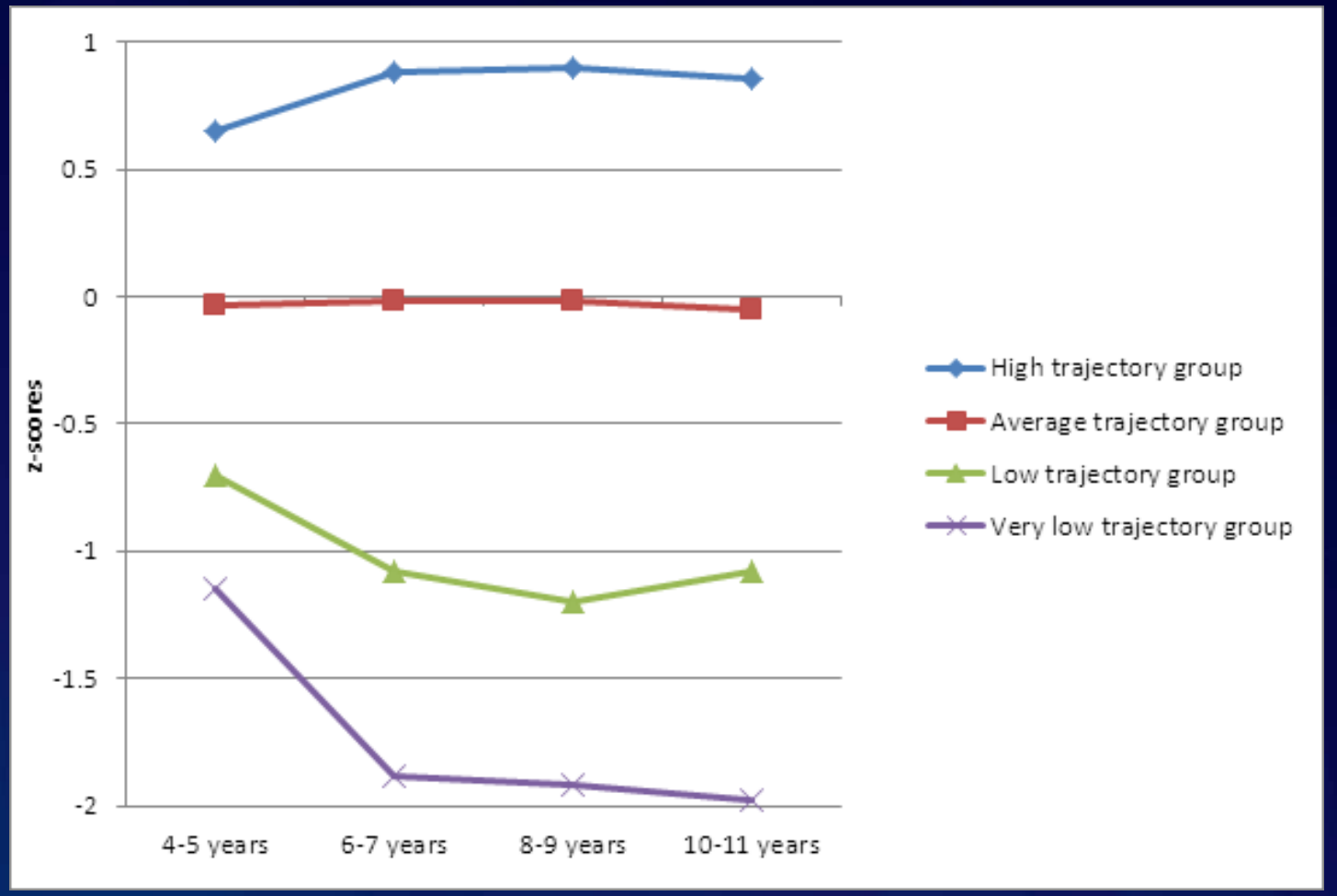
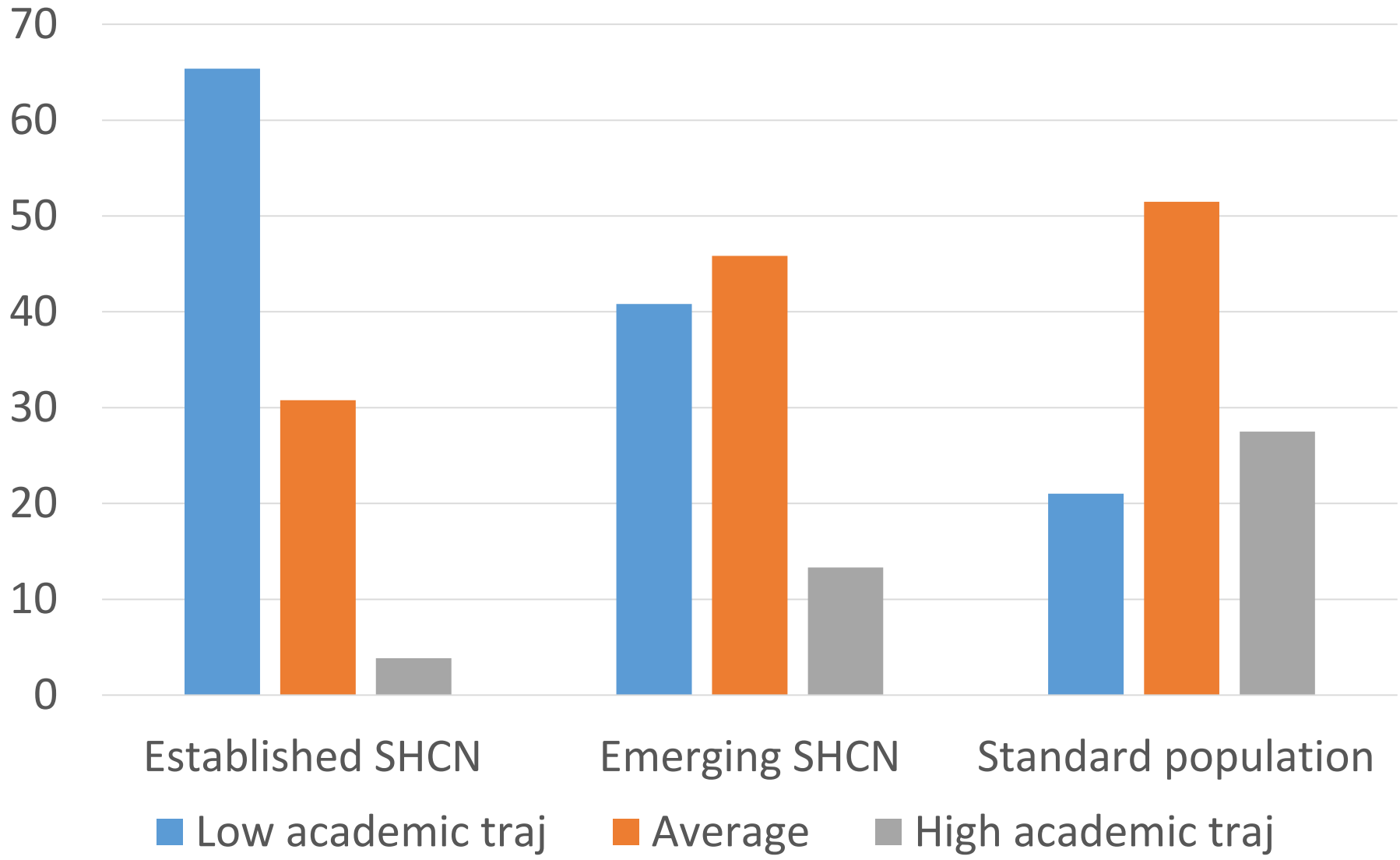
Learning trajectories of children with additional needs



N=717 (LSAC K Cohort with AEDI results)

Goldfeld S, O'Connor M, Quach J, Tarasuik J, Kvalsvig A. Learning trajectories of children with special health care needs across the severity spectrum. *Academic Pediatrics.* 2015;15(2):177–184.



% of children in each trajectory according to SHCN status

Goldfeld S, O'Connor M, Quach J, Tarasuik J, Kvalsvig A. Learning trajectories of children with special health care needs across the severity spectrum. *Academic Pediatrics.* 2015;15(2):177–184.

Relationship between predictor variables and academic trajectories

	Academic trajectory group						Low vs. high academic trajectory		Average vs. high academic trajectory	
	Low		Average		High		Unadj	Adjust	Unadj	Adjust
	n	%	n	%	n	%				
SHCN group Established needs	17	65.38	8	30.77	1	3.85	†		†	
Emerging needs	49	40.83	55	45.83	16	13.33	3.79** (1.94-7.38)	3.15** (1.58-6.28)	1.90* (1.07-3.37)	1.71 (.97-3.00)
Standard population	120	21.02	294	51.49	157	27.50	Ref.	Ref.	Ref.	Ref.

Goldfeld et al

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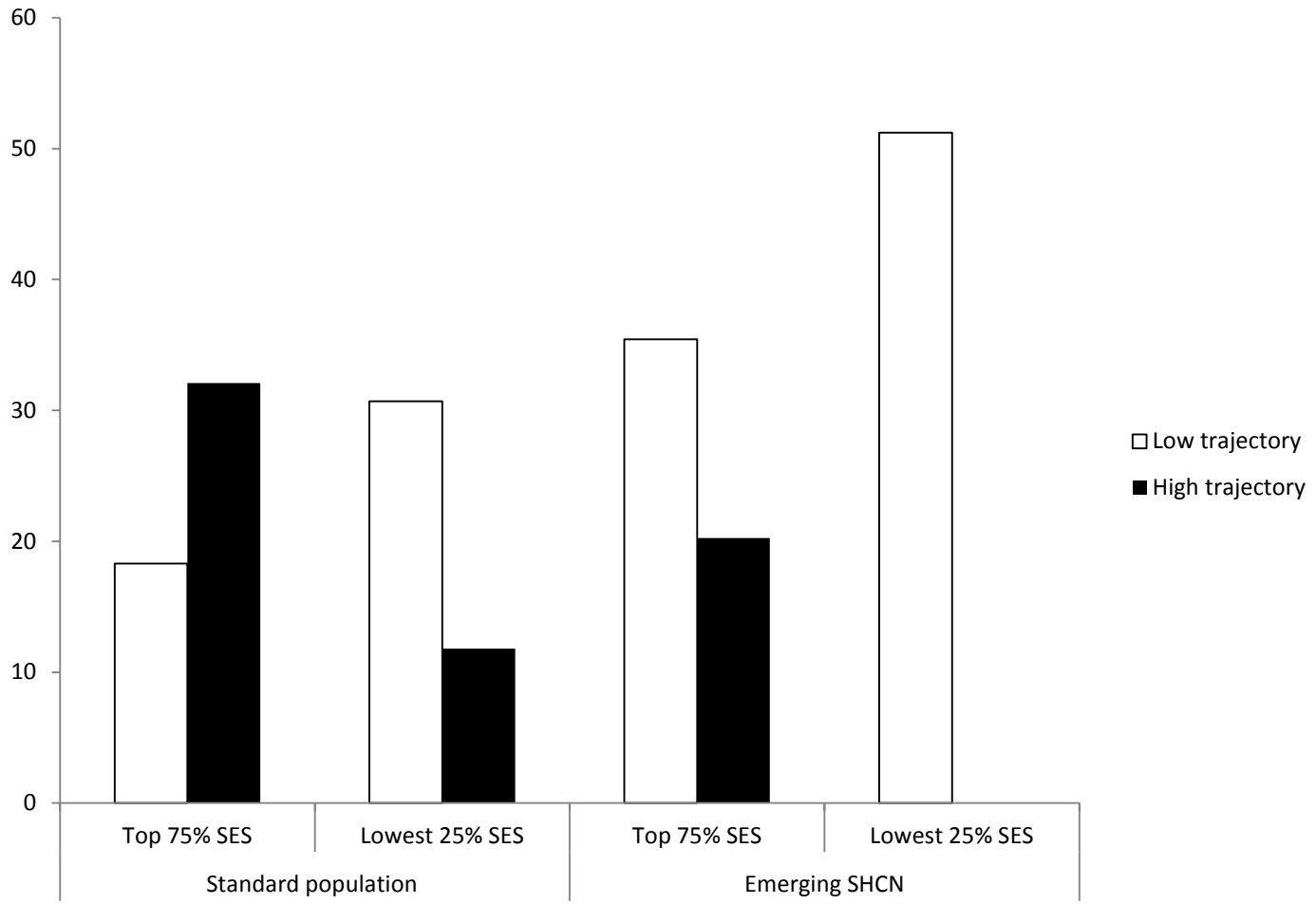
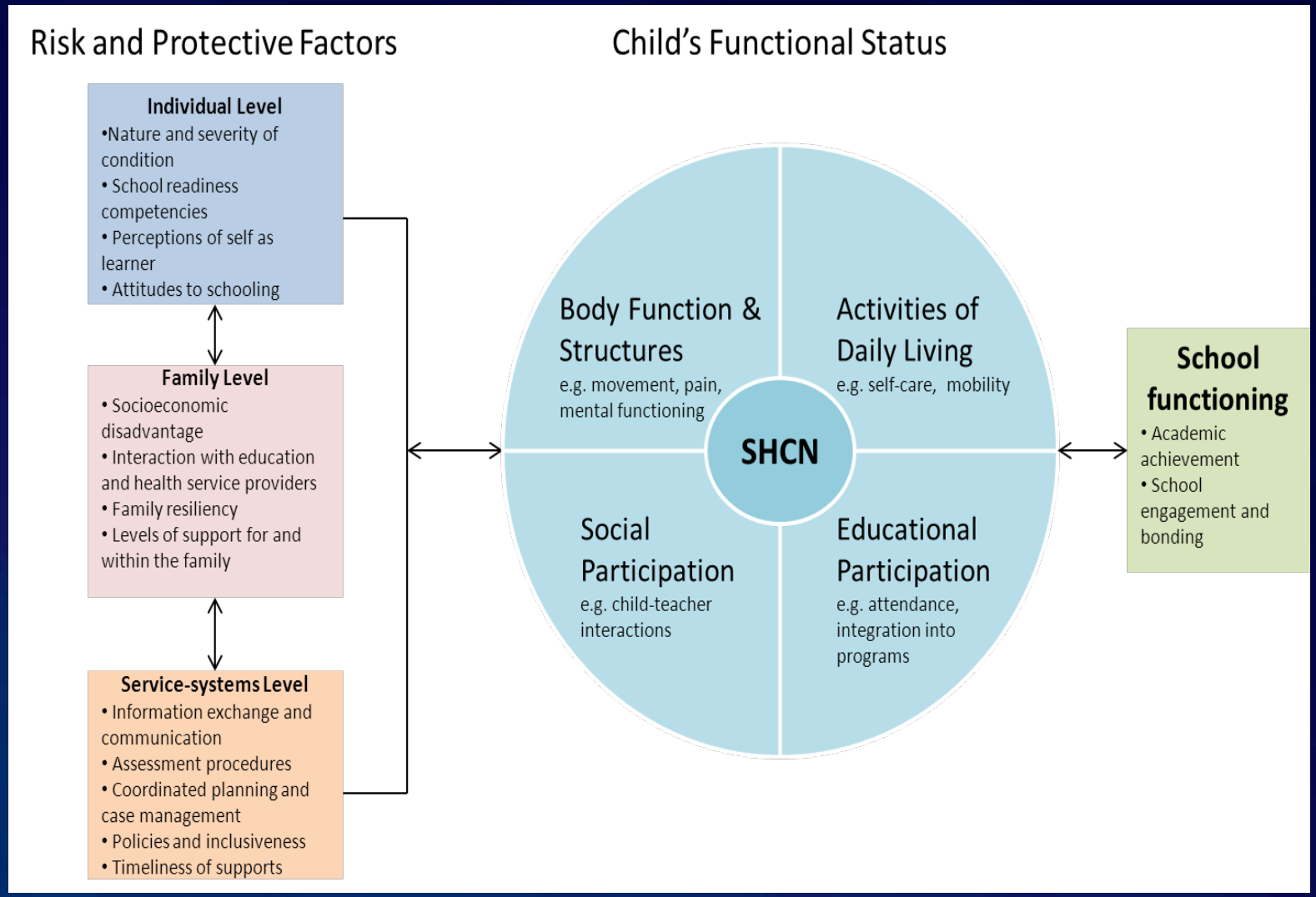
Goldfeld et al

Proportion of children in the low and high academic trajectories according to SHCN and SES.



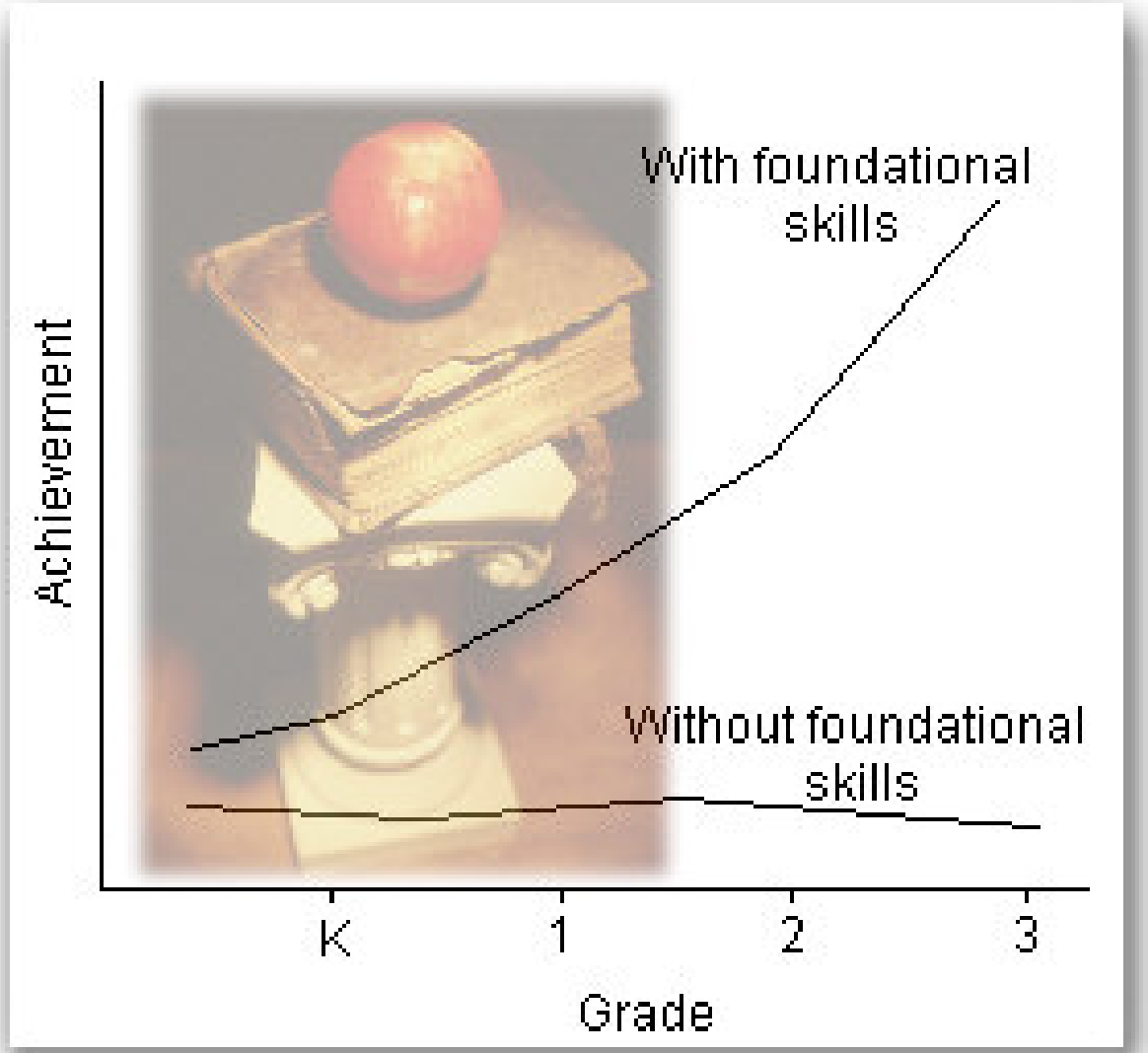
Goldfeld S, O'Connor M, Quach J, Tarasuik J, Kvalsvig A. Learning trajectories of children with special health care needs across the severity spectrum. *Academic Pediatrics.* 2015;15(2):177–184.

How might additional needs impact on school outcomes?

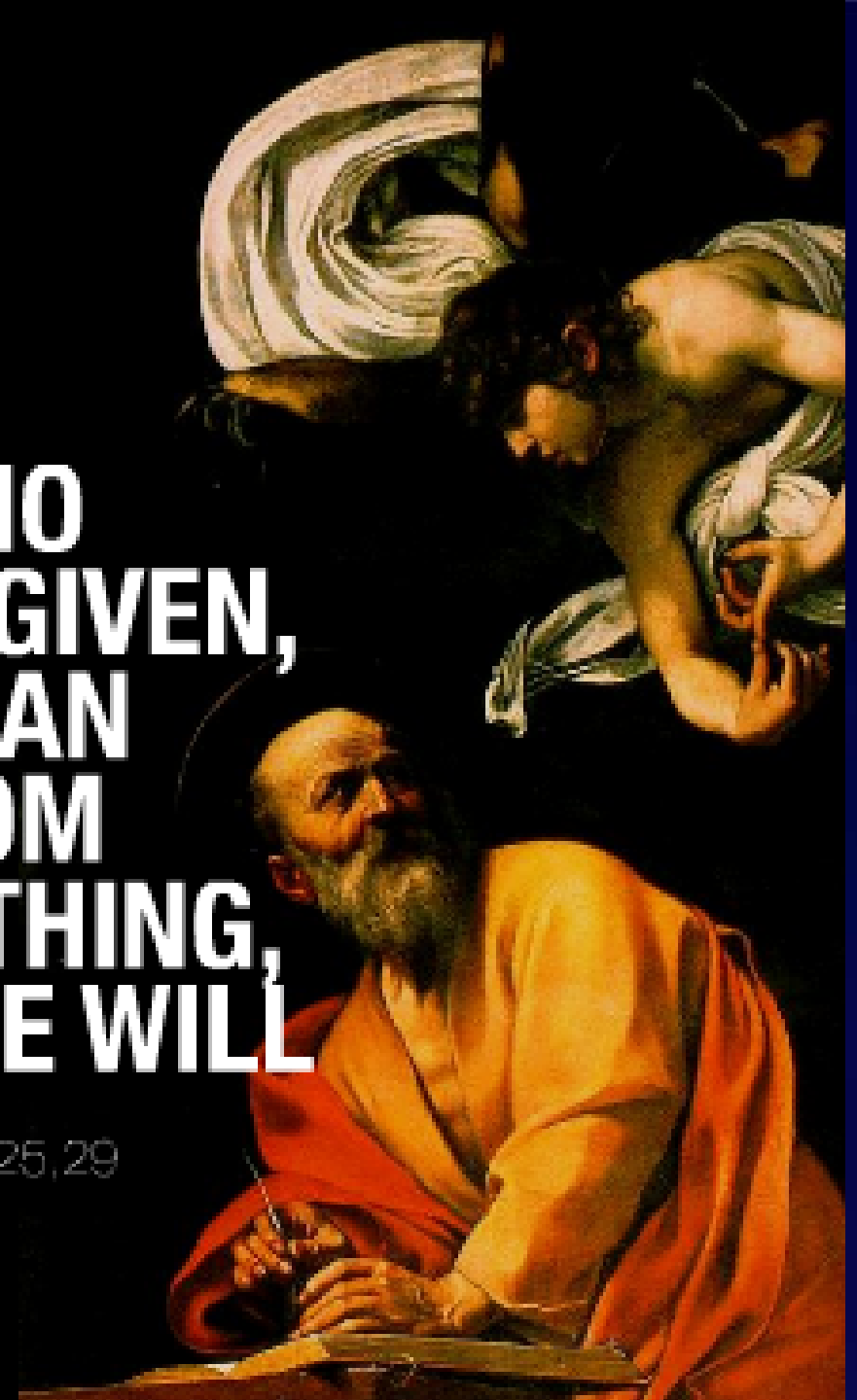


O'Connor, M., Howell-Meurs, S., Kvalsvig, A., & Goldfeld, S. (2014). Understanding the impact of special health care needs on early school functioning: A conceptual model. *Child: Care Health and Development, 41*(1), 15-22. doi: 10.1111/cch.12164

Matthew Effect



FOR TO ALL THOSE WHO HAVE, MORE WILL BE GIVEN, AND THEY WILL HAVE AN ABUNDANCE; BUT FROM THOSE WHO HAVE NOTHING, EVEN WHAT THEY HAVE WILL BE TAKEN AWAY. MATTHEW 25,29

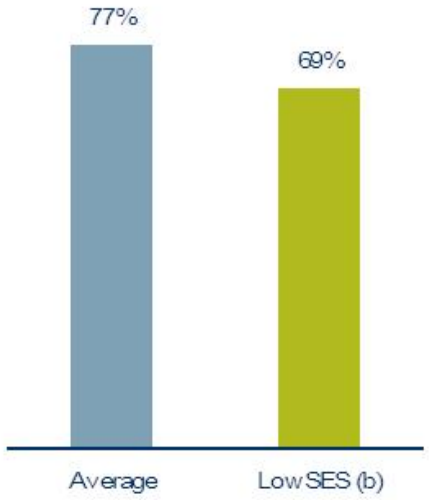


This low SES group underperform the average

Disadvantaged kids arrive at school less prepared than their peers ...

AEDI language and cognitive skills

% of kids in their first year of school who are "on track"[(a)]



... continue to fall behind while at school ...

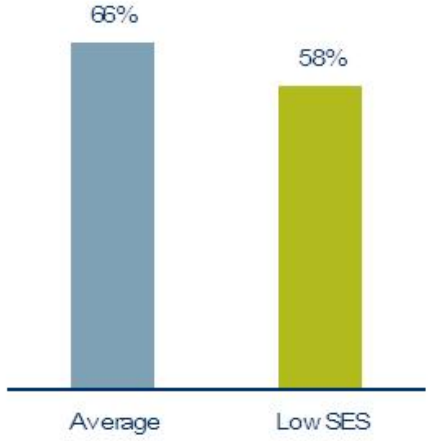
Year 9 literacy

NAPLAN results

...and are less likely to complete school

Year 12 completion rates

% completion of population who could possibly complete Year 12[(c)]



(a) "On track" indicates results above the 25th percentile. Average age of children surveyed was 5 years and 7 months. A Snapshot of Early Childhood Development – AEDI National Report 2009
(b) Low SES kids are in the bottom SEIFA quintile, NAPLAN testing results (2009),
(c) MCEETYA

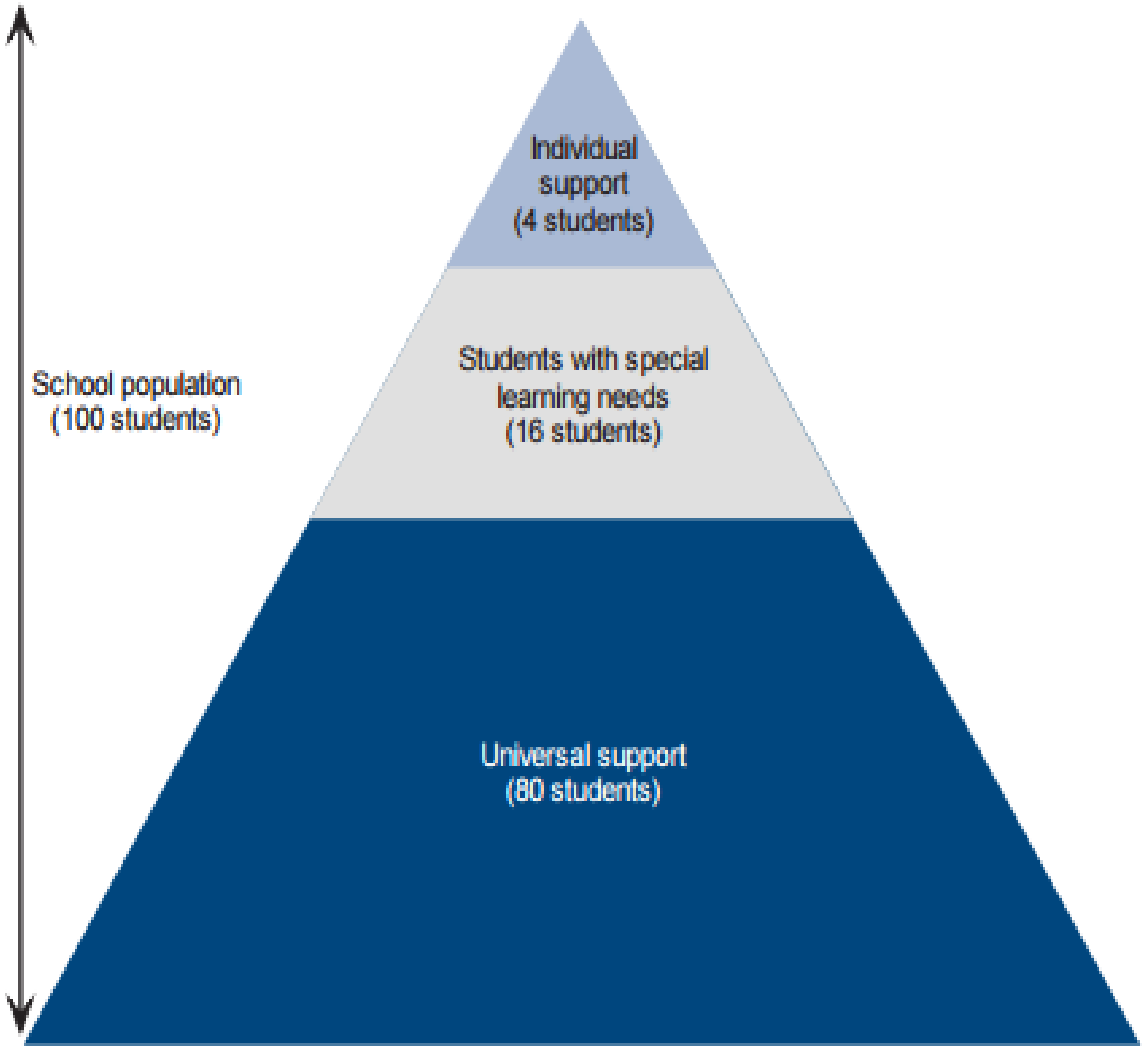
Provision of support for children with additional needs

Issues with current approach

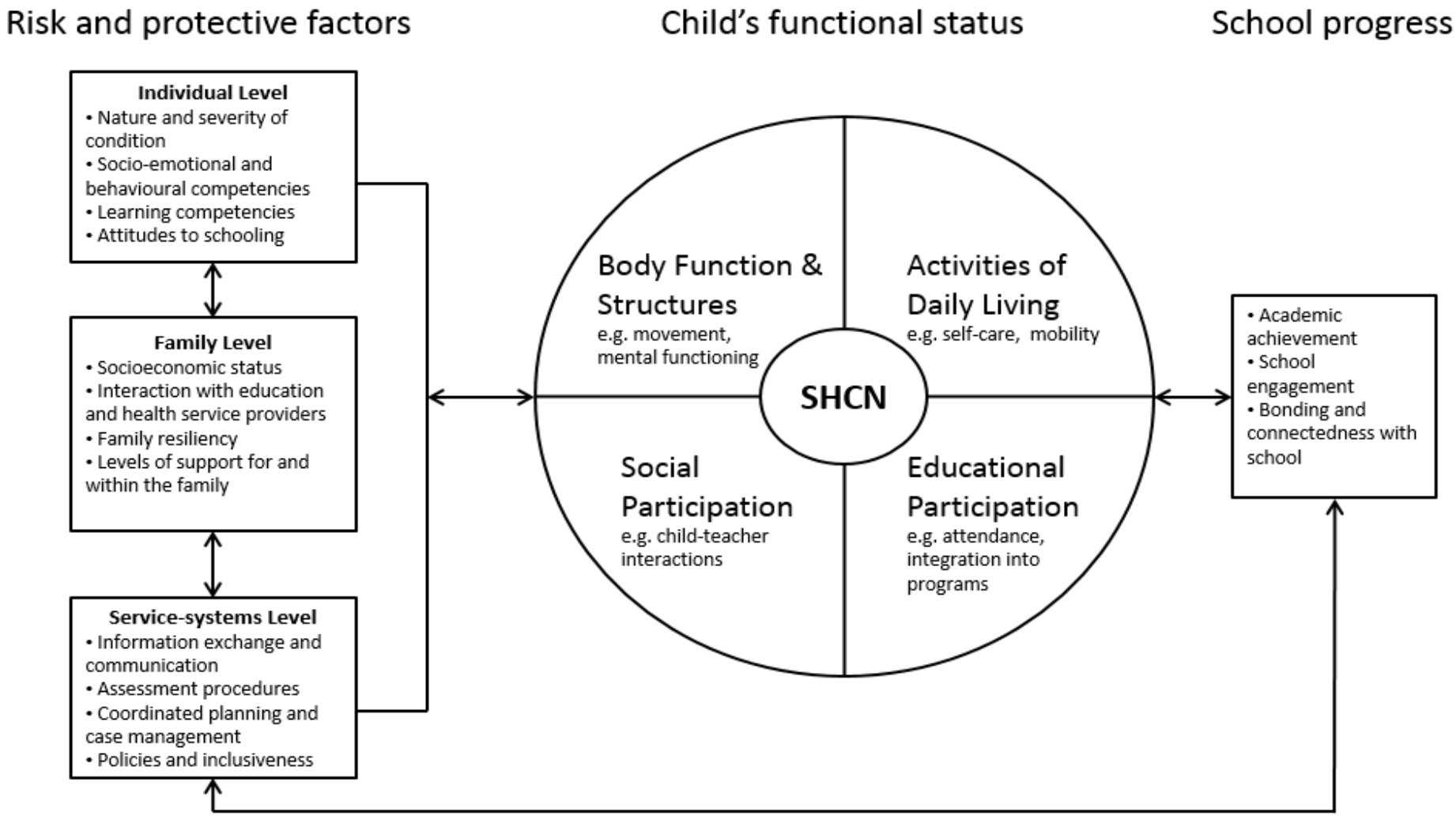
- Rigid criteria (e.g. severe language disorder)
- Children with “grey area” difficulties generally not eligible
  - Incentivise positive diagnosis
- Incentive to present children in the poorest possible light
- No incentive to show improved outcomes
- Little accountability

Disability category	2008	2009	2010	2011	Per cent of 2011 total	Per cent increase since 2008
Autism spectrum disorder	3 028	3 604	4 103	4 396	21.0	45.2
Hearing impairment	600	603	601	608	2.9	1.3
Intellectual disability	12 003	12 583	13 066	13 393	64.1	11.6
Physical disability	1 081	1 072	1 049	976	4.7	–9.7
Severe behaviour disorder	824	891	1 070	1 141	5.5	38.5
Severe language disorder	234	262	284	263	1.3	12.4
Visual impairment	101	101	97	107	0.5	5.9
Total	**17 871**	**19 116**	**20 270**	**20 883**	**100**	

Numbers of students funded by the PSD by funding category, 2008-2011



Distribution of needs in an average school of 100 students



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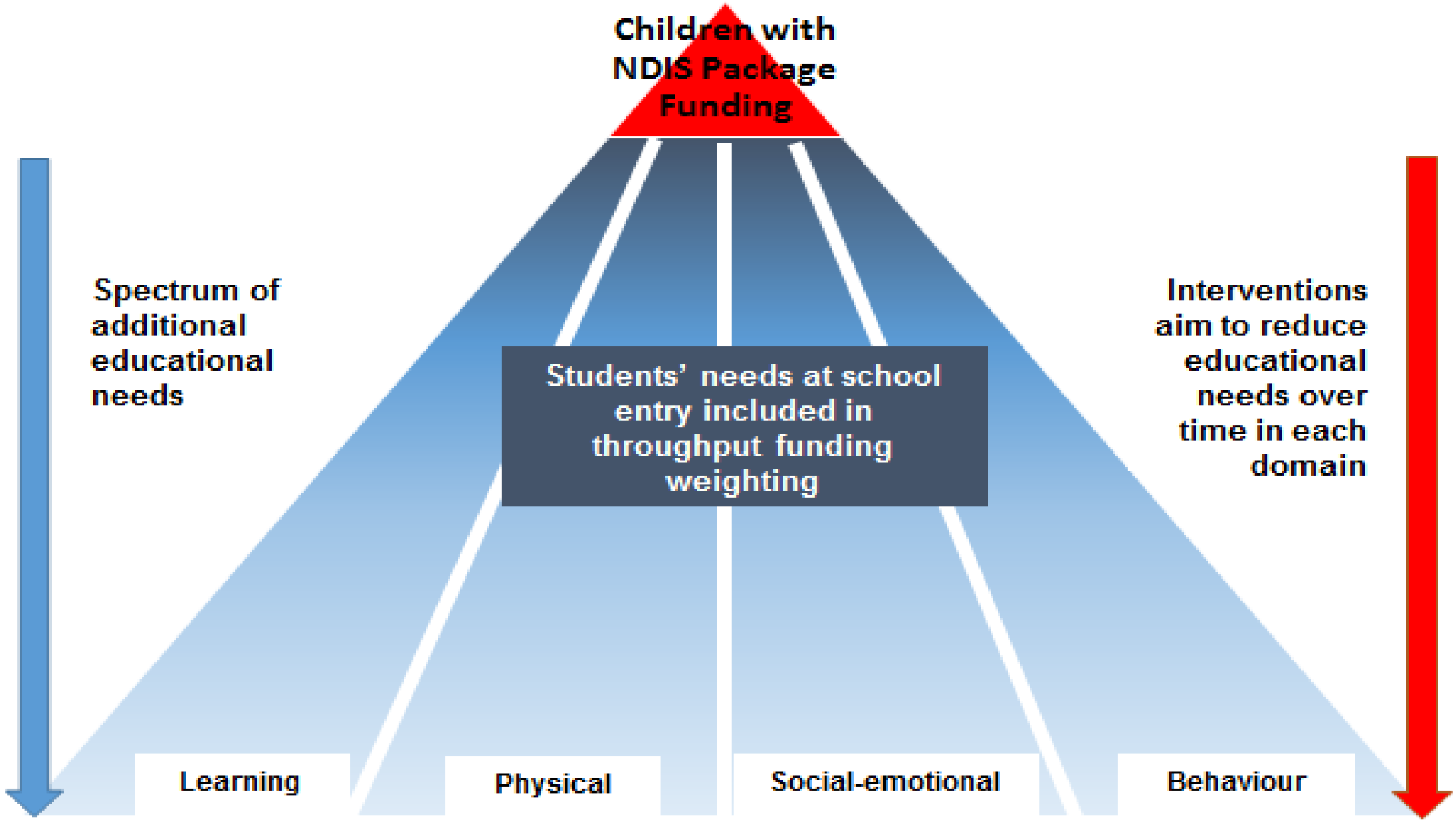
Principles of an optimal approach

- Emphasis on student functioning rather than diagnosis
- Importance of early intervention
- Responsive to changing needs over time
- Family-school partnerships
- Taking account of disadvantage
- Need for multidisciplinary supports
- Use of existing education and support resources
- Reducing perverse incentives

Main funding approaches considered

- Input – attached to individual child
- Throughput – bucket of money distributed to school or school cluster
- Output – funding tied to measured outcomes


Children with NDIS Package Funding
Spectrum of additional educational needs
Students' needs at school entry included in throughput funding weighting
Interventions aim to reduce educational needs over time in each domain
Learning
Physical
Social-emotional
Behaviour

Suggested alternative funding model

- Students with severe AHDN needs (~1-2% of children) could benefit from individually allocated funding. Basing this funding on their eligibility for the National Disability Insurance Scheme (NDIS) would eliminate the need for expensive assessment procedures to determine eligibility.
- To support students with mild or moderate needs (16-18% of students), providing funding to the school would enable flexible and localised responses. The amount of funds would need to be adjusted for the level of special learning needs and disadvantage within a school's population.

Recommendations for implementation

For maximum benefit and effect, changes to the provision of funding in Victorian schools need to be reinforced by:

- building the capacity of teachers to use evidence-based approaches
- a more rigorous and in-depth approach to accountability that is practical, yet still focussed on improving the educational outcomes of children
- ongoing research and evaluation to facilitate development of the evidence base needed for supporting children and young people with AHDN in school