

Supplementary Appendix 1

Table S1: Diagnostic codes for identifying autism

Dataset	Code Type	Code	Code Description
NMDS & PRIMHD	ICD-10-AM	F84.0	Autistic disorder
NMDS & PRIMHD	ICD-10-AM	F84.1	Atypical autism
NMDS & PRIMHD	ICD-10-AM	F84.3	Other childhood disintegrative disorder
NMDS & PRIMHD	ICD-10-AM	F84.5	Asperger's syndrome
NMDS & PRIMHD	ICD-10-AM	F84.8	Other pervasive developmental disorders
NMDS & PRIMHD	ICD-10-AM	F84.9	Pervasive developmental disorder, unspecified
PRIMHD	DSM-IV	299.00	Autistic disorder
PRIMHD	DSM-IV	299.10	Other childhood disintegrative disorder
PRIMHD	DSM-IV	299.80	Asperger's disorder/pervasive development disorder NOS
Socrates	Assigned Diagnosis	1206	Asperger's syndrome
Socrates	Assigned Diagnosis	1207	Other ASD
Socrates	Assigned Diagnosis	1211	Autism spectrum disorder

NMDS – National Minimum Dataset.

PRIMHD – Programme for the Integration of Mental Health Data.

ICD-10-AM – International Statistical Classification of Diseases and Related Health Problems, Tenth Revision, Australian Modification.

DSM-IV – Diagnostic and Statistical Manual of Mental Disorders, 4th edition.

Table S2: Diagnostic codes for identifying intellectual disability

Dataset	Code Type	Code	Code Description
NMDS & PRIMHD	ICD-10-AM	F70.x	Mild mental retardation
NMDS & PRIMHD	ICD-10-AM	F71.x	Moderate mental retardation
NMDS & PRIMHD	ICD-10-AM	F72.x	Severe mental retardation
NMDS & PRIMHD	ICD-10-AM	F73.x	Profound mental retardation
NMDS & PRIMHD	ICD-10-AM	F78.x	Other mental retardation
NMDS & PRIMHD	ICD-10-AM	F79.x	Unspecified mental retardation
PRIMHD	DSM-IV	317.x	Mild mental retardation
PRIMHD	DSM-IV	318.0	Moderate mental retardation
PRIMHD	DSM-IV	318.1	Severe mental retardation
PRIMHD	DSM-IV	318.2	Profound mental retardation
PRIMHD	DSM-IV	319.x	mental retardation, severity unspecified
PRIMHD	Team Type	12	Intellectual Disability Dual Diagnosis Team
Socrates	Assigned Diagnosis	1208	Intellectual disability, type not specified
Socrates	Assigned Diagnosis	1209	Learning disability, type not specified
Socrates	Assigned Diagnosis	1210	Developmental delay, type not specified
Socrates	Assigned Diagnosis	1299	Other intellectual, learning or developmental disorder

NMDS – National Minimum Dataset.

PRIMHD – Programme for the Integration of Mental Health Data.

ICD-10-AM – International Statistical Classification of Diseases and Related Health Problems, Tenth Revision, Australian Modification.

DSM-IV – Diagnostic and Statistical Manual of Mental Disorders, 4th edition.

Team Type – A code which described the team who provided a service.

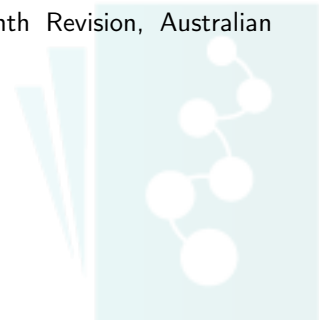


Table S3: Observed educational outcomes among 5-12 year old students, stratified by autism status, 2019

	Non-Autistic		Autistic		Autistic without ID		Autistic with ID	
	n	%	n	%	n	%	n	%
Enrolment								
School enrolment								
Yes	496,641	97.4	7,755	94.9	5,535	95.1	2,220	94.5
No	13,062	2.6	414	5.1	285	4.9	129	5.5
Special School enrolment								
Yes	1,023	0.2	1,170	14.3	549	9.4	621	26.4
No	508,680	99.8	6,999	85.7	5,271	90.6	1,728	73.6
Te Kura								
Yes	1,164	0.2	171	2.1	123	2.1	48	2.0
No	509,115	99.8	8,070	97.9	5,745	97.9	2,325	98.0
Home school								
Yes	4,365	0.9	189	2.3	156	2.7	33	1.4
No	505,338	99.1	7,980	97.7	5,664	97.3	2,316	98.6
Attendance								
Regular Attendance								
Yes	311,511	67.7	4,026	57.1	2,946	58.2	1,080	54.1
No	148,581	32.3	3,027	42.9	2,112	41.8	915	45.9
Irregular absence								
Yes	105,159	22.9	1,734	24.6	1,224	24.2	510	25.6
No	354,933	77.1	5,319	75.4	3,834	75.8	1,485	74.4
Moderate absence								
Yes	27,597	6.0	660	9.4	462	9.1	198	9.9
No	432,495	94.0	6,393	90.6	4,596	90.9	1,797	90.1
Chronic absence								
Yes	15,825	3.4	630	8.9	432	8.5	198	9.9
No	444,267	96.6	6,423	91.1	4,626	91.5	1,797	90.1
Supports and services								
ORS								
Yes	2,949	0.6	2,493	30.5	1,323	22.7	1,170	49.8
No	506,754	99.4	5,676	69.5	4,497	77.3	1,179	50.2
SHHNF								
Yes	1,809	0.4	213	2.6	162	2.8	51	2.2
No	507,894	99.6	7,956	97.4	5,658	97.2	2,298	97.8
IRF								
Yes	1,026	0.2	150	1.8	120	2.1	30	1.3
No	508,677	99.8	8,019	98.2	5,700	97.9	2,319	98.7
Early intervention								
Yes	5,997	1.2	1,077	13.2	729	12.5	348	14.8
No	503,706	98.8	7,092	86.8	5,091	87.5	2,001	85.2
Behaviour service								
Yes	3,093	0.6	630	7.7	510	8.8	120	5.1
No	506,610	99.4	7,539	92.3	5,310	91.2	2,229	94.9
Communication service								
Yes	6,729	1.3	672	8.2	438	7.5	234	10.0
No	502,974	98.7	7,497	91.8	5,382	92.5	2,115	90.0
RTLb								
Yes	5,220	1.0	687	8.4	504	8.7	183	7.8
No	504,483	99.0	7,482	91.6	5,316	91.3	2,166	92.2
Attendance services								
Yes	9,447	1.9	186	2.3	138	2.4	48	2.0
No	500,256	98.1	7,983	97.7	5,682	97.6	2,301	98.0

ORS = Ongoing Resourcing Scheme; SHHNF = School High Health Needs Fund; IRF = Interim Response Fund; RTLb = Resource Teacher Learning Behaviour.

Table S4: Educational outcomes comparison between the Autistic population without ID (N=5,724) and the 1:10 propensity score matched non-Autistic population (N = 57,240) and the Autistic population with ID (N=2,316) and the 1:10 propensity score matched non-Autistic population (N = 23,130)

	Autistic without ID n (%)	Non- Autistic n (%)	Autistic without ID/ non-Autistic PR (95% CI)	Autistic with ID n (%)	Non- Autistic n (%)	Autistic with ID/ non-Autistic PR (95% CI)
Enrolment						
School enrolment						
Yes	5,445 (95.1)	55,815 (97.5)	0.98 (0.97, 0.98)	2,184 (94.3)	22,485 (97.2)	0.97 (0.97, 0.97)
No	279 (4.9)	1,425 (2.5)		132 (5.7)	645 (2.8)	
Specialist school						
Yes	546 (9.5)	111 (0.2)	49.19 (40.71, 59.43)	609 (26.3)	63 (0.3)	96.54 (75.26, 123.83)
No	5,178 (90.5)	57,129 (99.8)		1,704 (73.6)	23,067 (99.7)	
Te Kura						
Yes	120 (2.1)	123 (0.2)	9.76 (8.05, 11.83)	48 (2.1)	30 (0.1)	15.98 (10.74, 23.78)
No	5,604 (97.9)	57,117 (99.8)		2,268 (97.9)	23,100 (99.9)	
Home school						
Yes	147 (2.6)	531 (0.9)	2.77 (2.51, 3.05)	30 (1.3)	186 (0.8)	1.61 (1.31, 1.98)
No	5,577 (97.4)	56,709 (99.1)		2,286 (98.7)	22,944 (99.2)	
Attendance						
Regular attendance						
Yes	2,898 (50.6)	35,643 (62.3)	0.81 (0.81, 0.82)	1,062 (45.9)	13,581 (58.7)	0.78 (0.77, 0.79)
No	2,826 (49.4)	21,597 (37.7)		1,254 (54.1)	9,549 (41.3)	
Irregular absence						
Yes	1,206 (21.1)	11,586 (20.2)	1.04 (1.02, 1.06)	504 (21.8)	5,022 (21.7)	1.00 (0.98, 1.03)
No	4,518 (78.9)	45,654 (79.8)		1,812 (78.2)	18,108 (78.3)	
Moderate absence						
Yes	453 (7.9)	2,916 (5.1)	1.55 (1.49, 1.62)	192 (8.3)	1,395 (6.0)	1.37 (1.29, 1.46)
No	5,271 (92.1)	54,324 (94.9)		2,124 (91.7)	21,735 (94.0)	
Chronic absence						
Yes	423 (7.4)	1,656 (2.9)	2.55 (2.43, 2.69)	198 (8.5)	873 (3.8)	2.27 (2.10, 2.44)
No	5,301 (92.6)	55,584 (97.1)		2,118 (91.5)	22,257 (96.2)	
Funding Supports and services						
ORS						
Yes	1,305 (22.8)	366 (0.6)	35.66 (32.16, 39.54)	1,155 (49.9)	168 (0.7)	68.66 (59.01, 79.89)
No	4,419 (77.2)	56,874 (99.4)		1,161 (50.1)	22,962 (99.3)	
SHHNF						
Yes	156 (2.7)	228 (0.4)	6.84 (5.94, 7.88)	54 (2.3)	87 (0.4)	6.2 (4.85, 7.92)
No	5,568 (97.3)	57,012 (99.6)		2,262 (97.7)	23,043 (99.6)	
IR						
Yes	120 (2.1)	174 (0.3)	6.9 (5.85, 8.13)	27 (1.2)	69 (0.3)	3.91 (2.87, 5.31)
No	5,604 (97.9)	57,066 (99.7)		2,289 (98.8)	23,061 (99.7)	
Early intervention						
Yes	720 (12.6)	798 (1.4)	9.02 (8.40, 9.69)	342 (14.8)	336 (1.5)	10.17 (9.1, 11.36)
No	5,004 (87.4)	56,442 (98.6)		1,974 (85.2)	22,794 (98.5)	
Behaviour service						
Yes	498 (8.7)	561 (1.0)	8.88 (8.15, 9.67)	120 (5.2)	189 (0.8)	6.34 (5.42, 7.42)
No	5,226 (91.3)	56,679 (99.0)		2,196 (94.8)	22,941 (99.2)	
Communication service						
Yes	432 (7.5)	924 (1.6)	4.68 (4.37, 5.01)	231 (10.0)	390 (1.7)	5.92 (5.32, 6.58)
No	5,292 (92.5)	56,316 (98.4)		2,085 (90.0)	22,740 (98.3)	
RTLB						
Yes	492 (8.6)	792 (1.4)	6.21 (5.78, 6.68)	180 (7.8)	336 (1.5)	5.35 (4.76, 6.01)
No	5,232 (91.4)	56,448 (98.6)		2,136 (92.2)	22,794 (98.5)	
Attendance services						
Yes	135 (2.4)	924 (1.6)	1.46 (1.35, 1.58)	48 (2.1)	558 (2.4)	0.86 (0.76, 0.97)
No	5,589 (97.6)	56,316 (98.4)		2,268 (97.9)	22,572 (97.6)	

ORS = Ongoing Resourcing Scheme; SHHNF = School High Health Needs Fund; IRF = Interim Response Fund; RTLB = Resource Teacher Learning Behaviour.