

# Children With Additional Needs

## FINAL REPORT

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# Table of Contents

<b>EXECUTIVE SUMMARY.....</b>	<b>1</b>
<b>INTRODUCTION.....</b>	<b>7</b>
QUESTIONS FOR THE SCOPING EXERCISE .....	7
SOURCES OF LITERATURE AND DATA .....	8
<b>FINDINGS FROM THE LITERATURE .....</b>	<b>10</b>
DIAGNOSIS AND IDENTIFICATION.....	10
CHANGES OVER TIME.....	13
<i>Autistic Spectrum Disorder (ASD)</i> .....	14
<i>Attention Deficit Hyperactivity Disorder</i> .....	15
<i>Fetal Alcohol Spectrum Disorder (FASD)</i> .....	17
TYPES OF NEED AND OTHER COUNTRY DATA .....	19
<i>Trends in the United States of America (U.S.)</i> .....	20
<i>Trends in England</i> .....	20
<i>New Zealand communication support</i> .....	21
<i>Trends in Australia</i> .....	21
SOCIAL, CULTURAL AND/OR ECONOMIC FACTORS .....	22
<b>AOTEAROA NEW ZEALAND SPECIFIC DATA .....</b>	<b>23</b>
STUDENT POPULATION .....	23
STUDENTS FUNDED UNDER THE ONGOING RESOURCING SCHEME (ORS) .....	27
RELIABILITY OF THE DATA .....	33
BEHAVIOUR SUPPORT SERVICES AND EDUCATIONAL EXCLUSIONS .....	34
<i>Behaviour support services</i> .....	34
<i>Educational exclusions</i> .....	34
<i>Types of behaviour that lead to educational exclusions</i> .....	38
EDUCATIONAL INTERVENTIONS .....	40
CHANGES OVER TIME IN ADDITIONAL NEEDS PREVALENCE .....	45
TE TIRITI O WAITANGI .....	52
CORE SERVICE WAIT TIMES.....	53
TEACHER WORKLOAD .....	54
<b>KEY CONSIDERATIONS.....</b>	<b>56</b>
RESEARCH QUESTIONS .....	56
CONSIDERATIONS FOR TEACHER WORKLOAD AND RESOURCING.....	60
<b>REFERENCES.....</b>	<b>62</b>

## List of Figures

Figure 1. Ministry of Education supports and services for learners with special educational needs/disabilities .....	12
Figure 2. Percentage of children diagnosed with ASD 2012–2019 (2–14 years) .....	15
Figure 3. Percentage of NZ children diagnosed with ADHD (Attention Deficit Hyperactivity Disorder), 2019 .....	16
Figure 4. Global consumption of ADHD medication (Methylphenidate), 1990–2013.....	16
Figure 5. Australian NCCD data on students with disability. ....	22
Figure 6. Number of students in the Aotearoa New Zealand student population, 2005–2019.....	24
Figure 7. Percentage increase in the student population by year level, 2005–2019.....	24
Figure 8. Number of students attending special schools, 2005–2019 .....	25
Figure 9. Decile as a proportion of total student population, 2005–2019 .....	25
Figure 10. Percentage increase in the student population by ethnic group, 2005–2019 .....	26
Figure 11. Ethnic group as a proportion of total student population, 2005–2019.....	26
Figure 12. Gender as a proportion of total student population, 2005–2019.....	27
Figure 13. Number of ORS-funded students, 2005–2019.....	28
Figure 14. Number of ORS students by funding type, 2005–2019 .....	29
Figure 15. Percentage of ORS-funded students by gender, 2005–2019.....	29
Figure 16. Percentage of ORS-funded students by ethnic group, 2005–2019 .....	30
Figure 17. Overview of general student population and ORS-funded students attending schools at each decile level .....	31
Figure 18. Number of ORS students in an age cohort across time (all funding levels combined).....	33
Figure 19. Comparison in number of students receiving ORS funding from Education Counts data and IDI data.....	34
Figure 20. Number of educational exclusions, 2000–2019.....	35
Figure 21. Percentage of educational exclusions, 2000–2019.....	35
Figure 22. Educational exclusions as a percentage of total student population, 2000–2019 ..	36
Figure 23. Percentage of stand-downs by ethnic group, 2000–2019.....	37
Figure 24. Percentage of suspensions by ethnic group, 2000–2019.....	37
Figure 25. Percentage of exclusions by ethnic group, 2000–2019.....	38
Figure 26. Percentage of expulsions by ethnic group, 2000–2019.....	38
Figure 27. Percentage of stand-downs by behaviour, 2000–2019.....	39
Figure 28. Percentage of suspensions by behaviour, 2000–2019.....	39
Figure 29. Percentage of exclusions by behaviour, 2000–2019 .....	40

Figure 30. Percentage of expulsions by behaviour, 2000–2019.....	40
Figure 31. Percentage of students accessing Assessments for Youth Offending by ethnic group, 2013–2019 .....	43
Figure 32. Percentage of students accessing the Behaviour Service by ethnic group, 2013–2019.....	43
Figure 33. Percentage of students with Deaf and Hard of Hearing moderate needs by ethnic group, 2013–2019.....	44
Figure 34. Percentage of students accessing the Intensive Wraparound Service by ethnic group, 2013–2019 .....	44
Figure 35. Percentage of children accessing an educational intervention by gender, 2013–2019.....	45
Figure 36. Percentage increase in disabilities, 2005–2019.....	47
Figure 37. Percentage of children with Asthma by ethnic group, 2005–2019 .....	48
Figure 38. Percentage of children with a Behavioural Problem by ethnic group, 2005–2019	48
Figure 39. Percentage of children with Developmental Delay by ethnic group, 2005–2019..	49
Figure 40. Percentage of children with Foetal Alcohol Syndrome by ethnic group, 2005–2019.....	49
Figure 41. Percentage of children with Language Delay by ethnic group, 2005–2019 .....	50
Figure 42. Percentage of children with a disability by gender, 2005–2019 .....	50

## List of Tables

Table 1. Students with Additional Needs: Categorisation areas (U.S. and England).....	20
Table 2. ORS criteria .....	27
Table 3. Number of successful, unsuccessful, and total ORS applications, 2010–2020.....	28
Table 4. Percentage of students in each ethnic group, 2000–2019.....	36
Table 5. Number of recorded educational interventions, 2005–2019 .....	42
Table 6. Number of recorded incidences of types of disability, 2005–2019.....	46
Table 7. Number of days from request for MOE support to core service start .....	54

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*The results in this report sourced from the Integrated Data Infrastructure (IDI) are not official statistics. They have been created for research purposes from the IDI which is carefully managed by Stats NZ. For more information about the IDI please visit <https://www.stats.govt.nz/integrated-data/>.*

## **Executive Summary**

1. This Report was commissioned under an Accord between the Ministry of Education, NZEI Te Riu Roa and NZPPTA. The report addresses whether and the extent to which the prevalence of children with additional needs, and complexity of need, has changed over time. It attempts to answer six research questions posed by the Accord.

2. The Accord's research questions were: (i) Has the number of children diagnosed and/or appropriately identified who also display complex needs (learning, health, and/or behavioural) within the learning environment changed over the last 30 years? (ii) If the number of diagnoses has changed, in what areas have the changes occurred? (iii) Is there a change in the number of children being diagnosed with more than one additional need? (iv) Are there any social, geographical, cultural, and/or economic factors that correlate significantly with any changes? (v) Establish a robust and reliable baseline to consider how education system supports provided for teachers of children with additional needs changed over the last 30 years. This timeframe links to the introduction of Tomorrow's Schools, but may need to be amended, depending on data available. (vi) Have there been similar changes in other countries?

3. The Report is organised in two parts: (i) a review of international and national literature on additional needs; and (ii) a secondary analysis of Aotearoa New Zealand data, retrieved largely from Education Counts (maintained by the Ministry of Education) and the Integrated Data Infrastructure (maintained by Statistics New Zealand). The former are publicly available, while access to the latter is via strict access and approval protocols.

4. A fundamental point of difference between overseas and local literatures, data and policy debates is our obligation under Te Tiriti o Waitangi to explicitly consider the experience, aspirations and needs of Māori tamariki, rangatahi and whānau. Indigenous research literature, here and overseas, demonstrates that approaches to what we currently call 'additional need', in the Western tradition, are, in practice, contextually and culturally exclusionary. International data on prevalence typically aggregate whole populations. Given the increasing recognition of the effects of colonisation and structural racism in Aotearoa New Zealand, the relevance of comparisons made using international whole population data to meeting the aspirations and needs of Māori, and those of Pacific peoples, is highly questionable. So too, the practice of

applying Western diagnostic or evaluative frameworks to indigenous lived experience and values.

5. From the literature review, it is evident that the reported prevalence of additional needs has indeed changed over the last 30 years. This is in part due to our ability to: (i) better identify, describe and differentiate additional needs; and (ii) develop holistic assessments that take account of teacher, whānau and learner views and experiences. In short, we now know more, so we now tend to see more. Equally, it is clear from the international research and policy literatures that definitions of additional need vary considerably across country and over time. Any comparative analyses of prevalence should therefore be undertaken with appropriate cautions and caveats. Nevertheless, the limited time-series data available overseas do suggest an overall increase over time in additional needs reported prevalence, with both absolute and proportional increases and decreases for individual needs.

6. A major gap in the Aotearoa New Zealand knowledge base is the paucity of publicly reported, reliable time-series data on prevalence of additional needs, and consequently a reliance on overseas data to estimate local prevalence. It may therefore be necessary to use service provision data as an imprecise, stop-gap proxy for prevalence while more comprehensive, reliable local data collection approaches are developed by the relevant government agencies, for example the recently launched national standardised learning support register and index. Robust local data collection is essential if additional need and additional resource levels are to be efficiently and equitably aligned in future, within Education and across Health and other social agencies that have responsibility for additional needs policy, funding and services provision. While the IDI holds some promise in this regard, our experience is that data completeness, accuracy and retrieval are significant and time-consuming challenges at present.

7. It has been commonplace in Aotearoa New Zealand policy discourse to refer to 20% or one in five children who have an additional learning need at some time in their schooling. Use of this originates in an influential British report in the late 1970s. Recent analysis undertaken by the Ministry of Education toward the development of a national register and index of learning support needs suggest that the proportion may vary significantly depending on whether the reference is to ongoing or short term learning support needs. A recent English secondary analysis of official data concludes that the proportion in that system may be as high as 40% or 4 in ten.

This suggests that it is desirable to be precise in official statements about what the proportion actually refers to.

8. From the research and policy literatures, we were able to report some cross-sectional and time-series prevalence data on selected high profile additional needs: autism spectrum disorder (ASD), attention deficit and hyperactivity disorder (ADHD), and fetal alcohol spectrum disorder (FASD). Ministry of Health data for the period 2012–2019 report fluctuations but a current prevalence of between approximately 3% and 3.5% of boys aged 2–14 with ASD, and between approximately 0.5% and 0.75% of girls. For children diagnosed with ADHD, in 2019 the figures were less than 1% of boys aged 2–4, over 2% of boys (less than 1% of girls) aged 5–9, and over 6% of boys (less than 2% of girls) aged 10–14. There are no New Zealand data on FASD. Based on international comparisons, the Ministry of Health estimates a local prevalence of between 3% and 4% of births.

9. By convention, data on additional needs appear to be reported by prevalence of individual need rather than by the individual child. This means it is very difficult to answer the question whether more children are presenting now with multiple or complex needs than in the past. Given (i) our growing ability to identify and differentiate need and magnitude of need; and (ii) constant medical advances meaning more premature and severely premature babies survive into childhood, it makes intuitive sense that more children would have multiple or complex additional needs. However, there are as yet no overseas or local data available around which to base an informed policy discussion.

10. The local time-series data we retrieved from Education Counts and the IDI enabled us to analyse whole school population changes over time and gender, ethnicity and decile sub-group changes for: the Ongoing Resourcing Scheme (ORS); exclusions from school; and educational interventions. We also were able to collate time-series prevalence data on a range of 16 additional needs, for the period 2005–2019, reported by number of instances, and to compare changes in frequency with changes in the national student population for the same period.

11. The number of students receiving ORS funding increased by 31% from 6,664 in 2005 to 9,718 in 2019. Approximately 75% of funding in each year goes to students with high (not very high) needs. Students are only eligible for ORS funding from the age of 5. Funding peaks at around 14 or 15 years of age for each annual cohort of students. Approximately one third of ORS

funded students are female. Boys are consistently overrepresented in ORS funding relative to the national student roll over the period. The percentages of Pākehā and Māori students receiving ORS are similar to their representation in the general student population. Between 7% and 8% of students attend Decile 2 schools, whereas between 10% and 13% of ORS funded students attend Decile 2 schools. Between 14% and 16% of students attend Decile 10 schools, whereas between 5% and 6% of ORS funded students attend Decile 10 schools.

12. In every year between 2000 and 2019 there were more stand-downs than suspensions, exclusions or expulsions (recorded collectively as ‘exclusions’). As a percentage of the total number of educational exclusions, stand-downs gradually increased, from 71% in 2000 to 83% in 2019. The collective exclusions category represents a relatively small percentage of the total student population: between 2% and 4% of students in any given year, with a high of 3.8% in 2006 and a low of 2.3% in 2015. Suspensions, exclusions and expulsions account for between 0% and 1% of the total school population each year. While there are two to three times the number of Pākehā students as Māori students nationally, the percentage of stand-downs is approximately the same for Pākehā and Māori students. In every year, a higher proportion of Māori students than Pākehā students is being suspended or excluded. Approximately the same proportions of Pākehā, Māori and Pacific students are expelled each year. Most stand-downs occur for reasons of continual disobedience or for physical assault on other students. Reasons for suspension additionally include drugs. However, it is important to acknowledge that data on exclusions reflect the school’s response to presenting behaviour and that schools’ responses to similar presenting behaviours vary widely.

13. Over the 2005–2019 period, the national school student population increased by approximately 7%. In the same period the total number of instances of recorded additional needs (‘disabilities’ in the IDI) increased by approximately 43% percent from 17,895 recorded instances in 2005, to 31,251 in 2019. Over the period, the areas of highest prevalence were: ASD including Asperger’s syndrome (49% of total incidences), unspecified Intellectual Disability (34%), Unspecified Developmental Delay (17%) and ADD/ADHD (15% of the total). Recorded instances of ASD (including Asperger’s syndrome) increased by 61% from 4,647 to 11,899; and instances of ADHD increased by 52% to 2,910. In contrast to international prevalence data and local estimates, recorded instances of Fetal Alcohol Syndrome Disorder (FASD) were surprisingly low, rising from 180 in 2005 to 231 in 2019, a 22% increase. The low frequency

counts for FASD suggests that the frequency counts in the IDI are not complete, or that FASD has been categorised as behaviour problems, or learning delay within the IDI.

14. The headline 43% increase figure must be treated with extreme caution and should not be quoted or used without significant qualifiers, not least because: (i) the data represent formal diagnosis of disability in a Health context, not an assessment of additional need in an Education context; (ii) recorded instances do not necessarily equate to numbers of students, and each child may have had more than one disability recorded; and (iii) there is some disparity between the prevalence data for some disabilities reported in IDI data and their estimated prevalence in the general population from other sources. Nevertheless, the data may reasonably be taken as an indication of significantly greater identification and reported prevalence of additional needs over time to which government, policy makers, education professionals and whānau may reasonably be expected to respond actively. In and of itself this is a major systemwide responsibility and workload.

15. Our Māori data advisory group reviewed data pertaining to additional needs identification and access to services for Māori students. They noted that: (i) the effects of colonisation and racism underpin many of the data; (ii) the data have not improved for Māori over the last several decades; and (iii) future action for Māori whānau and ākongā must be based in Te Tiriti o Waitangi, te ao Māori and kaupapa Māori. Policy and operational priorities for the advisory group included: (i) emphasising mana enhancing practices rather than ‘special needs’ or ‘additional needs’; (ii) empowering and listening to whānau so that education settings and support services are not dictating the terms of engagement; (iii) teaching professionals about Te Tiriti, colonisation and racism; and (iv) ensuring whānau feel valued and appreciated by the agencies and professionals with whom they interact.

16. Transforming what we currently call ‘additional needs’ policy and practice so that it is founded on Te Tiriti o Waitangi and inclusive of te ao Māori values and Kaupapa Māori, and also of Pacific nations values, presents a major teacher, paraprofessional and education professional workforce development challenge for the foreseeable future.

17. Overrepresentation of Māori in negative exclusion statistics are a sentinel indicator of a system that does not meet the language, culture and identity needs of significant and growing proportions of the school population.

18. Sub-group data with regards ORS funding reveal an underrepresentation of girls, an overrepresentation of boys, and an overrepresentation of students in lower decile, socio-economically disadvantaged schools in receipt of ORS funding. This suggests the need for further, finer grained investigation of the potential causes of these disparities.

19. The Ministry of Education provides targeted or intensive intervention support to approximately 8% to 10% of children and young people in early learning services and schools each year. Complete time-series educational interventions data are available only for 2013–2019. These show an overall increase of 10% over the period, from 42,258 to 46,959 interventions. Māori are disproportionately overrepresented in several of the educational intervention categories. 70% of those receiving educational interventions are male.

20. IDI data demonstrate consistent, significant growth over time in recorded instances of additional needs (disability) for the period 2005–2019. The data suggest that well-resourced, targeted national foci on ASD, in particular, and ADD/ADHD could usefully address almost half of the reported incidences of additional need in the system in 2019. Equally, deeper investigation of needs that are currently recorded as unspecified Intellectual Disability or unspecified Developmental Delay (which may possibly include instances of undiagnosed/misdiagnosed FASD), could lead to better informed identification of additional needs and of the appropriate interventions and supports that need to flow from this.

21. While the headline data need to be treated with considerable caution, it is evident that a significant national increase in identification and reporting in and of itself represents a significant increase over time in assessment, administration and upskilling workload for learners, families, educators, and officials. To justify the time and effort involved, all participants need to be assured that the processes of additional need identification and additional resource allocation are closely aligned, that they are sufficient to support or remedy the identified need, and that they are equitably allocated in timely and culturally appropriate fashion. This includes the need to actively: (i) monitor and reduce wait times for start of high needs and early intervention type support services; and (ii) engage with diverse communities in ways they themselves regard as most appropriate.

## Introduction

In October 2019 an Accord was established between the primary and secondary teacher unions (NZEI Te Riu Roa and PPTA) and the Ministry of Education as part of collective bargaining. One of the agreed pieces of joint work was a scoping exercise to determine the extent of the changes in student population over time, specifically children with additional needs:

*We want to understand whether children are presenting with more complex health, learning and behavioural issues than in the past, whether there are greater numbers of these children and how this impacts on workload for teachers and principals starting with schools.* (Accord Research Brief, p. 1)

Given the Ministry of Education Annual Report (2019) states that the MoE has “been challenged with the volume of demand in key areas, like learning support” (p. 6), this is an area in need of urgent clarification.

This final report provides data from national and international literature, accessible Aotearoa NZ databases, and the Integrated Data Infrastructure (IDI) database.

### Questions for the scoping exercise

1. Has the number of children diagnosed and/or appropriately identified who also display complex needs (learning, health, and/or behavioural) within the learning environment changed over the last 30 years?
2. If the number of diagnoses has changed, in what areas have the changes occurred?
3. Is there a change in the number of children being diagnosed with more than one additional need?
4. Are there any social, geographical, cultural, and/or economic factors that correlate significantly with any changes?
5. Establish a robust and reliable baseline to consider how education system supports provided for teachers of children with additional needs changed over the last 30 years. This timeframe links to the introduction of Tomorrow’s Schools, but may need to be amended, depending on data available.
6. Have there been similar changes in other countries?

The project has been recorded as a low risk ethics notification by the Massey University Ethics Committee (No. 4000022297). The Health and Disability Ethics Committee (HDEC) confirmed that the scoping exercise did not require a full HDEC ethics review process. An

invited Māori data advisory group met in January 2021 to discuss the data related to Māori children, including the ethical use and interpretation of such data.

### **Sources of literature and data**

We were specifically requested to search the Integrated Data Infrastructure (IDI) for data relevant to this scoping exercise. The IDI is a large database managed by Statistics New Zealand (Stats NZ). It holds anonymised New Zealand microdata “about life events, like education, income, benefits, migration, justice, and health. It comes from government agencies, Stats NZ surveys, and non-government organisations (NGOs). The data are linked together, or integrated, to form the IDI” (<https://www.stats.govt.nz/integrated-data/integrated-data-infrastructure/>).

A significant issue in terms of the utility of this report is whether and the extent to which the IDI contains complete and up to date data on the additional needs of children, contributed by key government agencies such as the Ministry of Education and Ministry of Health. It could well be the case that other ‘additional needs’ prevalence and ‘support services’ provision data relevant to the issues reported here are held not within the IDI but in central and regional government agencies, individual schools and clusters, and within subcontracted organisations such as NGOs, RTLB clusters and Alternative Education units.

For researchers involved in public interest projects, access to IDI is gained through a rigorous approval process, including referee checks, an application process with Ethics Committee approvals, and a dedicated compulsory training session and test for the researchers. All de-identified data sets retrieved from IDI are required to be submitted to StatsNZ to be approved before being released for use. There are a limited number of approved ‘datalabs’ in New Zealand.

For this scoping exercise, the researchers completed training and the assessment to access the database during the 2020 COVID-19 national lockdown period. Once the labs were re-opened at Level 1, we accessed the IDI datalab at StatsNZ in Wellington, and the IDI datalab at Massey University, Wellington. All labs and computers are locked, and entry is via access card for approved researchers.

We also accessed relevant, publicly available reports and Government databases, including Education Review Office (ERO) reports, the Education Counts database and associated reports, the Ministry of Education website and associated reports, and the Ministry of Health website and associated reports. We submitted one Official Information Act request to the Ministry of Education (OIA 124897).

International trends and additional data sources were identified through a search of the literature specific to the research questions provided to us. The search incorporated education, health, and medical sources.

A key issue both across the research and professional literatures, and in the New Zealand databases, is the variation in the way children are defined, assessed and either classified or diagnosed. For example, in 2005 the OECD trialled a new approach to categorising students in one of three categories:

- (i) students with disabilities or impairments in medical terms;
- (ii) students with behavioural or emotional disorders or with specific difficulties in learning; and
- (iii) students with disadvantage through socioeconomic, cultural or linguistic factors.

These were resource-based definitions intended to facilitate cross country comparisons. The categorisations, particularly the third, proved to be problematic (OECD, 2005). As a consequence, the project was discontinued by OECD.

A further caveat to this report is that in places we have reported service provision or funding allocation data as a proxy for prevalence. Service provision does not necessarily equate to prevalence. However, this approach is justified on the basis that comprehensive snapshot or time-series data do not yet exist on the prevalence of additional needs, and that, in our view, proxy data at least provide a sense of what the overall ‘big picture’ of additional needs looks like in Aotearoa New Zealand in 2020–2021.

The report is organised in two major sections: (i) findings from the international and national literature on additional needs; (ii) available additional needs prevalence data specific to Aotearoa New Zealand. The final section of the report summarises key considerations organised according to the questions in the research brief provided to us by the Accord, together with some brief observations on teacher workload and resourcing matters that we were invited to provide.

## Findings from the literature

### Diagnosis and identification

Has the number of children diagnosed and/or appropriately identified who also display complex needs (learning, health, and/or behavioural) within the learning environment changed over the last 30 years?

It is clear that the prevalence of children identified with complex needs has changed over the last 30 years internationally. Logically, as our research-based knowledge, awareness and understanding of learning and the conditions that affect learning increase, so too does our ability to identify the varied and complex learning needs with which children present. Likely reasons for this include advances in our ability to:

- (i) identify types and clusters of individual need more precisely using standard language and terminology;
- (ii) differentiate magnitude of personal needs among children who present with similar characteristics or clusters of characteristics;
- (iii) develop holistic, multidimensional assessments based on a range of educational, health, household, social, economic and cultural indicators; and
- (iv) give due weight to the interests, perspectives and experiences of family whānau, teachers, education- and non-education professionals, and learners themselves in narrating and making overall sense of ‘the whole picture’ of a particular child’s needs, and how and where best to provide for those needs.

Definitions of ‘need’ (and most appropriate provision) have similarly changed in Aotearoa New Zealand over the last thirty years. However, evidence of actual numbers or prevalence and the extent to which these may have increased or decreased over the years is at best patchy and unclear.

This is partly because there is a paucity of good national time-series data, and for some areas even baseline data, on the additional needs of children. It is also partly because definitions of need change as our knowledge expands or is revised in light of better evidence (e.g. autism spectrum disorder). A lack of robust data can occur in situations where estimates rather than actual counts of the percentage of total students who may have additional needs is made for annual budget allocation purposes, or where there is a cap on the maximum percentage of the population with categorical assessments (i.e. ‘high’ or ‘very high’ needs) that are permitted by the system at any one time because of the significant, ongoing resourcing commitment this

generates. Gaps in data can also occur where data are gathered for one purpose in various parts of the system but cannot be reported, aggregated or retrieved in a standard fashion across the system as a whole.

This leads directly to the question how the children are identified, diagnosed and classified. The Education Review Office's (ERO) (2014) working definition of SEN is focused narrowly on ensuring access to the official curriculum. It comprises:

- (i) teaching adaptations and/or individual support to access the curriculum and achieve at or above level for their age; and
- (ii) children who are likely to learn within NZC Level 1 throughout their time at school.

Internationally, students who are identified as requiring additional needs, have been 'labelled' with generic terms to define a diverse group of learners. For example, in England Briggs (2016) identifies 'pupils with special educational needs and disabilities (SEND)' with regards students who have 'a significantly *greater difficulty in learning* than the majority of others of the same age; or has a disability which prevents or hinders him or her from making use of facilities of a kind generally provided for others of the same age in mainstream schools or mainstream post-16 institutions" (emphasis added, p. 1).

In 2019, the MoE stated that one in five children, or 20%, need additional support for their learning. No elaboration was provided. More specifically, however, in 2012 the MoE stated that "Learners with special education needs/disabilities have a range of impairments which affect their ability to learn and achieve at school. These include *physical* (e.g. cerebral palsy), *sensory* (e.g. blind/low vision and Deaf), *cognitive* (e.g. Down Syndrome), *psychosocial* or *behavioural* issues, or a *combination* of these." (p. 2) (emphasis added). (We take 'combination' to be a synonym for 'complex'.)

With specific reference to complex needs, the MoE stated in the same 2012 document that: "Recent medical advances mean low birth weight infants (pre-term, small-for-date or multiple births) are now much more likely to survive. However, of those who do, a significant number will experience difficulties ranging from mild cognitive impairments through to severe and complex difficulties" (p. 2).

It is also challenging to try and match the commonly quoted 20% figure to the resourcing (funding and specialist staffing resources) of additional support provided by the MoE. In 2012, the MoE stated that "The majority of learners with special education needs/disabilities do not have a clear diagnosis ... we allocate supports on the basis of need rather than diagnosis" (2012,

p. 2). The MoE also noted that “More than two-thirds of special education funding is provided directly to schools (or school clusters)” (p. 3).

In the same document, the MoE stated (2012, p. 1) that a range of resources was provided to schools each year to support the estimated 40,000–60,000 (4–6%) of the school population with moderate special education needs/disabilities, and specialist staff directly supported a further 3% (30,000) of school learners.

However, also in the same document, the MoE’s Figure 1 *Initiatives and resourcing for learners with special educational needs disabilities* (Figure 1 in this report) identifies 3% of school age children with high SEN, 4% with moderate to high SEN (and additionally resourcing to early childhood resourcing 5% of children aged 0–5).

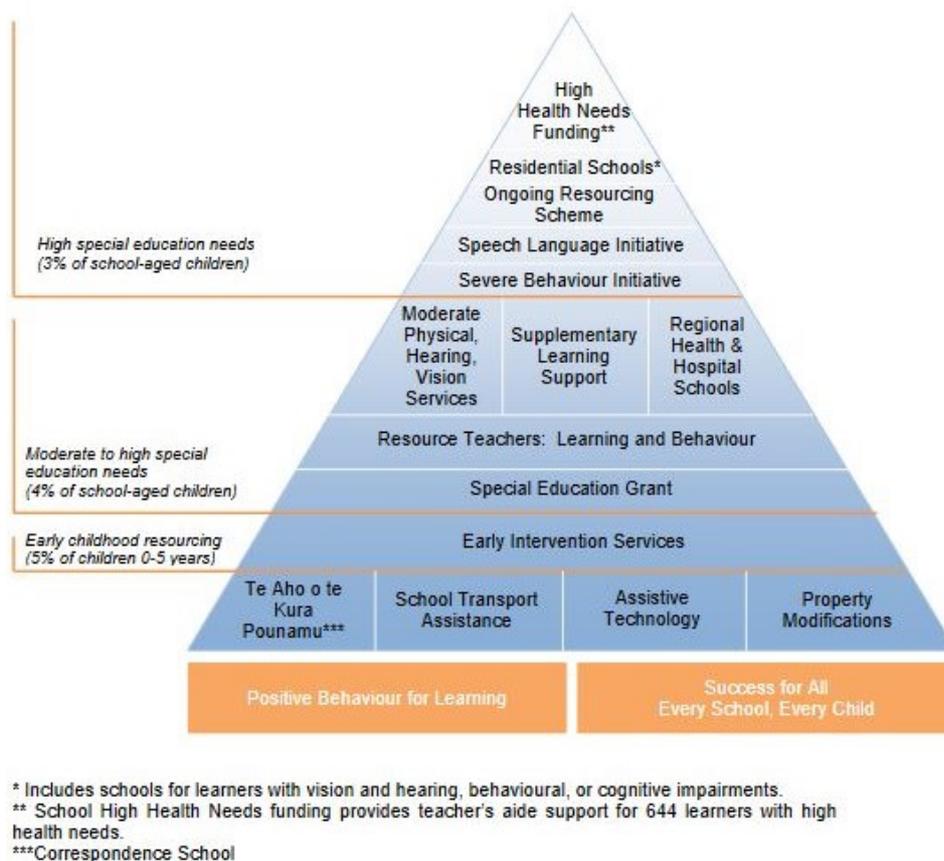


Figure 1. Ministry of Education supports and services for learners with special educational needs/disabilities  
 Source: Ministry of Education (2012)

During 2021, we were informed by the Ministry of Education that the 20% proportion currently used is based on work undertaken to develop, “the Learning Support Data Index, an index of over 100 services or supports available to learners from the Ministry, schools or other services (eg RTLB) and is based on the number of children and young people who received Learning

Support in 2017 as recorded in the Index” (D. Wales, pers comm).<sup>1</sup> Moreover, the Ministry of Education’s position is that “Learning Support needs are related to the learning context and children can receive supports without requiring a diagnosis”.

In the Aotearoa New Zealand context an equally significant issue is the extent to which children may be inappropriately identified or diagnosed as having additional needs. For example, the MoE states that around one in five Māori learners (15–20%) will have behaviour problems requiring intervention at some time. Yet, 40% of learners referred to special education behaviour services are Māori (p. 15). Overrepresentation of Māori is more suggestive of structural racism than individual special educational need, or at least of the inability of the system to enable Māori students to live and learn as Māori, which then leads to disproportionately high numbers of Māori being labelled with ‘behaviour problems’. The figures on educational exclusions for Māori learners later in the report reinforce the view that the system does not provide appropriately for Māori.

### **Changes over time**

If the number of diagnoses has changed, in what areas have the changes occurred?

Evidence suggests that the statement “One in five children and young people need some kind of extra support for their learning” (MoE, 2019, p. 4) may not accurately reflect the nature of the need in schools in Aotearoa New Zealand. For example, it does not distinguish between the proportion of learners who have received additional support at some point or other during their school career and those who receive such support on an ongoing basis (In this regard, Ministry of Education calculations using IDI data show that the former may equate to a significantly greater proportion of the school population than the latter [D Wales, pers comm]). Nonetheless, this proportion has long been a normative international benchmark for the percentage of young people needing additional special education provision. The figure dates from a report over forty years ago, commissioned in the UK, namely the Warnock Report (1978).

At the time, the Warnock Report was ambitious and ground-breaking with regard to advice on assessment, schooling and the integrated role of teachers, parents, specialists and educational psychologists. The Report is widely acknowledged for moving provision towards a needs-based system, challenging the use of medical labels, reconceptualising the notion of disability, and replacing pathological terms such as ‘handicap’ and ‘maladjusted’ to ‘special

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<sup>1</sup> In July 2020, Associate Minister Martin launched The Standardised Learning Support Register, a national register of student learning support need and resourcing.

educational needs’ and ‘learning difficulties’. Currently, in Aotearoa New Zealand the Learning Support Action Plan and the Learning Support Data Index adopt broad definitions of both learning need and provision of support to children, parents, teachers and schools.

Such flexibility is essential because, as Purdy, Hunter and Totton (2020) note, the Warnock Report introduced Statementing (i.e. assessments that were linked to the mandatory provision of additional support), which led to “a conflict between what a child really needs to access the educational curriculum and what the [funding authorities] are actually able to afford. It also led to innumerable disputes and tribunals as parents have appealed decisions made by [the funding authority] and argued for a higher level of support. The result has been additional and unnecessary delay, bureaucracy and expense, when resources could and should have been directed towards supporting the children’s learning needs in classrooms” (p. 13).

As noted in the Warnock Report, other variables such as housing and social factors impact on prevalence figures and therefore to variation:

*This is not of course an exact figure. It will vary from area to area according to local circumstances and will be influenced particularly by housing and other social factors and the character of individual schools, including their location, buildings, organisation and staffing, the effectiveness of their teachers and their approach to discipline. All these may affect the incidence of special educational need, especially in the realm of behaviour. (Warnock, 1978, Section 3.16)*

More recently, in the UK for example, it has been reported that by 2005–2006 “over 3 per cent of the school population were reliant on statements, equating to ~77,000 additional pupils above the original 2% estimate of those who would need a statement” (Lamb, 2019, p. 3).

### **Autistic Spectrum Disorder (ASD)**

In the United States, to give another example, estimates of Autism Spectrum Disorder (ASD) prevalence among children aged 8 years in multiple U.S. communities have increased from approximately one in 150 children during 2000–2002 to approximately one in 68 during 2010–2012, more than doubling during this period (Baio et al., 2018, p. 3).

In Aotearoa New Zealand there is a paucity of good data on children and young people with additional needs, leading to reliance on estimates and international comparisons. For example, the Ministry of Health website states that “ASD is thought to affect 1 in 100 New Zealanders” (<https://www.health.govt.nz/your-health/conditions-and-treatments/disabilities/autism-spectrum-disorder>). And, the KidsHealth website states that

“International figures suggest that about 1 in 100 children have ASD. It is about 4 times more common in boys than girls” (<https://www.kidshealth.org.nz/autism-spectrum-disorder-asd>).

The most recent New Zealand Health Survey (NZHS), based on interviews with parents and caregivers, reported that around 4,500 children have Autism. These data are based on a sample, not a census, and provide a snapshot only. Moreover, they may either underestimate or overestimate actual prevalence due to the self-report nature of the information. According to the NZHS data, there have been fluctuations in the data for both boys and girls. The prevalence among boys is consistently greater than among girls, and there is an unexplained dip for boys in 2015 and 2016 (see Figure 2).

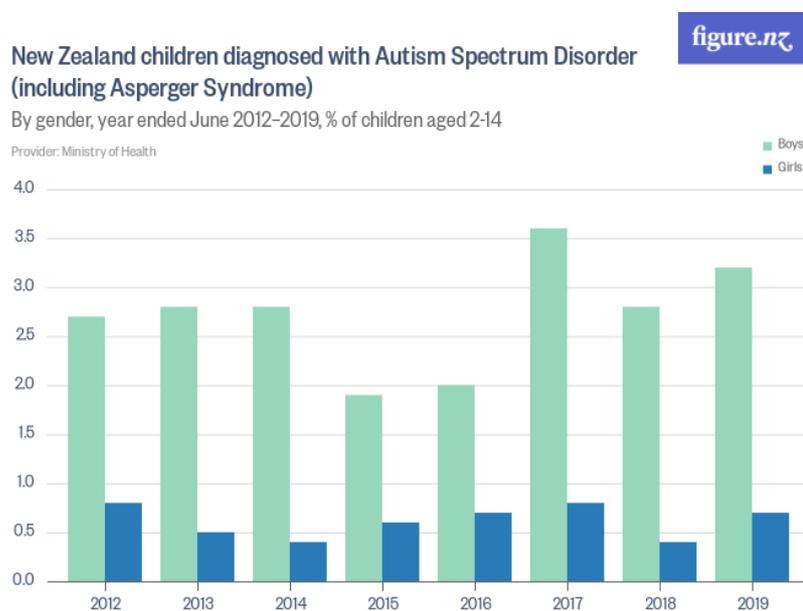


Figure 2. Percentage of children diagnosed with ASD 2012–2019 (2–14 years)  
Source: Ministry of Health

### **Attention Deficit Hyperactivity Disorder**

Attention Deficit and Hyperactivity Disorder (ADHD) is neurodevelopmental. Accordingly, an accurate assessment of ADHD is not feasible below 6 years of age. The behaviours exhibited as a result of attention-deficit hyperactivity disorder (ADHD) include inattention and hyperactivity–impulsivity during the day, difficulty winding down at night and problematic sleep patterns (Calhoun et al., 2011; Viring et al., 2016).

ADHD New Zealand report that ADHD affects 2–5% of all children, and that around one-third of children grow out of it by the time they are in their teenage years (<https://www.adhd.org.nz/adhd-is-more-common-than-you-think.html>). The prevalence of

Attention Deficit and Hyperactivity Disorder (ADHD) has a strong gender bias towards boys (10–14 years) (see Figure 3).

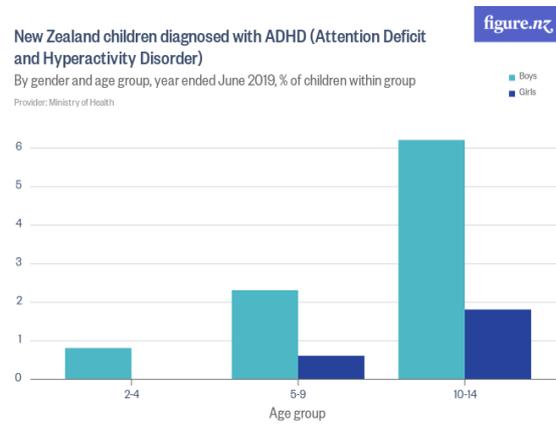
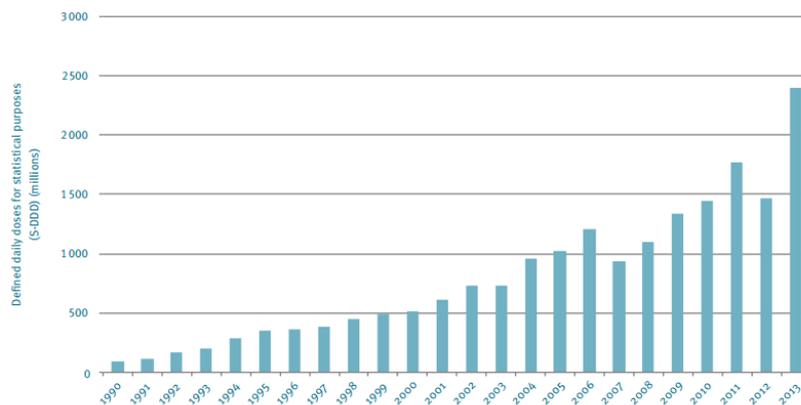


Figure 3. Percentage of NZ children diagnosed with ADHD (Attention Deficit Hyperactivity Disorder), 2019  
Source: Ministry of Health

A Danish study explored the effects of sleep on children with ADHD and those without a diagnosis. The mean age of these children was 9.6 years. The study found that children with ADHD had significant night-time sleep disturbances, and that poor sleep could not be attributable to comorbidity (i.e. another diagnosed condition occurring at the same time). This means that children with ADHD “are sleepier during the day despite a symptomatology characterized by a higher level of hyperactivity, impulsivity and inattention” (Virring, 2016, p. 337).

The consumption of medications prescribed for a particular disorder has been suggested as one method to track prevalence trends: for example, global consumption of a drug commonly prescribed for ADHD from 1990–2013 (UN, 2014) (see Figure 4).



Note: consumption rates are calculated in millions of S-DDD (defined daily doses for statistical purposes).

Figure 4. Global consumption of ADHD medication (Methylphenidate), 1990–2013  
Source: INCB (2014)

### **Fetal Alcohol Spectrum Disorder (FASD)**

FASD covers the spectrum of disabilities (and diagnoses) associated with prenatal exposure to alcohol (Public Health Agency of Canada, 2005). The New Zealand Ministry of Health (2016) describes Fetal Alcohol Spectrum Disorder (FASD) as an “umbrella terms used to describe the range of effects that can occur when a fetus is exposed to alcohol during pregnancy” (p. 1).

Accordingly:

*People born with FASD are at an increased risk of child abuse and neglect, poor educational outcomes, developing mental health and substance abuse issues, coming into contact with the justice system, benefit dependence and premature mortality – including through suicide. (Ministry of Health, 2020)<sup>2</sup>*

The Ministry of Health’s website also notes that there is no ‘typical’ FASD profile but outlined common issues such as “intellectual and developmental disabilities, attention deficits, poor social understanding, hyperactivity and learning disabilities”. International research cited in the Ministry of Health discussion paper on FASD links the condition to “speech-language disorders, mental illness, congenital heart defects, attention deficit hyperactivity disorder, sensorineural hearing loss, and intellectual disability” (Ministry of Health, 2015) (see also, Thank & Johnsson, 2009).

In an Israeli study of children between 2 and 12 years who were candidates for adoption in foster care and who were evaluated for clinical manifestations and historical features of fetal alcohol spectrum disorder based on established criteria for FASD, Tenenbaum and colleagues (2020) found that “there is a high rate of FASD and risk for developing FASD in a selected population of adopted or foster children” (p. 5). Based on earlier studies they claim that “children with FASD are overrepresented in foster care and adoption” (p. 4). The study also confirmed previous studies that showed FASD is underdiagnosed in this particular high-risk group. Moreover, the prevalence of “Children above the age of 2y fitting the criteria for FASD rises as neurodevelopmental and behavioral assessments are more accurate” (p. 6).

The New Zealand Ministry of Health (2015) quotes international research reports that about 21% of children in foster care have FASD and between 30 and 50% have an FASD. Although the Ministry of Health has noted that there are no New Zealand data on the prevalence of FASD, based on international studies they estimate 3% of births may be affected: “This implies that about 30,000 children and young people in NZ may have an FASD, with around 1,800 more born each year” (Ministry of Health, 2020). However, given the complexity of

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<sup>2</sup> <https://www.health.govt.nz/our-work/diseases-and-conditions/fetal-alcohol-spectrum-disorder>

diagnosis, and based on comparable international data, the prevalence of FASD could be as high as 4%, which would mean 40,000 in total and an additional 2,400 born each year.

For example, a study in Italy used two denominators for prevalence estimation, a conservative one and a strict sample-based estimate. The prevalence of FASD in the province where the study took place, showed 3.7 to 7.4 per 1,000 children. However, when they included cases of partial FASD (PFAS) and a case of alcohol-related neurodevelopmental deficits (ARND) the authors note that “the rate of FASD was 20.3 to 40.5 per 1,000 and estimated at 35 per 1,000 overall or between 2.3 and 4.1% of all children” (May et al., 2020, p. 1562). This study explored the prevalence of children in a primary school and the results raised a question for the authors “of whether FASD is more common in the western world than previously estimated”. A more recent study in a Midwestern city in the U.S. also showed that the prevalence of FASD could be up as high as 4.1% of primary school children (May et al., 2020).

New Zealand based research in progress includes work from Hāpai te Hauora a Ngā Kanohi Kitea who are researching whānau Māori experiences with an FASD (Fetal Alcohol Spectrum Disorder) diagnosis (<https://www.hapai.co.nz/content/hapai-secures-major-research-grant>). As noted on their website, “the evidence shows that Māori experience disproportionate levels of alcohol related harm. Unfortunately there is very little research which has looked at the experiences of whānau Māori who require support and care for alcohol related health problems, including FASD”. The need for further research has been identified in order to explore the related issues for Māori and Pacific communities as there is some evidence to suggest it is possible “to close gaps between ethnic communities” (Bowden et al., 2020, p. 2222; Baio et al., 2018).

The Ministry of Health indicates that the “annual cost to the New Zealand Government per person with FASD varies, but a conservative estimate would be \$15,000. Assuming 30,000 children and young people have FASD, this suggests an annual cost of at least \$450 million”. If the higher estimated prevalence of 4% is used, it would suggest an annual cost of \$600 million. The use that is made of the funding is not specified, nor is it stated whether it is to meet health or educational needs, or a combination.

There is a cross-agency FASD strategy that includes the Ministries of Health, Education, Oranga Tamariki (Ministry for Children) and the Health Promotion Agency, governed by a FASD Action Plan (2016–2019). In the plan, four priorities are identified: prevention, early identification, support and evidence. One of the specific actions under ‘Support’ included the development of a resource for teachers, to improve their knowledge and practice regarding FASD. This has been reported as completed by the Ministry of Education and as available on the

Te Kete Ipurangi website. One indicator of success was that by 2019, “teachers report increased understanding of what FASD is and how they can support affected children and young people to achieve at school” (MOH, 2016, p. 6). Critically, a key message is that:

*Even where brain damage is permanent, its negative consequences and impacts **do not** have to be. Our education system should be geared to provide evidence-based help for known conditions. Early intervention is vital from government systems to help families, health and education providers do better – and ultimately, to prevent the first steps onto a pathway into offending (Lambie, 2020, p.5).*

### **Types of need and other country data**

Is there a change in the number of children being diagnosed with more than one additional need? Have there been similar changes in other countries?

It appears from the international literature that, by convention, additional needs are reported by prevalence of individual need as opposed to prevalence of children with single or multiple additional needs. Reliable data on the number of children, and changes in those numbers, are therefore generally not available.

International data were nevertheless sourced in an attempt to address these questions, both in terms of the way the children are categorised, and the prevalence within each category. The statistics from the U.S. identify 14 areas of disability (including preschool). England data have 12 listed areas. The U.S. uses the term ‘disability’ whereas England uses the term ‘difficulty’. While different language is used to describe the additional need, we have combined the two country group data to illustrate there are some commonalities as depicted in Table 1 below.

Table 1. Students with Additional Needs: Categorisation areas (U.S. and England)

<b>Students with Additional Needs: Categorisation areas</b>	
<b>United States (2019)</b> (Source: U.S. Dept of Education, National Center for Education Statistics, 2019)	<b>England (2019)</b> (Source: SEN_2019_National_tables)
Autism	Autism Spectrum Disorder
Deaf-blindness	Multi sensory impairment
Developmental delay	Moderate learning Difficulty
Emotional Disturbance	Social, emotional and mental health
Hearing impairment	Hearing impairment
Intellectual Disability	Severe Learning Difficulty
Multiple Disability	Profound and Multiple Learning Difficulty
Orthopedic impairment	Physical disability
Other health impairment	Other difficulty/ disability
Specific learning disabilities	Specific learning difficulties
Speech or language impairment	Speech, language and communication needs
Visual impairment	Visual impairment
Traumatic brain injury	
Preschool disabled	

### **Trends in the United States of America (U.S.)**

Longitudinal data from the U.S. show relatively consistent patterns of children identified as having speech-language impairments, being 2.9% of total public school enrolments in 1976 and 2.7% in 2018. Other health impairments<sup>3</sup> show the greatest percentage change from 0.3% of total enrolment in 1976 to 2.0% in 2018. Developmental delay identifications nearly doubled in 8 years from 0.5% in 2000 to 0.9% in 2014 (0.9%). Autism identifications increased from 0.2% in 2000 to 1.4% in 2018. For specific learning disabilities the percentage of student enrolment increased from 1.8% in 1976 to 4.6% in 2018. Overall, the greatest proportion of students identified as requiring additional support were those with specific learning disabilities, and the second greatest need was students with a speech or language impairment.

### **Trends in England<sup>4</sup>**

In the 2019 England data 30.6% of children identified with SEND in state-funded primary schools required support for speech, language and communication needs, and 20.9% required

<sup>3</sup> Other health impairment includes limited strength, vitality or alertness due to chronic or acute health problems such as heart condition, tuberculosis, rheumatic fever, nephritis, asthma, sickle cell anemia, hemophilia, epilepsy, lead poisoning, leukemia, or diabetes.

<sup>4</sup> Data from England are reported as a percentage of students identified with special educational needs and disability (SEND) not the total school population.

support for moderate learning difficulty. Of those identified as requiring support for ASD, 7.9% in primary schools received either SEN or Education, Health and Care (EHC) plan support, as did 10.3% of students in secondary schools. A greater proportion, 29.8%, were enrolled at special schools. 9.5% of SEND identified children in primary schools had specific learning difficulties, compared with 20.6% in secondary schools. 16.3% of SEND identified children in primary schools required social, emotional and mental health support, compared with 19.6% in secondary schools.

### ***New Zealand communication support***

Given the high level of need for communication support in both U.S. and England, data from the Ministry of Education Annual Report (2019) were sourced for comparison purposes. The data showed that 6.35% more children received Communication Services support (7,540 in total) than in the previous year, and a further 882 children were on the waitlist. This waitlist figure was an increase from 855 at the same time in 2018. The average wait time for support was 73.15 days<sup>5</sup>. (See also Table 7 on core services wait times.)

### ***Trends in Australia***

We also reviewed the Australian approach to identification and reporting of additional support needs. The Nationally Consistent Collection of Data on School Students with Disability (NCCD) is an annual, national data collection exercise that uses national criteria and guidelines, teacher/school applications for support, and moderation of teacher/school judgments of need on which to base additional resource allocation decisions (<https://www.nccd.edu.au/>). While the scheme has been in operation for several years, we were able to source only one annual report (2017) with summary data (Figure 5). A search for commentary on the scheme suggested that: (i) officials are of the view that it provides for a more accurate, fairer and more transparent distribution of the available funding; (ii) teacher representatives are of the view that the scheme is significantly underfunded relative to actual need; and (iii) scholarly and other analyses raise the issue of the extent to which the school-based data collection requirements further increase teacher administration and moderation workload pressures.

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<sup>5</sup> The Ministry of Education recognises the target for days eligible children wait to receive a MoE-provided learning support has not been achieved (Annual report, 2019, p. 67).

**TABLE 1** Students with disability receiving adjustments by level of adjustment as a percentage of the total student population in each sector and nationally (2017)

Level of Adjustment	Government	Catholic*	Independent	National
Support within QDTP	6.2%	4.2%	9.0%	6.2%
Supplementary	7.8%	9.9%	7.7%	8.2%
Substantial	3.3%	2.3%	2.5%	3.0%
Extensive	1.9%	0.5%	0.7%	1.5%
<b>All Adjustments</b>	<b>19.1%</b>	<b>16.9%</b>	<b>19.9%</b>	<b>18.8%</b>

\*Catholic independent schools have been included in the Catholic sector.  
NB: Numbers may not add up due to rounding

**TABLE 2** Students with disability receiving adjustments by category of disability as a percentage of the total student population in each sector and nationally (2017)

Categories of Disability	Government	Catholic*	Independent	National
Cognitive	10.9%	9.3%	9.7%	10.4%
Physical	2.4%	2.9%	4.5%	2.8%
Sensory	0.8%	0.5%	0.7%	0.7%
Social-Emotional	5.1%	4.2%	5.0%	4.9%
<b>All Categories of Disability</b>	<b>19.1%</b>	<b>16.9%</b>	<b>19.9%</b>	<b>18.8%</b>

\*Catholic independent schools have been included in the Catholic sector.  
NB: Numbers may not add up due to rounding

Figure 5. Australian NCCD data on students with disability.

These Australian experiences are pertinent in light of the 2020 launch of a vernacular national standardised learning support register and associated index for Aotearoa New Zealand.

### Social, cultural and/or economic factors

Are there any social, geographical, cultural, and/or economic factors that correlate significantly with any changes?

A key point is that ‘special education needs’ has been defined in diverse ways internationally, and, moreover, that it is culturally defined. As Bevan-Brown (2015) noted, “What is perceived as a special education need for one group may not be considered so for another” (p. 10). Cultural perspective is a critical issue in the Aotearoa context, as “Māori children with special education needs are often being neglected, overlooked, inadequately provided for, and even excluded” (Bevan-Brown, 2015, p. 15).

We were unable to find data to quantify how significant an issue this is, but there are indicators in the literature, both in New Zealand and overseas, that suggest such data should be explicitly collected. For example, cultural considerations with respect to identification may under-estimate the need in some cultural groups. Stigmas attached to the diagnosis in some countries can result in under-identification (Bowden et al., 2020). One example is the high

proportion of previously unknown ASD cases identified when diagnostic assessments were administered in a Korean sample of 7–12 year old children (Kim et al., 2011): “two-thirds of ASD cases in the overall sample were in the mainstream school population, undiagnosed and untreated” (p. 904).

There is also a strong association reported between pupils with SEND and children in poverty (Polyzoi et al., 2020; Shaw et al., 2016). Similarly, in the New Zealand context, an ERO report on Activity Centres in 2013 reported that “some students in Activity Centres have significant social or health issues that could compromise their ability to succeed in further education” (ERO, 2013). These are all areas that require further research.

Bevan-Brown has identified the importance of understanding perspectives of Māori with regards some special needs where the use of an identificatory or diagnostic ‘label’ would be culturally inappropriate as children are a taonga, a gift, a unique individual (Bevan-Brown, 2004; Bevan-Brown et al., 2015).

Māori students are statistically overrepresented in stand-downs, suspensions and exclusions. Consistent with data on the prevalence of Māori being disproportionately referred to behavioural support services, these data imply that the challenges are structural and cultural, not individual and psycho-social in nature.

Having summarised the findings from international and national literature searches, the next part of the report provides an analysis of available data specific to Aotearoa New Zealand.

## **Aotearoa New Zealand specific data**

Publicly available datasets were accessed from Education Counts for this report: (1) data on students funded under the Ongoing Resourcing Scheme (ORS) from 2005 to 2019, and (2) data on stand-downs, suspensions, exclusions and expulsions (collectively termed ‘educational exclusions’ in this report) from 2000 to 2019. In addition, the Ministry of Education’s roll return data from 2000 to 2019 have been used to provide a comparison with the total student population. The data sourced through IDI (StatsNZ) included Ministry of Health data on disabilities, and the Ministry of Education data on educational interventions.

### **Student population**

In Aotearoa New Zealand, the population of students has increased from 760,893 students enrolled in Years 1 to 13 in 2005, to 814,222 students (see Figure 6).

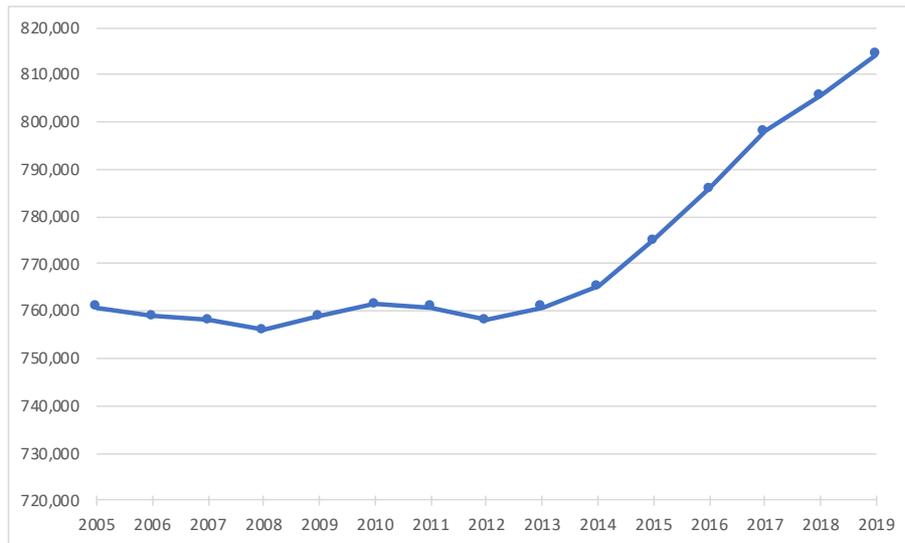


Figure 6. Number of students in the Aotearoa New Zealand student population, 2005–2019

Overall, the student population increased by 7% between the years 2005 and 2019. Increases were also observed in most year levels, except Years 9, 10 and 11. The largest increase, of 25%, was in Year 13 (see Figure 7).

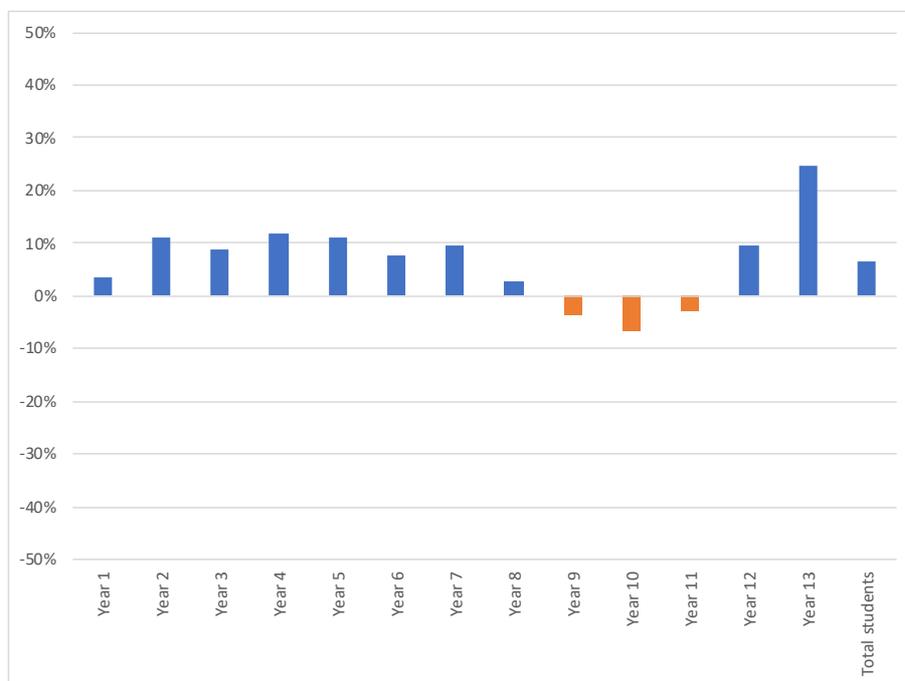


Figure 7. Percentage increase in the student population by year level, 2005–2019

Less than 1% of the total student population attend special schools. However, the numbers have increased by 26% from 2005 to 2019, from 2,784 students to 3,786 students (see Figure 8).

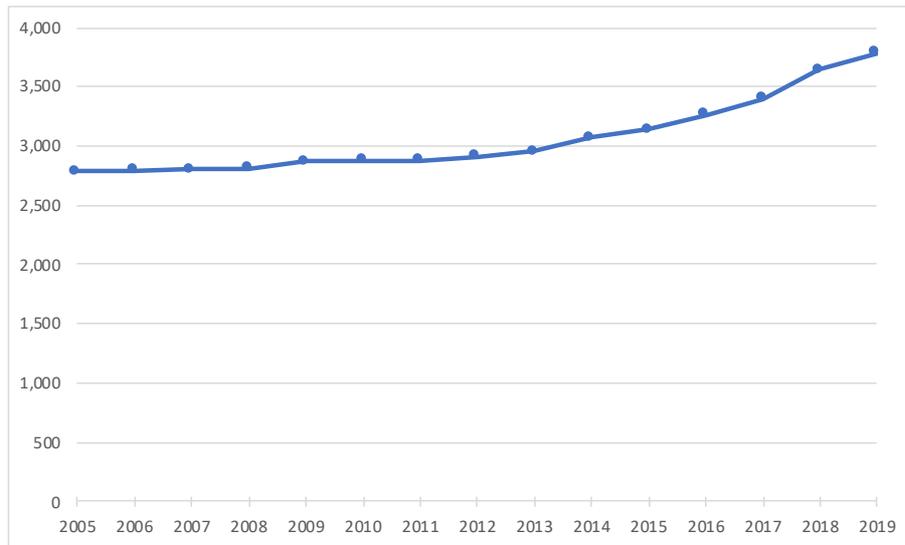


Figure 8. Number of students attending special schools, 2005–2019

Approximately 15% of students attend Decile 10 schools, and approximately 7% attend Decile 1 schools (see Figure 9).

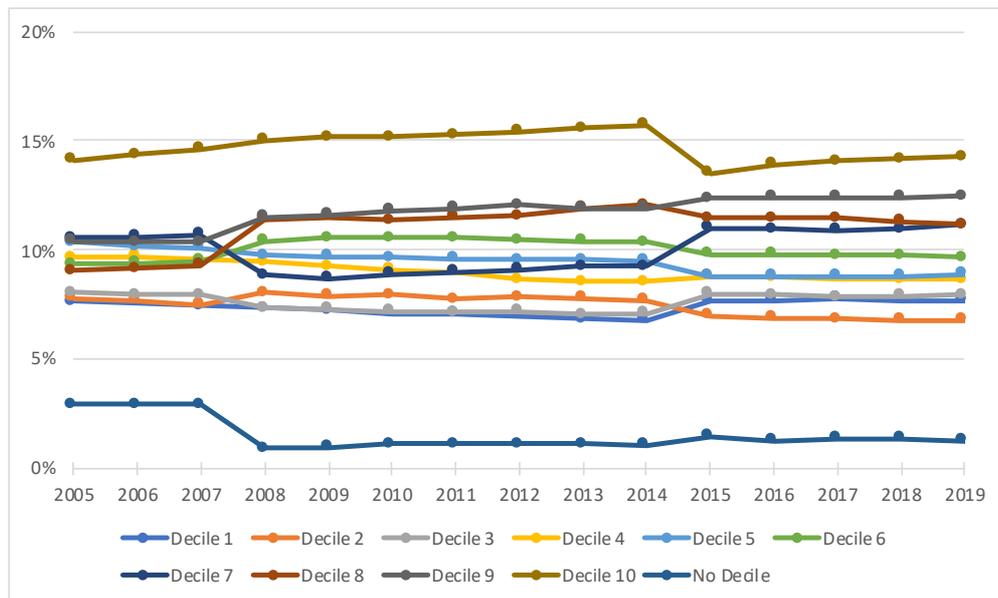


Figure 9. Decile as a proportion of total student population, 2005–2019

The number of students from Pākehā or European ethnic groups has decreased over the years 2005 to 2019. Over the same period, the number students from all other ethnic backgrounds has increased (see Figure 10). As a proportion of the total student population, Māori make up approximately 20–24%, Pacific Peoples approximately 9–10%, Asian approximately 8–13%, and Pākehā/European approximately 59–48% (see Figure 11).

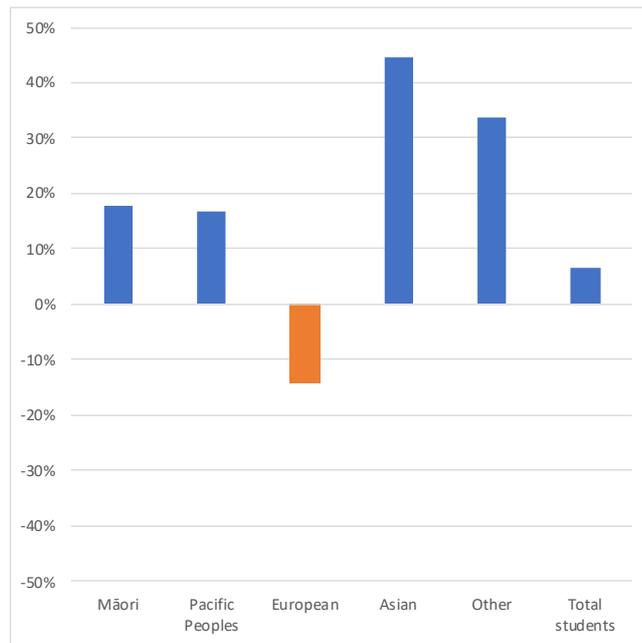


Figure 10. Percentage increase in the student population by ethnic group, 2005–2019

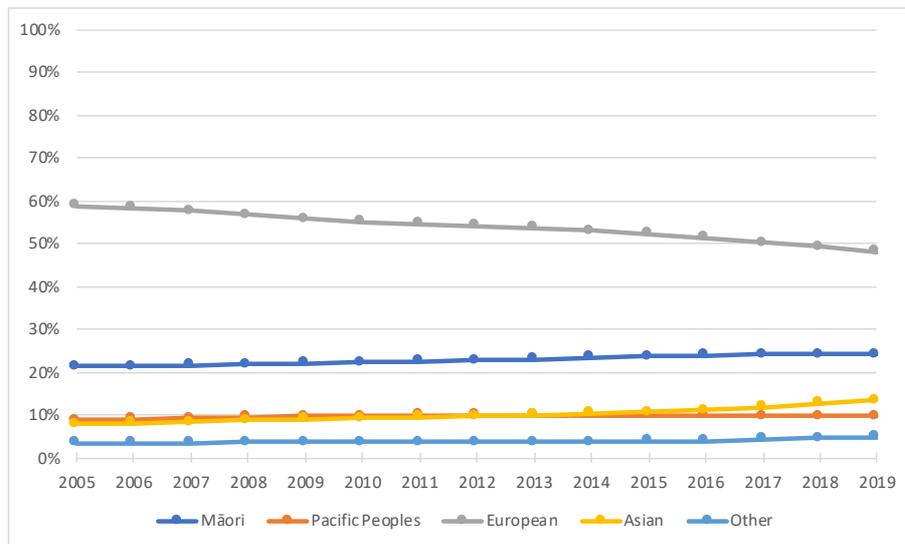


Figure 11. Ethnic group as a proportion of total student population, 2005–2019

The proportion of female and male students has stayed very constant over the years 2005 to 2019. Males represent 51% of the student population and females 49% (see Figure 12).

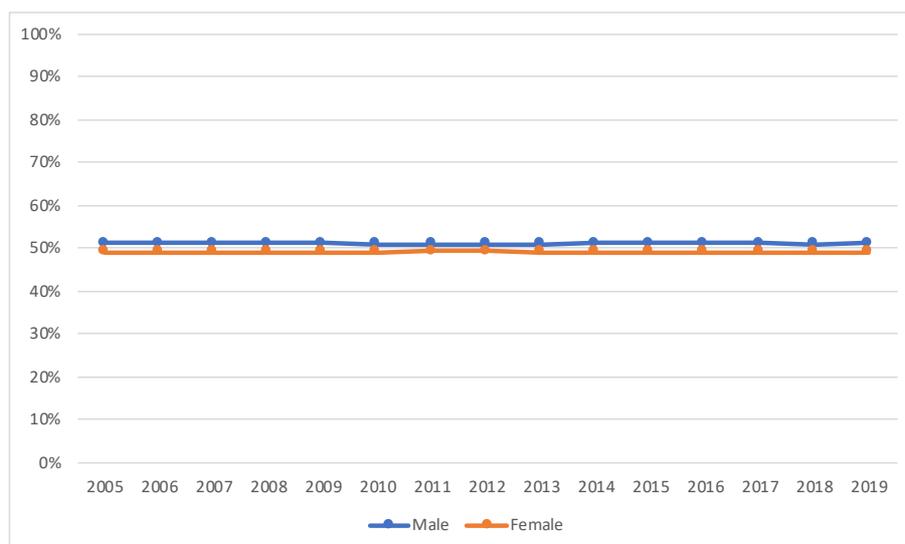


Figure 12. Gender as a proportion of total student population, 2005–2019

### Students funded under the Ongoing Resourcing Scheme (ORS)

The eligibility criteria and the overall amount of ORS funding in each year are set by the Ministry of Education. ORS is currently under review (D. Wales, 2021, pers comm).

Table 2 summarises the criteria and descriptors that apply to each need level. The Ministry of Education website provides descriptors and profiles for those criteria, and some of the criteria also have sub-criteria.

Table 2. ORS criteria

Need area	Need level	
	Very High	High
Learning	<b>Criterion 1</b>	<b>Criterion 5</b>
Hearing	<b>Criterion 2.1 and 2.2</b>	<b>Criterion 6.1</b>
Vision	<b>Criterion 2.3</b>	<b>Criterion 6.2</b>
Physical	<b>Criterion 3</b>	<b>Criterion 7</b>
Language use and appropriate social communication	<b>Criterion 4</b>	<b>Criterion 8</b>
Learning plus two areas of moderate needs from below:	Combined Moderate Needs Criteria 9	
	<b>Sub-criterion 9.1</b>	
	plus two areas of moderate needs from below:	
Hearing	<b>Sub-criterion 9.2</b>	
Vision	<b>Sub-criterion 9.3</b>	
Physical	<b>Sub-criterion 9.4</b>	
Language use and appropriate social communication	<b>Sub-criterion 9.5</b>	

Source: <https://www.education.govt.nz/school/student-support/special-education/ors/criteria-for-ors/>

The Ministry of Education (Source: Official Information Act [OIA] 1248979) provided summary time series data (2010–2020) on the numbers of applications for ORS (Table 3).

Table 3. Number of successful, unsuccessful, and total ORS applications, 2010–2020

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Successful	1046	923	964	1012	1049	1097	958	1002	1160	1133	1281
Unsuccessful	562	494	477	416	516	509	524	527	452	483	614
<b>Total</b>	<b>1608</b>	<b>1417</b>	<b>1441</b>	<b>1428</b>	<b>1565</b>	<b>1606</b>	<b>1482</b>	<b>1529</b>	<b>1612</b>	<b>1616</b>	<b>1895</b>
% Successful	65.0	65.1	66.9	70.9	67.0	68.3	64.6	65.5	72.0	70.1	67.6

The total number of students receiving ORS funding has increased, from 6,664 students in 2005 to 9,718 students in 2019 (see Figure 13). This represents an increase of 31%. Approximately 75% of ORS-funded students have high needs, and approximately 25% have very high needs.

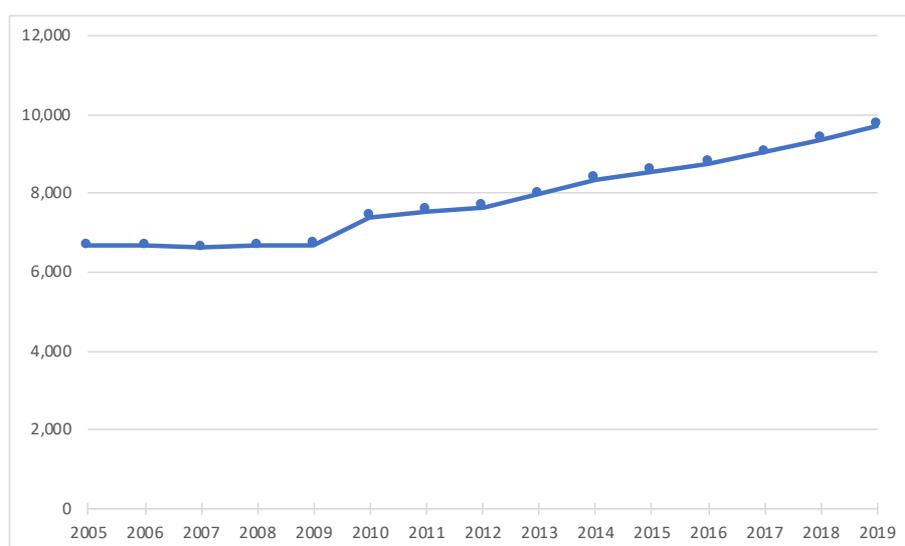


Figure 13. Number of ORS-funded students, 2005–2019

The ORS extension programme was a brief phase introduced in 2010<sup>6</sup>. This was created to support an additional 400 students with moderate to high needs, older than 9 years of age, who had narrowly missed out on ORS funding. As shown in Figure 14, there were very few students under the extension category by 2019 (n=19) and in 2020 there were no longer any.

<sup>6</sup> <https://www.educationcounts.govt.nz/statistics/ongoing-resourcing-scheme>

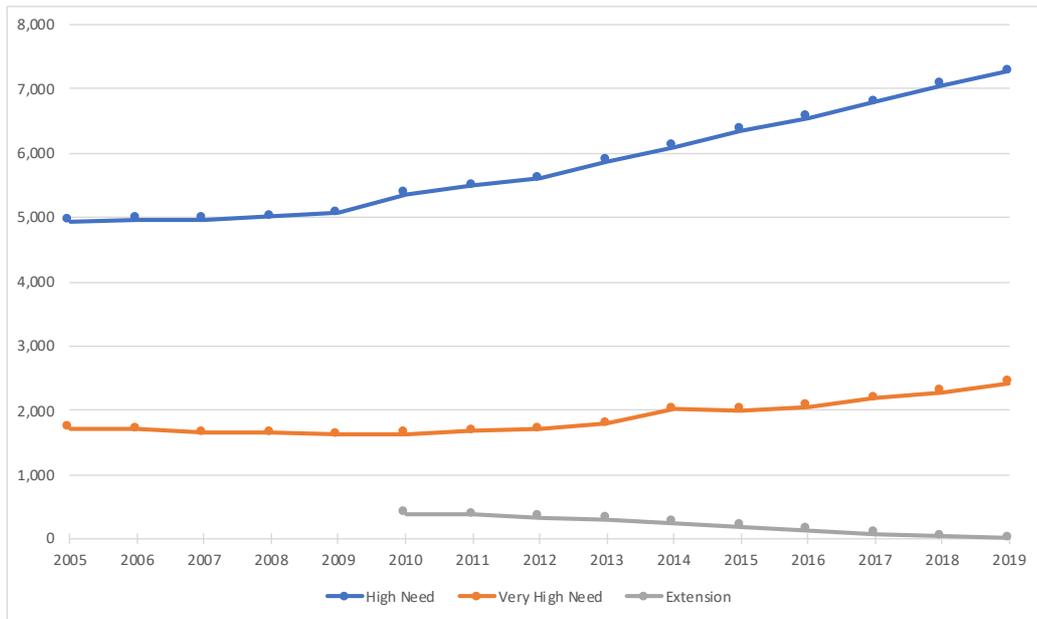


Figure 14. Number of ORS students by funding type, 2005–2019

Of the total number of ORS-funded students, approximately 65% are male and 35% are female (see Figure 15). This differs from the student population, where 51% are male and 49% are female.

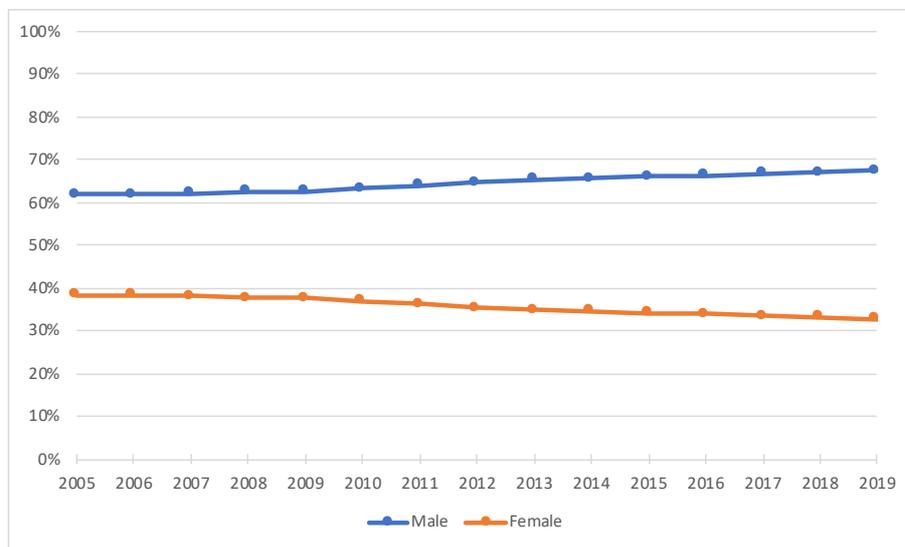


Figure 15. Percentage of ORS-funded students by gender, 2005–2019

The proportion of Pākehā or European students who received ORS funding has decreased from 60% in 2005 to 47% in 2019. Over the same years, the proportion of Māori students who received ORS funding increased from 19% to 24% (see Figure 16). This is very similar to changes in the ethnic group composition of the total student population over the same years.

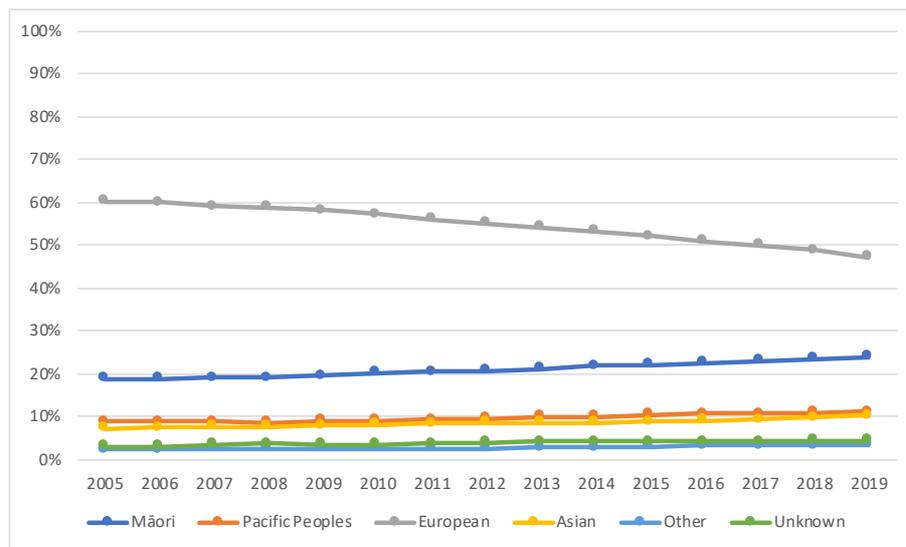


Figure 16. Percentage of ORS-funded students by ethnic group, 2005–2019

Figure 17 compares the proportion of the general student population attending schools at each decile level, with the proportion of ORS-funded students. The ORS-funded students tend to cluster in Decile 2, 3, 4, and 5 schools. There are fewer ORS-funded students than might be expected attending Decile 7, 8, 9 and 10 schools. This trend is particularly apparent in Decile 10 schools.

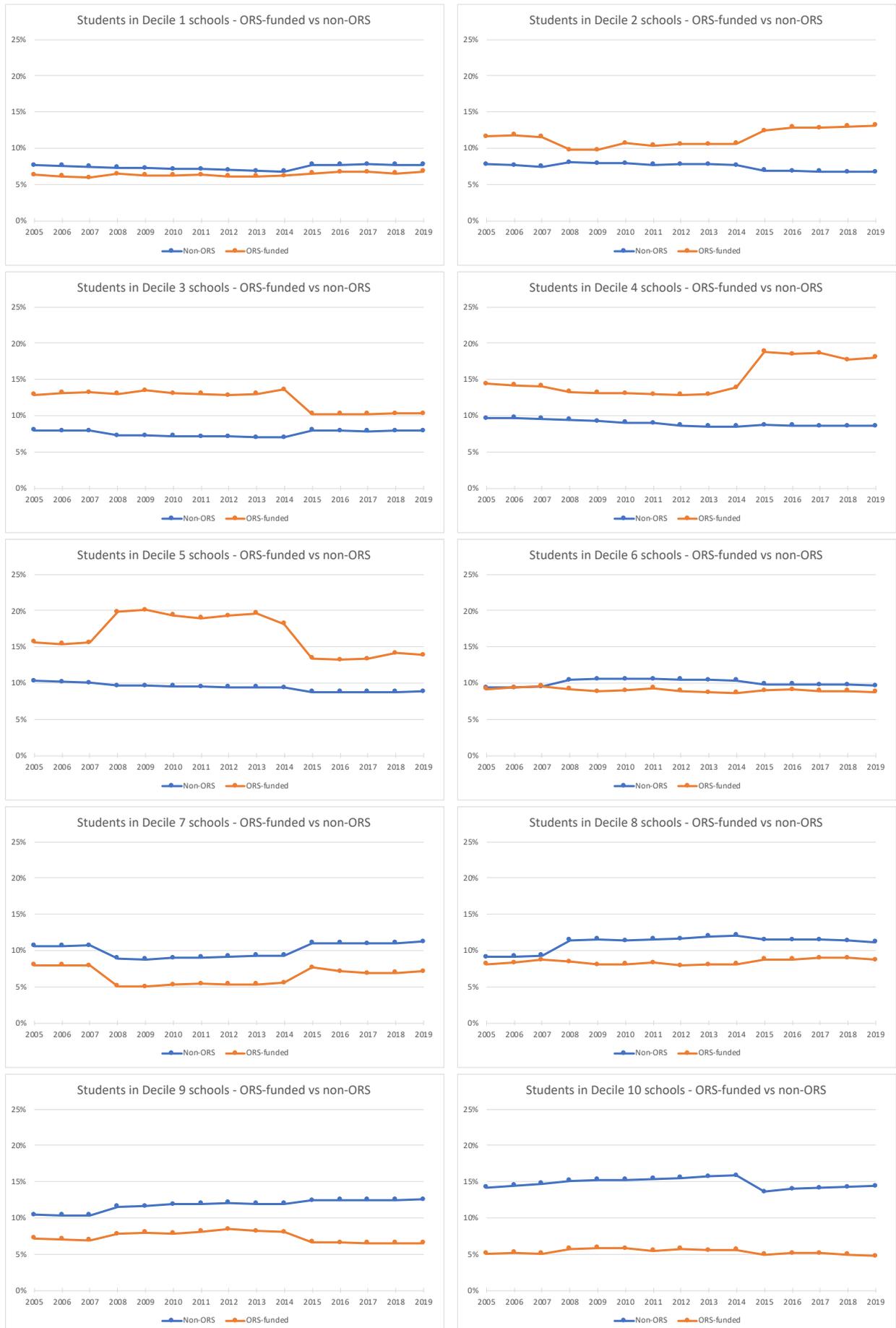


Figure 17. Overview of general student population and ORS-funded students attending schools at each decile level

In lower decile schools such as Decile 2 and Decile 4 a higher percentage of students receive ORS funding than expected. Between 7% and 8% of students attend Decile 2 schools, whereas between 10% and 13% of ORS funded students attend Decile 2 schools. Between 8% and 10% of students attend Decile 4 schools, whereas between 13% and 19% of ORS funded students attend Decile 4 schools. In higher decile schools such as Decile 8 and Decile 10, a lower percentage of students receive ORS funding than expected. Between 9% and 12% of students attend Decile 8 schools, whereas between 8% and 9% of ORS funded students attend Decile 8 schools. Between 14% and 16% of students attend Decile 10 schools, whereas between 5% and 6% of ORS funded students attend Decile 10 schools. We have no explanation for the sharp increase in ORS funded students in Decile 4 schools in the period 2014–2015, and to a lesser extent in Decile 2 schools.

To examine ORS funding levels for each cohort of students across their time at school the age data for each year were regrouped by cohort. Cohort 1 refers to those students who were 21 years of age in 2005, the first year for which data are available. Cohort 17 refers to those students who were 5 years of age in 2005 and 19 years of age in 2019, the final year for which data are available. Cohort 31 refers to those students who were 5 years of age in 2019. Figure 18 shows that: (i) students are only eligible for ORS funding from the age of 5; and (ii) funding peaks at around 14 or 15 years of age for each cohort of students.

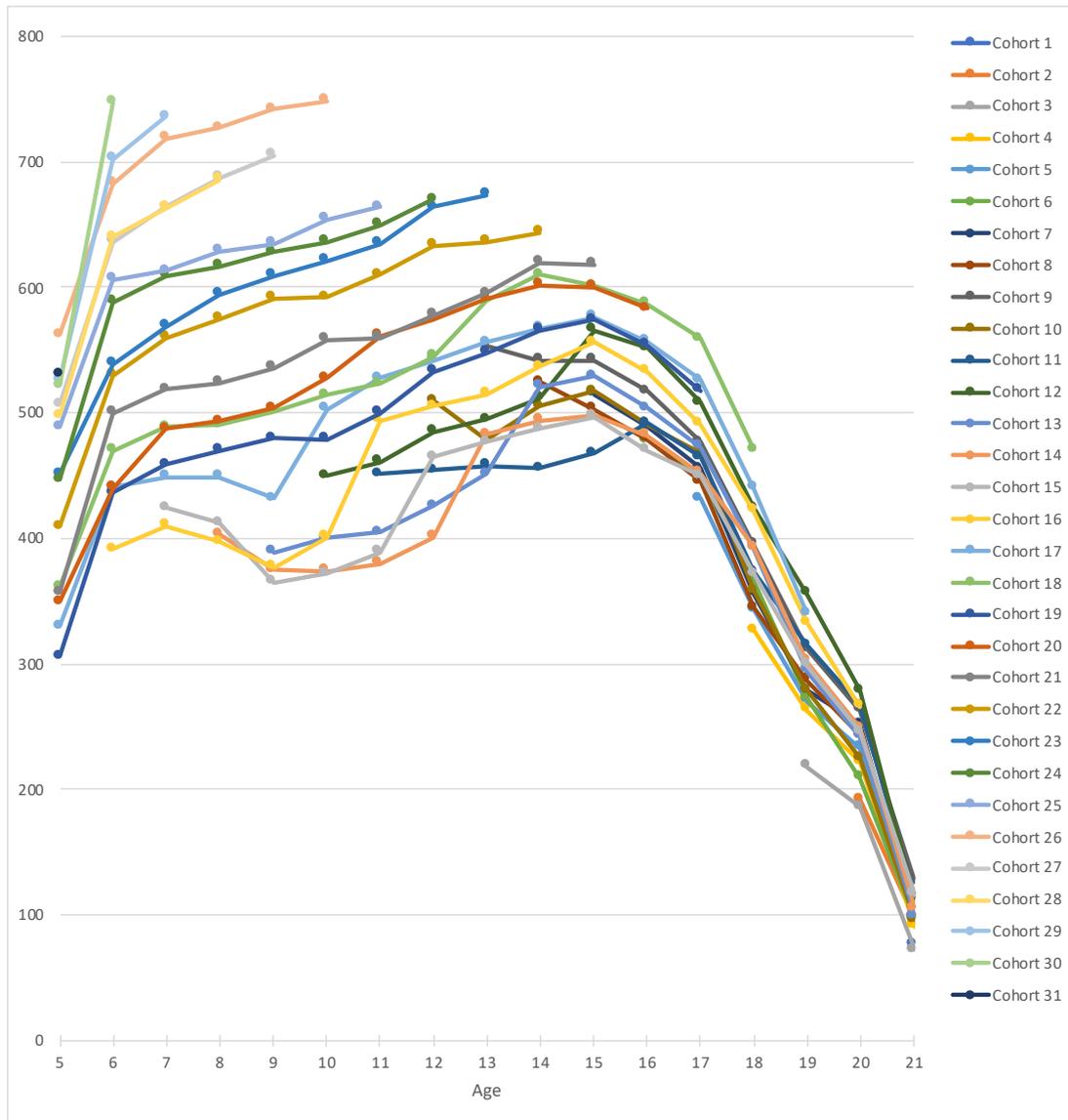


Figure 18. Number of ORS students in an age cohort across time (all funding levels combined)

### Reliability of the data

The above discussion of ORS funding is based on data available through the Education Counts website. The data available through the Integrated Data Infrastructure show different trends (see Figure 19). Over the years 2005 to 2019, the data from Education Counts show ORS funding increasing by 31%, whereas the IDI show ORS funding increasing by 62%. One possible explanation is that data in the IDI prior to 2009 is incomplete.

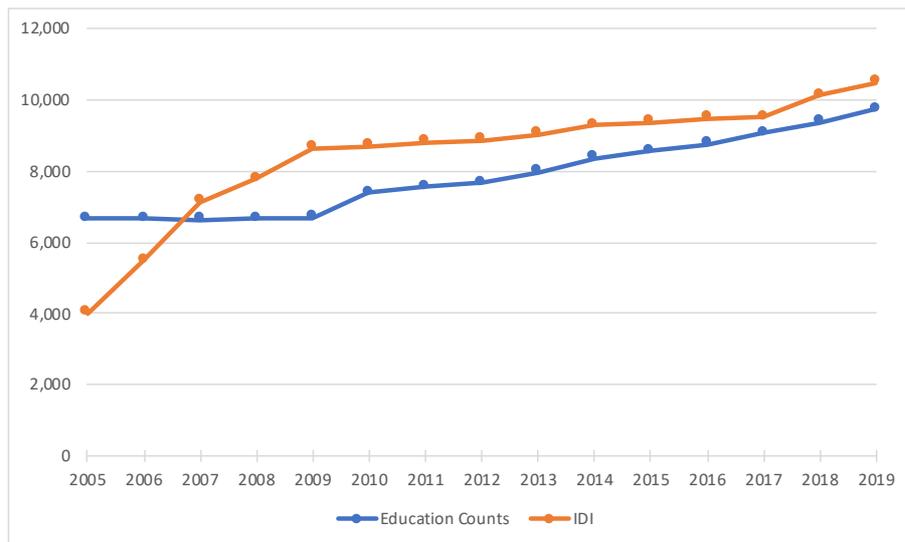


Figure 19. Comparison in number of students receiving ORS funding from Education Counts data and IDI data

## Behaviour support services and educational exclusions

This section provides data on behaviour support services provision and exclusions.

### **Behaviour support services**

The Ministry of Education Annual Report for 2019 reported that services available to schools to support young people with challenging behaviours have an average waiting list that grew in 2019 (49.12 days) up from 41.83 days in 2018. More children received Behaviour Service in 2019 (7.7% increase – 4,714 in total), and as at June 2019 a further 447 children were waiting to receive a service (Ministry of Education Annual Report, 2019). We have been unable to retrieve any time-series data on the provision of behaviour support services. We note that the Ministry of Education does conduct an annual user satisfaction survey of support services including behaviour support (See also section below on core service waiting times).

### **Educational exclusions**

The Ministry of Education’s standard position is that prevalence data on standdowns, suspensions and exclusions are a record of the school’s response to presenting behaviour, not the behaviour itself, and because schools’ responses to presenting behaviour vary, the data cannot be used as a proxy measure for actual student behaviour. Data on educational exclusions illustrates the number of stand-downs, suspensions, exclusions and expulsions from 2000 to 2019, the ethnic group data on each type of educational exclusion, and the types of behaviour that led to the educational exclusions. Figure 20 shows the number of educational exclusions over time, and

Figure 21 shows the percentage of each type of exclusion. In every year, there are more stand-downs than suspensions, exclusions or expulsions. As a percentage of the total number of educational exclusions, stand-downs are slowly increasing, from 71% in 2000 to 83% in 2019.

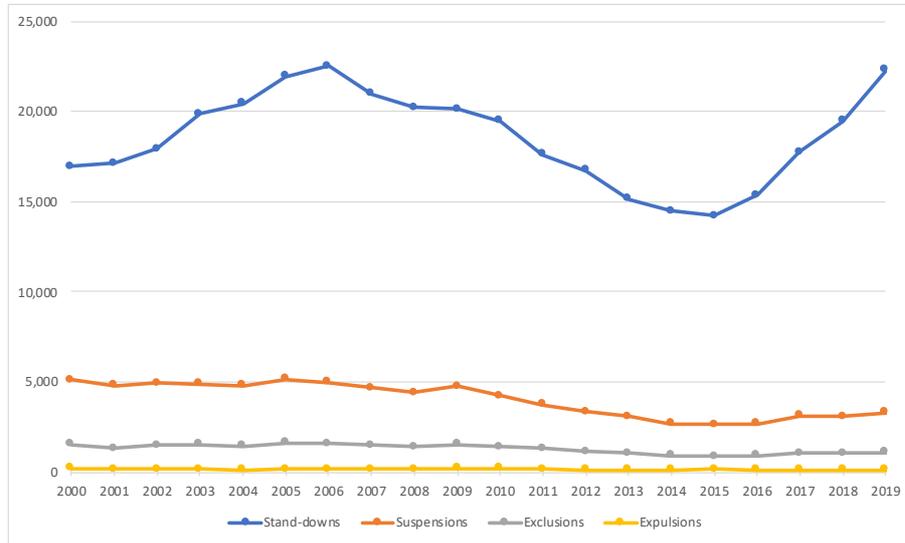


Figure 20. Number of educational exclusions, 2000–2019

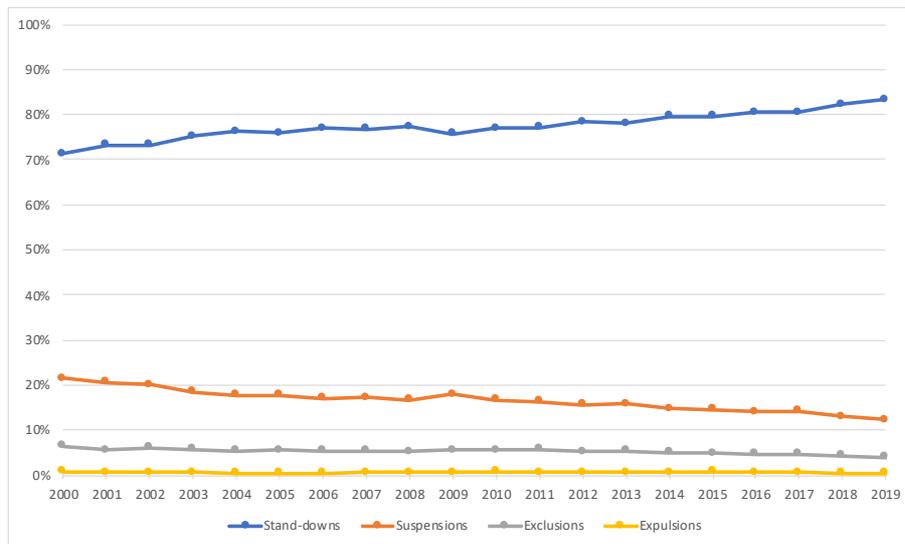


Figure 21. Percentage of educational exclusions, 2000–2019

Educational exclusions represent a small percentage of the total student population: between 2% and 4% of students in any given year. The percentage fluctuates over time, with a high of 3.8% in 2006 and a low of 2.3% in 2015 (see Figure 22).

The same fluctuation is seen in the percentage of stand-downs. Suspensions, exclusions and expulsions account for very small percentage of the student population: less than 1% and approaching 0%.

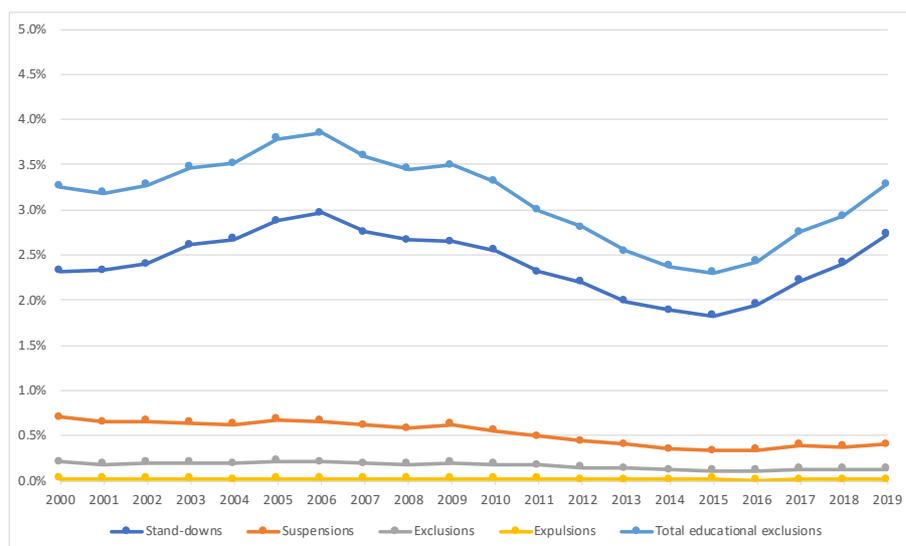


Figure 22. Educational exclusions as a percentage of total student population, 2000–2019

Figures 23 to 26 show the number of students from each ethnic group who were stood-down, suspended, excluded or expelled from school in the years 2000 to 2019. To provide some context for the following figures, in the total student population the percentage of Pākehā students has been decreasing over time (from 64% in 2000 to 48% in 2019), while the percentage of Māori students has been increasing (from 20% in 2000 to 24% in 2019) (see Table 4).

Table 4. Percentage of students in each ethnic group, 2000–2019

Year	European/Pākehā	Māori	Pacific	Asian	Other	n
2000	64%	20%	8%	6%	2%	729,689
2001	63%	20%	8%	6%	3%	733,807
2002	61%	20%	8%	7%	4%	747,910
2003	60%	21%	8%	7%	4%	761,709
2004	59%	21%	8%	8%	4%	764,654
2005	59%	21%	9%	8%	3%	762,790
2006	58%	21%	9%	8%	3%	760,745
2007	57%	22%	9%	8%	3%	759,878
2008	57%	22%	9%	9%	4%	758,094
2009	56%	22%	10%	9%	4%	760,859
2010	55%	22%	10%	9%	4%	764,398
2011	55%	23%	10%	9%	4%	762,682
2012	54%	23%	10%	10%	4%	759,960
2013	54%	23%	10%	10%	4%	762,400
2014	53%	23%	10%	10%	4%	767,263
2015	52%	24%	10%	11%	4%	776,815
2016	51%	24%	10%	11%	4%	787,960
2017	50%	24%	10%	12%	4%	800,334
2018	49%	24%	10%	13%	4%	808,439
2019	48%	24%	10%	13%	5%	816,632

Figure 23 shows that, while there are two to three times the number of Pākehā students than Māori students, the percentage of stand-downs is approximately the same for Pākehā and Māori students. Māori students are overrepresented in the number of stand-downs.

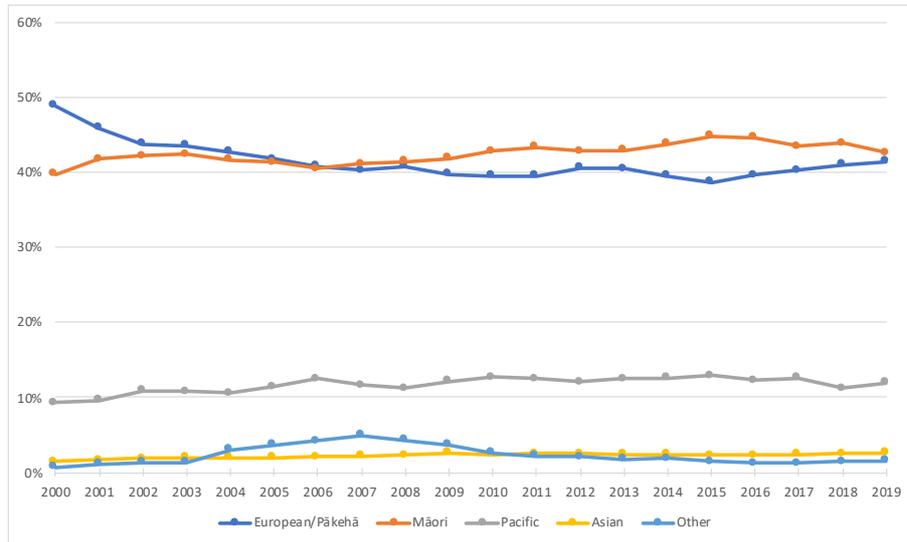


Figure 23. Percentage of stand-downs by ethnic group, 2000–2019

In every year, a higher proportion of Māori students than Pākehā students is being suspended (see Figure 24).

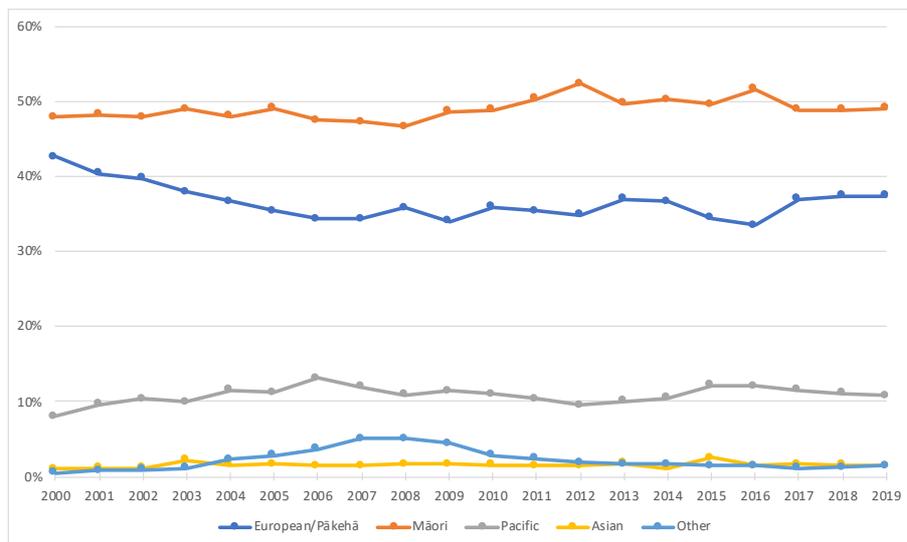


Figure 24. Percentage of suspensions by ethnic group, 2000–2019

Likewise, a higher proportion of Māori students than Pākehā students is being excluded each year (see Figure 25).

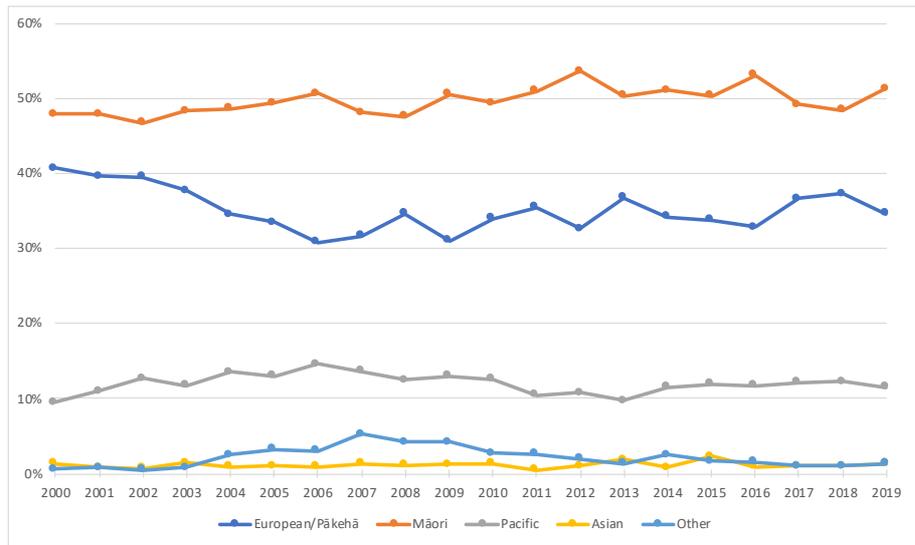


Figure 25. Percentage of exclusions by ethnic group, 2000–2019

The pattern of expulsions is much more varied, with approximately the same proportion of Pākehā, Māori and Pacific students being expelled each year (see Figure 26).

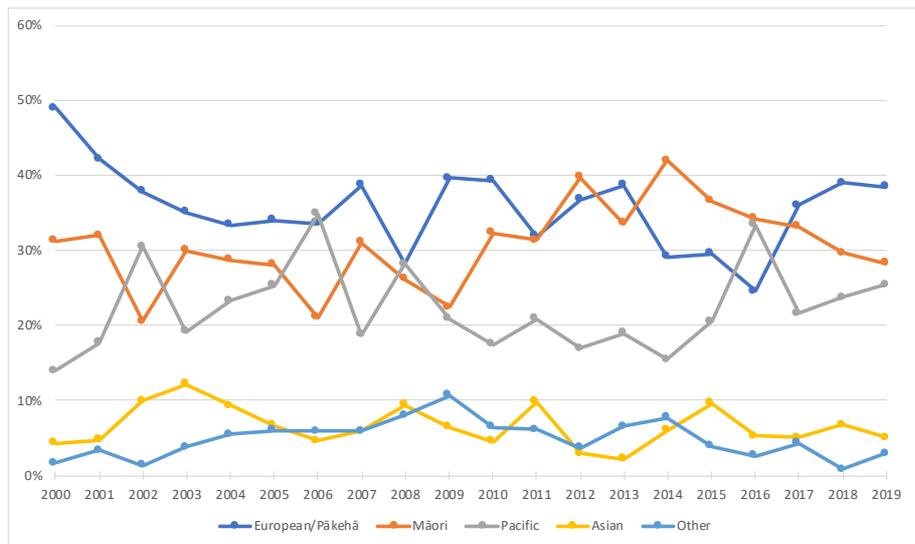


Figure 26. Percentage of expulsions by ethnic group, 2000–2019

**Types of behaviour that lead to educational exclusions**

Students are stood-down, suspended, excluded or expelled for a variety of different reasons. Figure 27 shows that most stand-downs occur for reasons of continual disobedience or for physical assault on other students.

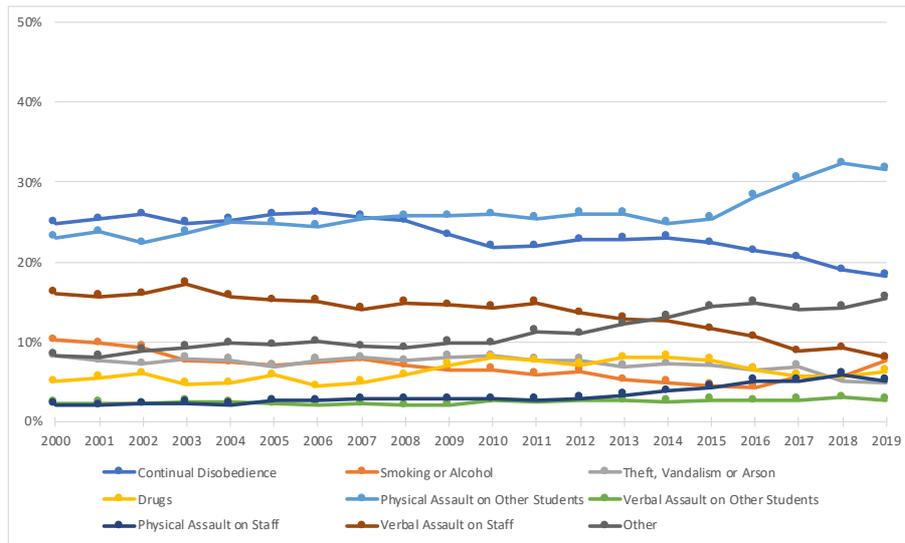


Figure 27. Percentage of stand-downs by behaviour, 2000–2019

Figure 28 shows that most suspensions occur for reasons of continual disobedience, drugs, or physical assault on other students. ‘Other’ reasons, which include sexual harassment, sexual misconduct, weapons, or other harmful or dangerous behaviour, have been increasing since 2013.

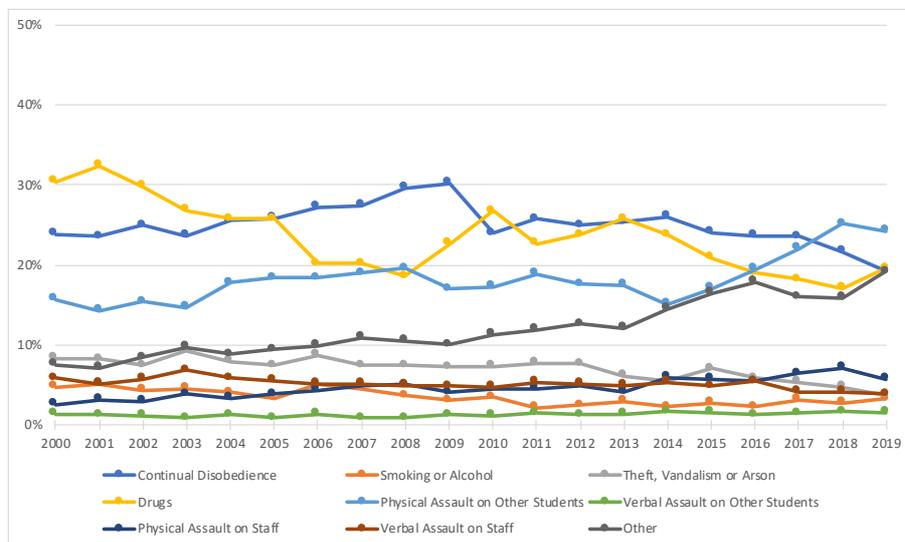


Figure 28. Percentage of suspensions by behaviour, 2000–2019

Figure 29 shows that most exclusions occur because of continual disobedience, followed by physical assault on other students, drugs, and ‘other’ reasons.

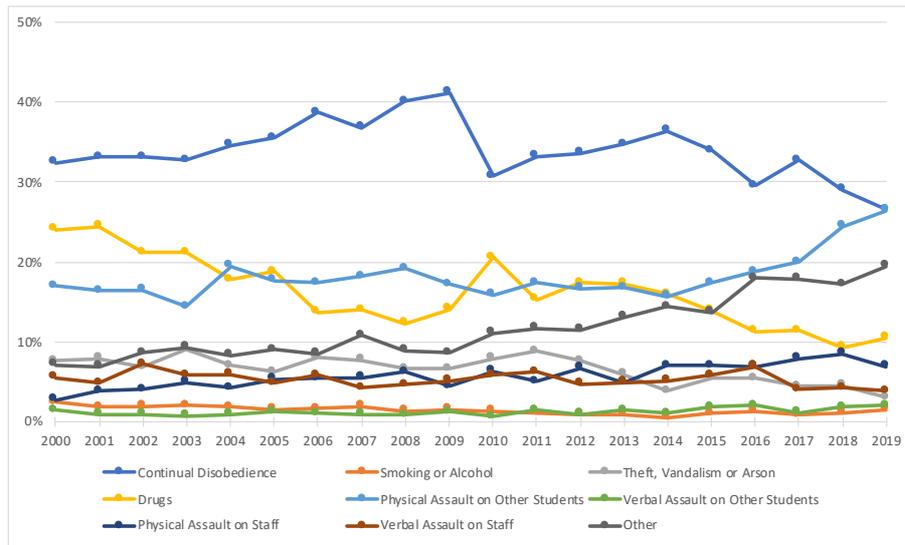


Figure 29. Percentage of exclusions by behaviour, 2000–2019

Figure 30 shows variation in the percentage of reasons for expulsion but, again, they are due to drugs, continual disobedience, physical assault on other students, and ‘other’ reasons.

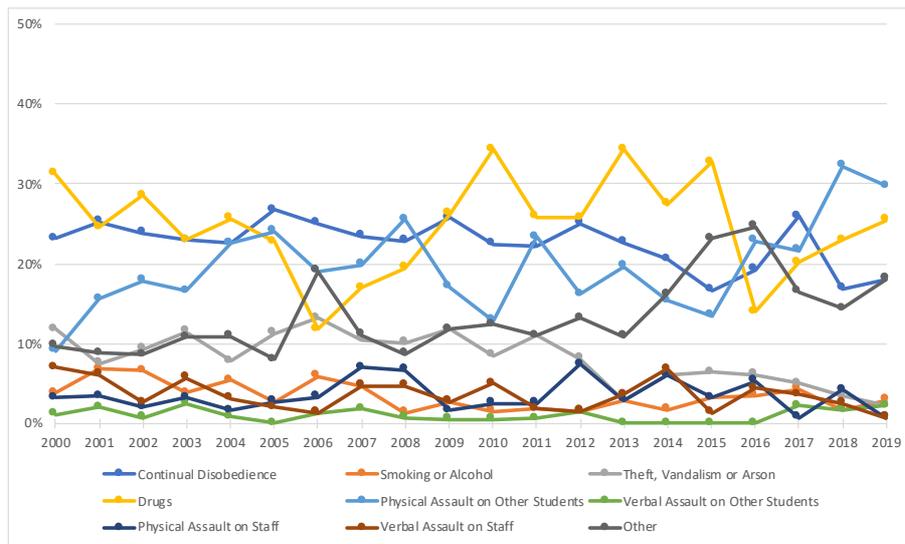


Figure 30. Percentage of expulsions by behaviour, 2000–2019

### Educational interventions

The data in the Integrated Data Infrastructure about educational interventions are not very complete, especially for the years prior to 2013 (see Table 5). For that reason, the percentage increase has only been calculated from 2013 to 2019. Overall, the number of interventions has increased by 10%. Specific interventions range from an increase of 44% for high health needs, to a decrease of 43% for Deaf and Hard of Hearing moderate needs.

Figures 31 and 32 show that Māori young people are disproportionately over represented in the Assessments for Youth Offending and the behaviour service by ethnic group. These could be related. Figure 33 shows that Māori are overrepresented in the services for children of Deaf and Hard of Hearing moderate needs. The Intensive Wraparound Service (2013–2019) shows a similar pattern (see Figure 34), where more than 40% in each year are Māori, whereas at the same time there are 20–24% Māori children in the school population.

Table 5. Number of recorded educational interventions, 2005–2019

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	% increase 2013 to 2019
Assessments for Youth Offending								6	168	243	240	225	219	210	225	25%
Behaviour Service						12	150	1,470	3,030	3,756	3,900	4,080	4,413	4,524	4,911	38%
Communication Service						15	234	2,214	5,163	6,357	6,174	6,564	6,807	7,140	7,725	33%
Deaf and Hard of Hearing Moderate Needs							96	819	1,242	1,239	945	708	714	759	870	-43%
Early Intervention Service						24	429	4,023	9,906	13,101	13,659	14,298	14,520	14,799	15,369	36%
High Health	132	207	339	456	783	936	975	1,137	1,326	1,560	1,785	2,049	1,533	1,827	2,352	44%
Intensive Wraparound Service								21	237	315	324	324	369	366	378	37%
ORS	4,002	5,493	7,134	7,770	8,625	8,682	8,805	8,874	9,033	9,270	9,357	9,486	9,513	10,110	10,476	14%
Physical Disability Service							27	237	429	516	537	561	573	630	669	36%
Section 9	1,842	2,340	2,871	3,201	3,495	3,498	3,438	3,501	3,585	3,696	3,714	3,744	3,783	3,888	3,984	10%
Special Education Service	1,836	3,012	4,494	5,457	6,450	7,452	8,229	8,328	8,139	7,929	7,854	7,743				-5%
<b>All interventions combined</b>	<b>7,812</b>	<b>11,052</b>	<b>14,838</b>	<b>16,884</b>	<b>19,353</b>	<b>20,619</b>	<b>22,383</b>	<b>30,630</b>	<b>42,258</b>	<b>47,982</b>	<b>48,489</b>	<b>49,782</b>	<b>42,444</b>	<b>44,253</b>	<b>46,959</b>	<b>10%</b>

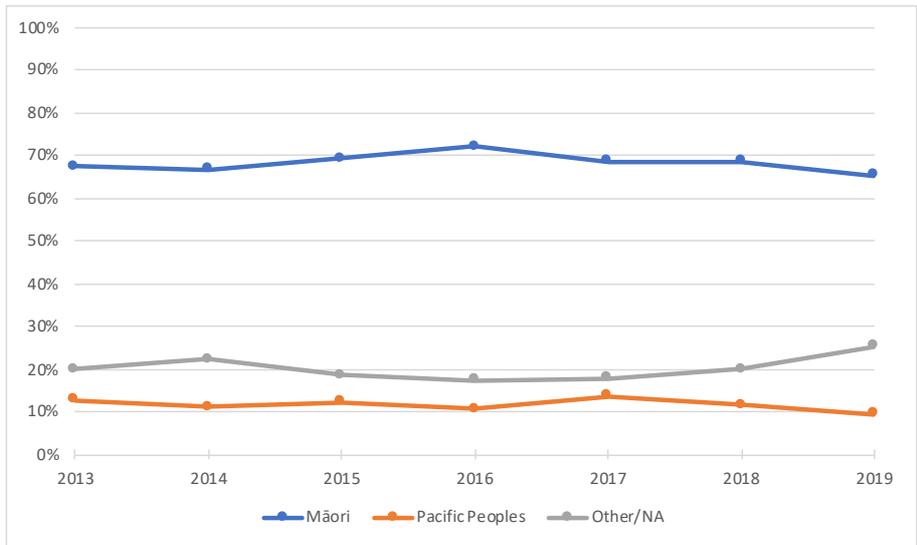


Figure 31. Percentage of students accessing Assessments for Youth Offending by ethnic group, 2013–2019

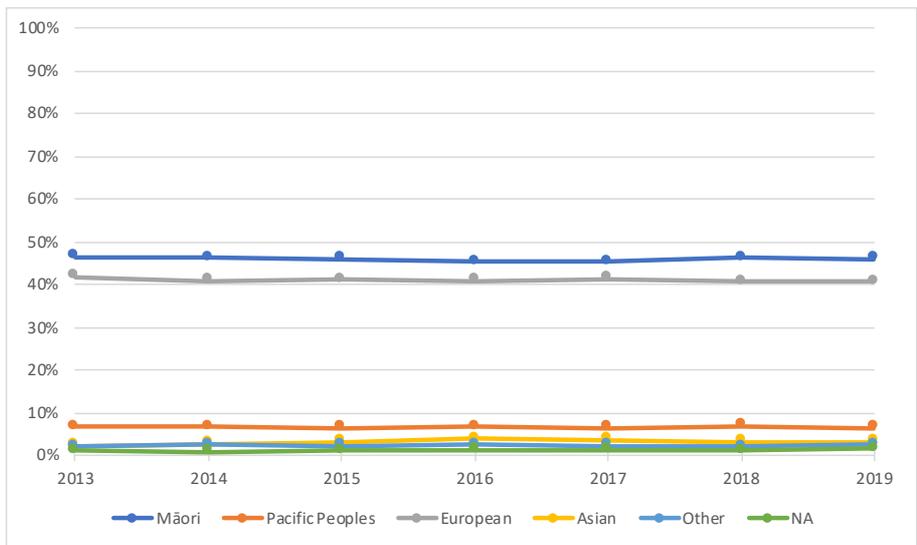


Figure 32. Percentage of students accessing the Behaviour Service by ethnic group, 2013–2019

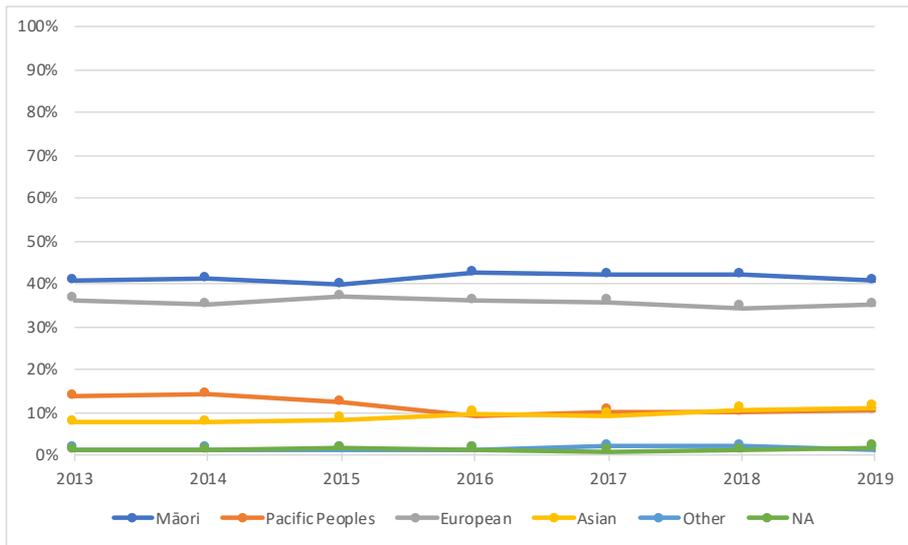


Figure 33. Percentage of students with Deaf and Hard of Hearing moderate needs by ethnic group, 2013–2019

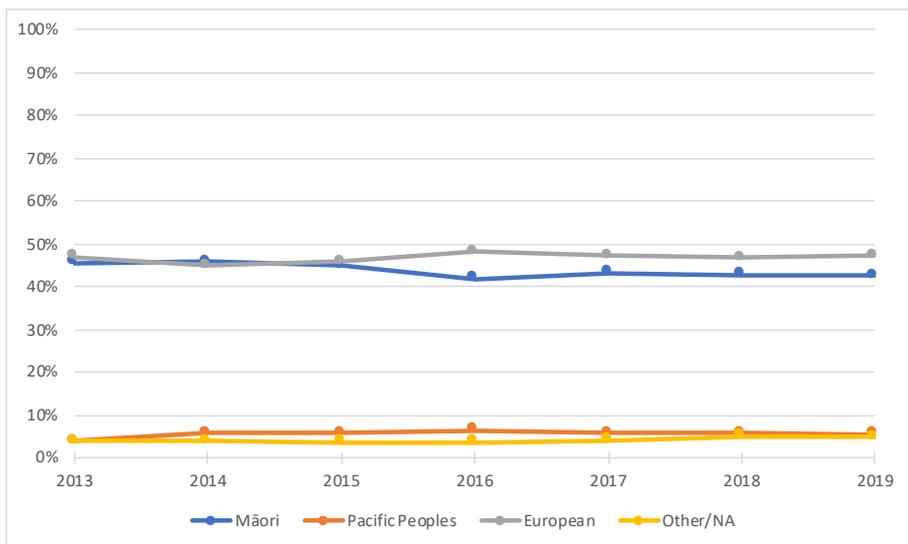


Figure 34. Percentage of students accessing the Intensive Wraparound Service by ethnic group, 2013–2019

The gender breakdown of the numbers in the table show that 70% male received educational interventions (see Figure 35).

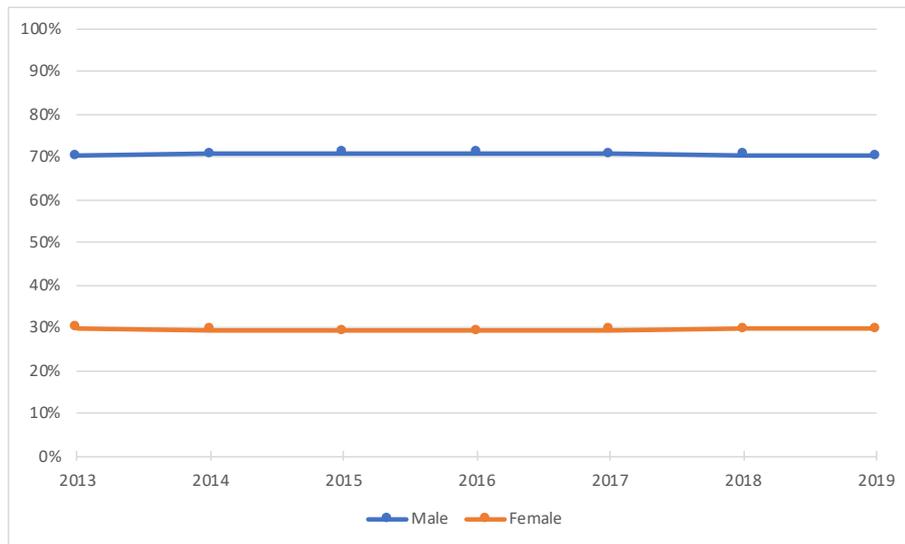


Figure 35. Percentage of children accessing an educational intervention by gender, 2013–2019

### Changes over time in Additional Needs prevalence

From the IDI, we were able to extract Ministry of Health time-series data for the numbers of diagnosed disabilities among school-age children for the period 2005–2019, across 16 areas of disability. In most cases, the number of incidences has increased over the time period. A decrease was observed for Blind or Vision Impaired (–56%), Cerebral Palsy (–18%), Epilepsy or Seizures (–24%), and Intellectual Disability (–26%) (Table 6; Figure 36). The table shows the number of disabilities recorded, not the number of individual people. The ethnic groups of children who have been diagnosed with selected types of disability are presented (Figures 37–41).

It is important to note in Table 6 that the data represents only those incidences recorded by the Ministry of Health disabilities database, based on a formal diagnosis. This will not be capturing all the children who may present these types of disability without being formally diagnosed. However, whilst the data might not be complete, the trends in the proportion of gender and ethnic group are consistent, as shown in the following examples of asthma, behavioural problems, developmental delay, fetal alcohol syndrome, and language delay (Figures 37–42).

Table 6. Number of recorded incidences of types of disability, 2005–2019

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	% increase 2005 to 2019
Anxiety Disorder	369	399	450	498	552	612	675	735	792	843	897	903	918	906	891	59%
Asthma	252	273	285	303	318	333	348	372	393	399	387	402	393	384	357	29%
Attention Deficit/Hyperactivity	1,401	1,614	1,818	2,034	2,256	2,454	2,646	2,844	3,000	3,096	3,171	3,186	3,150	3,084	2,910	52%
Asperger's Syndrome	1677	1770	1839	1902	1932	1935	1899	1854	1749	1659	1548	1398	1245	1092	948	-77%
Autistic Spectrum Disorder (ASD)	2970	3411	3921	4458	5010	5625	6318	7080	7767	8496	9198	9777	10332	10701	10941	73%
ASD or Asperger's Syndrome (combined)	4647	5181	5760	6360	6942	7560	8217	8934	9516	10155	10746	11175	11577	11793	11889	61%
Behavioural Problem	381	405	429	435	447	459	489	519	558	606	624	633	645	657	642	41%
Blind or Vision Impaired	468	453	450	444	432	420	408	402	390	366	354	339	333	303	300	-56%
Cerebral Palsy	984	993	996	1,017	1,029	1,014	990	981	963	957	933	924	894	873	837	-18%
Developmental Delay	1,149	1,305	1,491	1,671	1,890	2,169	2,442	2,745	3,087	3,459	3,879	4,323	4,788	5,196	5,547	79%
Dyslexia, Reading Delay	84	108	123	129	135	138	144	147	144	147	144	138	135	126	108	22%
Epilepsy, Seizures	1,047	1,041	1,029	1,050	1,050	1,059	1,035	1,032	996	990	984	975	942	891	846	-24%
Foetal Alcohol Syndrome (FAS)	180	204	216	225	243	255	261	273	276	285	273	258	252	243	231	22%
Intellectual Disability	5,724	5,934	6,147	6,324	6,492	6,528	6,543	6,549	6,468	6,342	6,144	5,859	5,472	4,995	4,533	-26%
Language Delay	69	78	96	120	141	174	213	258	306	372	444	483	543	594	642	89%
Learning Disability/Difficulty/Delay	1,059	1,122	1,185	1,209	1,266	1,290	1,332	1,368	1,377	1,350	1,320	1,278	1,224	1,161	1,062	0%
Speech Delay	81	87	108	132	150	183	210	246	273	315	354	378	414	432	456	82%
<b>All disabilities combined</b>	<b>17,895</b>	<b>19,197</b>	<b>20,583</b>	<b>21,951</b>	<b>23,343</b>	<b>24,648</b>	<b>25,953</b>	<b>27,405</b>	<b>28,539</b>	<b>29,682</b>	<b>30,654</b>	<b>31,254</b>	<b>31,680</b>	<b>31,638</b>	<b>31,251</b>	<b>43%</b>

NB. An individual may have more than one disability

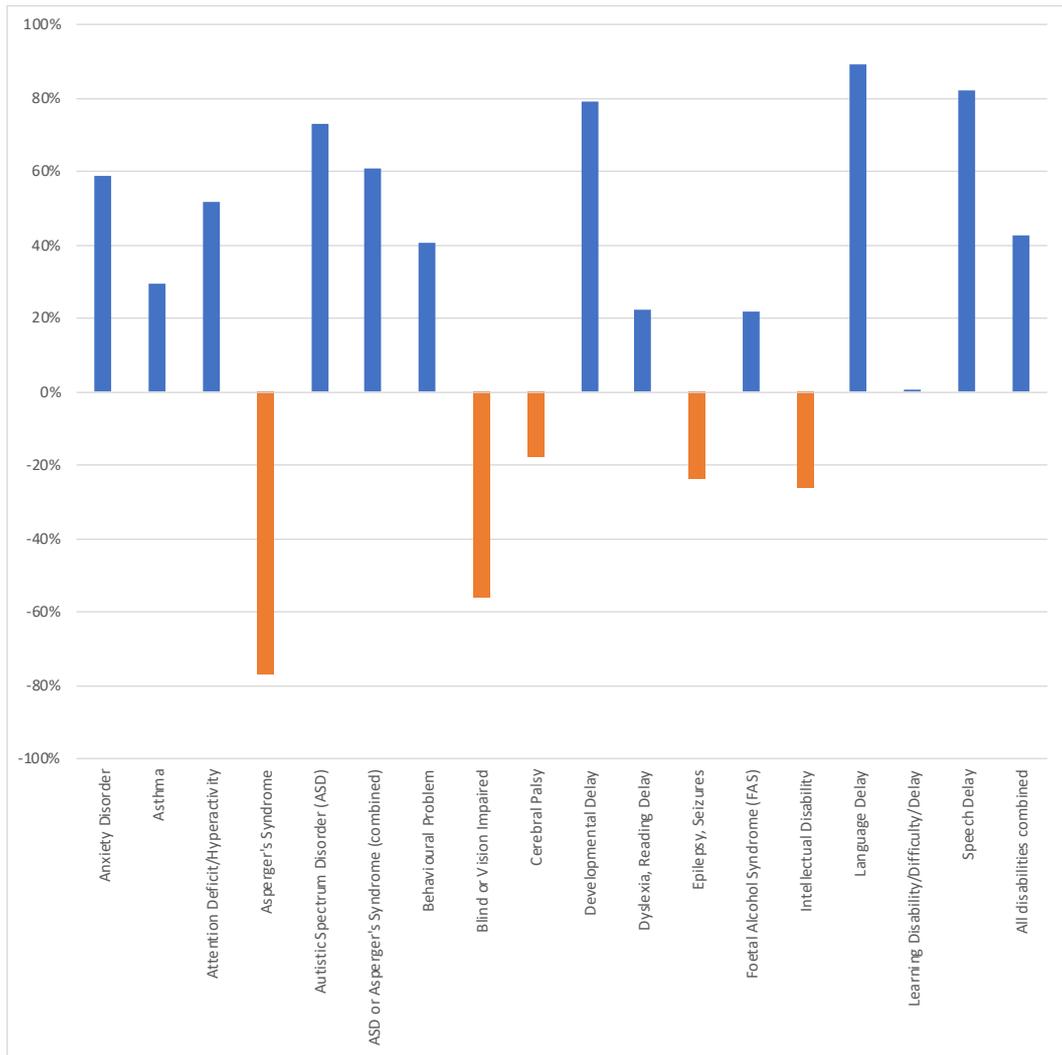


Figure 36. Percentage increase in disabilities, 2005–2019

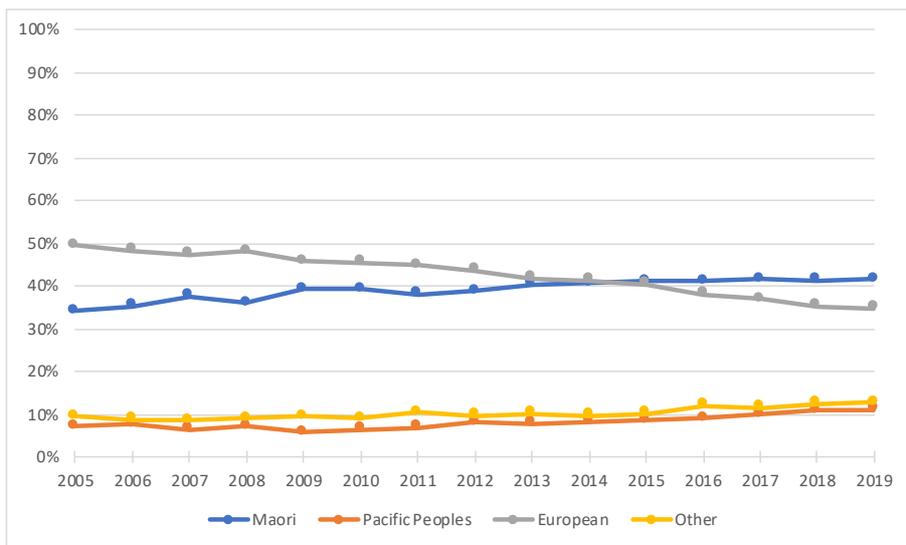


Figure 37. Percentage of children with Asthma by ethnic group, 2005–2019

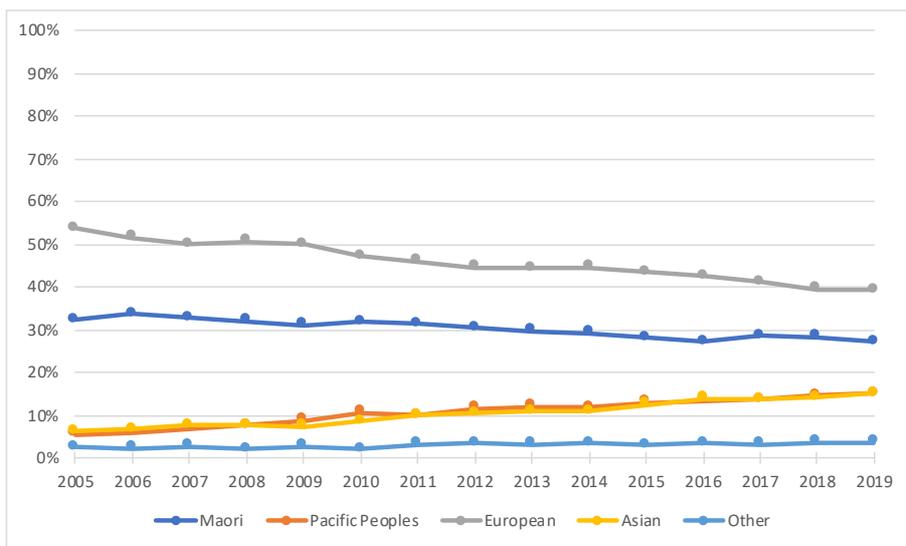


Figure 38. Percentage of children with a Behavioural Problem by ethnic group, 2005–2019

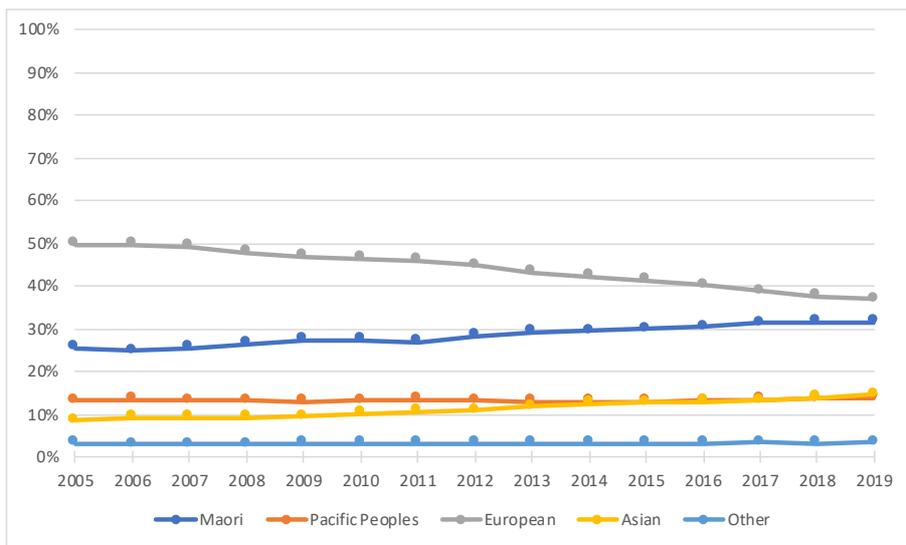


Figure 39. Percentage of children with Developmental Delay by ethnic group, 2005–2019

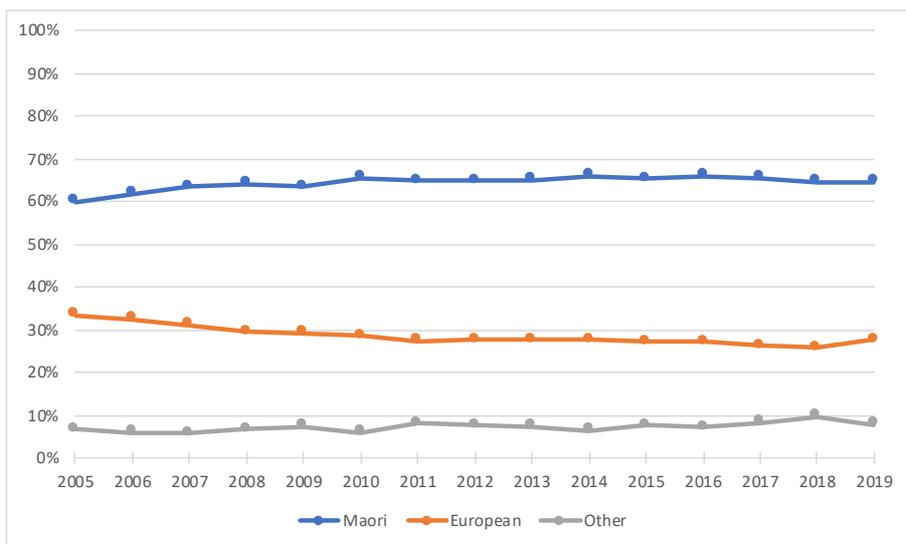


Figure 40. Percentage of children with Foetal Alcohol Syndrome by ethnic group, 2005–2019

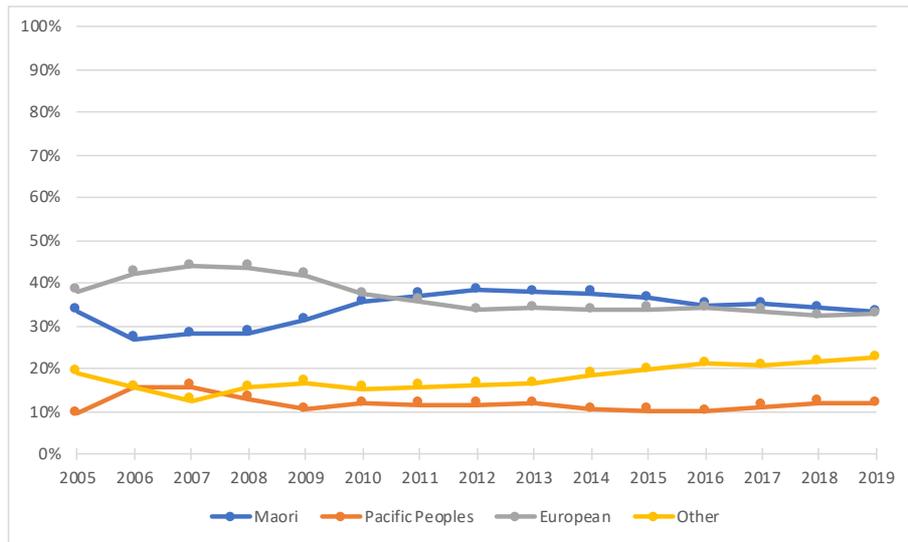


Figure 41. Percentage of children with Language Delay by ethnic group, 2005–2019

For every type of disability, more male children are represented than female children. Figure 25 shows that, for children with a disability, approximately 70% are male and approximately 30% are female.

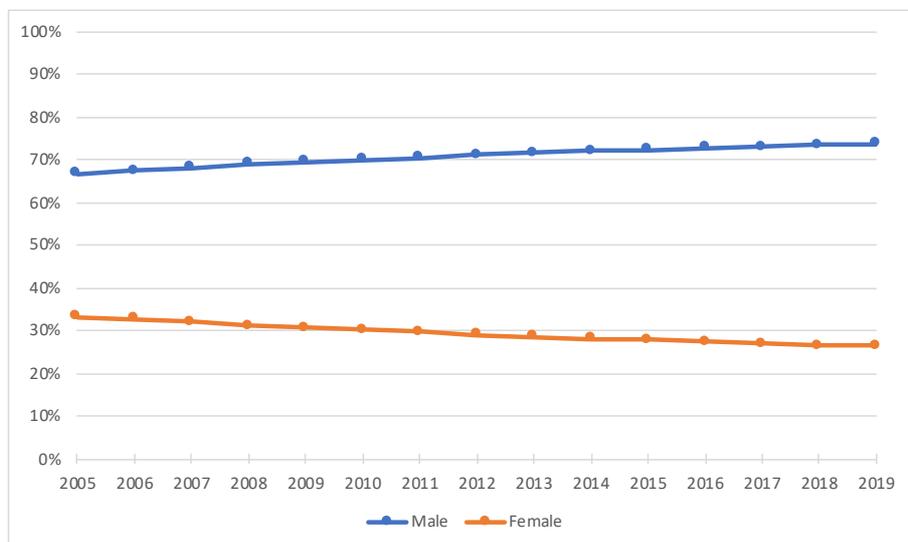


Figure 42. Percentage of children with a disability by gender, 2005–2019

Sixteen areas of recorded additional needs prevalence data were sourced from the IDI database over a period of 15 years (2005–2019) (Table 6). These areas of need were chosen because they were representative of the range and type of additional difficulties or disabilities identified in the national and international literature on diversity of child needs in schools.

Over the period as a whole, the national school student population increased by approximately 7 percent. Table 6 shows that in the same period the total number of recorded additional needs in the overview increased by approximately 43 percent from 17,895 recorded instances of disability in 2005 to 31,251 in 2019. However, the overall difference between the two sets of figures needs significant qualification:

- (i) individual children often have multiple additional needs (e.g. combined receptive, processing and expressive ‘delays’;
- (ii) identification of a particular additional need may increase as knowledge and awareness increase (e.g., recorded ASD prevalence more than doubled in the 15 year period and in 2019 constitutes 49 percent of the total recorded needs);
- (iii) total prevalence of a particular need may decrease as service provision becomes more responsive and effective (e.g. cerebral palsy, epilepsy); or
- (iv) categorisation practices may change over time (e.g. Asperger’s syndrome).

Notwithstanding these qualifications, the Aotearoa New Zealand data show that the greatest increases occurred in language delay, developmental delay, Autism Spectrum Disorder, and speech delay. The data also show a steady increases in the areas of anxiety disorder, attention deficit disorder and behavioural problems, rises that are disproportionately high relative to the overall increase in the schooling population.

The data show a decline in the areas of cerebral palsy, Asperger’s syndrome,<sup>7</sup> blind or impaired vision, epilepsy, and intellectual disability. The decline in cerebral palsy can to some degree be associated with the increased awareness of the need for folic acid fortification in the diet of pregnant women although in New Zealand it is not mandatory in foods (such as bread) as is the case in Australia and the States (where the prevalence rates have decreased markedly). For example, in a recent New Zealand report, it was shown that in live births where neural tube defects (NTD) were identified “combined data from 2000 to 2015 show that Māori (but not Pacific) women have a higher live birth prevalence of NTDs (4.58/10,000 live births) compared to New Zealand European and other women (2.81/10,000 live births)” (Office of the PM Chief Science Advisor, 2018, p. 13).

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<sup>7</sup> In 2013 *The Diagnostic and Statistical Manual of Mental Disorders (DSM-5)* removed Asperger’s syndrome as a diagnosis on its own, and classified it within the broader category called autism spectrum disorder (ASD).

This latter observation is a reminder that increases or decreases in the total student population may mask significant differences in reported prevalence and prevalence change by ethnicity, decile or rurality.

### **Te Tiriti o Waitangi**

A Māori data advisory group was convened in January 2021 to review and comment on selected additional needs referral and services provision data retrieved from the IDI. The data were disaggregated by ethnicity. Collectively, the advisory group has extensive academic and professional expertise across English medium and Māori medium education sectors and additional needs support services, in metropolitan, urban and rural settings. All the members also have personal or whānau experience of having to negotiate additional needs services in education, health and social services on behalf of mokopuna, tamariki, rangatahi.

The group was very supportive of this scoping study being conducted. However, some skepticism was expressed that the commissioning Accord partners may have a vested interest in maintaining existing ‘additional needs’ system settings, and that this would hamper consideration of the profound changes that the advisory group argue need to be made to secure sustainable benefits for Māori. Three key comments characterised the feedback received on the data, namely, that:

- (i) the effects of colonisation and racism underpin many of the data;
- (ii) the data have not improved for Māori over the last several decades; and
- (iii) future action for Māori whānau and ākonga must be based in Te Tiriti o Waitangi, te ao Māori and kaupapa Māori.

In short, the message from the Māori data advisory group was that future additional learning needs policy and practice must address the causes, not the symptoms, if the data are to change over time. The quantitative data in the Tables simply depict the symptoms. For the advisory group, the actual lived experiences and testimony of Māori are needed to illuminate the underlying causes, and it is these which must inform future policy decisions, and feedback on the practical effects of those decisions.

In summary, the problems that underlie the data were identified and agreed by the group as:

- Impacts of colonisation, systemic and institutional racism, loss of whenua and displacement;
- Low teacher expectations;
- Use of overseas comparative prevalence data not relevant to analysis of mana whenua aspirations and needs in Aotearoa;
- Distrust of mainstream education system;
- Māori children are successful in kohanga reo, kura kaupapa Māori and kura a iwi
- Many whānau don't want to access services because tamariki and rangatahi will be labelled for life; and
- Data have not improved for Māori over last thirty years and will not unless the causes are addressed.

The group identified the major priorities to:

- Address the causes not the symptoms;
- base whole approach on Te Tiriti and te ao Māori;
- emphasise mana enhancing practices rather than 'special needs' or 'additional needs';
- empower and listen to whānau so that education settings and support services are not dictating the terms of engagement;
- teach professionals about Te Tiriti, colonisation and racism; and
- ensure whānau feel valued and appreciated by the agencies and professionals with whom they interact.

### **Core service wait times**

For this report, we were also interested in the degree of system responsiveness to requests for high level support to meet additional support needs (i.e. time series data on proportions of successful/unsuccessful applications and service wait times). The Ministry of Education was able to provide time series data on core service wait times (OIA 1248979) for the period 2013/2014 to 2019/2020 (Table 7).

Table 7. Number of days from request for MOE support to core service start

Core Service (30 Jun data)	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20
Behaviour Service	29.49	28.94	31.46	32.37	41.83	49.12	53.19
Communication Service	71.92	68.9	68.06	54.83	74.13	73.15	72.43
Early Intervention Service	92.96	91.07	82.53	73.35	98.81	105.39	104.21
ORS	26.8	27.38	29.49	27.69	23.75	22.07	16.54

The data show that average wait time for start of service has not decreased over the last seven years, and also that there is wide variation across each of these core services. Ministry of Education provided data that show responsiveness to requests for services had improved over the period. The percentage of requests for support where a decision was made within ten working days, increased from 77.84% in 2013/2014 to 91.88% in 2019/2020 (OIA 124897)..

### Teacher workload

While there is a paucity of time-series studies on teacher workload within Aotearoa New Zealand, there are both national and international surveys of teacher workload. In England, for example, teacher workload in general “is now acknowledged to be excessive” (Done & Andrews, 2020, p. 449). One contributing factor (among several reported by teachers and school leaders) is the collection of progress and support data for learners with additional needs. Moreover, teacher workload is made manageable only by the long hours teachers work (DfE, 2018).

As indicated earlier in this report, the introduction of school-led collection of data on additional needs for the Australian NCCD, while it may have led to more equitable allocation of resources to support learners, has also led to concerns about increased teacher and school administration workload. In 2019, for example, the Australian Department of Education Submission to the National School Resourcing Board review of the loading for students with disability noted that schools had reported that:

*NCCD has led to increased training requirements and increased workload, particularly in relation to the requirement to retain evidence of the education adjustments. Large schools with greater numbers of staff are able to absorb the impact. Similarly, schools in the Catholic and government systems have greater access to centralised resources, including NCCD support staff, alleviating some of the administrative burden. This level of support is typically not*

*available to independent schools and small schools located in remote locations.* (Australian Department of Education, 2019, p. 6)

In Aotearoa New Zealand, Bonne and Wylie (2017) completed a survey on teachers' work with respect to professional learning in primary and intermediate schools. One of their findings was that there had been "marked progress in supporting learners who were identified among the Ministry of Education's priority groups. Just under half of teacher thought that one of their main achievements over the last 3 years had been that they were better at meeting the needs of students with additional learning needs (44%, up from 28% in 2013)" (p. 1).

From a 2016 survey of Special Education Needs Coordinators (SENCOs), NZEI reported that: (i) there was not enough time in the day to meet the needs of learners they supported; and (ii) they needed more or a lot more release time to undertake their role (NZEI Te Riu Roa, 2016, p. 2). The activities SENCOs were most likely to undertake were meetings with outside providers/specialist, meetings with family whānau, and meetings with teacher aides (p. 4).

Similarly, in a 2015 parliamentary submission, NZPPTA stated that "bureaucratic requirements are taking [a SENCO's] time away from working with students with specific learning difficulties or other special needs on overcoming their learning barriers" (NZPPTA, 2015, p. 8). All such potential 'opportunity costs' are relevant considerations in the development of the new national standardised learning support register through the Te Rito platform.<sup>8</sup>

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<sup>8</sup> <https://www.education.govt.nz/our-work/changes-in-education/data-for-wellbeing-programme/te-rito-student-information-sharing/>

## Key Considerations

### Research questions

1. *Has the number of children diagnosed and/or appropriately identified who also display complex needs (learning, health, and/or behavioural) within the learning environment changed over the last 30 years?*

1.1 Paucity, inconsistency and challenges of prevalence data retrieval across multiple social agencies and databases are problematic with respect to developing effective, efficient and equitable medium to long-term policy and funding in this area. Valid and reliable time-series data do not exist for all of the last 30 years.

1.2 Prevalence data in Aotearoa New Zealand on the full range of children's learning and associated needs are incomplete and inadequate for the purposes of monitoring and accurately estimating additional support needs. For example:

(1.2.1) In its reports, the Education Review Office currently does not use actual numbers or percentages of children with additional learning needs. Use of broad proportional descriptors 'some' or 'most' when referring to students does not assist in accurately evaluating policy, prevalence and additional support provision; and

(1.2.2) The MoE Learning Support Action Plan (2019–2025) states that one in five or 20% of children and young people need additional support for their learning because of 'disability, learning difficulties, disadvantage, physical or mental health or behaviour issues'. Equivalent international data suggest that this ratio may be a conservative estimate of the actual ratio and may also vary considerably depending on whether the figure refers to ongoing or short-term support needs.

1.3 Over the period 2005–2019, the national school student population increased by approximately 7 percent. In the same period the total number of recorded additional needs in the overview increased by approximately 43 percent from 17,895 recorded instances of disability in 2005, to 31,251 in 2019. However, this headline increase must be treated with caution and should not be quoted or used without suitable caveats.

2. *If the number of diagnoses has changed, in what areas have the changes occurred?*

2.1 Stigma attached to identification or diagnosis in some countries can result in under-identification of additional support needs. This reinforces the need for public education campaigns to ‘normalise difference’.

2.2 Recent research indicates a greater prevalence of FASD than other high-profile areas of additional support need, for example, ASD and ADHD. Yet, the Ministry of Health has stated that FASD is often described as an ‘invisible’ disability, because the damage resulting from antenatal alcohol exposure is often ‘hidden’ in the brain. This suggests the need for a specific comprehensive, targeted approach to early identification, intervention and support for children with FASD.

2.3 The Ministry of Health states that ASD is thought to affect 1 in 100 New Zealanders. However U.S. data show a significant increase from 0.2% in 2000 to 1.4% 2018. This reinforces the need to gather reliable time-series prevalence data specific to Aotearoa New Zealand.

2.4 ADHD New Zealand report that ADHD affects 2–5% of all children, but that around one-third of children ‘grow out of it’ by the time they are in their teenage years. This suggests a prioritisation of ADHD support for the pre-teenage years.

2.4 In the absence of actual identification or diagnostic data, the consumption of medications prescribed for particular disorders has been suggested as one proxy method to track prevalence trends over time. In the short-term, this practice of using proxy data may need to be considered in Aotearoa New Zealand for areas of need where data are not currently gathered <https://www.oecd.org/education/ceri/Spotlight12-Neurodiversity.pdf>

2.5 According to the MoE’s latest annual report, two of the six strategic areas in the Learning Support Action Plan are: (i) developing new screening tools to help the early identification of learning support needs; and (ii) creating a flexible set of services and supports for neurodiverse children and young people. These initiatives suggest that more children are likely to be identified as in need of additional support in the future, as does the fact that

medical advances increase the survival rates of low birth-weight infants with mild, severe, and complex difficulties.

*3. Is there a change in the number of children being diagnosed with more than one additional need?*

3.1 The available data report prevalence by individual additional need category, not by individual child. We are therefore unable to answer this question.

3.1 Identification, assessment and resourcing of children who require additional support is, and historically has been, fraught with challenges to the extent that ‘special educational needs’ has been referred to as a ‘super-ordinate category’ with limited practical utility. The recent introduction of the ‘neurodiverse’ label in Aotearoa NZ may become another superordinate category unless its use is carefully monitored.

*4. Are there any social, geographical, cultural, and/or economic factors that correlate significantly with any changes?*

4.1 We were given forthright feedback by our Māori data advisory group that the system needs to address the underlying causes of Māori representation prevalence data, not merely the symptoms. In their view, this requires an approach based on Te Tiriti o Waitangi and te ao Māori, that uses mana enhancing practices and is culturally empowering of whānau.

4.2 Where possible in this report, we have disaggregated Aotearoa prevalence data by gender and ethnicity to identify differential patterns of additional needs prevalence and service provision. However, we have not been able to analyse data by other potentially relevant factors, for example household income (a child circumstances factor), region (a services provision factor) or iwi-hapū (a mana whenua relationship factor).

4.3 Aotearoa NZ data on exclusions (2000–2019) show that most occur because of continual disobedience, followed by physical assault on other students, drugs, and ‘other’ reasons. Disproportionately higher numbers of Māori students are excluded from school each year compared with Pākehā. This suggests the possibility that a contributing factor to prevalence of behaviour challenges may be teacher/school behaviour rather than student behaviour.

4.4 Similar percentages of Pākehā and Māori students attract ORS funding, consistent with their representation in the general student population. However, ORS funding for Pākehā students is decreasing over time in line with decreases in the Pākehā student population. ORS funding for Māori students is increasing as the Māori student population increases (from 21% in 2005 to 24% in 2019).

5. *Establish a robust and reliable baseline to consider how education system supports provided for teachers of children with additional needs changed over the last 30 years. This timeframe links to the introduction of Tomorrow's Schools, but may need to be amended, depending on data available.*

5.1 Based on the data we have been able to retrieve from IDI and Education Counts, we believe that a baseline of sorts may be established in terms of increasing prevalence of formally diagnosed disabilities, for the years 2005–2019, sourced from Health statistics in the IDI. We must stress that a formal diagnosis of disability in Health is not the equivalent of an assessment of additional need in Education, and that one data source is an insufficient evidence base for major policy decisions. Moreover, the data have other potential shortcomings from an educational perspective. These data may also not be fit for purpose in the medium to longer term as quantitative, time-series data collection in Education necessarily becomes more comprehensive and robust.

5.2 The Australian approach to identification and reporting of additional support needs (NCCD) is an attempt to generate nationally consistent baseline data and, in the medium to longer term, reliable time-series data on the prevalence of additional. Data collection is based on teacher and school professional judgments, and transparent allocation of additional resources by the centre. However, concerns have been raised about the adequacy of the national funding pool to meet locally identified needs, and the implications for teacher and school workload of the administration and moderation requirements of the scheme in order to promote fairness and transparency in the allocation of support to individual children. These findings suggest the need for careful monitoring of the rollout of the new national standardised learning support register and associated index.

*6. Have there been similar changes in other countries?*

6.1 One recent secondary analysis of official statistical data in the UK has provisionally reported unexpectedly high prevalence data of 4 in ten children with special educational needs.

6.2 In the UK schools have reported growing funding and accountability pressures, difficulties in providing adequate additional support alongside rises in exclusions, home schooling, and children who go missing from the system.

6.3 Also in the UK, there are concerns to end the ‘postcode lottery’ in additional support provision and inconsistency in allocating high needs funding across local authorities. With regards to ORS, this is not the case in Aotearoa. We are not in a position to comment on possible regional differences in support services provision, accessibility, quality or cost.

6.4 National time-series data from the U.S. (1976–2018) show significant prevalence increases (over varying time periods) for the categories of: health impairments, developmental delays, autism, and specific learning difficulties.

6.5 England data for 2019 show a divergence between primary and secondary schools. For example, in primary schools, over thirty percent of children identified with an additional learning need or disability in primary schools required support for speech, language and communication needs. Over twenty percent of children with additional needs in secondary schools required support for specific learning difficulties, twice as many as in primary schools.

**Considerations for teacher workload and resourcing**

1. In the Aotearoa context, provision for what we currently call additional needs must in future be founded on Te Tiriti o Waitangi and inclusive of te ao Māori values and Kaupapa. This presents a major teacher, paraprofessional and education professional workforce development challenge for the foreseeable future.

2. While the reasons are varied, there appears to be irrefutable evidence that the reported prevalence of additional needs is increasing over time, both in total numbers of reported need and for certain needs in particular. This trend has implications for baseline school resourcing in order for educators to have the centrally funded time and access to centrally funded support services they need.
3. There is a balance to be struck between equitable assessment of need, and equitable resource allocation. If teachers and leaders in settings are to have the primary responsibility for assessment of additional need, they need adequate time and training to do this well. Similarly, system level funders need assurance that judgments are sound and evidence based. This is a matter of teacher and leader education and minimum necessary moderation of judgments. However, as the Australian experience has shown, to be workable and to ensure that most resource is directly supporting learners and their needs, administration has to be based in great part on system trust in routine teacher judgment.
4. Some additional needs appear to be more prevalent in certain age ranges than in others. This suggests an imperative for timely assessment of need as early as possible in the learning pathway of the child, and early targeting of the required additional needs resourcing.
5. If, as appears to be the case, the reported prevalence of additional learning needs, and complex needs, is increasing, this creates an imperative to develop nationally consistent, 'fit for purpose', initial and continuing teacher and paraprofessional education to ensure responsiveness to children who present with additional learning needs.

## References

- Australian Government Department of Education. (2019). *Review of the loading for students with disability 2019—public submission*. [https://www.dese.gov.au/system/files/documents/document-file/2020-12/australian\\_government\\_department\\_of\\_education\\_0.pdf](https://www.dese.gov.au/system/files/documents/document-file/2020-12/australian_government_department_of_education_0.pdf)
- Baio, J., Wiggins, L., Christensen, D. L., Maenner, M. J., Daniels, J., Warren, Z., . . . White, T. (2018). Prevalence of autism spectrum disorder among children aged 8 years – autism and developmental disabilities monitoring network, 11 sites, United States, 2014. *MMWR Surveillance Summaries*, 67(6), 1.
- Bevan-Brown, J., (2015). Introduction. In J. Bevan-Brown., M. Berryman., H. Hickey., S. Macfarlane., K. Smiler, & T. Walker, T. (Eds). *Working with Māori children with special education needs: He mahi whakahirahira* (pp. 3–30). NZCER Press.
- Bevan-Brown, J. (2004). *Māori perspectives of autistic spectrum disorder*. Report to the Ministry of Education. Ministry of Education.
- Bonne, L & Wylie, C. (2017). *Teachers' work and professional learning. Findings from the NZCER National Survey of Primary and Intermediate Schools 2016*. Wellington, New Zealand Council for Educational Research.
- Bowden, N., Thabrew, H., Kokaua, J., Audas, R., Milne, B., Smiler, K., Stace, H., Taylor, B., & Gibb, S. (2020). Autism spectrum disorder/Takiwātanga: An Integrated Data Infrastructure-based approach to autism spectrum disorder research in New Zealand. *Autism*, 24(8), 2213–2227.
- Briggs, S. (2016). *Meeting Special Educational Needs in Secondary Classrooms. Inclusion and how to do it*. (2nd Ed). London: Routledge.
- Calhoun, S. L., Vgontzas, A. N., Fernandez-Mendoza, J. et al. (2011). Prevalence and risk factors of excessive daytime sleepiness in a community sample of young children: the role of obesity, asthma, anxiety/ depression, and sleep. *Sleep*, 34, 503–507.
- Department for Education. (2018). *Exploring teacher workload: qualitative research*. Research report. March 2018. Retrieved from [www.gov.uk/government/publications](http://www.gov.uk/government/publications)
- Department for Education. (2019). *Special educational needs in England: January 2019*. [https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment\\_data/file/814244/SEN\\_2019\\_Text.docx.pdf](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/814244/SEN_2019_Text.docx.pdf) (accessed 4 June 2020).
- Done, E. J., & Andrews, M. J. (2020) How inclusion became exclusion: policy, teachers and inclusive education, *Journal of Education Policy*, 35(4), 447–464, DOI: 10.1080/02680939.2018.1552763
- Education Review Office. (2014). *Inclusive practices for students with special educational needs in schools*. <https://www.ero.govt.nz/publications/inclusive-practices-for-students-with-special-education-needs-in-schools/national-report-summary/>
- Education Review Office. (2018). *Provision for students in activity centres*. Education Review Office.
- Education Review Office. (2015). *Inclusive practices for students with special needs in schools*. <https://www.ero.govt.nz/assets/Uploads/Inclusive-practices-for-students-with-special-needs-in-schools.pdf>
- INCB. (2014). *Annual report 2014*. United Nations. [https://www.incb.org/documents/Publications/AnnualReports/AR2014/English/AR\\_2014.pdf](https://www.incb.org/documents/Publications/AnnualReports/AR2014/English/AR_2014.pdf)
- Kim, Y. S., Leventhal, B. L., Koh, Y-J., Fombonne, E., Laska, E., Lim, E-C...Grinker, R. R. (2011). Prevalence of autism spectrum disorders in a total population sample. *Am J Psychiatry*, 168(9), 904–912. doi: 10.1176/appi.ajp.2011.10101532
- Lamb, B. (2019). Statutory assessment for special educational needs and the Warnock report: The first 40 years. *Frontiers in Education*, 4(Article 51), 1–17. <https://doi.org/10.3389/feduc.2019.00051>
- Lambie, I. (2020). *What were they thinking? A discussion paper on brain and behaviour in relation to the justice system in New Zealand*. Office of the Prime Minister's Chief Science Advisor Kaitohutohu Mātanga Pūtaiao Matua ki te Pirimia
- May, P. A., Hasken, J. M., Baete, A, Tusso, J., Elliott, A. M, Kalberg, W. O...Hoyme, H. E. (2020). Fetal Alcohol Spectrum Disorders in a Midwestern city: Child characteristics, maternal risk traits, and prevalence. *Alcohol Clin Exp Res*, 44(4), 919–938. doi: 10.1111/acer.14314

- Ministry of Education (2019). *Learning Support Action Plan*.  
<https://conversation.education.govt.nz/assets/DLSAP/Learning-Support-Action-Plan-2019-to-2025-English-V2.pdf>
- Ministry of Education. (2019). *Annual Report*.
- Ministry of Education. (2012). *Ministry of Education Supports and Services for Learners with Special Educational Needs/ Disabilities*. April 2012. <http://shapingeducation.govt.nz/wp-content/uploads/2012/09/SpecialEducationOverview.pdf>
- Ministry of Health. (2020). *Fetal alcohol spectrum disorder*. <https://www.health.govt.nz/our-work/diseases-and-conditions/fetal-alcohol-spectrum-disorder>
- Ministry of Health. (2015). *Taking Action on Fetal Alcohol Spectrum Disorder (FASD): A discussion document*. Wellington: Ministry of Health.
- Ministry of Health. (2016). FASD Working Group. 2016. *Taking Action on Fetal Alcohol Spectrum Disorder: 2016–2019: An action plan*. Wellington: Ministry of Health.
- NZEI Te Riu Roa. (2016). *Survey of Special Education Needs Co-ordinators (SENCO) 2015*.  
<https://campaigns.nzei.org.nz/wp-content/uploads/2017/12/SENCO-report-05feb2016.pdf>
- NZPPTA (2015). *Submission to the Education and Science Select Committee Inquiry into the identification and support for students with dyslexia, dyspraxia, and autism spectrum disorders in primary and secondary schools, September 2015*.  
<https://www.ppta.org.nz/publication-library/document/252>
- OECD. (2005). *Students with disabilities, learning difficulties and disadvantages. Statistics and indicators*. Paris: OECD.
- Polyzoi, E., Acar, E., Babb, J., Skwarchuk, S-L., Brownell, M., Kinnear, R., & Cliteur, K. (2020) Children Facing Deep Poverty in Manitoba, Canada: Subsidized Licensed Childcare and School Readiness for Children With and Without Special Needs, *Journal of Research in Childhood Education*, 34(2), 306–329, DOI: 10.1080/02568543.2019.1666198
- Purdy, N., Hunter, J., & Totton, L. (2020). Examining the legacy of the Warnock Report in Northern Ireland: A Foucauldian genealogical approach. *British Educational Research Journal*. doi: 10.1002/berj.3604
- Shaw, B., Bernardes, E., Trethewey, A., and Menzies, L. (2016). *Special Educational Needs and Their Links to Poverty*. JFR.
- Tenenbaum, A., Mandel, A., Dor, T., Sapir, A., Sapier-Bodnaro, O., Hertz, P., Wexler, I. D. (2020). Fetal alcohol spectrum disorder among pre-adopted and foster children. *BMC Pediatr*, 20, 275. doi: [10.1186/s12887-020-02164-z](https://doi.org/10.1186/s12887-020-02164-z)
- The Warnock Report (1978). *Special Educational Needs. Report of the Committee of Enquiry into the Education of Handicapped Children and Young People*. London: Her Majesty's Stationery Office. <http://www.educationengland.org.uk/documents/warnock/warnock1978.html#03>
- Virring, A., Lambek, R. K., Thomsen, P. H., Møller., & Jennum, P. J. (2016). Disturbed sleep in attention-deficit hyperactivity disorder (ADHD) is not a question of psychiatric comorbidity or ADHD presentation. *J Sleep Res*, 25, 333–340.