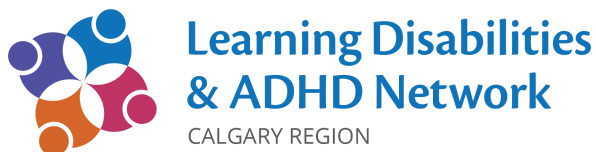


Ensuring A Sustainable Future for Alberta Youth with Learning Disabilities & ADHD

This white paper presents perspectives on four systemic issues that have outsized negative effects on Alberta youth with Learning Disabilities and/or Attention Deficit Hyperactivity Disorder. The challenges, and solutions and benefits, for each issue are discussed independently of the others, though their downstream consequences are cumulative and costly to both individuals and our society. Action now, however, will future-proof the trajectory of the lives of our affected youth towards synergistic personal success and Alberta's continued prosperity.



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The Learning Disabilities & ADHD Network, Calgary Region

www.ldadhdnetwork.ca

The Learning Disabilities & ADHD Network fosters collaborative action toward more effective and coordinated responses to meet the needs of people with Learning Disabilities (LD) & Attention Deficit Hyperactivity Disorder (ADHD), in order to achieve our vision:

Individuals with Learning Disabilities and/or ADHD will have the necessary support, resources and opportunities within the Calgary region to be successful and thrive.

The Network is a multi-disciplinary group of passionate volunteer professionals, from a broad range of disciplines and sectors, across public, private, and nonprofit organizations in the Calgary area. Our group is committed to supporting the needs of people with Learning Disabilities and/or ADHD in navigating resources, increasing public awareness, and creating opportunities for systemic change. The Network receives support from an anonymous donor at the Calgary Foundation and is operated through Foothills Academy Society.

We would like to express our sincere thanks to the contributing authors of this white paper, to those who assisted in reviewing and editing it, and most gratefully, to those living with Learning Disabilities and ADHD to whom this paper is dedicated.

Contributing Authors

Sarah Hoag, B.A., B.Sc.Ed., M.Sc.Ed.

Director of Stakeholder Engagement, Calgary Academy Society

Brent Macdonald, Ph.D., R.Psych.

Lead Psychologist, Onward Psychology

Karen MacMillan, Ph.D., R.Psych.

Executive Director of Community Services, Foothills Academy Society

Eden McCaffrey, DME, MSW, RSW

Program Facilitator, CanREACH, Alberta Health Services

Melanie Reader, B.Sc.(Hons), M.Sc., R.Psych.

President, Learning Disabilities Association of Alberta

Yekta Sharafaddin-zadeh B.Sc., M.Sc.

Registered Provisional Psychologist, Foothills Academy Society

Carola Tiltmann, B.Ed.

Manager, Learning Disabilities & ADHD Network

Gabrielle Wilcox, PsyD, NCSP, R.Psych.

School and Applied Child Psychology, Werklund School of Education, University of Calgary

Terra Xavier, B.A., B.Ed., M.Ed.

Inclusive Education Specialist, School Improvement, Calgary Board of Education

Introduction

Learning Disabilities (LD) and Attention Deficit/Hyperactivity Disorder (ADHD) combined affect approximately 20% of the population. That means 1 in 5 Albertans is impacted. It is therefore highly likely that you, or someone you know has an LD, ADHD, or both. Equally likely, you may not know that you or they have these disabilities and/or that there are supports available.

With so many being unaware, undiagnosed, and untreated the impact across the lifespan is devastating and causes impairment in all aspects of life, from personal wellbeing to community engagement and economic prosperity.

We recognize that the government of Alberta is aware of many of these adverse outcomes and is responding to them in multifaceted ways. As a prime example, with specific regard to mental health, we applaud the creation of the new ministry of Mental Health and Addictions. Our hopeful contribution with this white paper is to point out systemic issues that exert particular pressures on our education and health care systems. These can nonetheless be addressed through straightforward strategies significantly amplifying the positive effects of current policies and funding initiatives.

What is a Learning Disability and what is ADHD?

Learning Disabilities and ADHD are neurodevelopmental disorders. These disorders influence how the brain functions and alters neurological development, causing difficulties in social, cognitive, and emotional functioning. Both disorders have been clinically recognized for decades in the Diagnostic and Statistical Manual of Mental Disorders (DSM, American Psychiatric Association), the reference book mental health professionals in North America use to accurately diagnose mental health conditions. Alberta Health also recognizes ADHD and Learning Disabilities in their list of neurodiverse conditions¹. These two disorders often occur together; a diagnosis of one increases the likelihood of being diagnosed with the other.

Learning Disabilities

The Learning Disabilities Association of Canada offers this official definition of Learning Disabilities: *“Learning Disabilities (LD) refer to a number of disorders which may affect the acquisition, organization, retention, understanding or use of verbal or nonverbal information. These disorders affect learning in individuals who otherwise demonstrate at least average or higher abilities essential for thinking and/or reasoning. As such, Learning Disabilities are distinct from global intellectual deficiency.”*²

This means a LD may affect how an individual learns, organizes, remembers or understands information but it is not related to their intelligence. These are children and adults with average and above intelligence who learn differently. Their ability to learn is not in question, they are not ‘disabled’ as is suggested by the label, but they learn differently enough that typical educational

and workplace environments can be problematic. The most commonly diagnosed LD is Dyslexia, a reading disability. Other LDs include Dysgraphia, a writing disability and Dyscalculia, a math disability.

Attention Deficit/Hyperactivity Disorder

Attention Deficit/Hyperactivity Disorder (ADHD) is a neuro-developmental disorder where neurochemical transmitters and their processes in the brain function differently enough that common brain functions are impacted. The brain's ability to self-regulate and engage in critical executive functioning capabilities is compromised. Unlike LD, ADHD is independent of intelligence and affects a wider range of individuals.

Like Learning Disabilities, the label for ADHD is equally misleading. Individuals with ADHD are not necessarily 'deficient' in attention, though they may have difficulties regulating it. This can mean that aside from getting more easily distracted, they may also over- or hyper-focus, maintaining focus on a singular task for an unusual length of time, or have difficulties transitioning their focus from one task to another. Hyperactivity is another common symptom but it generally applies more to males than females and at a younger age, and is part of a broader set of behavioural characteristics including impulsivity and the more internalizing behaviours seen in girls. Impacts on executive functions (organization, planning, prioritizing, decision-making, task-initiation and completion) and emotional regulation are not part of the label but are integral aspects of the condition.

Adverse Outcomes

Without awareness, early identification and robust intervention, the outcomes for individuals with Learning Disabilities and ADHD is bleak. The Canadian Survey on Disability found that of those with an LD, 33% reported not completing high school, which was a much higher dropout rate than those without any disability (13.1%)³. A more recent review⁴ revealed that even when they do graduate, emerging adults with LDs tend to leave high school unprepared to face post-school environments. Few attend post-secondary training, with less than 21% of individuals with LDs pursuing a four-year degree, and those who do pursue post-secondary education experience lower rates of degree completion, impacting their overall employability. Consequently, individuals with LD are twice as likely to remain unemployed compared to the general population⁵.

Individuals with LDs also experience poorer mental health outcomes. These include increased stress, substance use disorders, anxiety, depression, and suicidal ideation^{6,7}. Beyond negative mental health outcomes, statistics from the National Centre for Learning Disabilities indicated that more than half of individuals with LD report having been involved with the criminal justice system⁸.

These deleterious outcomes are not restricted to individuals with LD, they are the likely life trajectory for those with ADHD as well. The Canadian ADHD Resource Alliance (CADDRA), and Children and Adults with Attention-Deficit/ Hyperactivity Disorder (CHADD) share the following perils for untreated ADHD^{9,10}.

<p>Children are at risk for:</p> <ul style="list-style-type: none"> ● educational underachievement ● difficulties with socializing ● accidental & traumatic injuries ● premature death <p>Adolescents are at risk for:</p> <ul style="list-style-type: none"> ● educational underachievement ● accidental & traumatic injuries ● early onset substance use ● delinquency ● risky sexual behaviour ● teenage pregnancy ● suicide 	<p>Many adults show an increased risk for:</p> <ul style="list-style-type: none"> ● failing to meet their potential ● substance use disorders ● accidental injuries including car accidents ● unemployment/precarious employment ● divorce ● gambling ● low quality of life ● incarceration ● a range of health issues including obesity, asthma, allergies, diabetes, hypertension, sleep problems, psoriasis, epilepsy, sexually transmitted infections, abnormalities of the eye, immune disorders, and metabolic disorders ● premature death ● suicide
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ADHD is also associated with a range of psychiatric disorders. Research shows that approximately 44% of children and 80% of adults with ADHD have at least one associated mental health problem, the most common being anxiety, mood disorders, and substance use disorder. Most disturbingly, ADHD is associated with a much higher death rate especially for those diagnosed later in adulthood and among girls and women¹¹. Yet, research also shows that ADHD is the most treatable psychiatric disorder there is.

Clearly, without proper diagnosis and treatment, these two neurodevelopmental disorders can lead to crushing life pressures resulting in unnecessary suffering, debility and even death, simultaneously entrapping billions of dollars in education, health care and justice systems.

But these outcomes are not inevitable.

Early identification and support result in significantly better outcomes, both in the short and long terms, than diagnoses and interventions later in life. Further, since all families access doctors and pediatricians, and children attend school, primary care and education systems are obvious

settings for health care practitioners and teachers to identify LD and/or ADHD and start interventions.

There are four main areas where targeted changes in education, health care and employment would make the greatest difference in the lives of those with LD and ADHD. We recommend the government of Alberta:

1. **Improve teacher training** by adding credentials through Alberta Teacher Certification to ensure teachers have the competencies to identify and teach neurodivergent students, which includes explicit training in science-based approaches to teaching reading skills.
2. **Subsidize Learning Disability assessments for children** to ensure early identification, reduce wait times and increase access to interventions.
3. **Improve training in ADHD for health care providers** to reduce mis(sed)diagnosis and wait times, and increase access to treatment.
4. **Support entry to and retention in the workforce** by promoting employer training on the Duty to Accommodate in creating accessible and inclusive work environments.

These recommendations have existing mechanisms and programs already in place; they need only to be realigned, expanded or promoted to constructively and positively create demonstrably better outcomes, not just for the thousands of Albertans with LD and/or ADHD, but also for the benefit of Alberta as a whole. The members of the *Learning Disabilities & ADHD Network* would be honoured to collaborate and partner in realizing these solutions.

1. The Need To Improve Teacher Training

Alberta's education system has both much to recommend it but also much that draws consistent criticisms. There is an abundance of choice in types of educational philosophy and programming, high standards for students to achieve, and a decentralized funding model enabling school divisions to meet local needs, among others. Yet many Alberta teachers are overwhelmed by the increasing complexities in their classrooms: rising numbers of students who face learning challenges including many additional English Language learners, increasing emotional and behavioural dysregulation, and worrisome escalations of mental health issues like anxiety, depression and suicidality. These complexities are exacerbated by swelling student enrolments which put pressure on human and material resources.

Underlying much of this complex situation is the simple fact that most teachers are undertrained for the realities they will face in the classroom. They are unprepared to identify and provide adequate instruction to those students with complex learning needs such as Learning Disabilities and ADHD who make up a significant proportion of their classes at all grade levels and in all subjects.

This stems from a critical misalignment of what teachers are expected to know when they enter the teaching profession in Alberta, and what they actually learn in their university pre-service programs. This is one of the most fundamental issues that needs to be, and can be, cost-effectively addressed as a number of the challenges facing the Alberta education system, including student complexity, resource allocation, and teacher attrition, retention and attraction, are inextricably tied to it.

Inclusive Education Policy in Alberta

In 2009, *Setting the Direction Framework* outlined an inclusive education model for Alberta. Inclusion is a valued-based approach requiring that each individual student experiences belonging and has their unique needs effectively programmed for¹². This means that students with mild or moderate disabilities are in classrooms alongside typical learners. Therefore, collaborating for student success is imperative and requires commitment from all education stakeholders including school and system staff, families, post-secondary institutions with teacher preparation programs and government. For its part, Alberta Education has numerous policies, guides and supports in place to address the inclusive education framework.

Teacher Competencies

The 2023-24 *Guide to Education: ECS to Grade 12*, under *Inclusive Education Policy*¹³ states:

To support children and students in attaining the goals as stated in the Ministerial Order on Student Learning, school authorities must ensure that **all children** and students (Kindergarten to Grade 12), **regardless of** race, religious belief, colour, gender, gender identity, gender expression, **physical disability, mental disability**, family status or sexual orientation, or any other factor(s), **have access to meaningful and relevant learning experiences that include appropriate instructional supports**. [emphasis added]

To ensure the reality of this statement, what teachers are expected to know upon entering the teaching profession is clearly laid out in the framework of the Alberta Teaching Quality Standard¹⁴. Alberta Education has developed six clear and comprehensive sets of competencies. Teachers are expected to be ready to meet these at a basic level upon graduation from university and continue to expand and refine their knowledge and skills over the course of their professional careers.

Standard 4 is exclusively devoted to Inclusive Education competencies wherein “A teacher establishes, promotes and sustains inclusive learning environments where diversity is embraced and every student is welcomed, cared for, respected and safe.” Two specific indicators of this competency include,

(b) “using appropriate universal and targeted strategies and supports to address students’ strengths, learning challenges...”,

(e) “recognizing and responding to specific learning needs of individual or small groups of students and, when needed, collaborating with service providers and other specialists to design and provide targeted and specialized supports to enable achievement of the learning outcomes;”

These indicators are quite clear that even new teachers are expected to be able to identify, program for and instruct students with learning challenges, including LD and ADHD, in their classrooms. It is perplexing then, given that Alberta operates on an Inclusive Education policy, and has specific teacher competency standards in place to support inclusion, that not a single university in Alberta which offers pre-service teacher training includes the identification and instruction of students with learning challenges as a graduation requirement.

Researchers, notably McCrimmon, have also noted the lack of adequate teacher preparation in Canadian undergraduate programs which do not set educators up to be successful in an Inclusive Education model. He suggested that Canadian education degree programs focus more on preparing future teachers to work with typically developing students, which exacerbates the discrepancy between the expectations of an Inclusive Education model, and teachers’ knowledge and performance.

“Inclusive education is widely adopted in Canada; however, Canadian BEd programs do not provide adequate training regarding the specifics of childhood disabilities. As a result, many Canadian teachers struggle with the application of inclusive principles in their classrooms and find the education of children with exceptional learning needs challenging”¹⁵.

Teacher Self-Efficacy

Increasing classroom complexity and managing student challenges are a reality for teachers but they are also partly a perception problem linked to self-efficacy. Self-efficacy is an individual’s belief in their own ability to successfully effect change in a given situation. If teachers cannot access the intellectual resources to successfully effect change for their students - if they don’t know how - to ensure learning achievement, then the classroom situation is perceived as more problematic.

In fact, 39%, or 17,400 teachers in Alberta, consider themselves unprepared for the realities of teaching¹⁶. Their lack of training strains their self-efficacy. Thus, if we consider teachers to be the pivotal architects of an inclusive classroom environment, we need to consider their preparation. They require comprehensive knowledge of the spectrum of diverse learning challenges and equally comprehensive strategies to implement in the classroom. Alberta teachers require robust training for the challenges they face if we are to expect successful outcomes for both students and teachers, and indeed, Alberta as a whole.

Literacy Instruction

Literacy is one of the most fundamental skills children learn in school.

“It is the learning to learn skill. It offers entry into whole new worlds of knowledge and ideas and the lives of other people. It is at the core of much of the work undertaken in the knowledge-based economy and is the skill most involved in learning beyond primary school. Literacy informs, inspires, entertains, transports, transforms and can be a source of joy. Literacy is the capacity to understand and apply what has been read in daily life, work and learning. In 2012, the Supreme Court of Canada recognized that learning to read is not a privilege, but a basic and essential human right.”¹⁷.

Reading well is a protective factor that remains with a child their whole life and predicates much of their success in school and as an adult. Yet, many children struggle with reading and continue with literacy difficulties into adulthood. Dyslexia is a reading disability and the most commonly diagnosed Learning Disability. And while not every child that struggles with reading has Dyslexia, the high number of students who face reading struggles in our school system is very troubling and can be linked back to a lack of adequate teacher training.

The research regarding struggling literacy learners suggests the impacts that reading difficulties have are pervasive to student lives, both while in school and during adulthood. When reading disabilities such as Dyslexia are undiagnosed and unsupported, students struggling to read experience mental-health problems including anxiety, depression, as well as behavioural issues, and are more likely to be lower achievers in school who face problems with addiction, truancy, and drop-out as they get older. The cascading effects have long lasting impacts in society including deeper mental health and substance use problems, unemployment, and incarceration¹⁸. The social and economic ramifications compound for students with low literacy levels and become increasingly interrelated and complex¹⁹.

Fortunately, learning to read is the most well-researched aspect of education and cognitive science²⁰. Educational trends in reading instruction started shifting in the 1970s relying on observational reading research promoting *whole-language* and *whole-word* reading instruction. These include approaches like balanced literacy, three-cueing systems, and guided reading

systems which are evident in countless Alberta schools through leveled reading materials and their accompanying assessment resources and reading strategies²⁰⁻²².

Unfortunately, these reading approaches were founded on a faulty belief. Since human beings are born with the capacity to learn to speak by just being exposed to oral language, it was incorrectly assumed that the same inborn ability exists for reading²³. However, learning to read does not happen through environmental exposure (whole language approach) but through explicit, systematic, and strategic instruction on how letters and letter combinations relate to the sounds and meaning of our language constructs. This is called the Structured Literacy approach.

Structured Literacy Approach

Structured Literacy is backed by decades of investigation which has now accumulated from multiple disciplines including neuroscience, psychology, education, and linguistics culminating in a body of evidence-based research known as the Science of Reading. It has debunked the familiar whole-language based approaches²⁴ and “consensus has been reached on how children learn to read, what causes reading challenges, and effective instructional methods to mitigate reading difficulties, such as those associated with Dyslexia”²⁵.

In 2023, Alberta Education released the new K-6 English Language Arts and Literature (ELAL) curriculum wherein it recognized the significance of this research. The new curriculum explicitly provides learning outcomes based on the Science of Reading instructional imperatives involved in Structured Literacy. Learning to read is also best accomplished in early grades, generally before the age of 8, when brain networks are forming the interfaces necessary for proficient decoding²⁶. Thus, updating the primary grades ELAL curriculum was critical in directing educators towards evidence-based research. Since the structured literacy components of reading instruction are now embedded in the ELAL curriculum, all students struggling with learning to read, including those diagnosed with reading disorder learning disabilities, have the potential to benefit.

University Instruction is Not Aligned

Although Science of Reading research has been available for decades, and the development of the new ELAL curriculum took several years with collaborations from Alberta university researchers and repeated, publicized citizen input, little has changed regarding pre-service teacher training at the university level. In a study examining the courses available at Alberta universities offering teacher preparation programs, it was found that very few offer or require courses that specifically incorporate Science of Reading research in teaching reading²⁵. Some universities that do offer courses, offer them only as electives (which does not signal importance) or only as part of their graduate studies. A number offer no courses involving Science of Reading at all instead adhering to outdated and detrimental whole language or balanced literacy approaches which do not address the new curricular outcomes. This may be due to the *Peter Effect* in which one cannot teach what one does not know²⁷. As Hurford and colleagues explain,

“Those who teach reading courses must be knowledgeable of the science of reading and must be held responsible for presenting information to pre-service teachers. It is the most efficient and effective way to ensure that our nation’s students, particularly students at risk for reading failure, learn to read”²⁴.

Lastly, it is also necessary that pre-service teachers learn how to teach reading effectively through iterative opportunities for coaching and mentoring in their practicums^{22,25,28,29}. This is impossible if the practicum teacher partners in their school placements model whole-language or balanced literacy approaches rather than the now mandated Science of Reading approach.

Teacher Certification Qualifications

An additional consideration involving teaching students to read may be the requirements for teacher qualifications themselves. Alberta certifies all teachers coming out of any pre-service teacher program in Alberta as qualified to teach all grades and subjects, Kindergarten to 12, regardless of their degree focus. For many teacher preparation programs, a four year general undergraduate degree is completed before fulfilling one or two years of practicum experience to ultimately earn a Bachelors of Education degree. While this model provides flexibility in teacher allocation, there is no distinguishing criteria to be qualified to teach primary grades, where reading development is critical. Thus, a teacher specializing in junior high science or elementary music can end up teaching reading to grade 2 students without any of the requisite knowledge or skills for this critical task. Therefore, all teachers should have a basic knowledge of Structured Literacy reading skills instruction regardless of their degree focus.

In-Service Teacher Upgrading

The new ELAL curriculum requires a monumental shift in pedagogical practice for the many in-service teachers who are not familiar with structured literacy approaches to teaching reading. They must be supported in understanding why the whole-language resources they are familiar with, have relied on and built entire instructional programs of study around, are no longer valid. That these approaches are in fact detrimental to students with reading challenges and students who are just learning English. Updating the ELAL curriculum to incorporate the Science of Reading research was a necessary first step; shifting existing practice is the next.

Pivoting instructional and assessment practices on such an Alberta-wide scale is a formidable undertaking and Alberta Education has already provided Curriculum Resource Funding to support this transition. Nonetheless, since this funding is not restricted to the ELAL curriculum but can also be used for other subject resourcing, professional development for Structured Literacy should be mandated. Without this mandate, it is up to teachers themselves to engage in upgrading. However, many factors influence those decisions: school priorities, individual classroom priorities, subject-specific interests, personal financial constraints, lack of time and lack of knowledge about the availability of Structured Literacy courses. With the new ELAL curriculum and its critical emphasis on research-based reading skills acquisition, it cannot be left up to

individual teachers to decide as to whether or not they choose to engage in PD for new reading instruction skills. A provincial mandate would ensure that all teachers gain these foundational competencies.

Teacher Burnout

Research has confirmed that teacher burnout is on the rise. Increased complexity, diversity of student needs and social/emotional dysregulation has left many educators stressed and exhausted at the end of each day³⁰. These burnout symptoms are significant for teachers across all levels of experience leading to mental and physical health issues resulting in reduced work performance.

Moreover, burnout affects teachers with low-self efficacy more and their higher rates of teacher stress have been shown to be associated with lower student academic achievement³¹⁻³³. The link to reduced student achievement is likely a result because burnout is associated with an increased risk of both physical and mental illness causing increased absenteeism, reduced quality of performance (both as a result of reduced classroom time as a result of being absent and overall reported quality of instruction), irritability and overall reduced mood³⁴⁻³⁷. A teacher trying to cope with burnout cannot develop nor maintain a healthy and supportive learning environment much less manage challenging learning needs they have not been trained to identify or plan for.

Teacher Attrition

Unsurprisingly, burnout is a factor in teachers choosing to leave the profession. Already in 2012, Alberta Education proactively developed the *Alberta Education Student and Teacher Forecasting Model* in which student population and the consequent demand for teachers was anticipated based on historical patterns. The purpose was to engage in “thoughtful, strategic conversations about the future population growth or decline” with school authorities³⁸. At that time, it was reported that 16% of teachers leave the profession after their first year, but more than 25% of teachers leave after five years. Startlingly, new research suggests that 39% of educators anticipate no longer being in the profession or not pursuing teaching in Alberta within the next five years³⁹. When classroom complexity is cited as a factor in this exodus, then a declining sense of self-efficacy resulting from a lack of training must equally be considered as significant factors in the increase of projected teacher attrition in Alberta.

Many studies have looked at both the causes of teacher burnout and preventative measures to increase resilience against burnout⁴⁰⁻⁴². A recurring theme throughout the data demonstrated that improving teachers’ self-efficacy by educating them through professional development courses actively improved their self-efficacy in teaching developmentally diverse students^{43,44}.

Solution: Improve Teacher Training

Overall, it seems clear that many educators feel unprepared to manage and support students with disabilities within the inclusive classroom, and are not trained to teach children to read according to science-based methods. The lack of alignment between the Teaching Quality Standard, the literacy outcomes of the new ELAL curriculum and pre-service teaching programming, as well as unprioritized in-service teacher professional development are causing deleterious outcomes for students and teachers alike.

These can be remedied through [Alberta Teacher Certification](#) by adding new credentials that include coursework in identifying and teaching neurodivergent students, and coursework in teaching reading according to evidence-based Science of Reading approaches for all teachers to certify/recertify within two years.

- Few resources are required by the government of Alberta to implement new credentials as credentialing processes already exist.
- The ultimate onus in properly preparing pre-service teachers is on post-secondaries to align programming to meet existing Ministry policies, standards and curricula.
- Alberta post-secondaries with teacher preparation programs offering courses in identifying and instructing neurodivergent students should shift them into required programming.
- Alberta-developed, evidence-based, high-quality, online courses about LD and ADHD can be certificated to help meet credentialing requirements for both pre-service teachers until universities can develop and offer their own courses, and for in-service teachers to help them recertify.

High Quality Alberta Online Professional Development

The good news is that high-quality online professional development provides a relatively low-cost, high impact opportunity to increase in-service teacher understanding and sense of self-efficacy in supporting neurodiverse students. Much research points to the benefits of even very brief PD interventions of one day or less as significantly improving educator awareness, knowledge and self-efficacy in the classroom⁴⁵⁻⁴⁸, as well as positively affecting teacher-student relationships⁴⁹.

In the Alberta context, research was conducted on a 30-hour online professional development course titled *Inside LD* through Foothills Academy Society in Calgary, AB. Pre and post surveys were completed by 346 participants who had completed the *Inside LD* course between 2017 and 2022. Overall improvement was noted in each of the defined outcomes including knowledge,

stigma, confidence, and teaching abilities. A follow-up survey in January 2023 indicated that 100% of the respondents said that upon completion of this course, their confidence in teaching students with LDs improved; 93% said that participation in the course had lasting impacts on their teaching. Similar courses are available for learning about ADHD and Structured Literacy.

Benefits:

- Increasing teacher capacity will reduce the perceived complexity of classroom needs because teachers will have deeper competencies.
- The understanding, strategies and tools gained by teachers for students with LD or ADHD also benefit other students especially English as an Additional Language learners, students with intermittent learning challenges or interrupted learning, and students with behavioural and emotional challenges.
- The Classroom Complexity Grant and other targeted funding will stretch further.
- Students who were not in primary grades when the updated ELAL curriculum was implemented and who are struggling literacy learners now in older grades, especially those with reading learning disabilities in reading, will receive more intensive instruction and intervention.
- It will increase the ability of teachers to identify and collaborate to meet student needs especially when developing Individual Program Plans (IPPs).
- It will increase parental trust in teachers' competencies and the education system as a whole.
- It will increase the foundational literacy rates of students transitioning into adulthood. A 1% rise in average adult literacy skills increases economic productivity by 5%⁵⁰.
- It will improve high school graduation rates, transition to post-secondary education and training, leading to entry into the workforce, and more stable employment.
- Proper pre-service teacher training will reduce the need for school divisions to train their new teachers instead allowing them to focus on training for in-service teachers which is a better allocation of resources.
- More robust teacher preparation will attract individuals to the teaching profession and improve teacher retention in Alberta.

2. The Need To Subsidize Learning Disability Assessments for Children

In order for children and youth to be successful in school, and subsequently take that confidence into adulthood, they need to be able to engage academically and socially. They have to take the intellectual and emotional risks required in the learning process - acquire knowledge to apply to problem-solving, practice the skills they need to master and progress through the myriad curricular goals - to ultimately achieve a high standard in their learning and growth outcomes.

This is far more challenging for students with Learning Disabilities. As one of the most common childhood neurodevelopmental disorders, research estimates up to 10% of the population has Learning Disabilities¹. This means that in a typical Alberta classroom of 30 students, at least 3 to 4 will have a Learning Disability. In many cases, these children go unidentified, despite the well-accepted fact that early assessment is critical². Students in earlier grades who receive intervention benefit more than students who are diagnosed in later grades and then receive intervention³.

Undiagnosed, and therefore unsupported, students experience an educational and developmental journey fraught with difficulties - slow progress despite considerable effort, lagging or missed milestones in literacy and numeracy, difficulties with peers and social relationships - resulting in declining self-esteem and a concurrent rise in behavioural and mental health concerns. Thus, early identification and assessment are critical components to supporting a student's success, both at school and in life.

Unidentified Learning Disabilities Lead to Poor Outcomes

It has been proven that academic success and well-being are highly correlated. Studies suggest a causal relationship where poor academic progress, especially in reading, causes mental health and behavioral difficulties. For example, reading skills at age 5 predicted emotional health at age 7⁴ and reading problems in grade one boys predicted symptoms of depression in grade 7⁵, while poor reading skills in grade 3 predicted emotional challenges and more behaviours in grade 5^{6,7}. Finally, grade 1 reading skills predicted both later mental health diagnoses and even the likelihood of dropping out of school⁸.

This relationship of academic success and well-being continues into secondary school. Middle school students who were poor readers in elementary school were more likely to say that they felt anxious, sad, ashamed, angry, and unpopular⁹. Students who had difficulty reading were more likely to be diagnosed with anxiety and depression¹⁰. Students who dropped out of school and those who noted suicidality were more likely to be poor readers¹¹ as are students who become involved with the criminal justice system¹².

These connections between poor academic outcomes and behavioural and mental health issues are not restricted to reading challenges, they also exist for other foundational academic skills like math and writing. Researchers have uncovered equally significant correlations between math achievement and attentional difficulties, social problems and specific math anxiety in students as young as grade 2 and 3¹³ adding other difficulties like rule-breaking, higher levels of anxiety and depression in older students up to grade 12¹⁴. Like with reading problems, a childhood math difficulty predicted more mental health problems as an adult¹⁵. Lastly, students with difficulty writing “are often mislabeled as sloppy or lazy rather than being recognized as having a learning disorder. Deficient handwriting has been associated with lower self-perception, lower self-esteem, and poorer social functioning”¹⁶.

It should not be surprising that a lack of academic progress affects children’s emotional well being. They attend school on a daily basis, a learning environment where they are not always learning but in which they also face varying degrees of repeated failure. And these are not always private failures; they become just as evident to their peers causing heightened sensitivity, emotional reactivity and behavioural disruptions that can lead to misunderstanding, teasing, bullying, school refusal and social isolation.

Without Diagnosis, Barriers Exist to Receiving Classroom Supports

When children first start to exhibit signs of learning struggles in school, teachers do intervene as they are able to. They may use academic screening assessments in an attempt to gather more information and pinpoint specific issues. They may spend extra time with the child, use small group instruction to repeat critical skills, enlist the support of a classroom aide, resource teacher or learning strategist if these are available, or send home extra practice. Beyond these measures, if the child is still struggling, specialized support is necessary.

The Education Act in Section 11 acknowledges the need for specialized support¹⁷:

(3) In respect of a student referred to in subsection (2), if a student’s behavioural, intellectual, learning, communication or physical characteristics, or a combination of any of them, impair the student’s ability and opportunity to learn, **a board may determine that the student is in need of specialized supports and services.**

(4) Subject to section 40, **a student who is determined by a board to be in need of specialized supports and services is entitled to have access to those supports and services** in an education program provided in accordance with this Act that will give the student the opportunity to meet the standards of education set by the Minister. [emphasis added]

Applying Special Education Coding

In Alberta, access to these specialized learning supports and services requires a Special Education Code that identifies a child as needing such specialized support. The Special Education Coding Criteria, 2023/24¹⁸, states:

“The Special Education Coding Criteria outlines criteria within specific categories to assist teachers and administrators in school authorities to identify those ECS children and Grades 1–12 students who require additional supports in their educational program.”

“Schools must have the documentation to support the assignment of a special education code. This includes a diagnosis of a disability or disorder by a qualified professional. In addition to this diagnosis, it is essential to have a clear indication of how the disability/disorder impacts the ECS child’s and Grade 1–12 student’s participation and learning in an educational environment.”^{18(p.4)}

These specialized supports and services require more justification and information than what is available from a classroom screening assessment. Special Education Coding Criteria states, (in a bright blue box for added emphasis):

“NOTE: Results from screening tools or screening instruments are not sufficient to diagnose an ECS child or a Grade 1-12 student with a disability/disorder, or delay in language for ECS children only, or to determine giftedness.”^{18(p.5)}

In other words, classroom supports, learning accommodations or specialized services require a Special Education Code which is in turn predicated on a specialized evaluation. This reveals a student’s strengths and weaknesses in a comprehensive, in-depth assessment of learning capabilities. It also identifies what learning supports, accommodations or interventions are necessary. *If there is no specialized assessment, a code cannot be applied and critical learning supports for the child are denied and absent.*

For example, the policy of the Calgary Board of Education clearly states¹⁹:

“All students who meet Alberta Education’s criteria for special education coding, register at the community school...School staff in consultation with parents, create an Individualized Program Plan (IPP), to further address the specific educational needs of the student and identify conditions for academic success.”

Accessing Specialized Assessments

In the case of Learning Disabilities, such a specialized evaluation, called a psycho-educational assessment, can only be performed by a qualified psychologist. This is a requirement as stated in the definition of specialized assessments in the Alberta Education Standards for Special Education, 2004²⁰, reiterated in Special Education Coding Criteria, 2023-2024 and outlined in the Alberta Education Standards for Psycho-educational Assessment (1994)²¹.

Availability of School Psychologists

School boards have qualified psychologists on staff to assess children and their learning needs. Alberta Education has provided the Classroom Complexity Grant, which funds the hiring of additional school support staff, such as psychologists, to help address classroom complexity. Despite this, school-based psychologists are not readily available due to a number of issues.

- They can only be accessed by referral from school personnel which means teachers must first be knowledgeable about what to look for in student learning challenges. As elucidated earlier in this paper, they generally do not have this expertise due to a lack of training.
- Student needs are triaged so the most severe are assessed first resulting in long wait-times for those with mild or moderate disabilities.
- School-based psychologists are only able to perform a few assessments per school/year because there aren't very many of them despite new funding. Few schools have resident psychologists; they more usually rotate between schools in any given school board.

Financial Barriers to Accessing Private Psychologists

Beyond accessing scarce school-based psychologists, concerned parents can access a psychologist in private practice, which is a cost-based service. The Psychologists Association of Alberta annual guide for service rates for 2024-2025 is \$220/hour²². This leads to assessments costing anywhere from \$2500 - \$5000 for families.

Some families have the financial resources for such a vital assessment, but many do not. The Canadian Psychological Association survey of 2021 revealed that 78% of Canadians report that psychological services cost too much for them to pay for themselves and 66% say that psychological services are not covered by their employer's health benefit plan²³. As well, many households are experiencing unprecedented financial strain. The 2023 StatsCan Labour Force Survey reports that one third of Canadian households found it difficult to meet financial needs for basic living expenses²⁴. If basic needs cannot be met, a psychological assessment is far out of reach.

Community-based service agencies can sometimes support the financial needs of those requiring a psycho-educational assessment. However, there are only a few agencies that have financial assistance programs or offer low-cost flat fees, the requests for assistance outstrip their yearly available resources, and they are generally in the major centers of Calgary and Edmonton, leaving much of Alberta underserved²⁵.

A private psycho-educational assessment requires financial resources that constitute an insurmountable barrier for many families. If their children are not to struggle but be successful in

their educational journey through access to special education coding and its accompanying supports, they also need the timely prerequisite access to psycho-educational assessments.

ADHD Assessment Differences

Interestingly, the assessment story can be significantly different if learning struggles seem to be primarily driven by issues with focus, memory, task management and behavioural and emotional dysregulation. If these hallmarks of ADHD are suspected as the main cause of learning challenges, they can be diagnosed by a psychologist, but they can also be diagnosed by a medical professional.

Since ADHD is considered a psycho-medical condition, physicians, pediatricians, psychiatrists and others trained in diagnosing ADHD can be accessed through Alberta Health Services *with no referrals or associated costs*. Families could visit their family doctor and not need to experience any financial barriers in order to get an ADHD evaluation for their child. This is in stark contrast to the in-house referral process in schools, the long-wait times for available school psychologists, or the often prohibitive costs of psycho-educational assessments with a private psychologist. The relative speed and ease with which a child can be diagnosed with ADHD through Alberta Health Services, and subsequently be eligible to receive special educational coding and critical learning supports at school, should be the same for those children who need an LD assessment.

Solution: Subsidise Learning Disability Assessments for Children

A Learning Disability is the most prevalent childhood neurodevelopmental diagnosis. With early assessment and diagnosis, interventions are of greater benefit, take less time, and therefore cost less than when students are older, in later grades or adults²⁶. Accessible LD assessments for children is an investment in the future, both near and long term. It will decrease financial barriers and increase access to specialized educational supports thereby improving academic, mental health and employment outcomes. It will reduce strain on education, health care and justice systems while simultaneously allowing diagnosed individuals to more fully participate in all aspects of their relationships, workplaces and communities.

We have several options for assessment access.

- Implement basic universal screening through school systems, primary care clinics, mental health treatment centers, hospitals and emergency rooms to identify at-risk children early.
- Increase the number of psychologists who can conduct assessments in school settings as a ratio to the number of students enrolled.
- Implement a direct subsidy program to parents so they can choose a qualified psychologist.

- Implement a direct subsidy program to psychologists; parents choose from a list of approved practitioners like with the Family Support for Children with Disabilities (FSCD) model.
- Implement a direct billing process to Alberta Health Services for qualified psychologists.

Benefits:

- Personal awareness of having a Learning Disability and learning how to manage it.
- Parental receipt of a comprehensive learning assessment leading to knowledge of a child's functioning, access to recommendations for home and school-based interventions and the ability to appropriately support and advocate for their child.
- Access to Special Education Coding with accompanying specialized supports.
- Improved academic progress, growth outcomes and high school graduation.
- Improved transition to and completion of post-secondary programs.
- Improved entry into the workforce and maintenance of stable employment.
- Prevention and/or decrease of mental health issues like anxiety, depression, addiction and suicidality.
- Prevention and decrease in behavioural issues in school and interactions with justice.
- The ability to appropriately self-advocate later as an adult.

3. The Need for Improved Training in ADHD for Health Care Providers

In Alberta, one in five children meets the diagnostic criteria for a mental health disorder, equating to over 150,000 youth, with approximately 20% of these receiving mental health services¹. Evidence shows that primary care providers, rather than mental health professionals, are delivering two thirds of these mental health services. Yet these physicians consistently report feeling ill-equipped to assess and treat pediatric mental health concerns, including ADHD². Research shows that the single area new graduates report lacking training, experience and confidence in is pediatric mental illness. Thus, despite the apparent opportunity and ability of

medical professionals to diagnose ADHD, as described in the previous section, the impediments in physician knowledge and training are similar to the impediments experienced by teachers in their education.

ADHD Diagnosis and Treatment is Not Part of Medical Training

ADHD, as a psycho-medical diagnosis, is often not covered in medical training despite it being recognized as one of the most common neurodevelopmental disorders affecting children, adolescents, and adults. In Alberta, medical training programs do not provide a significant focus on the identification or treatment of ADHD. In fact, all mental health issues including ADHD, depression, anxiety, psychotic disorders, personality disorders, and others are covered in a mere 6 hours of pre-clerkship training in child psychiatry. This lack of training puts community members at risk by leaving a wide number of people undiagnosed and subsequently untreated for ADHD.

Additionally, the lack of training can lead to a lack of understanding and knowledge of ADHD. This can lead to a dismissal of symptomatology as being not particularly problematic or significant, an unwillingness to refer to mental health professionals and a reluctance to prescribe and supervise potentially helpful medication protocols. It can lead to misdiagnosis and underdiagnosis which have significant ramifications ranging from inappropriate medical treatment to a lack of medical treatment altogether, inappropriate academic supports, or placements in classes designed for students with significant behavioural or emotional issues that are not necessarily designed to address the needs of children with ADHD. People with unidentified and untreated ADHD can experience more difficulties with substance abuse, depression, anxiety, suicidality, underemployment, underperformance, interactions with legal authorities and ultimately, can present a significant financial cost to society.

It has been found that only slightly above 50% of physicians have a positive view of ADHD as a viable condition with treatment options. This finding suggests that there are missed opportunities to make appropriate diagnosis and intervene appropriately simply due to a lack of understanding the nature of the condition and the knowledge that it is treatable³. Physicians who have less training in diagnosis and treatment of ADHD tend to make more errors in diagnosis and these difficulties extend beyond ADHD to the frequently comorbid conditions, including substance abuse⁴. Further, only approximately 45% of physicians educate parents about the health risks associated with stimulant medications upon diagnosing and establishing a treatment protocol⁵. This lack of information can result in the misuse of stimulant medication.

Mis(sed) Diagnosis

Perhaps the most significant concern lies in misdiagnosis. Research has confirmed that ADHD, especially in girls and women, is often misdiagnosed⁶. This largely due to the presenting nature of their symptomatology which tends to be more on the inattentive range making them appear withdrawn, quiet, shy, and on occasion, depressed and anxious. Incorrect diagnoses can lead to inappropriate medication prescriptions such as antidepressants and anxiolytics, and will fail to

treat the underlying ADHD. Failing to treat ADHD successfully early on, for either girls or boys, can result in an increase in mental health risks including anxiety, depression, addiction and problematic substance use, eating disorders, self-harming behaviours and suicidality. As noted, there is also the probability of more involvement with disciplinary issues at school and the legal system in adolescence and adulthood. Overall, these problematic outcomes will of necessity require escalating magnitudes of intensive health interventions and psychological therapy later in life.

Established research also suggests that physicians with a moderate to high degree of knowledge about ADHD tend to be more favourable towards intervening, and primarily with stimulant medications⁷. Those with lower levels of knowledge about ADHD are significantly less likely to intervene, which can of course result in an absence of intervention. Additionally, a systematic review of the literature suggests that there is a need for more education for physicians regarding ADHD due to the high rates of misdiagnosis, problems with stigma, constraints in appropriate recognition and treatment of ADHD⁸. However, this review also found that there was a strong desire on the part of physicians to take part in multidisciplinary approaches that would result in more accurate diagnosis and treatment of the disorder.

Low Training Uptake

While there is additional post-graduation medical training in ADHD available in Alberta, and such training is subsidized by Alberta Health Services, uptake by physicians is low. Many are likely unaware of the available training and its low cost, unable to take such programming or do not consider it important enough due to their lack of understanding of the disorder in the first place. Program uptake is only between 1% to 5% of the target physician group, meaning that the vast majority of physicians are relying on what they may have learned in a two-week rotation in medical school when dealing with a very high profile and highly complex disorder like ADHD.

Building Diagnostic Capacity

Absent or inadequate identification and intervention by primary care physicians results in youth experiencing a deterioration of their mental health to the point of crisis. Now they must rely on hospital-based care⁹. These children arrive at emergency rooms and/or are being re-admitted to hospital at two-to-three times the rate of those with other health conditions, and for those admitted, remain in hospital for three times longer. There is obviously a need to move away from such acute interventions and promote care in appropriate community-based supports, as outlined in Alberta's model for recovery-oriented systems of care¹⁰. It is recognized that improved coordination and communication between primary health care and other health care providers (including hospitals and community service agencies) may reduce avoidable hospitalizations and readmissions in pediatric mental health^{9,11}.

Strong evidence exists that investing in proactive and effective pediatric mental health programs makes a difference to both the health of the population and to the economy^{9,12}. Studies have

found that the proper diagnosis and treatment of ADHD could save the United States economy between \$27 to \$58 billion per annum¹³ so even a moderate investment in training positions to properly diagnose and intervene with ADHD would certainly pay dividends in Alberta. Although the financial costs of such mental health services are not inconsiderable, the direct and indirect costs of not providing appropriate services is much greater. Given the substantial rates of re-admission and repeat visits to urgent and emergency services - a solution that does not benefit youth or the economy - health care systems need to identify best practices while also considering return on investment. Studies suggest a \$3.26-\$5.60 return on investment for prevention and treatment of pediatric mental illness¹⁴.

CanREACH

The Canadian Research and Education for the Advancement of Child Health (CanREACH) is part of the Mental Health Collaborative within the Child and Adolescent Addiction, Mental Health, & Psychiatry Program at Alberta Health Services. CanREACH recognized that the traditional model of family physicians referring out to pediatric specialists would never meet patient needs due to the low number of specialists. Instead, experts suggest building capacity in primary care to deliver mental health services to children and youth in the community as this is the setting where young people naturally exist^{11,15}. That capacity starts with ensuring appropriate physician training^{15,16}. Therefore, CanREACH has worked to build that capacity by educating and empowering primary care providers to screen, identify, and manage pediatric mental health in their primary care home.

CanREACH delivers mental health literacy training via a 6-month mini-fellowship training program as licensed from The REACH Institute. The “Patient-Centered Mental Health in Pediatric Primary Care” (PPP) consists of an intensive 16-hour educational workshop followed by 6-months of clinical case-based coaching via teleconference.

Solution: Implement mandatory training requirements in ADHD for health care professionals to improve knowledge competencies and increase access to diagnosis, treatment, and services.

Mandated upgrading can be established through the CanREACH and CADDRA programs for all:

- Pediatricians
- Family doctors
- Primary care network workers
- Emergency physicians
- Physicians new to Alberta
- Nurse practitioners
- Mental health professionals who do not already have this sub-specialization

Benefits:

- Personal awareness of having ADHD and learning how to manage it.
- Parental knowledge and the ability to appropriately support and advocate for their child.
- Improving proper use of ADHD medication by patients. Parents who are informed of the potential risks are far less likely to have a laissez faire attitude towards medication.
- ADHD medication is used as part of an overall treatment and management plan, rather than a partially effective stand-alone solution.
- Access to Special Education Coding with accompanying specialized supports.
- Improved academic progress, growth outcomes and high school graduation.
- Improved transition to and completion of post-secondary programs.
- Improved entry into the workforce and maintenance of stable employment.
- Prevention and/or decrease of mental health issues like anxiety, depression, addiction and suicidality.
- Prevention and decrease in behavioural issues in school and interactions with justice.
- Ability to appropriately self-advocate later as an adult.
- The CanREACH Program leads to changes in knowledge, comfort, and practice in the assessment, diagnosis, treatment and management of child and adolescent mental health clients by CanREACH trained providers. Clinicians describe improvements to their beliefs/attitudes towards child/youth mental health, clinical skill sets, referral patterns, teaching/mentoring practices, and their patients' health outcomes^{17,18}.
- CanREACH shows substantial cost-benefit with economic savings estimated to save the health care system approximately \$20,000 per trained physician, a number that cumulatively grows year after year with no additional investment^{18,19}.
- CanREACH trained physicians utilize specialized services at a reduction of 67%, and the referrals they do make are far more appropriate (i.e., comorbidities, higher acuity). This not only frees up waitlists for these services, but it also better utilizes community resources^{18,19}.
- Over half of CanREACH trained physicians go on to develop and/or engage in post-training CanREACH related initiatives. This primarily includes things like significant changes to clinical practice, such as dedicating formal time to child/youth mental health; expanding capacity to include more child/youth mental health patients; providing child/youth mental health consultation services to other clinicians; involved with or

developing a child/youth mental health program or clinic; leading education-based initiatives^{18,19}.

- As a result of the CanREACH training, clinics are being developed to service underserved areas (i.e., rural areas like Westview, Bonnyville & Cochrane) that hinge upon trained providers and result in their being able to meet the needs of previously unserved patients^{18,19}.

The CanREACH initiative has proven itself as a leading practice and innovative excellence as a strategic program, demonstrating outstanding improvements on both patient care (quality and experience) and health system performance (efficacy and appropriate service utilization). Additionally, the proven impact of CanREACH has been recognized and celebrated both provincially and nationally, with other provinces across Canada implementing the CanREACH model. For example, Saskatchewan has CanREACH-SK which is funded by the Government of Saskatchewan. CanREACH awards include:

- 2021 and 2016 “Excellence in System Transformation” via Alberta Health Services
- 2019 “Organizational Leadership” via Children’s Healthcare Canada
- 2019 “Outstanding Achievement in Innovation and Research Excellence via Alberta Health Services
- 2018 “Continuing Professional Development Program Award” via College of Family Physicians Canada

4. The Need to Improve Employer Awareness of the Duty to Accommodate

Low expectations and preconceived notions about the capabilities of individuals with disabilities have long excluded or underrepresented them in the workforce, impacting not only their ability to attain a job, but also to retain it and contribute to the economy. Specifically, individuals with Learning Disabilities and/or ADHD have been found to be less likely to be employed and often earn less¹⁻⁵, and more likely to be fired, get laid off^{4,6} and quit their job⁶. Researchers have found that individuals with LDs are twice as likely to remain unemployed compared to the general population⁷. Similarly, other studies looking at the employment status of individuals with ADHD uncovered that only 34% of these individuals were employed full time compared to 59% of individuals without ADHD¹. Barkley and colleagues’ research⁶ looking at loss of employment in those with ADHD highlights some dark truths: employees with ADHD are 60% more likely to be fired from a job, and three times more likely to quit a job impulsively⁶.

Thus, even if young people diagnosed with LD or ADHD early on have had appropriate supports during their school years, and have been successful in graduating from either high school or a

post-secondary program, they may then face considerable barriers in the workplace. These false starts to pursuing a career path, frequently switching employers or failing at employment entirely, to a considerable degree negate all of the effort that has been invested in them early on. Opportunities exist for a better return on this investment for our youth and Alberta's future.

Benefits to Hiring Individuals with Disabilities

A Canadian business case on inclusive hiring reports that employees with disabilities have low turnover rates and high attendance, safety rates that are as good or better than average, no additional costs of employment, and exhibit strong positive impact on workplace and community values⁸. The Ontario Disability Employment Network reports that businesses that prioritize accessibility and inclusion in their hiring practices grow profits up to three times faster than their competitors while also experiencing a 72% increase in productivity. Furthermore, 92% of consumers favour companies that hire people with disabilities⁹. Of small business owners who have hired people with a disability, 77% said these employees either met or exceeded their expectations¹⁰.

Research has found those with ADHD tend to have more divergent thinking and creativity than their non-ADHD peers¹¹. A report on ADHD in the workplace highlights the ability of those with ADHD to work with exceptional efficiency and increased productivity in stimulating environments, think outside the box, brainstorm novel ideas, embrace uncertainty, and excel in high-stress situations and creative problem solving – all of which are assets in a competitive business market¹². Neurodivergent individuals are often much more capable of highlighting their talents when provided with adequate accommodations in a work environment where their employers present with knowledge and understanding of their disabilities.

Employees with disabilities often seek out inclusive employers and vice versa. Currently, there are several agencies based in Alberta that not only provide resources for individuals with disabilities looking for employment but also for employers looking for support in hiring and retaining these individuals. While many of these agencies have been listed in a directory on the Government of Alberta page¹³, they are framed only for individuals with disabilities. Employers who are also seeking resources to connect with the right personnel have a difficult search. As of yet, the government of Alberta website does not have a central resource webpage for employers looking to hire individuals with disabilities.

The government of Alberta can assist in making employer resources in hiring people with disabilities more accessible by better connecting employers with agencies who can provide the necessary tools and support. Modifying the directory would make it more transparent to employers who are seeking awareness training. Another possibility is adopting a model similar to that of the Government of British Columbia¹⁴ or Government of Ontario¹⁵ who have sections on hiring people with disabilities on their websites where they discuss the benefits of hiring individuals with disabilities as well as employer resources on inclusive hiring practices.

The government of Alberta can also assist in strongly encouraging businesses to seek employer awareness training programs by mandating such training as a condition of applying for government funded employment programs. Making these training programs mandatory would be a revolutionary step towards inclusive practices across Albertan companies and would set the standards for the level of knowledge necessary to best utilize these government grants. Doing so would assist in kick-starting the conversations that need to be had amongst employers regarding their duty to accommodate, inclusive hiring and retention practices, and accommodation strategies. Such mandates would also better ensure that these funds are best put to use by individuals who possess the necessary knowledge and understanding of disabilities and neurodivergence and thus would be well-suited for providing the tools and resources to the individuals who are meant to benefit from these grants.

Low Rates of Self-Disclosure

Looking at the literature, some suggestions have been put forth to explain the aforementioned difficulties those with LDs and/or ADHD may experience in attaining and retaining employment. Much of the research discusses the lack of disclosure and the higher levels of workplace-related stress individuals with LDs and/or ADHD experience compared to their counterparts^{3,4,16}. Specifically, the literature points to low rates of self-disclosure about one's disability among those with LDs or ADHD^{4,17-20} making it more difficult for these individuals to receive the accommodations they need. While the majority of respondents with LD (90%) indicated that their disability impacted their performance in the workplace, there was only a 30% disclosure rate²⁰ and among all disability categories, self-disclosure of an LD exhibited the lowest rates²¹.

Moreover, among those employees who did self-disclose (19%), only 5% were receiving accommodations in the workplace¹⁸. The reason individuals may refrain from discussing their needs is due to fear of workplace stigmas such as: social rejection by peers, fear of being judged, embarrassment, minimizing of their ADHD/LD symptoms and the belief that it does not impact job duties, name-calling, lost promotions, bullying, and job termination^{3,23}. While self-disclosure entitles one to rights under the Canadian Charter of Rights and Freedoms in Canada¹⁸, many individuals with LDs or ADHD believe that self-disclosure will affect important relationships in the workplace or affect job security.

Lack of Accommodations

The low rates of self-disclosure not only suggest that too few adults with disabilities take advantage of the rights afforded to them, but also that there is still a general lack of knowledge about LDs and ADHD and workplace accommodations among employers. Canadian employees with LD experienced work dissatisfaction due to a lack of appropriate accommodations in the workplace²⁴. Additionally, those with LDs or ADHD experience more stress and productivity challenges as they navigate the workforce without proper accommodations.

In contrast, research has highlighted the importance of workplace accommodations in maximizing the employment and retention of employees while also proving to be cost-effective for employers. Workplace accommodations not only increase productivity, but can be free, low cost and cheaper than the cost of employee turnover²⁵. For instance, the Job Accommodation Network's survey of 3,528 employers revealed that 49% of accommodations were made at zero cost, while 43% had an average one-time cost of \$300²⁶.

Under the Alberta Human Rights Act, employers have a duty to accommodate²⁷.

“Employers, service providers, landlords, and others have a duty to accommodate. This means making changes to rules, standards, policies, workplace culture, and physical environments to eliminate or reduce the negative impact that someone faces because of a protected ground. The goal of accommodation is to provide an equal opportunity for an individual or group to participate in any of the protected areas under the *Alberta Human Rights Act*”.

This means that employers must make every reasonable effort to meet employees' needs as a person living with a disability, so that employees can get their work done and do well on the job. However, the duty to accommodate still plays a role when an employee does not express a need for accommodations, as employers have a responsibility to make inquiries if they are made aware of an employee's disability or if they have reason to believe an employee has a disability. However, this assumes that an employee has either self-disclosed their disability or that employers would have the appropriate knowledge to detect and identify a need for accommodations, although both are often not the case.

Losses to the Economy

While the inability to access required workplace accommodations and perceived workplace stigma can be detrimental to an individual's wellbeing and mental health, it can also impact their productivity and profitability of the workforce. Interestingly, the Boston Consulting Group found that workplace stress costs Canada over \$220 billion annually, where the majority of the costs (\$190 billion) are indirect like downtime and presenteeism (physically at work but not being productive due to health issues)²⁸.

It can be stipulated that much of the indirect costs to productivity could also be associated with invisible disabilities that are often left undisclosed. For instance, at least 24% of employees on long-term sick leave due to stress-related illness met the criteria for ADHD¹⁶. It has been estimated that there is a \$67 billion to \$116 billion productivity loss due to ADHD¹ alone and that ADHD was associated with 22.1 annual days of excess lost role performance²⁹.

Looking at the broader systems, researchers found that unmanaged ADHD has a huge impact on the economy³⁰. They discovered an overall national annual incremental cost of ADHD ranged

from \$143 billion to \$266 billion between 1990 and 2011 where the largest category was productivity and income losses³⁰. Given this information, unaddressed LDs or ADHD in the workplace not only impact the person with the disability, but also the greater systems they are a part of including the productivity of their company and the economy as a whole.

Solution: Support entry to and retention in the workforce by promoting employer training on the Duty to Accommodate in creating accessible and inclusive work environments.

We believe that shifting the work culture around hiring people with disabilities is a key step towards creating safe and employable spaces. Doing so would be a triple win for the employee, employer, as well as the economy given the aforementioned benefits of hiring people with LDs and/or ADHD as well as creating accessible and accommodating work places. To accomplish this, the government of Alberta can help make employer awareness training programs (inclusive hiring and retention practices) more accessible to employers as well as mandate this training as a necessary prerequisite to applying for government employment funds.

- Mandate employer awareness training on the Duty to Accommodate as a condition of applying for government funded employment programs.
- Promote Duty to Accommodate awareness training through partner organizations.
- Create a webpage on the Government of Alberta site to centralize employer disability resources.

Benefits:

- Compliance with legal and regulatory requirements of the Duty to Accommodate.
- Increasing access to stable employment for individuals with LD and/or ADHD.
- Increasing access to a wider talent pool for employers.
- Reducing employee work-related stress, poor performance, absenteeism and turnover.
- Increasing net productivity, competitive advantage and overall economic prosperity.

Summary of Recommendations

Government of Alberta Existing Frameworks	Next Steps
1. The Need To Improve Teacher Training	
<ul style="list-style-type: none"> ● Ministerial Order on Learning ● Standards for Special Education ● Special Education Coding Criteria ● Implementing a Continuum of Supports & Services Guide ● Professional Practice Standards ● 2023 ELAL curriculum ● Classroom Complexity Grant ● Curriculum Resource Funding 	<p>Through Alberta Teacher Certification, add new credentials that include coursework in identifying and teaching neurodivergent students and coursework in teaching reading according to evidence-based Science of Reading approaches for all teachers certify/recertify within two years.</p>
2. The Need for Subsidized Learning Disability Assessments for Children	
<ul style="list-style-type: none"> ● Standards for Special Education ● Special Education Coding Criteria ● Classroom Complexity Grant ● Family Supports for Children with Disabilities (FSCD) model ● Integrated School Support Program 	<p>Subsidise Learning Disability assessments for children by qualified psychologists through existing pathways.</p>
3. The Need to Improve Training in ADHD for Health Care Providers	
<ul style="list-style-type: none"> ● Mental Health Literacy (AHS) ● CanREACH Program ● CanREACH is accredited with both the Royal College of Physicians and Surgeons, and the College of Family Physicians of Canada 	<p>Implement mandatory training requirements in ADHD for health care professionals to improve knowledge competencies and increase access to diagnosis, treatment, and services.</p>
4. The Need to Improve Employer Awareness of the Duty to Accommodate	
<ul style="list-style-type: none"> ● Alberta Human Rights Act ● Disability Related Employment Supports (DRES) ● Training and Employment Services ● Existing partner agencies 	<p>Mandate training on the Duty to Accommodate as a condition of government funded employment programs and creating a page of centralized resources for employers on the government of Alberta website.</p>

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