

## McKnight, Valerie SDSI:EX

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**From:** McKnight, Valerie SDSI:EX  
**Sent:** Monday, October 27, 2014 11:23 AM  
**To:** Sem, Edward SDSI:EX  
**Subject:** FW: RE: CADDAC Meeting Request

Hi Ed,

Can you please follow up with MDM on this and ask him if he is ok with me setting up a meeting?

Thanks,  
Val

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**From:** McKnight, Valerie SDSI:EX  
**Sent:** Wednesday, October 22, 2014 4:40 PM  
**To:** McRae, Don SDSI:EX  
**Subject:** FW: RE: CADDAC Meeting Request

Hi Minister,

Below is a meeting request from the Centre for ADHD Awareness Canada, they would like to arrange a meeting with you for Nov. 4<sup>th</sup>, would you like to meet with them? Joan feels that since we more than likely have PwD clients with ADHD, it would be worthwhile to meet with them.

Thanks,  
Val

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**From:** Heidi Bernhardt [<mailto:heidi.bernhardt@caddac.ca>]  
**Sent:** Friday, October 10, 2014 11:11 AM  
**To:** Minister, SDSI SDSI:EX  
**Cc:** McKnight, Valerie SDSI:EX; Dayna Dobrowolski  
**Subject:** CADDAC Meeting Request

Dear Minister McRae,

On behalf of the Centre for ADHD Awareness Canada (CADDAC, a national, non-profit organization providing leadership in awareness, education and advocacy for ADHD across Canada, I would like to request a meeting with your office on Tuesday, November 4th.

Please find our letter attached.

Sincerely,  
--

Heidi Bernhardt  
President / Executive Director  
CADDAC

Centre for ADHD Awareness, Canada (CADDAC)  
3950 14th Avenue, Suite 604, Markham, ON L3R 0A9  
T: 416-637-8584 F: 905-475-3232 Direct: 905-471-3524  
[www.caddac.ca](http://www.caddac.ca)



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## McKnight, Valerie SDSI:EX

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**From:** McKnight, Valerie SDSI:EX  
**Sent:** Tuesday, October 28, 2014 9:31 AM  
**To:** Ramsay, Launa P SDSI:EX  
**Subject:** BN REQUEST: FW: CADDAC Meeting Request  
**Attachments:** Meeting Request - Minister of Social Development and Social Innovation.pdf

Hi Launa,

MDM will be meeting with them on Nov. 4<sup>th</sup> at 3:15-3:45pm, can we please have material drafted for the meeting? Also, would Sheila like to join?

Thanks,  
Val

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**From:** Heidi Bernhardt [<mailto:heidi.bernhardt@caddac.ca>]  
**Sent:** Friday, October 10, 2014 11:11 AM  
**To:** Minister, SDSI SDSI:EX  
**Cc:** McKnight, Valerie SDSI:EX; Dayna Dobrowolski  
**Subject:** CADDAC Meeting Request

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On behalf of the Centre for ADHD Awareness Canada (CADDAC, a national, non-profit organization providing leadership in awareness, education and advocacy for ADHD across Canada, I would like to request a meeting with your office on Tuesday, November 4th.

Please find our letter attached.

Sincerely,

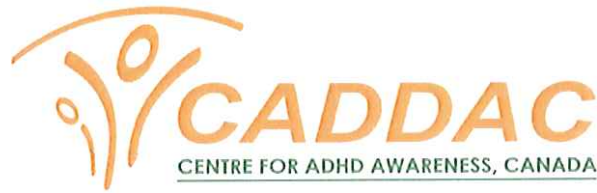
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Heidi Bernhardt  
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## Centre for ADHD Awareness, Canada

The Centre for ADHD Awareness, Canada (CADDAC) is a national not-for-profit organization providing leadership in awareness, education and advocacy for ADHD across Canada. CADDAC is committed to increasing the understanding of ADHD and therefore decreasing the stigma of ADHD, by providing up-to-date scientific information on Attention Deficit Hyperactivity Disorder. CADDAC's mandate is to take a leadership role in networking all organizations, professionals, patients, caregivers, governments and other stakeholders involved in ADHD related issues.

### OUR MISSION

To better the lives of those affected by ADHD in Canada by:

- Providing current, scientifically based ADHD information
- Increasing the awareness and understanding of ADHD as a neurological disorder
- Dispelling the myths, misunderstandings and stigma surrounding ADHD
- Advocating to government and decision makers

### What CADDAC OFFERS:

**Education and Support** for caregivers, adults and adolescents with ADHD, educators and medical support staff.

**Web sites:** [www.caddac.ca](http://www.caddac.ca) and [www.adhdawareness](http://www.adhdawareness)

The CADDAC site is a wealth of information on ADHD with over 300 pages of information on ADHD geared to parents, children, adolescents, adults and educators; you will find information on assessment and diagnosis, treatments, ADHD in the school systems, resources, studies, events and much more. This site also hosts over 40 hours of free to download video presentations as well as brief Q&A videos.

The Awareness site is a fully bilingual site containing educational information and information on awareness and advocacy initiatives.



## Foundational Key Messages

1. **Attention Deficit Hyperactivity Disorder is not the insignificant disorder many imagine it to be. ADHD significantly impacts British Columbian society well beyond its profound effect on individuals and their families.**

Affecting over one million Canadians, ADHD is a widely prevalent but misunderstood mental health disorder. Often unrecognized and therefore untreated or mis-treated, ADHD is a financial and social burden that impacts the economic, health and social well-being of every Canadian.

- One to two children in every elementary classroom across Canada has ADHD; it affects five percent of BC's child and youth population (ages 4-17).
  - One out of every 25 employees has ADHD.
  - ADHD reduces Canadian workplace productivity by \$6 – 11 billion each year.
  - There are substantial direct and indirect costs to health care, education, the workplace, children and families, social services and justice systems.
  - The “cost of illness” of this disorder is estimated to be \$7 billion in Canada and \$420 million annually in BC. (Putting this into context the estimated cost of clinical depression in Canada is \$4 billion)
2. **While there is no cure, symptoms of the disorder are very responsive to treatment. ADHD treatment should always be multimodal including the education of care givers and school accommodations. When diagnosed and treated, British Columbians with ADHD have a far greater chance of leading happy, productive lives.**
- ADHD alone without a coexisting learning disability is associated with poor academic outcomes and fewer years of completed education.
  - Medication treatment alone does not improve academic skills
  - Ninety per cent of adults with ADHD are untreated leading to unnecessary suffering and unwanted socioeconomic impacts.
  - While diagnosis of ADHD in adults can be complex, many are untreated due to lack of awareness and understanding of the disorder and limited access to knowledgeable physicians.
  - There would be very significant benefits and savings if all adults with ADHD were properly diagnosed and treated.

3. **ADHD in British Columbia**

- In British Columbia, progress has been made with the formation of an inter-ministerial child and youth mental health network; however ADHD was largely absent from the implementation of the CYMH plan.
- While the MoHS and MCFD have funded provincial strategic plans for anxiety, depression, suicide, fetal alcohol syndrome and substance abuse and early psychosis, there is no strategic plan for ADHD. Such a strategic plan could identify gaps in access to assessment, diagnosis and treatment options.

**CADDAC ASKS that all impacted ministries, educate themselves on, and officially recognize, the role ADHD plays in their ministry's costs and services, assess whether these costs are being allotted to best practices and increase inter-ministerial cooperation to implement services and resources to reduce the current socioeconomic costs to British Columbia.**

## **Ministry of Social Development and Social Innovation**

Untreated or under treated ADHD is associated with long term impairments in academic achievement, social functioning and employment stability.

While abundant research tells us that the direct and indirect costs of ADHD are profound, we also know that symptoms of the disorder are very responsive to treatment. (Please access “Paying Attention to the Cost of ADHD...The Price Paid by Canadian Families, Governments and Society”)

Impairing effects of ADHD – often experienced lifelong – increase costs to social services and impede the attainment of human and social capital, resulting in increased socioeconomic costs for Canada.

These costs are further fuelled by the continued under-diagnosis and under-treatment of ADHD.

According to a review of ADHD research papers a shocking 90% of adults remain untreated, despite the far-reaching impact of ADHD on an individual’s job performance and levels of education.

### **ADHD and the Workforce:**

- Individuals with ADHD are more likely to enter the workforce at the unskilled or semi-skilled level.
- They have greater periods of unemployment; are more likely to be dismissed; change jobs more frequently; and earn considerable less money over their lifetime.
- ADHD symptoms can lead to poor job performance and higher numbers of days absent compared to peers without ADHD, and result in lower occupational status and less job satisfaction.
- A 2013 study recommends placing increased focus on the earlier diagnosis of adolescent ADHD because it is such a strong predictor of mental and physical health problems, workplace impairment and financial issues.

### **ADHD and Social Services:**

- Adults with ADHD have a higher than average dependency on social welfare, and subsequently contribute fewer dollars in taxes.
- Currently no ADHD screening for those on social assistance exists.
- Currently not all postsecondary institutions, and very few employers, offer appropriate accommodations that could assist adults with ADHD reach their potential.

### **ASK**

The awareness that ADHD impacts the costs and services of the Ministry of Social Development and Social Innovation in British Columbia and a strategic plan to seek ways to work in collaboration with other ministries to initiate earlier screening and intervention thereby offsetting long term costs to families ministries and society.





## Equality of Access for Canadians to New Medication

One to two children in every classroom in Canada has Attention Deficit Hyperactivity Disorder (ADHD). But ADHD, the most common mental health disorder in childhood,<sup>1</sup> not only affects the young but is a lifespan issue that continues into adulthood for the majority. In total, about 4.4% of adults demonstrate persistent childhood-onset ADHD with significant impairment and comorbidity.

Untreated or under-treated ADHD is associated with long-term impairments in academic achievement, social functioning, self-esteem and employment stability.<sup>2,3,4,5,6,7</sup> Adult ADHD is a common and costly workplace condition, resulting in lost work performance and productivity.<sup>8</sup>

Medication can not solve all the difficulties of people with ADHD but is an important part of a multimodal treatment approach. Despite this, long-acting or extended release (XR) medications, the clinically-recommended first line (i.e. preferred, standard or first choice) treatment for ADHD,<sup>9,10,11</sup> are not covered by all Canadian public and private medical insurance plans. Ultimately, this impacts the most vulnerable parts of our population - the economically-disadvantaged. Although ADHD is disproportionately diagnosed among children from underprivileged populations in advantaged countries,<sup>12</sup> in many provinces only families that can afford to buy the medication (or who have private health insurance) can currently take advantage of long-acting medications.<sup>13</sup>

The Centre for ADHD Advocacy, Canada (CADDAC) rejects this two-tier situation that discriminates against economically-disadvantaged families. We demand equality of access for all Canadians to the newer, long-acting medications, recommended by expert groups worldwide<sup>9,10,11</sup> as the most therapeutically and socially effective treatment for people with ADHD.

Although some may argue that long-acting medication is simply more convenient and is economically not justifiable, this is simply not true in the case of ADHD. There are a number of important issues that must be taken into account when making value-for-money comparisons between short-acting medication (the traditional drug therapy of choice) and long-acting medications.

Long-acting medications result in improved performances at school and in the workplace and promote better overall health and economic by:

- improving adherence,
- reducing stigmatization,
- facilitating parental control,
- eliminating the therapeutic gap inherent in multi-day dosing schedules,
- and reducing abuse/diversion.

In order for immediate release medication (taken two to three times a day) to work effectively, the patient must remember and take all doses. Immediate release medication three times a day has been documented – in tightly-controlled study conditions – to be therapeutically equivalent to long-acting medication once a day. But the reality is that in real-world conditions, multiple dosing presents significant problems for people with ADHD.<sup>14</sup> Adherence to medication schedules is a well-reported issue for ADHD patients. Single daily dosing is associated

with greater compliance for all types of medication<sup>15</sup> and is one of the main reasons why the medical experts behind the Canadian, US and UK practice guidelines all recommend long-acting medication as first-line treatment.

The administration of additional doses during the day, required with a multiple dosage treatment schedule, can leave school-aged children – and even adults - open to stigmatization by peers. The high heritability of ADHD means there is a significant likelihood that one of the parents of a child with ADHD will also have ADHD or another psychiatric disorder. There is significant risk that some parents will forget to give the additional immediate-release doses of medication to the child every four to six hours.<sup>16</sup>

Some schools and daycares refuse to administer medication, resulting in a forced therapeutic gap. On the other hand, is it not strange that school staff are forbidden to give a student routine non prescription medication such as Tylenol, but are sanctioned to store and administer a controlled substance?

The three to four hour coverage provided by short-acting stimulant medication results in periods of sub-optimal or non-existent coverage during the day, when the symptoms may come back or even be exacerbated. A child may consequently demonstrate a very uneven clinical course, where symptoms are controlled for two to three hours in the morning but then performance deteriorates in school until the second dose. Symptoms reemerge until another dose, putting the student at risk of missing learning opportunities and long-term academic underachievement.

The growing problem of abuse of ADHD medications is receiving increasing public and media attention. By its nature, short-acting medication for ADHD is more open to abuse than the newer, extended release preparations. In a United States survey of middle-class adolescents and young adults, 11% surveyed reported that they sold their stimulant medication and 22% had misused it.<sup>17</sup> A Canadian survey of high school children from the Atlantic provinces revealed that 26% of adolescents report having diverted their ADHD medications one or more times.<sup>18</sup>

The route of administration of a stimulant has a strong affect on its abuse potential. Drugs that are rapidly absorbed and achieve higher blood levels can produce an euphoric effect. This effect is easier to obtain by crushing short acting tablets and snorting or injecting them. Longer acting tablets and capsules are not easily put into a form that can be snorted or injected, and thus have a less abuse potential.<sup>19</sup> The XR medications have a more consistent and sustained mechanism of action that allows for slow release in the bloodstream and provides coverage of up to 12 hours.

Extended release medications are not for everyone; immediate release medication is indicated for the minority who have problems tolerating long-acting medication. Nevertheless, making first line treatments available on a equitable basis to all Canadians would not only benefit the health and well-being of children and adults suffering from ADHD, it is an investment in education and in the economy.

The Canadian Paediatric Society, in its November 2009 position statement<sup>12</sup> on extended-release medications for children and adolescents with attention-deficit hyperactivity disorder was the latest Canadian medical organization to call on industry, government and private health insurance companies to work together to make these medications more accessible across the country to facilitate compliance, minimize stigma and prevent missed opportunities for focused learning.<sup>20</sup>

The long-term economic and social benefits of equalizing access to long-term medication are substantial for society, as well as for families and individuals, and can be measured in terms of increased work productivity and academic achievement, decreases in learning issues, reduction in stigmatization, comorbidities and driving problems.

Above all, it would ensure more equitable access for all Canadians to the first choice treatment for ADHD as recommended worldwide in numerous medical expert consensus documents including the Canadian ADHD Practice Guidelines,<sup>9</sup> the National Institute for Health and Clinical Excellence (NICE), UK Clinical Guideline on ADHD,<sup>10</sup> the American Academy of Child and Adolescent Psychiatry Practice Parameters on ADHD.<sup>11</sup>





- 1 Polanczyk G, De Lima MS, Horta BL, Biederman J, Rohde LA. The worldwide prevalence of ADHD: a systematic review and meta-regression analysis. *Am J Psychiatry* 2007; 164 (6): 942-948
- 2 Barkley R. Attention-Deficit Hyperactivity Disorder. A Handbook for Diagnosis and Treatment, 2nd ed. New York: Guilford Press, 1998.
- 3 Barkley RA, et al. The adolescent outcome of hyperactive children diagnosed by research criteria: I. An 8-year prospective follow-up study *JAACAP*. 1990;29:546-557.
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- 5 Weiss G, et al. Psychiatric status of hyperactives as adults: a controlled prospective 15-year follow-up of 63 hyperactive children. *J Am Acad Child Psychiatry*. 1985;24:211-220.
- 6 Satterfield JH, Schell A. A prospective study of hyperactive boys with conduct problems and normal boys: adolescent and adult criminality. *JAACAP*. 1997;36:1726-1735.
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- 11 AACAP Practice Parameters, *J. Am. Acad. Child Adolesc. Psychiatry*, 46:7, July 2007.
- 12 M Feldman, S Bélanger. Extended-release medications for children and adolescents with attention-deficit hyperactivity disorder. Position Statement, Canadian Paediatric Society. *Paediatr Child Health* Vol 14 No 9 November 2009
- 13 Hosenbocus S, Chahal R.J. A Review of Long-Acting Medications for ADHD in Canada. *Can Acad Child Adolesc Psychiatry*. 2009 November; 18(4): 331-339.
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- 16 Cascade E, Kalali A, Weisler R. Short-acting versus Long-acting Medications for the Treatment of ADHD. *Psychiatry* 2008;5(8):24-27.
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- 19 Spencer T J et al. PET Study Examining Pharmacokinetics, Detection and Likeability, and Dopamine Transporter Receptor Occupancy of Short- and Long-Acting Oral Methylphenidate. *Am J Psychiatry* 163:44A, March 2006.
- 20 “Your Attention Please”: A Call to Improve Access to Care for ADHD Patients. A Policy Paper by BC’s Physicians. February 2009.



## **Equitable Access to Education for all Canadians**

Attention Deficit Hyperactivity Disorder (ADHD) is the most common childhood mental health condition affecting 5-12 per cent of children worldwide, an average of one to two children in every Canadian classroom<sup>1</sup>. It is characterized by developmentally atypical levels of inattention, activity and impulsivity that result in functional impairments in daily activities. Children with ADHD are prone to poor academic achievement,<sup>2,3</sup> disruptive classroom behaviour and learning difficulties<sup>4</sup>.

While ADHD is the most frequent mental health challenge<sup>5</sup> encountered by educators, the disorder continues to be inconsistently identified, understood and accommodated for within the Canadian school system. Accordingly, students with very similar learning profiles often receive very different levels of understanding and assistance. Despite the robust evidence base on academic problems associated with ADHD<sup>3,5,6,7,8</sup> many school boards continue to question the direct impact of ADHD on a student's learning.

Although not a learning disability by definition, ADHD can severely impair a student's learning. Typically, students with ADHD process information more slowly than their peers and have poor executive function skills, which impede the acquisition of many essential academic skills, such as fluent reading, reading comprehension, written expression, mathematical problem-solving) as well as learning strategies, study skills, and organizational skills<sup>6,7,9,10,11,12,13,14</sup>. Affected individuals report a reduced quality of life<sup>15</sup> and are at increased risk for; dropping out of school, not going onto post secondary education<sup>16,17</sup>, unintentional injuries<sup>18</sup>, behavioural problems and academic and social difficulties in school<sup>19</sup>. Treatment for this disorder should always be multi modal and include; educating the child and family about ADHD, medical management, educational accommodations, education remediation when indicated, behavioural interventions and possible psychological treatment<sup>20</sup>.

The positive news is that - with the proper treatment and support - children with ADHD can grow up to be productive, successful and contributing members of society. Without these in place, there is a substantial human and economic cost paid by children, their families, the education system and society as a whole<sup>21</sup>. Children with ADHD are at higher risk of dropping out of school, delinquency, crime, substance abuse, teen pregnancy and traffic accidents. However, effective educational and medical treatments for ADHD can reduce the overall burden of ADHD by controlling symptoms, improving children's functioning and substantially reducing indirect costs to families<sup>22</sup>.

In order to improve academic outcomes and classroom environments and decrease the cost of ADHD to society, the Centre for ADHD/ADD Advocacy, Canada (CADDAC) requests that:

- ADHD be recognized as an academic and developmental risk by all provincial Ministries of Education
- School board implement consistent monitoring of students with ADHD - and those suspected of having ADHD - for academic difficulties
- Educators be provided with professional development on ADHD through their school board
- Students with ADHD who are at risk academically be identified through a formal recognition process as exceptional learners.



## ADHD as an Academic and Developmental Risk Factor

Studies conducted worldwide have indicated that ADHD impedes academic attainment and increases a student's risk of grade repetition, special education, suspension/expulsion, lower grade point average and drop-out. Students with ADHD have fewer years of education and are less likely to attend college<sup>13</sup>. Some educators and educational boards are still under the misguided belief that students with ADHD just need to be properly medicated and all symptoms impacting learning will disappear. While medication may suppress some symptoms, it will not necessarily allow students with ADHD to reach their potential. In fact, research shows that children who are treated with BOTH stimulant medication and behavioural strategies have the best outcomes with respect to social skills, parent-child relationships and reading achievement<sup>23</sup>. While medication may improve attention and concentration, data for the past thirty years has shown that it does not promote learning and academic achievement with regard to children, adolescents and adults<sup>24</sup>. Rather, the academic achievement gap between students with and without ADHD increases across the school years, even when students with ADHD are being treated with stimulant medication. A large-scale US study found that children using ADHD medication have better mathematics and reading scores than non-medicated peers with ADHD, but that "these gains are insufficient to eliminate the test-score gap between children with attention-deficit/hyperactivity disorder and those without the disorder"<sup>25</sup>.

Systematic monitoring of students with a diagnosis of ADHD or suspected ADHD can identify cognitive deficits, gaps in learning and academic difficulties early so appropriate supports can be provided ensuring that these students don't fall behind their peers<sup>22,26</sup>. One of the benefits can be increased identification of children with the inattentive form of ADHD and girls with ADHD, subgroups that are often not readily identified in a classroom setting<sup>27</sup>.

Many educators still lack adequate knowledge on ADHD and how it can have deleterious effects on a student's learning<sup>28</sup>. Without adequate knowledge about ADHD, educators tend to misinterpret the behavioral manifestations of ADHD in the classroom as attributable to poor parenting or defiant behaviour. This results in stigmatization of the child and the entire family; a family that is already stressed from dealing with this medical disorder. Unfortunately, these misunderstandings lead to academic struggles being disregarded and inadequately accommodated for, resulting in lower academic achievement, increased dropout rates and lower levels of post secondary education achievement.

When teachers are provided with information and professional development on ADHD, a marked reduction both in the child's ADHD symptoms and improved academic test scores can be observed<sup>29</sup>. A large-scale Australian study reported substantial improvements in core symptoms of ADHD and academic attainments following brief but intensive and focused teacher professional development<sup>30</sup>. A UK study reported substantial behavioural and academic benefits from simply providing teachers with brochures containing information about ADHD and advice on effective teaching approaches<sup>31</sup>.

## Provincial Ministry of Education Recognition to Legally Receive Accommodations

In some provinces, ADHD is not formally recognized within a *special educational needs* category, therefore, a student with ADHD must have an identifiable, coexisting disorder such as a learning disability, behavioural disorder or possibly a physical disorder to meet the definitions of *exceptionality* which would then qualify them to receive learning accommodations. This issue has resulted in a lack of consistency across provinces, school boards - and even within boards - on how students with ADHD are to be recognized and assisted or even IF they are to be recognized at all.

Many boards have unwritten policies that require students be formally identified as exceptional students before teaching methods can be altered or extra assistance provided. This often requires a psychoeducational



assessment to provide a formal documentation of a learning disability.

Some boards insist students be two to three years behind academically before they will consider placing them on a waiting list for psychoeducational testing or will agree to classroom accommodations. Waiting lists for testing within the school system can be as long as two to three years. Families who are able to afford private testing can access identification and services other families cannot, resulting in an inequitable, two-tier system of access and service. Other boards, not understanding the negative effects of ADHD on a child's learning, refuse to have students tested at all.

Even if these obstacles are able to be overcome, students' symptoms of inattention, poor self-regulation of behaviour and emotion (as well as the underlying impairments in executive functioning) will have deleterious effects on all areas of these students' learning in ways that are not easily recognized by the untrained educator.

Some provinces work with systems that do not identify students as *exceptional* or *special needs learners*. While this could open the door to students with ADHD to receive accommodations, if properly applied, we need to ensure that if the practice of labelling students as exceptional does not exist, their rights nevertheless remain intact. It is the identification or the "labelling" of a student that often mandates the creation of an individualized education plan which cannot be removed simply at the discretion of a school, and ensures a student's right to receive accommodation throughout his or her academic career.

The availability of educational accommodations is seen as a student's intrinsic right as documented by The Ontario Human Rights Commission in its "Guidelines on Accessible Education". ADHD is clearly identified as a disability in this document. Provincial post secondary institutions recognize students with ADHD as having a disability. But for many this is too late – they are already struggling with issues of lack of self confidence caused by years of academic failure and negative feedback from educators misinterpreting behaviours and learning needs as willful and defiant behaviour.

Students with ADHD continue to fall through the cracks in our education system. Students who are impaired due to their ADHD continue to be denied the official identification and appropriate accommodations that would allow them to reach their academic potential<sup>4</sup>.

When we fail to recognize the students with ADHD who struggle in our school systems, and deny them the appropriate assistance, they do not quietly disappear into the school population. They continue to take up the entire school staff's time and attention – sometimes in inappropriate and very time-consuming ways. This allotment of attention and time – a reactive rather than a proactive response – is counterproductive. It does not lead to an increase in success for the student, rather it leads to frustration and demoralization.

Funding is often used as the reason for not identifying and accommodating students with this disorder. In fact, most students with ADHD can be accommodated in a regular classroom setting, provided the classroom teacher is appropriately supported by administration and has adequate knowledge about the disorder. An American study found that the average incremental annual cost to educate a child with ADHD from kindergarten to grade 12 is more than 18 times that of a non-ADHD child<sup>5</sup>. If we use up teaching resources to deal with students with ADHD anyway, why not proactively apply the appropriate resources that offer the best chance for these students' success?

**If these students are not to be identified as exceptional learners, if there is no consistency in how they are to be assisted in their learning, and if educators do not receive appropriate training on this disorder, then we continue to squander the potential these students have to become successful contributing members of society.**



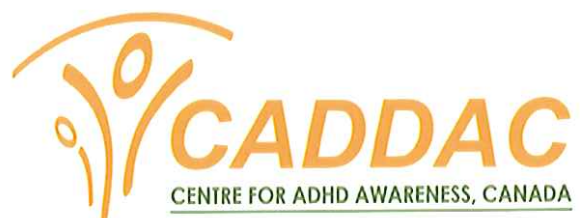


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## ***Paying Attention** to the **Cost of ADHD...***

*The Price Paid by Canadian Families, Governments and Society*



## TABLE OF CONTENTS

<b>Summary of Socioeconomic Issues and Costs</b>	<b>3</b>
<b>Summary of ASKS</b>	<b>4</b>
<b>Background</b>	<b>5</b>
<b>Health Care</b>	<b>6-7</b>
<b>Education</b>	<b>8-9</b>
<b>Crime and the Judicial System</b>	<b>10</b>
<b>Employment and the Economy</b>	<b>11</b>
<b>Conclusion</b>	<b>12</b>
<b>Bibliography</b>	<b>13-16</b>

CADDAC, a national not-for-profit organization that provides leadership in education, awareness and advocacy for Attention Deficit Hyperactivity Disorder (ADHD) organizations and individuals with ADHD across Canada, has developed this white paper to look at the socioeconomic impact of ADHD in Canada.

It is our sincere hope that this paper will not only increase the awareness and understanding of ADHD, while decreasing the stigma, but also ensure better management of ADHD within all areas of healthcare, education, work, criminal justice, and social services.

The paper has been sent to stakeholders and partners for review in June of 2013 and will be made public during ADHD Awareness Week in October (13th - 19th). Until that time this paper will be shared by CADDAC with stakeholders and professional contacts only. If you wish to share or distribute this paper more widely we ask that you contact CADDAC for permission. After October 14<sup>th</sup> 2013, this paper may be freely shared under a creative commons licence that allows for free distribution with restrictions on commercial use, modification or removal of CADDAC's name or logo.





# SUMMARY OF SOCIOECONOMIC ISSUES AND COSTS

ADHD is not the “insignificant” disorder some imagine it to be.

- The “cost of illness” associated with ADHD across all ages in the US is estimated to be over \$74 billion (using conservative incidence rates estimates), a potential Canadian cost of over 7 billion
- Canada loses an estimated \$6 billion to \$11 billion annually through loss of workplace productivity
- Workers with ADHD are more likely to enter the workforce as unskilled or semiskilled.

## Health Care

- Immediate costs of increased general medical expenses, accidents and emergency room visits
- Long-term costs of higher rates of mental health illness, substance use and abuse including alcohol and cigarettes, increased driving accidents, earlier and riskier sexual activity, increased medical costs to family members
- Diagnostic and proven treatment options can be difficult to access and be cost prohibitive.

## Education

- Students with ADHD are at a higher risk for lower academic achievement, grade retention, special education, disciplinary referrals and dropping out of high school
- Medication treatment alone has not shown substantial long term academic improvement
- There is a lack of educator education on ADHD and official recognition that ADHD impedes learning.

## Justice and Corrections

- Incidence rates of criminal activity are far greater for those with ADHD; offending begins earlier and there are higher rates of recidivism
- Treatment has been shown to reduce criminal activity
- There are no existing guidelines on screening and treating ADHD in the system.

## Social Services

- Those with ADHD have greater period of unemployment and are more dependent on social welfare
- Guidelines for screening of ADHD, or knowledge within the employment and social assistance services, do not exist.

**Official recognition of ADHD as an illness of significant cost to our provincial and federal governments and their Ministries is essential.**

## SUMMARY OF “ASKS”

The Centre for ADHD Awareness, Canada, (CADDAC) requests that:

**Health Care:** Provincial Health Ministries across Canada assess where gaps in access to assessment, diagnosis and comprehensive effective treatment options currently exist, and fund training of physician and allied health workers to alleviate these gaps.

- Health Ministries across Canada formally recognize ADHD as a developmental and health risk

**Education:** Ministries of Education across Canada educate school boards and colleges and universities as well as educators that ADHD is a significant risk factor for poor educational outcomes and demand increased pre-service as well as in-service teacher training on ADHD.

- Education and Training, College and Universities Ministries formally recognize ADHD as a developmental and academic risk

**Justice and Corrections:** Integrate effective screening and treatment services for offenders, especially potential youth offenders. Build awareness of the effect of ADHD on the offender population in the entire criminal and justice workforce, and train them how to intercede appropriately.

- Justice and Corrections Ministries recognize ADHD as a risk to becoming involved in the justice system and continuing as repeat offenders

**Ministries of Labour and Social Services:** Recognize that ADHD can greatly reduce employment in general and job productivity when employed, and increase social assistance. Implement better screening for ADHD for those on social assistance and provide education for employers on accommodations that assist adults with ADHD overcome impairments and reach their potential.

- Ministries of Labour and employment recognize ADHD as a risk factor for unemployment and underemployment.
- Ministries of Social Service recognize that untreated ADHD can impact their costs.

**CADDAC asks that all impacted Ministries educate themselves on the role ADHD plays in their services, officially recognize ADHD for the part it plays in their Ministry's costs, find ways to implement the services required and increase interdisciplinary and inter-ministerial cooperation and ultimately reduce the huge socioeconomic costs to our society.**



# Paying Attention to the Cost of ADHD...

## The Price Paid by Canadian Families, Governments and Society

### BACKGROUND

Attention Deficit Hyperactivity Disorder (ADHD) has long been misunderstood, trivialized, stigmatized, and even denied as a disorder. Current scientific research tells us that ADHD is the most common mental health disorder amongst children worldwide, the most common behavioural referral to health care professionals, with more than half of all mental health referrals resulting in a diagnosis of ADHD<sup>1</sup>. Conservative estimates are that one in twenty children in Canada, one to two in every classroom, suffer with the symptoms of ADHD. The overall prevalence of ADHD worldwide is recorded as about 5%<sup>2</sup>. ADHD is a chronic lifelong disorder for the majority of people affected. Experts estimate that up to 60% of children with the disorder carry their symptoms into adulthood<sup>3</sup>. Again, conservatively, one in twenty-five adults in Canada will have the disorder.

Attention Deficit Hyperactivity Disorder (ADHD) impacts Canadian society well beyond its significant effect on individuals and their families. The "cost of illness" associated with ADHD across all ages in the US is estimated to be over \$74 billion (using conservative incidence rates). These translate into a potential Canadian cost of over \$7 billion. How does that compare to costs associated with other disorders? To put it in context, clinical depression is estimated to cost the United States of America (USA) \$44 billion; stroke \$53.6 billion; and substance abuse a staggering \$180 billion annually<sup>4</sup>. Canadian cost estimates are equally disturbing; Canada is believed to lose an estimated \$6 billion to \$11 billion annually through loss of workplace productivity (cost extrapolated from US statistics)<sup>5</sup>. **Clearly ADHD is not the "insignificant" disorder some imagine it to be.**

This paper examines some of the known costs of ADHD and indicates what the Canadian and provincial governments might do to reduce these significant long-term costs. Left untreated, ADHD impedes an individual's ability to attain human and social capital and thereby impacts the Canadian economy. In contrast, if the Canadian and provincial governments invest in the provision of adequate diagnostic, treatment and effective intervention services for the prevention of additional disorders, for ADHD, substantial economic and social benefits will follow.

While abundant research tells us that the direct and indirect costs of ADHD are profound, we also know that symptoms of this disorder are very responsive to treatment<sup>6 7 8</sup>. But current lack of knowledge, skills and integration of service in the health, education, justice, employment, social service and additional sectors pose major access barriers to treatment.

#### As a first step, CADDAC requests:

- Health Ministries across Canada formally recognize ADHD as a developmental and health risk
- Education and Training, College and University Ministries formally recognize ADHD as a developmental and academic risk
- Justice and Corrections Ministries recognize ADHD as a risk to becoming involved in the justice system and continuing as repeat offenders
- Ministries of Labour and employment recognize ADHD as a risk factor for unemployment and underemployment.
- Ministries of Social Service recognize that untreated ADHD can impact their costs.

Additional proposals for changes in government policies specific to health, education, justice and employment required to facilitate essential access to effective prevention and intervention programs are detailed in the sector overviews that follow.



# HEALTH CARE

## Background

The impairing effects of the disorder, exasperated by the continuing under-diagnosis and under-treatment of ADHD, translate directly into increased healthcare costs. Some of these are immediate costs, such as the increased risk of accidents<sup>9</sup>, emergency room visits<sup>10 11</sup>, and general medical costs<sup>12 13</sup>. Others result in long-term costs for our healthcare system, such as higher rates of associated disabling disorders, including other psychiatric conditions, experienced by people with ADHD<sup>14</sup>. Above average rates of anxiety, depression and substance use disorder are diagnosed in adults who had childhood-onset ADHD, irrespective of whether they continue to meet full diagnostic criteria for ADHD in adulthood<sup>15 16</sup>.

## Substance Use and Abuse

Children with attention deficit hyperactivity disorder are up to three times more likely than other children to use, abuse, or become dependent on substances such as nicotine, cocaine and marijuana in adolescence and as young adults, according to a recent analysis of 27 long-term studies<sup>17</sup>. The research followed 4,100 ADHD and 6,800 non-ADHD children into young adulthood, in some cases for ten years or more. Additional studies indicate that childhood ADHD is also associated with alcohol use disorders later in life<sup>18</sup>. Individuals with ADHD are also at increased risk of both starting to smoke cigarettes at an early age and smoking long-term, and are twice as likely to have been prenatally exposed to nicotine<sup>19 20 21 22</sup>. Although the exact cause of these increased rates of substance abuse for those who have ADHD is not known, it is reasonable to infer that a possible cause may be an attempt to self-medicate when ADHD is not being treated. This possibility is highlighted in studies that have shown that children who received medication for their ADHD may be less likely to develop a substance abuse disorder<sup>23 24</sup>.

## Sexual Activity

Adolescents with ADHD also become sexually active earlier, have an increased rate of sexually transmitted diseases, and have a 24% to 38% rate of adolescent pregnancies compared to a 4 to 5% rate among adolescents without ADHD<sup>25 26 27</sup>.

## Driving

Adolescents and young adults with a history of ADHD as children have been shown to be at higher risk of having driving-related problems (such as accidents and tickets) for many reasons, including persistent hyperactivity-impulsivity, persistent inattention, conduct problems and irritability<sup>28</sup>. Adolescents with ADHD have four times as many serious injuries and three times as many motor vehicle accidents than those without ADHD, or than individuals with ADHD that take medication<sup>29</sup>. This higher risk of accidents, hospitalization and death results in considerable – but avoidable – costs for our health system, in addition to the high human cost paid by the individuals and their families. Experimental studies have indicated that ADHD medications used to treat ADHD improve areas of driving performance<sup>30</sup>.

## Increased Medical Costs

ADHD increases the use of health services by family members, as well as for the individual with ADHD. Studies have shown that direct and indirect medical costs were twice as high for ADHD family members than for a control group<sup>31</sup>. These increased costs were attributed to a higher incidence of mental health problems, such as depression, and to alcohol issues blamed on the increased stress experienced by individuals living with children and adults with ADHD<sup>32</sup>. One can see how ADHD can impact an entire family's functioning, potentially increasing costs to child and youth social services as well.

## Why Early and Affordable Diagnosis is Essential

The far reaching impact of ADHD makes it imperative that clinicians diagnose and treat ADHD as early as possible. The reality is that up to 90% of adults with ADHD remain untreated<sup>33</sup>. In most communities across Canada, accessing a physician to diagnose and treat adult ADHD is both difficult and costly.

Two recent CADDAC surveys<sup>34 35</sup> of adults with ADHD indicated that at least 85 % of respondents were not diagnosed as children. One of the studies<sup>34</sup> found that a third of the respondents found it difficult to obtain a diagnosis for adult ADHD. Of these, 69% reported this was due to the lack of access to a physician and 19% stated that the cost to obtain a medical assessment for ADHD from a physician impeded their search for a diagnosis. In another survey of adults with ADHD and co-existing disorders<sup>35</sup>, 58% of the respondents stated that their ADHD was first misdiagnosed as another disorder. Sixty-nine percent of respondents with co-existing disorders felt that their ADHD diagnosis was delayed due to these additional disorders, 42% indicated that the delay was due to their lack of awareness of ADHD and 36% felt the delay was caused by their physician's lack of knowledge of adult ADHD or outright disbelief that it existed.

## Comprehensive, Collaborative and Multimodal Treatment

Access to timely and comprehensive assessments and treatments for all age groups is essential to decreasing the societal and economic impact of ADHD. The Canadian ADHD Practice Guidelines<sup>36</sup> states that since ADHD impacts all aspects of an individual's daily functioning, it is essential that treatment be comprehensive, collaborative and multimodal. Presently, many proven non-medication treatments for ADHD, such as cognitive behaviour therapy (CBT)<sup>37 38</sup>, ADHD coaching<sup>39 40</sup>, parent training<sup>41 42 43</sup>, to mention just a few recommended in these guidelines, are not covered by provincial healthcare programs, making access cost prohibitive for many. This results in a two tier system of health care for ADHD. The logical conclusion is that better integrated services, combined with mandatory training on ADHD for all primary healthcare physicians<sup>44</sup> and mental health specialists, would result in faster access to thorough assessments and proper treatment. This in turn would lead to significant cost-offset in other areas of healthcare<sup>45</sup>.

## Health Care Requirements

CADDAC requests that Provincial Health Ministries across Canada:

- Assess where gaps in access to assessment, diagnosis and comprehensive effective treatment options currently exist
- Fund training of physician and allied health workers to alleviate these gaps.

We request that Health Ministries investigate how they can assist other Ministries (such as Education, Justice, Labour, Social Services and Child and Youth services) implement effective screening and treatment of ADHD).

**Only through education and inter-ministerial cooperation will the socioeconomic impact of ADHD on Canada be adequately addressed.**



## EDUCATION

School-aged children with ADHD can demonstrate severe impairments in the school setting. For example, compared to their peers, they are more frequently involved in off-task behavior (not working on assigned tasks); complete fewer assignments; their work is less accurate; they interfere more with their class-mates; disobey classroom rules more frequently; and are less likely to comply with teachers' requests and demands<sup>46 47 48 49</sup>. ADHD also frequently co-occurs with specific learning disabilities (LD); present in 15-40% of children with ADHD. These have a negative effect on academic outcomes<sup>50 51</sup>. However, strong evidence indicates that ADHD itself is also associated with poor educational outcomes even without an accompanying learning disorder<sup>52 53 54</sup>.

Compared to their typically-developing classmates, students with ADHD are at higher risk for lower levels of academic achievement, higher rates of disciplinary referrals, grade repetition, placement in special education, spending more years in Special Education, and dropping out of high-school<sup>55 51 65</sup>. One recent longitudinal follow-up study of boys and girls diagnosed with ADHD in childhood found that 26% of those with ADHD had repeated a grade or failed to complete high school, compared to 6.4% of peers without ADHD, even when taking into consideration other factors such as learning disorders, social class, and IQ<sup>55</sup>. Likewise, findings from another study in the US revealed that children with ADHD were 2.7 times more likely than those without ADHD to drop out of school before graduation<sup>56</sup>. Not surprisingly, students with ADHD cause their teachers and classmates substantial stress<sup>57 58</sup>.

Although some educators incorrectly believe medication will treat all ADHD impairments, research shows that medication treatment alone does not improve many of the skills required to be academically and socially successful<sup>59</sup>. While most classroom interventions focus on decreasing disruptive behavior and increasing on-task behaviour, these behaviour changes do not result in better learning and academic outcomes. It is inattention during the elementary years that predicts long-term academic impairment<sup>60</sup>. For better learning and academic outcomes to happen, specific interventions targeting learning deficits and accommodating and improving cognitive difficulties need to be implemented.<sup>61</sup>

Impairments due to ADHD do not just impact elementary and high school students. Due to an increased workload in general, as well as increased loads on attention and executive functioning, post-secondary success can prove elusive. However, studies have shown that college students with ADHD who receive proper treatment and take advantage of on-campus and community disability services can have a successful college career<sup>62</sup>.

It is concerning that studies to date have not shown strong evidence that medication treatment of ADHD alone will relieve students' impairments in the school setting or their poor educational outcomes.

A recent review of such studies concluded that medication treatment increased children's on-task behaviour and the amount of work completed by about 15%, but findings for drug effects on the accuracy of the completed work were inconsistent<sup>63</sup>. The assumption has been that these treatment-related improvements in on-task behaviour and amount of work completed will translate in the longer-term to improved academic outcomes. The limited available evidence to support this assumption is not compelling. A systematic review of studies of longer-term treatment (of at least 3 years) did not find strong evidence to support this assumption. Although long-term medication treatment was associated with improved scores on standardized achievement tests, the gains were small and of questionable educational significance; and there was little evidence of beneficial treatment effects on academic grades or grade retention<sup>64</sup>.

Currently students with ADHD result in much higher annual costs to the educational system compared to typically developing classmates<sup>65</sup>. Educational costs associated with ADHD in Canada have yet to be estimated, but data from the US indicate that the average annual incremental cost for a student with ADHD is about \$5,000 USD compared with \$318

for a typically developing student. Based upon a conservative prevalence rate of 5% for ADHD in school-aged children, and extrapolating these results to the Canadian population aged 5 to 18 years of age, the estimated annual costs associated with ADHD are \$1.5 billion to the Canadian education system. Thus the incremental lifetime cost of education for the Canadian population of children with ADHD is approximately \$19.5 billion over 13 years of education!

With estimated costs being this high, and academic outcomes still in question, it is imperative that the Canadian and provincial governments assess the effectiveness of current teaching methods for students with ADHD, and the lack of training on ADHD for educators. While funding is often cited as a barrier to providing education for teachers, a study published last year indicated that web-based platforms have shown potential as an effective and more cost-efficient tool for providing professional development on ADHD<sup>66</sup>.

## **Education Requirements**

**CADDAC requests that Ministries of Education, Training Colleges and Universities across Canada:**

- Demand increased pre-service as well as in-service teacher training on ADHD.
- Educating school boards and post-secondary institutions, as well as educators that ADHD is a significant risk factor for poor educational outcomes is paramount. Some school boards and universities across Canada do not recognize students with ADHD as being at risk unless costly psychoeducational tests, that do not necessarily accurately report impairment and are often carried out at the parents' expense, prove this to be the case. Physicians' reports that can provide valuable insight on the child's struggles are frequently discounted.

**We further request that all Ministries involved in education:**

- Collaborate with Health Ministries to train not only educators, but also physicians and other health care providers, on how to effectively monitor a child's school functioning to assess ADHD treatment outcomes.



## CRIME AND THE JUDICIAL SYSTEM

Studies carried out in Canada, USA, Sweden, Germany, Finland and Norway indicated that up to two-thirds of young offenders and half of adults in prisons show positive results when screened for childhood ADHD<sup>67</sup>. A U.S. study has shown that at least 25% of prisoners in the United States have ADHD<sup>68</sup>. These incidence rates are far greater than what is found in the general public. These numbers take on even more significance when we consider that people with ADHD symptoms begin offending approximately 2.5 years earlier, and have a higher rate of recidivism<sup>69</sup>.

The good news is that recent research found that criminality rates were significantly lower during times when those with the disorder were receiving ADHD medication. There was a 32% reduction in the criminality rate for men diagnosed with ADHD, and a 41% reduction for women with ADHD<sup>70</sup>. In addition, treating those with ADHD who are currently incarcerated reduces their ADHD symptoms of impulsivity, mood regulation and low frustration tolerance. Left untreated, these symptoms will negatively impact their behaviour in prison, resulting in increased rates of aggression and reduce the likelihood of early release. Untreated ADHD also makes it more difficult for inmates to take advantage of rehabilitation programs and may contribute to the continuation of any co-existing mental health disorders<sup>71</sup>.

Despite the fact that the current social and economic costs of involvement with the justice system and imprisonment are significant, (2.65 billion simply for incarceration and associated expenses in 2011- 2012 in the Correctional Service Canada report) and we know that there are effective treatments for ADHD, there are no federal guidelines on screening and treating ADHD in the prison system. If prisoners are by chance diagnosed with ADHD in prison and prescribed treatment, many cannot access a physician to continue their care on release nor can they afford the treatment they were able to obtain within the prison system.

ADHD symptoms of inattention and increased impulsivity, with the resultant reduced school performance, likely play a part in the increased rates of criminal activities. It is reasonable to conclude that implementing intervention programs that reduce the likelihood of individuals becoming involved in criminal activity, and evaluating their effectiveness of reducing these potential consequences of ADHD, short-term costs could result in long-term gains<sup>71</sup>. By screening and treating those already involved in the justice system, additional costs for recidivism and incarceration can be avoided.

### **CADDAC requests that Ministries of Justice and Corrections across Canada:**

- Recognize that ADHD greatly increases the risk of becoming involved with the justice system.

We further ask that Education, Health, Justice and Correction Ministries:

- Work together to find cost effective ways to integrate more effective screening and treatment services for offenders, especially potential youth offenders.
- Build awareness of the effect of ADHD on the offender population in the entire criminal and justice workforce, and training them on how to intercede, will help to maximize the success of rehabilitation and reduce recidivism<sup>71</sup>.

# EMPLOYMENT AND THE ECONOMY

Some adults with ADHD are high functioning and financially successful. However, in general, untreated ADHD impedes the attainment of human and social capital, resulting in major socioeconomic costs for the Canadian government. Research found that individuals with ADHD are more likely to enter the workforce at the unskilled or semi-skilled level; have greater periods of unemployment; are more likely to be dismissed; change jobs more frequently; and earn considerable less money over their lifetime. Many drift from one lower-paying job to another, have a higher than average dependency on social welfare, and subsequently contribute less taxes. The economic and social costs associated with high-school dropout rates, underemployment<sup>72 73</sup>, and unemployment<sup>74</sup>, are staggering; the loss incurred for each high school dropout is estimated at approximately US\$399,000 across a lifetime<sup>75</sup>. Canada (and Canadians) pays a high price for this tragic under-use of human capital.

While ADHD symptoms show differently in adults than in children, the problems with organizational tasks and distractibility remain. These can lead to poor job performance and higher numbers of days absent compared to peers without ADHD, and result in lower occupational status and less job satisfaction<sup>76 77 78</sup>. A recent working paper (February 2013) expands on this research, suggesting that, in the US, childhood ADHD reduces employment in adulthood between 10 to 14 percentage points, cuts earnings by 33% and increases social assistance by 15 percentage points. This paper points out that these effect sizes may be this large because the adults in this study grew up in a time when treatments were not very accessible<sup>79</sup>. Another 2013 study recommends placing increased focus on the earlier diagnosis of adolescent ADHD because it is such a strong predictor of mental and physical health problems, workplace impairment and financial issues<sup>80</sup>.

In a self-reported adult ADHD survey<sup>34</sup> conducted by CADDAC, 79% reported that a lack of access to treatment had a negative effect on a variety of areas in their work and financial lives, such as: lower job productivity (67%); inability to receive promotions (50%); inability to completed desired education (47%); inability to keep a job (32%); and financial difficulties (70%). An additional CADDAC study<sup>35</sup> showed missed work days significantly decrease after treatment was initiated. Of those surveyed, 68% reported not receiving school accommodations as an adult and 90% reported not receiving workplace accommodations.

If we review the costs to our economy of the well-documented reduced capital attainment and decreased workplace performance, and couple this with the knowledge that access to adult ADHD assessment and comprehensive follow-up treatment in particular in Canada is both difficult and, for many, impossible to afford, it is clear that investing in better medical services for ADHD across the lifespan would have a significant positive impact on our economy.

## **CADDAC requests that Ministries of Labour, Training Colleges and Universities, Education, Health and Social Services across Canada:**

- Recognize that ADHD can greatly increase school dropout rates, thereby decreasing occupational status, reduce employment in general and job productivity when employed, and increase social assistance.
- Evaluate the socioeconomic impact of continued lack of health and educational services for these individuals.
- Work together to implement better screening for ADHD for those on social assistance and provide education for postsecondary institutions and employers on accommodations that assist adults with ADHD overcome impairments and reach their potential.



## CONCLUSION

ADHD is a unique disorder with multifaceted consequences for individuals with the disorder. However, more importantly for the purposes of this paper, ADHD's cost of illness is significant and impacts many aspects of the Canadian economy.

- ADHD costs us billions of dollars each year in lost productivity.
- ADHD directly increases health care and education costs at all levels, as well as costs to justice and corrections.
- ADHD increases costs to social services and labour through increased costs to welfare, disability and unemployment.
- In addition, ministries such as Child and Youth Services can also be impacted due to increased family stress and conflict.

While this paper does not include all the costs associated with ADHD, it clearly demonstrates that ADHD has a serious impact on many of our Ministries' costs.

Official recognition of ADHD as an illness of significant cost to our provincial and federal governments and their Ministries is essential. Additional Ministries, such as Labour, Justice and social services departments must also recognize that ADHD impacts their service costs. Implementing comprehensive screening throughout these areas, working with the Ministry of Health to implement effective assessment and treatment procedures, as well as training their own work force to recognize ADHD as a risk factor, is not only overdue, it also makes economic and social sense.

**In conclusion, CADDAC requests that all impacted Ministries:**

- Educate themselves on the role ADHD plays in their services
- Officially recognize ADHD for the part it plays in their Ministry's costs
- Find ways to implement the services required, and
- Increase interdisciplinary and inter-ministerial cooperation and ultimately reduce the huge socioeconomic costs to our society.

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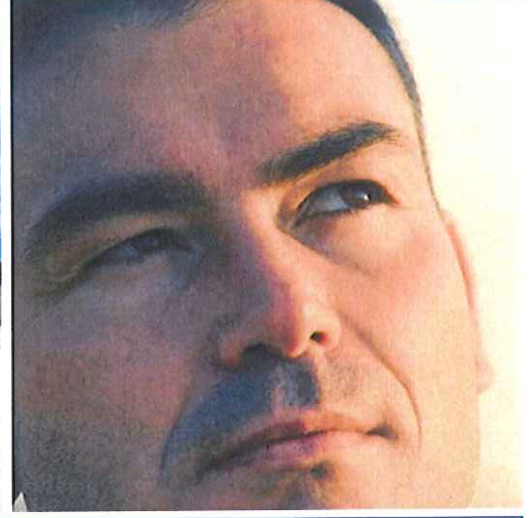
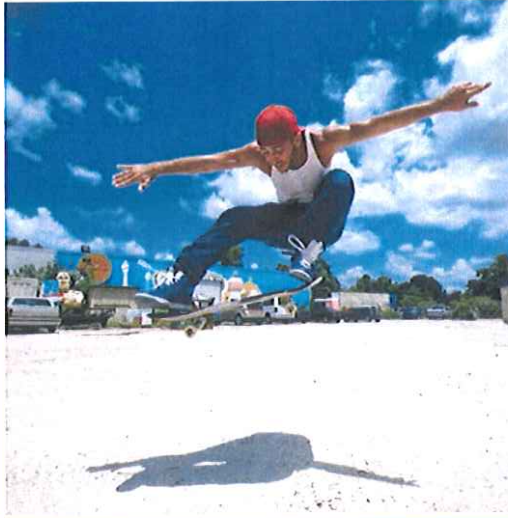
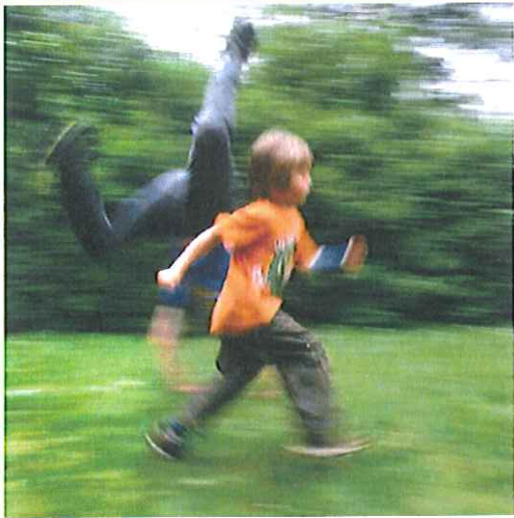
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# **“Your Attention, Please”:**

## **Improving Access for ADHD Patients**



A Policy Paper by BC's Physicians | February 2009

# **“Your Attention, Please”:**

## **A Call to Improve Access to Care for ADHD Patients**

**A Policy Paper by BC’s Physicians**

**February 2009**



The BCMA Council on Health Economics and Policy (CHEP) reviews and formulates policy through the use of project oriented groups of practising physicians and professional staff.

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## “Your Attention, Please”: A Call To Improve Access to Care for ADHD Patients

### Introduction

It was arguably the greatest story from the 2008 Olympic Games. American swimmer Michael Phelps took home a record-breaking eight gold medals, setting multiple world records in the process. Although the feat itself would have earned the attention of the entire world, it was even more remarkable given his background, for mentioned in nearly every news story about his successes was the fact that Michael suffered from Attention Deficit/Hyperactivity Disorder (ADHD) (Bagnall 2008; Winerip 2008).

ADHD is a chronic behavioural disorder with symptoms including hyperactivity, impulsivity, and inattention, and it is associated with sometimes severe impairment in functioning at school, in social settings, and at work. Current research suggests the disorder is approximately 80% genetic and 20% a product of one's environment (Faraone and Khan 2006).

Phelps' success in overcoming ADHD to swim to Olympic victory will certainly bring additional attention to the disorder. There has been scepticism around ADHD (Stevens 2007) – despite being perhaps the most well researched childhood psychiatric disorder (Pliszka 2007) and supported by evidence of its neurological basis (Arnsten 2006). This may have led policymakers to place greater emphasis on other mental illnesses.

**ADHD is a chronic behavioural disorder with symptoms including hyperactivity, impulsivity, and inattention.**

As resources and attention are devoted elsewhere, ADHD patients experience two main difficulties in accessing care for their condition:

1. Too few cases of ADHD are recognized. The prevalence of ADHD is estimated at 2-9% of the population (Pelham, Foster et al. 2007). Using a conservative prevalence of 3.3% and a child and youth (4-17) population estimate of 936,500 from 2002, BC's youth ADHD population was estimated to be 30,900 (Ministry of Children and Family Development 2003). In a 2007 study of US children, Froehlich et al. found that less than half of children meeting DSM-IV (Diagnostic and Statistical Manual of Mental Disorders, fourth edition) criteria report receiving either a diagnosis of ADHD or regular medication treatment.

Too few cases of ADHD are recognized ... too few ADHD patients can be treated appropriately.

2. Too few ADHD patients can be treated appropriately. In Canada, it takes more than 18 months for a patient with ADHD to be treated after first contact with a physician (World Federation for Mental Health 2004). Once diagnosed, only half of children and as few as 11% of adults receive treatment (Kessler, Adler et al. 2006; Reich, Huang et al. 2006). As the waitlist for the BC Children's Hospital ADHD Clinic shows, demand for such services greatly exceeds supply.

The resulting health, social, and economic consequences are larger than many would assume. Children with ADHD are prone to delinquency, crime, substance abuse, teen pregnancy, and traffic accidents, as well as a decrease in workplace effectiveness (Matza, Paramore et al. 2005). Among adults, impairment from ADHD can lead to additional missed work days, difficulty accomplishing tasks in the workplace, and less job stability (Birnbaum, Kessler et al. 2005; Matza, Paramore et al. 2005). Taking into account the direct health, education, and justice-related costs associated with ADHD, the total costs to the government of British Columbia may exceed \$500 million each year – enough money to pay for nearly half of BC's \$1.061 billion PharmaCare budget or more than all of the Ministry's capital plan budget for 2008/09 (Ministry of Health 2008).

Such economic, social, and health costs are unnecessary. While ADHD itself is not preventable, the negative consequences stemming from the untreated disorder are. Research suggests that evidence-based behavioural and pharmacological interventions can reduce the incidence of criminality, school drop-out, and substance abuse among those suffering from ADHD (Wilens 2003). The burden of ADHD can be reduced, but only once access to care is improved.

This policy paper on ADHD will propose ways to improve access to care for patients with ADHD. The first section begins by reviewing the economic and social costs of the disorder, followed by an examination of provincial policy and the delivery of care in British Columbia. The paper continues with a discussion of quality of care issues and concludes with recommendations for government and other health care stakeholders.

## Economic and Social Costs of ADHD

ADHD poses a significant economic and public health burden. Research has demonstrated that, on average, people with ADHD access health care services more frequently, require special educational services, and possess elevated rates of other psychiatric conditions such as anxiety and oppositional defiant disorder (Matza, Paramore et al. 2005). Further research has indicated that as they enter adolescence and adulthood, they are prone to delinquency, crime, substance abuse, teen pregnancy, and traffic accidents, as well as a decrease in workplace effectiveness (Matza, Paramore et al. 2005).



Preliminary research also found that persons with ADHD have almost a three-fold increased risk of committing suicide (James, Lai et al. 2004).

These data translate into significant direct and indirect costs to the health care, education, and justice systems:

- **Health costs.** Health costs associated with ADHD are typically separated between pharmacological and other health care costs including physician fees, psychosocial mental health treatments, and hospital services. According to a review of the economic burden of ADHD published in 2007 by Pelham et al., the mean cost of pharmacologic therapy in the United States is US\$459 per patient (Pelham, Foster et al. 2007). Studies of health care costs other than medication range from US\$438 per year (Matza, Paramore et al. 2005) to US\$1,580 per year (Birnbaum, Kessler et al. 2005). Average total health care costs associated with children with ADHD in the United States total US\$2,636 per year.
- **Education costs.** ADHD is the most frequently encountered behavioural challenge in the classroom (Pelham, Foster et al. 2007). Children with ADHD are prone to poor academic achievement, disruptive classroom behaviour, and learning disabilities. Several American studies have examined educational costs linked to ADHD, with one finding that the average incremental annual cost to educate a child with ADHD from kindergarten to grade 12 is more than 18 times that of non-ADHD children (Pelham, Foster et al. 2007).
- **Justice system costs.** Much of ADHD's cost of illness stems from costs linked to criminal behaviour and the resulting burden on the justice system (Pelham, Foster et al. 2007). Longitudinal studies in the US have correlated ADHD with a significantly higher juvenile arrest rate of 46%, versus 11% among a control population. Similarly, adults with ADHD were found to have a 21% chance of having been arrested in the past, versus just 1% among normal control subjects (Matza 2005). One study estimated the economic impact of criminality associated with ADHD during adolescence and teenage-years at \$12,868, versus \$498 for controls (Matza 2005).
- **Adult ADHD.** ADHD in adulthood is linked to poorer job performance, an average of 35 annual absences from work (Birnbaum 2005), lower educational achievement, lower occupational status, and less job stability compared to adults without the disorder (Matza 2005). A preliminary and limited estimate of the cost of adult ADHD posited a cost of US\$31.6 billion per year (Birnbaum, Kessler et al. 2005). Pelham projected a rough estimate of total annual US costs of the entire lifespan of individuals with ADHD at US\$74.1 billion (Pelham et al).

There are some gaps in the research on the costs of ADHD. The costs associated with significant ADHD sequelae such as substance abuse, for example, remain unknown (Pelham 2007), as do the

inherent and likely widespread costs involving parental stress and family dysfunction associated with the disorder.

However, even without including the above, the costs of ADHD are high and significant, particularly in relation to major chronic diseases and mental health disorders. In the United States, ADHD's total annual costs of US\$42.5 billion are closely comparable to major depressive disorder (US\$44 billion) and stroke (US\$53.6 billion) (Pelham, Foster et al. 2007).

...the costs of ADHD are high and significant, particularly in relation to both major chronic diseases and mental health disorders.

Taking into account health, education, and justice-related costs from thirteen separate analyses, Pelham et al. determined the mean annual cost of illness of ADHD to be \$14,576 per child in 2005 US dollars. Assuming a prevalence of 5%, this translates to US\$42.5 billion. Using a prevalence of 4.5% for ADHD in British Columbia (MCFD 2003), there are roughly 42,000 British Columbian children with ADHD. If one assumes a conservative, per-person annual cost of C\$10,000 per person with ADHD, the total costs to the BC government would be \$420 million every year. Less conservative estimates would push this figure well beyond half a billion dollars per year.

## Provincial Public Policy and Funding for ADHD

Responsibility for ADHD is divided among several government ministries in British Columbia. The Ministry of Health Services (MoHS) funds research, parent education, physicians' services and tertiary care for ADHD. BC Mental Health and Addiction Services (MH&A), an agency of the Provincial Health Services Authority, is responsible for the child and adolescent mental health and addiction programs, including BC Children's Hospital ADHD Clinic. However, it is the Ministry of Children and Family Development (MCFD) that is most responsible for children's mental health policy and ADHD. The MCFD funds and provides services primarily through interventional programs and community based inter-disciplinary mental health teams, intended to support patients transitioning from traditional physician and tertiary care.

Through these ministries, the government of British Columbia spends substantially more on mental health services compared to other Canadian provinces: 6.4% of total provincial health funding is spent on mental health, compared to the national average of 4.8% (Jacobs, Yim et al. 2008). In addition, the government has acknowledged that childhood is a critical time to prevent mental illness and now allocates 15% of child mental health resources towards prevention (McEwan, Waddell et al. 2007).

These are very positive steps. However, the division of ministerial responsibility has led to a fragmented strategic direction for ADHD and other children's mental health issues. To address this problem, an Inter-ministerial Child and Youth Mental Health Network was formed, which includes



representation from the ministries of health, education, children and family development and other relevant stakeholders. Its mandate is to "... facilitate inter-jurisdictional service coordination and planning for child and youth mental health service delivery" (Ministry of Children and Family Development 2008). However, meeting just four times per year, the network has been severely limited in its ability to deliver tangible outputs. To the extent that improvements in the access to and the quality of health care services for ADHD patients depend upon a coordinated effort across ministries, progress with the network is essential. For this reason, the BCMA recommends that the network be restructured to meet more frequently, supported with an adequate budget, and responsible for producing tangible outputs outlined in a publicly-available strategic plan.

#### **Recommendation 1**

**The provincial government must restructure the Child and Youth Mental Health Network so that it meets more frequently, is supported with an adequate budget, and is responsible for producing tangible outputs outlined in a publicly-available strategic plan.**

Even within the context of a strengthened Child and Youth Mental Health Network, it is possible that ADHD will remain a lower-priority mental illness. In 2003 the MCFD introduced a 5-year "Child and Youth Mental Health Plan for BC" (CYMH Plan). Its major emphasis was the delivery of community-based care and prevention and early intervention strategies (Ministry of Children and Family Development 2003). The plan was implemented in concert with a doubling of the budget for the Child and Youth Mental Health Services branch of the MCFD from \$43 million to \$87 million. ADHD was largely absent within the implementation of the CYMH Plan. Illness-specific interventions were instead focused on anxiety and depression – which a 2008 progress report mistakenly cited as the two most prevalent child psychiatric disorders<sup>1</sup> (Ministry of Children and Family Development 2008). Similarly, while the MoHS and MCFD have funded provincial strategic plans for anxiety, depression, suicide, fetal alcohol syndrome, substance abuse, and early psychosis, there is currently no specific strategic direction for ADHD (BC Ministry of Health Services 2008). Therefore, in addition to implementing changes to the Child and Youth Mental Health Network, the government must also work with stakeholders to create a new 5-year child mental health plan, including a strategic plan for delivery of services for patients with ADHD, no later than June 2009.

<sup>1</sup> While anxiety is the most prevalent disorder, ADHD is actually the second most prevalent, and depression is fourth. See Waddell et al., 2007.



## Recommendation 2

The provincial government should work with stakeholders to ensure that any new child mental health plan includes a strategic plan for the delivery of services specifically for patients with ADHD.

One consequence of the lack of strategic direction has been the reduction in services offered to patients with ADHD through the province's sole centre for ADHD diagnosis and treatment initiation at BC Children's Hospital (the ADHD Clinic):

- In 2004, \$150,000 was allocated to the Clinic as part of a three-year pilot project to help meet the burgeoning need for adult ADHD assessment and treatment. The demand proved so high that the clinic's waitlist rapidly lengthened to 14 months. Although the pilot continued beyond the 3-year term (it was agreed that ethically, adults who had been referred and accepted prior to the end of the three-year term should be provided an assessment and offered group therapy), new referrals and requests for re-evaluation were not accepted. Today, the PHSA offers no similar service for adults with ADHD or follow-up for the children who graduate from the ADHD clinic at age 18.
- In 2006, each division of child and youth psychiatric care administered by the PHSA, except for the ADHD clinic, included in the MH&A business plan a proposal for additional funding from the government. By 2008, funding for 2.3 full-time equivalent employees at the ADHD clinic ended, despite evidence of very high ongoing demand for the clinic's services. Data from 2004-2005, for example, indicated that of all ambulatory clinics, ADHD received the highest number of referrals (643), had the highest number of patients on the waitlist (78), and had the second longest wait-time at 3.5 months (MH&A 2006).

To guarantee that the needs of all ADHD patients are met, the government must provide services for adults with ADHD and follow-up for children who graduate from the ADHD clinic at age 18. This can be done by either expanding the mandate of the clinic to encompass children, youth, and adult patients, or by offering similar services for adults in another setting. In either case, funding for these services should be increased to ensure a maximum waitlist of three months for ADHD patients, regardless of age.

## Recommendation 3

The provincial government must provide services for adults with ADHD and follow-up services for children who graduate from the ADHD clinic at age 18.

## Recommendation 4

Funding for ADHD services should be increased to guarantee waitlists of less than three months for all ADHD patients.

Traditionally, there have been many financial disincentives to physicians wishing to provide optimal care for ADHD patients, in large part because diagnosing ADHD is a lengthy process. A Health Canada Survey indicated that an average of 69 minutes of assessment and 47 minutes of administration are required to diagnose ADHD (HealthCanada 1999). Recently, however, steps have been taken to improve compensation. Changes to the BCMA Fee Guide allow general practitioners to bill four \$100 “mental health planning fees” per patient per year, and four \$50-\$65 follow-up fees (BCMA 2007). For a pediatrician, a \$344 “complex behavioural” fee can be billed for a detailed battery of assessments and exams. These fee changes are an important first step in decreasing financial barriers to optimal care (BCMA 2008).

While a significant improvement, these new fees do not address the disincentive for physicians to communicate with schools. Ideally, prior to diagnosis, a physician would speak with a teacher. Then, after initiating treatment, the physician would be in close communication with the child’s teacher to ensure the correct dosage is being used, and to monitor side-effects (Leslie and Wolraich 2007). This practice is evidenced to help improve outcomes over standard care (MTA Cooperative Group 1999). Yet in reality this does not happen, as busy physicians are not compensated for such a time-consuming practice. Ultimately, assessment and treatment of ADHD in private primary care practices is poorly remunerated because it is a time-intensive activity associated with considerable indirect care and poor compliance. A billing fee for consulting with third parties, such as teachers, should be added to the BCMA Fee Guide to encourage optimal coordination with teachers in the diagnosis and management of ADHD. Such a fee would be similar to the current patient management conference fee for psychiatrists.

#### **Recommendation 5**

**A billing fee for consulting with third parties, such as teachers, should be added to the BCMA Fee Guide to encourage optimal coordination with teachers in the diagnosis and management of ADHD.**

## **Quality of Care**

In a 2005 survey of British Columbians with mental health needs, 76.3% indicated that ‘acceptability of services’ was the greatest impediment to care (MHECCU 2005). However, patients with ADHD, their families, and their physicians face additional challenges beyond those experienced by patients with other mental illnesses, including a lack of national guidelines on the treatment of ADHD, inadequate public coverage of ADHD medications, and poor coordination among providers of care for ADHD patients.

The process of diagnosing ADHD can be difficult since there is no definitive diagnostic test. Canadian surveys indicate that 70% of physicians believe there are too few properly qualified diagnosticians for ADHD and that physicians in general are not well informed about standard



diagnostic criteria (HealthCanada 1999). Indeed, the peer-reviewed literature demonstrates that highly variant diagnostic practices exist (Chan, Hopkins et al. 2005). The prospect of long-term psychoactive medication hinging on variant diagnostic practices is a significant problem.

Research suggests that while there is no evidence of the rampant over-diagnosis some fear, misdiagnoses do occur, as do 'missed' diagnoses (Goldman, Genel et al. 1998). In an effort to improve diagnostic practices, in 2001 the American Academy of Pediatrics implemented official guidelines for the assessment and diagnosis of ADHD, and offered ADHD training to all physicians. In conjunction with the guidelines, in primary care offices across America, the AAP implemented what is referred to as a 'diagnostic toolkit' which standardized the method of gathering diagnostic information and the DSM assessment checklists to be used in diagnosis (Leslie, Weckerly et al. 2004).

In Canada, no guidelines have been officially endorsed by the medical professional associations. National experts in ADHD (e.g., Canadian ADD Resource Alliance) have developed consensus guidelines and a 'diagnostic toolkit', but they have not been acknowledged as the national standard of care (Edmunds 2008). Therefore, the BCMA calls upon health professional associations for pediatrics, child psychiatry, psychiatry, neurology, and family practice to endorse CADDRA's ADHD practice guidelines or review, amend and then endorse revised CADDRA guidelines. In concert with the guidelines, a diagnostic toolkit for ADHD should be implemented in primary care offices across British Columbia. Such a toolkit might include, for example, standardized teacher and parent DSM-based assessment sheets; standardized sequence and method for distributing and gathering assessments and booking a series of appointments; and a clear delineation of available community resources and referral process, perhaps in collaboration with the developing Community Health and Resource Directory (CHARD) (Brown and DeSandoli 2008).

#### **Recommendation 6**

Medical professional associations for pediatrics, child psychiatry, psychiatry, neurology, and family practice should endorse the Canadian Attention Deficit Disorder Resource Alliance (CADDRA) ADHD practice guidelines; or review, amend, and then endorse revised CADDRA guidelines. Such guidelines should be accompanied by the implementation, in primary care offices across British Columbia, of a 'diagnostic toolkit' for ADHD.

Simply writing a prescription for ADHD is woefully insufficient care, and practice guidelines universally acknowledge that treatment of ADHD with medication must be accompanied by psychoeducation about the disorder, appropriate environmental accommodations, and behavioural intervention. Prescription of medication without additional support has been shown to be associated with poor compliance, persistence and community-based outcomes (MTA 1999). Within a year, almost 50% of parents discontinue their children's medication (Firestone 1982).



One factor influencing non-compliance is pills that must be taken multiple times per day. Research demonstrates that “once daily” formulations improve compliance by 32% (Swanson 2003). Currently, MSP covers short- and intermediate acting ADHD stimulant medication (4-6 hour or 6-8 hour effectiveness) that must be taken two or three times daily, forcing children to experience bursts of symptom rebound as the medication wears off. They must also take the pill at school, which necessitates coordinating supervision and may lead to stigmatization and embarrassment. Missing a dose equates to losing an afternoon of focused learning. Medications that can be taken once daily, with efficacy comparable to those requiring more frequent dosing, exist but are not covered by BC PharmaCare (i.e., long-acting medications with 12-24 hour effectiveness). These once daily formulas are typically 25% more expensive. However, the most expensive covered short-acting medication – dextroamphetamine – is actually more expensive than the least expensive long-acting medication, Biphentin.<sup>2</sup> Saskatchewan, Ontario, and Quebec have already approved coverage or restricted access to long-acting ADHD medication, as have Australia and other countries around the world.

#### **Recommendation 7**

**PharmaCare should expand coverage for long-acting ADHD medication in order to facilitate compliance, minimize stigma and prevent missed opportunities for focused learning.**

In Canada, according to research performed by the World Federation for Mental Health, from the first point of contact with a physician it takes 1.59 years to receive treatment for ADHD (World Federation for Mental Health 2004). In the US, it takes an average of one year. Such a wait time must be taken seriously, given children’s rapid development and the consequences of falling behind academically.

Understandably, this is greatly frustrating to physicians who feel that they are forced to over rely on medication rather than refer patients and families to parent training, proper psycho-education, or other appropriate expert consultation when needed. Similarly, some patients feel that physicians are not sufficiently informed about alternative resources and treatment options. The failure to coordinate comprehensive care inevitably leads to patient frustration, lack of treatment, and noncompliance.

Acknowledging the important role for community-based care in managing ADHD, MCFD’s 2003 Mental Health Plan stated:

“ADHD is best managed in community settings by multidisciplinary child and youth mental health teams where possible, working together with families, schools, family physicians, and others in the community as needed” (Ministry of Children and Family Development 2003).

<sup>2</sup> Based on July 9, 2008 prices in Vancouver.

Nonetheless, other mental health disorders such as psychosis, anxiety, and depression often supersede ADHD. Many Health Authority mental health teams do not consider ADHD as part of their mandate. The common misconception that there is little to offer children and families with ADHD beyond medication also prevents effective community-based care. Ironically, the service designed to improve transitions from physician services and coordinate access to care is not itself accessible. In order to improve access to services for ADHD patients and foster the kind of collaborative care arrangements necessary to provide optimal care, both the MoHS and MCFD should train specialized ADHD clinicians for mental health teams and provide BC families access to community services to complement treatment by physicians.

#### **Recommendation 8**

In order to improve access to services for ADHD patients and foster the kind of collaborative care arrangements necessary to provide optimal care, both the Ministry of Health and Ministry of Children and Family Development should train specialized ADHD clinicians for mental health teams and provide BC families access to community services to complement treatment by physicians.

## **Conclusion**

When Olympic swimmer Michael Phelps was in the fifth grade, his mother and physician discussed whether he might have ADHD. A string of disciplinary issues at school and his inability to concentrate led them to consider that his problems went beyond those of an ordinary, high-energy child. At age nine, he began taking Ritalin. Two years later, again after having consulted their family physician, Michael's mother agreed to take him off the medication. The stigma of going to the school nurse's office to take a pill at lunch was too great, and Michael had asked to stop taking them. By that time, Michael's talents were becoming obvious to his swimming coach, and plans were being laid for his participation in the Olympics.

Michael's condition was correctly diagnosed, treated, and managed by a physician and his family such that they removed whatever barriers it might have placed before his potential successes. While few BC children and adults with ADHD will excel as far in their field as Phelps has in his, all should expect that they, too, will be able to access the health care services necessary to manage their condition. BC has already taken several positive steps, including, for example, increasing funding for mental health services and the creating of the Child and Youth Mental Health Network. By continuing down this path and giving ADHD the kind of attention currently devoted to other mental health issues, we will enable many British Columbians to realize their fullest potential.



## LIST OF RECOMMENDATIONS

1. The provincial government must restructure the Child and Youth Mental Health Network so that it meets more frequently, is supported with an adequate budget, and is responsible for producing tangible outputs outlined in a publicly-available strategic plan.
2. The provincial government should work with stakeholders to ensure that any new child mental health plan includes a strategic plan for the delivery of services specifically for patients with ADHD.
3. The provincial government must provide services for adults with ADHD and follow-up services for children who graduate from the ADHD clinic at age 18.
4. Funding for ADHD services should be increased to guarantee waitlists of less than three months for all ADHD patients.
5. A billing fee for consulting with third parties, such as teachers, should be added to the BCMA Fee Guide to encourage optimal coordination with teachers in the diagnosis and management of ADHD.
6. Medical professional associations for pediatrics, child psychiatry, psychiatry, neurology, and family practice should endorse the Canadian Attention Deficit Disorder Resource Alliance (CADDRA) ADHD practice guidelines; or review, amend, and then endorse revised CADDRA guidelines. Such guidelines should be accompanied by the implementation, in primary care offices across British Columbia, of a 'diagnostic toolkit' for ADHD.
7. PharmaCare should expand coverage for long-acting ADHD medication in order to facilitate compliance, minimize stigma and prevent missed opportunities for focused learning.
8. In order to improve access to services for ADHD patients and foster the kind of collaborative care arrangements necessary to provide optimal care, both the Ministry of Health and Ministry of Children and Family Development should train specialized ADHD clinicians for mental health teams and provide BC families access to community services to complement treatment by physicians.



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## ADHD Facts

ADHD is a disorder of the nervous system.

ADHD is the most common childhood mental health disorder.

ADHD occurs in a minimum of 5% of children around the world, or in at least one to two children in every classroom.

ADHD continues to be a problem in 80% of teenagers and at least 60% of adults who had ADHD in childhood.

Heredity is the most common cause of ADHD. Several genes associated with the disorder have been identified. If you have ADHD, you have a higher chance of having a brother, sister, parent or child with ADHD.

## Did You Know That?

ADHD does not impact intelligence. People with ADHD are just as smart as anyone else.

ADHD symptoms cannot be controlled with willpower.

Symptoms can range from mild to severe.

Symptom levels are not always the same and can change throughout the day, from day to day.

Although most people experience difficulty paying attention from time to time, especially when tired or stressed, those with ADHD show symptoms most of the time.

You do not need to be hyperactive to have ADHD.

Poor diet, excess sugar, or food additives do not cause ADHD.

ADHD is not caused by poor parenting. In fact, overly strict parenting of a child with ADHD can result in additional disorders.

## Who is CADDAC?

The Centre for ADHD Awareness Canada is a national not-for-profit organization that takes a leadership role in the awareness, education and advocacy of ADHD. We are also an umbrella organization that supports and networks ADHD organizations across Canada.

## What CADDAC Offers

- Education for caregivers, adults and adolescents with ADHD, educators and medical support staff;
- A website, [www.caddac.ca](http://www.caddac.ca), of more than 200 pages of information on ADHD resources, including national and local organizations and events;
- Hours of free presentations by leading experts that can be viewed online;
- Information on advocacy initiatives;
- National ADHD conferences;
- Information on individual advocacy.

## Benefits of Membership

- Quarterly newsletters;
- Updates on the latest scientific breakthroughs and Health Canada warnings;
- Highlights of ADHD in the news;
- Information on upcoming ADHD presentations and events;
- A 10% discount on conference fees;
- Adding your voice to the struggle for ADHD awareness and advocacy.

## CADDAC

Centre for ADHD Awareness Canada

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# What You Need to Know About ADHD

# And How CADDAC Can Help





## How is ADHD Diagnosed?

ADHD should always be diagnosed through a complete assessment of the symptoms by a physician, psychologist, or a combination of both. The assessment should rule out any other psychological or physical conditions that might cause symptoms that look like ADHD; gather information from a variety of sources, including symptom rating scales; and confirm that the symptoms are impairing and occur in more than one setting. Blood tests or brain scans are only used in research and

not to diagnose the disorder. ADHD is most frequently diagnosed as one of two subtypes, depending on the symptoms present - "primarily inattentive" subtype (formerly known as ADD) and "combined" subtype.

## Three Primary Symptoms of ADHD

### ***Difficulty Regulating Attention (present in all subtypes)***

Signs that difficulty regulating attention may be an issue include not being able to sustain attention, difficulty redirecting attention to what is important, and over-focusing on things that are of great interest or highly stimulating, such as video games and TV.

### ***Impulsivity (present in combined subtype)***

Children or adults who are impulsive act before thinking or considering the consequences.

### ***Hyperactivity (present in combined subtype)***

Hyperactive children are "always on the go", fidgeting or being overly talkative. In adulthood this hyperactivity is frequently described as "internal restlessness".

## Other Possible Symptoms

### ***Difficulties with Executive Functioning***

Executive functioning impairment can cause difficulties with organization, managing time, solving problems, remembering and juggling several thoughts at one time, putting things off until the last minute, and making decisions about behavior.

### ***Difficulties with Emotional Regulation***

Being unable to prevent strong reactions to emotions can cause significant difficulties for those with ADHD.

## Examples of How ADHD Can Impact You and/or Your Child

- ADHD frequently impacts learning, resulting in failure at school or under achievement.
- ADHD can cause difficulty in regulating behaviour, resulting in poor decision making and difficulty getting along with others.
- People with ADHD are frequently late and have difficulty judging time.
- ADHD can cause people to forget routines, due dates and lose their belongings.
- Lists of instructions are difficult to follow and large assignments are overwhelming due to an inability to break them into smaller chunks.

- Untreated ADHD increases the chances of having additional disorders such as anxiety, depression, oppositional defiant disorder (ODD) and substance abuse disorder.
- ADHD increases stress in the person with the disorder, as well as in other family members.

## What You Need to Know About ADHD Treatment

ADHD is THE most treatable mental health condition. ADHD is a disorder of performance not intelligence and, with proper treatment and support, children with ADHD can grow up to be productive, successful and happy adults.

Treatment always needs to be multifaceted. While medication is often a safe and effective treatment option, it should always be prescribed in conjunction with ADHD education for the parents and for adults with ADHD; learning accommodations; and, if required, additional treatment such as behaviour therapy, ADHD coaching and tutoring. Children with ADHD should be informed about the disorder to the level of their understanding.



# MINISTRY OF SOCIAL DEVELOPMENT AND SOCIAL INNOVATION

## MEETING NOTE

**DATE:** October 31<sup>st</sup>, 2014

**PREPARED FOR:** Honourable Don McRae, Minister of Social Development and Social Innovation

**MEETING DETAILS:** Meeting with Heidi Bernhardt, President/ED, Centre for ADHD Awareness, Canada (CADDAC).

### **BACKGROUND:**

The Centre for ADHD Awareness Canada (CADDAC) is a national, non-profit organization providing leadership in awareness, education and advocacy for Attention Deficit Hyperactivity Disorder (ADHD).

The CADDAC states that individuals with ADHD create substantial short and long-term healthcare costs, in addition to significant overall socioeconomic costs for Canada. They state that individuals with ADHD are more likely to enter the workforce at the unskilled or semi-skilled level; have greater periods of unemployment; are more likely to be dismissed; change jobs more frequently; and earn considerable less money over their lifetime. They may also have a higher than average dependency on social welfare, and subsequently contribute fewer taxes.

October is Attention Deficit Hyperactivity Disorder (ADHD) Awareness Month in Canada and the CADDAC will be holding their National ADHD Conference in Vancouver on November 1<sup>st</sup> and 2<sup>nd</sup>, 2014.

They have requested to meet with the Minister on November 4<sup>th</sup> at 3:15pm to provide a fulsome briefing on the how ADHD impacts the adults and families of British Columbia.

### **ISSUES:**

The CADDAC state that a 2013 study recommends placing increased focus on the earlier diagnosis of adolescent ADHD because it is such a strong predictor of mental and physical health problems, workplace impairment and financial issues.

They advise that currently no ADHD screening for those on social assistance exists and not all postsecondary institutions, and very few employers, offer appropriate accommodations that could assist adults with ADHD reach their potential.



# MINISTRY OF SOCIAL DEVELOPMENT AND SOCIAL INNOVATION

## MEETING NOTE

### **RECOMMENDED RESPONSE:**

We understand the impact that hidden disabilities like ADHD can have on British Columbians and their ability to contribute to the labour market and ensure a better life for themselves and their families.

We know that most people with disabilities, including ADHD, who are able to work, want to work. Yet the employment rate for people with disabilities is around 18 percentage points lower than people without disabilities.

This needs to be addressed and by working together we can create a more inclusive, accessible British Columbia. We have been working with the members of the Minister's Council on Employment and Accessibility, the Presidents Group, the B.C. Coalition of People with Disabilities, and have talked to the citizens of this province to find out where things are working, and what needs to be improved.

The Minister's Council on Employment and Accessibility was established to identify solutions and strategies that will help increase employment and access for people with disabilities. A key recommendation coming out of Minister's Council was the creation of the Presidents Group – A network of influential business leaders who will engage with businesses, employers and the Minister's Council to champion employment opportunities for people with disabilities.

We are working closely with both of these groups as we try to increase employment opportunities for people with disabilities, including sharing best practices, innovative solutions and personal experiences.

We recently renewed the Canada–British Columbia Labour Market Agreement for Persons with Disabilities. The funding from the agreement will help us, as a government move forward with our commitment to becoming the most progressive jurisdiction in Canada for people with disabilities. With a far reach across government and across the province, these dollars assist us to provide things like assistive technology, supported employment, education grants, employment and skills training programs, workplace accommodations and more.

We also have a number of programs and services in place to serve all British Columbians with disabilities, including those with ADHD (for the purpose of assisting clients in the program ADHD is considered a disability).

The Employment Program of BC (EPBC), which launched in April 2012, has helped more than 6,700 people with disabilities reach their employment goals. Through eight-five WorkBC Centres EPBC is designed to provide a range of flexible services and supports to meet individual needs.

## MINISTRY OF SOCIAL DEVELOPMENT AND SOCIAL INNOVATION MEETING NOTE

The Employment Program of BC provides case managed services to facilitate employment planning, including disability and employment focused workshops, skills training, self-employment, specialized assessments and job coaching on the worksite and extended follow-up support to ensure individuals with ADHD retain employment. Clients with disabilities, including ADHD, may attend training part-time or full time and extended timelines to complete training are available for individuals who require such flexibility

Access to supports for employed individuals with ADHD who are at risk of losing their job due to their disability related needs are also available. Supports include access to individualized support to retain employment including support and negotiations with employers, access to disability supports and on the job support for both the employee and employer.

Placement services are also offered, including job development services, customized employment services, unpaid work experiences, wage subsidies with employers, job creation partnerships on community projects and project based labour market training.

Since April 2012, government, through the Employment Program of BC, has spent more than \$69.3 million to support employment services for individuals with a variety of disabilities, including ADHD. We are continuing to work together to ensure all British Columbians have the individualized support they need.

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